RESEARCH CENTER

FIELD
Perception, Cognition and Interaction

Activity Report 2019

Section Dissemination

VISION, PERCEPTION AND MULTIMEDIA INTERPRETATION

<h1 style="text-align:center;color:red;">CEDAR Project-Team</h1>

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific Events: Organisation

9.1.1.1. Member of the Organizing Committees

I. Manolescu was a steering committee member for the International Workshop on Misinformation, Computational Fact-Checking and Credible Web in conjunction with The Web Conference 2019.

I. Manolescu was a member of the scientific committee in charge of organizing the Global Forum on AI for Humanity (http://gfaih.org), an international conference organized under the patronage of the French government to discuss the impact and perspectives for AI research on science and the society at large. The conference featured an opening intervention by Cédric Villani and a closing speech by the French president Emmanuel Macron.

9.1.2. Scientific Events: Selection

9.1.2.1. Chair of Conference Program Committees

I. Manolescu has been a chair of the tutorial track at the ACM SIGMOD 2019 conference.

9.1.2.2. Member of the Conference Program Committees

I. Manolescu has been a member of the program committees of: the IEEE International Conference on Data Engineering (ICDE, demonstrations track) 2019, the DASFAA Conference 2019, the Extended Semantic Web Conference (ESWC) 2019, and the International Conference on Web Engineering (ICWE) 2019.

9.1.3. Journal

Y. Diao has been the Editor-in-Chief of the ACM SIGMOD Record.

9.1.3.1. Member of the Editorial Boards

Y. Diao has been an associate editor of the ACM Transactions on Database Systems (TODS).

I. Manolescu has been a member of the editorial board of the Proceedings of Very Large Databases (PVLDB) journal.

9.1.4. Invited Talks

I. Manolescu has given the following **keynote talks**:

- "Journalistic Dataspaces: Data Management for Journalism and Fact-Checking", keynote talk at the EDBT (Extending Database Technologies) Conference 2019 [28].
- "Computational fact-checking: problems, state of the art and perspectives", keynote at EGC (Extraction and Gestion de Connaissances, the French-speaking knowledge extraction and knowledge management conference) 2019 [27].

9.1.5. Leadership within the Scientific Community

- Y. Diao and I. Manolescu are members of the **PVLDB Endowment Board**, the entity in charge of organizing the publication of the prestigious PVLDB journal (A* in the CORE ranking) and of organizing the yearly PVLDB conference.
- Y. Diao has been the Chair of the ACM SIGMOD Research Highlight Award, a member of the ACM SIGMOD Executive Committee, and a member of the ACM SIGMOD Software Systems Award Committee.
- I. Manolescu is a member of the steering committee of **BDA**, the entity in charge of organizing: the yearly informal Bases de Données Avancées (BDA) conference, mostly attended by members of the French-speaking data management scientific community; and a summer school on Big Data Management, every two years.

9.1.6. Scientific Expertise

I. Manolescu has been part of the HCERES visiting committee of the Laboratoire Informatique de Grenoble (LIG) on December 2-4.

9.1.7. Research Administration

I. Manolescu has become the scientific director of **LabIA**, an initiative by the DINUM (Direction Interministerielle du Numérique) whose goal is to apply AI research and technology solutions to problems raised by the public administration, at the local or regional level. LabIA ran a selective application process which funded a dozen projects to be carried over by technology company (contractors) and four to be solved by research teams working together with the promoters (teams involved in public administration). The research projects funded by LabIA are respectively proposed by: the Cour de Cassation (the highest jurisdiction of the state), the Direction Générale de Controle de la Concurrence et de la Repression des Fraudes (DGCCRF, the national consumer watchdog agency), la SHOM (Service Hydrographique de la Marine, the seabed mapping service of the Marine) and the IGN (Institut Géographique National), in particular the team that is in charge of producing the detailed, dynamic information of the positioning of every fragment in the Earth crust.

I. Manolescu has been a member of **Inria Commission d'Evaluation** until the summer of 2019. As a consequence, she participated to the hiring committees for junior researchers (CRCN) of the Inria Lille and Inria Grenoble research centers, in May 2019; she has also participated to the final executive committee meeting that decided on the hires, in Paris, in June 2019.

I. Manolescu has been a member of a hiring committee that recruited a full-time Assistant Professor in Data Management at **Ecole Polytechnique**, and she has also headed another committee that recruited a part-time Assistant Professor in Data Science at Ecole Polytechnique.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

I. Manolescu is a part-time (50%) professor at Ecole Polytechnique, where she teaches:

- Master: I. Manolescu, "Database Management Systems", 52h, M1, École Polytechnique.
- Licence: I. Manolescu, "Giant Global Graph", 18h, L3, École Polytechnique.

She also teaches on appointment outside of Ecole Polytechnique:

- Master: I. Manolescu, "Architectures for Massive Data Management", 20h, M2, Université Paris-Saclay.

M. Buron and P. Guzewicz are Teaching Assistants at Ecole Polytechnique. Further, P. Guzewicz also taught 12h of lab in the M2 course "Architectures for Massive Data Management" mentioned above.

9.2.2. Supervision

PhD in progress: Maxime Buron: "Raisonnement efficace sur des grands graphes hétérogènes", since October 2017, François Goasdoué, Ioana Manolescu and Marie-Laure Mugnier (GraphIK Inria team in Montpellier)

PhD: Tien-Duc Cao, "Toward Automatic Fact-Checking of Statistic Claims", Université de Paris Saclay, 26/09/2019, Ioana Manolescu and Xavier Tannier (LIMICS, Université de Paris-Sorbonne).

PhD in progress: Ludivine Duroyon: "Data management models, algorithms & tools for fact-checking", since October 2017, François Goasdoué and Ioana Manolescu (Ludivine is in the Shaman team of U. Rennes 1 and IRISA, in Lannion)

PhD in progress: Paweł Guzewicz: "Expressive and efficient analytics for RDF graphs", since October 2018, Yanlei Diao and Ioana Manolescu.

PhD in progress: Qi Fan: "Multi-Objective Optimization for Data Analytics in the Cloud", since December 2019, Yanlei Diao.

PhD in progress: Enhui Huang: "Interactive Data Exploration at Scale", since October 2016, Yanlei Diao and Anna Liu (U. Massachussets at Amherst, USA).

PhD in progress: Vincent Jacob: "Explainable Anomaly Detection in High-Volume Stream Analytics", since December 2019, Yanlei Diao.

PhD in progress: Luciano di Palma, "New sampling algorithms and optimizations for interactive exploration in Big Data", since October 2017, Yanlei Diao and Anna Liu (U. Massachussets at Amherst, USA)

PhD in progress: Khaled Zaouk: "Performance Modeling and Multi-Objective Optimization for Data Analytics in the Cloud", since October 2017, Yanlei Diao.

9.2.3. Juries

- I. Manolescu has been part of the PhD committee of Adnène Belfodil, who defended his PhD thesis titled "Exceptional Model Mining for Behavioral Data Analysis" at INSA Lyon, on October 24, 2019.

9.3. Popularization

9.3.1. Articles and contents

I. Manolescu has been interviewed in the following general-audience media publications:

- "L'intelligence artificielle signe-t-elle la fin du journalisme ?", Science et et Avenir special issue on IA, Sept 25 (dated November) 2019
- "Fake news: ces technologies qui les traquent", Industrie et Technologies, Feb 5, 2019
- "Les algorithmes à l'assaut de la désinformation", Science et Avenir, January 29, 2019
- "Les seniors partagent sept fois plus de «fake news» que les jeunes sur Facebook", in Le Figaro, January 2019

9.3.2. Interventions

- Ioana Manolescu participated to a social science conference "Post-vérité et intox: où allons-nous?", organized by Fondation Maison des sciences de l'homme (FMSH) and Cité des Sciences, in February 2019 (presentation slides, présentation video)
- I. Manolescu presented her career and research at the "*Rendez-vous des jeunes mathématiciennes et informaticiennes*" (RJMI, a math and CS event organized for high-school female students) in October 2019.
- M. Buron, V. Jacob and I. Manolescu presented data management research to a group of 6 interns (13 years old, one-week long *stage de 3e*) in December 2019.

GRAPHIK Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific Events: Organisation

- Marie-Laure Mugnier is co-responsible for a national group (2017-2020), named **Reasoning on Data** (Rod), common to two GDRs (CNRS research groups), namely Artificial Intelligence (formal and algorithmic aspects of Artificial Intelligence) and MaDICS (Big Data, Data Science). The aim of this action is to gather researchers from different domains on the development of knowledge representation and reasoning techniques devoted to data exploitation. http://www.lirmm.fr/rod/

- Rallou Thomopoulos has been co-leader of the trans-unit program **InCom** (Knowledge and Model Integration) of the CEPIA Division of INRA from 2018. She also organised the session on "Digital Issues" in the 2019 annual seminar of INRAE-TRANSFORM research division, and she was co-organizer of a one-day workshop on data-mining for food and bioproduct processing research on the 25th of November 2019.

- Patrice Buche is a coordinator of the **IN-OVIVE** (INtégration de sources/masses de données hétérogènes et Ontologies, dans le domaine des sciences du VIVant et de l'Environnement) network. He also was one of the organisers of the Fifth IN'OVIVE workshop event (https://workshop.inra.fr/in-ovive-2019/), collocated with the IC 2019 conference.

9.1.1.1. General Chair, Scientific Chair

Madalina Croitoru is part of the Steering Committee of ICCS 2020 (25th International Conference of Conceptual Structures).

9.1.2. Scientific Events: Selection

9.1.2.1. Chair of Conference Program Committees

Madalina Croitoru was co-chair of the **Doctoral Consortium at AAMAS 2019** (http://aamas2019.encs.concordia.ca/).

9.1.2.2. Member of the Conference Program Committees

We regularly participate to the program committees of the top conferences in AI and KR (IJCAI, AAAI, ECAI, KR, AAMAS), as PC members or senior PC members. We also regularly participate to the program committees of more focused international conferences and workshops as well as national events.

International

- IJCAI / PRICAI 2020 (29th International Joint Conference on Artificial Intelligence): senior PC and PC
- IJCAI / ECAI 2019 (28th International Joint Conference on Artificial Intelligence): senior PC
- ECAI 2020 (24th European Conference on Artificial Intelligence): senior PC
- AAAI 2019 (33rd AAAI Conference on Artificial Intelligence): PC
- Datalog 2.0 2019: PC
- ISWC 2019 (18th International Semantic Web Conference): PC

National

- CNAI 2019 (Conférence Nationale en Intelligence Artificielle): PC
- IC 2019 (Ingénierie des Connaissances): PC
- EGC 2019 (Extraction et Gestion des Connaissances): PC

9.1.3. Journal

9.1.3.1. Member of the Editorial Boards
- International Journal of Metadata, Semantics and Ontologies (IJSMO)
- Revue africaine de la recherche en informatique et mathématiques appliquées (ARIMA)

9.1.3.2. Reviewer - Reviewing Activities
- Artificial Intelligence Journal (AIJ)
- Theory and Practice of Logic Programming (TPLP)
- International Journal of Approximate Reasoning (IJAR)

9.1.4. Invited Talks

- Marie-Laure Mugnier, *Existential Rules: a Study Through Chase Termination, FO-Rewritability and Boundedness*, keynote talk, 3rd International Joint Conference on Rules and Reasoning (RuleML+RR 2019), 2019 http://2019.ruleml-rr.org
- Marie-Laure Mugnier, *Reasoning on Data: Ontology-Based Data Access*, keynote talk, Journées d'Intelligence Artificielle Fondamentale (JIAF 2019), associated with PFIA 2019, 2019 https://www.irit.fr/pfia2019/jiaf/
- Marie-Laure Mugnier, *An introduction to Ontology-Based Data Access*, invited tutorial, Winter School of the 19th Conférence Francophone sur l'Extraction et la Gestion de Connaissances (EGC 2019), 2019 https://egc2019.sciencesconf.org/
- Patrice Buche, *Semantic to the rescue of food industry needs*, invited talk, SEmantic web SeminAr MontpEllier (SESAME), 2019 (https://informatique-mia.inra.fr/sesame)
- Pierre Bisquert, *Argumentation and decision in agronomical problems*, invited talk, Journée Robustesse en traitement de données et en recommandation: méthodes et applications, 2019 https://lfa2019.wp.imt.fr/files/2019/10/Programme13nov2019.pdf

9.1.5. Research Administration

- Marie-Laure Mugnier was the *scientific coordinator* for the evaluation of Inria theme "Data and Knowledge Representation and Processing" and its twelve project-teams (evaluation period: 2016-2019).
- From September 2019 onwards, Madalina Croitoru is *deputy member* of the CNU section 27 (Computer Science).
- Rallou Thomopoulos is an *elected member* of the Scientific Committee of the INRA-CEPIA research division (2016-2020).

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

The six faculty members teach at all university levels (IUT, Licence, Master). All of them do an average of 200 teaching hours per year. The main courses they are in charge of are: Logics (L), Databases (M, IUT), Web Technologies (IUT), Artificial Intelligence (M), Knowledge Representation and Reasoning (M), Social and Semantic Web (M), Software Engineering (IUT), Human Computer Interaction (IUT). Concerning full-time researchers in 2019, Jean-François Baget and Pierre Bisquert gave Master courses (40h and 1h30 respectively).

Moreover, some faculty members have specific teaching responsibilities:
- At IUT, Madalina Croitoru was the head of Special Conversion Year (2014-2019) and the head of international relations for the computer science department (2018-mid-2019). In 2019, she was promoted professor and moved to the Science Faculty. From September 2019, she has been in charge of international relations for the Computer Science department at the Science Faculty as well as of the management of industrial master internships (about 100 students each year).
- Federico Ulliana is the head of the curriculum "Data, Knowledge and Natural Language Processing" (DECOL, about 30 students), part of the Master of Computer Science, since 2017.

9.2.2. Involvement in University Structures

- Michel Leclère has been deputy head of the Computer Science department of the Science Faculty (July 2015 - July 2019). He was also in charge of the Information Systems of the faculty (April 2017 - October 2019)
- Marie-Laure Mugnier is member of the Council of the Scientific Department MIPS (Mathematics Informatics Physics and Systems) of the University of Montpellier (since 2016).

9.2.3. Supervision

PhD defended: Stathis Delivorias, "Chase variants & boundedness". Supervisors: Federico Ulliana, Michel Leclère and Marie-Laure Mugnier. University of Montpellier, September 2019.

PhD defended: Bruno Yun, "Argumentation techniques for existential rules". Supervisors: Madalina Croitoru, Rallou Thomopolous and Srdjan Vesic (CRIL). University of Montpellier, July 2019.

PhD in progress: Elie Najm, "Knowledge Representation and Reasoning for innovating agroecological systems". Supervisors: Marie-Laure Mugnier and Christian Gary (INRA, UMR SYSTEM). Started October 2019.

PhD in progress: Olivier Rodriguez, "Querying key-value store under semantic constraints". Supervisors: Federico Ulliana and Marie-Laure Mugnier. Started February 2019.

PhD in progress: Martin Jedwabny, "Argumentation and ethical decision making". Supervisors: Madalina Croitoru and Pierre Bisquert. Started October 2019.

PhD in progress: Maxime Buron (CEDAR Inria team), "Efficient reasoning on large heterogeneous graphs". Supervisors: François Gaosdoué (IRISA/CEDAR), Ioana Manolescu (CEDAR) and Marie-Laure Mugnier. Started October 2017.

9.2.4. Juries

- Jury member for the HDR of Ivan Varzinczak (Nov. 2019, U. Artois) - Marie-Laure Mugnier
- Jury member for the HDR of Meghyn Bienvenu (Dec. 2019, U. Bordeaux) - Marie-Laure Mugnier
- Jury reviewer for the PhD defense of Gerald Berger (June 2019, TU Vienna, Austria) - Marie-Laure Mugnier
- Jury member for the PhD defense of Frederic Verdier (Dec. 2019, U. Montpellier) - Marie-Laure Mugnier
- Jury member for the PhD defense of Lily Galois (Dec. 2019, U. Lille) - Marie-Laure Mugnier

We do not not mention here participations to juries as supervisors of GraphIK PhD students.

9.3. Popularization

Michel Chein gave two talks on Artificial Intelligence: a public conference in the context of the Academy of the Sciences and Humanities of Montpellier and a radio interview (RCF) - both in March 2019.

LACODAM Project-Team

10. Dissemination

10.1. Scientific Events: Organisation

10.1.1. General Chair, Scientific Chair

- Elisa Fromont was one of the general chairs of ECML/PKDD 2019 that took place in Würzburg, Germany (Sept).
- Tassadit Bouadi was co-chair of the ECML/PKDD'2019 PhD Forum
- Tassadit Bouadi and Luis Galárraga are organizers of the two editions of the AIMLAI workshop (Advances in Interpretable Machine Learning and Artificial Intelligence) colocated with the conferences EGC (https://project.inria.fr/aimlai/) and ECML/PKDD (https://kdd.isti.cnr.it/xkdd2019/) 2019 respectively.
- AALTD@ECML (T. Guyet), https://project.inria.fr/aaltd19/
- GAST@EGC (T. Guyet), https://gt-gast.irisa.fr/gast-2019/
- GeoInformation Analytics Technical Track at the ACM/SIGAPP Symposium On Applied Computing (T. Guyet), https://gia.sciencesconf.org/
- Time series days, https://project.inria.fr/tsdays/ (T. Guyet)

10.1.2. Scientific Events: Selection

10.1.2.1. Member of the Conference Program Committees

- KDD (A. Termier, E. Fromont)
- ICTAI (T. Guyet)
- ECAI (T. Bouadi)
- ECML-PKDD (T. Guyet, A. Termier, E. Fromont, T. Bouadi)
- IJCAI (T. Guyet, A. Termier)
- SDM (A. Termier)
- MedInfo (T. Guyet)
- EGC (T. Bouadi, T. Guyet)
- HiPC (A. Termier)
- APIA (C. Largouët)
- CAp (R. Gaudel)
- ISWC (L. Galárraga)
- LDK (L. Galárraga)

10.1.2.2. Reviewer

- ECML-PKDD (C. Largouët)
- ICML (R. Gaudel)
- NeurIPS (R. Gaudel)
- LOD (R. Gaudel)
- ICTAI (L. Galárraga)
- BDA (L. Galárraga)

10.1.3. Journal

10.1.3.1. Reviewer - Reviewing Activities
- Pattern Recognition (R. Gaudel)
- Revue d'intelligence artificielle (R. Gaudel)
- Data Mining and Knowledge Discovery (L. Galárraga, A. Termier)
- Semantic Web Journal (L. Galárraga)
- Remote Sensing (T. Guyet)
- Journal of Biomedical Informatics (T. Guyet)

10.1.4. Invited Talks

- Signatures: detecting and characterizing recurrent behavior in sequential data (A. Termier, March 2019). Invited talk to the Exploratory Data Analysis group of Jilles Vreeken, Saarebruck University.
- Pattern Mining with MDL (A. Termier, May 2019). Talk at the Dagstuhl seminal on Enumeration in Data Management.
- (Random) Search in a Structured Space (R.Gaudel, Oct. 2019). GdR IA course, Paris, France.
- Recommendation as a sequential process (R. Gaudel, June 2019). Obelix, Vannes, France.
- Litterature review: From computational complexity of function optimization to large scale Machine Learning (R. Gaudel, June 2019). Thematic season on the topic COMPLEXITY, IRISA, Rennes, France
- Interpretability in Classifiers (L. Galárraga, May 2019). Journée EGC&IA, Orsay, France.
- Mining sequential patterns with ASP (T. Guyet, January 2019). LERIA, Angers, France. 6/12/2019: Master Class at La Digital Tech Conference on "IA, Machine learning et Deep learning : démêlons les concepts !", Rennes.
- (E. Fromont) 25/11/2019: Participation in the panel organized by EIT Digital for the "Industrial Doctorate meetup: Boosting business with data science", Rennes.
- (E. Fromont) 8/10/2019: Invited speaker for Planète conférence on "Mythes et réalités de l'I.A.", Vannes.
- (E. Fromont) 9/09/2019: Participation in the workshop "Smart-cities et mobilités" of the Forum Européen d'Intelligence Artificielle Territoriale organisée by the CHEMI, Rambouillet, Fr.
- (E. Fromont) 5/07/2019: Participation in the panel organized by Google numérique on "Intelligence artificielle, opportunités diverses et défis communs?", Rennes.
- (E. Fromont) 1/07/2019: Participation in the panel organized by EIT summer school "Unleashing the power of data for better cities" on "Future of smart cities and data innovation", Rennes.
- (E. Fromont) 6/06/2019: Invited speaker for Breizh Conseil on "Mythes et réalités de l'I.A.", Rennes (with a video teaser)
- (E. Fromont) 5/06/2019: Invited speaker for the "journées nationales MIAGE" (JNM2019) on "Mythes et réalités de l'I.A.", Rennes.
- (E. Fromont) 23/05/2019: Invited speaker for ESTIM NUMERIQUE on "Qu'est ce que l'I.A.", Rennes.
- (E. Fromont) 31/01/2019: Invited speaker for the Ecole Navale Science Day 2019 JSN'19 on "New Challenges in Computer Vision", Brest.
- (E. Fromont) 26/01/2019: Invited speaker for the Digital transformer Challenge (Introduction to AI), Rennes.

10.1.5. Scientific Expertise

Scikit-Mine. The team recently secured a two-year engineer position (Inria ADT grant) for working on MDL-based pattern mining algorithms. The goal of the project is to design a modern pattern mining library fully compatible with scikit-learn (the major data science library). The library will contain major MDL-based pattern mining algorithms of the state of the art, including those developed in the team (periodic pattern mining). The project will start in fall 2020.

10.1.6. Research Administration

- Alexandre Termier is member of the Scientific Committee of the "Environment and Agriculture" department of INRA (now INRAe).
- (E. Fromont) Member of an HCERES evaluation committee.
- (E. Fromont) Member of the executive board of the CominLabs LABEX for the "Data, IA and Robotics" scientific axis.
- (E. Fromont) Elected at the scientific council of the Société Savante Francophone d'Apprentissage Machine.
- (E. Fromont) Nominated at the CNRS INS2I ("INstitut des Sciences de l'Information et de leurs Interactions") scientific council (CSI)

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Some members of the project-team LACODAM are also faculty members and are actively involved in computer science teaching programs in ISTIC, INSA and Agrocampus-Ouest. Besides these usual teachings LACODAM is involved in the following programs:

Master 2 IL, CCN: Option Machine Learning, Istic, University of Rennes 1, 32h (E. Fromont)

Master 2 DMV Module: Data Mining and Visualization, 13h, M2, Istic, University of Rennes 1 (A. Termier)

Master 2 Big Data, 30h, Master Datascience, University of Rennes 2 & Agrocampus Ouest (C. Largouët)

Master 2 DataViz with R, 10h, Master Datascience, University of Rennes 2 & Agrocampus Ouest (L. Bonneau de Beaufort)

Master 1 SIF: Option IA, Istic, 20h, University of Rennes 1 (A. Termier, E. Fromont, T. Bouadi)

Master 1 Scientific Programming, 25h, Agrocampus Ouest (C. Largouët)

Master 1 Data Management, 25h, Agrocampus Ouest (C. Largouët)

Master : R. Gaudel, Apprentissage profond, 9h eq. TD, M2, ENSAI, France

Master : R. Gaudel, Neural Networks, 4,5h eq. TD, école d'été, ENSAI, France

Master : R. Gaudel, Systèmes de recommandation, 27h eq. TD, M2, ENSAI, France

Master : R. Gaudel, Bandits Theory, 9h eq. TD, M2, ENSAI, France

Master : R. Gaudel, Bandits Theory, 4,5h eq. TD, école d'été, ENSAI, France

Master : R. Gaudel, INFO2, 30h eq. TD, M1, ENS, France

Master : T. Guyet, Spatial data science and GIS programming, Agrocampus-Ouest/Rennes University, France

10.2.2. Supervision

PhD (defended 25/09/2019): Guillaume Metzler, "Learning from Imbalanced Data: An Application to Bank Fraud Detection", 15/01/2016, E. Fromont, M. Sebban, A. Habrard.

PhD (defended 16/12/2019): Kevin Bascol, "Multi-source domain adaptation on imbalanced data:application to the improvement of chairlifts safety", 1/11/2016, E. Fromont,R. Emonet.

PhD (defended 16/12/2019): Maël Guillemé, "New Data Mining Approaches for Improving Energy Consumption in Factories", 03/10/2016, L. Rozé, V. Masson, A. Termier

PhD (defended 19/12/2019): Alban Siffer, "Data Mining Approaches for Cyber Attack Detection", 03/2016, P-A Fouque, A. Termier, C. Largouët.

PhD in progress: Maël Gueguen, "Improving the Performance and Energy Efficiency of Complex Heterogeneous Manycore Architectures with On-chip Data Mining", 01/11/2016, O. Sentieys, A. Termier

PhD in progress: Raphaël Gauthier, "Modelling of Nutrient Utilization and Precision Feeding of Lactating Sows", 01/11/2017, C. Largouët, J.-Y. Dourmad

PhD in progress: Kévin Fauvel, "Using Data mining Techniques for Improving Dairy Management", 01/10/2017, V. Masson, A. Termier, P. Faverdin

PhD in progress: Heng Zhang, "Deep Learning on Multimodal Data for the Supervision of Sensitive Sites", 03/12/2018, E. Fromont, S. Lefevre

PhD in progress: Yichang Wang, "Interpretable Shapelet for Anomaly Detection in Time Series", 15/04/2018, E. Fromont, S. Malinowski, R. Tavenard, R. Emonet

PhD in progress: Camille-Sauvanneary Gauthier, Session-aware Recommendation System, since March 15. 2019, advisors: É. Fromont, R. Gaudel, & B. Guilbot

PhD in progress: Erwan Bourrand, Interactive Data Mining for Root Cause Analysis of Performance Issues in Networks, advisors: E. Fromont, L. Galárraga, A. Termier.

PhD in progress: Gregory Martin, Data mining to optimize a free-floating car sharing service: E. Fromont, L. Rozé, A. Termier.

PhD in progress: Johanne Bakalara, Temporal models of care sequences for the exploration of medico-administrative data, advisors: E. Oger, O. Dameron, T. Guyet, A. Happe

PhD in progress: Colin Leverger, Management and forecasting of measures for server optimization in a cloud context, advisors: A. Termier, R. Marguerie, S. Malinowski, T. Guyet, L. Rozé.

PhD in progress: Nicolas Sourbier, Log Analysis Using Reinforcement Learning for Intrusion Detection, advisors: F. Majorczyke, O. Gesny, T. Ollivier, M. Pelcat, T. Guyet.

PhD in progress: Yiru Zhang, Modeling and management of imperfect preferences with the theory of belief functions, advisors: T. Bouadi, A. Martin.

10.2.3. *Juries*

- PhD Justine Reynaud (Orpailleur, Inria Nancy, Université de Lorraine): Découverte de définitions dans le web des données (L. Galárraga, examiner, december 2019).

- PhD Anes Bendimerad (INSA Lyon): Mining useful patterns in attributed graphs (A. Termier, reviewer, september 2019)

- HDR Frédéric Flouvat (Université de Nouvelle Calédonie): Extraction de motifs spatio-temporels: co-localisations, séquences et graphes dynamiques attribués (A. Termier, reviewer, october 2019)

- HDR Christine Largouët (Université de Rennes 1): Intelligence Artificielle pour l'aide à la décision des systèmes dynamiques: diagnostic, prévision, recommandation d'actions (A. Termier, examiner, december 2019)

- PhD Ricardio Sperandio (Université de Rennes 1): Time series retrieval using DTW-preserving shapelets (A. Termier, examiner, december 2019)

- PhD Raphaël Jakse (Université Grenoble Alpes): Interactive runtime verification (A. Termier, reviewer, december 2019)

- (E. Fromont) Ziyu GUO, Marseille 5/11/2019 (committee member); Jordan Frery, Saint-Etienne 26/09/2019 (committee member, president); Julien Salotti, Lyon 24/09/2019 (reviewer); Xuhong Li, Compiègne (committee member, president) 10/99/2019; Michele Linardi, Paris (committee member) 21/08/2019; Pauline Luc, Grenoble (committee member, president) 25/06/2019, Diogo Luvizon, Cergy (reviewer) 8/04/2019; Zaruhi Alaverdyan, Lyon (committee member, president) 18/01/2019

- PhD Trung-Dung Le (Shaman, IRISA, Université de Rennes 1): Gestion de masses de données dans une fédération de nuages informatiques (T. Bouadi, examiner, july 2019)

10.3. Popularization

10.3.1. Internal or external Inria responsibilities

- (E. Fromont) 2018- ?: Nominated at the scientific council of the "Fondation Blaise Pascal" (dedicated to scientific mediation, funded by Inria)

10.3.2. Education

- In 2019, Alexandre Termier and Elisa Fromont are co-heads of a special training for high school teachers, ordered by the Ministry of Education. From September 2019, French high school students will have the opportunity to have reinforced Computer Science courses, with the same importance as Mathematics or Physics for example. As new teachers are not yet hired to teach theses courses, there was thus an urgent need to train existing high school teachers so that they can train the new teachers. A national formation has been set up, with some coordination between all universities. Alexandre and Elisa represent the University of Rennes, which is the formation center for all of Britany. The formation load is 125 teaching hours, to a group of 71 high school teachers.
- Elisa Fromont is also leading the set up of a CAPES in University of Rennes 1, which will allow to prepare future high school teachers in computer science.

10.3.3. Interventions

- A. Termier participated at a mediation action on Artificial Intelligence for a general technical public, the "Trial of metro car number 42", at the Digital Tech in Rennes (november 2019, https://www.ladigital.tech/proces-rame-metro-numero-42/)
- Alexandre Termier did two 2h interventions at the Emile Zola high school, aimed at math teachers. The topics were "Artificial Intelligence" and "Big Data".
- (E. Fromont) 6/12/2019: Master Class at La Digital Tech Conference on "IA, Machine learning et Deep learning : démêlons les concepts !", Rennes.

LINKS Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events: Selection

10.1.1.1. Chair of Conference Program Committees

J. Niehren was co-chair of the programm committee of WPTE 2019.

10.1.1.2. Member of the Conference Program Committees

- J. Niehren: member of the Program Committee of LATA 2019
- S. Tison: member of the program committee of FSCD (International Conference on Formal Structure for Computation and Deduction) 2019.
- S. Staworko: member of the program committee of EDBT 2020: International Conference on Extending Database Technology, Copenhagen, Denmark, March 30–April 2, 2020; Demonstration Track
- F. Capelli: member of the program committee of IJCAI 2019

10.1.2. Journal

10.1.2.1. Member of the Editorial Boards

J. Niehren is editor of Fundamenta Informaticae

S. Salvati is managing editor of JoLLI (Journal for Logic, Language and Information)

S. Tison is in the editorial committee of RAIRO-ITA (Theoretical Informatics and Applications)

10.1.3. Invited Talks

- S. Staworko has been invited in GT Automata, Logic, Games and Algebra (ALGA) to give the talk *Shape Expressions Schemas for RDF: Semantics, Complexity, and Inference* (Oct 2019, Paris)
- I. Boneva and J. Dusart have been invited to Ghent University, Belgium Wikidata and Wikibase Workshop: developing a Wikibase instance (3 - 5 July 2019) as expert on ShapeDesigner
- F. Capelli has been invited in the seminar of LIMD (Université de Savoie) (13/06/2019)
- F. Capelli has been invited in the Dagstuhl Seminar "Deduction Beyond Satisfiability" (10/09/2019)
- F. Capelli has been invited in the seminar of LACL (Université Paris-Est Creteil) (18/11/2019)
- F. Capelli has been invited in "Journée du GT ALGA" (Paris, 11/10/201)9

10.1.4. Scientific Expertise

- S. Tison: member of the coordinating committee of I-Site Université Lille Nord Europe, about innovation and relationship with social economical world
- S. Tison: head of CITC-Eurarfid until June 2019
- J. Niehren: member of the board of the comittee of project-teams of Inria Lille

10.1.5. Research Administration

- S. Salvati: elected alternate member of Inria Evaluation Commission (2019-2023)
- F. Capelli: co-organizer of *Groupe de Travail* of CNRS IMIA (Informatique Mathématique Intelligence Artificielle)
- F. Capelli: organiser of a AI DAY for the GDR IM

- F. Capelli: organiser of an international workshop on knowledge compilation (project SACRe Kocoon - http://kocoon.gforge.inria.fr/)

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

I. Boneva teaches computer science in DUT Informatique of Université de Lille

F. Capelli teaches computer science in UFR LEA of Université de Lille for around 200h per year (Licence and Master). He is also responsible of remediation of Licence 1 in its UFR.

A. Lemay teaches computer science in UFR LEA of Université de Lille for around 200h per year (Licence and Master). He is also responsible for computer science and numeric correspondent for its UFR.

J. Niehren gives two lessons for the 2nd year students of the Master MOCAD (Université de Lille): one on databases (20.5h) and one on information extraction (21h).

C. Paperman teaches computer science for a total of around 200h per year. He gives lessons in UFR MISASH (Université de Lille), in Licence and Master. He also gives a database lesson of 25h in Master MOCAD (Université de Lille).

S. Salvati teaches computer science for a total of around 230h per year in computer science departement of Université de Lille. That includes Introduction to Computer Science (L1, 50h), Logic (L3, 50h), Algorithmic and operational research (L3, 36h), Functional Programming (L3, 35h), Research Option (L3, 10h), Semantic Web (M2, 30h), Advanced Databases (M1, 20h). He is *directeur d'étude* of Master MIAGE FA. He is a member of conseil de departement in Computer Science department of Université de Lille and of the ad-hoc commission of Doctoral School that studies PhD applications in computer science.

S. Staworko teaches computer science for a total of around 200h in UFR MIME (Université de Lille). He is co-head of the master web-analyst at Université de Lille.

S. Tison teaches computer science for a total of around 120h at Université de Lille. That includes a course on Advanced algorithms and complexity (54h, M1) and Business Intelligence (36h, M1).

S. Tison is member of the selection Board for "Agrégation" in Mathematics, more specifically in charge of the option "Computer Science".

10.2.2. Supervision

PhD: L. Gallois, Recursive Queries, defended on December 19, 2019, supervised by P. Bourhis (Team SPIRALS) and S. Tison

PhD in progress: N. Crosetti, Privacy Risks of Aggregates in Data Centric-Workflows, supervised by F. Capelli, J. Niehren, J. Ramon (Team MAGNET) and S. Tison

PhD in progress: P. Gallot, On safety of data transformations, since October 2017, supervised by A. Lemay and S. Salvati

PhD in progress: J.M. Lozano, On data integration for mixed database formats, supervised by I. Boneva and S. Staworko

PhD in progress: M. Sakho, Hyperstreaming Query answering on graphs, since 2016, supervised by J. Niehren and I. Boneva

10.2.3. Juries

10.2.3.1. PhDs committees

- J. Niehren was a reviewer of the PhD thesis of *Antony Lick* at ENS Cachan 2019
- S. Tison was member of the jury for *Xinzhe Wu*, Université de Lille, March 2019

- S. Tison was member of the jury for *Stathis Delivorias*, Université de Montpellier, September 2019 (reviewer)

- S. Tison was member of the jury for *Nicolas Bloyet*, Université Bretagne Sud, December 2019 (reviewer)

10.2.3.2. HDR committees

- S. Tison was member of the jury for *Arnaud Carayol*, December 2019, Université Paris Est-Marne la Vallée (reviewer)

- S. Salvati was member of the jury for *Colin Riba*, ENS Lyon, December 2019

10.3. Popularization

10.3.1. Education

RIC Days   S. Salvati organizes the *Recherche Innovation et Créativité days*. It presents research professions to student (primarily Master students)

10.3.2. Interventions

Introduction to programming   I. Boneva has supervised second year students from DUT while they conducted activities on introduction to programming to 9-10 years old students in Villeneuve d'Ascq

TFJM[2]   In 2019, L. Gallois participated in the organization of this event of the *Tournoi Français des jeunes mathématiciennes et mathématiciens*, a national contest of mathematics for high-school students

10.3.3. Internal action

- Inria by Lille: J. Niehren contributed an article in the december issue of "Inria by Lille" titled "Interroger les bases de données d'une manière plus intelligente"

MAGNET Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific Events: Organisation

9.1.1.1. Member of the Organizing Committees

- MARC TOMMASI and AURÉLIEN BELLET co-organized the APVP conference on privacy [0].

9.1.2. Scientific Events: Selection

9.1.2.1. Member of the Conference Program Committees

- MARC TOMMASI served as PC member for ICML'19, CAP'19, IJCAI'19 (Senior PC chair), ECML'19 (Area Chair), NeurIPS'19 (Area Chair), APVP'19.
- JAN RAMON served as PC member for AAAI'19, AISTATS'19 & '20, APVP'19, Bigdata'19, CIKM'19, DS'19, ECML/PKDD'19, GEM@ECML'19, IEEE-ICDM'19, ICML'19, IJCAI'19, ILP'19, LEG@ECML'19, LOD'19, MLG'19, NeurIPS'19, SDM'19 & '20.
- PASCAL DENIS served as PC member for ACL'19 and EMNLP'19.
- AURÉLIEN BELLET served as Area Chair for ICML'19, and PC member for AISTATS'20, NeurIPS'19, PPML workshop at CSS'19, PPML workshop at NeurIPS'19, FL workshop at NeurIPS'19, PPAI workshop at AAAI '20, CAP'19.
- MIKAELA KELLER served as PC member for ICML'19, CAP'19 and ECML'19.
- RÉMI GILLERON served as PC member for AISTATS'19 & '20, ICLR'19 & '20, ECML/PKDD'19, NeurIPS'19 and CAP'19.

9.1.3. Journal

9.1.3.1. Member of the Editorial Boards

- JAN RAMON was member of the editorial board of Data mining and knowledge discovery (DMKD), and of the editorial board of Machine learning journal (MLJ)

9.1.3.2. Reviewer - Reviewing Activities

- MARC TOMMASI was reviewer for the ECML-PKDD Journal Track.
- AURÉLIEN BELLET was reviewer for SIAM Journal on Mathematics of Data Science.

9.1.4. Invited Talks

- AURÉLIEN BELLET gave invited talks at several workshops and research school: "Graph signals: learning and optimization perspectives" [0], "The power of graphs in machine learning and sequential decision making" [0], "CIFAR-UKRI-CNRS Workshop on AI & Society: From principles to practice" [0], "Workshop on Federated Learning and Analytics" [0], "International Workshop on Machine Learning & Artificial Intelligence" [0], "Kick-off seminar of the HumAIn Alliance in Artificial Intelligence" [0], "Research School on Uncertainty in Scientific Computing" [0], "GDR RSD and ASF Winter School on Distributed Systems and Networks" [0].
- AURÉLIEN BELLET was invited to talk at the seminars of Thales Research & Technology, Miles team at Paris Dauphine.
- MIKAELA KELLER gave an invited talk on "Algorithmiques de graphes pour l'étude de réseaux sociaux" at "École d'été internationale : Formation de maîtrise et de doctorat en méthodes et outils numériques : l'analyse de réseaux en histoire" [0].

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[0] https://project.inria.fr/apvp2019/
[0] https://graph-sig-2019.sciencesconf.org/
[0] https://graphpower.inria.fr/
[0] https://www.turing.ac.uk/events/cifar-ukri-cnrs-ai-society-principles-practice
[0] https://sites.google.com/view/federated-learning-2019/
[0] https://workshopmlai.wp.imt.fr/
[0] https://www.alliance-humain.fr/
[0] http://www.gdr-mascotnum.fr/etics.html
[0] https://sites.google.com/site/rsdwinterschool/

9.1.5. Scientific Expertise

- AURÉLIEN BELLET was a member of the jury for the Gilles-Kahn PhD award of the French Society of Computer Science (SIF), sponsored by the French Academy of Sciences [0].

- JAN RAMON was a member of the jury for the European Young Researchers Award (EYRA) of Euroscience.

- PASCAL DENIS served as CoCNRS representative for the evaluation panel of Haut Conseil de l'évaluation de la recherche et de l'enseignement supérieur, HCERES [0].

- PASCAL DENIS acted as external expert for Innovis [0], Brussels Institute for Research and Innovation (Belgium).

9.1.6. Research Administration

- MIKAELA KELLER is member of the Conseil du laboratoire CRIStAL.

- MARC TOMMASI is co-head of the DatInG group (4 teams, 80 persons) and member of the Conseil Scientifique du laboratoire CRIStAL.

- PASCAL DENIS served as an elected member of the Comité National du CNRS, section 34 (Sciences du Langage).

- PASCAL DENIS served as a member of the CNRS Pre-GDR NLP Group.

- JAN RAMON was a member of the Inria-Lille committee emploi-recherche (CER).

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Licence SCE: FABIO VITALE, Apprentissage et émergence des comportements, 30h, L2, Université de Lille.

Licence MIASHS: FABIO VITALE, Algorithmique et programmation, 42h, L3, Université de Lille.

Licence SoQ: FABIO VITALE, Bases de données et SQL, 16h, L1, Université de Lille.

Licence MIASHS: FABIO VITALE, Introduction aux bases de données, 18h, L3, Université de Lille.

Licence SHS: MARC TOMMASI, Data Science, 24h, L2, Université de Lille.

Licence MIASHS: MARC TOMMASI, Codage et représentation de l'information, 48h, L1, Université de Lille.

Licence: MARC TOMMASI, Traitement de textes et tableur, 28h Université de Lille.

Licence: MARC TOMMASI, Humanités numériques - Découvrir et faire découvrir la programmation, 20h, Université de Lille

Master SHS: MARC TOMMASI, IT Tools for professional translators, 24h, M2 Université de Lille.

Licence SHS: MARC TOMMASI, Python Programming, 48h, L2 Université de Lille.

Licence MIASHS: MIKAELA KELLER, Python II, 40h, L2, Université de Lille.

Licence MIASHS: MIKAELA KELLER, Traitement de données, 42h, L2, Université de Lille.

Licence SoQ (SHS): MIKAELA KELLER, Algorithmique de graphes, 24h, L3, Université de Lille.

Master MIASHS: MIKAELA KELLER, Algorithmes fondamentaux de la fouille de données, 60h, M1, Université de Lille.

Master Computer Science: MIKAELA KELLER, Machine Learning, 24h, M1, Université de Lille.

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[0] http://www.grhs.uqam.ca/?portfolio=ecole-dete-internationale-formation-de-maitrise-et-de-doctorat-methodes-et-outils-numeriques-lanalyse-de-reseaux-en-histoire

[0] https://www.societe-informatique-de-france.fr/recherche/prix-de-these-gilles-kahn/

[0] https://www.hceres.fr/en

[0] https://innoviris.brussels/

Master Data Science: FABIO VITALE, Algorithms and their complexity, 30h, M1, Ecole Centrale de Lille.

Master Data Analysis & Decision Making: AURÉLIEN BELLET, Machine Learning, 12h, Ecole Centrale de Lille.

Master / Master Spécialisé Big Data: AURÉLIEN BELLET, Advanced Machine Learning, 15h, Télécom ParisTech.

Formation continue (Certificat d'Études Spécialisées Data Scientist): AURÉLIEN BELLET, Supervised Learning and Support Vector Machines, 14h, Télécom ParisTech.

Master Informatique: PASCAL DENIS, Foundations of Machine Learning, 46h, M1, Université de Lille.

9.2.2. Supervision

Postdoc: MOHAMED MAOUCHE, supervised by AURÉLIEN BELLET, MARC TOMMASI, Privacy attacks on representation learning for speech processing, since November 2019.

PhD: MATHIEU DEHOUCK, Multi-lingual Dependency Parsing: Word Representation and Joint Training for Syntactic Analysis, 2015-2019, PASCAL DENIS and MARC TOMMASI.

PhD in progress: ONKAR PANDIT, Graph-based Semi-supervised Linguistic Structure Prediction, since Dec. 2017, PASCAL DENIS, MARC TOMMASI and LIVA RALAIVOLA (University of Marseille).

PhD in progress: MARIANA VARGAS VIEYRA, Adaptive Graph Learning with Applications to Natural Language Processing, since Jan. 2018. PASCAL DENIS and AURÉLIEN BELLET and MARC TOMMASI.

PhD in progress: BRIJ SRIVASTAVA, Representation Learning for Privacy-Preserving Speech Recognition, since Oct 2018 AURÉLIEN BELLET and MARC TOMMASI and EMMANUEL VINCENT.

PhD in progress: MAHSA ASADI, On Decentralized Machine Learning, since Oct 2018. AURÉLIEN BELLET and MARC TOMMASI.

PhD in progress: NICOLAS CROSETTI, Privacy Risks of Aggregates in Data Centric-Workflows, since Oct 2018. FLORENT CAPELLI and SOPHIE TISON and JOACHIM NIEHREN and JAN RAMON.

PhD in progress: ROBIN VOGEL, Learning to rank by similarity and performance optimization in biometric identification, since 2017 (CIFRE thesis with IDEMIA and Télécom ParisTech). AURÉLIEN BELLET, STÉPHAN CLÉMENÇON and ANNE SABOURIN.

PhD in progress: MOITREE BASU, Integrated privacy-preserving AI, since 2019. JAN RAMON.

PhD in progress: CÉSAR SABATER, Privacy Preserving Machine Learning, since 2019. JAN RAMON.

Master internship in progress: PAUL MANGOLD, supervised by AURÉLIEN BELLET and MARC TOMMASI, since October 2019.

9.2.3. Juries

MARC TOMMASI was member of the PhD jury of Corentin Hardy (rapporteur), Guillaume Metzler (rapporteur), Ronan Fruit (President)

MARC TOMMASI was member of the Habilitation jury of Rémi Eyraud (rapporteur).

MARC TOMMASI was member of the recruitment committee of Assistant Professors in Computer Science at École centrale de Lille.

AURÉLIEN BELLET was member of the PhD jury of Alexandre Garcia (Télécom Paris).

MIKAELA KELLER was member of the PhD jury of Guillaume Lample (LIP6)

MIKAELA KELLER was member of the recruitment committee of Assistant Professors in Computer Science at Sorbonne Université (LIP6).

RÉMI GILLERON was head of the PhD jury of Lily Galois (Université de Lille)

9.3. Popularization

9.3.1. Internal or external Inria responsibilities

AURÉLIEN BELLET is member of the Operational Committee for the assesment of Legal and Ethical risks (COERLE).

PASCAL DENIS is administrator of Inria membership to Linguistic Data Consortium (LDC).

9.3.2. Articles and contents

AURÉLIEN BELLET and MARC TOMMASI provided expertise for the Dopamine TV program on Arte about new technologies [0].

AURÉLIEN BELLET co-authored an article in the French daily newspaper Libération on AI and transparency [0].

RÉMI GILLERON authored a book (in French) introducing Machine Learning [0].

RÉMI GILLERON gave a talk in order to popularize Artificial Intelligence.

9.3.3. Interventions

In educational institutions: MARC TOMMASI was facilitator for the event *Jouer à débattre*, about machine learning in high school (Tourcoing).

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[0]https://www.arte.tv/fr/videos/RC-017841/dopamine/
[0]https://www.liberation.fr/debats/2019/04/07/grand-debat-et-ia-quelle-transparence-pour-les-donnees_1719944
[0]https://www.editions-ellipses.fr/accueil/4741-apprentissage-machine-cle-de-l-intelligence-artificielle-une-introduction-pour-non-specialistes-9782340028807.html

<p align="center" style="color:red">MOEX Project-Team</p>

8. Dissemination

8.1. Promoting Scientific Activities

8.1.1. Scientific Events: Organisation

8.1.1.1. Member of the Organizing Committees

- Jérôme Euzenat was organiser of the 2nd Workshop on Interaction-Based Knowledge Sharing (WINKS) of the 5th Joint Ontology Workshop (JOWO), Graz (AT), 2019 (with Adrian Kemo, Dagmar Gromann, Ernesto Jiménez Ruiz, Marco Schorlemmer and Valentina Tamma) [10]
- Jérôme Euzenat had been organiser of the 14th Ontology matching workshop of the 19th ISWC, Auckland (NZ), 2019 (with Pavel Shvaiko, Ernesto Jiménez Ruiz, Cássia Trojahn dos Santos and Oktie Hassanzadeh)

8.1.2. Scientific Events: Selection

8.1.2.1. Member of the Conference Program Committees

- Manuel Atencia, Jérôme David and Jérôme Euzenat have been programme committee members of the "International Joint Conference on Artificial Intelligence (IJCAI)".
- Manuel Atencia, Jérôme David and Jérôme Euzenat have been programme committee member of the "Web Conference (WWW)".
- Manuel Atencia, Jérôme David and Jérôme Euzenat have been programme committee members of the "International semantic web conference (ISWC)".
- Jérôme Euzenat has been programme committee member of the "International Conference on Conceptual Structures (ICCS)".
- Jérôme Euzenat has been programme committee member of the "International conference on semantic systems (Semantics)".
- Jérôme Euzenat has been programme committee member of the "Journées Françaises d'intelligence artificielle fondamentale (JIAF)".
- Manuel Atencia and Jérôme David have been programme committee members of the "Extraction et Gestion des connaissances (EGC)".

8.1.3. Journal

8.1.3.1. Member of the Editorial Boards

- Jérôme Euzenat is member of the editorial board of *Journal of web semantics* (area editor), *Journal on data semantics* and the *Semantic web journal*.

8.1.3.2. Reviewer - Reviewing Activities

- Manuel Atencia had been reviewer for *Journal of web semantics*.
- Jérôme David had been reviewer for *Journal of web semantics*.
- Jérôme Euzenat had been reviewer for *Knowledge engineering reviews*.

8.1.4. Invited Talks

- "For knowledge", ISWC keynote speech, Auckland (NZ), 2019-10-29 (Jérôme Euzenat)

8.1.5. Leadership within the Scientific Community

- Jérôme Euzenat is member of the scientific council of the CNRS GDR on Formal and Algorithmic Aspects of Artificial intelligence.
- Jérôme Euzenat is EurAI fellow.
- Jérôme David is member of the board of the Extraction et gestion des connaissances (Knowledge extraction and management) conference series.

8.1.6. Scientific Expertise

- Jérôme Euzenat had been member of the HCERES visiting committee for the CRIL research laboratory.
- Jérôme Euzenat had been member of the recruitment committee of Université Grenoble Alpes for the associate professor position 27MCF330, 2019.

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

8.2.1.1. Responsibilities

- Jérôme David is coordinator of the Master "Mathematiques et informatiques appliquées aux sciences humaines et sociales" (Univ. Grenoble Alpes);
- Manuel Atencia is co-responsible of the 2nd year of Master "Mathematiques et informatiques appliquées aux sciences humaines et sociales" (Univ. Grenoble Alpes);
- Manuel Atencia is coordinator of the "Web, Informatique et Connaissance" option of the master M2 "Mathematicques et informatiques appliquées aux sciences humaines et sociales" (Univ. Grenoble Alpes);

8.2.1.2. Lectures

- Licence: Jérôme David, Algorithmique et programmation par objets, 70h/y, L2 MIASHS, UGA, France
- Licence: Jérôme David, Système, L3 MIASHS, 18h/y, UGA, France
- Licence: Manuel Atencia, Introduction aux technologies du Web, 60h/y, L3 MIASHS, UGA, France
- Master: Jérôme David, Programmation Java 2, 30h/y, M1 MIASHS, UGA, France
- Master: Jérôme David, JavaEE, 30h/y, M2 MIASHS, UGA, France
- Master: Jérôme David, Développement Web Mobile, 30h/y, M2 MIASHS, UGA, France
- Master: Jérôme David, Web sémantique, 3h/y, M2 MIASHS, UGA, France
- Master: Manuel Atencia, Formats de données du web, 30h/y, M1 MIASHS, UGA, France
- Master: Manuel Atencia, Introduction à la programmation web, 30h/y, M1 MIASHS, UGA, France
- Master: Manuel Atencia, Intelligence artificielle, 7.5h/y, M1 MIASHS, UGA, France
- Master: Manuel Atencia, Web sémantique, 27h/y, M2 MIASHS, UGA, France
- Master: Manuel Atencia, Semantic web: from XML to OWL, 22.5h/y, M2R MoSIG, UGA, France
- Master: Jérôme David, Stage de programmation, 10h/y, M2 MIASHS, UGA, France

8.2.2. Supervision

- Nacira Abbas, "Link key extraction and relational concept analysis", in progress since 2018-10-01 (Jérôme David and Amedeo Napoli)
- Khadija Jradeh, "Reasoning with link keys", in progress since 2018-10-01 (Manuel Atencia and Chan Le Duc)
- Line van den Berg, "Knowledge Evolution in Agent Populations", in progress since 2018-10-01 (Manuel Atencia and Jérôme Euzenat)

- Yasser Bourahla, "Evolving ontologies through communication", in progress since 2019-10-01 (Manuel Atencia and Jérôme Euzenat)

8.2.3. Juries

- Jérôme Euzenat had been reviewer and panel chair of the computer science PhD of Élodie Thiéblin (Université Toulouse 3 Paul Sabatier) "Automatic generation of complex ontology alignments" supervised by Ollivier Haemmerlé and Cássia Trojahn, 2019

- Jérôme Euzenat had been member of the computer science habilitation (HDR) panel of Cássia Trojahn (Université Toulouse 2 Jean Jaurès) "Towards ontology matching maturity: contributions to complex, holistic and foundational ontology matching", 2019

8.3. Popularization

8.3.1. Interventions

- Présentation "L'intelligence artificielle en perspective", Université Inter-Âges du Dauphiné (UIAD), Grenoble (FR), 2019-03-06 (Jérôme Euzenat)

- Introduction of the *Class?* game to a fourth graders (CM1-CM2) class, Montbonnot (FR), 2019-06-25 (Line van den Berg and Jérôme Euzenat)

- Introduction of the *Class?* game to a tenth graders (2nd MathC2+) group, Montbonnot (FR), 2019-06-25 (Line van den Berg and Jérôme Euzenat)

- Introduction of the *Class?* game to seventh and eighth graders (5e et 4e) classes within the Fête de la science (Science fair), Montbonnot (FR), 2019-10-10 (Line van den Berg and Jérôme Euzenat)

- Introduction of the *Class?* game to general public within the Fête de la science (Science fair), Montbonnot (FR), 2019-10-12 (Line van den Berg and Jérôme Euzenat)

- Presentation of the *Class?* game to the meeting of the Société Francophone de Classification, Nancy (FR), 2019-09-03–04 (Jérôme Euzenat)

8.3.2. Creation of media or tools for science outreach

Class? We are developing mediation material for explaining to the general public what knowledge representation is and how it may evolve. Its main goal is to show children that the same individuals may be classified in different and evolving ways and that it is possible to communicate such classifications without expressing them. For that purpose, we have designed a card game called *Class?*[0] which allows players to guess the hidden ontology of another player. It has been presented to school classes from year 5 of primary school (fourth graders) to year 11 (tenth graders), albeit shows features of interest for a wider audience.

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[0]https://moex.inria.fr/mediation/class/

ORPAILLEUR Project-Team

10. Dissemination

10.1. Scientific Events Organization, General Chairs, Scientific Chairs

- Amedeo Napoli was the scientific co-chair with Sergei Kuznetsov of the track "General Topics of Data Analysis" at the AIST Conference held in Kazan Russia on July 17-19 2019 (8th International Conference on Analysis of Images, Social Networks, and Texts http://aistconf.org/ and http://aistconf.org/board/).

- Amedeo Napoli was the scientific co-chair with Sergei O. Kuznetsov (HSE Moscow) and Sebastian Rudolph (TU Dresden) of the seventh workshop FCA4AI "What can do FCA for Artificial Intelligence", which was co-located with the IJCAI Conference in Macao China, August 10 2019 (see http://www.fca4ai.hse.ru/).

- Miguel Couceiro and Amedeo Napoli were the general and scientific chairs of the 26ièmes Rencontres de la Société Francophone de Classification (SFC 2019) that were held on September 3-5 at Inria NGE/LORIA Nancy (see https://project.inria.fr/sfc2019/).

10.2. Scientific Animation

- The scientific animation in the Orpailleur team is based on the Team Seminar which is called the "Malotec" seminar (http://malotec.loria.fr/). The Malotec seminar is held in general twice a month and is used either for general presentations of members of the team or for invited presentations of external researchers.

- Members of the Orpailleur team are all involved, as members or as head persons, in various national research groups.

- The members of the Orpailleur team are involved in the organization of conferences and workshops, as members of conference program committees (AAAI, ECAI, ECML-PKDD, ESWC, ICCBR, ICDM, ICFCA, IJCAI, ISWC, KDD, SDM...), as members of editorial boards, and finally in the organization of journal special issues.

10.3. Teaching - Supervision - Juries

10.3.1. Teaching

- All the permanent members of the Orpailleur team are involved in teaching at all levels and mainly at Université de Lorraine. Actually, most of the members of the Orpailleur team are employed on "Université de Lorraine" positions.

- Responsability of the 2nd year of the NLP Master's program in the IDMC, Université de Lorraine.

- Local coordination of the European Erasmus Mundus Master's program LCT (Language and Communication Technologies).

  The LCT Master's program "Language and communication Technologies" (LCT) is designed to provide students with practice–oriented knowledge in computational and theoretical linguistics, natural language processing, and computer science, to meet the demands of industry and research in these rapidly growing areas. The LCT consortium includes 7 European Universities, i.e. Saarland, Lorraine, Trento, Malta, Groningen, Charles in Prague, Basque Country, and includes several partners, e.g., DFKI, IBM (Czech Rep.), VICOMTECH, Sony (Europe), IBM (Ireland), and Inria (France).

- Responsability in teaching courses about Artificial Intelligence and Knowledge-Based Systems at TELECOM Nancy, a engineer school for graduation in computer science at Université de Lorraine.

10.3.2. Supervision – Juries

- The members of the Orpailleur team are also involved in student supervision, at all university levels, from under-graduate until post-graduate students, engineers, PhD, postdoc students.

- Finally, the permanent members of the Orpailleur team are involved in HDR and thesis defenses, being thesis referees or thesis committee members.

<h1 style="color:red; text-align:center">PETRUS Project-Team</h1>

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific Events: Organisation

9.1.1.1. Member of the Organizing Committees

- Luc Bouganim: Co-organizer of Ecole thématique BDA Masses de Données Distribuées, Aussois, June 2020
- Iulian Sandu Popa: Colloque National Capteurs et Sciences Participatives (CASPA), Paris, 1-4 avril 2019

9.1.2. Scientific Events Selection

9.1.2.1. Member of the Conference Program Committees

- Nicolas Anciaux: VLDB'19, SIGMOD'19
- Luc Bouganim: EDBT'2020
- Philippe Pucheral: DATA'19, MOBILITY'19, MEDES'19
- Iulian Sandu Popa: ICDE'20, SSDBM'19, IEEE MobileCloud'19, DATA'19, BDA'19 demo
- Guillaume Scerri: BDA'19

9.1.3. Journal

9.1.3.1. Member of the Editorial Boards

- Nicolas Anciaux: Associate Editor of the VLDB Journal

9.1.3.2. Reviewer - Reviewing Activities

- Iulian Sandu Popa: Journal of Internet Services and Applications
- Guillaume Scerri: ACM Transactions on Privacy and Security

9.1.4. Research Administration

- Philippe Pucheral: Member of the HDR committee of the STV doctoral school (UVSQ) since 2014
- Philippe Pucheral: Member of the steering committee of the ED STIC doctoral school of University Paris-Saclay, 'Data, Knowledge and Interactions' committee (about 250 PhD students) since 2014
- Philippe Pucheral: Member of the bureau of the DAVID lab board since 2016
- Nicolas Anciaux: Member of the Council of the Doctoral College of the University Paris-Saclay
- Nicolas Anciaux: Member of the "Bureau du comité des projets" at Inria saclay
- Nicolas Anciaux: Member of the DATAIA Convergence Institute Program Committee since 2018.
- Nicolas Anciaux: Correspondent for the Doctoral school ED STIC of University Paris-Saclay at Inria Saclay
- Nicolas Anciaux: Responsible for the 'Mission Jeunes Chercheurs' (MJC) at Inria Saclay
- Nicolas Anciaux: Responsible for the 'Formation par la Recherche' (FPR) at Inria Saclay
- Nicolas Anciaux: Member of the bureau of the DAVID lab board
- Luc Bouganim: Member of the Scientific Commission (CS) of Inria Saclay-IDF (Cordi-S, Post-Doc, Delegation)
- Luc Bouganim: Member of the Commission for Technological Development (CDT) of Inria Saclay-IDF

- Luc Bouganim: Member of the admission committee for DR2 at Inria
- Luc Bouganim: Member of the recruitment committee for CRCN at Inria
- Luc Bouganim: Member of the recruitment committee of associate professor at ITU Copenhagen
- Iulian Sandu Popa: Member of the Commission for Technological Development (CDT) of Inria Saclay-IDF
- Iulian Sandu Popa: Member of the recruitment committee for an MCF (Maître de Conférences) position at CNAM
- Iulian Sandu Popa: PhD thesis referent for the ED STIC doctoral school of University Paris-Saclay
- Guillaume Scerri: PhD thesis referent for the ED STIC doctoral school of University Paris-Saclay

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

- Licence : Iulian Sandu Popa, Bases de données (niveau L3), 96, UVSQ, France. Guillaume Scerri, Initiation aux bases de données (niveau L2), 63, UVSQ, France. Guillaume Scerri, Fondements de l'informatique (niveau L1), 36, UVSQ, France. Guillaume Scerri, Théorie des Langages (niveau L2), 45, UVSQ, France.
- Master : Iulian Sandu Popa, Bases de données relationnelles (niveau M1), Gestion des données spatiotemporelles (niveau M2), Sécurité des bases de données (niveau M2), 96, UVSQ, France. Philippe Pucheral, responsible of the DataScale master, courses in M1 and M2 in databases and in security, introductory courses for jurists,UVSQ, France. Guillaume Scerri, Bases de données relationnelles (niveau M1), 36, UVSQ, France. Guillaume Scerri, Sécurité et bases de données pour juristes, 4.5, UVSQ, France. Guillaume Scerri, Sécurité, 18, UVSQ, France.
- Engineers school : Nicolas Anciaux, courses on Databases (module IN206, niveau M1), 21, and Advanced databases (module ASI13, niveau M2), 24, at ENSTA ParisTech. Nicolas Anciaux, Systèmes d'Information "privacy by design" (niveau M1), 30, at ENSIIE Evry, France. Luc Bouganim, Systèmes d'Information "privacy by design" (niveau M1), 42, ENSIIE Evry, France. Luc Bouganim, Bases de données relationnelles (niveau M1), 32, ENSTA, France.

9.2.2. Supervision

- PhD : Julien Loudet, Distributed and Privacy-Preserving Personal Queries on Personal Clouds, UVSQ, October 2019, Luc Bouganim and Iulian Sandu Popa
- PhD: Axel Michel, Secure Distributed Computations, INSA CVL, April 8, 2019, Benjamin Nguyen and Philippe Pucheral
- PhD in progress: Riad Ladjel, Secure Distributed Computation for the Personal Cloud, October 2016, Nicolas Anciaux, Philippe Pucheral and Guillaume Scerri
- PhD in progress: Dimitris Tsoulovos, Privacy-by-design Middleware for Urban-scale Mobile Crowdsensing, April 2017, Nicolas Anciaux and Valérie Issarny (Inria Mimove)
- PhD in progress: Robin Carpentier, Secure and efficient data processing in trusted execution environments for the personal cloud, October 2018, Nicolas Anciaux, Iulian Sandu Popa and Guillaume Scerri

9.2.3. Juries

- Nicolas Anciaux : Jury Member of the PhD of Rémy Delanaux (University Lyon I)
- Philippe Pucheral : President of the PhD jury of Karima RAFES (Paris-Saclay University, 25/01/2019)
- Philippe Pucheral : President of the PhD jury of Duc CAO (Paris-Saclay University, 26/09/2019)

9.3. Popularization

- Nicolas Anciaux: "Sécurité des données personnelles, démonstration de la box 'DomYcile' développée par PETRUS et Hippocad pour le département des Yvelines, Journées du Patrimoine 2019 à l'Inria Rocquencourt, Sept. 2019.

- Nicolas Anciaux: Demonstration of the 'DomYcile' home-box, Inria stand, European Big Data Value Forum (EBDVF19), organized by BDVA in collaboration of the European Commission, Oct. 2019.

- Round table on "Personal Dataspaces" at European Big Data Value Forum (EBDVF19), organized by BDVA in collaboration of the European Commission, Oct. 2019. The round table is chaired by Marko Turpeinen (Director EIT Digital Finland). Intervention of N. Anciaux about "Empowerment and Big Data on personal data: from data portability to personal agency".

- Nicolas Anciaux: séminaire LINC à la CNIL. "Solutions de cloud personnel : sécurité, vie privée, et perspectives", Nov. 2019.

- Nicolas Anciaux: "PETRUS : Cloud personnel de confiance et gestion de nos données", Café des Sciences d'Inria, site de Rocquencourt, 11 juin 2019

- N. Anciaux: Panel on "European Data Protection Law", 10th Annual Forum of Trans Europ Expert 'Le droit de l'Union européenne vu d'ailleurs', Conseil Suprérieur du Notariat, Paris. April 2019. Round table chaired by J. Sénéchal (Dir. pôle "Droit des contrats" at TEE) and N. Martial-Braz (Dir. pôle "Droit de la propriété intellectuelle at TEE), with B. Amaudric du Chaffaut (Deputy General Counsel at Google France) on GDPR evolution in Europe, F. Nicola (Prof. at Washington College of Law) on the echo of GDPR in California and N. Anciaux (researcher at Inria) on technical-juridical challenges of the GDPR.

TYREX Project-Team

8. Dissemination

8.1. Promoting Scientific Activities

8.1.1. Scientific Events: Organisation

8.1.1.1. General Chair, Scientific Chair
- Angela Bonifati is program chair of EDBT 2020, and co-chair of the Workshops of SIGMOD 2019.

8.1.1.2. Member of the Organizing Committees
- P. Genevès is member of the Organizing Committee of BDA 2019.
- A. Bonifati is a permanent member of ICDT Council (The International Conference on Database Theory), and co-chair and organizer of the EDBT 2019 summer school.

8.1.2. Scientific Events: Selection

8.1.2.1. Chair of Conference Program Committees
- A. Bonifati is Co-chair of the SIGMOD 2019 Workshops.

8.1.2.2. Member of the Conference Program Committees
- P. Genevès has been program committee member for IJCAI'19, AAAI'20, IJCAI-PRICAI'20.
- A. Bonifati has been program committee member of VLDB 2019, PODS 2019, AAAI 2019, ICDE 2019, EDBT 2019, SIGMOD 2019, DEBS 2019, ICDT 2020.

8.1.3. Journal

8.1.3.1. Member of the Editorial Boards
- A. Bonifati is Associate Editor of ACM Trans. on Database Systems.
- A. Bonifati is Associate Editor of the VLDB Journal.

8.1.4. Scientific Expertise
- P. Genevès has been a scientific expert at ANRT for the CIFRE funding process.

8.1.5. Research Administration
- P. Genevès is responsible for the Computer Science Specialty at the Doctoral School MSTII (ED 217)
- C. Roisin is a member of the CNU (Conseil National des Universités).
- C. Roisin is a member of the Inria Grenoble Inria-Hub committee.
- C. Roisin has been president of a Committee of Selection for an assistant position at university Grenoble-Alpes.
- N. Layaïda is a member of the experts pool (selection committee) of the minalogic competitive cluster.
- A. Bonifati and N. Layaïda are members of the Scientific Board of Digital League, the digital cluster of Auvergne-Rhône-Alpes.
- A. Bonifati is coordinator of the theme "Masses de Données" at Liris and at "Fédération d'Informatique de Lyon" (FIL).

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

- Licence : C. Roisin, Programmation C, 12h eq TD, L2, IUT2, Univ. Grenoble-Alpes
- Licence : C. Roisin, Architecture des réseaux, 112h eq TD, L1, IUT2, Univ. Grenoble-Alpes
- Licence : C. Roisin, Services réseaux, 22h eq TD, L2, IUT2, Univ. Grenoble-Alpes
- Licence : C. Roisin, Introduction système Linux, 21h eq TD, L1, IUT2, Univ. Grenoble-Alpes
- Licence : C. Roisin, Système et réseaux, 14h eq TD, L3, IUT2, Univ. Grenoble-Alpes
- Licence : C. Roisin, Tutorat pédagogique de 4 apprentis, 20h eq TD, L3, IUT2, Univ. Grenoble-Alpes
- Licence : C. Roisin, Suivi pédagogique de 20 étudiants (responsable de la Licence Professionnelle MI-ASSR), 13h eq TD, L1, IUT2, Univ. Grenoble-Alpes
- Licence : N. Gesbert, 'Logique pour l'informatique', 45 h eq TD, L3, Grenoble INP
- Master : N. Gesbert, 'Principes des systèmes de gestion de bases de données', 42 h eq TD, M1, Grenoble INP
- Master : N. Gesbert, academic tutorship of an apprentice, 10 h eq TD, M1, Grenoble INP
- Master : N. Gesbert, 'Fondements logiques pour l'informatique', 16 h 30 eq TD, M1, Grenoble INP
- Master : N. Gesbert, 'Construction d'applications Web', 21 h eq TD, M1, Grenoble INP
- Master : N. Gesbert, 'Analyse, conception et validation de logiciels', 30 h eq TD, M1, Grenoble INP
- Master : N. Gesbert, 'Introduction to lambda-calculus', 5 h eq TD, M2, UGA-Grenoble INP (MOSIG)
- N. Gesbert is responsible of the L3-level course 'logique pour l'informatique' (25 apprentices) and of the M1-level course 'construction d'applications Web' (72 students).
- P. Genevès is responsible and teacher in the M2-level course 'Semantic Web: from XML to OWL' of the MOSIG program at UGA (36h)
- P. Genevès is responsible and teacher in the M2-level course 'Accès à l'information: du web des données au web sémantique' of the ENSIMAG ISI 3A program at Grenoble-INP (30h)

8.2.2. Supervision

- PhD in progress: Muideen Lawal, Cost models for optimizing compilers based on mu-terms, PhD started in October 2017, co-supervised by Pierre Genevès and Nabil Layaïda.
- PhD in progress: Raouf Kerkouche, Privacy-preserving predictive analytics with big prescription data, PhD started in October 2017, co-supervised by Pierre Genevès and Claude Castelluccia.
- PhD in progress: Fateh Boulmaiz, Distributed representations of large-scale graphs, PhD started in November 2017, co-supervised by Pierre Genevès and Nabil Layaïda.
- PhD in progress: Sarah Chlyah, Algebraic foundations for the synthesis of optimized distributed code, PhD started in March 2018, supervised by Pierre Genevès.
- PhD in progress: Amela Fejza, On the extended algebraic representations for analytical workloads, PhD started in October 2018, supervised by Pierre Genevès.

VALDA Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events: Organisation

10.1.1.1. General Chair, Scientific Chair

- Camille Bourgaux, organizer of the yearly meeting of the national working group on *Automata, Logic, Games, and Algebra* (ALGA, GDR IM) in 2019
- Leonid Libkin was appointed general chair of PODS
- Luc Segoufin, chair of the steering committee of the conference series *Highlights of Logic, Games and Automata*
- Luc Segoufin and Pierre Senellart, co-organizers of École de Printemps en Informatique Théorique (EPIT) 2019
- Pierre Senellart, co-organizer and chief judge of the ICPC (International Collegiate Programming Contest) Southwestern Europe 2019-2020 competition

10.1.2. Scientific Events: Selection

10.1.2.1. Chair of Conference Program Committees

- Leonid Libkin, LICS 2021 (in 2019: constitution of the program committee)

10.1.2.2. Member of the Conference Program Committees

- Camille Bourgaux, IJCAI 2019, AAAI 2020, ECAI 2020
- Olivier Cappé, ALT 2019
- Leonid Libkin, IJCAI 2019, AAAI 2020, ECAI 2020, FOSSACS 2020, ICDT 2020
- Pierre Senellart, SUM 2019, PODS 2019, STACS 2020
- Michaël Thomazo, IJCAI 2019

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

- Olivier Cappé, *Annals of the Institute of Statistical Mathematics*
- Leonid Libkin, *Acta Informatica*
- Leonid Libkin, *Bulletin of Symbolic Logic*
- Leonid Libkin, *Journal of Applied Logic*
- Leonid Libkin, *SN Computer Science*

10.1.3.2. Reviewer - Reviewing Activities

- Pierre Senellart, *Future Generation Computer Systems*

10.1.4. Invited Talks

- Leonid Libkin, keynote at BDA 2019
- Pierre Senellart, invited talk at Singaporean-French workshop on Artificial Intelligence (SinFra), Singapore
- Pierre Senellart, invited lecture at *Reasoning Web* summer school, Bolzano, Italy

10.1.5. Leadership within the Scientific Community

- Serge Abiteboul is a member of the French Academy of Sciences, of the Academia Europaea, of the scientific council of the Société Informatique de France, and an ACM Fellow.
- Leonid Libkin is a Fellow of the Royal Society of Edinburgh, a member of the Academia Europaea, of the UK Computing research committee, and an ACM Fellow.
- Pierre Senellart is a member of the steering committee of BDA, the French scientific community on data management.

10.1.6. Scientific Expertise

- Pierre Senellart has performed a confidential audit of a company for the French government (*direction interministérielle du numérique et du système d'information et de communication de l'État*)
- Pierre Senellart, ANR

10.1.7. Research Administration

- Olivier Cappé is a scientific deputy director of CNRS division of Information Sciences and Technologies (INS2I).
- Luc Segoufin is a member of the CNHSCT of Inria.
- Pierre Senellart is a member of the board of section 6 of the National Committee for Scientific Research.
- Pierre Senellart is deputy director of the DI ENS laboratory, joint between ENS, CNRS, and Inria.
- Pierre Senellart is a member of the board of the DIM RFSI (Réseau Francilien en Sciences Informatiques).
- Pierre Senellart was a member of the scientific council of PGMO (Programme Gaspard Monge) until mid-2019.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Licence: Serge Abiteboul, *Scientific reading group*, 15 heqTD, L3, École normale supérieure

Licence: Pierre Senellart, Nathan Grosshans, Michaël Thomazo, *Databases*, 74 heqTD, L3, École normale supérieure

Licence: Pierre Senellart, *Algorithms*, 18 heqTD, L3, École normale supérieure

Licence: Nathan Grosshans, *Formal languages*, 22 heqTD, L3, Télécom ParisTech

Master: Pierre Senellart, *Web data management*, 36 heqTD, M2, MPRI

Pierre Senellart has various teaching responsibilities (L3 internships, M1 projects, M2 administration, entrance competition) at ENS. Nathan Grosshans is the secretary of the entrance competition at ENS for computer science. Most members of the group are also involved in tutoring ENS students, advising them on their curriculum, their internships, etc. They are also occasionally involved with reviewing internship reports, supervising student projects, etc.

10.2.2. Supervision

PhD: Karima Rafes, *Le Linked Data à l'université : la plateforme LinkedWiki*, Université Paris-Saclay, 25 January 2019, Serge Abiteboul & Sarah Cohen-Boulakia

PhD in progess: Juliette Achddou, *Application of reinforcement learning strategies to the context of Real-Time Bidding*, started in September 2018, Olivier Cappé & Aurélien Garivier

PhD in progress: Julien Grange, *Graph properties: order and arithmetic in predicate logics*, started in September 2017, Luc Segoufin

PhD in progress: Yann Ramusat, *Provenance-based routing in probabilistic graphs*, started in September 2018, Silviu Maniu & Pierre Senellart

PhD in progess: Yoan Russac, *Sequential methods for robust decision making*, started in December 2018, Olivier Cappé

10.2.3. Juries

- HdR Paolo Papotti, April 2019, Université de Nice – Sophia-Antipolis, Pierre Senellart (reviewer)
- PhD Ugo Comignani, September 2019, Université Claude Bernard Lyon 1, Pierre Senellart (reviewer)

10.3. Popularization

10.3.1. Internal or external Inria responsibilities

Serge Abiteboul is the president of the strategic committee of the Blaise Pascal foundation for scientific mediation.

Pierre SENELLART is a research fellow within the CERRE (Centre on Regulation in Europe), a European think tank that produces policy papers and organize events about the regulation of network industries. He contributes in particular to reflections on the use of artificial intelligence techniques and on the interoperability of software platforms.

10.3.2. Articles and contents

Serge Abiteboul writes regular columns on popularization of computer science in La Recherche and Le Monde (Économie). He is a founding editor of the *binaire* blog for popularizing computer science. See https://www.lemonde.fr/blog/binaire/.

<p style="text-align:center; color:red">WIMMICS Project-Team</p>

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events: Organisation

10.1.1.1. General Chair, Scientific Chair

Elena Cabrio was Conference Handbook Chair of ACL 2019 (Association of Computational Linguistics conference). Florence (Italy), July 2019.

Catherine Faron Zucker was co-chair of the AFIA scientific day on Education and Training on Artificial Intelligence (EFIA), Paris, 10/02/2019.

Fabien Gandon was general chair of ISWC the International Semantic Web Conference, October, 2019.

Serena Villata was Handbook Chair of the 2019 Conference on Empirical Methods in Natural Language Processing (EMNLP- 2019).

10.1.1.2. Member of the Organizing Committees

Michel Buffa was co-organizer of the W3C Workshop on Web Games, 27-28 June 2019; Redmond, WA, USA.

Fabien Gandon was co-organizer of the Joint Day Inria Ministry of Culture 02/12/2019.

10.1.2. Scientific Events: Selection

10.1.2.1. Chair of Conference Program Committees

Nhan Le Thanh:

Program chair of 13th International Conference on Computing and Communication Technologies (RIVF). 20-22 March 2019, Danang, Vietnam.

10.1.2.2. Member of the Conference Program Committees

Michel Buffa:

WebAudio conference 2019

W3C Workshop on Web Games, 27-28 June 2019; Redmond, WA, USA

Elena Cabrio:

Association for Computational Linguistics conference (ACL 2019), EMNLP2019, the Extended Semantic Web Conference (ESWC 2019), the International Semantic Web Conference, the AAAI Conference on Artificial Intelligence (AAAI-19).

Olivier Corby:

Digital Health, Ingénierie des Connaissances, ICCS, IJCAI, ISWC, KCAP, Quweda, SBBD, TheWebConf, WUM.

Jérôme Delobelle:

AAAI, IJCAI 2019 ⇒ Distinguished Program Committee member, Rencontres des Jeunes Chercheurs en Intelligence Artificielle (RJCIA), AAMAS.

Catherine Faron Zucker:

TheWebConf, IJCAI (Int. Joint Conference on Artificial Intelligence), ESWC (European Semantic Web Conference), ISWC (Int. Semantic Web Conference), Semantics, ICCS (Int. Conference on Conceptual Structures), IC (Ingénierie des Connaissances), EGC (Extraction et Gestion des Connaissances), EIAH (Environnements Informatiques pour l'Apprentissage Humain).

Fabien Gandon reviewed for: IJCAI, EGC, WebSci.

Oscar Rodríguez Rocha:

SAC 2020 - ACM Symposium on Applied Computing 2020 - The Semantic Web and Applications (SWA), AAAI 2020 - The 34th AAAI Conference on Artificial Intelligence, IJCAI, Semantics, IEEE-RIVF Internation Conference on Computing and Communication Technologies, KEOD International Conference on Knowledge Engineering and Ontology Development, KSE International Conference on Knowledge and Systems Engineering.

Andrea Tettamanzi:

AAAI-19, ACM 2020 (SWA Track), EGC 2020, EKAW 2020, PPSN 2020, TheWebConf 2020, and Web Intelligence 2020 conferences. He was Senior PC Member of IJCAI.

Serena Villata:

IJCAI, EMNLP, AAAI, AAMAS, JURIX, ICAIL.

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

Catherine Faron Zucker:

Revue d'Intelligence Artificielle, Guest editor of the Semantic Web journal for a special issue devoted to extended versions of the best papers of EKAW 2018.

Serena Villata is among the authors of two editorial activities:

- Livio Robaldo, Serena Villata, Adam Wyner, Matthias Grabmair: Introduction for artificial intelligence and law: special issue "Natural Language Processing for Legal Texts". Artif. Intell. Law 27(2): 113-115 (2019) [4],

- Qingliang Chen, Paolo Torroni, Serena Villata: Principles and practice of multi-agent systems. Knowledge Eng. Review 34: e3 (2019) [2].

10.1.3.2. Reviewer - Reviewing Activities

Elena Cabrio:

Journal Argument and Computation.

Andrea Tettamanzi has served as a referee for the journals: Fuzzy Sets and Systems, Semantic Web Journal, Transactions on Evolutionary Computation.

Serena Villata:

Journal of Logic and Computation, Argument & Computation, Artificial Intelligence.

10.1.4. Invited Talks

Michel Buffa:

Programmable Audio Workshop, "WebAudio applications developed during the WASABI ANR Project", December 4, 2019 — GRAME-CNCM, Lyon (France)

Master Class "Wasabi Project : Make Music Accessible To Everybody", Sophia Summit, 19th November 2019, Sophia Antipolis, France.

Elena Cabrio:

An introduction to Computational Linguistics. University of Bologna (Italy). May 2019.

Olivier Corby:

Graph Data on the Web: extend the pivot, don't reinvent the wheel , W3C workshop on RDF and Property Graph, Berlin, March 5th.

SPARQL Template & Function, workshop at EDF, Orsay, May 21st.

Introduction au Web sémantique, Datathon workshop of "archives nationales", Paris, november 29th.

Jérôme Delobelle:

"Comment utiliser l'argumentation pour lutter contre les fausses informations?", GraphiK team (Inria (Sophia Antipolis Méditerranée center), LIRMM (University of Montpellier and CNRS) and INRA), November 21st.

Catherine Faron Zucker:

Invited talk at the workshop of the MODAL project, Rennes, 2019/07/11: Injecting Domain Knowledge in Electronic Medical Records to Improve Hospitalization Prediction

Fabien Gandon:

Web Science 2019 keynote, The Web We Mix - benevolent AIs for a resilient web, Boston, USA, June,

RIVF 2019 keynote, Web of Data and Semantic Web: Linking Data and Their Schemas around the World, Da Nang Vietnam, March.

Andrea Tettamanzi:

Seminar, "Towards an Evolutionary Epistemology of Ontology Learning" at University of Danang, Vietnam, on March 19, 2019.

Conference on Unsupervised Learning at Amadeus, Sophia Antipolis, May 17, 2019.

Conference on Unsupervised Learning at Amadeus, Sophia Antipolis, October 25, 2019.

Serena Villata:

International Conference on Legal Data Mining, Machine Learning and Visualisation organized by HEC in March 2019 in Paris.

10.1.5. Leadership within the Scientific Community

Fabien Gandon is:

- member of IW3C2 steering committee for The Web Conference (WWW series) until May 2019.
- member of SWSA steering committee for the ISWC conference (as general chair of ISWC 2019).
- member of ESWC conference steering committee until October 2019.
- member of Web Science Trust Network.

10.1.6. Scientific Expertise

Michel Buffa:

Member of the W3C WebAudio working group

Academic Representative of Université Côte d'Azur to the W3C (AC Rep)

Elena Cabrio:

Reviewer of the proposals of the Vienna Science and Technology Fund (WWTF) in 2019.

Reviewer of the projects "soutien aux contrats doctoraux" of the Grand Est Région (France) in 2019.

Member of the evaluation committee assigning the AILC Master Thesis Award (the Italian association for Computational Linguistics) in 2019.

Catherine Faron Zucker:

scientific referent of the Inria Learning Lab,

member of the ANR scientific evaluation committe "Artificial Intelligence" (CE23),

reviewer of project proposals for the MSH Paris-Saclay.

10.1.7. Research Administration

Michel Buffa:

Member of the scientific council of the GRAME laboratory (Lyon)

Director of the Miage de Nice Sophia-Antipolis, composed of Licence, Master 1 and four Master 2 degrees. About 350 students (http://miage.unice.fr)

Olivier Corby is member of the Scientific and Pedagogical committee of DS4H Graduate School "Digital Systems for Humans" at Université Côte d'Azur. He is member of the scientific committee of Academy 1 RISE (Network, Information, Digital Society) at UCA. He is member of the PostDoc selection committee at Inria Sophia Antipolis.

Catherine Faron Zucker:

- General Treasurer of the French Society for Artificial Intelligence (AFIA).
- member of the steering committee of the AFIA college on Knowledge Engineering.
- member of the evaluation committee of Inria.
- member of the CPRH 27 commission at Université Côte d'Azur.
- coordinator of the Web option of the 5th year of Polytech Nice Sophia engineering school.
- pedagogical responsible of continuous training for the computer science department of Polytech Nice Sophia Antipolis.

Fabien Gandon is:

- Vice-head of science for Inria Sophia Antipolis - Méditerranée (Délégué Scientifique Adjoint, DSA)
- Advisory Committee representative of Inria at the World-Wide Web Consortium (W3C)
- Director of the joint research Laboratory Qwant-Inria
- Representative of Inria in the Web Science Trust Network
- Leader of the research convention with the French Ministry of Culture-Inria

Alain Giboin was member of the scientific committee of the IDEX Jedi Academy 5 "Homme, Idées et Milieux".

Serena Villata:

Since January 2019, Management Committee Member for France for the EU project COST Action CA17132 European network for argumentation and public policy analysis, nominated by the Ministére de l'Enseignement Supérieur, de la Recherche et de l'Innovation

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

DUT: Andrea Tettamanzi, Data Mining, 16 h ETD, L2, UCA, France.

Licence: Michel Buffa, JavaScript, 40h, L3 Miage, UNS, France.

Licence: Elena Cabrio, Introduction to the Web, 40 hours, (L2MASS), UNS, France.

Licence: Elena Cabrio, Internship supervision, 27 hours, (L3MIAGE), UNS, France.

Licence: Elena Cabrio, Web, 36 hours, (L3 MIAGE), UNS, France.

Licence: Elena Cabrio, Object Oriented Programming, 14 hours (L3 MIAGE), UNS, France.

Licence: Elena Cabrio, Software Engineering, 20 hours, (L3 MIAGE), UNS, France.

Licence: Andrea Tettamanzi, Advanced Web Programming (client side), 39h , L2, UNS, France.

Licence: Andrea Tettamanzi, Web, 30h, L3, UNS, France.

Master: Michel Buffa, Web technologies front and back end, 40h, M1, UNS, France.

Master: Michel Buffa, Server Side JavaScript and modern front-end frameworks, 60h, M2 Miage NTDP and MBDS, UNS, France.

Master: Michel Buffa, Programmable Web, 40h, M2, Polytech-Nice UNS, France.

Master: Elena Cabrio, Computational Linguistics, 30 hours, (Lettres), UNS, France.

Master: Elena Cabrio, Natural Language Processing for AI, 24 hours, (M1 INFO), UNS, France.

Master and Licence: Elena Cabrio, Responsible of the intership programme, 40 hours, (L3 and M2 MIAGE), UNS, France.

Master: Elena Cabrio, Project supervision, Polytech project "Applied Math", 5 hours, UNS, France.

Master:Olivier Corby, Semantic Web, 20h, Polytech Nice, UNS, France.

Master: Catherine Faron Zucker, Web languages, 48h, M1, PNS UNS.

Master: Catherine Faron Zucker, Semantic Web technologies (EN), 48h, M2 Informatique, PNS, UNS.

Master: Catherine Faron Zucker, Knowledge Engineering (EN), 28h, M2 Informatique, PNS, UNS.

Master: Catherine Faron Zucker, Semantic Web technologies (EN), 30h, M1 Data Science, UNS.

Master: Catherine Faron Zucker, XML technologies, 16h, M2 IMAFA, PNS, UNS.

Master: Catherine Faron Zucker, Projects and Internship tutoring, 32h, M2, PNS, UNS.

Master: Fabien Gandon, Integrating Semantic Web technologies in Data Science developments, 56 h, M2, DSTI, France.

Master: Alain Giboin, Human-Computer-Interaction Design and Evaluation, 21h, M2, UNS, France.

Master: Alain Giboin, Adaptation of User Interfaces, 4h, M2, UNS, France.

Master: Alain Giboin, Task and Activity Analysis for HCI design and evaluation, 16h, M2 Sociology and Ergonomics of Digital Technologies, UNS, France.

Master: Alain Giboin, Digital Strategy (formerly: Economics and ICT) : Ergonomics, 16h, M2 Economics and ICT, ISEM, UNS, France.

Master: Oscar Rodríguez Rocha, Web of Data, 15h, M2, Polytech Nice, UNS, France.

Master: Oscar Rodríguez Rocha, Knowledge Engineering, 10h, M2, Polytech Nice, UNS, France.

Master: Oscar Rodríguez Rocha, Web Langages, 15h, M1, Polytech Nice, UNS, France.

Master: Andrea Tettamanzi, Logic for AI, 30 h ETD, M1, UNS, France.

Master: Andrea Tettamanzi, Web, 30 h ETD, M1, UNS, France.

Master: Andrea Tettamanzi, Agent-Based Modeling, 30 h ETD, M2, UNS, France.

E-learning

Mooc: Michel Buffa, "JavaScript Intro" published first in Juin 2017 on the EDx platform (MIT/Harvard), still active and updated regularly.

Mooc: Michel Buffa, "HTML5 Coding Essentials and Best Practices"

Mooc: Michel Buffa, "HTML5 Apps and Games", also on EDx, are still active and updated regularly.

More than 700.000 registered users since 2015 for these MOOCS.

Mooc: Fabien Gandon, Olivier Corby & Catherine Faron Zucker, Web of Data and Semantic Web (FR), 7 weeks, http://www.france-universite-numerique.fr/, Inria, France Université Numérique, Education for Adults, 3815 learners registered for 2019.

Mooc: Fabien Gandon, Olivier Corby & Catherine Faron Zucker, Introduction to a Web of Linked Data (EN), 4 weeks, http://www.france-universite-numerique.fr/, Inria, France Université Numérique, Education for Adults, 1226 learners registered for 2019.

Mooc: Fabien Gandon, Olivier Corby & Catherine Faron Zucker, Web of Data (EN), 4 weeks, https://www.coursera.org/, Coursera, Education for Adults, 1037 learners registered.

10.2.2. Supervision

PhD in progress: **Molka Dhouib**, *Modelling and supporting a B2B social network of service providers and consumers*, UCA, Catherine Faron Zucker, Andrea Tettamanzi.

PhD in progress: **Ahmed El Amine Djebri**, *Uncertainty in Linked Data*, UCA, Andrea Tettamanzi, Fabien Gandon.

PhD in progress: **Antonia Ettore**, *Artificial Intelligence for Education and Training: Knowledge Representation and Reasoning for the development of intelligent services in pedagogical environments*, UCA, Catherine Faron Zucker, Franck Michel.

PhD in progress: **Michael Fell**, *Natural Language Processing of Song Lyrics*, UCA, Co-supervision Elena Cabrio & Fabien Gandon.

PhD in progress: **Raphaël Gazzotti**, *Modelling Electronic Medical Records and Predicting Hospitalization*, UCA, Catherine Faron Zucker, Fabien Gandon.

PhD in progress: **Nicholas Halliwell**, *Explainable and Interpretable Prediction*, UCA, Fabien Gandon, Serena Villata.

PhD in progress: **Tobias Mayer**, *Argument Mining for Clinical Trials*, UNS, Johan Montagnat (CNRS, I3S), Serena Villata and Céline Poudat (UNS).

PhD in progress: **Thu Huong Nguyen**, *Mining the Semantic Web for OWL Axioms*, Andrea Tettamanzi, UNS.

PhD in progress: **Mahamadou Toure**, *Models and architectures for restricted and local mobile access to the Data Web* , UCA, Fabien Gandon, Moussa Lo (UGB, Senegal).

PhD in progress: **Vorakit Vorakitphan**, *Argumentation and Emotions Emotion Detection with Adaptive Sentiment Analysis*, Elena Cabrio, Serena Villata, UCA.

Internship

Master internship: **ElMahdi Ammari**, GUI builder for WebAudio plugins (WebComponents) developed as part of the WASABI project. Integration into the FAUST IDE.

Master internship: **Antonia Ettorre**, *Modelling and publishing machine-processable curated biodiversity data*, UCA, Franck Michel, Catherine Faron Zucker.

Bachelor internship: **Matthis Lequiniou**, *Applying and comparing state-of-the-art algorithms to predict student's success on the SIDES knowledge graph*, UCA, Catherine Faron Zucker, Oscar Rodríguez Rocha.

Master internship: **Zineb Rahhali**, Machine learning to associate songs with presets of instruments and audio effects encoded in WebAudio.

Master internship: **Yun Tian**, *LinkedDataViz - Visualisation de données sur les co-publications scientifiques à partir de l'application HAL RDF*, Olivier Corby & Marco Winckler (I3S).

Master internship: **Maroua Tikat**, Development of ontologies to describe the WASABI corpus

10.2.3. Juries

Michel Buffa:

Reviewer of Pasquale LISENA PhD : "Recommandation musicale basée sur la connaissance : modèles, algorithmes et recherche exploratoire", defended October 11th, 2019, EURECOM – Sophia Antipolis

Elena Cabrio:
Reviewer and member of the PhD committee of Marco Rovera, University of Turin (Italy), July 2019.
Member of the PhD committee of Yaroslav Nechaev, University of Trento (Italy), April 2019.

Catherine Faron Zucker:

- reviewer of Cassia Trojahn's HDR, entitled *Towards ontology matching maturity: contributions to complex, holistic and foundational ontology matching*, defended on December 12 at Université de Toulouse;

- reviewer of Justine Reynaud's PhD thesis, entitled *Découverte de définitions dans le web des données*, defended on December 10 at Université de Lorraine;

- reviewer of Alexis Lebis' PhD thesis, entitled *Capitaliser les processus d'analyse de traces d'apprentissage : modélisation ontologique & assistance à la réutilisation*, defended on May 22 at Sorbonne Universités;

- reviewer of Tanguy Raynaud's PhD thesis, entitled *Génération de Questions à Choix Multiples Thématiques à Partir de Bases de Connaissances*, defended on February 28 at Université Jean Monnet;

- reviewer of Ademar Crotti Junior's PhD thesis, entitled *A Jigsaw Puzzle Metaphor for Representing Linked Data Mappings*, defended on February 25 at University of Dublin, Ireland;

- external member of the monitoring committee of Stella Zevio's PhD thesis at Université Paris Nord;

- external member of the monitoring committee of Francesco Bariatti's PhD thesis at Université de Rennes;

- external member of the monitoring committee of Pauline Folz's PhD thesis at Université de Rennes.

Fabien Gandon:

- Reviewer HDR Fatiha Sais, entitled *Knowledge Graph Refinement: Link Detection, Link Invalidation, Key Discovery and Data Enrichment*" 20/06/2019

- Member jury HDR Clément Jonquet, Ontology Repository and Ontology-based Services, 26/05/2019

Andrea Tettamanzi was reviewer of the HDR thesis of Nathalie Hernandez, *La centralité des ontologies, du Web Sémantique des utilisateurs au Web Sémantique des objets*, Université de Toulouse 2, December 13, 2019.

10.3. Popularization

10.3.1. Education

Artificial Intelligence training course for high school teachers (Inria Sophia Antipolis) - "Qu'est-ce que l'IA ?" by Jérôme Delobelle.

10.3.2. Interventions

Science Festival ("Fête de la Science") 2019, presentation of the WASABI project by Michel Buffa during "Journées Science et Musique" organized by IRISA in Rennes, October 2019.

10.3.3. Internal action

Presentation of Artificial Intelligence to college students by Jérôme Delobelle during their week-long visit to Inria Sophia Antipolis.

ZENITH Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events: Organisation

10.1.1.1. General Chair, Scientific Chair

- Florent Masseglia: co-organizer of the first edition of the ADITCA workshop, at CLOSER 2019: http://closer.scitevents.org/ADITCA.aspx?y=2019
- Florent Masseglia:

  of the second edition of the ADITCA workshop, at DATA 2019: http://www.dataconference.org/ADITCA.aspx

10.1.1.2. Member of the Organizing Committees

- A. Joly: organizing committee of the international conference CLEF 2019 and the chair of the LifeCLEF track, Lugano, sept. 2019 (http://clef2019.clef-initiative.eu/)

10.1.2. Scientific Events: Selection

10.1.2.1. Member of the Conference Program Committees

- Artificial Intelligence & Knowledge Engineering (AIKE), 2019: F. Masseglia
- European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (PKDD), 2019: F. Masseglia
- Int. Conf. on Data Science, Technology and Applications (DATA), 2019: F. Masseglia
- Int. Conf. on Information Management and Big Data (SIMBig), 2019: F. Masseglia
- IEEE Int. Conf. on Data Mining (ICDM), 2019: F. Masseglia
- ACM Symposium on Applied Computing (ACM SAC), Data Mining Track (DM), 2019: F. Masseglia
- ACM Symposium on Applied Computing (ACM SAC), Data Stream Track (DS), 2019: F. Masseglia
- Extraction et Gestion des Connaissances (EGC), 2019: F. Masseglia
- Int. Conf. on Extending DataBase Technologies (EDBT), 2019: E. Pacitti
- Int. Conf. on Multimedia Retrieval (ICMR), 2019: A. Joly
- Int. Conf. on Acoustics, Speech, and Signal Processing (ICASSP), 2019: A. Joly, A. Liutkus
- Int. Conf. on Computer Vision (CVPR), 2019: A. Joly
- Int. Conf. and Labs of the Evaluation Forum (CLEF), 2019: A. Joly
- European. Conf. on Information Retrieval (ECIR), 2019: A. Joly
- EAI Int. Conf. on e-Infrastructure and e-Services for Developing Countries (AFRICOMM 2019): P. Valduriez.
- Bases de Données Avancées (BDA), 2019: E. Pacitti, R. Akbarinia
- IEEE/ACM Int. Symposium in Cluster, Cloud, and Grid Computing (CCGrid) 2019: Esther Pacitti

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

- VLDB Journal: P. Valduriez.

- Transactions on Large Scale Data and Knowledge Centered Systems: R. Akbarinia.
- Distributed and Parallel Databases: E. Pacitti, P. Valduriez.
- Book series "Data Centric Systems and Applications" (Springer): P. Valduriez.
- Plant Methods: C. Pradal.

10.1.3.2. Reviewer - Reviewing Activities

- EVISE Future Generation Computer Systems Journal (FGCS): F. Masseglia
- Information Systems (IS): T. Mondal, F. Masseglia
- Distributed and Parallel Databases (DAPD): E. Pacitti, P. Valduriez
- IEEE Transactions on Knowledge and Data Engineering (TKDE): R. Akbarinia, F. Masseglia
- IEEE Transactions on Industrial Informatics: R. Akbarinia
- Knowledge and Information Systems (KAIS): R. Akbarinia
- Plant methods: A. Joly
- Machine Learning: A. Joly
- Pattern Recognition Letters: A. Joly
- Transactions on Image Processing: A. Joly
- ACM Trans. on Database Systems: E. Pacitti
- Knowledge and Information Systems (KAIS): F. Masseglia
- IEEE Transaction on Signal Processing (TSP): A. Liutkus
- IEEE Transactions on Audio Speech and Language Processing (TASLP): A. Liutkus
- IEEE Signal Processing Magazine: A. Liutkus
- IEEE Signal Processing Letters: A. Liutkus
- Frontiers in Plant Science: C. Pradal
- Neural Information Processing Systems (NeurIPS): A. Liutkus
- Int. Conf. on Machine Learning (ICML): A. Liutkus
- Int. Conf. on Acoustics, Speech and Signal Processing (ICASSP): A. Liutkus

10.1.4. Invited Talks

- E.Pacitti: Inaugural lecture, "Data Processing: an evolutionary and multidisciplinary perspective", CEFET/RJ, Rio de Janeiro on 12 August 2019.
- A. Joly: "AI for plant phenology" on 17 January at a workshop of the University of Florida (keynote); "AI for plant biodiversity monitoring" on 7 November at HPC-AI-BigData Convergence days (Conv' 2019); "An end-to-end deep learning approach to biodiversity monitoring", on 12 December at British Ecological Society conference (BES 2019);
- A. Liutkus: tutorial on "music source separation" at Int. Symposium on Music Information Retrieval (ISMIR 2018).
- F. Masseglia: "Données, humanités et démarche scientifique". Panel at the Inria Science Days (Journées Scientifiques Inria), on June 6, Lyon; "Analyse de données scientifiques". IRD, on June 27, Montpellier. "Analyse de données à grande échelle". TILECS Workshop. on July 4, Grenoble.
- P. Valduriez: "The Case for Hybrid Transaction Analytical Processing" on 25 April at IBM Research Brazil, Rio de Janeiro, Brazil; "Blockchain 2.0: opportunities and risks" on 14 Nov at Online Franco-African LIRIMA Seminar, Inria, Rennes; "Data-intensive Science" on 6 Nov. at HPC- AI-BigData Convergence Days (Conv'2019), EDF Lab Paris-Saclay; tutorial "NewSQl: principles, systems and trends" on 12 Dec at IEEE Bigdata 2019; participation in panel "Big Data Heterogeneity Challenges" on 11 Dec at IEEE Bigdata 2019; "Scalable transaction and polystore data management in LeanXcale" on 6 Dec at UC Berkeley and on 13 Dec at UCLA and UC Irvine.

- C. Pradal: "Multiscale plant modelling and Phenotyping" on 8 october at Tottori University and on 16 october at Nagoya University, Japan; workshop on plant modelling on 28 october at Tokyo University, Japan.

10.1.5. Leadership within the Scientific Community

- A. Joly: Scientific manager of the LifeCLEF research forum.
- A. Liutkus: elected member of the IEEE Technical Committee on Audio and Acoustic Signal Processing.
- P. Valduriez: President of the Steering Committee of the BDA conference.

10.1.6. Scientific Expertise

- F. Masseglia: expert for the HCERES evaluation of the DAVID Lab (UVSQ). January 2019.
- R. Akbarinia: expert for the French National Research Agency (ANR).
- A: Joly: scientific advisory board of the ANR program "AI for biodiversity", expert for the National HPC grand equipment (GENCI) "grand challenge" program, reviewer for STIC AmSud international program.
- E. Pacitti: reviewer for STIC AmSud international program.
- P. Valduriez: reviewer for STIC AmSud international program.
- P. Valduriez: reviewer for NSERC (Canada).
- C. Pradal: member of CSS EGBIP (Commissions Scientifiques Spécialisées) INRA.

10.1.7. Research Administration

- A. Joly: Technical director of the InriaSOFT consortium Pl@ntNet and representative of Inria in the steering committee.
- F. Masseglia: "Chargé de mission pour la médiation scientifique Inria" and head of Inria's national network of colleagues involved in science popularization.
- E. Pacitti: head of Polytech' Montpellier's Direction of Foreign Relationships.
- P. Valduriez: scientific manager for the Latin America zone at Inria's Direction of Foreign Relationships (DPEI).

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Most permanent members of Zenith teach at the Licence and Master degree levels at UM2.

Esther Pacitti:

> IG3: Database design, physical organization, 54h, level L3, Polytech'Montpellier, UM2
>
> IG4: Networks, 42h, level M1, Polytech' Montpellier, 50 students, UM2
>
> IG4: Distributed Databases, Big Data, 80h , level M1, Polytech' Montpellier, 50 students UM2
>
> IG5: Iot- Information Management, 27h, level M2, Polytech' Montpellier, 15 students, UM2
>
> Industry internship supervision and committees, level M2, Polytech' Montpellier, 40h

Patrick Valduriez:

> Professional: Distributed Information Systems, Big Data Architectures, 75h, level M2, Capgemini Institut

Alexis Joly:

> University of Montpellier: Machine Learning, 15h, level M2
>
> Polytech' Montpellier: Content-Based Image Retrieval, 4.5h, level M1
>
> AgroParisTech: Convolutional Neural Networks in Ecology and Agronomy, 2h, level M1
>
> InnObs technical school: Innovations in the observation of seasonal biological events and associated data management, 6h, professionals.

Antoine Liutkus

> University Paul Valery (Montpellier): multidimensional data analysis, 15h, level M1
>
> Polytech' Montpellier: Audio Machine Learning, 1.5h, level M1

10.2.2. Supervision

PhD & HDR:

> HDR: Reza Akbarinia, Parallel Techniques for Big Data Analytics, Univ. Montpellier, 24 May.
>
> PhD: Renan Souza, Massively Distributed Clustering, UFRJ, Brazil, 17 Dec. Advisors: Marta Mattoso (UFRJ), Patrick Valduriez.
>
> PhD: Mathieu Fontaine, Alpha-stable models for signal processing, IAEM, Nancy, 18 July. Advisors: Roland Badeau (Telecom Paris), Antoine Liutkus.
>
> PhD: Christophe Botella, Large-scale Species Distribution Modelling based on Citizen Science data, Montpellier, 8 October. started Oct 2016, Univ. Montpellier. Advisors: Alexis Joly, François Munoz (univ. of Grenoble), Pascal Monestiez (INRA).
>
> PhD in progress: Gaetan Heidsieck, Distributed Management of Scientific Workflows for High-Throughput Plant Phenotyping, started Oct 2017, Univ. Montpellier. Advisors: Esther Pacitti, Christophe Pradal, François Tardieu (INRA).
>
> PhD in progress: Heraldo Borges, Discovering Tight Space-Time Sequences, started Oct 2018, Univ. Montpellier. Advisors: Esther Pacitti, Eduardo Ogaswara.
>
> PhD in progress: Titouan Lorieul, Pro-active Crowdsourcing, started Oct 2016, Univ. Montpellier. Advisor: Alexis Joly.
>
> PhD in progress: Khadidja Meguelati, Massively Distributed Clustering, started Oct 2016, Univ. Montpellier. Advisors: Nadine Hilgert (INRA), Florent Masseglia.
>
> PhD in progress: Lamia Djebour, Parallel Time Series Indexing and Retrieval with GPU architectures, started Oct 2019, Univ. Montpellier. Advisors: Reza Akbarinia, Florent Masseglia.
>
> PhD in progress: Quentin Leroy, Active learning of unknown classes, started Oct 2019, Univ. Montpellier, Industrial contract with INA, Advisors: Alexis Joly

10.2.3. Juries

Members of the team participated to the following PhD or HDR committees:

- R. Akbarinia: Chao Zhang (Univ. Clermont Auvergne, reviewer)
- A. Joly: Christophe Botella (Univ. of Montpellier, advisor)
- F. Masseglia: Rebecca Pontes Salles (Master thesis of 2.5 years, CEFET, Rio de Janeiro), Ricardo Sperandio (Univ. Rennes, reviewer), Thibault Desprez (Univ. Bordeaux, reviewer).
- E. Pacitti: Daniel de Oliveira Junior (Univ. Federal Fluminense, Brazil)
- E. Pacitti: Heraldo Borges Phd qualification (CEFET, Brazil)
- P. Valduriez: Alexandru Costan (HDR, ENS Rennes, reviewer), Patricio Cerda (Univ. Paris Saclay, reviewer), Renan Souza (UFRJ, Rio de Janeiro, advisor)
- E. Pacitti: Selection Committe for professor position (University of Montpellier)

10.3. Popularization

10.3.1. Internal or external Inria responsibilities

F. Masseglia is "Chargé de mission auprès de la DGD-S Inria pour la médiation scientifique" (50% of his time) and heads Inria's national network of colleagues involved in science popularization.

10.3.2. Articles and contents

- F. Masseglia is co-author of [21], [40] on the feedback of Class'Code after 3 years of project and on a vision about future work for computational thinking education and computer science popularisation.
- A. Joly has given several interviews to different media giving rise to web articles about Pl@ntNet (see e.g. Google news with keyword Pl@ntNet).

10.3.3. Education

Computer science is, for the first time in France, an official discipline taught in high school (Lycée) with the common course about "Sciences Numériques et Technologie". As written by Inira's CEO Bruno Sportisse: *"For over a decade, the institute has carried out actions that have paved the way with the firm conviction that "training in and through digital technology" is strategic: I am thinking here, in particular, of the Class'Code project."*

F. Masseglia is the initiator, with Serge Abiteboul, of the program called "1 scientifique — 1 classe : Chiche !" with the goal of reaching *all* the students of a specific level. This massive plan should concern all scientists at Inria and our partners in France.

F. Masseglia was ambassador of Inria for the Science Celebration Day (Fête de la science):
- https://www.youtube.com/watch?v=13957C9FxVg
- https://www.youtube.com/watch?v=ypnQe91Pztc

F. Masseglia gave a one day training on the Thymio robot for education in the media library networkprofessionals. February 1. Montpellier. 18 attendees.

F. Masseglia gave a one day training to teachers of French National Education on computational thinking. March 12. Montpellier. 20 attendees.

F. Masseglia gave a one day training to teachers in pediatric hospitals (CHU Arnaud de Villeneuve). February 2. Montpellier. 10 attendees.

F. Masseglia gave two days of training to computer science, robotics and computational thinking to reference teachers ("conseillers pédagogiques"). April 15 & 16. Montpellier. 20 attendees.

F. Masseglia gave two days of training to the media library network professionals on Poppy Ergo Jr. June 28 & September 6. Montpellier. 11 attendees.

F. Masseglia is a member of the scientific committee of a conference cycle on "Science and Society" organised with MSHSud.

P. Valduriez gave an invited talk on "Succeed in your Ph.D. Thesis: good practices and return of experience" at the Ph.D. meeting at LIRIS, Lyon, on Dec 11.

A. Joly was a member of the scientific advisory board of the AI Family Challenge organized by the NGO Iridescent that "supports girls, children, and their families to identify problems in their communities and find technology based solutions".

He organized an educational outing at the Montpellier Botanical Garden as part of the summer school organized each year by Polytech Montpellier (June 11). He participated in the organization and animation of the "wild salad" training organized by the association "Les écologistes de l'Euzière" 13-15 March.

10.3.4. Interventions

F. Masseglia participated in the LIRMM events on science popularisation ("Fête de la science" on Feb 19, "accueil de stagiaires" on Oct 11), Montpellier.

A. Joly participated in: the animation of the Inria stand at the SIDO exhibition (April 10-11, Lyon); the Pl@ntNet launch ceremony in Costa Rica in the presence of the Minister of Research and decision-makers (April 20).

E. Pacitti participated in Polytech'Montpellier International Summer School (Flow) on the subject of Data Science - Plant Phenotyping.

A. Joly participated in the day "Ramène ta science" co-organized by TelaBotanica and "Sciences Avenir" associations at the Halle Tropisme in Montpellier (as part of the Labbota initiative). He co-facilitated a participatory workshop and a debate with citizens on the theme of participatory science.

10.3.5. Creation of media or tools for science outreach

In the context of the Floris'tic project, A. Joly participates regularly to popularization, educational and citizen science actions in France (with schools, cities, parks, associations, etc.). The softwares developed within the project (Pl@ntNet, Smart'Flore and ThePlantGame) are used in a growing number of formal educational programs and informal educational actions of individual teachers. For instance, Smart'Flore is used by the French National Education in a program for reducing early school leaving. Pl@ntNet app is used in the Reunion island in an educational action called Vegetal riddle organized by the Center for cooperation at school. It is also used in a large-scale program in Czech republic and Slovakia (with a total of 100 classrooms involved in the program). An impact study of the Pl@ntNet application did show that 6% of the respondents use it for educational purposes in the context of their professional activity.

F. Masseglia participated in the work group on "Jeu des 7 familles de l'informatique". This card game provides support for education to computer science from the history point of view.

A. Joly actively participates to the design and development of all Pl@ntNet dissemination tools in particular Pl@ntNet web site that contains contents for the press, articles for the general public, tutorials of Pl@ntNet tools, guidelines for users of the API, etc.

<div align="center">

ALICE Team

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10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events: Organisation

The team has organized the "2nd Workshop of the Grand-Est in Computer Graphics and Virtual Reality" (50 participants).

10.1.2. Scientific Events: Selection

10.1.2.1. Member of the Conference Program Committees

Members of the team were IPC members for SPM and ISVC.

10.1.2.2. Reviewer

Members of the team were reviewers for Eurographics, SIGGRAPH, SIGGRAPH Asia, ISVC, Pacific Graphics, and SPM.

10.1.3. Journal

10.1.3.1. Reviewer - Reviewing Activities

Members of the team were reviewers for Computer Aided Design (CAD), Journal of Computational Physics (Elsevier), Transactions on Visualization and Computer Graphics (IEEE), Transactions on Graphics (ACM), and Computers & Graphics (Elsevier).

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Licence : Dobrina Boltcheva, Computer Graphics, 30h, 3A, IUT Saint-Dié-des-Vosges

Licence : Dobrina Boltcheva, Advanced Object Oriented Programming & UML, 60h, 2A, IUT SaintDié-des-Vosges

Licence : Dobrina Boltcheva, Advanced algorithmics, 50h, 2A, IUT Saint-Dié-des-Vosges

Licence : Dobrina Boltcheva, Image Processing, 30h, 2A, IUT Saint-Dié-des-Vosges

Licence : Dobrina Boltcheva, UML Modeling, 20h, 1A, IUT Saint-Dié-des-Vosges

Licence : Dobrina Boltcheva, Algorithmics, 30h, 3A, PolyTech Nancy

Licence : Dobrina Boltcheva, Computer Graphics, 12h, 5A, PolyTech Nancy

Licence : Dmitry Sokolov, Computer Graphics, 12h, 5A, PolyTech Nancy

Licence : Dmitry Sokolov, C++, 40h, 2A, University of Lorraine

Licence : Dmitry Sokolov, Programming, 30h, 1A, University of Lorraine

Licence : Dmitry Sokolov, Logic, 30h, 3A, University of Lorraine

Master : Dmitry Sokolov, Logic, 22h, M1, University of Lorraine

Master : Dmitry Sokolov, 3D printing, 12h, M2, University of Lorraine

Master : Dmitry Sokolov, Numerical modeling, 12h, M2, University of Lorraine

10.2.2. Supervision

PhD in progress: Justine Basselin, *"Reconstruction of buildings from 3D point clouds"*, since December 2019, Dmitry Sokolov, Nicolas Ray and Hervé Barthélémy.

PhD in progress: François Protais, *"Polycube-dominant meshing"*, since October 2019, Dmitry Sokolov and Franck Ledoux.

10.2.3. Juries

Dmitry Sokolov participated in the PhD jury of Lucas Morlet as an examinator.

10.3. Popularization

Dmitry Sokolov continues to develop TinyRenderer [0] computer graphics lectures. More than 1M views in 2019, 14k GitHub stars in total.

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[0] https://github.com/ssloy/tinyrenderer/wiki

AVIZ Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events: Organisation

10.1.1.1. General Chair, Scientific Chair

- Steve Haroz is a co-founder and co-organizer of Transparent Statistics in Human-Computer Interaction.
- Steve Haroz co-organized the Visualization for Communication 2019 workshop (http://viscomm.io).
- Petra Isenberg co-organized a Dagstuhl seminar on Mobile Data Visualization (https://www.dagstuhl.de/19292).
- Petra Isenberg co-organized a tutorial at the Ubicomp conference about Visualization for Ubicomp.
- Jean-Daniel Fekete co-organized a Shonan seminar on Interactive Visualization for Interpretable Machine Learning (https://shonan.nii.ac.jp/seminars/161/).

10.1.1.2. Member of the Organizing Committees

- Steve Haroz was Open Practices chair of the IEEE Information Visualization conference (until July 2019).
- Jean-Daniel Fekete was a member of the VGTC Best Thesis Award 2019.
- Tanja Blascheck was Video and Demo co-chair for ETRA 2019.
- Tanja Blascheck was Publicity chair for VISSOFT 2019.
- Petra Isenberg is a member of the IEEE reVISe committee 2019–2020.
- Petra Isenberg is the ACM SigCHI Paris Treasurer (2017–2019)
- Jean-Daniel Fekete was associate editor-in-chief of TVCG, liaison with the IEEE VIS paper chairs.

10.1.2. Scientific Events: Selection

10.1.2.1. Chair of Conference Program Committees

- Petra Isenberg was paper chair for IEEE Information Visualization

10.1.2.2. Member of the Conference Program Committees

- Jean-Daniel Fekete was a member of the program committee for VIS.
- Petra Isenberg was a member of the ACM CHI program committee.
- Tobias Isenberg was a member of the program committee for IEEE SciVis, IVAPP, ACM/Eurographics Expressive, TrustVis Workshop, EuroVis, ACM IUI, IEEE VR.
- Pierre Dragicevic was a member of the program committee for InfoVis.
- Paola Valdivia was a member of the program committee for Short Papers of VIS.
- Tanja Blascheck was a member of the program committee for VMV, LEVIA, VISSOFT, EuroVis Posters, EuroVis Short Papers, ETRA, ETVIS, VAST.

10.1.2.3. Reviewer

- Steve Haroz reviewed for CHI, VIS
- Jean-Daniel Fekete reviewed for CHI
- Tobias Isenberg reviewed for EuroVis, ACM/Eurographics Expressive, ACM IUI, ACM SIGGRAPH, IEEE PacificVis, TrustVis, ACM UIST, IEEE VIS, IEEE VR

- Pierre Dragicevic reviewed for CHI, VIS, Interact, IHM
- Tanja Blascheck reviewed for LEVIA, VMV, VISSOFT, VAST, EuroVis, PacificVis, ETRA, ETVIS, CHI, EuroVA, PacificVAST, VAST Challenge, Vision X Vis, Vis Short Papers
- Paola Valdivia reviewed for Short Papers of VIS 2019
- Xiyao Wang reviewed for CHI, VR, ICMI, MobileHCI, Vis
- Petra Isenberg reviewed for CHI, EuroVis

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

- Pierre Dragicevic is member of the editorial board of the Journal of Perceptual Imaging (JPI) and the Springer Human–Computer Interaction Series (HCIS).
- Jean-Daniel Fekete is associate editor-in-chief of IEEE Transactions on Visualization and Computer Graphics.
- Petra Isenberg is associate editor of IEEE Transactions on Visualization and Computer Graphics.
- Petra Isenberg is associate editor-in-chief at IEEE Computer Graphics & Applications.
- Tobias Isenberg is member of the editorial board of Elsevier's Computers & Graphics journal.

10.1.3.2. Reviewer - Reviewing Activities

- Steve Haroz reviewed for Cognition, Advances in Methods and Practices in Psychological Science, and Meta-Psychology
- Jean-Daniel Fekete reviewed for TVCG
- Tobias Isenberg reviewed for C&G, TIIS, TVCG
- Pierre Dragicevic reviewed for TVCG, CG&A, IV, Behavior & Information Technology, JPI
- Tanja Blascheck reviewed for IWC, TOCCHI, TVCG
- Petra Isenberg reviewed for TVCG

10.1.4. Invited Talks

- Steve Haroz: "How the Brain Perceives and Remembers Quantities". Graphics Hunters Show Conference - Utrecht, The Netherlands.
- Steve Haroz: "How the Brain Perceives and Remembers Quantities". Ecole Normal Superior. Paris, France.
- Steve Haroz: "How the Brain Perceives and Remembers Quantities". Keynote at VisCrowd 2019. Clermont-Ferrand, France.
- Steve Haroz: "How the Brain Perceives and Remembers Quantities". Datarama 2019. Nantes, France.
- Steve Haroz: "Set Comparison Is Imprecise and Prone to Bias". VisXVision workshop at IEEE VIS 2019. Vancouver, Canada.
- Steve Haroz: "Transparency in Empirical Research". Panel talk at IEEE VIS 2019. Vancouver, Canada.
- Steve Haroz: "Using Open Science to Improve Credibility in Visualization, HCI, and Vision Science Research". SFB/TRR 161. Waldachtal, Germany.
- Jean-Daniel Fekete: "Practical Use Cases for Progressive Visual Analytics", Seminar at Shandong University, Qingdao, China, Nov. 26, 2019
- Jean-Daniel Fekete: "Dynamic Social Networks and Progressive Data Analysis", Seminar at Ochan-omizu University, Tokyo, Japan, Nov. 22, 2019
- Jean-Daniel Fekete: "Advances in Network Visualization", Keynote at MARAMI 2019, Dijon, France, Nov. 8, 2019

- Jean-Daniel Fekete: "Multidimensional Projection at Scale on the Web: Tips and Tricks", Keynote of the HILDA 2019 Workshop, Amsterdam, The Netherlands, July 5th, 2019.

- Jean-Daniel Fekete: "Exploration visuelle d'hypergraphes dynamiques", Seminar at INED, Paris, France, June 18th, 2019.

- Jean-Daniel Fekete: "Données, humanité(s), démarche scientifique", Panel at Inria Scientific Days 2019, Lyon, France, June 6th, 2019.

- Jean-Daniel Fekete: "Analyzing the Evolution of Relationships with Dynamic Hypergraphs", Invited Talk, University of Delft, Delft, The Netherlands, Apr. 8th, 2019

- Jean-Daniel Fekete: "Analyzing the Evolution of Relationships with Dynamic Hypergraphs", Invited Talk, EHESS, Paris, France, Apr. 3, 2019

- Jean-Daniel Fekete: "Multidimensional Projection at Scale on the Web: Tips and Tricks", Invited Talk, VISUS Group, Univ. of Stuttgart, Stuttgart, Germany, Mar. 1, 2019

- Tobias Isenberg: "Interactive 3D Data Exploration", TU Dresden, Germany, Dec, 6, 2019

- Tobias Isenberg and Xiyao Wang: "VR and AR Visualizations in High-Energy Physics", Learning to Discover: Advanced Pattern Recognition Workshop, Institut Pascal, Orsay, France, Oct. 18, 2019

- Tobias Isenberg: "Carnivorous Plants and How to Visualize their Habitats based on Social Media Data", VieVisDays, TU Wien, Austria, Aug. 20, 2019

- Tobias Isenberg and Xiyao Wang: "Understanding TrackML Results with a Visualization System using a PC + HoloLens Hybrid", TrackML workshop at CERN, Geneva, Switzerland, Jul. 1, 2019

- Tobias Isenberg: "Illustrative Visualization and Interactive Exploration of Three-Dimensional Scientific Data", Synchrotron SOLEIL, France, May. 20, 2019

- Tobias Isenberg: "Illustrative Visualization and Interactive Exploration of Three-Dimensional Scientific Data", Shandong University, Qingdao, China, Feb. 24, 2019

- Tanja Blascheck: "Understanding Interactive Visualizations", Inria Sophia-Antipolis, Nice, France, January 2019.

- Petra Isenberg: "Top Research Questions for Empirical Studies in Visualization", Panel statement given at IEEE VIS 2019, Vancouver, Canada.

- Petra Isenberg: "Physical, Contextual, and Full of Value? What do novel directions in Visualization teach us about judging the value of visualization?", GiCentre Seminar Talk, City, University of London, UK

- Petra Isenberg: "Physical, Contextual, and Full of Value? What do novel directions in Visualization teach us about judging the value of visualization?", Keynote at BioVis 2019 at the ISMB conference in Basel, Switzerland

10.1.5. Leadership within the Scientific Community

- Jean-Daniel Fekete was the chair of the EuroVis 2019 Best PhD Award.

- Petra Isenberg and Tobias Isenberg are members of the International Beliv workshop steering committee.

- Tobias Isenberg is a member of the steering comittee for ACM/Eurographics Expressive Graphics.

10.1.6. Research Administration

- Petra Isenberg was vice-president of the Inria Saclay CR hiring committee

- Pierre Dragicevic is Member of the Commission Consultative de Spécialistes de l'Université Paris-Sud (CCSU).

- Pierre Dragicevic is co-chair of the DataSense Axis of the Labex DigiCosme.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Master : Petra Isenberg, Interactive Information Visualization, 21h en equivalént, niveau (M1, M2), Univeristé Paris Sud, France.

Master : Petra Isenberg, Graphisme et Visualisation, 24h en equivalént TD, niveau (M2), Polytech Paris-Sud, France.

Master : Petra Isenberg, Visual Analytics, 48 equivalént, niveau (M2), CentraleSupelec, France.

Licence : Tobias Isenberg, "Introduction to Computer Graphics", 12h en équivalent TD, L3, Polytech Paris-Sud, France.

Master : Tobias Isenberg, "Photorealistic Rendering/Advanced Computer Graphics", 21h en équivalent TD, M1, Polytech Paris-Sud and Université Paris-Saclay, France.

10.2.2. Supervision

PhD in progress: Alexis Pister, *Exploration, analyse, interprétabilité de larges réseaux historiques*, Université Paris-Saclay, defense planned for 2022, Jean-Daniel Fekete, Christophe Prieur, Inria.

PhD in progress: Yuheng Feng, *Visualisation pour l'analyse progressive"*, Université Paris-Saclay, defense planned for 2022, Jean-Daniel Fekete, Université Paris-Saclay

PhD in progress: Mickaël Sereno, *Collaborative Data Exploration and Discussion Supported by AR*, Univ. Paris-Sud, defense planned for September 2021, Tobias Isenberg

PhD in progress: Xiyao Wang, *Augmented Reality Environments for the Interactive Exploration of 3D Data*, Univ. Paris-Sud, defense planned for October 2020, Tobias Isenberg

PhD in progress: Sarkis Halladjian, *Spatially Integrated Abstraction of Genetic Molecules*, Univ. Paris-Sud; defense planned for September 2020, Tobias Isenberg

PhD: Haichao Miao, *Geometric Abstraction for Effective Visualization and Modeling*, TU Wien, Austria, August 5, 2019, supervised by Ivan Viola, co-supervised by Ivan Barišic, Tobias Isenberg, and Eduard Gröller.

PhD in progress: Mohamad Alaul Islam: *MicroVisualization for mobile and ubiquitous data exploration*, Université Paris-Saclay, defense planned for 2022, Petra Isenberg and Jean-Daniel Fekete.

PhD in progress: Natkamon Tovanich: *Blockchain Visual Analytics*, defense planned for 2021, Université Paris-Saclay, Petra Isenberg and Jean-Daniel Fekete.

10.2.3. Juries

- Pierre Dragicevic: PhD proposal evaluation committee of Luiz Morais (Universidade Federal de Campina Grande, Brésil).
- Pierre Dragicevic: Reviewer for Hu Xi's M2 internship.
- Pierre Dragicevic: Co-Supervisor for Yumin Hong's M2 internship.
- Pierre Dragicevic: Reviewer for Talent Doctoral Fellowship Programme at the University of Copenhagen.
- Pierre Dragicevic: Reviewer for ATER 2019 applications at the Université Paris Saclay.
- Petra Isenberg: Reviewer for GRIOUI Fairouz M2 internship.
- Jean-Daniel Fekete: Member of the PhD committee of Dr. Philip Tchernavskij
- Jean-Daniel Fekete: Member of the PhD committee of Dr. Hugo Romat.
- Jean-Daniel Fekete: Member of the PhD committee of Dr. Sriram Karthik Badam.
- Jean-Daniel Fekete: Member of the PhD committee of Dr. Nicola Pezzotti.

10.3. Popularization

10.3.1. Articles and contents

- Steve Haroz's twitter account on a broad range of topics including open science, visualization, and visual perception have been viewed over 1.1 million times and received over 30,000 engagements in the form of clicks, likes, and retweets in 2019.

- Steve Haroz maintains a website cataloging openly accessible papers and research materials in visualization research. Open Access Vis has averaged 2,000 unique visitors per year for the past three years.

- Steve Haroz maintains a research website receiving 5,000 unique visitors and a blog on research receiving 2,000 unique visitors in 2019.

- Pierre Dragicevic and Yvonne Jansen: the data physicalization wiki and the List of Physical Visualizations and Related Artefacts (600 weekly visits) are continuously being updated.

- Matthew Brehmer wrote a Medium article "Visualizing Trends on Mobile Phones: Animation or Small Multiples?" on an Aviz co-authored publication https://medium.com/multiple-views-visualization-research-explained/mobiletrendvis-a948fa65bccd

10.3.2. Interventions

- Lonni Besançon gave a TEDx talk on work conducted at Aviz with Pierre Dragicevic and Tobias Isenberg [11]. Watch the talk here: https://www.youtube.com/watch?v=pDHomZ8FEoU.

- Jean-Daniel Fekete: Panel at Imaginascience 2019, « Faire parler les données : le défi de la data visualisation », Annecy, October 16, 2019

10.3.3. Creation of media or tools for science outreach

Petra Isenberg collaborated on research to develop a visualization tool to better understand clustering algorithms. The tool is available at https://educlust.dbvis.de/.

<p style="text-align:center">**EX-SITU Project-Team**</p>

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific Events: Selection

9.1.1.1. Member of the Conference Program Committees

- ACM CHI 2020, *ACM CHI Conference on Human Factors in Computing Systems*: Theophanis Tsandilas
- ACM UIST 2019, *ACM Symposium on User Interface Software and Technology*: Michel Beaudouin-Lafon, Wendy Mackay
- ACM VRST 2019, *ACM Symposium on Virtual Reality Software and Technology*: Cédric Fleury
- EuroVR 2019, *EuroVR International Conference*: Cédric Fleury
- MOCO 2019, *International Conference on Movement and Computing*: Sarah Fdili Alaoui, Baptiste Caramiaux
- IHM 2019, *Conférence Francophone d'Interaction Homme-Machine*: Sarah Fdili Alaoui

9.1.1.2. Reviewer

- ACM CHI 2019-20, *ACM CHI Conference on Human Factors in Computing Systems*: Sarah Fdili Alaoui, Cédric Fleury, Baptiste Caramiaux, Michel Beaudouin-Lafon, Wendy Mackay, Julien Gori, Alexander Eiselmayer
- ACM UIST 2019, *ACM Symposium on User Interface Software and Technology*: Theophanis Tsandilas, Cédric Fleury, Julien Gori
- ACM DIS 2019, *Designing Interactive Systems*: Baptiste Caramiaux, Sarah Fdili Alaoui
- ACM ACII, : Baptiste Caramiaux
- IEEE VIS 2019, *IEEE Visualization Conference*: Theophanis Tsandilas, Michel Beaudouin-Lafon
- IEEE VR 2019-20, *Virtual Reality Conference*: Cédric Fleury
- ACM ISS 2019, *ACM International Conference on Interactive Surfaces and Spaces*: Theophanis Tsandilas
- ACM MobileHCI (2019) *The Conference on Human-Computer Interaction with Mobile Devices and Services*: Julien Gori
- ACM NordiCHI (2018) *The Nordic Conference on Human-Computer Interaction*: Julien Gori
- EURASP Eusipco (2019) *European Signal Processing Conference*: Julien Gori
- IEEE SMC (2018) *IEEE International Conference on Systems, Man, and Cybernetics*: Julien Gori
- ACM CHIPLAY 2019, *ACM SIGCHI Annual Symposium on Computer-Human Interaction in Play*: Viktor Gustafsson
- IHM 2019, *Conférence Francophone d'Interaction Homme-Machine*: Theophanis Tsandilas, Wendy Mackay

9.1.2. Journal

9.1.2.1. Member of Editorial Boards

- Editor for the Human-Computer Interaction area of the ACM Books Series (published with Morgan & Claypool Publishers): Michel Beaudouin-Lafon (2013-)

- TOCHI, *Transactions on Computer Human Interaction*, ACM: Michel Beaudouin-Lafon (2009-), Wendy Mackay (2016-), Baptiste Caramiaux (2019-)
- PloS ONE: Baptiste Caramiaux (2018-)
- JIPS, *Journal d'Interaction Personne-Système*, AFIHM: Michel Beaudouin-Lafon (2009-)
- Frontiers in *Virtual Reality*: Cédric Fleury (2019-)

9.1.2.2. Reviewer - Reviewing Activities

- TOCHI, *Transactions on Computer Human Interaction*, ACM: Theophanis Tsandilas, Julien Gori
- ACM Books Series: Theophanis Tsandilas
- Frontiers in *Robotics and AI*, Virtual Environments section: Cédric Fleury

9.1.3. Invited Talks

- CIO Workshop, Sanderberg, Denmark *Generative Theories of Interaction (in the making)*, 23 January 2019: Michel Beaudouin-Lafon, Susanne Bødker, and Wendy Mackay
- Colloque CNRS Humain et Numérique en Interaction, Paris, *Aura-t-on encore besoin d'interagir avec des ordinateurs ?*, February 2019: Michel Beaudouin-Lafon
- Stanford University, Palo Alto CA *Human-Computer Partnerships*, 27 February 2019: Wendy Mackay
- IHM & AI Workshop, Paris *Partenariats Homme-Machines*, 14 March 2019: Wendy Mackay
- DYSTOPIA, Paris, *L'IA nous rendra-t-elle inhumains ?*, March 2019: Michel Beaudouin-Lafon
- Stanford University, *Unified Principles of Interaction*, March 2019: Michel Beaudouin-Lafon
- CHI 2019 Panel, Glasgow, Scotland *Rigor, Relevance and Impact: The Tensions and Trade-Offs Between Research in the Lab and in the Wild*, April 2019: Wendy Mackay
- MIT CSAIL, *Unified Principles of Interaction*, May 2019: Michel Beaudouin-Lafon
- SystemX, Paris *Partenariats Homme-Machines*, 29 May 2019: Wendy Mackay
- ESPGG, Open Lab Days, *Human-centred Machine Learning in Creative Applications*, June 2019: Baptiste Caramiaux
- University of London Institute, *AI in the Media and Creative Industries*, June 2019: Baptiste Caramiaux
- Aachen University Graduation Keynote *Human-Computer Partnerships*, 17 June 2019: Wendy Mackay
- Creative Industries & AI, Paris *Human-Computer Partnerships*, 21 June 2019: Wendy Mackay
- User Interfaces group, Aalto University, Finland, *A new take on the speed-accuracy tradeoff of Aimed Movements – Implications and Applications for HCI*, October 2019: Julien Gori
- ACM UIST Symposium, New Orleans, Visions talk *A World Without Apps*, October 2019: Michel Beaudouin-Lafon
- AI & Gender Equality Seminar, UNESCO, Paris *Does AI introduce new risks and opportunities for gender equality?*, 2 November, 2019: Wendy Mackay
- LIMSI, *Human-centred Machine Learning*, Novembre 2019: Baptiste Caramiaux
- University of Toronto TUX Sanders Series Talk, *Unified Principles of Interaction*, November 2019: Michel Beaudouin-Lafon
- IRCAM Paris, *State of The art of tools supporting dance learning*, ELEMENT workshop, 2019: Sarah Fdili Alaoui
- ENSAD, Paris, *Live Coding with interactive movement based technologies*, Virtual creativity collective realities, 2019: Sarah Fdili Alaoui

- Aarhus, Danemark, *Live Coding with interactive movement based technologies*, Performing Art Platform, 2019: Sarah Fdili Alaoui
- Aarhus University, Danemark, *Crafting dance and technologies*, 2019: Sarah Fdili Alaoui
- Conservatory of Vicenza, Italy, Workshop on *Music dance and interaction*, 2019: Sarah Fdili Alaoui
- Conservatory of Vicenza, Italy, Master class of *Creation with technologies*, 2019: Sarah Fdili Alaoui
- Stereolux, Nantes, France, Workshop on *Live Coding with interactive movement based technologies* at LAB-DAYS - MovA, 2019: Sarah Fdili Alaoui

9.1.4. Leadership within the Scientific Community

- Information Science and Technology (STIC) Department, Université Paris-Saclay: Michel Beauouin-Lafon (chair since June 2018), Wendy Mackay (member)
- Research division, Université Paris-Saclay: Michel Beaudouin-Lafon (advisor for Digital Sciences since June 2018)
- Digiteo RTRA research network, Université Paris-Saclay: Michel Beauouin-Lafon (director since June 2018)
- Computer Science Department, Université Paris-Sud: Michel Beaudouin-Lafon (vice-President for research)
- ACM Technology Policy Council: Michel Beaudouin-Lafon (vice-chair)

9.1.5. Scientific Expertise

International

- HCERES Evaluation: Wendy MAckay, external expert
- NSERC Evaluation: Michel Beaudouin-Lafon, external expert
- ACM SIGCHI "Lifetime Service Award" committee chair: Michel Beaudouin-Lafon
- ACM "Policy Award" committee adjunct chair: Michel Beaudouin-Lafon

National

- CNRS INS2I "Cellule ERC": Michel Beaudouin-Lafon, member
- Agence Nationale de la Recherche (ANR), Appel à projets génériques: Sarah Fdili Alaoui, reviewer

9.1.6. Research Administration

Telecom ParisTech, "Comité de la recherche": Michel Beaudouin-Lafon (member)

"Conseil de Laboratoire", LRI: Wendy Mackay, Cédric Fleury (members)

"Commission consultatives paritaires (CCP)" Inria: Wendy Mackay (President)

"Conseil Scientifique", LRI: Michel Beaudouin-Lafon (member)

CCSU, "Commission Consultative de Spécialistes de l'Université", Université Paris-Sud: Michel Beaudouin-Lafon, Wendy Mackay (members)

"Commission Locaux", LRI: Theophanis Tsandilas (member)

"Commission Scientifique", Inria: Theophanis Tsandilas (member)

"Jury de recrutement, Maître de Conférences", Télécom ParisTech: Michel Beaudouin-Lafon (member)

"Assessment committee for associate professors", Aarhus University: Michel Beaudouin-Lafon (member)

"Comité de sélection, Maître de Conférences", Université Paris-Sud: Cédric Fleury

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

International Masters: Theophanis Tsandilas, *Probabilities and Statistics*, 32h, M1, Univ. Paris-Saclay

Interaction & HCID Masters & Innovation and Entrepreneurship Minor: Sarah Fdili Alaoui, Coordinator

HCID Masters: Sarah Fdili Alaoui, *Innovation & Entrepreneurship Advanced*, 15h, M2, Univ. Paris-Sud

HCID Masters: Michel Beaudouin-Lafon, Wendy Mackay, *Fundamentals of Situated Interaction*, 21 hrs, M1/M2, Univ. Paris-Sud

Interaction & HCID Masters: Sarah Fdili Alaoui, *Creative Design*, 27h, M1 et M2, Univ. Paris-Sud

Interaction & HCID Masters: Michel Beaudouin-Lafon, *Fundamentals of Human-Computer Interaction*, 21 hrs, M1/M2, Univ. Paris-Sud

Interaction & HCID Masters: Michel Beaudouin-Lafon & Cédric Fleury, *Groupware and Collaborative Interaction*, 31.5 hrs, M1/M2, Univ. Paris-Sud

Interaction & HCID Masters: Wendy Mackay, *Career Seminar* 6 hrs, M2, Univ. Paris-Sud

Interaction & HCID Masters: Wendy Mackay, *Design of Interactive Systems*, 21 hrs, M1/M2, Univ. Paris-Sud

Interaction & HCID Masters: Wendy Mackay, *Advanced Design of Interactive Systems*, 21 hrs, M1/M2, Univ. Paris-Sud

Interaction & HCID Masters: Baptiste Caramiaux, *Gestural and Mobile Interaction*, 24 hrs, M1/M2, Univ. Paris-Sud

Polytech: Cédric Fleury, *Projet Java-Graphique-IHM*, 24 hrs, 3st year, Univ. Paris-Sud

Polytech: Cédric Fleury, *Interaction Homme-Machine*, 18 hrs, 3st year, Univ. Paris-Sud

Polytech: Cédric Fleury, *Option Réalité Virtuelle*, 56 hrs, 5th year, Univ. Paris-Sud

Polytech: Cédric Fleury, *Réalité Virtuelle et Interaction*, 48 hrs, "Apprentis" 5th year, Univ. Paris-Sud

9.2.2. Supervision

PhD students

PhD: Philip Tchernavskij, *Designing and Programming Malleable Software*, Université Paris-Saclay, 3 December 2019. Advisors: Michel Beaudouin-Lafon

PhD: Yujiro Okuya, *CAD Modification Techniques for Design Reviews on Heterogeneous Interactive Systems*, 8 November 2019. Advisors: Patrick Bourdot (LIMSI-CNRS) & Cédric Fleury

PhD: Anna Gogolou, *Iterative and Expressive Querying for Big Data Series*, 15 November 2019. Advisors: Anastasia Bezerianos (ILDA-Inria), Themis Palpanas (Université Paris-Descartes) & Theophanis Tsandilas

PhD in progress: Stacy (Shu-Yuan) Hsueh, *Embodied design for Human-Computer Co-creation*, November 2015. Advisors: Wendy Mackay & Sarah Fdili Alaoui

PhD in progress: Jean-Philippe Rivière, *Embodied Design for Human-Computer Partnership in Learning Contexts*, October 2017. Advisors: Wendy Mackay, Sarah Fdili Alaoui & Baptiste Caramiaux

PhD in progress: Yiran Zhang, *Telepresence for remote and heterogeneous Collaborative Virtual Environments*, October 2017. Advisors: Patrick Bourdot (LIMSI-CNRS) & Cédric Fleury

PhD in progress: Téo Sanchez, *Co-Learning in Interactive Systems*, September 2018. Advisors: Baptiste Caramiaux & Wendy Mackay

PhD in progress: Elizabeth Walton, *Inclusive Design in Embodied Interaction*, November 2018. Advisor: Wendy Mackay

PhD in progress: Miguel Renom, *Theoretical bases of human tool use in digital environments*, October 2018. Advisors: Michel Beaudouin-Lafon & Baptiste Caramiaux

PhD in progress: Han Han, *Participatory design of digital environments based on interaction substrates*, October 2018. Advisor: Michel Beaudouin-Lafon

PhD in progress: Viktor Gustafsson, *Co-adaptive Instruments fo Game Design*, October 2018. Advisor: Wendy Mackay

PhD in progress: Yi Zhang, *Generative Design using Instrumental Interaction, Substrates and Co-adaptive Systems*, October 2018. Advisor: Wendy Mackay

PhD in progress: Martin Tricaud, *Instruments and Substrates for Procedural Creation Tools*, October 2019. Advisor: Michel Beaudouin-Lafon

PhD in progress: Arthur Fages, *Collaborative 3D Modeling in Augmented Reality Environments*, December 2019. Advisors: Cédric Fleury & Theophanis Tsandilas

Masters students

Clément Sauvard, "*Designing 3D Scenes with multiple AR views*": Cédric Fleury & Theophanis Tsandilas

Cyril Crebouw, "*Remote collaboration across wall-sized displays*": Cédric Fleury & Michel Beaudouin-Lafon

Ellen Sigloch, "*Prototips website*": Wendy Mackay

Yuyan Jing, "*Coadaptive Map: A Design tool for GIS users*": Wendy Mackay

Alina Nicolae, "*TweakyTemplate: Reifying template tweaks for book design*": Wendy Mackay

Wuji Geng, "*Studies of the Interaction Museum: The gap between HCI research and practice*": Wendy Mackay

Xi Hu, "*Motion Palette: Motion Exploration Support Tool for Dynamic Visual Effects*": Wendy Mackay

Siba Siddique, "*Investigating User Decision in Human-AI Interaction*": Baptiste Caramiaux

9.2.3. Juries

PhD theses

Sylvain Pauchet, University of Toulouse/ENAC "*From surface to surface: Transformations de surface tactile pour l'interaction incarnée dans le cockpit*" (advisor: Stéphane Conversy): Wendy Mackay, reviewer

Hugo Scurto, IRCAM/Sorbonne University "*Designing With Machine Learning for Interactive Music Dispositifs*" (advisor: Frédéric Bevilacqua): Wendy Mackay, reviewer

Emmanouil Giannisakis, Télécom ParisTech, "*Promoting and characterizing the menu to keyboard shortcuts transition*" (advisor: Gilles Bailly): Theophanis Tsandilas, examiner

Julien Casarin, Université de Strasbourg, "*Proposition d'un protocole web pour la collaboration multi-support en environnement 3D*" (advisor: Dominique Bechman): Michel Beaudouin-Lafon, president

Emmanouil Potetsianakis, Télécom ParisTech, "*Amélioration des applications vidéo grâce aux métadonnées temporelles*" (advisor: Jean Le Feuvre): Michel Beaudouin-Lafon, examiner

Maxime Garcia, Université Grenoble Alpes, Inria Rhones Alpes, "*Transfert d'animation : animer des personnages virtuels par le jeu et le mime*" (advisor: Rémi Ronfard): Sarah Fdili Alaoui, invited examiner

9.3. Popularization

9.3.1. Articles and contents

- Radio show "Les P'tits Bateaux" on France Inter public radio: Michel Beaudouin-Lafon (interviews in response to children questions on 5 May, 30 June, 18 August, 24 November 2019)

9.3.2. Education

- Chapter about the Web in a textbook for high-school students: Michel Beaudouin-Lafon [36]

9.3.3. Interventions

- Presentation of research work on dance movement during the dance show "Frame(d)", at Micadance (25 May 2019) and SUAPS Paris-Sud (June 2019): Rivière Jean-Philippe

- Université Paris-Saclay Learning Center: art-science project with photographer Didier Goupy presenting the portraits of Ph.D students of Université Paris-Saclay. Ph.D. graduation ceremony, Université Paris-Saclay, June 2019; Fête de la Science, Gif-sur-Yvette, October 2019

<p align="center" style="color:red">GRAPHDECO Project-Team</p>

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific Events: Organisation

9.1.1.1. Member of the Organizing Committees

V. Deschaintre is the Web chair of EGSR 2020.

9.1.2. Scientific Events: Selection

9.1.2.1. Member of the Conference Program Committees (PC)

Y. Gryaditskaya was a PC member of Computational Visual Media Conference (CVM) 2020. A. Bousseau was a PC member for SIGGRAPH '19, Eurographics'19 and SMI'19. G. Drettakis was a member of the PC of Pacific Graphics'19 and EGSR'19 and participated in the papers sort for SIGGRAPH'19 in January in Zurich.

9.1.3. Journal

9.1.3.1. Member of the Editorial Boards

- George Drettakis is an Associate Editor of Computational Visual Media (CVM).

9.1.3.2. Reviewer - Reviewing Activities

Y. Gryaditskaya was a reviewer for IEEE Transactions on Image Processing (TIP), T. Stanko for Computer Aided Geometric Design journal, V. Deschaintre for SIGGRAPH Asia, Eurographics papers and STARs, R. Deeb for JOSA A, Optics express and CVIU and T. Thonat for Computer and Graphics.

9.1.4. Invited Talks

- Y. Gryaditskaya and V. Deschaintre gave invited talks at Ecole Polytechnique in July 2019.
- V. Deschaintre gave an invited talk at the Materials and Appearance Modelling workshop in Strasbourg in July.
- J. Philip and G. Drettakis gave an invited talk on multi-view relighting using a geometry-aware network at NASA Jet Propulsion Laboratory, Pasadena in July 28th, 2019.
- A. Bousseau gave a Thinkshell Architectural Geometry Lesson, Navier Laboratory (Paris, France), "Interpreting Drawings for 3D Design".
- G. Drettakis presented at the French Academy of Sciences days at Sophia-Antipolis (June 21st, 2019) on the topic "Computer Graphics and Machine Learning". Video on the Academy of Sciences [site](#).
- G. Drettakis presented IBR research at the following companies: Mikros Image in Paris in September and Airbus Systems in Sophia in October.

9.1.5. Leadership within the Scientific Community

G. Drettakis chairs the Eurographics (EG) working group on Rendering, and the steering committee of EG Symposium on Rendering.

9.1.6. Scientific Expertise

G. Drettakis was an evaluator for the French ANR, ERC consolidator grants and Swiss National Research foundation, and is a member of the jury of the Ph.D. thesis award of the IG-RV (https://prixigrv2018.sciencesconf.org/). A. Bousseau was an evaluator for the IdEX University of Strasbourg (postdoc and PhD fellowships) and a member of the Eurographics Ph.D. award committee.

9.1.7. Research Administration

Adrien Bousseau is a member of "comité du centre" and "comité du suivi doctoral".

9.1.8. Interventions at Conferences

- J. Delanoy presented her work at the 8th ACM/EG Expressive Symposium, 5-6 May 2019, Genoa, Italy, and at SMI 2019 (Geometry Summit), 17-21 June 2019, Vancouver, Canada.
- F. Hähnlein presented a talk about "Data-driven sketch segmentation" project at JFIGRV2019 in Marseille, and also attended NeuroSTIC2019 and the UCA Deep Learning Summer School 2019.
- J. Philip presented his paper "Multi-view relighting using a geometry network" at SIGGRAPH 2019 in Los Angeles in August.
- V. Deschaintre presented his paper "Flexible SVBRDF Capture with a Multi-Image Deep Network" at EGSR 2019 in Strasbourg in July.
- Y. Gryaditskaya presented her paper "OpenSketch: A Richly-Annotated Dataset of Product Design Sketches" at SIGGRAPH Asia 2019 in Brisbane in November.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Licence: T. Stanko Fondements mathématiques 1 (L1), 40h eq. TD, Université Côte d'Azur (France).

Master: G. Drettakis, A. Bousseau, Data visualization (M1), 12h eq. TD. Université Côte d'Azur (France).

9.2.2. Supervision

Ph.D.: Théo Thonat, Image-based rendering of thin and stochastic structures, defended June 2019, George Drettakis [13].

Ph.D.: Johanna Delanoy, Data-driven sketch-based modeling, defended June 2019, Adrien Bousseau [11].

Ph.D.: Valentin Deschaintre, Data-driven material capture, defended November 2019, Adrien Bousseau and George Drettakis [12].

Ph.D. in progress: David Jourdan, Interactive architectural design, since October 2018, Adrien Bousseau and Melina Skouras (Imagine)

Ph.D. in progress: Felix Hahnlein, Line Drawing Generation and Interpretation, since February 2019, Adrien Bousseau.

Ph.D. in progress: Julien Philip, Data-driven image-based rendering and relighting, since November 2016, George Drettakis.

Ph.D. in progress: Simon Rodriguez, Leveraging semantic information in image-based rendering, since November 2016, George Drettakis.

Ph.D. in progress: Stavros Diolatzis, Guiding and Learning for Illumination Algorithms, since April 2019, George Drettakis.

9.2.3. Juries

G. Drettakis was a member of the Ph.D. jury J-P. Bauchet (UCA) and Ph.D. reviewer of T. Leimkhueler (U. Saarbruecken). A. Bousseau was Ph.D. Reviewer for Marek Dvoroznak (TU Prague), Li Changjian (The University of Hong Kong) and Geoffrey Guingo (Grenoble University).

9.3. Popularization

9.3.1. Internal or external Inria responsibilities

- George Drettakis chairs the local "Jacques Morgenstern" Colloquium organizing committee and was elected a member of the Inria Scientific Council.

9.3.2. Articles and contents

J. Philip participated in the Youtube video interview: Intelligences artificielles: créatives mais perverties ? - Macroscopie La chaine - Video link - July 2019.

The work of J. Philip was the topic of a press release: L'algorithme d'apprentissage profond qui permet de changer l'éclairage des photos et de vidéos. Link to inria Press release and other media coverage Link to Pix Fan press release

The work Multi-view relighting using a geometry-aware network was presented at Adobe Max - November 2019. The project was part of the 11 projects selected out of 200 to be presented at Adobe MAX under the name project #LightRightSneak Link to the event.

Some press coverage of this event regarding the project : Link to Tech cafe listen starting at 32'00". Link to slrlouge. Link to petapixel.

<h1 style="text-align:center; color:red;">HYBRID Project-Team</h1>

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events: Organisation

- Valérie Gouranton was Main Organizer of the Seminar "Art/Heritage/Culture" (IRISA, Rennes, February 2019), and Member of Organizing Committee of "Journée Science et Musique" (IRISA, Rennes, October 2019).
- Ronan Gaugne was Member of Organizing Committee of "Journée Science et Musique" (IRISA, Rennes, October 2019)
- Florian Nouviale was Member of Organizing Committee of the "Journée Science et Musique" (IRISA, Rennes, October 2019).

10.1.2. Scientific Events: Selection

10.1.2.1. Chair of Conference Program Committees

- Anatole Lécuyer was Member of the organization committee of IEEE VR 2019 (Panels).
- Ferran Argelaguet was Program Chair of the IEEE VR 2019 conference track.

10.1.2.2. Member of the Conference Program Committees

- Ferran Argelaguet was Member of the conference program committee of ACM SUI 2019.
- Valerie Gouranton was Member of the conference program committee of EuroVR 2019.
- Guillaume Moreau was Member of IEEE ISMAR 2019 Program committee.
- Jean-Marie Normand was Member of the program committee of IEEE VR 2019 Conference Track and of the IEEE AIVR 2019 (International Conference on Artificial Intelligence and Virtual Reality).

10.1.2.3. Reviewer

- Anatole Lécuyer was Reviewer for IEEE VRST 2019, IEEE VR 2019.
- Ferran Argelaguet was Reviewer for IEEE VR 2019, IEEE VRST 2019, ACM CHI 2019, ACM UIST 2019, IEEE ISMAR 2019.
- Maud Marchal was Reviewer for Eurographics 2019, ACM Siggraph Asia 2019, ACM UIST 2019, Eurohaptics 2019, IEEE Haptic Symposium 2019, IEEE ICRA 2019, IHM 2019.
- Valérie Gouranton was Reviewer for IEEE VR 2019, Euro VR 2019
- Guillaume Moreau was Reviewer for IEEE VR 2019, IEEE ISMAR 2019, ACM Augmented Human 2019 and IAPR Machine Vision Applications.
- Jean-Marie Normand was Reviewer for IEEE AIVR 2019, AH 2019, IEEE ISMAR 2019, IEEE VR 2019 Journal Track, IEEE VR 2019 Conference Track, IEEE CoG 2019 (Conference on Games), ACM SAP 2019.

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

- Anatole Lécuyer is Associate Editor of the IEEE Transactions on Visualization and Computer Graphics, Frontiers in Virtual Environments, and Presence journals.
- Valérie Gouranton is Review Editor of Frontiers in Virtual Environments.
- Ferran Argelaguet is Review Editor of Frontiers in Virtual Environments.
- Maud Marchal is Review Editor of Frontiers in Virtual Environments.

- Guillaume Moreau is Review Editor of Frontiers in Virtual Environments.
- Jean-Marie Normand is Review Editor of Frontiers in Virtual Environments.

10.1.3.2. Reviewer - Reviewing Activities

- Ferran Argelaguet was Reviewer for IEEE Transactions on Visualization and Computer Graphics, IEEE Computer Graphics and Applications, International Journal on Human Computer Studies.
- Maud Marchal was Reviewer for IEEE Transactions on Visualization and Computer Graphics, IEEE Transactions on Haptics, The Visual Computer and Computers and Graphics Journal.
- Guillaume Moreau was reviewer for Computers & Graphics, IEEE Transactions on Visualization and Computer Graphics, Frontiers in Virtual Environments.
- Jean-Marie Normand was Reviewer for IEEE Transactions on Visualization and Computer Graphics, Computer Animation and Virtual Worlds.
- Ronan Gaugne was Reviewer for Thermal Science and Engineering Progress, Elsevier and Archaeological and Anthropological Sciences, Springer

10.1.4. Invited Talks

- Valérie Gouranton was invited to give a talk at Aristote Association, Ecole Polytechnique Paris (June 2019) and at Consortium 3D of TGIR HumaNum, Nantes (Dec. 2019)
- Guillaume Moreau was invited to give invited talks at University of South Australia, at the Research workshop of Ecole Centrale Group and at IRT b<>com.
- Ronan Gaugne was invited to give a talk at the EVA (Electronic information, the Visual Arts and beyond) conference "L'original et la copie", at Musée du Quai Branly, Paris, in October 2019.

10.1.5. Leadership within the Scientific Community

- Anatole Lécuyer is Member of the Scientific Board of INCR ("Institut des Neurosciences Cliniques de Rennes")
- Ronan Gaugne is Member of the Selection and Validation Committee for the French cluster "Pôle Images et Réseaux", and of the Consortium 3D of TGIR HumaNum.
- Valérie Gouranton is Member of the Executive Committee of AFRV (French Association for Virtual Reality), and of the Consortium 3D of TGIR HumaNum.
- Maud Marchal is Member of the Executive Committee of Eurographics French Chapter.
- Guillaume Moreau is Member of the Steering Committee of IEEE ISMAR Conference.

10.1.6. Scientific Expertise

- Ferran Argelaguet was Member of a selection committee for the ANR.
- Guillaume Moreau is Member of ANSES (National Health Agency) Working Group on the "sanitary effects of Virtual, Mixed and Augmented Reality". He is also Member of the HCERES (Higher Education and Research Evaluation Council) Committee of SIGMA Engineering School.

10.1.7. Research Administration

- Bruno Arnaldi is Deputy Director of IRISA, and co-Head of the Scientific Council of University of Rennes (ENS Rennes, ENSC Rennes, IEP Rennes, INSA Rennes, University Rennes 1, and University Rennes 2).
- Maud Marchal is Co-Head of the Master of "Research in Computer Science" (SIF) at University Rennes 1.
- Valérie Gouranton is Head of cross-cutting Axis "Art, Heritage & Culture" at IRISA UMR 6074 and she is a member of the Conseil National des Universités 27th section (computer science).
- Guillaume Moreau is Dean of Studies at ECN.
- Jean-Marie Normand is Head of the "Virtual Reality" major at ECN.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Anatole Lécuyer:

>   Master AI: "Haptic Interaction and Brain-Computer Interfaces", 6h, M2, Ecole Polytechnique, FR
>   Master MNRV: "Haptic Interaction", 9h, M2, ENSAM, Laval, FR
>   Master SIBM: "Haptic and Brain-Computer Interfaces", 4.5h, M2, University of Rennes 1, FR
>   Master CN: "Haptic Interaction and Brain-Computer Interfaces", 9h, M1 and M2, University of Rennes 2, FR
>   Master SIF: "Pseudo-Haptics and Brain-Computer Interfaces", 6h, M2, University of Rennes 1, FR

Bruno Arnaldi:

>   Master INSA Rennes: "VRI: Virtual Reality and Multi-Sensory Interaction Course", 4h, M2, INSA Rennes, FR
>   Master INSA Rennes: "CG: Computer Graphics", 12h, M2, INSA Rennes, FR
>   Master INSA Rennes: "Virtual Reality", courses 6h, projects 16h, M1 and M2, INSA Rennes, FR
>   Master INSA Rennes: Projects on "Virtual Reality", 20h, M1, INSA Rennes, FR

Ferran Argelaguet:

>   Master STS Informatique: "Techniques d'Interaction Avancées", 26h, M2, ISTIC, University of Rennes 1, FR
>   Master SIF: "Virtual Reality and Multi-Sensory Interaction", 8h, M2, University of Rennes 1, FR
>   Master SIF: "Data Mining and Visualization", 2h, M2, University of Rennes 1, FR

Maud Marchal:

>   Master of Research in Computer Science: "Haptic rendering and physically-based simulation", 4h, M2, University of Rennes 1, FR
>   Master INSA Rennes: "Computer Graphics", 26h, M1 and responsible of this lecture, INSA Rennes, FR

Valérie Gouranton:

>   Licence: "Introduction to Virtual Reality", 22h, L2 and responsible of this lecture, INSA Rennes, FR
>   Licence: Project on "Virtual Reality", 16h, L3 and responsible of this lecture, INSA Rennes, FR
>   Master INSA Rennes: "Virtual Reality", 16h, M2, INSA Rennes, FR
>   Master INSA Rennes: Projects on "Virtual Reality", 20h, M1, INSA Rennes, FR
>   Master CN: "Virtual Reality", 3h, M1, University of Rennes 2, FR

Ronan Gaugne:

>   INSA Rennes: Projects on "Virtual Reality", 24h, L3, Insa Rennes, FR
>   Master Digital Creation: "Virtual Reality", 6h, M1, University of Rennes 2, FR

Guillaume Moreau:

>   Dean of studies, Ecole Centrale de Nantes, FR
>   Virtual Reality Major, "C++ Programming for VR", 30h, M1/M2, Ecole Centrale de Nantes, FR
>   Virtual Reality Major, "Fundamentals of Virtual Reality", 6h, M1/M2, Ecole Centrale de Nantes, FR
>   Virtual Reality Major, "Computer Graphics", 4h, M1/M2, Ecole Centrale de Nantes, FR
>   Virtual Reality Major, "Advanced Software Development", 20h, M1/M2, Ecole Centrale de Nantes, FR
>   Computer Science Major, "Discrete Mathematics", 10h, M1/M2, Ecole Centrale de Nantes, FR

Jean-Marie Normand:

> Virtual Reality Major, "Computer Graphics", 24h, M1/M2, Ecole Centrale de Nantes, FR
>
> Virtual Reality Major, "Fundamentals of Virtual Reality", 14h, M1/M2, Ecole Centrale de Nantes, FR
>
> Virtual Reality Major, "Computer Vision and Augmented Reality", 26h, M1/M2, Ecole Centrale de Nantes, FR
>
> Virtual Reality Major, "Advanced Concepts", 24h, M1/M2, Ecole Centrale de Nantes, FR
>
> Virtual Reality Major, "Projects on Virtual Reality", 20h, M1/M2, Ecole Centrale de Nantes, FR

10.2.2. Supervision

- PhD: Hakim Si-Mohammed, "Design and Study of Interactive Systems based on Brain Computer Interfaces and Augmented Reality", INSA de Rennes, Defended December 3rd, 2019, Supervised by Anatole Lécuyer, Géry Casiez (Mjolnir, Inria) and Ferran Argelaguet

- PhD in progress: Hadrien Gurnel, "Assistance robotisée d'insertion d'aiguille par comanipulation", Started in October 2016, Supervised by Alexandre Krupa (Rainbow, Inria) and Maud Marchal

- PhD in progress: Antonin Bernardin, "Interactive physically-based simulation of dexterous manipulation for robot understanding", Started in September 2017, Supervised by Maud Marchal and Christian Duriez (Defrost, Inria)

- PhD in progress: Xavier de Tinguy, "Haptic manipulation in virtual environments", Started in September 2017, Supervised by Maud Marchal, Claudio Pacchierotti (Rainbow, Inria) and Anatole Lécuyer

- PhD in progress: Rebecca Fribourg, "Perception and interaction with and via avatars", Started in September 2017, Supervised by Ferran Argelaguet, Ludovic Hoyet (Mimetic, Inria) and Anatole Lécuyer

- PhD in progress: Romain Lagneau, "Data-driven models for dexterous manipulation of robots", Started in Septembre 2017, Supervised by Maud Marchal and Alexandre Krupa (Rainbow, Inria)

- PhD in progress: Flavien Lécuyer, "Interactive digital introspection methods for archeology", Started in September 2017, Supervised by Valérie Gouranton, Grégor Marchand (CNRS UMR CREAAH) and Bruno Arnaldi

- PhD in progress: Guillaume Bataille, "Natural interactions with IoT using VR/AR", Started in October 2017, Supervised by Valérie Gouranton, Danielle Pelé and Jérémy Lacoche (Orange Labs) and Bruno Arnaldi

- PhD in progress: Etienne Peillard, "Improving Perception and Interaction in Augmented Reality", Started in October 2017, Supervised by Guillaume Moreau, Ferran Argelaguet, Anatole Lécuyer and Jean-Marie Normand

- PhD in progress: Romain Terrier, "Presence of self and others in a collaborative virtual environment", Started in October 2017, Supervised by Valérie Gouranton, Nico Pallamin (b<>com), Cédric Bach (HDG) and Bruno Arnaldi

- PhD in progress: Mathis Fleury, "Neurofeedback based on fMRI and EEG", Started in November 2017, Supervised by Anatole Lécuyer and Christian Barillot (Visages, Inria)

- PhD in progress: Tiffany Luong, "Affective VR: acquisition, modelling, and exploitation of affective states in virtual reality", Started in February 2018, Supervised by Anatole Lécuyer, Marc Diverrez (b<>com), Ferran Argelaguet

- PhD in progress: Hugo Brument, "Towards user-adapted interaction techniques based on human locomotion laws for navigating in virtual environments", Started in October 2018, Supervised by Ferran Argelaguet, Maud Marchal and Anne-Hélène Olivier (MimeTIC, Inria)

- PhD in progress: Diane Dewez, "Avatar-Based Interaction in Virtual Reality", Started in October 2018, Supervised by Anatole Lécuyer, Ferran Argelaguet and Ludovic Hoyet (MimeTIC)

- PhD in progress: Victor Rodrigo Mercado Garcia, "Encountered-type haptics", Started in October 2018, Supervised by Maud Marchal and Anatole Lécuyer

- PhD in progress: Guillaume Vailland, "Outdoor wheelchair assisted navigation: reality versus virtuality", Started in November 2018, Supervised by Valérie Gouranton and Marie Babel (Rainbow, Inria)

- PhD in progress: Gwendal Fouché, "Immersive Interaction and Visualization of Temporal 3D Data", Started in October 2019, Supervised by Ferran Argelaguet, Charles Kervrann (Serpico Team) and Emmanuelle Faure (Mosaic Team).

- PhD in progress: Adelaide Genay, "Embodiment in Augmented Reality", Started in October 2019, Supervised by Anatole Lécuyer, Martin Hachet (Potioc, Inria)

- PhD in progress: Martin Guy, "Physiological markers for characterizing virtual embodiment", Started in October 2019, Supervised by Guillaume Moreau, Jean-Marie Normand and Camille Jeunet (CNRS, CLEE)

- PhD in progress: Grégoire Richard, "Touching Avatars: The role of haptic feedback in virtual embodiment", Started in October 2019, Supervised by Géry Casiez (Loki, Inria), Thomas Pietzrak (Loki, Inria), Anatole Lécuyer and Ferran Argelaguet

- PhD in progress: Sebastian Vizcay, "Dexterous Interaction in Virtual Reality using High-Density Electrotactile Feedback", Started in November 2019, Supervised by Ferran Argelaguet, Maud Marchal and Claudio Pacchierotti (Rainbow, Inria)

10.2.3. Juries

- Anatole Lécuyer was Referee for the PhD Theses of Justine Saint-Aubert (ISIR-UPMC), Geoffrey Gorisse (ENSAM), Léa Pillette (Univ. Bordeaux), Examiner for the PhD Thesis of Mélodie Fouillen (Inserm Lyon), Grégoire Cattan (GIPSA-Lab), and Examiner for the HDR Thesis of Sinan Haliyo (ISIR-UPMC).

- Bruno Arnaldi was Referee for the PhD Theses of Rémi Lacaze-Labadie (UTC Compiègne) and Nicolas Muller (IRIT, Toulouse), external reviewer for the PhD defense of Alexandre Kabil (IMT Atlantique - Brest) and member for the PhD Defense of Hakim Si Mohammed (INSA Rennes).

- Guillaume Moreau was external reviewer for the PhD defense of Nicolas Muller (IRIT, Univ. Toulouse), Alice Guerville-Ballé (Univ. Pau), Jason Rambach (Univ. Kaiserslautern, DE), president of the committee for Thibaud Toullier (IFSTTAR, Univ. Rennes), Nam Duong Duong (IRT b<>com, Centrale-Supelec).

- Jean-Marie Normand was examiner for the PhD Thesis of Geoffrey Gorisse (ENSAM).

10.3. Popularization

10.3.1. Articles and contents

- Ouest-France: Interview of Anatole Lécuyer (October 2019)

- France Inter: Interview of Anatole Lécuyer in the broadcast "Du vent dans les synapses" (November 2019)

- France TV: Interview of Guillaume Moreau and Jean-Marie Normand in "Télématin"

10.3.2. Interventions

- "Technoférence Humain Augmenté": Presentation from Rebecca Fribourg (Nantes, January 2019)

- "Made by DV-Group": Event organized by Rennes Metropole about "VR and Cinema", presentations and demos from Ferran Argelaguet (Rennes, February 2019)

- "Laval Virtual 2019": Demos of FIVE/SEVEN software (March 2019)

- "Journées Nationales de l'Archéologie": Demos made by Ronan Gaugne and Valérie Gouranton (Champs Libres, Rennes, June 2019)
- "Journées Européennes du Patrimoine": Conference and Demos made by Ronan Gaugne and Valérie Gouranton (Musée des Beaux Arts, Rennes, September 2019)
- "Festival Demain/Maintenant" : Presentation from Anatole Lécuyer (Rennes, October 2019)
- "Fête de la Science" 2019 : Presentation from Anatole Lécuyer (Saint-Louis, October 2019)
- "Journée Science et Musique" : Demos made by Florian Nouviale, Ronan Gaugne and Valérie Gouranton (Rennes, October 2019). Rebecca Fribourg and Diane Dewez also participated in the organization of the event.
- "Festival du Livre du Var" 2019 : Presentation from Anatole Lécuyer (Toulon, November 2019)
- "Digital Design Days" 2019 : Presentation from Ronan Gaugne (Milano, Italy, November 2019)

10.3.3. Internal action

- Inria/IRISA "VR Hackathon" 2019: Hackathon (20 participants) organized by Hybrid team and open to all members of Inria Rennes center (May 2019).
- "20 years of Immersia": Event organized by Inria Rennes/IRISA center, with presentations from Anatole Lécuyer and Bruno Arnaldi, and demos made by Florian Nouviale and Ronan Gaugne (November 2019).

10.3.4. Creation of media or tools for science outreach

The ANR-FRQSC INTROSPECT project produced a transparent 3D printing of the content of an Egyptian mummy cat from a CT scan. The mummy is part of the collection of the Musée des Beaux-Arts of Rennes. The 3D printing is permanently exhibited in the Museum, next to the real mummy (Figure 21)

The immersive VR application of the LSI project developed during the hosting of the invited professor Franz Fischnaller from Albertina Accademy of Fine Arts around the Last Supper painting of Lenonardo da Vinci was deployed and exhbited in the Deep Space 8K of the Ars Electronica center in Linz, Austria (Figure 22).

Figure 21. The mummy cat and its copy in the Museum des Beaux-Arts in Rennes.

Figure 22. The LSI project in the Ars Electronica center in Linz.

<h1 style="text-align:center; color:red;">ILDA Project-Team</h1>

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events: Organisation

10.1.1.1. General Chair, Scientific Chair

- ACM CHI Steering Committee, ACM SIGCHI Conference on Human Factors in Computing Systems: Caroline Appert

10.1.1.2. Member of the Organizing Committees

- IEEE VIS (IEEE Visualization Conference) 2019, 2020: Anastasia Bezerianos (Organization Committee - Workshops co-Chair)

10.1.2. Scientific Events: Selection

10.1.2.1. Chair of Conference Program Committees

- CHI 2020, 38th ACM SIGCHI Conference on Human Factors in Computing Systems: Anastasia Bezerianos (SC - subcommittee chair)

10.1.2.2. Member of the Conference Program Committees

- CHI 2020, 38th ACM SIGCHI Conference on Human Factors in Computing Systems: Caroline Appert, Emmanuel Pietriga
- IEEE VIS 2019, Visualization Conference (InfoVis): Anastasia Bezerianos
- TheWebConf (WWW) 2020, 29th Web Conference, research track Web Mining and Content Analysis: Emmanuel Pietriga
- ESWC 2020, 17th Extended Semantic Web Conference: Emmanuel Pietriga
- TheWebConf (WWW) 2019, 28th Web Conference, research track Web Content Analysis, Semantics, and Knowledge: Emmanuel Pietriga
- ESWC 2019, 16th Extended Semantic Web Conference: Emmanuel Pietriga
- EICS 2019, 11th ACM Symposium on Engineering Interactive Computing Systems, Tech Notes, Olivier Chapuis

10.1.2.3. Reviewer

- ACM EICS 2020, SIGCHI Symposium on Engineering Interactive Computing Systems: Emmanuel Pietriga
- ACM CHI 2019, Conference on Human Factors in Computing Systems: Caroline Appert, Olivier Chapuis, Emmanuel Pietriga, Hugo Romat.
- ACM CHI 2020, Conference on Human Factors in Computing Systems: Olivier Chapuis, Vanessa Peña-Araya
- ACM UIST 2019, Interface Software and Technologies Symposium: Olivier Chapuis, Emmanuel Pietriga, Hugo Romat.
- ACM DIS 2019, Designing Interactive Systems: Caroline Appert
- ACM MobileHCI 2019, International Conference on Human-Computer Interaction with Mobile Devices and Services: Caroline Appert, Olivier Chapuis
- IEEE VIS 2019, Visualization Conference (InfoVis): Emmanuel Pietriga, Vanessa Peña-Araya (short papers)

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

- ACM ToCHI, Transactions on Computer-Human Interaction: Caroline Appert (associate editor)

10.1.3.2. Reviewer - Reviewing Activities

- ACM ToCHI, Transactions on Computer-Human Interaction: Olivier Chapuis
- IEEE TVCG, Transactions on Visualization and Computer graphics: Anastasia Bezerianos

10.1.4. Invited Talks

- Caroline Appert: Lowering the cost of transitions between devices, Microsoft Research Faculty Summit, Seattle, USA, July 2019.
- Anastasia Bezerianos: Interactive visualizations and large displays, Indiana University, USA, December 2019.
- Olivier Chapuis: Multi-user interaction on wall displays, Public lectures on interactive design, Chalmers University, Göteborg, Sweden, November 2019.
- Emmanuel Pietriga: Créativité et visualisation de réseaux sous formes de diagrammes noeuds-liens, École d'été de cartographie et visualisation, Lyon, France, July 2019.

10.1.5. Scientific Expertise

- Evaluator for NSERC Discovery Grants (Canada): Anastasia Bezerianos, Olivier Chapuis

10.1.6. Research Administration

- Deputy Director of the Laboratoire de Recherche en Informatique (LRI): Olivier Chapuis
- President of Inria Saclay - Île de France's Commission for Technological Development (CDT): Emmanuel Pietriga
- Deputy head of Pôle "Données, Connaissances, Apprentissage et Interaction" at École Doctorale Paris Saclay (ED STIC): Caroline Appert
- Member of Conseil de Département (LRI): Anastasia Bezerianos
- Member of Commissions Consultatives de Spécialités d'Université (CCSU) at Université Paris-Sud/Paris Saclay: Anastasia Bezerianos

10.1.7. Learned societies

- Association Francophone d'Interaction Homme-Machine (AFIHM), in charge of the relation with the SIF: Olivier Chapuis.
- SigCHI Paris Local Chapter, chair: Caroline Appert.

10.1.8. Hiring committees

- MCF Hiring committee, Univ. Paris Sud - LIMSI: Caroline Appert
- MCF Hiring committee, Univ. Technologique Troyes - Tech-CICO: Caroline Appert

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Ingénieur: Emmanuel Pietriga, Data Visualization (INF552), 36h, 3A/M1, École Polytechnique.

Ingénieur: Caroline Appert, Data Visualization (INF552), 18h, 3A/M1, École Polytechnique.

Ingénieur: Vanessa Peña-Araya, Data Visualization (INF552), 16h, 3A/M1, École Polytechnique.

Master: Emmanuel Pietriga, Data Visualization, 24h, M2 Informatique Décisionnelle, Univ. Paris-Dauphine.

Master: Caroline Appert, Evaluation of Interactive Systems (Advanced), 21h, M2 Interaction, Univ. Paris-Sud.

Master: Anastasia Bezerianos, Evaluation of Interactive Systems (Intro), 16h, M2 Interaction, Univ. Paris-Sud.

Master: Anastasia Bezerianos, Programming of Interactive Systems, 21h, M2 Interaction, Univ. Paris-Sud.

Master: Anastasia Bezerianos, Career Seminar, 21h, M2 Interaction, Univ. Paris-Sud.

Master: Anastasia Bezerianos, Augmented Reality and Tangible Interaction, 12h, M2 Interaction, Univ. Paris-Sud.

Master: Anastasia Bezerianos, Interactive Information Visualization, 10.5h, M2 Interaction, Univ. Paris-Sud.

Master: Anastasia Bezerianos, HCI Project, 21h, M2 Interaction and HCID, Univ. Paris-Sud.

Master: Anastasia Bezerianos, Intro aux Systèmes Interactives, 15h, M1 Informatique, Univ. Paris-Sud.

Master: Eugénie Brasier, Programming of Interactive Systems, 10h30, M2 Interaction and HCID, Univ. Paris-Saclay.

Master: Eugénie Brasier, Career Seminar, 10h30, M2 Interaction and HCID, Univ. Paris-Saclay.

Master: Emmanuel Courtoux, Fundamentals of HCI, 21h, M2 Interaction and HCID, Univ. Paris-Saclay.

Master: Emmanuel Courtoux, Digital Fabrication, 21h, M2 Interaction and HCID, Univ. Paris-Saclay.

Master: Raphaël James, Programming of Interactive Systems, 12h, Univ. Paris-Saclay.

Master: Raphaël James, Fundamentals of HCI, 21h, Univ. Paris-Saclay.

Master: Tong Xue, Design of Interactive Systems, 21h, Univ. Paris-Saclay.

Licence: Eugénie Brasier, Algorithmique, 18h, PeiP2, Polytech.

License: Raphaël James, Algorithm/C/C++, 2h, Polytech.

10.2.2. Supervision

PhD in progress : Emmanuel Courtoux, Tangible Collaborative Interaction for Wall-sized Displays, since October 2019, Advisors: Olivier Chapuis, Caroline Appert

PhD in progress : Eugénie Brasier, Interaction techniques for remote manipulation in multi-display environments, since October 2018, Advisors: Caroline Appert

PhD in progress : Raphaël James, Environnements de réalité physique et augmentée utilisés dans l'analyse visuelle collaborative, since October 2018, Advisors: Anastasia Bezerianos, Olivier Chapuis, Tim Dwyer

PhD in progress : Tong Xue, Interactive Visualization for Data Journalism, since October 2018, Advisors: Anastasia Bezerianos, Emmanuel Pietriga

PhD in progress : Marie Destandau, Interactive Visual Exploration of Webs of Data, since October 2017, Advisors: Emmanuel Pietriga

PhD (defended) : Anna Gogolou, Iterative and expressive querying for big data series, October 2016 - November 2019, Advisors: Anastasia Bezerianos, Themis Palpanas

PhD (defended [76]) : Hugo Romat, Visual exploration and interactive manipulation techniques for collections of heterogeneous data and documents, June 2016 - November 2019, Advisors: Caroline Appert, Emmanuel Pietriga

PhD Internship: Nicole Barbosa Sultanum (from University of Toronto), Navigation and exploration of multivariate and dynamic graphs, 3 months, Advisor: Anastasia Bezerianos

Master 2 Internship: Marzieh Rafiei, Wall displays in Virtual Reality, 6 months, Advisors: Olivier Chapuis

Master 2 Internship: Emmanuel Courtoux, Tangible interaction for wall displays, 6 months, Advisors: Olivier Chapuis, Caroline Appert

10.2.3. Juries

PhD: Thibault Raffaillac, Université de Lille: Emmanuel Pietriga (examinateur)

PhD: Yujiro Okuya, Université Paris-Sud: Caroline Appert (president)

PhD: Gaëlle Richer, Université de Toulouse: Caroline Appert (reviewer)

PhD: Khanh Duy Le, Chalmers University at Göteborg: Olivier Chapuis (reviewer)

10.3. Popularization

10.3.1. Articles and contents

- 2019-06-29: France 2 (TV) - 20h30 le samedi, Le premier pas sur la lune, https://www.france.tv/france-2/20h30-le-samedi/1016245-le-premier-pas-sur-la-lune.html

- 2019-06-12: Ciel & Espace - Sanctuary, le projet français qui vise à faire de la Lune un lieu de la mémoire humaine, https://www.cieletespace.fr/actualites/sanctuary-le-projet-francais-qui-vise-a-faire-de-la-lune-un-lieu-de-la-memoire-humaine

- 2019-05-13: France 2 (TV) - Télématin, Sanctuary (11'30-15'30), https://www.france.tv/france-2/telematin/981641-telematin.html

- 2019-04-22: France 3 (TV) - Soir 3, Humanité : la Lune comme sanctuaire, https://www.francetvinfo.fr/sciences/espace/humanite-la-lune-comme-sanctuaire_3411135.html

- 2019-03-29: Science & Avenir - Sanctuary : le projet fou d'envoyer un selfie ou sa dédicace sur la Lune, https://www.sciencesetavenir.fr/espace/systeme-solaire/sanctuary-le-projet-fou-d-envoyer-un-temoignage-artistique-et-scientifique-sur-la-lune_122541

- 2019-03-18: Inria.fr - Sanctuary : une trace sur la Lune pour le cinquantenaire de la mission Apollo 11, https://www.inria.fr/fr/sanctuary-pour-laisser-une-trace-sur-la-lune

- 2019-03-16: Ouest France - Climat. Ce que les Français font déjà, ce qu'ils se déclarent prêts à faire (Storifier), https://www.ouest-france.fr/politique/grand-debat-national/climat-ce-que-les-francais-font-deja-ce-qu-ils-se-declarent-prets-faire-6264587

- 2019-02-15: Métro parisien, La fresque du couloir de la station Montparnasse-Bienvenüe (ZRaildar), http://80ans.cnrs.fr/ressource/la-fresque/

10. Dissemination

10.1. Promoting Scientific Activities

Rémi Ronfard is a member of the selection committee for Inria-MCC (Ministry of Culture and Communication) activities; and a member of the steering committee for the Eurographics workshop on intelligent cinematography and editing (WICED).

Stefanie Hahmann is a member of the Comité d'Etudes Doctorales (CED) at Inria Grenoble.

10.1.1. Scientific Events: Organisation

10.1.1.1. General Chair, Scientific Chair

Remi Ronfard and Julie Valéro (Litt & Arts, Univ. Grenoble Alpes) are chairing the first national meeting on computer theater (Journées d'Informatique Théâtrale), which will take place in Grenoble in February 2020.

Stefanie Hahmann was conference general co-chair for the ACM Symposium on Solid and Physical Modeling (SPM), Vancouver 2019.

10.1.1.2. Member of the Organizing Committees

Stefanie Hahmann was member of the organization committee of the SIAM Conference on Geometric Design, Vancouver 2019.

10.1.2. Scientific Events: Selection

10.1.2.1. Member of the Conference Program Committees

Mélina Skouras was a member of the Program Committees for ACM Siggraph Asia 2019 and Eurographics 2019.

Stefanie Hahmann was a member of the Program Committees for Symposium on Geometry Processing (SGP) 2019.

Rémi Ronfard was a member of the Program Committees for Motion, Interaction and Games (MIG) 2019, Intelligent Cinematography and Editing (WICED) 2019, and EXPRESSIVE 2019.

10.1.2.2. Reviewer

Rémi Ronfard was a reviewer for Siggraph 2019 and Siggraph Asia 2019.

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

Stefanie Hahmann is an Associate Editor of CAG (Computers & Graphics, Elsevier) and CAD (Computer Aided Design, Elsevier).

10.1.3.2. Reviewer - Reviewing Activities

Mélina Skouras was a reviewer for ACM Siggraph 2019, ACM Transactions on Graphics (TOG) and the International Journal for Numerical Methods in Engineering.

Stefanie Hahmann was a reviewer for Graphical Models (GMOD), Computers & Graphics (CAG) and Computer Aided Design (CAD).

Rémi Ronfard was a reviewer for ACM transactions on Graphics (TOG).

10.1.4. Invited Talks

Mélina Skouras gave an invited talk at the ACM/Eurographics Symposium on Computer Animation in July 2019.

Stefanie Hahmann gave an invited talk at the ARCADES workshop (Algebraic Representations in Computer-Aided Design for complEx Shapes) in Vienna, Austria, in November 2019.

10.1.5. Leadership within the Scientific Community

Remi Ronfard and Julie Valéro (Litt & Arts, Univ. Grenoble Alpes) are animating a research group on Digital Dramaturgies as part of the Performance Lab, IDEX Univ. Grenoble Alpes (2018-2021). This research group is actively investigating (i) how contemporary dramaturgies represent digital worlds on stage; (ii) how contemporary dramaturgies use digital tools for writing and staging performances combining real actors with virtual actors and scenographies; and (iii) how contemporary dramaturgies can be digitally captured, indexed and analyzed for a better comprehension of the creative processes at work during pre-production and rehearsals. The research group is composed of researchers of Univ. Grenoble Alpes from multiple disciplines, i.e. litterature, theatre, choreography, film studies, social sciences, geography, computer science and applied mathematics.

Stefanie Hahmann is the head of the French working group GTMG (Groupe de travail en Modélisation Géométrique) part of the CNRS GDR IM and GDR IGRV.

10.1.6. Scientific Expertise

Stefanie Hahmann was a member af the Advisory Board of the European ITN-ETN Marie-Curie Training Network ARCADES on Algebraic Representations for Computer-Aided Design of Complex Shapes from 2015 until 2019.

Stefanie Hahmann was a member of the selection committees for the SMA Young Investigator Award, Solid Modeling Association.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Bachelor : Stefanie Hahmann, Numerical Methods, 42 HETD, 240 students, L3, Ensimag-Grenoble INP.

Master : Stefanie Hahmann, Geometric Modeling, 47 HETD, 60 students, M1, Ensimag-Grenoble INP.

Master : Stefanie Hahmann, Surface Modeling, 37 HETD, 30 students, M2, Ensimag-Grenoble INP.

Master: Mélina Skouras, Surface modeling, 14.5 HETD, M2, Ensimag, Grenoble, France

Master: Mélina Skouras, Numerical Mechanics, 8 HETD, M2, ENS de Lyon, France

Master: Rémi Ronfard teaches computer animation to MOSIG M2 students, 18 HETD, Grenoble INP, Univ. Grenoble Alpes.

PhD: Rémi Ronfard is an associate researcher in the Spatial Media team at ENSADLAB, where he teaches computer graphics to doctoral art students in the SACRE doctoral school, 60 HETD, Univ. Paris Sciences et Lettres (PSL).

Stefanie Hahmann is co-responsible of the department MMIS (Images and Applied Maths) at Grenoble INP with 120 students. Stefanie Hahmann was also president of the jury for over 20 Masters (PFE) thesis defences in 2019.

10.2.2. Supervision

PhD: Geoffrey Guingo, Synthesis of animated textures, supervised by Marie-Paule Cani, Jean-Michel Dischler and Basile Sauvage, was defended on December 3, 2019.

PhD: Amélie Fondevilla, Modélisation et animation de surfaces développables, supervised by Stefanie Hahmann and Damien Rohmer, was defended on Decembre 18, 2019.

PhD: Maxime Garcia, Animation transfer: character animation by playing and acting, since October 2016, supervised by Rémi Ronfard, was defended on December 19, 2019.

PhD in progress : Youna Le Vaou, Virtual Sculpture: shape creation and modification through immersive CAVE-like systems, since March 2017, supervised by Jean-Claude Léon and Stefanie Hahmann. Funded by CIFRE contract with PSA

PhD in progress : Ameya Murukutla, Storyboarding augmented reality anatomy lessons, since Octobre 2017, supervised by Rémi Ronfard and Olivier Palombi

PhD in progress : Pierre Casati, Modeling and animation of antique statues, since October 2017, supervised by Rémi Ronfard and Stéfanie Hahmann

PhD in progress : Qianqian Fu, Computational video editing of live performances, since November 2018, supervised by Rémi Ronfard and Benjamin Lecouteux (GETALP, LIG).

PhD in progress : Thomas Buffet, Efficient multi-layered cloth animation using implicit surfaces, since December 2017, supervised by Marie-Paule Cani and Damien Rohmer.

PhD in progress : Nachwa Aboubakr, Observation and modeling of human activities, since October 2016, supervised by James Crowley and Rémi Ronfard.

PhD in progress: David Jourdan, Design of free-from surfaces using self-actuated materials, since October 2018, supervised by Adrien Bousseau and Mélina Skouras.

PhD in progress: Mickaël Ly, Inverse elastic shell design with contact and friction with applications to garment design, since October 2017, supervised by Florence Descoubes and Mélina Skouras.

Master's thesis: Mélanie Carrière, 3D Design of Ancient Garments, June 2019, supervised by Mélina Skouras and Stefanie Hahmann.

Master's thesis: Shalu Dwivedi, Simulation of Laser-Cut Metamaterials, August 2019, supervised by Mélina Skouras.

Master thesis: Paul-Elian Tabarant, student at Telecom ParisTech, 3D sketching in virtual reality, July 2019, subervised by Stefanie Hahmann and Georges-Pierre Bonneau.

M1 Internship: Marion Taconné, Extensions to the aeroMorph Project, September 2019, supervised by Mélina Skouras.

M1 IRL: Manon Valle, Study of different norms for modeling inverse problems, May 2019, supervised by Mélina Skouras.

M1 IRL: Nathan Shourick, Existence of solutions to design inverse problems, May 2019, supervised by Mélina Skouras, Florence Bertails-Descoubes and Mickaël Ly.

10.2.3. Juries

Stefanie Hahmann was part of the jury CRCN 2019 at Inria Rennes, April 2019.

Stefanie Hahmann was member of the HDR committee a reviewer of the HDR Thesis of Alexandra Bac at Univ. Aix-Marseille.

Stefanie Hahmann also was a reviewer of 2 PhD theses, Université de Strasbourg (Cedric Bobenrieth) and Université de Bourgogne (Lucas Morlet) in 2019.

Stefanie Hahmann was an external reviewer of the PhD thesis of Alessandro Marro at University of Kaiserslautern, Germany.

LOKI Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events Organization

10.1.1.1. General Chair, Scientific Chair

- HAID 2019: Thomas Pietrzak, Marcelo Wanderley

10.1.2. Scientific Events: Selection

10.1.2.1. Chair of Conference Program Committees

- IHM (AFIHM): Thomas Pietrzak

10.1.2.2. Member of the Conference Program Committees

- CHI (ACM): Géry Casiez, Stéphane Huot, Thomas Pietrzak
- IHM (AFIHM): Mathieu Nancel, Thibault Raffaillac (Work in Progress)
- WebMedia (SBC): Raiza Hanada
- ISS (ACM): Sylvain Malacria

10.1.2.3. Reviewer

- CHI (ACM): Géry Casiez, Stéphane Huot, Sylvain Malacria, Mathieu Nancel, Thomas Pietrzak
- UIST (ACM): Géry Casiez, Sylvain Malacria, Mathieu Nancel, Thomas Pietrzak
- IDC (ACM): Géry Casiez
- DIS (ACM): Stéphane Huot, Mathieu Nancel
- GI: Géry Casiez, Mathieu Nancel
- ISS (ACM): Mathieu Nancel, Thomas Pietrzak
- SUI (ACM): Mathieu Nancel

10.1.3. Journal

10.1.3.1. Reviewer - Reviewing Activities

- Transactions on Computer-Human Interaction (ACM): Géry Casiez, Thomas Pietrzak, Mathieu Nancel
- Intl. Journal of Human-Computer Studies (Elsevier): Sylvain Malacria
- User Modeling and User-Adapted Interaction (Springer): Sylvain Malacria

10.1.4. Invited Talks

- *Who [was|is|will be] in Control?: Some Control-Related Challenges in Interacting with Complex Systems*, 2nd JST-ANR Joint Symposium: Symbiotic Interaction, Tokyo, Japan: Stéphane Huot

10.1.5. Leadership within the Scientific Community

Association Francophone d'Interaction Homme-Machine (AFIHM):

- Géry Casiez: member of the scientific council since March 2019
- Stéphane Huot: member of the scientific council until March 2019

10.1.6. Scientific Expertise

- Agence Nationale de la Recherche: Stéphane Huot (vice-chair for the CES33 "Interaction and Robotics" committee)
- CN35 AFNOR normalization committee about normalizing the French keyboard: Mathieu Nancel (publication of the NF Z71-300 standard)

10.1.7. Research Administration

10.1.7.1. For Inria

- International relations working group (COST-GTRI): Stéphane Huot (member)

10.1.7.2. For Inria Lille – Nord Europe

- "Bureau du comité des équipes projets" (BCEP): Stéphane Huot (member)
- "Commission des Emplois de recherche du centre Inria Lille – Nord Europe" (CER): Sylvain Malacria (member)
- "Comité opérationnel d'évaluation des risques légaux et éthiques" (COERLE, the Inria Ethics board): Stéphane Huot (local correspondent)
- "Commission de développement technologique" (CDT): Mathieu Nancel (member)

10.1.7.3. For the CRIStAL lab of Université de Lille & CNRS

- Direction board: Géry Casiez
- Computer Science PhD recruiting committee: Géry Casiez (member)

10.1.7.4. For the Université de Lille

- Coordinator for internships at IUT A: Géry Casiez
- Computer Science Department council: Thomas Pietrzak

10.1.8. Hiring committees

- Université de Valenciennes hiring committee for a Computer Science Professor position: Géry Casiez (member)
- ENAC hiring committee for a Computer Science faculty position: Stéphane Huot (member)

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

DUT Informatique: Géry Casiez (38h), Stéphane Huot (28h), Axel Antoine (28h), Thibault Raffaillac (56h) *IHM*, 1st year, IUT A de Lille - Université de Lille

DUT Informatique: Axel Antoine (32h), CDIN-CALC, 1st year, IUT A de Lille - Université de Lille

DUT Informatique: Marc Baloup, Algorithme et Programmation, 21.5h, 1st year, IUT A de Lille - Université de Lille

DUT Informatique: Marc Baloup, CDIN Web, 11h, 1st year, IUT A de Lille - Université de Lille

DUT Informatique: Thibault Raffaillac, Codage et Systèmes d'exploitation, 64h, 1st year, IUT A de Lille - Université de Lille

DUT Informatique: Thibault Raffaillac, Algorithmique avancée, 64h, 1st year, IUT A de Lille - Université de Lille

Licence Informatique: Thomas Pietrzak, *Logique*, 36h, L3, Université de Lille

Licence Informatique: Thomas Pietrzak, *Image et Interaction 2D*, 10.5h, L3, Université de Lille

Cursus ingénieur: Sylvain Malacria (10h), *3DETech*, IMT Lille-Douai

Master Informatique: Thomas Pietrzak (18h), *NIHM*, M2, Université de Lille

Master Informatique: Sylvain Malacria (12h), *NIHM*, M2, Université de Lille

Master Informatique: Thomas Pietrzak (34.5h), Sylvain Malacria (34.5), *IHM*, M1, Université de Lille

Master Informatique: Mathieu Nancel, *Evaluation*, 8h, M2, Université de Lille

10.2.2. Supervision

PhD: Thibault Raffaillac, *Languages and System Infrastructure for Interaction*, defended in Dec. 2019, advised by Stéphane Huot

PhD: Hakim Si Mohammed, *Improving Interaction Based on a Brain-Computer Interface*, defended in Dec. 2019, advised by Anatole Lecuyer, Ferran Argelaguet, Géry Casiez & Nicolas Roussel (in Rennes)

PhD: Jeronimo Barbosa, *Design and Evaluation of Digital Musical Instruments*, McGill University, defended in May 2019, advised by Marcelo Wanderley & Stéphane Huot (in Montréal)

PhD in progress: Grégoire Richard, *Touching avatars : le rôle du retour haptique dans les interactions avec les avatars en réalité virtuelle*, started Oct. 2019, advised by Géry Casiez & Thomas Pietrzak

PhD in progress: Philippe Schmid, *Command History as a Full-fledged Interactive Object*, started Oct. 2019, advised by Mathieu Nancel & Stéphane Huot

PhD: Damien Masson, *Supporting Interactivity with Static Content*, University of Waterloo, started in January 2019, advised by Edward Lank, Géry Casiez& Sylvain Malacria (in Waterloo)

PhD in progress: Marc Baloup, *Interaction with avatars in immersive virtual environments*, started Oct. 2018, advised by Géry Casiez & Thomas Pietrzak

PhD in progress: Axel Antoine, *Helping Users with Interactive Strategies*, started Oct. 2017, advised by Géry Casiez & Sylvain Malacria

PhD in progress: Nicole Ke Chen Pong, *Understanding and Improving Users Interactive Vocabulary*, started Oct. 2016, advised by Nicolas Roussel, Sylvain Malacria & Stéphane Huot

10.2.3. Juries

Hugo Romat (PhD, Université Paris-Saclay): Stéphane Huot, president

Emmanouil Giannisakis (PhD, Université Paris-Saclay): Géry Casiez, reviewer

Marie-Éléonore Kessaci (HDR, Université de Lille): Géry Casiez, president

10.2.4. Mid-term evaluation committees

Antonin Durey (PhD, Université de Lille): Géry Casiez

Théo Voillemin (PhD, Université de Lille): Géry Casiez

Vikas Mishra (PhD, Université de Lille): Géry Casiez

10.3. Popularization

10.3.1. Internal or external Inria responsibilities

AIRLab selection committee for the funding of art and science projects, Stéphane Huot (representative for Inria Lille – Nord Europe)

10.3.2. Articles and contents

The Mother Of All Demos, l'autre révolution de 1968, interview for Carré, Petit, Utile : Le programme radio des gens du numérique on Radio <FMR>, Stéphane Huot

web series *Dopamine* on Arte.tv, scientific expertise, Stéphane Huot

10.3.3. Interventions

Intervention during the official launch event of the new NF Z71-300 French keyboard standard at the Assemblée Nationale: Mathieu Nancel

MANAO Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events: Selection

10.1.1.1. Member of the Conference Program Committees

Eurographics Workshop on Graphics and Cultural Heritage (GCH), Eurographics 2019, Eurographics Symposium on Rendering 2019 (EGSR), ACM Siggraph Asia 2019 talks and posters.

10.1.1.2. Reviewer

ACM Siggraph 2019, ACM Siggraph Asia 2019, ACM SIGGRAPH Symposium on Interactive 3D Graphics and Games 2019 (I3D), Eurographics Workshop on Graphics and Cultural Heritage (GCH), Pacific Graphics 2019, SIBGRAPI 2019.

10.1.2. Journal

10.1.2.1. Reviewer - Reviewing Activities

ACM Transactions on Graphics (TOG), Computer Graphics Forum (CGF), Computer and Graphics, ACM Journal on Computing and Cultural Heritage (JOCCH).

10.1.3. Invited Talks

Talk at the DYVITO workshop 2019, in Giessen, Germany.
Talk at the Shitsukan workshop 2019, in Kyoto, Japan.

10.1.4. Leadership within the Scientific Community

One member of the team is member of the Steering Board of the Eurographics Workshop on Graphics and Cultural Heritage.

10.1.5. Scientific Expertise

We review project submissions of the Horizon 2020 - Research and Innovation Action of the European Commission.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

The members of our team are involved in teaching computer science at University of Bordeaux and Institut d'Optique Graduate School (IOGS). General computer science is concerned, as well as the following graphics related topics:

Master : Pierre Bénard, Gaël Guennebaud, Advanced Image Synthesis, 50 HETD, M2, Univ. Bdx, France.

Master : Antoine Lucat, Simulations Radiométriques avancées, 20 HETD, M2, IOGS, France

Master : Gaël Guennebaud, Geometric Modeling, 31 HETD, M2, IOGS, France

Master : Gaël Guennebaud and Pierre Bénard, 3D Worlds, 60 HETD, M1, Univ. Bdx and IOGS, France.

Master : Pierre Bénard, Patrick Reuter, Virtual Reality, 20 HETD, M2, Univ. Bdx, France.

Master : Patrick Reuter, Graphical user interfaces and Spatial augmented reality seminars, M2, ESTIA, France.

Licence : Patrick Reuter, Digital Imaging, 30 HETD, L3, Univ. Bdx, France.

One member is also in charge of a field of study:

Master : Pierre Bénard, M2 "Informatique pour l'Image et le Son", Univ de Bordeaux, France.

Pierre Bénard was also part of the education team of the DIU (Diplôme Inter-Universitaire) titled "Numérique et Sciences Informatiques" which is opened to secondary professors that are teaching Computer Science in high school. The first session took place during the last three weeks of June.

10.2.2. Supervision

PhD: Thomas Crespel, Optical and software tools for the design of a new transparent 3D display, Inria & Univ. Bordeaux, P. Reuter & X. Granier, 9 December 2019

PhD in progress: Antoine Lucat, Appearance Acquisition and Rendering, IOGS & Univ. Bordeaux, R. Pacanowski & X. Granier

PhD in progress: Charlotte Herzog, 3 dimensions X-rays imaging for medical applications, Imaging Optics, IOGS & Univ. Bordeaux, X. Granier

PhD in progress: Camille Brunel, Real-Time Animation and Deformation of 3D Characters, Inria & Univ. Bordeaux, P. Barla, G. Guennebaud & P. Bénard

PhD in progress: Megane Bati, Inverse Design for Complex Material Apperance, IOGS & Univ. Bordeaux, R. Pacanowski & P. Barla

PhD in progress: Charlie Schlick, Augmented reality with transparent multi-view screens, Inria & Univ. Bordeaux, P. Reuter

PhD in progress: Corentin Cou, Characterization of visual appearance for 3D restitution and exploration of monumental heritage, Inria & IOGS & CNRS/INHA, G. Guennebaud, X. Granier, M. Volait, R. Pacanowski.

10.2.3. Juries

PhD (jury member) : Johanna Delanoy, Université Côte d'Azur (June 4th).

PhD (jury member) : Fan Zhang, TU Delft, Netherlands (October 29th).

PhD (reviewer) : Xavier Chermain, Université de Limoges (November 27th).

Pierre Bénard was the president of a jury for the Professional Baccalauréat (June 4th and 9th).

10.3. Popularization

10.3.1. Interventions

- "Textile 3D" exhibition at the MEB (Musée Ethnographique de Bordeaux, from October 1st 2019 to May 29th 2020).
- During the national "Fête de la Science" event at Inria Bordeaux Sud-Ouest, Pierre Bénard gave a 30 minutes talk titled *L'art et la science des films d'animation 3D*, and Camille Brunel presented her background and Phd topic to schoolchildren (October 8th to 10th).
- During the national "Fête de la Science" event at Musée Ethnographique de Bordeaux, Pascal Barla helped organise a workshop for high school students on the topic of the appearance of textiles, in conjunction of the "Textile 3D" exhibition. With Mégane Bati, they have participated during the workshop as scientific animators (October 7th to 8th).
- We organized a Mini-forum 3D to gather Master students together with researches and companies from the Bordeaux area (November 19th).
- Pierre Bénard presented the team research activities to 3rd year Bachelor students from ENS Lyon (December 5th).

<p style="text-align:center; color:red;">**MAVERICK Project-Team**</p>

8. Dissemination

8.1. Promoting Scientific Activities

8.1.1. Scientific Events: Selection

8.1.1.1. Member of the Conference Program Committees

- Romain Vergne: AFIG 2019
- Romain Vergne: SIBGRAPI 2019
- Joëlle Thollot: *Expressive* 2019.
- Nicolas Holzschuch: Eurographics 2020, Sibgrapi 2019, Eurographics Symposium on Rendering Steering Committee

8.1.2. Journal

All members of the Maverick team work as reviewers for the most prestigious journals, including ACM TOG, IEEE TVCG, CGF, etc.

8.1.3. Invited Talks

- Fabrice Neyret presented a 1 hour invited talk "Managing Ultra-high Complexity in Real-time Graphics: Some Hints and Ingredients" at HPG'2019 (ACM-SIGGRAPH-Eurographics Symposium on High-Performance Graphics) [9].
- Fabrice Neyret presented a 1 hour opening invited talk "Graphics vs Physics: the light and dark sides of the Force" [8] in pair with Emmanuel Delangre (Ladhyx - Ecole Polytechnique) at GraPhyz'2019, a new international workshop bridging Physics and Computer Graphics communities.
- Romain Vergne presented a 1 hour invited talk "ensuring congruency between shape and light" at IRIT: Institut de Recherche en Informatique de Toulouse.

8.1.4. Research Administration

- Georges-Pierre Bonneau is member of the "conseil du Laboratoire Jean Kuntzmann".
- Romain Vergne is member of the "conseil du Laboratoire Jean Kuntzmann".
- Romain Vergne is co-responsible of the Rendering Working Group of the French Association ofr Computer Graphics (AFIG).
- Romain Vergne is co-responsible of the PhD students of the Laboratoire Jean Kuntzmann.
- Nicolas Holzschuch is an elected member of CNESER (National Council for Higher Education and Research), 2019 — 2023.
- Nicolas Holzschuch is an elected member of Inria Evaluation Committee (CE), an elected member of Inria Comité Technique (CTI) and a reserve member of Inria Scientific Council (CS).
- Nicolas Holzschuch is responsible for the department "Geometry and Images" of the Laboratoire Jean Kuntzmann.
- Nicolas Holzschuch is co-head of the Inria International Laboratory "Inria - EPFL".
- Nicolas Holzschuch is an elected member of Conseil Académique of the COMUE Université Grenoble-Alpes

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

Joëlle Thollot and Georges-Pierre Bonneau are both full Professor of Computer Science. Romain Vergne is an associate professor in Computer Science. They teach general computer science topics at basic and intermediate levels, and advanced courses in computer graphics and visualization at the master levels. Joëlle Thollot is in charge of the MMIS ENSIMAG cursus (master level) with Stefanie Hahmann. Nicolas Holzschuch teaches advanced courses in computer graphics at the master level.

Licence: Joëlle Thollot, Théorie des langages, 45h, L3, ENSIMAG, France

Licence: Joëlle Thollot, Séminaire d'innovation, 10h, L3, ENSE3, France

Licence: Joëlle Thollot, MAP, 10h, L3, ENSIMAG, France

Master : Joelle Thollot, TD de créativité, 7h, M1, ENSIMAG, France.

Master : Joelle Thollot, English courses using theater, 18h, M1, ENSIMAG, France.

Licence : Romain Vergne, Introduction to algorithms, 64h, L1, UGA, France.

Licence : Romain Vergne, WebGL, 29h, L3, IUT2 Grenoble, France.

Licence : Romain Vergne, Programmation, 68h. L1, UGA, France.

Master : Romain Vergne, Image synthesis, 27h, M1, UGA, France.

Master : Romain Vergne, 3D graphics, 15h, M1, UGA, France.

Master : Nicolas Holzschuch, Computer Graphics II, 18h, M2 MoSIG, France.

Master : Nicolas Holzschuch, Synthèse d'Images et Animation, 32h, M2, ENSIMAG, France.

Licence: Georges-Pierre Bonneau, Algorithmique et Programmation Impérative, 23h, L3, Polytech-Grenoble, France.

Master: Georges-Pierre Bonneau, responsable de la 4ième année du département INFO, 32h, M1, Polytech-Grenoble, France

Master: Georges-Pierre Bonneau, Image Synthesis, 23h, M1, Polytech-Grenoble, France

Master: Georges-Pierre Bonneau, Data Visualization, 40h, M2, Polytech-Grenoble, France

Master: Georges-Pierre Bonneau, Digital Geometry, 23h, M1, UGA

Master: Georges-Pierre Bonneau, Information Visualization, 22h, Mastere, ENSIMAG, France.

Master: Georges-Pierre Bonneau, Scientific Visualization, M2, ENSIMAG, France.

Master: Georges-Pierre Bonneau, Computer Graphics II, 18h, M2 MoSiG, UGA, France.

8.2.2. Supervision

PhD: Alban Fichet, Efficient representation for measured reflectance, UGA, 13/12/2019, Nicolas Holzschuch.

PhD in progress: Vincent Tavernier, Procedural stochastic textures, 1/10/2017, Fabrice Neyret, Joëlle Thollot, Romain Vergne.

PhD in progress: Sunrise Wang, Light transport operators simplification using neural networks, 1/9/2018, Nicolas Holzschuch

PhD in progress: Morgane Gérardin, Connecting physical and chemical properties with material appearance, 1/10/2018, Nicolas Holzschuch

PhD in progress: Ronak Molazem, Dimensional Analysis of Light Transport, 1/09/2018, Cyril Soler

PhD in progress: Nolan Mestre, Rendering of panorama maps, 1/10/2019, Joëlle Thollot, Romain Vergne.

8.2.3. Juries

Romain Vergne, member of the jury, PhD of Julien Fayer, University of Toulouse, 19/04/2019.

Joëlle Thollot, president of the jury, PhD of Geoffrey Guingo, Université Grenoble-Alpes, 3/12/2019

Joëlle Thollot, president of the jury, PhD of Maxime Garcia, Université Grenoble-Alpes, 19/12/2019

Georges-Pierre Bonneau, reviewer, PhD of Yohann Bearzi, Université Claude Bernard Lyon 1, 8/11/2019

Georges-Pierre Bonneau, reviewer, PhD of Maxime Soler, Sorbonne Universités, 20/06/19

8.3. Popularization

8.3.1. Articles and contents

- Fabrice Neyret maintains the blog shadertoy-Unofficial and various shaders examples on Shadertoy site to popularize GPU technologies as well as disseminates academic models within computer graphics, computer science, applied math and physics fields. About 26k pages viewed and 12k unique visitors (87% out of France) in 2019.

- in 2019, Fabrice Neyret launched the blog desmosGraph-Unofficial to popularize the use of interactive grapher DesmosGraph for research, communication and pedagogy. For this year, about 1k pages viewed and 800 unique visitors (95% out of France).

8.3.2. Interventions

In the scope of MathC2+ (partnership with French ministry of Education and "Fondation Sciences mathématiques de Paris") Inria Rhône-Alpes hosted in June, 2019 a selection of about 30 motivated high-school students (level "second") for a day of presentations, demos and discussions. Fabrice Neyret did a 1h presentation on "Math and Physics in special effects and video games" plus discussions about his curriculum and questions.

MFX Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events: Selection

10.1.1.1. Chair of Conference Program Committees

- Sylvain Lefebvre was a program co-chair for the SGP 2019 graduate school.

10.1.1.2. Member of the Conference Program Committees

- Jonàs Martínez was on the full papers program committee of EUROGRAPHICS 2020.
- Sylvain Lefebvre was a conflict of interest coordinator for ACM SIGGRAPH 2019.
- Sylvain Lefebvre was on the paper advisory board of EUROGRAPHICS 2020.
- Sylvain Lefebvre was on the papers program committee of SMI 2019.

10.1.1.3. Reviewer

- Jonàs Martínez was reviewer for ACM SIGGRAPH, Pacific Graphics, and the Symposium on Solid and Physical Modeling (SPM).
- Sylvain Lefebvre was a reviewer for ACM SIGGRAPH and ACM SIGGRAPH Asia.
- Samuel Hornus was a reviewer for ACM SIGGRAPH 2019, SPM 2019 (Symposium on Physical Modeling), HPG 2019 (High Performance Graphics) and EUROGRAPHICS 2020.

10.1.2. Journal

10.1.2.1. Reviewer - Reviewing Activities

- Jonàs Martínez was a reviewer for the ACM Transactions on Graphics journal and the SV–Journal of Mechanical Engineering.
- Cédric Zanni was a reviewer for the Elsevier Computer and Graphics journal and the Elsevier Graphical Models journal.
- Sylvain Lefebvre was a reviewer for the ACM Transactions on Graphics journal and the Computer Aided Geometric Design journal.
- Samuel Hornus was a reviewer for the Computer Graphics Forum journal.

10.1.3. Invited Talks

Jonàs Martínez gave an invited talk at Journées Matériaux Numériques 2019 entitled "Generalized Voronoi Diagrams for Metamaterial Design".

Sylvain Lefebvre gave a keynote at SCF 2019 (Pitsburg, USA), at the IS2M annual meeting (Mulhouse, France) and at the JGA 2019 (La Bresse, France).

10.1.4. Research Administration

Jonàs Martínez is the scientific correspondent for Europe (Inria Nancy Grand-Est). Samuel Hornus is the chair of the CDT (Commission de dévelopement technologique) of Inria Nancy Grand-Est.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Master : Jonàs Martínez, Introduction to data parallelism, 14 ETD, Université de Lorraine, France.

Master : Jonàs Martínez, Geometric modelling for additive manufacturing, 10 ETD, ENSEM Nancy, France.

Master: Cédric Zanni, Software Engineering, 13.5h ETD, M1, École des Mines de Nancy, France.

Master: Cédric Zanni, Operating System, 12h ETD, M1, École des Mines de Nancy, France.

Master: Cédric Zanni, Introduction to C/C++, 27h ETD, M1, École des Mines de Nancy, France.

Master: Cédric Zanni, Techniques for video game programming, 54h ETD, M1, École des Mines de Nancy, France.

Master: Sylvain Lefebvre, Additive manufacturing for soft robotics, 6h ETD, École Polytechnique, Saclay, France.

Master: Sylvain Lefebvre, Introduction to parallel programming, 9h ETD, ENSG Nancy, France.

Master: Sylvain Lefebvre, Introduction to additive manufacturing, 9h ETD, ENSEM Nancy, France.

License : Cédric Zanni, Computer science, 11h ETD, École des Mines de Nancy, France.

License : Cédric Zanni, Introduction to Computer Science, 13.5h ETD, École des Mines de Nancy, France.

License : Samuel Hornus, Mathematics for Computer Science, 64h ETD, Télécom Nancy, France. (responsible of class series for 2019-2020, 2020-2021.)

IUT: Thibault Tricard, Data structures, data bases, 40h ETD.

IUT: Jimmy Étienne, Introduction to programming, 64h ETD.

10.2.2. Supervision

- PhD in progress : Thibault Tricard, Procedural synthesis of structured patterns, started October 2018, advisors: Sylvain Lefebvre, Dider Rouxel (IJL).

- PhD in progress : Jimmy Étienne, Curved slicing for additive manufacturing, started September 2018, advisors: Sylvain Lefebvre, Cédric Zanni

- PhD in progress : Semyon Efremov, procedural microstructures for additive manufacturing, started October 2018, advisors: Jonàs Martínez, Sylvain Lefebvre

- PhD in progress : Melike Aydinlilar, Implicit modeling for additive manufacturing, started November 2019, advisors: Cédric Zanni, Sylvain Lefebvre.

10.2.3. Juries

Sylvain Lefebvre was reviewer (*rapporteur)* on the PhD thesis of Geoffroy Guingo (University of Strasbourg) and participated in the thesis mid-term committees of Nicolas Lutz et Pascal Guehl (University of Strasbourg).

Sylvain Lefebvre was a member of the jury for the Young Researcher Fellow EGFR, which awards every year a young French researcher with outstanding research and community contributions in the field of Computer Graphics.

10.3. Popularization

10.3.1. Articles and contents

Sylvain Lefebvre co-authored a position paper for NEM on Creative AI [18], and appeared in a short movie on the Creativ'Lab's shared fabrication space and MFX's research.

10.3.2. Interventions

In March 2019, IceSL was presented at the **Maker Faire Lille**, with a focus on color printing, printing big parts using cavities and polyfoams (all results from prior years now available in IceSL). IceSL was presented during an **Inria Tech Talk at Station-F** in Paris, along with a display of best prints [0].

In April 2019, IceSL was presented to an audience of designers for the second part of **Affinité Design** (http://www.affinitedesign.com/), with a discussion about the transition from 3D printing to "4D printing", in a joint talk with Sylvain Lefebvre, Jean-Claude André and Samuel Kenzari (http://www.nancy.archi.fr/fr/biennale-du-design-grand-est-2019_-e.html). In October 2019, Pierre Bedell and Pierre-Alexandre Hugron presented IceSL at **OctoberMAKE**, a meeting organised by the French FabLabs network (http://www.fablab.fr/octobermake/). Sylvain Lefebvre gave an IceSL tutorial at the **Soft Robotics days** in Lille (https://jrs2019.sciencesconf.org/). Sylvain Lefebvre created quick tutorial videos on Youtube (channel *icesl-fr*), to help introduce new users to IceSL.

Sylvain Lefebvre gave a presentation at **Grand-Est Numerique** 2019, geared towards start-ups, presenting results from MFX.

10.3.3. Internal action

The team actively participated to the inauguration of the Creativ'Lab space in December 2019.

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[0]https://french-tech-central.com/events/du-modele-3d-a-la-piece-fabriquee-utilisez-icesl-pour-vos-prototypages/

<p style="text-align:center">**MIMETIC Project-Team**</p>

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events: Organisation

10.1.1.1. Member of the Organizing Committees

- Marc Christie, Co-chair and co-organizer of the 8th Eurographics WICED event (Workshop on Intelligent Cinematography and Editing), 2019
- Anne-Hélène Olivier, Co-organizer of the workshop "Modeling and Animating Realistic Crowds and Humans (MARCH)" during the AIVR Conference, San Diego, USA, December 2019
- Anne-Hélène Olivier, Co-Organizer of the Symposium " Going from here to there and beyond: Fundamental theories and applications from what we have learned about human navigation of cluttered environments", ISPGR 2019, Edinburgh, Scotland, July 2019
- Anne-Hélène Olivier, Co-organizer of the workshop "Virtual Humans and Crowds in Immersive Environments" (VHCIE) during IEEE VR Conference Osaka Japan, March 2019

10.1.2. Scientific Events: Selection

10.1.2.1. Chair of Conference Program Committees

- Ludovic Hoyet, Co-Program Chair of the 19th ACM Symposium on Applied Perception, Barcelona, September 2019
- Ludovic Hoyet, Co-Workshop Chair for of the 32nd International Conference on Computer Animation and Social Agents, Paris, July 2019
- Ludovic Hoyet, Animation & Simulation Area Program Chair, International Conference on Computer Graphics Theory and Applications 2019, Prague, Czech Republic, Feb. 2019
- Marc Christie, Area Chair, ACM TVX 2019, International Conference on Interactive Experiences for Television and Online Video
- Anne-Hélène Olivier, Conference Paper co-chair, IEEE Virtual Reality Conference, Osaka Japan, March 2019

10.1.2.2. Member of the Conference Program Committees

- Ludovic Hoyet, ACM Motion Interaction in Games MIG 2019
- Marc Christie, ACM Motion Interaction in Games MIG 2019
- Marc Christie, ACM Interactive Experiences for Television and Online Video TVX 2019
- Anne-Hélène Olivier, ACM Motion Interaction in Games MIG 2019
- Anne-Hélène Olivier, ACM Symposium on Applied Perception SAP 2019
- Anne-Hélène Olivier, ACM Symposium on Virtual Reality Software and Technology VRST, Technical Papers 2019
- Franck Multon, ACM Motion Interaction in Games MIG 2019
- Franck Multon, Computer Animation and Social Agents CASA2019

10.1.2.3. Reviewer

- Ludovic Hoyet, ISVC 2019, JFIG 2019, CRDH Workshop (AIVR 2019), VHCIE Workshop (IEEE VR 2019)
- Franck Multon, CASA 2019, MIG 2019

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

- Anne-Hélène Olivier, Review Editor in Frontiers in Virtual Reality - Technologies for VR
- Franck Multon, Presence, MIT Press
- Franck Multon, Computer Animation and Virtual Worlds CAVW, John Wiley
- Georges Dumont, Review Editor in Frontiers in Virtual Reality - Technologies for VR

10.1.3.2. Reviewer - Reviewing Activities

- Charles Pontonnier - Applied Science, Applied ergonomics, Multibody Systems Dynamics, Sensors, Complexity
- Marc Christie, ACM SIGGRAPH 2019, ACM SIGGRAPH ASIA 2019, TVCG
- Ludovic Hoyet, IEEE Transactions on Visualization and Computer Graphics, Neuroscience, Journal of Virtual Reality and Broadcasting, Journal on Multimodal User Interfaces
- Anne-Hélène Olivier, Virtual Reality, Gait and Posture
- Franck Multon, Virtual Reality, The Visual Computer, IEEE Robotics and Automation, International Journal of Industrial Ergonomics, Journal of Sports Sciences, Journal of Ergonomics
- Armel Crétual, Clinical Biomechanics, Medical and Biological Engineering and Computing, PlosONE, Sensors
- Georges Dumont, Journal of Biomechanics

10.1.4. Invited Talks

- Marc Christie, Workshop AI in Media at European Broadcast Union, Manchester 2019.
- Anne-Hélène Olivier, Sport Unlimitech, Lyon, September 2019.

10.1.5. Scientific Expertise

- Franck Multon, expertise for I-Site NExT from Nantes for the "International Research Partnerships" call for projects
- Franck Multon, FRQNT (Canada) for the evaluation of 4 collaborative projects in Quebec on the topic "computer sciences - human-robot interaction"

10.1.6. Research Administration

- Ludovic Hoyet is an elected member of the Board of Managers for the French Computer Graphics Association (Association Française d'Informatique Graphique), since Oct. 2017
- Ludovic Hoyet is an elected member of the Inria Laboratory Board, since Sept. 2019.
- Franck Multon is the Inria national coordinator for digital sciences for Sports, since Sept 2018

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

- Master : Franck Multon, co-leader of the IEAP Master (1 and 2) "Ingénierie et Ergonomie de l'Activité Physique", STAPS, University Rennes2, France
- Master : Franck Multon, "Santé et Performance au Travail : étude de cas", leader of the module, 30H, Master 1 M2S, University Rennes2, France
- Master : Franck Multon, "Analyse Biomécanique de la Performance Motrice", leader of the module, 30H, Master 1 M2S, University Rennes2, France
- Master: Charles Pontonnier, "Numerical simulation of polyarticulated systems", leader of the module, 22H, M1 Mechatronics, Ecole Normale Supérieure de Rennes, France

- Master: Charles Pontonnier, Responsible of the internships of students (L3 and M1), 15H, Ecole Normale Supérieure de Rennes, France

- Master: Charles Pontonnier, Reearch projects, 20H, Ecole Normale Supérieure de Rennes, France

- Master : Georges Dumont, Responsible of the second year of the master Engineering of complex systems, École Normale Supérieure de Rennes and Rennes 1 University, France

- Master : Georges Dumont, Mechanical simulation in Virtual reality, 36H, Master Engineering of complex systems and Mechatronics, Rennes 1 University and École Normale Supérieure de Rennes, France

- Master : Georges Dumont, Mechanics of deformable systems, 40H, Master, École Normale Supérieure de Rennes, France

- Master : Georges Dumont, oral preparation to agregation competitive exam, 20H, Master, École Normale Supérieure de Rennes, France

- Master : Georges Dumont, Vibrations in Mechanics, 10H, Master, École Normale Supérieure de Rennes, France

- Master : Georges Dumont, Finite Element method, 12H, Master, École Normale Supérieure de Rennes, France

- Master : Ludovic Hoyet, Motion Analysis and Gesture Recognition, 12h, INSA Rennes, France

- Master : Ludovic Hoyet, Réalité Virtuelle pour l'Analyse Ergonomique, Master Ingénierie et Ergonomie des Activités Physique, 21h, University Rennes 2, France

- Master : Anne-Hélène Olivier, co-leader of the APPCM Master (1 and 2) "Activités Physiques et Pathologies Chroniques et Motrices", STAPS, University Rennes2, France

- Master : Anne-Hélène Olivier, "Biostatstiques", 21H, Master 2 APPCM/IEAP, University Rennes2, France

- Master : Anne-Hélène Olivier, "Evaluation fonctionnelle des pathologies motrices", 3H Master 2 APPCM, University Rennes2, France

- Master : Anne-Hélène Olivier, "Maladie neurodégénératives : aspects biomécaniques", 2H Master 1 APPCM, University Rennes2, France

- Master : Anne-Hélène Olivier, "Biostatstiques", 7H, Master 1 EOPS, University Rennes2, France

- Master : Anne-Hélène Olivier, "Méthodologie", 10H, Master 1 IEAP/APPCM, University Rennes2, France

- Master : Anne-Hélène Olivier, "Contrôle moteur : Boucle perceptivo-motrice", 3H, Master 1IEAP, Université Rennes 2, France

- Master: Fabrice Lamarche, "Compilation pour l'image numérique", 29h, Master 1, ESIR, University of Rennes 1, France

- Master: Fabrice Lamarche, "Synthèse d'images", 12h, Master 1, ESIR, University of Rennes 1, France

- Master: Fabrice Lamarche, "Synthèse d'images avancée", 28h, Master 1, ESIR, University of Rennes 1, France

- Master: Fabrice Lamarche, "Modélisation Animation Rendu", 36h, Master 2, ISTIC, University of Rennes 1, France

- Master: Fabrice Lamarche, "Jeux vidéo", 26h, Master 2, ESIR, University of Rennes 1, France

- Master: Fabrice Lamarche, "Motion for Animation and Robotics", 9h, Master 2 SIF, ISTIC, University of Rennes 1, France.

- Master : Armel Crétual, "Méthodologie", leader of the module, 20H, Master 1 M2S, University Rennes2, France

- Master : Armel Crétual, "Biostatstiques", leader of the module, 30H, Master 2 M2S, University Rennes2, France
- Master : Richard Kulpa, "Boucle analyse-modélisation-simulation du mouvement", 27h, leader of the module, Master 2, Université Rennes 2, France
- Master : Richard Kulpa, "Méthodes numériques d'analyse du geste", 27h, leader of the module, Master 2, Université Rennes 2, France
- Master : Richard Kulpa, "Cinématique inverse", 3h, leader of the module, Master 2, Université Rennes 2, France
- Master: Marc Christie, "Multimedia Mobile", Master 2, leader of the module, 32h, Computer Science, University of Rennes 1, France
- Master: Marc Christie, "Projet Industriel Transverse", Master 2, 32h, leader of the module, Computer Science, University of Rennes 1, France
- Master: Marc Christie, "Modelistion Animation Rendu", Master 2, 16h, leader of the module, Computer Science, University of Rennes 1, France
- Master: Marc Christie, "Advanced Computer Graphics", Master 1, 10h, leader of the module, Computer Science, ENS, France
- Licence : Franck Multon, "Ergonomie du poste de travail", Licence STAPS L2 & L3, University Rennes2, France
- Licence: Charles Pontonnier, "Lagrangian Mechanics" , leader of the module, 22H, L3 Mechatronics, Ecole Normale Supérieure de Rennes, France
- Licence: Charles Pontonnier, "Serial Robotics", leader of the module, 24H, L3 Mechatronics, , Ecole Normale Supérieure de Rennes, France
- Licence : Anne-Hélène Olivier, "Analyse cinématique du mouvement", 100H , Licence 1, University Rennes 2, France
- Licence : Anne-Hélène Olivier, "Anatomie fonctionnelle", 7H , Licence 1, University Rennes 2, France
- Licence : Anne-Hélène Olivier, "Effort et efficience", 12H , Licence 2, University Rennes 2, France
- Licence : Anne-Hélène Olivier, "Locomotion et handicap", 12H , Licence 3, University Rennes 2, France
- Licence : Anne-Hélène Olivier, "Biomécanique spécifique aux APA", 8H , Licence 3, University Rennes 2, France
- Licence : Anne-Hélène Olivier, "Biomécanique du viellissement", 12H , Licence 3, University Rennes 2, France
- Licence: Fabrice Lamarche, "Initiation à l'algorithmique et à la programmation", 56h, License 3, ESIR, University of Rennes 1, France
- License: Fabrice Lamarche, "Programmation en C++", 46h, License 3, ESIR, University of Rennes 1, France
- Licence: Fabrice Lamarche, "IMA", 24h, License 3, ENS Rennes, ISTIC, University of Rennes 1, France
- Licence : Armel Crétual, "Analyse cinématique du mouvement", 100H, Licence 1, University Rennes 2, France
- Licence : Richard Kulpa, "Biomécanique (dynamique en translation et rotation)", 48h, Licence 2, Université Rennes 2, France
- Licence : Richard Kulpa, "Méthodes numériques d'analyse du geste", 48h, Licence 3, Université Rennes 2, France
- Licence : Richard Kulpa, "Statistiques et informatique", 15h, Licence 3, Université Rennes 2, France

10.2.2. Supervision

PhD in progress (beginning September 2017): Pierre Puchaud, Développement d'un modèle musculo-squelettique générique du soldat en vue du support de son activité physique, Ecole normale supérieure, Charles Pontonnier & Nicolas Bideau & Georges Dumont

PhD in progress (beginning January 2019): Nils Hareng, simulation of plausible bipedal locomotion of human and non-human primate, University Rennes2, Franck Multon, & Bruno Watier (CNRS LAAS in Toulouse)

PhD in progress (beginning January 2019): Nicolas Olivier, Adaptive Avatar Customization for Immersive Experience, Cifre InterDigital, Franck Multon, Ferran Arguelaget (Hybrid team), Quentin Avril (InterDigital), Fabien Danieau (InterDigital)

PhD in progress (beginning September 2017): Lyse Leclerc, Intérêts dans les activités physiques du rétablissement de la fonction inertielle des membres supérieurs en cas d'amputation ou d'atrophie, Armel Crétual, Diane Haering

PhD in progress (beginning September 2018) : Jean Basset, Learning Morphologically Plausible Pose Transfer, Inria, Edmond Boyer (Morpheo Inria Grenoble), Franck Multon

PhD in progress (beginning October 2018): Hiep Pham Tuan, Heterogeneous data fusion for safeguarding of cultural heritage of dance, University Reims Champagne Ardennes, Celine Loscos (University Reims), Franck Multon

PhD in progress (beginning September 2017): Simon Hilt, Haptique Biofidèle pour l'Interaction en réalité virtuelle, Ecole normale supérieure, Georges Dumont, Charles Pontonnier

PhD in progress (beginning September 2018): Olfa Haj Mamhoud, Monitoring de l'efficience gestuelle d'opérateurs sur postes de travail, University Rennes 2, Franck Multon, Georges Dumont, Charles Pontonnier

PhD in progress (beginning September 2019) : Claire Livet, Dynamique contrainte pour l'analyse musculo-squelettique en temps rapide : vers des méthodes alternatives d'estimation des forces musculaires mises en jeu dans le mouvement humain, Ecole normale supérieure, Georges Dumont, Charles Pontonnier

PhD in progress (beginning september 2019) : Louise Demestre, simulation MUsculo-squelettique et Structure Elastique pour le Sport (MUSES), Ecole normale supérieure, Georges Dumont, Charles Pontonnier, Nicolas Bideau, Guillaume Nicolas

PhD in progress: Diane Dewez, Avatar-Based Interaction in Virtual Reality, Oct. 2018, Ferran Argelaguet, Ludovic Hoyet, Anatole Lécuyer. Coll. with Hybrid team.

PhD in progress: Rebecca Fribourg, Enhancing Avatars in Virtual Reality through Control, Interactions and Feedback, Sept. 2017, Ferran Argelaguet, Ludovic Hoyet, Anatole Lécuyer. Coll. with Hybrid team

PhD in progress: Florian Berton, Design of a virtual reality platform for studying immersion and behaviours in aggressive crowds, Nov. 2017, Ludovic Hoyet, Anne-Hélène Olivier, Julien Pettré. Coll with Rainbow team

PhD in progress: Benjamin Niay, A framework for synthezing personalised human motions from motion capture data and perceptual information, Oct. 2018, Ludovic Hoyet, Anne-Hélène Olivier, Julien Pettré. Coll. with Rainbow team

PhD in progress: Alberto Jovane, Modélisation de mouvements réactifs et comportements non verbaux pour la création d'acteurs digitaux pour la réalité virtuelle, Sept. 2019, Marc Christie, Ludovic Hoyet, Claudio Pacchierotti, Julien Pettré. Coll. with Rainbow team

PhD in progress: Adèle Colas, Modélisation de comportements collectifs réactifs et expressifs pour la réalité virtuelle, Nov. 2019, Ludovic Hoyet, Anne-Hélène Olivier, Claudio Pacchierotti, Julien Pettré. Coll. with Rainbow team

PhD in progress: Hugo Brument, Toward user-adapted interactions techniques based on human locomotion laws for navigating in virtual environments, Oct. 2018, Anne-Hélène Olivier, Ferran Argelaguet, Maud Marchal. Coll. with Hybrid team

PhD in progress: Lyse Leclercq, Intérêts dans les activités physiques du rétablissement de la fonction inertielle des membres supérieurs en cas d'amputation ou d'atrophie, Sep. 2017, Armel Crétual, Diane Haering

PhD in progress: Florence Gaillard, Validation d'un protocole d'analyse 3D du mouvement des membres supérieurs en situation écologique chez les enfants ayant une Hémiplégie Cérébrale Infantile, Armel Crétual, Isabelle Bonan

PhD in progress: Karim Jamal, Effets des stimulations sensorielles par vibration des muscles du cou sur les perturbations posturales secondaires aux troubles de la représentation spatiale après un accident vasculaire cérébral, Sep 2016, Isabelle Bonan, Armel Crétual

PhD in progress: Carole Puil, Impact d'une stimulation plantaire orthétique sur la posture d'individus sains et posturalement déficients au cours de la station debout, et lors de la marche, Sep. 2018, Armel Crétual, Anne-Hélène Olivier

PhD: Charles Faure, Analyse en réalité virtuelle de la coopération lors d'une interception de balle : interaction et interférence, Sep. 2016, defense 17/01/2019, Richard Kulpa, Benoit Bideau

PhD in progress: Théo Perrin, Evaluation de la perception de l'effort en réalité virtuelle pour l'entraînement sportif, Sep. 2017, Richard Kulpa, Benoit Bideau

PhD in progress: Annabelle Limballe, Anticipation dans les sports de combat : la réalité virtuelle comme solution innovante d'entraînement, Sep. 2019, Richard Kulpa & Benoit Bideau

PhD in progress: Alexandre Vu, Evaluation de l'influence des feedbacks sur la capacité d'apprentissage dans le cadre d'interactions complexes entre joueurs et influence de ces feedbacks en fonction de l'activité sportive , Sep. 2019, Richard Kulpa & Benoit Bideau

10.2.3. Juries

- PhD defense : École Nationale Supérieure d'Arts et Métiers, Samuel Hybois. « Approche numérique pour l'optimisation personnalisée des réglages d'un fauteuil roulant manuel ». 2019-10-14. Georges Dumont, President

- PhD defense : Université de Grenoble-Alpes, Chaowanan Khundam. « Évaluation de l'usage de la réalité virtuelle pour la promotion de patrimoine historique-Evaluation of the virtual reality usage for the promotion of historical heritage ». March 2019. Georges Dumont, President.

- PhD defense: University Toulouse 3, Guillaume Fumery, "Biomécanique du transport collectif de charges, vers une application clinique", january 2019. Franck Multon, Referee

- PhD defense: INSA Lyon, Samuel Carensac, "Contrôle physique de mouvement de personnages virtuels en environnement complexe", July 2019. Franck Multon, Referee

- HDR defense: Sorbonne University, Jonathan Savin, "Simulation de la variabilité du mouvement induite par la fatigue musculaire pour la conception ergonomique de postes de travail", november 2019, Franck Multon, Examiner

- HDR defense: University Lyon 1, Thomas Robert, "Analyse et simulation du maintien de l'équilibre debout chez l'humain", November 2019, Franck Multon, President

10.3. Popularization

10.3.1. Internal or external Inria responsibilities

- Franck Multon is coordinating the national action of Inria in sports

10.3.2. Interventions

- Charles Pontonnier - "La simulation musculo-squelettique pour la robotique" - 4èmes rencontres interdisciplinaires Innovation, Robotique et Santé, December 2019

- Franck Multon - "fête de la Science" Rennes in Champs Libres for two days (October 4th and 5th) demos in the field of VR for sports for a wide public audience

- Franck Multon - "fête de la science" Paris (October 5th), stand-up talk about VR & Sports to the wide public audience, interview with "Esprit Sorcier" for a web-Tv diffusion

- Franck Multon - Sport Unlimitech Lyon, a large event about new technologies for sports (September 19-21), with keynote talks/round tables, managing the booths of Inria

- Armel Crétual - "La science sur les planches", Spectacle "Marcher!!!" avec le Collège Théophile Briant de Tinténiac et la compagnie Kali&Co

- Richard Kulpa - "La réalité virtuelle pour le sport, ludique mais encore ?", Mardis de l'Espace des Sciences, December 2019

- Richard Kulpa - Inria booth at Sport Unlimitech Lyon, a large event about new technologies for sports, September 2019

- Richard Kulpa - Booth at FIFA Women's World Cup 2019

- Anthony Sorel - Inria booth at Sport Unlimitech Lyon, a large event about new technologies for sports, September 2019

10.3.3. Internal action

- Franck Multon - "Journes scientifiques Inria", June 5-6th, plenary talk entitled "La réalité virtuelle pour le sport : un jeu vraiment sérieux ?"

- Franck Multon, Ronan Gaugne - "20 years of Immersia": Event organized by Inria Rennes/IRISA center, November 2019, plenary talks

POTIOC Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events: Organisation

10.1.1.1. General Chair, Scientific Chair

- EduIHM workshop at IHM 2019 - Martin Hachet
- EduIHM workshop at EIAH 2019 - Martin Hachet
- "4ème conference nationale sur le Neurofeedback: le neurofeedback, un outil pour la recherche en neurosciences cognitives ?", co-chair - Fabien Lotte
- "How do we learn to use a BCI? Current state of knowledge, prospects of improvement using an interdisciplinary approach", Workshop at the International Graz BCI conference 2019, Graz, Austria – co-chair, Fabien Lotte

10.1.1.2. Member of the Organizing Committees

- Workshops organizer and sponsors finder for the event for the French BCI/NF Society, called CORTICO days - Jelena Mladenovic

10.1.2. Scientific Events: Selection

10.1.2.1. Member of the Conference Program Committees

- International Graz BCI conference 2019, Fabien Lotte
- NeuroAdaptive Technology conference (NAT) 2019, Fabien Lotte
- Journées d'informatique théâtrale 2020, Martin Hachet, Pascal Guitton

10.1.2.2. Reviewer

- ACM UIST 2019
- ACM CHI 2019
- ACM CHI Play 2019
- HICS 2019
- TACCESS 2019
- ASSETS 2019
- IEEE SMC 2019
- ICASSP 2019
- CogSci 2019
- JJC-ICON 2019
- Int Graz BCI Conf 2019

10.1.3. Journal

10.1.3.1. Guest editor

- ERCIM News 120 - Educational Technology, Martin Hachet
- Frontiers in Human Neuroscience, Fabien Lotte
- Frontiers in Brain-Computer Interfaces, Fabien Lotte

10.1.3.2. Member of the Editorial Boards

- IEEE Computer Graphics and Applications, Martin Hachet
- Journal of Neural Engineering, Fabien Lotte
- Brain-Computer Interfaces, Fabien Lotte

10.1.3.3. Reviewer - Reviewing Activities

- Frontiers in Human Neuroscience
- Journal of Neural Engineering
- Brain-Computer Interfaces
- IEEE TBME
- Nature Communications
- ACM TOCHI
- IEEE TCYB
- IJHCS
- Scientific Report
- IEEE Trans. Games
- NeuroImage
- JMUI

10.1.4. Invited Talks

- "Hybrid environments (real/virtual) in Education", LIRIS, Lyon, Jan. 2019 - Martin Hachet
- "Vers une carte multisensorielle en réalité augmentée pour les personnes aveugles et malvoyantes : une approche participative", ARIBA Nov. 2019, Bordeaux - Lauren Thevin
- "VISTE project", FISAF, Nov. 2019, Paris - Lauren Thevin
- "Example of HCI for Humas: Previous works and perspectives", LMU Muchen, April 2019 - Lauren Thevin
- "Adaptive Riemannian Classifiers for Long-term Brain-Computer Interface training of a Tetraplegic User", Seminar at ISAE-Supaero, December 2019 - Fabien Lotte
- "From machine learning to user learning in Brain-Computer Interaction", Tokyo University of Agriculture and Technology (TUAT), GIR Seminar, Tokyo, Japan, November 2019 - Fabien Lotte
- "Understanding, modeling and optimizing Mental Imagery-based Brain-Computer Interface user training", BCI: Science and Practice international conference, Keynote, Samara, Russia, October 2019 - Fabien Lotte
- "Machine learning and experimental tools towards EEG-based NeuroAdaptive Technologies", international conference on NeuroAdaptive Technologies (NAT'19), Keynote, Liverpool, UK, July 2019 - Fabien Lotte
- "Brain-Computer Interfaces: Myths, open challenges and realistic expectations", NICE Meeting, Ludwig Maximilian University of Munich, Germany, June 2019 - Fabien Lotte
- "Understanding and modeling user training in Mental-Imagery-based Brain-Computer Interfaces", University of Freiburg, Germany, June 2019 - Fabien Lotte
- "ElectroEncephaloGraphic signal processing & classification for Brain-Computer Interfaces", Time Series Day, Rennes, France, March 2019 - Fabien Lotte
- "Vers une accessibilité numérique des systèmes d'éducation numérique", ESPE Angers, Rencontres académiques du numérique, Rectorat de Nantes, En visioconférence, March 2019 - Pascal Guitton & Hélène Sauzéon
- "Ethique du numérique pour la santé", Séminaire IA et sens clinique, Bordeaux, March 2019 - Pascal Guitton

- "Réalité virtuelle et handicap : étude, évaluation, réhabilitation", 20 ans d'Immersia, Rennes, November 2019 - Pascal Guitton

- "Les Sciences du Numérique au service de la pratique sportive", Colloque Sport et numérique, Bordeaux, July 2019 - Pascal Guitton

- "Interfaces Cerveau-Ordinateur (ICO) & Neurofeedback (NF): Influence des capacités somatosensorielles sur la réhabilitation motrice post-AVC", SOFMER, Bordeaux, Oct. 2019 - Léa Pillette

- "Predicting BCI performances from users' profile using Computational Modelling", Workshop "How do we learn to use a BCI? Current state of knowledge, prospects of improvement using an interdisciplinary approach", International Graz BCI conference, Graz, Austria, September 2019 - Camille Benaroch

10.1.5. Leadership within the Scientific Community

- Co-leader of the EduIHM group dedicated to research in HCI for Education - Martin Hachet

- Member of the administrative council of CORTICO, the French national association of BCI - Fabien Lotte

- Secretary of the Bordeaux association of Doctoral Students in Computer Science (AFoDIB) - Aline Roc

10.1.6. Scientific Expertise

- Expert for "Credit Impot Recherche" - Martin Hachet

- Committee for the creation of 2 Inria teams - Martin Hachet

- Committee for recruitment of an assistant professor at Telecom ParisTech - Martin Hachet

- Expert for Appel à projets exploratoires Institut de la cognition - Pascal Guitton

10.1.7. Research Administration

- Member of "Bureau du comite des projets", Martin Hachet

- Member of "Conseil administration de l'AFIHM", Martin Hachet

- Representative of Inria at NEM (New European Media), Fabien Lotte

- Member of "Commission des emplois recherche Inria Bordeaux", Fabien Lotte

- Member of Commission de recrutement des Inspecteurs Généraux de l'Education Nationale (IGEN), Pascal Guitton

- Responsable of Inria Cellule de veille et de prospective, Pascal Guitton

- Member of Inria Ethical Committee (COERLE), Pascal Guitton

- Member of Inria Comité Parité et Egalité, Pascal Guitton

- Responsable of Inria Radar Committee (new annual Activity Report), Pascal Guitton

- Member of Inria International Chairs Committee, Pascal Guitton

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

- Master: Réalité Virtuelle, 12h eqTD, M2 Cognitive science, Université de Bordeaux - Martin Hachet

- Master: Réalité Virtuelle, 6h eqTD, M2 Cognitive science, Université de Bordeaux - Fabien Lotte

- Master: Handicap et Nouvelles technologies, CM 7,5h eqtd, M2 Cognitive Science, Université de Bordeaux - Aurélien Appriou

- Master : Handicap et Nouvelles technologies, 9h eqTD, M2 Cognitive science, Université de Bordeaux - Philippe Giraudeau

- Master: Réalités Virtuelles et augmentées, 18h eqTD, M2 Computer science, Université de Bordeaux - Martin Hachet,

- Master: Réalités Virtuelles et augmentées, 6h eqTD, M2 Computer science, Université de Bordeaux - Fabien Lotte,

- Master: Réalités Virtuelles et augmentées, 18h eqTD, M2 Computer science, Université de Bordeaux - Rajkumar Darbar

- Master: Neuroergonomics & Brain-Computer Interfaces, 2h eqtd, Master Human-Computer Interaction, Ludwig-Maximilians-Universität München, Germany - Fabien Lotte

- Bachelor: Initiation to computer sciences, 31.66h eqTD, L1 Université de Bordeaux - Adélaïde Genay

- Bachelor: C programing, 14,67h eqTD, L2 Université de Bordeaux - Adélaïde Genay

- Engineering school: Ergonomie et Interaction, 15h eqTD, 3rd year, ENSEIRB, INP - Martin Hachet

- Engineering school: Réalités Virtuelles et augmentées, 1,5h eqTD, ENSC - Martin Hachet

- Engineering school: Web programming, ENSC - Lauren Thevin

- Engineering School: Aeronautical engineering and Neuroergonomics, 3h eqTD, M2 ISAE-Supaero, Toulouse - Fabien Lotte

- Engineering school: Immersion and interaction with visual worlds, 4h eqtd, Graduate Degree Artificial Intelligence, Ecole Polytechnique Palaiseau - Fabien Lotte

- Engineering school: Advanced mathematics and computer science, 2018-2019: 61.5h eqTD, Ecole Nationale Supérieure des Arts et Metiers, ENSAM, Bordeaux, France - Camille Benaroch

- Engineering school: Lecture "Interface Cerveau-Ordinateur (BCIs) Le quotidien de la recherche", UE Systèmes Cognitifs (CNU 27), 2h eqTD, ENSC, Bordeaux INP - Aline Roc and Léa Pillette

10.2.2. Supervision

- PhD in progress: Adelaïde Genay, Hybrid Avatars, 1/10/2019, Martin Hachet

- PhD in progress: Rajkumar Darbar, Actuated Tangible User Interfaces, Since 1/12/2017, Martin Hachet

- PhD in progress: Philippe Giraudeau, Collaborative learning with tangible and aumented interfaces, Since 1/10/2017, Martin Hachet

- PhD in progress: Marc Baloup, Interaction with Avatars, Since 1/10/2018, Martin Hachet (33%)

- PhD in progress: Aurélien Appriou, Estimating learning-related mental states in EEG, since 1/10/2017, Fabien Lotte

- PhD in progress: Camille Benaroch, Computational Modeling of BCI user training, since 1/10/2018, Fabien Lotte (50%)

- PhD in progress: Aline Roc, Designing, studying and optimzing training tasks and training program for BCI control, Fabien Lotte

- PhD defended: Pierre-Antoine Cinquin, Design and Experimental Validation of Accessible E-learning systems for people with cognitive disabilities, November 23th 2019, Pascal Guitton (50%)

- PhD defended: Jelena Mladenovic, User modeling for Adaptive BCI design, since 01/01/2016, Defended 10/09/2019, Fabien Lotte (50%)

- PhD defended: Léa Pillette, Formative feedback for BCI, since 01/10/2016, Defended 16/12/2019, Fabien Lotte (50%)

10.2.3. Juries

- HDR: Isabelle Pecci [president], Université de Lorraine, Martin Hachet

- HDR: Pierrick Legrand [examiner], Univ. Bordeaux, France, Fabien Lotte

- HDR: Selina Wriessnegger [with report], TU Graz, Austria, Fabien Lotte
- PhD: Grégoire Cattan [with report], Univ. Grenoble Alpes, Martin Hachet
- PhD: Sylvain Pauchet [with report], ISAE Supaero, Martin Hachet
- PhD: Flavio Camarrone [with report], KU Leuven, Belgium, Fabien Lotte
- PhD: Andreas Meinel [with report], Univ. Freiburg, Germany, Fabien Lotte
- PhD: Fanny Grosselin [with report], Sorbonne Université, France, Fabien Lotte
- PhD: Kevin Verdière [president], ISAE-Supaero, France, Fabien Lotte
- PhD: Pedro Luiz Coelho Rodrigues [examiner], Grenoble INP, France, Fabien Lotte
- PhD: Hakim Si Mohammed [guest], INSA Rennes, France, Fabien Lotte
- PhD: Leticia Seixas-Pereira [guest], Univ. Paris 8, France, Pascal Guitton
- PhD: Thomas Crespel [president], Univ. Bordeaux, France, Pascal Guitton
- MD: Andrea Ferrier [examiner], Univ. Bordeaux/CHU Bordeaux, France, Fabien Lotte
- MS: Jaime A. Riascos [examiner], Federal University of Rio Grande do Sul, Brazil, Fabien Lotte

10.3. Popularization

10.3.1. Articles and contents

- Interview - video portrait for "Dealers de Science" made by 2nd year Master's student in Mediation of the Sciences (to be published online in 1-2 months), December 2019 - Aline Roc
- Petit binaire : les dessous du JPEG, Blog binaire – Le Monde, May 2019, Pascal Guitton, [37]
- Ethique du numérique pour la santé, Blog binaire – Le Monde, November 2019, Pascal Guitton, [38]

10.3.2. Interventions

- Computer Sciences and Art - Rencontre Mexique-France - La culture à l'ère numérique, Nov 2019 - Martin Hachet
- FACTS Festival, Art and Sciences, Bordeaux Nov. 2019 - Martin Hachet
- "Des étoiles pleins les yeux". Rancards du Savoir. Bordeaux Nov. 2019 - Martin Hachet
- PubHD Bordeaux, November 2019 - Philippe Giraudeau
- "Erlen, an Ambiant Interface dedicated to the awareness of energy consumption" BootCamp #7 for Digital Vice-Presidents of french Universities, November 2019, Bordeaux - Philippe Giraudeau
- "Why and How to train to control a Brain-Computer Interfaces?", BCI: Science and Practice international conference, outreach lecture, Samara, Russia, October 2019 - Fabien Lotte
- "One year of scientific visit on neurotechnologies at the RIKEN Brain Science Institute, Japan", Japanese Society for the promotion of Science (JSPS) Business meeting, Bordeaux, September 2019 - Fabien Lotte
- "Progrès et applications des interfaces cerveau-ordinateur", Séminaire IRGO, Bordeaux, France, April 2019 - Fabien Lotte
- "Pourquoi et comment apprendre à contrôler une interface cerveau-ordinateur ?", conférence 'les interfaces cerveau-machine : piloter un objet par l'activité cérébrale', cité des sciences et de l'industrie, Paris, France, February 2019 - Fabien Lotte
- "Ethique et numérique", Festival Transfo, Plongez dans l'univers du numérique, Grenoble, January 2019 - Pascal Guitton

10.3.3. Internal action

- InfoBreak Inria Bordeaux, "Une équipe de choc pour interfacer cerveaux et machines" - Fabien Lotte

TITANE Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events: Organisation

10.1.1.1. General Chair, Scientific Chair

Pierre Alliez was program co-chair of the EUROGRAPHICS conference and of the Symposium on Solid and Physical Modeling (SPM).

10.1.2. Scientific Events: Selection

10.1.2.1. Member of the Conference Program Committees

- Pierre Alliez: member of the advisory board for EUROGRAPHICS 2020.
- Florent Lafarge: EUROGRAPHICS
- Yuliya Tarabalka: ICCV

10.1.2.2. Reviewer

- Pierre Alliez: ACM SIGGRAPH, SIGGRAPH Asia, Symposium on Geometry processing.
- Florent Lafarge: CVPR, ICCV, SIGGRAPH.

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

- Pierre Alliez: associate editor of the Computer Graphics Forum, Computer-Aided Geometric Design and Computer-Aided Design. He is also a member of the editorial board of the CGAL open source project.
- Florent Lafarge: associate editor of The Visual Computer and the Revue Française de Photogram-métrie et de Télédétection, and member of the Editorial Advisory Board of the ISPRS Journal of Photogrammetry and Remote Sensing

10.1.3.2. Reviewer - Reviewing Activities

- Pierre Alliez: reviewer for Computer Graphics Forum and ACM Transactions on Graphics.
- Florent Lafarge: reviewer for the ISPRS Journal of Photogrammetry and Remote Sensing and the International Journal of Computer Vision.

10.1.4. Invited Talks

Pierre Alliez gave invited talks at Cambridge university, Google X and UCLA.

10.1.5. Leadership within the Scientific Community

Pierre Alliez is a member of the Steering Committees of the EUROGRAPHICS Symposium on Geometry Processing, EUROGRAPHICS Workshop on Graphics and Cultural Heritage and Executive Board Member for the Solid Modeling Association.

10.1.6. Scientific Expertise

Pierre Alliez was a reviewer for the European commission and ANR, and is a scientific advisory board member for the Bézout Labex in Paris (Models and algorithms: from the discrete to the continuous).

10.1.7. Research Administration

Pierre Alliez is Head of Science of the Inria Sophia Antipolis center and a member of the scientific committee of the 3IA Côte d'Azur.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Master: Pierre Alliez, Florent Lafarge and Gaétan Bahl, advanced machine learning, 21h, M2, university Nice Sophia Antipolis, France.

Master: Pierre Alliez, data visualization, 3h, M2, university Côte d'Azur, France.

Master: Pierre Alliez and Florent Lafarge, 3D Meshes and Applications, 32h, M2, Ecole des Ponts ParisTech, France.

Master: Florent Lafarge, Traitement d'images numériques, 6h, M2, university Nice Sophia Antipolis, France.

Master: Pierre Alliez and Florent Lafarge, Interpolation numérique, 60h, M1, university Nice Sophia Antipolis, France.

Master: Florent Lafarge, Mathématiques pour la géométrie, 20h, M1, EFREI, France.

Master: Yuliya Tarabalka, Discrete inference and learning, 12h, M2 MVA, ENS Paris-Saclay & CentraleSupelec, France.

10.2.2. Supervision

PhD defended January 16th: Hao Fang, Geometric modeling of man-made objects at different level of details, since March 2016, Florent Lafarge.

PhD defended December 6th: Jean-Philippe Bauchet, Kinetic data structures for the geometric modeling of urban environments, since October 2016, Florent Lafarge.

PhD in progress: Julien Vuillamy, city reconstruction from multi-sourced data, since April 2018, Pierre Alliez and Florent Lafarge.

PhD in progress: Muxingzi Li, indoor reconstruction from a smartphone, since February 2018, Florent Lafarge.

PhD in progress: Lionel Matteo: From Pleiades images to very high resolution topography in complex zones, since September 2017, Yuliya Tarabalka and Isabelle Manighetti.

PhD in progress: Onur Tasar, Using deep learning approaches to devise an efficient representation for large-scale satellite images, since October 2017, Yuliya Tarabalka and Pierre Alliez.

PhD in progress: Nicolas Girard, How to structure satellite data, since November 2017, Yuliya Tarabalka.

PhD in progress: Vincent Vadez, Geometric simplification of satellites for thermal simulation, since August 2018, Pierre Alliez.

PhD in progress: Gaétan Bahl, low-power neural networks, since March 2019, Florent Lafarge.

PhD in progress: Mulin Yu, remeshing urban-specific CAD formats, since November 2019, Florent Lafarge.

PhD in progress: Tong Zhao, shape reconstruction, since November 2019, Pierre Alliez and Laurent Busé (from the Aromath Inria project-team).

PhD stopped after one year: Flora Quilichini, Geometry Compression, between January 2018 and June 2019, Pierre Alliez and Guillaume Lavoué (INSA Lyon).

10.2.3. Juries

- Pierre Alliez was a PhD committee member for Siargey Kachanovich and Jean-Philippe Bauchet (Inria Sophia Antipolis). He was a reviewer for the habilitation committee of Sébastien Valette (INSA Lyon).
- Florent Lafarge was a PhD thesis reviewer for Romain Rombourg (University of Grenoble Alpes) and Thomas Holzmann (TU Graz, Austria).

10.3. Popularization

10.3.1. Interventions

- Pierre Alliez gave a talk on geometric modeling in a high school in Cannes, April 26th.

<p style="text-align:center">**ALMANACH Project-Team**</p>

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events: Organisation

10.1.1.1. General Chair, Scientific Chair

- BS organised with Annie Rialland and Catherine Schnedecker the 2019 "Journée de la Société de Linguistique de Paris", dedicated this year to "Corpus, analyses quantitatives et modèles linguistiques" (January 2019)

- DS was the co-chair of the SyntaxFest (Paris, 26-30 August 2019), a one-week event colocating a number of previously independent conferences and workshops on topics ranging from syntax to parsing and treebank development (including the UD workshop), as well as the co-chair of one of these conferences (Treebank and Linguistic Theories, TLT).

- KG was the co-chair of the International Conference on Dependency Linguistics, Depling 2019, another event of the SyntaxFest.

10.1.2. Scientific Events: Selection

10.1.2.1. Member of the Conference Program/Scientific/Reviewing Committees

- BS: Member of the Program, Scientific or Reviewing Committee of the following conferences and workshops: EMNLP-IJCNLP 2019, ACL 2019, NAACL 2019

- LR: Member of the Program, Scientific or Reviewing Committee of the following conferences and workshops: CMLC 2019, eLex 2019, ISA-15, TOTh 2019, LDK 2019, DATeCH 2019, ElPub 2019

- KG: Member of the Program, Scientific or Reviewing Committee of the following conferences and workshops: ACL 2019, SyntaxFest 2019 including Depling and Workshop on Universal Dependencies, Workshop on Multilingual Surface Realization, 2019, CoNLL 2019, EMNLP-IJCNLP 2019, International Conference on Natural Language Generation (INLG) 2019, LAW XIII 2019 (The 13th Linguistic Annotation Workshop), Rencontre des Jeunes Chercheurs en Parole

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

- LR: Member of the scientific committe of the French speaking DH journal *Humanités numériques*

- KG: Member of the scientific committe of the *Journal of Linguistics*

10.1.3.2. Reviewer - Reviewing Activities

- BS: Reviewer for *Traitement Automatique des Langues*, *wék^{w}os*

- AC: Reviewer for *Digital Humanities 2020 - Intersections/Carrefours*

10.1.4. Invited Talks

- DS, invited talk, "Faire face au syndrome du Jabberwocky: Analyses morpho-syntaxiques en environnement hostile", at the Societé Linguistique de Paris (SLP) (Janvier 2019)

- BS, "Représentation et exploitation des informations lexicales", CENTAL, Louvain-la-Neuve, Belgium (April 2019)

- BS, "Morphological complexities", joint invited talk (with Géraldine Walther) at ACL 2019's SIGMORPHON workshop, Florence, Italy (July 2019) [15]

- LR, "The TEI as a modeling infrastructure: TEI beyond the TEI realms". Ringvorlesung Digital Humanities, Paderborn, Germany (July 2019).
- LR, "Where is the place of scientific lexicography in science?", Lorentz workshop: The Future of Academic Lexicography, Leiden, The Netherlands (Nov. 2019)
- LR, "Digital transition of SSH", LERU Information and Open Access (INFO) Policy Group meeting, Strasbourg, France (Dec. 2019)
- EVdlC, "Acquisition de connaissances à partir de corpus analysés syntaxiquement" Seminar at Nokia Bell Labs, France (June 2019)
- EVdlC, "Évolutions et pertinence des plongements lexicaux", workshop on "Machine learning, données textuelles et recherche en sciences humaines et sociales", ENS Lyon, France (Nov. 2019)
- Benjamin Muller, "Transfer Learning on an unseen North African Arabic Dialect", Bar Ilan University, Israel (24 Nov 2019)
- Mohamed Khemakhem was invited to the "ELEXIS Observers" event to give a talk [0] about structuring historical dictionaries and the use of GROBID-Dictionaries, Austrian Academy of Sciences, Austria (February 2019)
- KG, "Instant treebanks: Tools and methods to quickly build syntactically annotated corpora from scratch", Workshop "Annotation of non-standard corpora (2019)", University of Bamberg, Germany in September.

10.1.5. Training

- Mohamed Khemakhem chaired and tutored the GROBID-Dictionaries workshop series:
    - ELEXIS workshop - Berlin (March 2019)
    - Atelier de formation CollEx-Persée - Paris (September 2019)
- Following the aforementioned 'Symposium on Naija', a Master Class of one week was organised in June 2019 at the ARCIS institute of the University of Ibadan, Nigeria, on "Crowd-sourcing Web Corpora of Nigerian Languages" taught by KG and Slavomír Čéplö (from the Austrian Academy of Sciences).

10.1.6. Leadership within the Scientific Community

An important aspect of ALMAnaCH's work relates to standardisation initiatives, especially within the ISO TC37 committee on language and terminology. Laurent Romary is the President of this committee and the convenor of its working group TC37/SC4 on lexical resources, within which he and a number of other ALMAnaCH members (Jack Bowers, Mohamed Khemakhem, Benoît Sagot, Éric de La Clergerie) have responsibilities (as project leaders or co-leaders). Most of them are related to the revision as a multi-part standard of ISO 24613 (Lexical Markup Framework, [14]), the first part of which was published in June 2019.

ALMAnaCH members have also played a key role in developing the Standardisation Survival Kit, an online tool hosted by Huma-num which focuses on giving researchers access to standards in a meaningful way by using research scenarios which cover all the domains of the Humanities, from literature to heritage science, including history, social sciences, linguistics, etc. We have published one publications on this topic in 2019 [64], following numerous ones over the last few years.

Other examples of ALMAnaCH's leadership within the scientific community are the following:
- LR: Member of the ELEXIS Interoperability and Sustainability Committee (ISC) — ELEXIS is the European Lexicographic Infrastructure (https://elex.is)
- EVdLC: Chairman of the ACL special interest group SIGPARSE (ended in 2019)
- BS: Member, Deputy Treasurer and Member of the Board of the Société de Linguistique de Paris
- DS: Board member of the French NLP society (Atala, 2017-2020), Vice-President of the Atala and program chair of the "journée d'études".
- DS: Member of the ACL's BIG (Broad Interest Group) Diversity group.
- Mohamed Khemakhem: Member of the DARIAH Working Group "Bibliographical Data"

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[0]http://videolectures.net/elexisobserver2019_khemakhem_dictionaries/

10.1.7. Scientific Expertise

- LR is an advisor for scientific information to Inria's deputy CEO for Science.

10.1.8. Research Administration

- BS is a member of Inria Paris's Scientific Committee ("Comité des Projets") and of its Board ("Bureau du Comité des Projets"), and a member of the International Relations Working Group of Inria's Scientific and Technological Orientation Council (COST-GTRI)

- BS is the Deputy Head (and former Head) of the research strand on Language Resources of the LabEx EFL (Empirical Foundations of Linguistics), and is therefore a deputy member of the Governing Board of the LabEx

- LR is the President of the scientific committee of ABES (Agence Bibliographique de l'Enseignement Supérieur), and a Member of the Text Encoding Initiative board

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

- Master: Benoît Sagot (with Emmanuel Dupoux), "Speech and Language Processing", 20h, M2, Master "Mathématiques, Vision, Apprentissage", ENS Paris-Saclay, France

- Master: Loïc Grobol, "Introduction à la fouille de textes", 39h, M1, Université Sorbonne Nouvelle, France

- Master: Loïc Grobol, "Langages de script", 39h, M2, INaLCO, France

- Eq. Master: Clémentine Fourrier, "Module TDLog - Techniques de Developpement Logiciel" (computer science opt-in course in Python), 18h, M1 and M2, École des Ponts ParisTech, France

- Eq. Bachelor second year: Gaël Guibon, "Introduction to Python and Programming" (for business school students and english speakers) 25h, International BBA 2, ESSEC Business School, France

- Master: Alix Chagué, "Humanités Numériques", 18h, M1, Institut d'études culturelles et internationales (IECI), Université Versailles-Saint-Quentin-en-Yvelines, France.

- Master: Alix Chagué, "Introduction à LaTeX", 5h, M1, Institut d'études culturelles et internationales (IECI), Université Versailles-Saint-Quentin-en-Yvelines, France.

- Master: Alix Chagué, "Introduction à Linux", 5h, M1, Institut d'études culturelles et internationales (IECI), Université Versailles-Saint-Quentin-en-Yvelines, France.

- Licence: Pedro Ortiz, "Mathématiques discrètes", 40h, L2, Licence de Sciences et Technologies, Faculté de Sciences et Ingénierie, Sorbonne Université, Paris, France.

- Licence: Mathilde Regnault, "Informatique et industries de la langue", 20h, L2, Licence Sciences du langage, Université Sorbonne nouvelle - Paris 3, Paris, France.

10.2.2. Supervision

PhD in progress: Mohamed Khemakhem, "Structuration automatique de dictionnaires à partir de modèles lexicaux standardisés", September 2016, Paris Diderot, supervised by Laurent Romary

PhD in progress: Loïc Grobol, "Coreference resolution for spoken French", "Université Sorbonne Nouvelle", started in Oct. 2016, supervised by Frédéric Landragin (main superviser), Isabelle Tellier[†] (main superviser), Éric de La Clergerie and Marco Dinarelli

PhD in progress: Jack Bowers, "Technology, description and theory in language documentation: creating a comprehensive body of multi-media resources for Mixtepec-Mixtec using standards, ontology and Cognitive Linguistics", started in Oct. 2016, EPHE, supervised by Laurent Romary

PhD in progress: Axel Herold, "Automatic identification and modeling of etymological information from retro-digitized dictionaries", October 2016, EPHE, Laurent Romary

PhD in progress: Mathilde Regnault,"Annotation et analyse de corpus hétérogènes", "Université Sorbonne Nouvelle", started in Oct. 2017, supervised by Sophie Prévost (main superviser), Isabelle Tellier[†], and Éric de la Clergerie

PhD in progress: Louis Martin, "Text Simplification", June 2018, Facebook & Sorbonne Université ("CIFRE" PhD), supervised by Benoît Sagot and Éric de La Clergerie

PhD in progress: Pedro Ortiz, "Automatic Enrichment of Ancient Dictionaries", October 2018, Sorbonne Université, supervised by Laurent Romary and Benoît Sagot

PhD in progress: Benjamin Muller, "Multi-task learning for text normalisation, parsing and machine translation", October 2018, Sorbonne Université, supervised by Benoît Sagot and Djamé Seddah

PhD in progress: José Carlos Rosales, supervised by Guillaume Wisnewski (Limsi) and Djamé Seddah, October 2018

PhD in progress: Clémentine Fourrier, "Neural approaches to the modelling of phonetic evolution", October 2019, EPHE (Inria fellowship), Benoît Sagot

10.2.3. *Juries*

- BS: reviewer ("rapporteur") of the PhD committee for Nourredine Alliane at Université Paris 8 on 17th May (Title: "Évaluation des représentations vectorielles de mots"; Supervisor: Gilles Bernard)

- BS: reviewer of the PhD committee for Tamara Álvarez López at Université de Vigo, Spain, on 29th November (Title: "Sentiment analysis in social media contents using natural language processing techniques"; Supervisors: Enrique Costa Montenegro and Milagros Fernández Gavilanes)

- BS: member of the PhD committee for Hazem Al Saied at Université de Lorraine on 20th December (Title: "Analyse automatique par transitions pour l'identification des expressions polylexicales"; Supervisors: Matthieu Constant and Marie Candito)

- LR: Reviewer of the PhD committee for Elina Leblanc, Université de Grenoble Alpes (title: "Bibliothèques numériques enrichies et participatives : utilisateurs, services, interfaces", Supervisors: Elena Pierazzo and Hervé Blanchon)

- EVdlC: Reviewer of the PhD committee for Diana Nicoleta Popa, Université de Grenoble Alpes (title: "Vers des représentations contextualisées de mots", Supervisor: Éric Gaussier)

- KG: reviewer of the PhD committee for Mohammed Galal at the University of Ain Shams, Egypt, on January 8 (Title: "Les constructions exceptives du français et de l'arabe : syntaxe et interface sémantique-syntaxe"; Supervisor: Sylvain Kahane in codirection with Dina El-Kassas)

- KG: President of the PhD committee for Marie-Amélie Botalla at the Sorbonne Nouvelle on May 14 (Title: "Modélisation de la production des énoncés averbaux : le cas des compléments différés", Supervisors: Jeanne-Marie Debaisieux and Sylvain Kahane)

10.3. Popularization

10.3.1. *Articles and contents*

- BS was interviewed by David Larousserie, from the French daily newspaper Le Monde, about the release of CamemBERT, in October and December 2019. This resulted in an article in the newspaper, accessible here (subscription required).

- LR was interviewed the radio France Culture about the release of CamemBERT, in October 2019. The interview was aired on the radio.

- AC has taken in charge the content management of the Time Us project's research blog since April 2019, which aims at presenting sources, good practices and results used and elaborated by all the project members.

10.3.2. *Interventions*

- Welcoming of schoolchildren at Inria Paris (half a day with ALMAnaCH members within an one-week-long stay; December 2019)

- Clémentine Fourrier co-organised the Young Women Mathematician Days (Inria Paris edition): 2 days of talks, mathematical animations and speed meetings with women scientists or engineers at the Inria Paris center, for high school girls

- Clémentine Fourrier was a speaker at the ESPCI highschool students summer school, to introduce the different jobs of computer science engineer to high school girls, in research and the industry, and animated an introductory software development workshop in Python over an afternoon

- Alix Chagué was the speaker for 6th workshop organised by the Alumni Association of the École nationale des chartes's Masters (ADEMEC), to introduce the software Transkribus and guidelines for text extraction (March 2019).

10.3.3. Internal action

- BS presented he January 2019 edition of the "demi-heure de science" at Inria Paris, whose target audience is researchers from all Inria Paris teams

- BS presented he June 2019 edition of Inria Paris' "my team in 180 seconds" event, whose target audience is both researchers and non-scientific Inria personnel

- CF presented softwares and good practices (Docker, GitLab and version control, Diverting Gitlab to create a small website) at the Inria developper meetup, whose target audience is both researchers and engineers.

COML Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific Events Organisation

9.1.1.1. General Chair, Scientific Chair

- E. Dupoux & E. Dunbar: Co-organizers of the INTERSPEECH 2019 Zero Ressource Challenge Session.

9.1.1.2. Member of the Organizing Committees

- Executive committee of SIGMORPHON (Association for Computational Linguistics Special Interest Group, http://www.sigmorphon.org/).
- Executive committee of DARCLE http://www.darcle.org.

9.1.2. Scientific Events Selection

9.1.2.1. Reviewer

Invited editor for international conferences: Interspeech, NIPS, ACL, etc. (around 5-10 papers per conferences, 2 conferences per year)

9.1.3. Journal

9.1.3.1. Member of the Editorial Boards

Member of the editorial board of: Mathématiques et Sciences Humaines, L'Année Psychologique, Frontiers in Psychology.

9.1.3.2. Reviewer - Reviewing Activities

Invited Reviewer for Frontiers in Psychology, Cognitive Science, Cognition, Transactions in Acoustics Signal Processing and Language, Speech Communication, etc. (around 4 papers per year)

9.1.4. Invited Talks

- Dec/4/2019, E. Dupoux, Invited Speaker, Symposium NeuroDevRob: Developmental AI, Cergy Pontoise
- Jul/15/2019, E. Dupoux, Invited Seminar, Microsoft Research: Inductive Biases and Language Emergence in Communicative Agents, Seattle
- Jun/26/2019, E. Dupoux, Invited Speaker, DARPA MCS Kickoff Meeting: Measuring Intuitive Physics Understanding in Artificial Systems, Washington DC
- May/26/2019, E. Dupoux, Invited Speaker, Facebook CogSci-AI Workshop: Learning speech like infants do, New York
- Mar/14/2019, E. Dupoux, GDR TAL, Artificial models of language acquisition, Paris
- Jan/13/2019, E. Dupoux, Invited Seminar, UTC Compiegne, Developmental AI

9.1.5. Scientific Expertise

E. Dupoux is invited expert for ERC, ANR, and other granting agencies, or tenure committees (around 2 per year).

9.1.6. Research Administration

E. Dupoux is on the Executive committee of the Foundation Cognition, the research programme IRIS-PSL "Sciences des Données et Données des Sciences", the industrial chair Almerys (2016-) and the collective organization DARCLE (http://www.darcle.org).

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

E. Dupoux is co-director of the Cognitive Engineering track in the Cognitive Science Master (ENS, EHESS, Paris V).

- Master : E. Dupoux (with B. Sagot, ALMANACH, N. Zeghidour & R. Riad, COML), "Algorithms for speech and language processing", 30h, M2, (MVA), ENS Cachan, France
- Master : E. Dupoux, "Cognitive Engineering", 80h, M2, ITI-PSL, Paris France
- Doctorat : E. Dupoux, "Computational models of cognitive development", 32 h, Séminaire EHESS, Paris France
- Master: E. Dunbar, "Phonology" , 36 h, Master Sciences du Langage, Paris Diderot
- Master: E. Dunbar, "Statistics", 28h, Master Sciences du Langage, Paris Diderot
- Licence 3: E. Dunbar, "Phonology", 36h, Licence Sciences du Langage, Paris Diderot
- Licence 3: E. Dunbar, "Experimental methods", 36h, Licence Sciences du Langage, Paris Diderot

9.2.2. Supervision

- defended PhD: Neil Zeghidour, Learning speech features from raw signals, Feb 2015-13 Mar 2019, co-advised E. Dupoux, N. Usunier (Facebook-CIFRE)
- PhD in progress : Rahma Chaabouni, Language learning in artificial agents, Sept 2017, co-advised E. Dupoux, M. Baroni (Facebook-CIFRE)
- PhD in progress : Ronan Riochet, Learning models of intuitive physics, Sept 2017, co-advised E. Dupoux, I. Laptev, J. Sivic
- PhD in progress : Rachid Riad, "Speech technology for biomarkers in neurodegenerative diseases" , Sept 2018, co-advised E. Dupoux, A.-C. Bachoud-Levi
- PhD in progress : Robin Algayres "Audio word embeddings and word segmentation" , from Oct 2019, co-advised E. Dupoux, B. Sagot
- PhD in progress: Juliette Millet, "Modeling L2 Speech perception", from Sept 2018, advised E. Dunbar Bachoud-Lévi

9.2.3. Juries

E. Dupoux participated in the HDR jury of Jacques Cartier Jul 3, 2019.

9.3. Popularization

E. Dupoux presented the startup project BabyCloud at the CNRS innovatives SHS Salon, May 14-16, Lille.

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MULTISPEECH Project-Team

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10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events: Organisation

10.1.1.1. General Chair, Scientific Chair

Elected chair, Steering Committee of the Latent Variable Analysis and Signal Separation (LVA/ICA) conference series (E. Vincent, until Nov. 2019)

General co-chair, 1st Inria-DFKI Workshop on Artificial Intelligence, Nancy, Jan. 2020 (E. Vincent)

General co-chair, 6th CHiME Speech Separation and Recognition Challenge, May 2020 (E. Vincent)

General co-chair, 6th International Workshop on Speech Processing in Everyday Environments, Barcelona, Spain, May 2020 (E. Vincent)

General co-chair, 1st Voice Privacy Challenge, Sept. 2020 (E. Vincent)

General co-chair, Detection and Classification of Acoustic Scenes and Events Challenge (R. Serizel, since Nov. 2018)

Area chair, 2019 IEEE Workshop on Applications of Signal Processing to Audio and Acoustics (WASPAA) (E. Vincent)

Area chair, 2020 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP) (E. Vincent, A. Deleforge)

10.1.1.2. Member of the Organizing Committees

Steering Committee of the Detection and Classification of Acoustic Scenes and Events (DCASE) challenge series (E. Vincent until Nov. 2019, R. Serizel from Nov. 2019)

Organizing Committee of the ASVspoof 2019 Challenge: Automatic Speaker Verification Spoofing And Countermeasures Challenge (M. Sahidullah)

Organizing Committee of Special Sessions on ASVspoof 2019 at INTERSPEECH 2019 and at IEEE ASRU 2019 (M. Sahidullah).

Organizing Committee of AVSP 2019 (S. Ouni)

Main organizer of IEEE Signal Processing Cup 2019 on Search & Rescue with Drone-Embedded Sound Source Localization (A. Deleforge).

10.1.2. Scientific Events Selection

10.1.2.1. Chair of Conference Program Committees

Review chair, IEEE Technical Committee on Audio and Acoustic Signal Processing, responsible for organizing the review of the 443 papers submitted to the 2019 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP) in the general AASP domain (E. Vincent)

10.1.2.2. Member of the Conference Program Committees

ICALP 2019 - International Conference on Arabic Language Processing (D. Jouvet)

SIIE 2019 - Edition of the International Conference on Information Systems and Economic Intelligence (D. Fohr, I. Illina)

SPECOM 2019 - International Conference on Speech and Computer (D. Jouvet)

TSD 2019 - International Conference Text, Speech and Dialogue (D. Jouvet)

10.1.2.3. Reviewer

ASRU 2019 - IEEE Automatic Speech Recognition and Understanding Workshop (D. Jouvet, I. Illina, S. Ouni, M. Sahidullah, E. Vincent)

AVSP 2019 - International Conference on Auditory-Visual Speech Processing (S. Ouni)

DCASE 2019 - Workshop on Detection and Classification of Acoustic Scenes and Events (R. Serizel, E. Vincent)

ECML PKDD Joint International Workshop on Advances in Interpretable Machine Learning and Artificial Intelligence & eXplainable Knowledge Discovery in Data Mining (E. Vincent)

EUSIPCO 2019 - European Signal Processing Conference (M. Sahidullah)

ICALP 2019 - International Conference on Arabic Language Processing (D. Jouvet)

ICASSP 2020 - IEEE International Conference on Acoustics, Speech and Signal Processing (A. Bonneau, A. Deleforge, D. Jouvet, M. Sahidullah, R. Serizel, E. Vincent)

ICPhS 2019 - International Congress of Phonetic Sciences (A. Bonneau, Y. Laprie)

INTERSPEECH 2019 (A. Bonneau, I. Illina, D. Jouvet, S. Ouni, M. Sahidullah, E. Vincent)

IROS 2019 - International Conference on Intelligent Robots and Systems (A. Deleforge)

IVA 2019 - Intelligent Virtual Agents Conference (S. Ouni)

NeurIPS 2019 - Conference on Neural Information Processing Systems (A. Deleforge)

PaPE 2019 - Phonetics and Phonology in Europe conference (A. Bonneau)

SLATE 2019 - Workshop on Speech and Language Technology in Education (A. Bonneau, D. Jouvet)

SPECOM 2019 - International Conference on Speech and Computer (D. Jouvet)

TSD 2019 - International Conference Text, Speech and Dialogue (D. Jouvet)

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

Speech Communication (D. Jouvet)

Journal on Audio, Speech, and Music Processing (Y. Laprie)

Associate Editor of Circuits, Systems, and Signal Processing (M. Sahidullah)

Associate Editor of IET Signal Processing (M. Sahidullah)

Guest Editor of Computer Speech and Language, Special issue on Advances in Automatic Speaker Verification Anti-spoofing (M. Sahidullah)

Guest Editor of Journal on Audio, Speech and Music Processing, special issue on Advances in Audio Signal Processing for Robots and Drones (A. Deleforge)

10.1.3.2. Reviewer - Reviewing Activities

Computer Speech and Language (A. Deleforge, D. Jouvet, M. Sahidullah)

IEEE Access (A. Deleforge)

IEEE Signal Processing Letters (A. Deleforge, M. Sahidullah)

IEEE Transactions on Audio, Speech and Language Processing (M. Sahidullah, A. Deleforge)

IEEE Transactions on Biometrics, Behavior, and Identity Science (M. Sahidullah)

IEEE Transactions on Cognitive and Developmental Systems (A. Deleforge)

IEEE Transactions on Information Forensics and Security (M. Sahidullah)

IEEE Transactions on Signal Processing (A. Deleforge)

IET Biometrics (M. Sahidullah)

JASA Express Letter (Y. Laprie, S. Ouni)

Journal of the Acoustical Society of America (Y. Laprie)

Journal of Language, Speech and Hearing Research (Y. Laprie)

Journal on Audio, Speech, and Music Processing (A. Deleforge)

Sensors (A. Deleforge)

Speech Communication (D. Jouvet)

10.1.4. Invited Talks

Keynote "Grands défis scientifiques et technologiques en traitement de la parole: quelles initiatives chez Inria et au niveau européen?", Voice Tech Paris 2019 (E. Vincent) [18]

Keynote "Speech Processing and Prosody", 22nd International Conference of Text, Speech and Dialogue (TSD 2019) (D. Jouvet) [15]

"COMPRISE", META-FORUM 2019 (E. Vincent) [17]

Lecture "Taking the Best of Physics and Machine Learning in Robot Audition", IEEE/EURASIP/ISIF 2019 Summer School of Signal Processing, Arenzano, Italy (A. Deleforge)

Language pathology, Séminaire "Dépistage des troubles des apprentissages" in EHESP, Rennes, Jan. 2019 (A. Piquard-Kipffer)

"Dyslexie, dysorthographie : quels parcours scolaires ? Quelles rémédiations et adapatations ?" in Journée nationale des Dys, Bavilliers, Oct. 2019 (A. Piquard-Kipffer)

10.1.5. Leadership within the Scientific Community

Secretary/Treasurer, executive member of AVISA (Auditory-VIsual Speech Association), an ISCA Special Interest Group (S. Ouni)

Member of the board of AFCP - Association Francophone de la Communication Parlée (S. Ouni)

Elected members of the IEEE Technical committee on Audio and Acoustic Signal Processing (A. Deleforge, R. Serizel).

10.1.6. Scientific Expertise

Member of the Scientific Committee of an Institute for deaf people (INJS-Metz), A. Piquard-Kipffer

Member of an expertise Committee for specific language disabilities (MDPH 54), A. Piquard-Kipffer

10.1.7. Research Administration

Head of the AM2I Scientific Pole of Université de Lorraine (Y. Laprie)

Deputy Head of Science of Inria Nancy - Grand Est (E. Vincent)

Member of Management board of Université de Lorraine (Y. Laprie)

Member of the Comité Espace Transfert of Inria Nancy - Grand Est (E. Vincent)

Member of the national recruitment jury for Inria Junior Research Scientists (E. Vincent)

Member of the recruitment jury for Junior Research Scientists, Inria Paris (E. Vincent)

Member of a recruitment committee for Assistant Professor at Université Paris-Sud, May 2019 (D. Jouvet)

Member of the recruitment jury for an Associate Professor position, University of Lorraine (R. Serizel)

Member of the HCERES committee for Gipsa-Lab (S. Ouni)

Member of the National Council of Universities - CNU 27 (S. Ouni)

Member of "Commission paritaire" of Université de Lorraine (Y. Laprie)

Member of the Commission de développement technologique of Inria Nancy - Grand Est (R. Serizel)

Member of the Commission du personnel scientifique of Inria Nancy - Grand Est (R. Serizel)

Member of the Bureau de la Commission de Mention Informatique (I. Illina, S. Ouni)

Animator of the Commission Locale Développement Durable of Inria Nancy - Grand Est (A. Deleforge)

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

DUT: I. Illina, Java programming (56 hours), Linux programming (58 hours), and Advanced Java programming (40 hours), L1, University of Lorraine, France

DUT: I. Illina, Supervision of student projects and internships (50 hours), L2, University of Lorraine, France

DUT: R. Serizel, Introduction to office tools (108 hours), Multimedia and web (20 hours), Documents and databases (20 hours), L1, University of Lorraine, France

DUT: R. Serizel, Multimedia content and indexing (14 hours), Content indexing and retrieval software (20 hours), L2, University of Lorraine, France

DUT: S. Ouni, Programming in Java (24 hours), Web Programming (24 hours), Graphical User Interface (96 hours), L1, University of Lorraine, France

DUT: S. Ouni, Advanced Algorihms (24 hours), L2, University of Lorraine, France

Licence: A. Bonneau, Speech manipulations (2 hours), L1, Département d'orthophonie, University of Lorraine, France

Licence: A. Bonneau, Phonetics (17 hours), L2, École d'audioprothèse, University of Lorraine, France

Licence: V. Colotte, Digital literacy and tools (hybrid courses, 50 hours), L1, University of Lorraine, France

Licence: V. Colotte, System (45 hours), L3, University of Lorraine, France

Licence: O. Mella, Introduction to Web Programming (22 hours), Digital tools (20 hours), L1, University of Lorraine, France

Licence: O. Mella, Computer Networking (72 hours), L2-L3, University of Lorraine, France

Licence: A. Piquard-Kipffer, Education Science (32 hours), L1, Département d'orthophonie, University of Lorraine, France

Licence: A. Piquard-Kipffer, Learning to Read (34 hours), L2, Département d'orthophonie, University of Lorraine, France

Licence: A. Piquard-Kipffer, Dyslexia, Dysorthographia (12 hours), L3, Département d'orthophonie, University of Lorraine, France

Master: V. Colotte, Introduction to Speech Analysis and Recognition (18 hours), M1, University of Lorraine, France

Master: V. Colotte, Integration project: multimodal interaction with Pepper (10 hours), M2, University of Lorraine, France

Master: D. Jouvet and S. Ouni, Multimodal oral comunication (24 hours), M2, University of Lorraine

Master: Y. Laprie, Speech corpora (30 hours), M1, University of Lorraine, France

Master: O. Mella, Computer Networking (67 hours), Introduction to Speech Analysis and Recognition (12 hours), M1, University of Lorraine, France

Master: S. Ouni, Multimedia in Distributed Information Systems (31 hours), M2, University of Lorraine

Master: A. Piquard-Kipffer, Dyslexia, Dysorthographia diagnosis (9 hours), Deaf people & reading (21 hours), M1, Département d'orthophonie, University of Lorraine, France

Master: A. Piquard-Kipffer , Psycholinguistics (20 hours), Departement Orthophonie, University Pierre et Marie Curie, Paris, France

Master: A. Piquard-Kipffer, French Language Didactics (53 hours), ESPE, INSPE University of Lorraine, France

Master: A. Piquard-Kipffer, Psychology (6 hours), M2, Departement of Psychology, University of Lorraine, France

Master: R. Serizel, Introduction to machine listening (3 hours), M2, University of Lorraine

Master: R. Serizel and S. Ouni, Oral speech processing (24 hours), M2, University of Lorraine

Master: E. Vincent and A. Kulkarni, Neural networks (38 hours), M2, University of Lorraine

Continuous training: O. Mella, DIU "Teaching computer science in high school" (7 hours), Computer science courses for secondary school teachers (ISN courses, 21 hours), ESPE, University of Lorraine, France

Continuous training: A. Piquard-Kipffer, Special Educational Needs (53 hours), ESPE, INSPE, University of Lorraine, France

Other: V. Colotte, Co-Responsible for NUMOC (Digital literacy by hybrid courses) for the University of Lorraine, France (for 7000 students)

Doctorat: A. Piquard-Kipffer , Language Pathology (20 hours), EHESP, University of Sorbonne, Paris, France

10.2.2. Supervision

PhD: Mathieu Fontaine, "Processus alpha-stable pour le traitement du signal", University of Lorraine, Jun. 12, 2019, A. Liutkus and R. Badeau (Télécom ParisTech) [1].

PhD: Lauréline Perotin, "Localisation et rehaussement de sources de parole au format Ambisonique", University of Lorraine, Oct. 31, 2019, R. Serizel, E. Vincent, and A. Guérin (Orange) [2].

PhD: Anastasiia Tsukanova, "Coarticulation modeling in articulatory synthesis", University of Lorraine, Dec. 13, 2019, Y. Laprie .

PhD in progress: Amal Houidhek, "Synthèse paramétrique de parole arabe", Dec. 2015, cotutelle, V. Colotte, D. Jouvet and Z. Mnasri (ENIT, Tunisia).

PhD in progress: Amine Menacer, "Traduction automatique de vidéos", May 2016, K. Smaïli (LORIA) and D. Jouvet.

PhD in progress: Nathan Libermann, "Deep learning for musical structure analysis and generation", Oct. 2016, F. Bimbot (IRISA) and E. Vincent.

PhD in progress: Théo Biasutto, "Multimodal coarticulation modeling: Towards the animation of an intelligible speaking head", Dec. 2016, S. Ouni.

PhD in progress: Sara Dahmani, "Modeling facial expressions to animate a realistic 3D virtual talking head", Jan. 2017, S. Ouni and V. Colotte.

PhD in progress: Guillaume Carbajal, "Apprentissage profond bout-en-bout pour le rehaussement de la parole", Mar. 2017, R. Serizel, E. Vincent and É. Humbert (Invoxia).

PhD in progress: Sunit Sivasankaran, "Exploiting contextual information in the speech processing chain", Jul. 2017, D. Fohr and E. Vincent.

PhD in progress: Ioannis Douros, "Combining cineMRI and static MRI to analyze speech production", Jul. 2017, P.-A. Vuissoz (IADI) and Y. Laprie.

PhD in progress: Diego Di Carlo, "Estimating the Geometry of Audio Scenes Using Virtually-Supervised Learning", Oct. 2017, A. Deleforge and N. Bertin (Inria Rennes).

PhD in progress: Lou Lee, "Du lexique au discours: les particules discursives en français", Oct. 2017, Y. Keromnes (ATILF) and D. Jouvet.

PhD in progress: Nicolas Turpault, "Deep learning for sound scene analysis in real environments", Jan. 2018, R. Serizel and E. Vincent.

PhD in progress: Raphaël Duroselle, "Adaptation de domaine par réseaux de neurones appliquée au traitement de la parole", Sept. 2018, D. Jouvet and I. Illina.

PhD in progress: Nicolas Furnon, "Deep-learning based speech enhancement with ad-hoc microphone arrays", Oct. 2018, R. Serizel, I. Illina and S. Essid (Télécom ParisTech).

PhD in progress: Ajinkya Kulkarni, "Synthèse de parole expressive par apprentissage profond", Oct. 2018, V. Colotte and D. Jouvet.

PhD in progress: Manuel Pariente, "Deep learning-based phase-aware audio signal modeling and estimation", Oct. 2018, A. Deleforge and E. Vincent.

PhD in progress: Adrien Dufraux, "Leveraging noisy, incomplete, or implicit labels for automatic speech recognition", Nov. 2018, E. Vincent, A. Brun (LORIA) and M. Douze (Facebook AI Research).

PhD in progress: Ashwin Geet D'Sa, "Natural Language Processing: Online hate speech against migrants", Apr. 2019, I. Illina and D. Fohr.

PhD in progress: Tulika Bose, "Online hate speech and topic classification", Sep. 2019, I. Illina, D. Fohr and A. Monnier (CREM).

PhD in progress: Mauricio Michel Olvera Zambrano, "Robust audio event detection", Oct. 2019, E. Vincent and G. Gasso (LITIS).

PhD in progress: Shakeel Ahmad Sheikh, "Identifying disfluency in speakers with stuttering, and its rehabilitation, using DNN", Oct. 2019, S. Ouni.

PhD in progress: Sandipana Dowerah, "Robust speaker verification from far-field speech", Oct. 2019, D. Jouvet and R. Serizel.

PhD in progress: Georgios Zervakis, "Integration of symbolic knowledge into deep learning", Nov. 2019, M. Couceiro (LORIA) and E. Vincent.

PhD in progress: Nicolas Zampieri, "Automatic classification using deep learning of hate speech posted on the Internet", Nov. 2019, I. Illina and D. Fohr.

10.2.3. Juries

10.2.3.1. Participation in HDR and PhD juries

Participation in the HDR jury of Fabrice Hirsch (Sorbonne nouvelle University, Nov. 2019), Y. Laprie.

Participation in the HDR jury of Éric Bavu (CNAM, Dec. 2019), E. Vincent, president.

Participation in the PhD jury of Corentin Louboutin (Bretagne Loire University, Mar. 2019), E. Vincent, president.

Participation in the PhD jury of Neil Zeghidour (PSL Research University, Mar. 2019), E. Vincent, reviewer and president.

Participation in the PhD jury of Zied Elloumi (Communauté Université Grenoble Alpes, Mar. 2019), D. Jouvet, reviewer.

Participation in the PhD jury of Céline Jacques (Sorbonne University, Apr. 2019), E. Vincent.

Participation in the PhD jury of João Felipe Santos (University of Québec, Jul. 2019), E. Vincent, reviewer.

Participation in the PhD jury of Alice Cohen-Hadria (Sorbonne University, Oct. 2019), E. Vincent, reviewer.

Participation in the PhD jury of Lode Vuegen (KU Leuven, Oct. 2019), R. Serizel.

Participation in the PhD jury of Anne Bouvet (Grenoble Alpes University, Nov. 2019), Y. Laprie.

Participation in the Phd jury of Kevin Vythelingum (Le Mans Université, Dec. 2019), D. Jouvet, reviewer.

Participation in the PhD jury of Karima Abidi (Univertsité de Lorraine, Dec. 2019), D. Jouvet, president.

10.2.3.2. Participation in other juries

Participation in CAFIPEMPF Jury - Master Learning Facilitator, Académie de Nancy-Metz & Université de Lorraine, Apr. & May 2019, A. Piquard-Kipffer

Participation in the Competitive Entrance Examination into Speech-Language Pathology Department, University of Lorraine, Jun. 2019, A. Piquard-Kipffer.

10.3. Popularization

10.3.1. Internal or external Inria responsibilities

Member of the Commission Information et Edition Scientifique of Inria Nancy (A. Deleforge).

10.3.2. Articles and contents

Interview for "Un assistant vocal qui protège les données", *France 3 Grand Est*, Jun. 7, 2019 (E. Vincent)

Interview for "La voix crescendo", *L'Usine Nouvelle*, Jun. 27, 2019 (E. Vincent)

Interview for "On transmet beaucoup plus d'informations par la voix qu'un message", *Rue89 Strasbourg*, Nov. 20, 2019 (E. Vincent)

Participation to the white paper "AI in the media and creative industries", New European Media (NEM) consortium (E. Vincent) [52]

10.3.3. Education

5 interventions (3 hours) : "Dyslexic pupils in mainstream and special education". Training of trainers. ESPE de l'Académie de Nancy-Metz. Feb., Mar. & May 2019 (A. Piquard-Kipffer)

10.3.4. Interventions

6 interventions (1 hour) on robot audition and artificial intelligence research in classes from 5th (*CM2*) to 12th (*terminale*) grade around Nancy, Jan. 2019 (A. Deleforge)

Talk "Parole & deep learning: succès et grands défis", Journée IA, Langage et Citoyens, LORIA, Mar. 2019; and also at Meetup IA Nancy, Jun. 2019 (E. Vincent)

Panel discussion on "Se positionner à l'Europe, une opportunité à saisir", General assembly of Pôle Materalia, Nancy, Apr. 2019 (E. Vincent)

Demos and talk "Aider des enfants ayant des troubles du langage, quels métiers ? Quels outils ?" Forum des métiers, Collège Péguy, Le Chesnay, Apr. 2019 (A. Piquard-Kipffer)

4 interventions (1 hour) on robot audition and artificial intelligence research in high-school classes in Serbia, Sep. 2019 (A. Deleforge)

Demo "Apprendre aux robots à nous entendre" at the "Nuit des Chercheurs" of Belgrade, Serbia in Sept. 2019 and of Nancy for the 80th anniversary of CNRS in Oct. 2019 (A. Deleforge)

Demos "Apprendre aux robots à nous entendre" and "Assistants vocaux et vie privée", Fête de la Science, Université de Lorraine, Oct. 2019 (A. Deleforge, I. Illina, M. Sahidullah, B. M. L. Srivastava, E. Vincent)

Panel discussion "Tous connectés et après : les enjeux des applications d'interactions vocales", Shadok, Strasbourg, Nov. 2019 (E. Vincent)

10.3.5. Internal action

"H2020 COMPRISE", Internal "Café'In" event, Inria Nancy, Jun. 2019 (E. Vincent & Z. Chelly-Dagdia)

10.3.6. Creation of media or tools for science outreach

Video "Exposed by your own voice", https://www.youtube.com/watch?v=gm2cC8za8Us.

Video 'When voice assistants don't understand", https://www.youtube.com/watch?v=-HvADcfEOuE.

Video "Why is voice assistant integration so expensive", https://www.youtube.com/watch?v=5LQb9X3RtUs

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PANAMA Project-Team

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9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific Events: Organisation

- Nancy Bertin, event coordinator of the 2019 Science and Music Day (Journée Science et Musique) organized by IRISA *(with Claire Cury from EMPENN project-team.)*
- Nancy Bertin, member of the LVA/ICA conference steering committee.

9.1.2. Scientific Events: Selection

9.1.2.1. Chair of Conference Program Committees

- Nancy Bertin, coordinator of the Science and Music Young Researcher Award (Prix Jeune Chercheur Science et Musique).
- Rémi Gribonval and Frédéric Bimbot, scientific coordinators of the Science and Music Day (Journée Science et Musique) organized by IRISA.

9.1.2.2. Member of Conference Program Committees

- Rémi Gribonval, member of the program committee of the GRETSI.

9.1.3. Membership of Editorial Boards

- Frédéric Bimbot, Editor-in-Chief of the international journal *Speech Communication*.
- Rémi Gribonval, Associate Editor of the international journal *Constructive Approximation*.
- Rémi Gribonval, Senior Area Editor of the *IEEE Transactions on Signal Processing*.
- Nancy Bertin, Guest Editor of a special issue in the international journal *IEEE Journal of Selected Topics in Signal Processing*.

9.1.4. Invited Talks

- Jérémy Cohen, invited speaker at workshop "Low Rank Optimization and Applications" (Max Plank Institute for the Mathematics in the Sciences, Leipzig, Germany, April 2019) [0]
- Jérémy Cohen, invited speaker at workshop "AI and Tensor Factorizations" (Santa Fe, USA, September 2019)
- Rémi Gribonval, keynote at SampTA 2019 (Sampling Theory and Applications) in Bordeaux, France.
- Rémi Gribonval, tutorial at Summer School "Sparsity for Physics, Signal and Learning", Inria Paris, June 2019
- Rémi Gribonval, invited talk at 4TU meeting on "Mathematics of Deep Learning", Delft University, Nov 2019
- Rémi Gribonval, invited talk at Alan Turing Institute on "Mathematics of Data", London, May 2019
- Rémi Gribonval, invited talk at GDR ISIS meeting on "Theory of Deep Learning", Paris, OCt 2019
- Rémi Gribonval, panel session on "Signal processing and AI" at GRETSI 2019, Lille, Aug 2019

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[0] https://www.mis.mpg.de/calendar/conferences/2019/lroa2019.html

9.1.5. Scientific Expertise

- Rémi Gribonval, vice-president of the Scientific Advisory Board of the Acoustics Research Institute from the Austrian Academy of Sciences in Vienna.
- Frédéric Bimbot, member of the International Advisory Council of ISCA (International Speech Communication Association).
- Frédéric Bimbot, member of the ANR Expert Scientific Committee n°38, dedicated to the Digital Revolution and its relations to Knowledge and Culture.
- Rémi Gribonval, member of the EURASIP Special Area Team (SAT) on Signal and Data Analytics for Machine Learning (SiG-DML) since 2015.

9.1.6. Research Administration

- Frédéric Bimbot, board member of the GDR MADICS
- Rémi Gribonval, member of the organization committee of the 2019 GDR ISIS / GRETSI / Club EAA thesis prize in signal and image processing.
- Nancy Bertin, elected member of the "Comité de Centre" at Inria Rennes Bretagne Atlantique research center.
- Nancy Bertin, coordinator of IRISA "Arts, Heritage and Culture crosscutting axis" *(with Valérie Gouranton, HYBRID project-team.)*

9.2. Teaching

Master : N. Bertin, coordination of the VAI module "Vocal and Acoustic Interactions" within the SIF M2, 20 hours, Université de Rennes 1, France

Master : N. Bertin, "Vocal and Audio Interactions", 4 hours, M2, Université Rennes 1, France.

Master : N. Bertin, "Fundamentals of Signal Processing", 24 hours, M1, Ecole Normale Supérieure (ENS) de Bretagne, Rennes, France.

Master : N. Bertin, "Foundations of Smart Sensing", 9 hours, M2, Ecole Nationale de la Statistique et de l'Analyse de l'Information (ENSAI), Rennes, France.

Master : N. Bertin, "Sparsity in Signal and Image Processing", 12 hours, M2, Institut National des Sciences Appliquées (INSA) de Rennes, France.

Master : R. Gribonval, "High dimensional statistical learning", 12 hours, M2, Université Rennes 1, France.

Master: R. Gribonval, coordination of the HDL module "High dimensional statistical learning" within the SIF M2, 20 hours, Université Rennes 1, France.

Master : R. Gribonval, "Sparsity in Signal and Image Processing", 8 hours, M2, Institut National des Sciences Appliquées (INSA) de Rennes, France.

Master : R. Gribonval, coordination of the module "Sparsity in Signal and Image Processing", 48 hours, M2, Institut National des Sciences Appliquées (INSA) de Rennes, France.

Master : J. Cohen, "Parcimony", 9 hours, ENSAI / "Smart Sensing" course

Master : J. Cohen, "Sparsity in Signal and Image Processing", 19 hours, M2, Institut National des Sciences Appliquées (INSA) de Rennes, France

9.3. Popularization

9.3.1. Journée Science et Musique (JSM 2019)

Participants: Nancy Bertin, Rémi Gribonval, Nancy Bertin, Frédéric Bimbot, Ewen Camberlein, Stéphanie Gosselin-Lemaile, Corentin Louboutin, Antoine Chatalic, Clément Gaultier, Cássio Fraga Dantas, Diego Di Carlo.

with contributions and support from: Claire Cury, Elisabeth Lebret, Valérie Gouranton, Ronan Gaugne, Florian Nouviale, Evelyne Orain, Agnès Cottais, Catherine Jacques-Orban and many more.

PANAMA coordinated the organization of a public event called "Journée Science et Musique" ("Music and Science Day"). This yearly event organized by the METISS/ PANAMA Team since 2011 aims at sharing with the wide audience the latest innovations and research projects in music. The motivation for hosting this event is to explain and promote the technology behind audio-processing that people face in their daily lives. The event is free to everyone and people have the possibility to attend talks by selected speakers or meet numerous experts that demonstrate current projects in which people can interactively participate. Edition 2019 hosted approximately 300 visitors and was a partner of the "Festival des Sciences" and an official event of CNRS 80th birthday celebrations.

9.3.2. Participation to Equinoxes#1

Frédéric Bimbot gave a popularization conference at the **Equinoxes#1** event, organised by Artoutaï (13 October 2019), on "the mysterious spectrum of sound" (4 times during the day)

9.3.3. Internal or external responsibilities

Frédéric Bimbot is a member of a working group of the CNRS/DR17 on the topic "changer le regard sur le handicap au travail"

SEMAGRAMME Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific Events: Organisation

9.1.1.1. Member of the Organizing Committees

- Karën Fort co-organized of the first enetCollect (European Network for Combining Language Learning with Crowdsourcing Techniques) hackathon

9.1.2. Scientific Events: Selection

9.1.2.1. Chair of Conference Program Committees

- Philippe de Groote: Chair of the 16th Meeting on the Mathematics of Language [24].
- Sylvain Pogodalla: co-chair of FG 2019 *23rd Conference on Formal Grammar* [23].

9.1.2.2. Member of the Conference Program Committees

- Philippe de Groote: Senior PC member of: IJCAI 2019, the 28th International Joint Conference on Artificial Intelligence; PC member of: SCiL 2020, the third meeting of the Society for Computation in Linguistics; WOLLIC 2019, the 26th Workshop on Logic, Language, Information and Computation; IWCS 2019, the 13th International Conference on Computational Semantics ; FG'19, the 24th Conference on Formal Grammar; SPE 11, the 11th Semantics and Philosophy in Europe Colloquium.

9.1.2.3. Reviewer

- Maxime Amblard: 13th International Conference on Computational Semantics (IWCS 2019), IJCAI 2019, TALN 2019, JPC2019.
- Karën Fort: ACL 2019, NAACL 2019, TALN 2019, CJC-Praxiling 2019. *La fabrique de la participation culturelle. Plateformes numériques et enjeux démocratiques*
- Sylvain Pogodalla: 13th International Conference on Computational Semantics (IWCS 2019), Logic and Engineering of Natural Language Semantics 16 (LENLS16).

9.1.3. Journal

9.1.3.1. Member of the Editorial Boards

- Maxime Amblard: Member of the editorial board of the journal *Traitement Automatique des Langues*, in charge of the hard copy editorial process,
- Philippe de Groote: area editor of the *FoLLI-LNCS series*.
- Sylvain Pogodalla: Member of the editorial board of the journal *Traitement Automatique des Langues*, in charge of the *Résumés de thèses* section.

9.1.3.2. Reviewer - Reviewing Activities

- Maxime Amblard: Logic and Algorithms in Computational Linguistics, Springer series Studies in Computational Intelligence (SCI)
- Philippe de Groote: Journal of Language, Logic and Information; Journal of Logic and Computation; Logical Methods in Computer Science.
- Sylvain Pogodalla: Journal of Language, Logic and Information.

9.1.4. Invited Talks

- Karën Fort:

- *La production participative (crowdsourcing) : miroir grossissant sur l'annotation manuelle.* Inria Almanach. Paris, France. October 11th 2019
- *Productions participatives de corpus annotés : des modèles encore incertains.* Colloque Jeunes Chercheurs PRAXILING 2019
- with Denis Maurel. *Regards croisés sur la linguistique informatique.* Colloque Décrire une langue : objectifs et méthodes. Sorbonne Université, Paris, France. September 13th 2019

- Michel Musiol:
  - *Improving the investigation of conversational discontinuities using the support of eye-tracking methods.* Workshop on Incoherence of Dialogue, University of Göteborg, 2019, october 9-10th
  - *Approche différentielle des registres communicationnels de l'interlocuteur schizophrène dans l'entretien clinique*, Faculté de Médecine and Centre Hospitalo-Universitaire of Tizi Ouzou, Algeria, June 13th.

- Bruno Guillaume:
  - *Rigor Mortis* EnetCollect 3rd Annual Action meeting in Lisbon, March 14th. The game Rigor Mortis ((http://rigor-mortis.org) is a crowdsourcing projet when users have to find Multi-Word expression.

9.1.5. Leadership within the Scientific Community

- Maxime Amblard: Management Committee of the OLKI project (*Lorraine Université d'Excellence* project - PIA), co-leader of the workpackage 2 on NLP activities.
- Karën Fort:
  - Management Committee member of the COST Action CA16105 "European Network for Combining Language Learning with Crowdsourcing Techniques" (http://www.cost.eu/COST_Actions/ca/CA16105).
  - Management Committee Substitute member of the COST Action CA18209 "European network for Web-centred linguistic data science" (http://www.cost.eu/COST_Actions/ca/CA18209).
  - in charge with G. Wisniewski of axis 2 of GDR LIFT (*Linguistique informatique, formelle et de terrain*) : *Linguistique et évaluation des systèmes de traitement automatique des langues.* Kick off meeting at the end of Nov., Orléans, France, co-organized (with A. Millour, SU) a working group on variations in GDR LIFT
- Philippe de Groote: president of SIGMOL, *Association for Mathematics of Language, a Special Interest Group of the Association for Computational Linguistics*; member of the LACL steering committee.
- Bruno Guillaume: Management Committee Substitute member of the COST Action CA16105 "European Network for Combining Language Learning with Crowdsourcing Techniques" (http://www.cost.eu/COST_Actions/ca/CA16105).
- Sylvain Pogodalla: member of the LACL steering committee; member of the Formal Grammar standing committee.

9.1.6. Scientific Expertise

- Philippe de Groote: member of the scientific council of the AREN e-FRAN project, *ARgumentation Et Numérique*.
- Sylvain Pogodalla: expert for the Research Executive Agency (REA) of the EU.

9.1.7. Research Administration

- Maxime Amblard:

- Member of *conseil scientifique* of *Université de Lorraine*
- Standing invitee at the *pôle scientifique* AM2I of *Université de Lorraine*
- Member of the *Sénat Académique* of *Université de Lorraine*
- Member of the progress commission of *Université de Lorraine*
- Member of the administration council of the *Institut des sciences du digital, management et cognition*
- Member of the board of the *Maison des sciences de l'homme*, MSH-Lorraine
- Head of the master in Natural Language Processing (master 1 and 2)

- Philippe de Groote:
  - Member of the *bureau du comité des projets d'Inria Nancy – Grand Est*.
  - Member of the scientific council of the LIRMM, *Laboratoire d'Informatique, de Robotique et de Microélectronique de Montpellier*

- Bruno Guillaume:
  - Head of the Loria department NLPKD (Natural Language Processing and Knowledge Discovery).
  - Leader of the CPER 2015-2020 project *Langues, Connaissances et Humanités Numériques* (Languages, Knowledge and Digital Humanities) in which ten laboratories of *Université de Lorraine* participate.
  - Member of the Comipers (committee for PhD and Post-doctoral selection).

- Michel Musiol:
  - Member of the McF selection committee 1231/4381 (section 16), *Université de Reims Champagne-Ardenne*
  - Member of the McF selection committee 739 (section 16), *Aix-Marseille Université*

- Sylvain Pogodalla:
  - Elected member of the *comité de centre d'Inria Nancy – Grand Est*,
  - in charge of the *commission IES (information et édition scientifique du centre d'Inria Nancy – Grand Est*.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Licence:

Maxime Amblard, NLP Introduction, 4h, L1, Université de Lorraine, France

Maxime Amblard, Linguistic engineering, 20h, L3, Université de Lorraine, France

Maria Boritchev, Formalisms and reasoning representations , 20h, L3, Université de Lorraine, France

Maria Boritchev, Algorithmic 1, 22h, L1, Université de Lorraine, France

Master:

Maxime Amblard, Python Programming (english), 30h, M1 NLP, Université de Lorraine, France.

Maxime Amblard, Methods for NLP (english), 36h, M1 NLP, Université de Lorraine, France.

Maxime Amblard, Formalisms (english), 24h, M2 NLP, Université de Lorraine, France.

Maxime Amblard, Discourse and Dialogue (english), 18h, M2 NLP, Université de Lorraine, France.

Philippe de Groote, Formal Logic, 22h, M1 NLP, Université de Lorraine, France.

Philippe de Groote, Formal languages, 22h, M1 NLP, Université de Lorraine, France.

Philippe de Groote, Computational Semantics, 18h, M2 NLP, Université de Lorraine, France.

Philippe de Groote, Computational structures and logics for natural language modeling, 18h, M2 NLP, Université Paris Diderot – Paris 7, France.

Bruno Guillaume, Written Corpora TAL (english), 30h, M1 NLP, Université de Lorraine, France.

9.2.2. Supervision

PhD defended:

- Timothée Bernard, *Approches formelles de l'analyse du discours : relations discursives et verbes d'attitude propositionnelle*, September 1st 2019

PhD in progress:

William Babonnaud, *Lexical semantics, compositionality and type coercion*, since September 2018, Philippe de Groote.

Clement Beysson, *Dynamic generalized quantifiers for discourse analysis*, since September 2015, Philippe de Groote and Bruno Guillaume.

Maria Boritchev, *Dialogue Dynamics Modeling in the Simple Theory of Types*, since September 2017, Maxime Amblard and Philippe de Groote.

Pierre Ludmann, *Dynamic construction of discursive structures*, since September 2017, Philippe de Groote and Sylvain Pogodalla.

Chuyuan Li, *Formal and statistical modeling of dialogue*, since October 2019, Maxime Amblard and Chloé Braud.

Vincent-Thomas Barrouillet, *Towards an automated formalization of logical deviations of pathological discourse from schizophrenic patients*, since October 2019, Maxime Amblard and Michel Musiol.

Samuel Buchel, *Linguistic, semantic and cognitive modelling of dialogical incongruities and discontinuities in the interaction with the schizophrenic patients*, since December 2019, Maxime Amblard and Michel Musiol.

9.2.3. Juries

- Karën Fort was member of the jury PhD thesis of:
  - Claire Wolfarth, Université Grenoble Alpes. December 9th.
  - Arne Skjærholt, Oslo University. First opponent. December 4th.
  - Ivan Garrido Marquez, Université Paris 13. February 8th.
- Michel Musiol
  - Yann Auxemery, Université de Lorraine, October 15th
  - Aurore Morel, Université de Lyon 1 Claude Bernard, December 20th

9.3. Popularization

9.3.1. Internal or external Inria responsibilities

Maxime Amblard is the vice head of editorial board of Interstices.info

9.3.2. Articles and contents

- Karën Fort: 3 articles in volume 140 of *Culture et Recherche* (Journal of the Ministry of Culture):

- Ouvrir le dédale des données des recherches myriadisées (with Lisa Chupin, Université Paris-Descartes)
- Les jeux ayant un but : des sciences participatives ? (with Bruno Guillaume)
- Sciences participatives et diversité linguistique : retours d'expériences (with Alice Millour, Sorbonne Université)

9.3.3. Interventions

Maxime Amblard was an organizer of the *Forum des Sciences Cognitives* in Nancy

Maxime Amblard organized a Diabolo Science presentation with Marie Duflot-Kremer for PintOf-Science

Maxime Amblard gave a presentation for high school students in the laboratory

Karën Fort: ethics and citizen science class at the Museum national d'histoire naturelle (3h)

9.3.4. Creation of media or tools for science outreach

Maxime Amblard was the leader of the project Happy Family Cards Game, which aimed to develop such a game for promoting computer science as a scientific field. 20 000 copies have been printed and are currently being distributed. The project was presented at the Fête de la Science panel in Paris.

Maxime Amblard designed an unplugged activity on syntactic parsing (about rabbits and carrots), [25].

Karën Fort: participation in the Sorbonne Université portal for citizen science with ZombiLUDik and Recettes (with A. Millour) : https://www.science-ensemble.org/

<p style="text-align:center;color:red;font-weight:bold;">Auctus Team</p>

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events: Organisation

Jessica was member of the organizing committee of the Young Researchers' Day in Robotics 2019 (Journée Jeunes Chercheurs en Robotique) in Vittel, France the 14th October.

10.1.2. Member of the Conference Program Committees

- Journées Nationales de la Recherche en Robotique (JNRR) 2019. [David Daney, scientific Program Committee member]
- 44ème Congrès de la Sociéte de Biomécanique [Vincent Padois, scientific committee member]
- IROS 2019 (IEEE/RSJ International Conference on Intelligent Robots and Systems) [Vincent Padois, associate editor]
- ICRA 2020 (IEEE/RAS International Conference on Robotics and Automation) [Vincent Padois, associate editor]

10.1.3. Reviewer Activities: conferences

- ICRA 2020 (IEEE International Conference on Robotics and Automation) [Vincent Padois, David Daney, Lucas Joseph]
- IROS 2019 (IEEE/RSJ International Conference on Intelligent Robots and Systems) [David Daney, Vincent Padois, Jessica Colombel]
- ECC 2019 (European Control Conference) [Vincent Padois]
- 44ème Congrès de la Sociéte de Biomécanique [Vincent Padois]
- IEEE International Workshop on Metrology for Aerospace, Torino, June 2019 [Jean-Marc Salotti]
- CableCon 2019 @ 15th IFToMM World Congress, June 30 – July 4, 2019, Krakow, Poland [David Daney]

10.1.4. Reviewing Activities: journal

- ASME Journal of Mechanisms and Robotics [David Daney, Joshua Pickard]
- Mechanism and Machine Theory [David Daney]
- IEEE Robotics and Automation Letters [Vincent Padois, Jessica Colombel]
- IEEE Transactions on Human-Machine Systems [Vincent Padois]
- IEEE Transactions on Robotics [Vincent Padois]
- Acta Astronautica [Jean-Marc Salotti]
- Foresight [Jean-Marc Salotti]
- Behavioural Brain Research [jean-Marc Salotti]
- Computer Aided Geometric Design [Joshua Pickard]

10.1.5. Talks / Invited Talks

- David Daney – "Designing the collaborative robotics cells", Eighth International Congress on Design and Modeling of Mechanical Systems (CMSM'19), March 18-20, 2019 Hammamet, Tunisia.
- David Daney – "Concevoir les cellules de robotique collaborative du futur", Colloque Augmentation de l'Humain, Talence, 28-29 mars 2019

- Vincent Padois – "Sécurité et Robotique collaborative: n'oublions pas la commande!" – États Généraux de la Robotique – 2019/03/07

- Lucas Joseph – "HARRY2: développement d'un contrôleur de robot industriel répondant à des contraintes de sécurité basées sur un critère énergétique" – Journée GDR Robotique "GT3 - GT6": "Conception et contrôle pour la manipulation sûre et flexible" – 2019/09/27– CEA LIST Centre Nano-Innov-Palaiseau

- Vincent Padois – "Quelques problématiques sous-jacentes en Robotique collaborative" – Journées Nationales de la Recherche en Robotique – 2019/10/15

- Nassim Benhabib – "Methodology for designing and controlling a collaborative robotic system to assist and secure an operator's gestures" – Journées Nationales de la robotique Humanoïde) – 2019/11/{25,26} – LAAS, Toulouse

- Lucas Joseph, Vincent Padois – "HARRY2: développement d'un contrôleur de robot industriel répondant à des contraintes de sécurité basées sur un critère énergétique" – Launch of the ANR LabCom MACH4 between Iteca and PPrime – 2019/11/7 – Poitiers, France

- Joshua Pickard – "Appropriate Synthesis of a Crank-Rocker Linkage" World Congress of the International Federation for the Promotion of Mechanism and Machine Science (IFToMM), June 30 - July 4, 2019, Krakow, Poland

- Joshua Pickard – "Redundancy Tubes: Modelling Individual and Group Range-of-Motions Along a Path" 44 ème congres societe de biomecanique 28-30 octobre 2019, Poitiers, France

10.1.6. Leadership within the Scientific Community

- Vincent Padois is, together with Olivier Stasse from LAAS, the co-animator of GT7 "Humanoid Robotics" of the CNRS "Groupement de Recherche en Robotique" (GDR). The role of animator consists in organizing regular workshops in humanoid robotics with the members of the French research community in this domain. It also consists in reporting strategic elements to the GDR in order to better organize the structure of research in Robotics in France.

10.1.7. Scientific Expertise

- Vincent Padois is a reviewer for the 2nd European COVR call.

- Vincent Padois and David Daney are reviewers for the best PhD thesis award of GDR Robotique.

- David Daney is an expert of "Robot Boost" Nouvelle-Aquitain's progam.

- Jean-Marc Salotti and David Daney are official animators of the Humans Systems Interactions AESE DAS (Strategic Activities Domain of the Aerospace Valley Pole), which gathers all regional actors concerned with human factors, human systems interactions, and collaborative robotics mainly in the aerospace sector, but not limited to that domain. At least 2 daily workshops are organized each year for the members of the group in order to focus on a specific issue. Jean-Marc Salotti and David Daney are also solicited to examine regional projects linked to the DAS in order to provide advice and eventually to participate to the labelling process of the pole.

- The Auctus team is involved in the "Aquitaine robotics" cluster, which brings together robotics players in Nouvelle-Aquitaine. David Daney and Jean-Marc Salotti respectively represent Inria and Ensc on the board of directors. David Daney is a member of the executive board. David Daney and Jean-Marc Salotti are respectively president and vice-president of the labelling committee which promotes all robotics projects for the Nouvelle-Aquitaine region.

10.1.8. Research Administration

- Sylvain Pion represents the Auctus team in the CUMI-R (Comité des Utilisateurs des Moyens Informatiques) committee of Inria Bordeaux.

- Jean-Marc Salotti participated to the Inria Committee directed by Clair Poignard and dedicated to the selection of research candidates for delegations, PhD and Postdoctoral positions.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Master: Jean-Marc Salotti, Intelligence Artificielle, 103,5h éqTD, M1, Ecole Nationale Supérieure de Cognitique / Bordeaux INP, France

Master: Jean-Marc Salotti, Facteurs Humains et Ingénierie Cognitique, 15h éqTD, M1, Ecole Nationale Supérieure de Cognitique / Bordeaux INP, France

Master: Jean-Marc Salotti, Interactions Hommes Robots, 15h éqTD, M2, Ecole Nationale Supérieure de Cognitique / Bordeaux INP, France. In this course, all students have practical works involving cobotic systems: programming NAOs and UR3 (Universal Robots) and testing an exoskeleton.

Master: David Daney, Interactions Hommes Robots, 2h éqTD, M2, Ecole Nationale Supérieure de Cognitique / Bordeaux INP, France.

Master: David Daney, Mathématiques pour la robotique, 30h éqTD, M2, Enseirb/Ensc, Bordeaux INP, France.

Master: David Daney, Décision, 7h éqTD, M2, Ecole Nationale Supérieure de Cognitique / Bordeaux INP, France.

Master: Vincent Padois, Literature review - What, Why and How?, 20h éqTD, M2, Enseirb/Ensc, Bordeaux INP, France.

Master: Vincent Padois, Enjeux technologiques de la maintenance aéronautique, 6h éqTD, M1, Enseirb-Matmeca, Bordeaux INP, France.

Master: Vincent Padois, Maintenance du futur - Cours introductif, 2h éqTD, M1, ENSPIMA, Bordeaux INP, France.

Master: Nassim Benhabib, Interactions Hommes Robots, 15h éqTD, M2, ENSC, Bordeaux INP, France.

Master: Jessica Colombel, Robot Operating System, 10h éqTD, M2, Enseirb/Ensc, Bordeaux INP, France.

Master: Charles Fage, Cognitive Disabilities and Assistive Technologies, , M2, Master de Sciences cognitives et Ergonomie, Université de Bordeaux, France.

Master: Charles Fage, Human-Computer Interactions, 15h éqTD, M1, Master de Sciences cognitives et Ergonomie, Université de Bordeaux, France.

Licence: Charles Fage, Disabilities Management and Ethics, 15h éqTD, L2, Licence de MIASHS, Université de Bordeaux, France.

Licence: Charles Fage, Alternative and Augmentative Communication, 15h éqTD, 2ème année, Institut de formation en ergothérapie de Bordeaux, France.

Licence: Charles Fage, Autism and Developmental Disorders, 15h éqTD, 2ème année, Institut de formation en ergothérapie de Bordeaux, France.

Licence: Charles Fage, Aging and Assistive Technologies, 15h éqTD, 2ème année, Institut de formation en ergothérapie de Bordeaux, France.

10.2.2. Supervision

PhD: Jonathan Savin, "Modeling motion variability using virtual humans for the ergonomic evaluation of work stations", Sorbonne Université, 2019/11/22, Philippe Bidaud (Onera / Sorbonne Université) and Jacques Marsot (INRS) and Vincent Padois;

PhD: José Pedro Pontes, "Optimization and adaptation of robot locomotion in varying conditions: an evolutionnary approach", Sorbonne Université, 2019/3/12, Stéphane Doncieux (Sorbonne Université) and Vincent Padois and Cristina Santos (U. Minho, Portugal);

PhD in progress: Quoc Bach Hoa (Thèse ED SMAER, Paris), "Biomechanically plausible simulations of healthy and altered human locomotion", September 2017–, Vincent Padois and Faiz Ben Amar (Sorbonne Université)

PhD in progress: Nassim Benhabib (Inria / Région NA – Woobot project), "Méthodologie de conception et de commande d'un système robotique collaboratif pour assister et sécuriser les gestes d'un opérateur", November 2018 – , David Daney and Vincent Padois;

PhD in progress: Jessica Colombel (Inria), "Analyse du mouvement humain pour l'assistance à la personne", February 2019 – , François Charpillet and David Daney (Inria Nancy Grand-Est);

PhD in progress: Nicolas Simonazzi (CIFRE Orange), "Analyse comportementale et détection des émotions dans le cadre de l'utilisation de chat-bots en ligne", May 2018 –, Jean-Marc Salotti;

PhD in progress: Baptiste Prébot (DGA), "Partage des représentations et de la conscience de situation", January 2017 –, Jean-Marc Salotti and Bernard Claverie (ENSC, IMS laboratory;

PhD in progress: Olfa Jema (Cotutelle Université de Sousse, Tunisie), "Analyse du mouvement humain", December 2017 –, Lotfi Romdhane, Sami Bennour, David Daney;

PhD in progress: Pierre Laguillaumie (Thèse laboratoire PPRIME), "Méthodologie pour la mise en œuvre d'un robot collaboratif de nouvelle génération prenant en compte la sécurité et le confort biomécanique de l'opérateur en situation de travail", March 2018 – Jean-Pierre Gazeau and Vincent Padois.

10.2.3. *Juries*

Vincent Padois:

- HdR: Adrien Escande, "Numerical Optimization and Motion Generation in Robotics", Université de Montpellier, 2019/2/25;
- PhD: Nolwenn Briquet-Kerestedjian, Reviewer, "Impact detection and classification for safe physical Human-Robot Interaction under uncertainties", Université Paris-Saclay, 2019/7/10;
- PhD: Kai Pfeiffer, Examinor, "Efficient Kinematic and Algorithmic Singularity Resolution for Multi-Contact and Multi-Level Constrained Dynamic Robot Control", Université de Montpellier, 2019/12/4;
- PhD: Sonny Tarbouriech, Reviewer, "An energetic approach to safety in robotic manipulation", Sorbonne Université, 2019/12/5.

David Daney:

- PhD: Mathias Bordon, Examinor, "Modélisation et calibration pour une numérisation robotisée", 2019/06/06, École Normale Supérieure Paris-Saclay
- PhD: Thomas Le Mézo, Reviewer, "Bracketing largest invariant sets of dynamical systems; An application to drifting underwater robots in ocean currents", 2019/12/05, ENSTA Bretagne;
- PhD: Étienne Picard, Reviewer, "Modeling and robust control of cable-driven parallel robots for industrial applications", 2019/12/17, Université Bretagne Loire .

Jean-Marc Salotti:

- PhD: Damien L'Haridon, Reviewer, "Décision collective optimisée en milieu extrême: application aux situations inconnues en vol spatial habité", ISAE - Université de Toulouse, 2019/05/02
- PhD: Vanessa Haykal, Reviewer, "Modélisation des séries temporelles par apprentissage profond", Université de Tours, 2019/12/02;

10.3. Popularization

10.3.1. *Interventions*

- "Collaborative Robotics" – Demonstration at the 2019 Fête de la Sciences by Lucas Joseph – Cap Sciences, Bordeaux

- "Tame a robot" with Thymios II – Animation by Jessica Colombel at Fête de la Science, Université de Lorraine, Nancy, October 2019.

- Fage, C. "Communication Alternative et Améliorée – Aider les enfants et adultes avec difficultés de communication". Invited Oral Presentation at the Interphase Association (Autism care) by Charles Fage, Bordeaux, December 2019.

CHORALE Team

9. Dissemination

9.1. Scientific Events: Organisation

9.1.1. General Chair, Scientific Chair

Philippe Martinet the corresponding chair for the PPNIV19 IRO19 workshop (https://project.inria.fr/ppniv19). He has managed the reviewing process, the website update and the general publicity. More than 300 attendees for this 11th edition.

9.1.2. Member of the Organizing Committees

Philippe Martinet has co-organized the IROS19-PPNIV19 (https://project.inria.fr/ppniv19) workshop with Christian Laugier, Marcelo H. Ang, Christoph Stiller and Miguel Sotelo (over 300 attendees).
Philippe Martinet has co-organized the Cutting edge Forum on Autonomous Driving (https://project.inria.fr/ad19/) with Christian Laugier, Marcelo H. Ang, Christoph Stiller and Miguel Sotelo (more than 150 attendees).

9.1.3. Scientific Events: Selection

9.1.3.1. Chair of Conference Program Committees

Philippe Martinet was Regional Chair for CISRAM 2019.

9.1.3.2. Member of the Conference Program Committees

Philippe Martinet was member for the IPC for ICINCO 2019.
Patrick Rives was Program Committee member of the Conférence Française de Photogrammétrie et de Télédétection 2019 (CFPT)

9.1.3.3. Reviewer

Philippe Martinet was Associated Editor for ITSC 2019, and reviewer for ICINCO19, PPNIV19.
Guillaume Allibert has reviewed papers for ICRA, IROS, IFAC WC, CDC, ACC.
Paolo Salaris has reviewed papers for ICRA, CDC, RSS.
Patrick Rives has reviewed papers for ICRA, IROS, IV, ICAR.
Renato Martins has reviewed papers for WACV, ICRA, IROS, ITSC, ICAR, PPNIV19.

9.1.4. Journal

9.1.4.1. Member of the Editorial Boards

Philippe Martinet is member of the Editorial Board of the Springer ISCA Book Series since 2014.
Philippe Martinet is co-Editor of the Springer book collection "Parallel Robots : Theory and Applications" setup in january 2015.

9.1.4.2. Reviewer - Reviewing Activities

Philippe Martinet is Associate Editor of the journal IEEE-Transactions on Intelligent Vehicles.
Guillaume Allibert has reviewed papers for RA-L and IEEE Trans. on Mechatronics.
Paolo Salaris has reviewed: RA-L, TRO, AURO
Renato Martins has reviewed papers for RA-L and Elsevier JVCI.

9.1.5. Invited Talks

Patrick Rives gave a Plenary Talk at the Universidade Federal de Minas Gerais (UFMG), Brazil
Title: Towards new sensors and representations for autonomous navigation in large scale human-like environments

9.1.6. Scientific Expertise

- International:
  - Philippe Martinet is corresponding chair and co-chair with C. Laugier and Christoph Stiller, of the IEEE RAS Technical Committee on "Autonomous Ground Vehicles and Intelligent Transportation Systems (AGVITS)".
  - Philippe Martinet is Deputy director of the GdR Robotique.
  - Philippe Martinet was member of CNU 61 from 2011 until September 2019.
  - H2020: Philippe Martinet has participated of the ICT-2019-2 call (4 projects were evaluated)
  - STIC Amsud: Philippe has evaluated one proposal in 2019
  - Skywin (Aerospace Cluster of Wallonia): Patrick Rives has evaluated one proposal
  - Program BRIDGE Discovery (Swiss National Science Foundation): Patrick Rives has evaluated one proposal
- National:
  - Philippe Martinet is deputy director of the GdR robotics.
  - ANR: Guillaume Allibert was part of the CES33 in 2019. He has participated to the evaluation of the pre-projects and to the final projects evaluation.
  - ANR: Patrick Rives has evaluated one proposal in 2019
  - HCERES: Philippe has participated of the evaluation of LAAS (November 2019), IFFS-TAR AME department (March 2019) and ONERA DTIS Department (December 2019).
  - ISITE-NEXT in Nantes: Philippe Martinet has evaluated one Talent application in 2019
  - ANRT: Philippe Martinet has evaluated one application for CIFRE grant in 2019
  - Philippe Martinet is coordinator of the ANR MOBI-Deep project
  - Guillaume Allibert is coordinator of the ANR CLARA project
- Local:
  - Paolo Salaris was member of CSD (Comité de Suivi Doctoral) in Inria Sophia Antipolis until end of August 2019.

9.1.7. Research Administration

Guillaume Allibert is the SIS team deputy head at I3S since 2017. This team is composed of 57 people (18 teacher-researchers, 11 researchers, 6 ATER & post doc, 3 emeritus and 19 PhD students).

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Guillaume Allibert is assistant professor at the Cote-d'Azur-University. He teaches at the GEII department of the IUT of Nice Côte d'Azur. He is in charge of two complete teaching modules: control and computer science. He also participates in the mathematics course.

Philippe Martinet managed four main actions in 2019 in relation with the education system:

- EIT Digital AUS: Participation in the definition of the educational program. This master program will be done at Polytech Sophia.
- New engineering track on autonomous system: Participation in the discussion to put in place a new engineering track between Polytech Sophia and Ecole des Mines. This Engineering track will start in 2021.
- EMJMD MIR (Erasmus Mundus Joint Master Degree on Marine and Maritime Intelligent Robotics): Jean-Pierre Merlet and Philippe Martinet have discussed with the coordinator of the master Vincent Hugel in order that Inria become an associated partner for this new educational program in robotic.
- Philippe Martinet, Jean-Pierre Merlet and Guillaume Allibert have co-organized the first GdR Robotics Winter school on Robotics Principia (https://project.inria.fr/roboticsprincipia/). An HAL collection has been setup (https://hal.inria.fr/ROBOTICA-PRINCIPIA).

9.2.2. Supervision

PhD : David Perez Morales, Multisensor based control in intelligent parking applications, Ecole Centrale de Nantes, December 6th 2019, P. Martinet, O. Kermorgant, S. Dominguez

PhD : Luis Contreras, SLAM collaboratif dans des environnements extérieurs, Ecole Centrale de Nantes, April 10th 2019, P. Martinet, O. Kermorgant

PhD in progress : Mohammed Boussaha, Hybrid urban scene analysis from mobile mapping images and laser scan, Université Paris Est -MSTIC, 15/10/2016, Bruno Vallet (IGN-Matis), Patrick Rives

PhD in progress : Dyanna Hassan, Plate-forme robotisée d'assistance aux personnes à mobilité réduite, Univ Côte d'Azur, 1/01/2017, P. Rives, P. Salaris

PhD in progress : Ihab Mohammed, Coupling Deep Learning and Advanced Control in UAV Navigation, Univ Côte d'Azur, 1/12/2018, P. Martinet, G. Allibert, P. Salaris

PhD in progress: Franco Fusco, High-speed visual servoing, Ecole Centrale de Nantes, 1/9/2017, P. Martinet, O. Kermorgant

PhD in progress : Maria Kabtoul, Proactive Social navigation for autonomous vehicles among crowds, Univ Grenoble Alpes, 1/09/2018, A. Spalanzani, P. Martinet

PhD in progress : Luiz Alberto Serafim Guardini, Autonomous car driving: use of dynamic probabilistic occupancy grids for contextualized planning of emergency trajectory with minimal criticity, Univ Grenoble Alpes, 1/10/2018, A. Spalanzani, P. Martinet, C. Laugier

PhD in progress : Zongwei Wu, New convolution for spherical images using depth, Université de Bourgogne Franche Comté, 1/10/19, C. Demonceaux, G. Allibert,

9.2.3. Juries

HdR : Guillaume Caron, Vision robotique directe, Univ Picardie Jules Verne, December 10th 2019 (P. Martinet, reviewer)

PhD : David Sierra Gonzales, Towards Human like prediction and decision making for automated vehicles on highway scenarios, Univ Grenoble Alpes, April 1st 2019, (P. Martinet, reviewer)

PhD : Soler Ulun, Multi-robot relative localization using computer vision, NTU Singapore, 2019, (P. Martinet, reviewer)

PhD : Jiang Xiaoyue, Visual and Lidar based SLAM by variational Bayesian method, NTU Singapore, 2019, (P. Martinet, reviewer)

PhD : Michel Moukari, Estimation de profondeur à partir d'images monoculaires par apprentissage profond, Univ de Caen, July 1st 2019, (P. Martinet, reviewer)

PhD : Pavan Vasishta, Building and Leveraging prior knowledge for predicting pedestrain behavior around autonomous vehicles, Univ Grenoble Alpes, September 30th 2019, (P. Martinet, examinator)

PhD : David Perez Morales, Multisensor based control in intelligent parking applications, Ecole Centrale de Nantes, December 6th 2019 (G. Allibert, examinator)

PhD : Thibaut Tezenas du Montcel, Evitement d'obstacles pour quadrirotors en utilisant un capteur de profondeur, Univ Grenoble Alpes, December 16th 2019 (G. Allibert, examinator)

PhD : Jose Juan Tellez, Teleoperation of an UAV for navigation in unstructured environments using a portable haptic interface, Univ Grenoble Alpes, June 26th 2019 (G. Allibert, examinator)

PhD : Kevin Giraud Esclasse, Towards reactive motion generation on exteroceptive feedback for generalized locomotion of humanoid robots, Univ Toulouse Midi-Pyrénées, December 18th 2019 (G. Allibert, examinator)

PhD : Thiago L. Gomes. Transferring human motion and appearance in monocular videos, PhD Qualifying Exam on Computer Science, Universidade Federal de Minas Gerais, Brazil, July 12th 2019 (R. Martins, examinator)

9.3. Popularization

9.3.1. Articles and contents

Philippe Martinet and Renato Martins have been interviewed in December 2019 by France 3 Côte d'Azur in order to popularize the work of CHORALE in the field of Connected Autonomous Vehicles. Real demonstrations of autonomous driving have been done at Inria Sophia Antipolis, and another one at CASA experimental site. An FR3 magazine will be launched in february 2020.

9.3.2. Interventions

- Patrick Rives has presented the topic of Autonomous vehicle during the day "Formation IA pour les professeurs des lycées", Sophia Antipolis, 14/11/2019

CHROMA Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events: Organisation

10.1.1.1. General Chair, Scientific Chair

- C. Laugier was General Co-Chair of IEEE/RSJ IROS [0] 2019 (Macau, Nov 2019).
- C. Laugier co-organized in the scope of IEEE/RSJ IROS 2019 and of the IEEE RAS Technical Committee IGV-ITS, the 11th Workshop of the series PPNIV (Planning, Perception and Navigation for Intelligent Vehicles) having attracted about 300 people (see http://project.inria.fr/ppniv19 for more details).
- C. Laugier co-organized at IEEE/RSJ IROS 2019 a Cutting Edge Forum on "Robotics, AI and ITS for Autonomous Driving" having attracted about 150 people (see https://project.inria.fr/ad19/ for more details).
- O. Simonin was General Co-Chair and Co-Organizer with F. Charpillet (Inria Nancy) of the JNRR 2019 conference, the bi-annual conference gathering the French Robotic community, in Vittel ($\sim$ 200 pers.) October 15-17 2019. https://jnrr2019.loria.fr/
- O. Simonin was General and Scientific Chair of JFSMA 2019 (*27emes Journées Francophones sur les Systèmes Multi-Agents*), in Toulouse, as part of PFIA 2019 (Plate-forme IA), July 1-5 2019. https://www.irit.fr/pfia2019/jfsma/

10.1.1.2. Member of the Organizing Committees

- Agostino Martinelli was in the organizing committee of the workshop on "visual-inertial navigation: challenges and applications", held during IROS 2019 in Macau, China.
- C. Laugier was Member of the Organizing Committee of the conference IEEE CIS-RAM 2019 (Bangkok, Nov 2019).
- J. S. Dibangoye and O. Simonin were Members of the Organizing Committee of IA^2 – Institut d'Autonomne en Intelligence Artificielle, Lyon 2019.

10.1.2. Scientific Events: Selection

10.1.2.1. Chair of Conference Program Committees

- O. Simonin was Chair of JFSMA Program Committee (27emes journées francophones sur les systèmes multi-agents), Toulouse, France, July 3-5, 2019. He co-edited with S. Combettes (IRIT/Toulouse) the JFSMA 2019 Proceedings, Cépaduès 2019, ISBN 9782364937192.

10.1.2.2. Member of the Conference Program Committees

- C. Laugier served as Associate Editor for the conference IEEE ICRA 2019 (Montreal, May 2019) and also for IEEE ICRA 2020 (Paris, May 2020).
- C. Laugier served as member of the Senior Program Committee of IEEE/RSJ IROS 2019 (Macau, Nov 2019).
- A. Martinelli was Associate Editor for IEEE ICRA 2020.
- A. Spalanzani was PC member of the ECAI 2019 conference.
- J. S. Dibangoye was Senior PC member of the ECAI 2019 conference.
- J. S. Dibangoye was PC member of the IJCAI 2019 conference.

[0]IEEE/RSJ International Conference on Intelligent Robots and Systems

- J. S. Dibangoye was PC member of the AAAI 2020 conference.
- J. S. Dibangoye was PC member of the NeurIPS 2019 conference (selected as one of the best reviewers).
- J. S. Dibangoye was PC member of the PKDD-ECML 2019 conference.
- J. S. Dibangoye was PC member of the JFPDA 2019 conference.
- O. Simonin was Senior PC member of the ECAI 2019 conference.
- O. Simonin was PC member of the IJCAI 2019 conference.
- O. Simonin was PC member of the AAAI 2020 conference.
- O. Simonin was PC member of the ICAPS 2019 conference - Robotics Track (29th International Conference on Automated Planning and Scheduling).
- O. Simonin was PC member of the ECMR 2019 conference (European Conference on Mobile Robots).

10.1.2.3. Reviewer

- A. Martinelli served, in quality of reviewer, for the following conferences: ICRA.
- O. Simonin served, in quality of reviewer, for the following conferences: IROS, ICRA.
- J. S. Dibangoye served, in quality of reviewer, for the following conferences: CDC, ACC, AAMAS, JFPDA.

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

- C. Laugier is Member of the Steering Committee of the journal IEEE Transaction on Intelligent Vehicles.
- C. Laugier is Senior Editor of the journal IEEE Transaction on Intelligent Vehicles
- C. Laugier is member of the Editorial Board of the journal IEEE ROBOMECH.
- O. Simonin was member of the Editorial Board of RIA revue (*Revue d'Intelligence Artificielle*), from 1/1/2018 to 1/06/2019. He is now member of the Editorial Board of the new revue ROIA (*Revue Ouverte d'Intelligence Artificielle*).

10.1.3.2. Reviewer - Reviewing Activities

- Agostino Martinelli served, in quality of reviewer, for the following journals: Transaction on Automatic Control, Automatica, Journal of Robust Control, Transaction on Robotics.
- O. Simonin was reviewer for SMCA journal (Systems, Man and Cybernetics: System).
- O. Simonin was reviewer for RIA revue (Revue d'Intelligence Artificielle).
- J. S. Dibangoye was reviewer for AIJ (Artificial Intelligence Journal).
- J. S. Dibangoye was reviewer for JAIR (Journal of Artificial Intelligence Research).
- J. S. Dibangoye was reviewer for JMLR (Journal of Machine Learning Research).
- J. S. Dibangoye was reviewer for TAC (IEEE Transaction on Automatic Control).

10.1.4. Invited Talks

- J. S. Dibangoye gave an invited talk at the Czech technical University in Prague, Czech Republic, in July 2019.
- J. S. Dibangoye gave an invited talk at the MAFTEC working group of GdR IA, in Caen, France, in February 2019.
- C. Laugier gave an invited talk at the conference IS Auto Europe 2019, Berlin, April 2019. Title: Embedded Sensor Fusion and Perception for Autonomous Vehicles.

- C. Laugier gave an invited talk at the conference IS Auto Europe 2019, Berlin, April 2019. Title: Embedded Sensor Fusion and Perception for Autonomous Vehicles.

- C. Laugier gave an invited talk at the Technological Conference Minalogic B2B 2019, Grenoble, May 2019. Title: Mixing Bayesian and AI approaches for Autonomous Driving.

- C. Laugier gave an invited keynote talk at the conference IEEE World Robotics Conference WRC 2019, Beijing, August 2019. Title: Impact of AI on Autonomous Driving.

- C. Laugier gave an invited Pioneer's talk at the conference IEEE/RSJ IROS 2019, Macau, November 2019. Title: A Journey in the history of Automated Driving.

- C. Laugier gave an invited keynote talk at the Cutting Edge Forum "Robotics, AI and ITS for Autonomous Driving", Conference IEEE/RSJ IROS 2019, Macau, November 2019. Title: Situation Awareness and Decision-making for Autonomous Driving.

- A. Martinelli gave the invited talk "Nonlinear Unknown Input Observability: the General Analytic Solution" on behalf of the Automatic Control Laboratory and the Institute for Dynamic Systems and Control at the ETHZ of Zurich, May, 6, 2019

- A. Martinelli gave invited talk "Nonlinear Unknown Input Observability: the General Analytic Solution" at La Sapienza University, Control lab, Rome, November, 29, 2019

- A. Spalanzani gave a talk that the "Journées Nationales de la Recherche en Robotique" (JNRR) in October 2019.

- O. Simonin gave an invited talk at the GdR Robotics Winter School: Robotica Principia "Decision making in robotics", Centre de recherche Inria Sophia Antipolis – Méditérranée, France. January 21-25, 2019, [55].

- O. Simonin gave an invited talk at the GdR IA2 Autumn School: "Introduction à la coordination multi-agent", CITI Lab/INSA Lyon.

10.1.5. Leadership within the Scientific Community

- C. Laugier is co-chair with Philippe Martinet, Marcelo Ang and Denis Wolf of the IEEE RAS Technical Committee on "Autonomous Ground Vehicles and Intelligent Transportation Systems (AGV-ITS)". He founded this IEEE RAS TC about 15 years ago, as a bridge between the RAS and ITS societies of IEEE.

- C. Laugier is member of the Steering Committee of IEEE/RSJ IROS.

- C. Laugier is member of the Scientific Committee of the French GDR Robotique.

- C. Laugier is member of several International Award Committees for IEEE RAS (Chapter Award Committee) and for IEEE/RSJ IROS.

- O. Simonin is member of the Board of AFIA "*Association Française pour l'Intelligence Artificielle*" (https://afia.asso.fr/).

10.1.6. Scientific Expertise

- O. Simonin was member of the HCERES committee of LIG lab.

- C. Laugier is member of the Advisory Board of ISR University of Coimbra.

- C. Laugier is Scientific Advisor for the Probayes SA and for Baidu China.

10.1.7. Research Administration

- C. Laugier is a member of several Ministerial and Regional French Committees on Robotics and Autonomous Cars.

- A. Spalanzani was a member of the committee of the ANR project selection in Mobilité et systèmes urbains durables.

- A. Spalanzani was a member of the GDR best Robotics PhD thesis committee.

- O. Simonin is member of the Auvergne-Rhone-Alpes Robotics cluster (Coboteam), for Inria and INSA Lyon entities.
- O. Simonin is member of the Scientific Council of the Digital League (Auvergne-Rhone-Alpes).

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

INSA Lyon 5th year : O. Simonin, Resp. of the Robotics option (25 students): AI for Robotics, Multi-Robot Systems, Robotics Projects, 90h, M2, Telecom Dept., France.

INSA Lyon 3rd year : O. Simonin, Resp. of Introduction to Algorithmics, 32h (100 students), L3, Telecom Dept., France.

INSA Lyon 3rd year : Jilles S. Dibangoye, Algorithmics, 24h, L3, Dept. Telecom INSA Lyon, France.

INSA Lyon 3rd year : Jilles S. Dibangoye, WEB, 42h, L3, Dept. Telecom INSA Lyon, France.

INSA Lyon 3rd year : Jilles S. Dibangoye, Operating Systems, 56h, L3, Dept. Telecom INSA Lyon, France.

INSA Lyon 4rd year : Jilles S. Dibangoye, Operating Systems, 16h, Master, Dept. Telecom INSA Lyon, France.

INSA Lyon 5th year : Jilles S. Dibangoye, the Robotics option : AI for Robotics, Robotics projects, 8h, M2, Dept. Telecom INSA Lyon, France.

M2R MoSIG: A. Martinelli, Autonomous Robotics, 12h, ENSIMAG Grenoble.

Master : Laetitia Matignon, Multi-Agents and Self-* Systems, 10h TD, M2 Artificial Intelligence, Lyon 1 University, France.

Master : Laetitia Matignon, Multi-Robot Systems, 20h TD, 5th year of engineer, Polytech Lyon Informatics Department, France.

CPE Lyon 4-5th year : F. Jumel, resp. of the Robotics option, 400h M1/ M2, Dept. SN CPE Lyon France.

CPE Lyon 4-5th year : F. Jumel, 250h (robotic vision, cognitive science, Interface robot machine, deeplearning, Robotic frameworks, robotic plateforms, Kalman Filter)

10.2.2. Supervision

PhD: David Sierra Gonzalez, Towards Human-Like Prediction and Decision-Making for Automated Vehicles in Highway Scenarios, Université Grenoble Alpes, Defended April 1st 2019, C. Laugier, J. Dibangoye, E. Mazer (Inria Pervasive Interaction).

PhD: Pavan Vasishta, Building and Leveraging Prior Knowledge for Predicting Pedestrian Behaviour Around Autonomous Vehicles in Urban Environments, Université Grenoble Alpes, Defended September 30th 2019, A. Spalanzani and D. Vaufreydaz (Inria Pervasive Interaction).

PhD: Mathieu Barbier, Decision making for Intelligent Vehicles, Defended December 11st 2019, C. Laugier, O. Simonin and E. Mazer (Inria Pervasive Interaction).

PhD in progress: Mihai Popescu, Robot fleet mobility under communication constraints, O. Simonin, A. Spalanzani, F. Valois (CITI/Inria Agora).

PhD in progress: Guillaume Bono, Global-local Optimization Under Uncertainty for Goods Distribution Using a Fleet of Autonomous Vehicles, 2016, O. Simonin, J. Dibangoye, L. Matignon.

PhD in progress: Remy Grunblatt, Mobilité contrôlée dans les réseaux de drones autonomes", 2017, I. Guerrin-Lassous (Inria Dante) and O. Simonin.

PhD in progress: Maria Kabtoul, Proactive Navigation in dense crowds, A. Spalanzani and P. Martinet (Inria Chorale).

PhD in progress: Benoit Renault, Navigation coopérative et sociale de robots mobiles en environnement modifiable, O. Simonin and J. Saraydaryan.

PhD in progress: Edward Beeching, Large-scale automatic learning of autonomous agent behavior with structured deep reinforcement learning, C. Wolf, O. Simonin and J. Dibangoye.

PhD in progress: Manon Prédhumeau, Crowd simulation and autonomous vehicle, A. Spalanzani and J. Dugdale (LIG).

Starting PhD: Luiz Serafim-Guardini, Conduite Automobile Autonome : Utilisation de grilles d'occupation probabilistes dynamiques pour la planification contextualisée de trajectoire d'urgence à criticité minimale, A. Spalanzani, C. Laugier, P. Martinet (Inria Chorale).

Starting PhD: Alexandre Bonnefond, Large-scale automatic learning of autonomous agent behavior with structured deep reinforcement learning, O. Simonin and I. Guerrin-Lassous (Inria Dante).

Starting PhD: Estéban Carvalho, Safe and aggressive piloting of UAVs, 2019, Ahmad Hably (Gipsa-Lab), Nicolas Marchand (Gipsa-Lab), Jilles S. Dibangoye.

10.2.3. Juries

HDR :

O. Simonin was reviewer and member of the defense committee of the HDR of Charles Lesire (ONERA-ISAE), INP Toulouse, "Architectures délibératives pour la robotique autonome, des algorithmes au logiciel embarqué", March 5th, 2019.

O. Simonin was reviewer and member of the defense committee of the HDR of Abbas-Turki Abdeljalil (UTBM), Université de Haute-Alsace, "Méthodes, modèles et outils pour la régulation coopérative : Application aux véhicules autonomes et connectés", December 10th, 2019.

PhD thesis :

A. Spalanzani was reviewer and member of the defense committee of the PhD thesis of José Mendes Filho, école nationale supérieure de techniques avancées, December 19th, 2019.

O. Simonin was reviewer and member of the defense committee of the PhD thesis of Nicolas Cambier, Université de Technologie de Compiègne (UTC), October 23th, 2019.

O. Simonin was reviewer and member of the defense committee of the PhD thesis of Christophe Reymann, INSA Toulouse, July 8th, 2019.

O. Simonin was member of the defense committee of the PhD thesis of Rustem Abdrakhmanov, Université Clermont Auvergne, June 27th, 2019.

O. Simonin was member of the defense committee of the PhD thesis of Bilel Chenchana, Université de Limoges, March 22th, 2019.

Jilles S. Dibangoye was member of the defense committee of the PhD thesis of Jonathan Cohen, Univ. Caen, June 13th 2019.

C. Laugier and J. Dibangoye were members of the defense committee and co-supervisor of the PhD thesis of David Sierra Gonzalez, UGA Grenoble, April 1st 2019.

C. Laugier and O. Simonin were members of the defense committee and co-supervisor of the PhD thesis of Mathieu Barbier, UGA Grenoble, December 11th 2019.

10.3. Popularization

A. Spalanzani made a cross interview on women in robotics (https://www.inria.fr/centre/nancy/actualites/une-carriere-en-robotique-regards-croises-sur-des-parcours-d-exception)

10.3.1. Articles and contents

O. Simonin gave an interview to Le Monde Informatique - IT Tour à Lyon "*La voiture autonome : mythe ou réalité ?*" (https://www.lemondeinformatique.fr/actualites/lire-interview-video-olivier-simonin-professeur-inria-insa-lyonetgrenoble-77605.html) (26/09/19)

10.3.2. Education

A. Spalanzani made a seminar on "social autonomous vehicle navigation" in the scope of "cycle de conférences ISN".

<p style="text-align:center">**DEFROST Project-Team**</p>

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events: Organisation

10.1.1.1. General Chair, Scientific Chair

- Gang Zheng is member of Bureau ED (Ecole Doctorale) SPI 072 in the domain of AGITSI (Automatique, Génie Informatique Traitement du Signal et des Images), 2020-2024.
- Gang Zheng is member of Bureau Scientifique (ex-BCP) of Inria Lille – Nord Europe, from February 2019.
- Gang Zheng was a vice-chair of the IFAC Technical Committee "Social Impact of Automation", International Federation of Automatic Control, TC9.2, till 2019
- Gang Zheng is co-chair of the working group "Commande et pilotage en environnement incertain" of GRAISYHM
- Christian Duriez was chair of the workshop " Modeling, Simulation and Control of Deformable Robots on SOFA Framework" organized during Robosoft Conference 2019 https://team.inria.fr/defrost/software/defrost-platform-modeling-simulation-and-control-of-deformable-robots-on-sofa-framework/

10.1.1.2. Member of the Organizing Committees

- This year, Stefan Escaida Navarro was a Co-Organizer of the *2nd Workshop on Proximity Perception in Robotics* at *IROS 2019* in Macao, China. [0]
- Gang Zheng, Associate Editor, SIAM CT19, Chengdu, China (SIAM Conference of Control & Its Applications 2019)
- Christian Duriez is member of the organizing committee of ICRA 2020 (in Paris), chair of Social Media and Community.

10.1.2. Scientific Events: Selection

10.1.2.1. Member of the Conference Program Committees

- Gang Zheng is IPC member of SIAM19, ICSRT19, ICFCTA19, ICRAI19, AITC19, APCRAS20, ICSRT20, ETFA20, ICSC20.
- Jeremie Dequidt is IPC member of International Symposium on Visual Computing 2019
- Christian Duriez is IPC of Robosoft 2019 and Robosoft 2020

10.1.2.2. Reviewer

Alexandre Kruszewski was revewier for:

- 2020 21st IFAC World Congress
- 2020 3rd IEEE International Conference on Soft Robotics
- 2020 American Control Conference
- 2019 IEEE/RSJ International Conference on Intelligent Robots and Systems
- 2019 IEEE Conference on Decision and Control
- 2019 IEEE International Conference on Fuzzy Systems
- 2019 Chinese Control and Decison Conference

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[0]https://www.proxelsandtaxels.org/en/

Olivier Goury was reviewer for:

- 2019 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)
- IEEE International Conference on Soft Robotics (ROBOSOFT 2020)

Stefan Escaida Navarro was reviewer for:

- 2020 IEEE International Conference on Robotics and Automation (ICRA 2020)
- 2019 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2019)

Jeremie Dequidt was reviewer for:

- 2019 International Symposium on Visual Computing
- 2020 IEEE Conference on Virtual Reality and 3D User Interfaces
- 2019 IEEE International Conference on Robotics and Automation (ICRA 2019)
- 2019 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2019)

Christian Duriez was reviewer for:

- 2019 IEEE International Conference on Robotics and Automation (ICRA 2019)
- 2019 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2019)
- Conference Robotics Science and System (RSS 2019)
- Siggraph Conference 2019

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

Christian Duriez is associate editor of:

- IEEE Transactions on Haptics
- IEEE Robotics and Automation Letters

10.1.3.2. Reviewer - Reviewing Activities

Olivier Goury was reviewer for:

- ACM CHI Conference on Human Factors in Computing Systems
- International Journal of Robotics Research (IJRR)
- IEEE Robotics and Automation Letters

Stefan Escaida Navarro was reviewer for:

- IEEE Robotics and Automation Letters (RA-L)
- IEEE Sensors Journal

Alexandre Kruszewski was revewier for:

- IEEE Transaction on Fuzzy Systems
- IEEE Robotics and Automation Letters
- IEEE Transactions on Vehicular Technology
- International Journal of Robotics Research
- Systems & Control Letters
- Fuzzy Sets and Systems
- IET Control Theory & Applications

Jeremie Dequidt was reviewer for:

- IEEE Transaction on Haptics
- IEEE Robotics and Automation
- IEEE Robotics and Automation Letters

Christian Duriez was reviewer for:
- Nature Robotics
- International Journal of Robotic Research
- IEEE Robotics and Automation Letters
- IEEE Transactions on Graphics

10.1.4. Invited Talks

Christian Duriez was invited for:
- Keynote at IEEE Robosoft Conference
- Keynote during scientific day of FEMTO (Besançon)
- Keynote & Practice during the 9th Summer School on Surgical Robotics
- Keynote during the FOOR 2019 (Forum Ouvert Oeuvre et Recherche) in Lille

10.1.5. Scientific Expertise

Christian Duriez is expert of the European Community for monitoring the FET project HybridHeart

10.1.6. Research Administration

- Christian Duriez has been nominated Director of the Inria Lille – Nord Europe center for an interim of 3 months (July to September). He is also the president of the "Commission des Emplois de Recherche" (Research Jobs Commission)
- Olivier Goury is an elected member of the "Comité de centre" and a member of the "Comité de développement technologique" (CDT) at Inria Lille – Nord Europe.
- Alexandre Kruszewski is member of the Laboratory council (CRIStAL).
- Damien Marchal is lead of the "Pôle d'Appui au Développement et à la Recherche" of the CRIStAL Laboratory.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Engineering cycle: Walid Amehri, Start & Go Arts et Sciences, 24h, level L3, Centrale Lille.

Engineering cycle: Walid Amehri, Start & Go Conception et Environement, 10h, level L3, Centrale Lille.

Engineering cycle: Walid Amehri, Automatique IE3, 20h, level L3, Centrale Lille.

Engineering cycle: Alexandre Kruszewski, 14 modules (automatic control, numeric control, embedded systems, robotics etc.), ≈250h, level (L3, M1, M2), Centrale Lille

Engineering cycle: Jeremie Dequidt 6 modules (Programming, Software Engineering, Embedded Systems, Databases, Medical Simulation etc.) ≈350h, level (L3, M1, M2), Polytech Lille

Master: Christian Duriez, Soft robotics, 24h, M2, Graduate degree en intelligence artificielle à l'Ecole Polytechnique (Palaiseau)

Master: Christian Duriez, Interactive simulation, 20h, M2, Master Image Visualisation Interaction, Université de Lille

10.2.2. Supervision

PhD: Eulalie Coevoet, Optimization Based Inverse Model of Soft Robots With Contact Handling, Université de Lille, 9/01/2019, C. Duriez

PhD: Zhongkai Zhang, Vision-based calibration, position control and force sensing for soft robots, Université de Lille, 10/01/2019, J. Dequidt, C. Duriez

PhD: Maxime Thieffry, Modélisation et contrôle de robots déformables à grande vitesse, UPHF, 16/10/2019, A. Kruszewski, C. Duriez, T.M. Guerra

PhD in progress: Walid Amehri, Workspace analysis of soft robots, G. Zheng, A. Kruszewski

PhD in progress: Ke Wu, Control of soft robot under constraints, G. Zheng

PhD in progress: Pierre Schegg, Catheter Navigation using Reinforcement Learning, J. Dequidt and C. Duriez

PhD in progress: Félix Vanneste, Design and simulation of Soft Robots made of mesostructured materials, 01/12/2018, C Duriez, O. Goury

10.2.3. *Juries*

Gang Zheng has participated the following juries of thesis:

- Imen Mrad, Observabilité et inversion à gauche des systèmes dynamiques hybrides, defended at 16/12/2019, Université de Cergy-Pontoise (Reviewer);
- Yanqiao Wei, Non-asymptotic and robust fractional order differentiators using generalized modulating functions, defended at 15/11/2019, INSA Val de Loire (Examinator);
- Saber Laamiri, Commande des systèmes électriques: Machines synchrones et convertisseurs multiniveaux, defended at 27/09/2019, Ecole centrale de Nantes (Examinator).

Christian Duriez was member of the following juries of PhD thesis:

- Margaret Koehler, Model-Based Design And Control Of Deformable Robots And Haptic Devices, Stanford University, USA, defended on the 14th of November 2019 (Reviewer)
- François Schmitt, Méthodes et procédés pour l'assistance à la chirurgie laparoscopique par comanipulation, University of Strasbourg, defended the 30th of September 2019 (Reviewer)
- Quentin Peyron, Concept de robot à tube concentrique magnétique: introduction et analyse, defended the 5th of December 2019 (President of the Jury)

Christian Duriez was member of the following juries for Habilitation thesis:

- Sinan Haliyo, Interactions Multi-Echelles, defended the 6th of December 2019 (Reviewer)
- Guillaume Caron, Vision Robotique Directe, defended the 10th of December 2019 (President of the Jury)

10.3. Popularization

- http://handsonsoftrobotics.lille.inria.fr/
- SIDO 2019: SIDO is leading European Solutions and Technologies event for IoT, Artificial Intelligence and Robotics for strategic decision-makers in innovation and business operations. Jeremie Dequidt has presented current research works arund Soft Roboctics.

10.3.1. *Interventions*

- Fête de la science 2019: Bruno Carrez and Olivier Goury took part in the " village des sciences" at the "Gare Saint-Sauveur" in Lille city center to present soft robots to several groups of students from middle school and high school which represents about 150 children over 2 days between October 10th and 11th 2019.
- FOSDEM 2019 Brussels: its an open-software manifestation which happen every years during 2 days. Some people of our team (Damiens Marchal, Eulalie Coevoet, Bruno Marques, Bruno Carrez and Félix Vanneste) went there to help the SOFA consortium to make some advertisement of our simulation tools.
- ISN intervention: Olivier Goury presented the field of soft robotics to high school students taking a Computer Science option (Informatiques sciences du numérique) and exchanged about the school projects on March the 20th 2019.

- Défi Robotique at Lycée Baggio: Olivier Goury took part in the Défi Robotique at Lycée Baggio in which teams of middle school, high school, preparatory classes and engineering students have 24 hours to solve a robotics challenge. Olivier Goury gave a conference on Soft Robotics and was a member of jury.

- Journée de la recherche Centrale Lille: Alexandre Kruszewski, Thor Morales-Bieze and Bruno Carrez presented the research activities (with live demos) in a showroom dedicated to the promotion of the scientific activities of the Laboratory of the campus.

FLOWERS Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events: Organisation

10.1.1.1. Member of the Organizing Committees

PY Oudeyer was co-organizer of the Workshop on Exploration in Reinforcement Learning (ICML 19), https://sites.google.com/view/erl-2019/organizers.

10.1.2. Scientific Events: Selection

10.1.2.1. Member of the Conference Program Committees

PY Oudeyer was member of the program committee of IEEE International Conference on Developmental Learning and Epigenetic Robotics (ICDL-Epirob).

Natalia Díaz Rodríguez, steering committee and reviewer of CONTLEARN Workshop at CVPR2020 Workshop on Continual Learning in Computer Vision, Seattle, US.

10.1.2.2. Reviewer

PY Oudeyer was a reviewer for: Workshop on Exploration in Reinforcement Learning (ICML 19).

Hélène Sauzéon reviewed a conference paper for CHI 2020.

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

PY Oudeyer was editor of the IEEE Newsletter on Cognitive and Developmental Systems.

PY Oudeyer was associate editor of: IEEE Transactions on Cognitive and Developmental Systems and Frontiers in Neurorobotics.

10.1.3.2. Reviewer - Reviewing Activities

Clément Moulin-Frier reviewed an article for *Journal of Artificial Intelligence Research (JAIR)*.

PY Oudeyer reviewed for the journals: Journal of Artificial Intelligence Research, Cognitive Science, Nature Science Reports.

Hélène Sauzéon reviewed 6 articles for Memory & Cognition (M&C), Annals of Physical and Rehabilitative Medecine (APRM), Psychonomic Bulletin, Motivation & Cognition (MC); Cognition & Emotion (CE)

Natalia Díaz Rodríguez reviewed at Frontiers in Robotics and AI, Transactions on Emerging Telecommunications Technologies, IEEE Robotics & Automation Magazine, Neurocomputing, Robotics and Autonomous Systems.

Cédric Colas reviewed an article for the Robotics Science and Systems (RSS) conference.

10.1.4. Invited Talks

Clément Moulin-Frier gave invited talks at the *Journées Nationales de Recherche en Robotics (JNRR)* in Vittel (France) and in the *Journée GT8 "Robotique et Neurosciences"* du GDR Robotique in Bordeaux (France).

Clément Moulin-Frier and Natalia Díaz-Rodríguez gave a talk and participated, resp. in the workshop *Open Artificial Intelligence: From big data to smart data* at the *Centre de Recherche Interdisciplinaire (CRI)* in Paris (France) 13-15 Nov. 2019.

PY Oudeyer gave a keynote talk at International Conference on Learning Representations (ICLR 2019), New-Orleans, May 2019, https://iclr.cc/Conferences/2019/Schedule?showEvent=1141.

PY Oudeyer gave a keynote talk at ACM International Conference on Virtual Agents (ACM IVA 2019), Paris, on developmental machine learning https://iva2019.sciencesconf.org/.

PY Oudeyer gave an invited talk at the Deep Learning Summit (ReWork 2019), London, on curiosity-driven artificial intelligence, https://www.re-work.co/events/deep-learning-summit-london-2019/speakers/.

PY Oudeyer gave an invited talk at the conference on Reinforcement Learning and Decision Making (RLDM 2019), Montreal, on curiosity-driven developmental learning, http://rldm.org/invited-speakers/.

PY Oudeyer gave an invited talk at the Workshop on Curiosity for Decision Making at RLDM 2019, Montreal, https://sites.google.com/view/rldm-curiosity.

PY Oudeyer gave an invited talk at the HUMAINT conference in Séville, on "Developmental Autonomous Learning: AI, Cognitive Sciences and EdTech", 2019.

PY Oudeyer gave an invited talk at the workshop "AI and cognitive systems in Aquitaine", ENSC/Chaire STAH, Bordeaux, 2019.

PY Oudeyer gave an invited talk at the workshop "Task-agnostic reinforcement learning" at ICLR 2019, https://tarl2019.github.io, on developmental autonomous learning.

PY Oudeyer gave an invited talk at the workshop on Curiosity, Explanation and Exploration at Princeton University, 2019, on models of curiosity-driven learning in humans and machines.

PY Oudeyer gave an invited talk at the workshop on AI and Machine Learning, Telecom ParisTech, 2019, on developmental machine learning, https://workshopmlai.wp.imt.fr.

PY Oudeyer gave an invited talk at Académie de Médecine, Paris, 2019, on models of curiosity-driven learning and educational technologies.

PY Oudeyer gave an invited talk at workshop on Self and Sense of Agency, University Paris Descartes, nov. 2019, on models of curiosity-driven learning in humans and machines.

Hélène Sauzéon gave three invited talks at : 1) the conference on « Neuropsychologie clinique et technologies » - SNLF 2019, Paris, dec., 2-5 ; 2) Annual cycle of conference of Hôpital Salpêtrière, dec., 3; 3) Computer science Dpt. Of the University of Beijing, Beijing, July, 22-23.

Chris Reinke gave three invited talks at: 1) Okinawa Institute of Science and Technology, May 2019, on machine learning methods for the automated discovery of behaviors in physical and chemical systems; 2) LOMA Theory Day at Bordeaux, July 2019, on machine learning in physics; 3) Inria Grenoble, December 2019, on using cognitive models for artificial intelligence

N. Díaz Rodríguez gave an invited keynote (Continual Learning and Robotics: An Overview) and was a panelist at the ICLR workshop on multi-task and lifelong reinforcement learning https://sites.google.com/view/mtlrl

N. Díaz Rodríguez gave a guest talk at the Network of Young Researchers - Neuro Day NYR, Continual learning and Robotics, Paris 7th June 2019[0].

N. Díaz Rodríguez moderated a round table tomorrow in Paris: *WHEN AI AND BIG DATA MEET LIFE SCIENCES: ADVANCES IN RESEARCH AND ETHICAL QUESTIONS*https://yrls.fr/roundtable/ at Institut Imagine, Paris.

10.1.5. Leadership within the Scientific Community

Hélène Sauzéon was member of the ANR committe of « Technologie & Health »

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[0]https://ifm-institute.fr/fr/accueil/actualites/470-network-of-young-researchers-neuro-day-7th-june-20?fbclid=IwAR03u8T-opoede5hnCQx_QSphsJPC77YCrmnuNZH8c5XiBoRH9kgotLvYyw

10.1.6. Scientific Expertise

PY Oudeyer was a reviewer for the European Commission (FET program).

Hélène Sauzéon was a reviewer for the ANR call on International and european and scientific networks.

10.1.7. Research Administration

PY Oudeyer has been head of the Flowers team and member of piloting committees of consortium projects Adaptiv'Maths and Perseverons (eFran) on educational technologies.

Hélène Sauzéon was head of HACS team (BPH Lab, Inserm-UB), and thus member of directory committe of « Handicap » IFR (Inserm).

Helène Sauzéon is member of directory committe of the « centre d'excellence BIND », and she managed the Industrial Innovation and transfer sub-committee.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

PY Oudeyer gave a course on developmental reinforcement learning at ENSEIRB master on AI and machine learning (3h), nov. 2019.

PY Oudeyer gave a course on developmental learning at CogMaster cognitive science master (3h), nov. 2019.

PY Oudeyer gave a course on developmental learning at ENSC/ENSEIRB "option robot" master (3h), dec. 2019.

During the latest academic year, Hélène Sauzéon teached 96h in the BS. and master degrees in cognitive science (Department of Mathematics & interaction, University of Bordeaux). She was (co-)responsible of 9 teaching units (3 in BS et 6 in Master).

N Díaz Rodríguez taught, at ENSTA, a total of 3.25 h in ROB313, 27h at IN104, 10.5 at IN102, 21h at IA301. She also gave 42h at IG.2410 at the engineering school ISEP, and 3h course on Continual Learning and State Representation Learning at the reinforcement learning course at ENSEIRB master on AI and machine learning (3h), nov. 2019.

Didier Roy gave courses on computer science basics, and on computer science, robotics and AI activities for education at Canton de Vaud teachers.

10.2.2. Supervision

- PhD defended: Sébastien Forestier, "Intrinsically Motivated Goal Exploration in Child Development and Artificial Intelligence: Learning and Development of Speech and Tool Use", University of Bordeaux (supervised by PY Oudeyer).
- PhD defended: Thibault Desprez, "Conception et évaluation de kits robotiques pédagogiques", University of Bordeaux (supervisors: PY. Oudeyer and D. Roy)
- PhD in progress : Rémy Portelas, "Teacher algorithms for curriculum learning in Deep RL", beg. in sept. 2018 (supervisors: PY Oudeyer and K Hoffmann)
- PhD in progress: Cédric Colas, "Intrinsically Motivated Deep RL", beg. in sept. 2017 (supervisors: PY Oudeyer and O Sigaud)
- PhD in progress: Tristan Karch, "Language acquisition in curiosity-driven Deep RL", beg. in sept. 2019 (supervisors: PY Oudeyer and C Moulin-Frier)
- PhD in progress: Alexandr Ten, "Models of human curiosity-driven learning and exploration", beg. in sept. 2018 (supervisor: PY Oudeyer)
- PhD defended: Cécile Mazon, "Des Technologies Numériques Pour L'inclusion Scolaire Des Collégiens Avec TSA : des approches individuelles aux approches écosystémiques pour soutenir l'individu et ses aidants ", University of Bordeaux (supervised by H. Sauzéon).

- PhD defended: Pierre-Antoine Cinquin, "Conception, intégration et validation de systèmes numériques d'enseignement accessibles aux personnes en situation de handicap cognitif ", University of Bordeaux (supervised by H. Sauzéon & P. Guitton).
- PhD in progress: Adrien Bennetot, "Explainable continual learning for autonomous driving", Sorbonne University and ENSTA Paris (supervised by N Díaz Rodríguez & R Chatila).
- Master thesis defended: Anouche Banikyian "Curiosity, intrinsic motivation and spatial learning in children", University of Bordeaux (supervised by H. Sauzéon).
- Master thesis defended: Mehdi Alaimi "New educational application for fostering curiosity-related question-asking in children", University of Bordeaux (supervised by H. Sauzéon & PY Oudeyer).
- Master thesis defended: Juewan Wang "Can an accessible MOOC player improve the retention of disabled students? A MOOC accessibility assessment based on analytic method ", University of Bordeaux (supervised by H. Sauzéon & P. Guitton).

10.2.3. Juries

PY Oudeyer was reviewer of the PhD of Simon Hangl, entitled « Autonomous Robotics: an Integrated Approach from Controllers to Cognitive Capabilities », University of Innsbruck, Austria, 2019.

PY Oudeyer was reviewer of the PhD of Yannick Bourrier, titled "Diagnostic et prise de décision pédagogique pour la construction de compétences non- techniques en situation critique", from university Paris-Sorbonne, 2019.

PY Oudeyer was reviewer of the PhD of Leni Kenneth Le Goff, titled "Bootstrapping robotic ecological perceptin with exploration and interactions", from University Pierre et Marie Curie, 2019.

PY Oudeyer was examiner of the PhD of Jelena Mladenovic, titled "Modélisation computationnelle des compétences et des états de l'utilisateur pour optimiser les taches d'entraînement aux Interfaces Cerveaux-Ordinateur", University of Bordeaux, 2019.

PY Oudeyer was examiner of the PhD of Pierre Fournier, titled "Intrinsically Motivated and Interactive Reinforcement Learning: a Developmental Approach", University Pierre and Marie Curie, 2019.

PY Oudeyer was examiner of the PhD of Lisa Jacquey, titled "La sensibilité aux contingences sensorimotrices chez le bébé et son rôle dans le développement du savoir-faire corporel", from University of Paris, 2019.

PY Oudeyer was examiner in the PhD jury of Svetlana Meyer, on the topic "Entraînement de l'attention visuelle pour l'apprentissage de la lecture : l'apport du jeu vidéo d'action", University of Grenoble (feb. 2019).

Hélène Sauzéon organized a selection commitee for recruitment of Assistant professor in Rehabilitative science (University of de Bordeaux).

Hélène Sauzéon was external member of a selection commitee for recruitment of Assistant professor in cognitive psychology (University of Toulouse – LeMirail).

Hélène Sauzéon performed several scientific expertises for application requests such as HDR (ED SP2, University of Bordeaux) or local careers advancement (University of Bordeaux).

N. Díaz Rodríguez was invited jury (President) of the PhD thesis "Deep Learning for Abnormal Movement Detection using Wearable Sensors: Case Studies on Stereotypical Motor Movements in Autism and Freezing of Gait in Parkinson's Disease" in the University of Trento, Italy May 2019.

10.3. Popularization

10.3.1. Internal or external Inria responsibilities

Pierre-Yves Oudeyer has been member of the scientific committee for the permanent exhibition "Robots" at Cité des Sciences et de l'Industrie, Paris: http://www.cite-sciences.fr/fr/au-programme/expos-permanentes/expos-permanentes-dexplora/robots/lexposition/. See also https://www.inria.fr/fr/la-robotique-a-la-cite-des-sciences.

Pierre-Yves Oudeyer has been member of the scientific committee for the exhibition "Robots" at Cap Sciences, http://www.cap-sciences.net/au-programme/exposition/robots.

Pierre-Yves Oudeyer was member of the jury of the popular science competition Creathon in Poitiers.

Didier Roy is member of the team "Livre blanc Inria EdTech", with Gérard Giraudon, Pascal Guitton, Thierry Viéville and Margarida Romero.

Didier Roy is member of the Class'code and Class'code AI teams.

Didier Roy has been member of the organization committee for the public workshop/exhibition "Robots" at Cité des Sciences et de l'Industrie, Paris.

Didier Roy is vice-president of Poppy Station Structure. Poppy Station, which includes Poppy robot ecosystem (hardware, software, community) from the beginning, is a place of excellence to build future educational robots and to design pedagogical activities to teach computer science, robotics and Artificial Intelligence. https://www.poppy-station.org. Partners of Poppy Station : Inria, La Ligue de l'Enseignement, HESAM Université, SNCF Développement, IFÉ-ENS Lyon, MOBOTS – EPFL, Génération Robots, Pollen Robotics, KONEXInc, Mobsya, CERN Microclub, LINE Lab (Université Nice), Stripes, Canopé Martinique, Rights Tech Women, Editions Nathan.

10.3.2. Articles and contents

Sébastien Forestier and Pierre-Yves Oudeyer were interviewed for a video documentary on curiosity-driven learning in robots, now permanently displayed in the exhibition "Robots" at Cité des Sciences et de l'Industrie, Paris: http://www.cite-sciences.fr/fr/au-programme/expos-permanentes/expos-permanentes-dexplora/robots/lexposition/. The video is available here: https://www.youtube.com/watch?v=Kw724djJpUs.

PY Oudeyer was interviewed in RFI radio program "Autour de la question" on artificial intelligence and society (feb. 2019), http://www.rfi.fr/emission/20190211-comment-vivre-bonne-intelligence-toutes-intelligences.

Didier Roy and PY Oudeyer wrote an illustrated book on artificial intelligence and robotics for 7-8 years old children, to be published by Nathan.

10.3.3. Education

Hélène Sauzéon, as co-designer (with P. Guitton) of "Digital Accessibility" MOOC displayed on FUN platform, has interacted with the learners during the permanent session in 2019.

N Díaz Rodríguez participated on the Future Fest organized by the director and deans of School of AI with the objective of creating and self fund the first free degree on AI (April 2019, Granada, Spain. theSchool.ai).

Didier Roy is organizing an International R2T2 Robotics Mission Event for the EduCamp (RoboCup Junior 2020 at Bordeaux).

10.3.4. Interventions

Pierre-Yves Oudeyer gave a popular science conference at Lycée Montaigne, Bordeaux, on machine learning and AI (17th jan. 2019).

PY Oudeyer participated to a popular science debate on science-fiction movies and artificial intelligence at cinema Utopia, Bordeaux (jan. 2019).

PY Oudeyer gave an invited popular science talk at Collège des Bernardins, Paris, 2019, on affective machine learning and educational technologies, https://www.collegedesbernardins.fr/content/affects-numeriques-et-education and video at https://www.youtube.com/watch?v=WYd6RzaCQDc.

PY Oudeyer gave a popular science conference to 2nde students from Lycée La Sauque, Bordeaux.

PY Oudeyer gave a popular science presentation on artificial intelligence in the event "AI and education" organized at Inria Bordeaux by Didier Roy and Nicolas Rougier.

Hélène Sauzéon participated to several talks targetted disability-related professionals, students or industries :
1) Technologies educatives & Handicap Conference, organised by ESPE of Academy of Nantes, Mar., 20 ; 2)
Journée d'étude de l'Observatoire des ressources numériques adaptées (Orna) « Autisme et outils numériques
: de la recherche aux applications », May, 3at INSHE , Paris. ; 3) Colloque « Augmentation de l'humain »
STAH Industrial Chair of Nouvelle Aquitaine, Mar., 28

Didier Roy gave an invited talk at CERN, Geneve, Switzerland, november 2019, on Educational Power of
International R2T2 Robotics Missions

Didier Roy gave an invited talk at LEARN DAY, Bern, Switzerland, november 2019, on Strategies for
introducing Robotics and Computer science activities at school.

Didier Roy organized the APEIA DAY (Artificial Intelligence & Education), at Inria BSO, Inria Sophia and
open video-conference. Talks and workshop about unplugged and plugged activities for teaching AI from
primary school to high education. With teachers, animators, education experts and AI researchers.

10.3.5. Internal action

Hélène Sauzéon has presented the « Collège + » and Kidlearn projects to Sophie Cluzel, Secretary of State for
Disability, during the launch day of the Disability Plan of Inria (November, 16).

10.3.6. Creation of media or tools for science outreach

10.3.6.1. AIANA: an accessible multimedia player

Hélène Sauzéon is co-designer with P. Guitton of the accessible AIANA multimedia player for MOOCs. The
V1 was developed by Learning Lab Inria in 2016 and the V2 by Damien Caseli (ADT engineer) as part of the
POTIOC-Inria team in 2019. This player offers a flexible interface, configurable in terms of sensory and motor
alternatives for the communication of people with physical disabilities, and of cognitive alternatives (attention
load, reading aid, note-taking, etc.) for people with cognitive disabilities. The most convincing result is that it
has increased the number of disabled learners completing a MOOC course (16%) on FUN platform compared
to the available benchmark (10

10.3.6.2. Poppy Station: Robotics and AI for Education, Arts and Research with the Poppy platform

Didier Roy continued to promote and co-manage the Poppy Station Association.

Among the recent actions of poppy station, there were the training provided at the 2nd chance school created in
Saintes by SNCF Development, the training given at the Institut Pasteur in Paris, on IT, robotics and artificial
intelligence. Lasting collaborations have taken hold.

There is also a new artistic collaboration with the artist Clara Maïda and her project "(a)utom@ton" of
contemporary musical and robotic creation (work for electroacoustic device and two humanoid robots).

Poppy Station has also participated in various events concerning educational robotics and artificial intelligence
: APEIA Day at Inria Bordeaux, National Educational Robotics Colloquium at French Institute of education
(ENS Lyon), Educatec Educatice exhibition in Paris, Ludovia Summer university in Ax-les-thermes.

A new open source wheeled robot printed in 3d was created for poppy Station by Pollen robotics, partner of
poppy Station.

Poppy Station is also involved in European calls for projects with the Institut Pasteur around the continuous
training of scientific staff on IT, robotics and AI.

Poppy Station Association brings together players from the world of business, research, training, culture
and education and aims to develop and preserve robotic ecosystems and associated open source or free
technologies, in all areas where their use can allow this development and preservation. The association pays
particular attention to the fields of education, training, arts and research. Poppy Station is the result of a transfer
of Inria research from its open-source robotics ecosystem Poppy to an external multi-partners structure. The
Poppy ecosystem includes software and hardware tools to create and program robots, as well as educational
content for education and training, and a large interdisciplinary community of users. This ecosystem was
created and developed by the Inria Flowers team, with the aim of facilitating the experimentation and creation
of innovative robotic tools in the fields of education, research and the arts. http://www.poppy-station.org.

10.3.6.3. IniRobot: Educational Robotics in Primary Schools

Didier Roy and PY Oudeyer continued to promote and disseminate the IniRobot pedagogical toolkit. Inirobot, a project done in collaboration with EPFL/Mobsya, aims to create, evaluate and disseminate a pedagogical kit which uses Thymio robot, an open-source and low cost robot, for teaching computer science and robotics.

IniRobot Project aims to produce and diffuse a pedagogical kit for teachers and animators, to help them and to train them directly or by the way of external structures. The aim of the kit is to initiate children to computer science and robotics. The kit provides a micro-world for learning, and takes an inquiry-based educational approach, where kids are led to construct their understanding through practicing an active investigation methodology within teams. See https://dm1r.inria.fr/c/kits-pedagogiques/inirobot or http://www.inirobot.fr.

Deployment: After 4 years of activity, IniRobot is used by more than 3000 adults, 30 000 children in France. Inirobot is also used in higher education, for example in Master 2 "Neurosciences, human and animal cognition" at the Paul Sabatier University in Toulouse. Inirobot is additionally used to train the management and elected officials of the Bordeaux metropolitan area (20 people). The digital mediators of the 8 Inria centers are trained to Inirobot and use it in their activities.

10.3.6.3.1. Partnership

The project continues to be carried out in main collaboration with the LSRO Laboratory from EPFL (Lausanne) and others collaborations such as the French National Education/Rectorat d'Aquitaine, the Canopé Educational Network, the ESPE (teacher's school) Aquitaine, the ESPE Martinique, the ESPE Poitiers and the National Directorate of Digital Education.

10.3.6.3.2. Created pedagogical documents and resources

- The inirobot pedagogical kit [87]: This pedagogical booklet provides activities scenarized as missions to do. An updated version of the Inirobot pedagogical kit is available at: https://dm1r.inria.fr/uploads/default/original/1X/70037bdd5c290e48c7ec4cb4f26f0e426a4b4cf6.pdf. Another pedagogical booklet has been also created by three pedagogical advisers for primary school, with pedagogical instructions and aims, under our supervision. The new pedagogical kit,"Inirobot Scolaire, Langages et robotique", which extends Inirobot to a full primary school approach is available at https://blogacabdx.ac-bordeaux.fr/numerique33/2018/10/04/robotique-sequence-inirobot-scolaire/

- Inirobot website and forum: https://dm1r.inria.fr/c/kits-pedagogiques/inirobot or http://www.inirobot.fr On this website, teachers, animators and general public can download documents, exchange about their use of inirobot's kit.

10.3.6.3.3. Scientific mediation

Inirobot is very popular and often presented in events (conferences, workshops, ...) by us and others.

10.3.6.3.4. Spread of Inirobot activities

Inirobot activities are used by several projects: Dossier 123 codez from Main à la Pâte Fundation, Classcode project, ...

10.3.6.3.5. MOOC Thymio

The MOOC Thymio, released in october 2018, in collaboration with Inria Learning Lab and EPFL (Lausanne, Switzerland), on FUN platform and edX EPFL Platform), use Inirobot activities to teach how to use Thymio robot in education.

<p align="center" style="color:red">HEPHAISTOS Project-Team</p>

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific Events: Organisation

- J-P. Merlet is a permanent member of the International Steering Committee of the IROS conference, of the CableCon conference and chairman of the scientific Committee of the Computational Kinematics workshop. He is also an advisor for ICRA 2020,

- Y. Papegay is a permanent member of the International Steering Committee of the International Mathematica Symposium conferences series. He is a member of the OpenMath Society, building an extensible standard for representing the semantics of mathematical objects.

9.1.1.1. Reviewer - Reviewing Activities

- The members of the team reviewed numerous papers for numerous international conferences and journals

9.1.2. Journal

9.1.2.1. Member of the Editorial Boards

- E. Wajnberg is Editor-in-Chief of the journal BioControl (published by Springer).

- E. Wajnberg is a board member of the journals Entomologia Experimentalis et Applicata (published by Wiley), Neotropical Entomology (published by Springer), Applied Entomology and Zoology (published by Springer), and Journal of Economical Entomology (Publish by Oxford University Press).

9.1.3. Invited Talks

- E. Wajnberg has been invited for talks by the University of Beer Shava at Sde Boqer (Israel, March), the University of La Plata (Argentina, April), the University of Buenos Aires (Argentina, April), the University of São Paulo at Piracicaba (Brazil, October)

9.1.4. Leadership within the Scientific Community

- J-P. Merlet is Inria representative to the PPP Eurobotics aisbl. He is a member of the IFToMM (International Federation for the Promotion of Mechanism and Machine Science) Technical Committees on History and on Computational Kinematics and is one of the 10 elected members of IFToMM Executive Council, the board of this federation. He is a member of the scientific committee of the CNRS GDR robotique and a chair of 3IA Côte d'Azur.

9.1.5. Scientific Expertise

- J-P. Merlet was involved in project evaluations for several foreign funding agencies (Israel, Austria, ERC). He was also appointed as *Nominator* for the Japan's Prize.

- E. Wajnberg is involved in project evaluation for several foreign funding agencies (Belgium, Italy).

- E. Wajnberg was invited to be a committee number for recruiting an Institute Director by the CNR (Rome, Italy)

9.1.6. Research Administration

- J-P. Merlet was an elected member of the Academic Council of UCA COMUE (until July 2019), is a corresponding member of Inria ethical committee (COERLE) and member of the Research, Ethical Committees of UCA. He is an elected member of Inria Scientific Committee and of the "Commission Administrative Paritaire" of Inria

- Y. Papegay is a member of the CUMI (the committee managing the interaction between researchers and the computer support staff)
- O. Pourtallier is responsible of the NICE committee (long term invited scientists and post-doctoral student selection).
- O. Pourtallier is a board member of the Scientific and Pedagogical Council of DS4H graduate school of UCA.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

J-P. Merlet has taught 6 hours on parallel robots to Master ISC (M2) at University of Toulon. He has also been invited at ESIEE Paris for a talk about assistance robotics

J-P. Merlet, P. Martinet (CHORALE) and G. Allibert (I3S) have organized the first GDR robotics winter school, *Foundation of robotics*. During 5 days 35 students, mostly 1st year PhD students, have followed courses taught by international experts. Slides and additional materials have been regrouped in a HAL collection, *Robotics principia*, that has been organized in such a way that the next occurrences of this school will also be able to deposit additional documents. The idea of this collection is to be able to address all topics in robotics with various viewpoints.

In February, Y. Papegay has been visiting lecturer of University of French Polynesia, where he gave an object oriented programming course.

Y. Papegay has taught 3 hours on parallel robots to Master ISC (M2) at University of Toulon

P. Pourtallier lectured 6 hours on game theory to Master OSE (M2), at École des Mines de Paris, Sophia Antipolis, France

E. Wajnberg lectured One week course (about 30 h) about the use of the R program and statistics for PhD students and senior scientists in Rehovot (Israel, February)

9.2.2. Supervision

J. Moussaid. Analyse de robots parallèles à câbles (2019-), Supervisor: J-P. Merlet

W. Plouvier. Improving pest control efficiency: a modelling approach (2015-2019). Supervisor: E. Wajnberg.

E. Thomine. Agencement cultural pour promouvoir le transfert des services écosystémiques de biocontrôle au sein des paysages agricoles (2016 à 2019). Supervisors : N. Desneux & E. Wajnberg.

9.2.3. Juries

- J-P. Merlet was a jury member for the Best PhD Awards of the robotics GDR and has been president of 2 PhD juries.

9.3. Popularization

- J-P. Merlet gives 3 talks in the Alpes-Maritimes in the framework of the *Science pour Tous* association. He has also participated in a seminar on *robotics and media* involving 6 robotics experts and 6 journalists for a reflexion on the bias of the presentation of robotics to a general audience. He was also a member of the scientific committee for the permanent exhibition *Robot* at the Cité des Sciences, Paris
- Y. Papegay is actively participating to the Math.en.Jeans initiative for Mathematics teaching for undergraduate students.
- Y. Papegay is developing several pedagogical resources based on small robotics devices at high-school level.

- Y. Papegay organized and animated summer schools in experimental mathematics and computer sciences. Several one week sessions have been held in Oxford in June, July, August and November gathering more than 70 high-school students - most of them were awardees in Mathematics Olympiads.
- O. Pourtallier is corresponding researcher for two MATh.en.JEANS workshops, an initiative for Mathematics teaching for undergraduate students.
- E. Wajnberg gives 5 talks in the Alpes-Maritimes in the framework of the *Science pour Tous* association

9.3.1. Interventions

- the HEPHAISTOS project has on average about 100 visitors per year, either young students or teachers, to which we present our robotics and assistance activities

9.3.2. Internal action

- the HEPHAISTOS project has developed a set of cable-driven parallel robots, the MARIONET-SCHOOL series, that is used to illustrate visually scientific concepts in various domains

LARSEN Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events: Organisation

10.1.1.1. General Chair, Scientific Chair

- Conference Chair for the 30th International Conference on Automated Planning and Scheduling (ICAPS 2020), which will take place in Nancy in June 2020 (https://icaps20.icaps-conference.org/) [Olivier Buffet].
- Co-chair and co-organizer with Olivier Simonin the JNRR (National bi-annual conference on Robotics) 2019, in Vittel [François Chapillet]

10.1.1.2. Member of the Organizing Committees

- Conference "Drôles d'objets - Un nouvel art de faire 2020" that will take place in La Rochelle in april 2020 [Amine Boumaza, co-organizer]
- Workshop at the International Conference on Robotics and Automation (ICRA 2019) (*Human movement science for physical human-robot collaboration)* [Pauline Maurice and Serena Ivaldi, co-organizers]
- Local Organization Committee of the 30th International Conference on Automated Planning and Scheduling (ICAPS 2020) [Vincent Thomas]
- Workshop "Women in Robotics V" at the international conference Robotics: Science and Systems (RSS 2019) [Serena Ivaldi]
- Workshop "Tele-operation of Humanoid Robots" at IEEE-RAS International Conference on Humanoid Robots (HUMANOIDS 2019) [Serena Ivaldi]

10.1.2. Scientific Events: Selection

10.1.2.1. Chair of Conference Program Committees

- Program chair of the 2019 IEEE-RAS International Conference on Humanoid Robots (Toronto, Canada) [Serena Ivaldi]
- Co-chair of the track "Evolutionary Machine Learning" at GECCO 2019 (Prague, Czech Republic) [Jean-Baptiste Mouret]

10.1.2.2. Awards Chair of Conference Program Committees

- Awards co-chair of the 12th International Workshop on Human-Friendly Robotics (HFR 2019) [Serena Ivaldi]

10.1.2.3. Member of the Conference Program Committees

- 24th European Conference on Artificial Intelligence (ECAI 2020) [Francis Colas, Vincent Thomas, F. Charpillet]
- 36th International Conference on Machine Learning (ICML 2019) [Olivier Buffet]
- 28th International Joint Conference on Artificial Intelligence (IJCAI 2019) [Olivier Buffet, Vincent Thomas]
- *Journées Francophones sur la Planification, la Décision et l'Apprentissage pour la conduite de systèmes* (JFPDA 2019) [Olivier Buffet, Vincent Thomas]
- 34th AAAI Conference on Artificial Intelligence (AAAI 2020) [Olivier Buffet, F. Charpillet]
- 33th AAAI Conference on Artificial Intelligence (AAAI 2019) [Olivier Buffet, F. Charpillet]

- ALIFE 2019 (European Conference on Artificial Life) [Amine Boumaza, Jean-Baptiste Mouret]
- GECCO 2019 (Genetic and Evolutionary Computation Conference) [Amine Boumaza, Jean-Baptiste Mouret]
- EA 2019 (Artificial Evolution) [Amine Boumaza, Jean-Baptiste Mouret]
- IEEE/RAS International Conference on Robotics and Automation (ICRA 2020) [Pauline Maurice – Associate editor]
- 12th International Workshop on Human-Friendly Robotics (HFR 2019) [Pauline Maurice]
- 27emes Journées Francophones sur les Systèmes Multi-Agents (JFSMA 2019)[François Charpillet]
- 11th International Conference on Agents and Artificial Intelligence (ICAART 2019)[François Charpillet]

10.1.2.4. Reviewer

- Robotics: Science and Systems (RSS 2019) [Francis Colas, Serena Ivaldi]
- IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2019) [Francis Colas, Pauline Maurice, Jean-Baptiste Mouret]
- IEEE International Conference on Robotics and Automation (ICRA 2020) [Pauline Maurice, Jean-Baptiste Mouret]
- IEEE-RAS International Conference on Humanoid Robots (Humanoids 2019) [Francis Colas, Jean-Baptiste Mouret]
- 24th European Conference on Artificial Intelligence (ECAI 2020) [Francis Colas, Vincent Thomas, François Charpillet]
- 36th International Conference on Machine Learning (ICML 2019) [Olivier Buffet, Vincent Thomas]
- 28th International Joint Conference on Artificial Intelligence (IJCAI 2019) [Olivier Buffet, Vincent Thomas]
- *Journées Francophones sur la Planification, la Décision et l'Apprentissage pour la conduite de systèmes* (JFPDA 2019) [Olivier Buffet, Vincent Thomas]
- 34th AAAI Conference on Artificial Intelligence (AAAI 2020) [Olivier Buffet]
- 33th AAAI Conference on Artificial Intelligence (AAAI 2020) [François Charpillet]
- IEEE International Conference on Advanced Robotics ans its Social Impacts (ARSO 2019) [Pauline Maurice]
- Conference on Robot Learning (CoRL 2019) [Jean-Baptiste Mouret]
- ACM WomeENcourage 2019 [Serena Ivaldi]
- 27emes Journées Francophones sur les Systèmes Multi-Agents (JFSMA 2019)[François Charpillet]
- 11th International Conference on Agents and Artificial Intelligence (ICAART 2019)[François Charpillet]

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

- IEEE Robotics and Automation Letters [Serena Ivaldi – associate editor]
- ACM Transactions on Evolutionary Learning and Optimization [Jean-Baptiste Mouret – associate editor]
- Frontiers in AI and Robotics – review editors [Amine Boumaza, Jean-Baptiste Mouret]

10.1.3.2. Reviewer - Reviewing Activities

- Artificial Intelligence Journal (AIJ) [Olivier Buffet]
- Journal of Artificial Intelligence Research (JAIR) [Olivier Buffet].
- Genetic Programming and Evolvable Machines [Amine Boumaza]

- Robotica [Francis Colas]
- Robotics and Automation Letter [Francis Colas, Jean-Baptiste Mouret]
- Artificial Life [Jean-Baptiste Mouret]
- ACM Transactions on Evolutionary Learning and Optimization (TELO) [Jean-Baptiste Mouret]
- ACM Transactions on Human-Robot Interaction [Pauline Maurice]
- PloS One [Pauline Maurice]
- Paladyn Journal of Behavioral Robotics [Pauline Maurice]
- The Journal on Multimodal User Interfaces [Pauline Maurice]
- Frontiers in Neurorobotics [Serena Ivaldi]
- IEEE Robotics and Automation Magazine [Serena Ivaldi]

10.1.4. Invited Talks

- Keynote at the 10th International Conference on Information, Intelligence, Systems and Applications, Patras (Greece) [Jean-Baptiste Mouret]
- Keynote at the 12th International Workshop on Human-Friendly Robotics (HFR 2019) in Reggio Emilia (Italy) [Serena Ivaldi]
- Invited talk at the Conference on "Novel technological innovations for occupational safety and health" organised by the Polish Central Institute for Labour Protection – National Research Institute (CIOP-PIB), Warsaw (Poland) [Pauline Maurice]
- Invited talk at the workshop on "Closing the Reality Gap in Sim2real Transfer for Robotic Manipulation" at RSS 2019, Freiburg (Germany) [Jean-Baptiste Mouret]
- Invited talk at the CNRS GDR ISIS (Information, Signal, Image et ViSion), special day on robot learning, Paris (France) [Jean-Baptiste Mouret]
- talk at Workshop on "Task-Informed Grasping" at RSS 2019,Freiburg (Germany) [Serena Ivaldi]
- invited talk at the HUMANOIDS 2019 Workshop "Can we build Baymax?", Toronto (Canada) [Serena Ivaldi]
- invited talk at HUMANOIDS 2019 Workshop on "Humanoid Teleoperation", Toronto (Canada) [Serena Ivaldi]
- invited talk at the HUMANOIDS 2019 Workshop on "Challenges and solutions for HRI and collaboration", Toronto (Canada) [Serena Ivaldi]
- invited talk at the IROS 2019 "Cutting Edge Forum on Cognitive architecture for humanoids: where are we in our quest to achieve human-level AI in robotics?", Macau (China) [Serena Ivaldi]
- invited talk at the IROS 2019 Workshop on "Progress in Ergonomic Physical Human-Robot Collaboration", Macau (China) [Serena Ivaldi]
- invited talk at the IROS 2019 Workshop on "Open-Ended Learning for Object Perception and Grasping: Current Successes and Future Challenges", Macau (China) [Serena Ivaldi]

10.1.5. Research Administration

- Serena Ivaldi is member of the scientific council of the Federation Charles Hermite
- Jean-Baptiste Mouret is a member of the "Bureau du Comité des Projets" of Inria Nancy – Grand-Est
- François Charpillet is member of the scientific commitee of the Robotic GDR (All the teams in France contributing to research in Robotics are members of the Groupe de Recherche (GDR) en Robotique, an open national Research Group established by the CNRS).
- François Charpillet is co-leading with Pr Rossignol the SCIARAT plateform of the CPER IT2MP

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Master: Alexis Scheuer, "Introduction à la robotique autonome", 30h eq. TD, M1 informatique, Univ. Lorraine, France.

Master: Alexis Scheuer, "Vie artificielle", 22,5h eq. TD, 3ème année, CentraleSupélec, France.

Master: Francis Colas, "Robotique autonome", 18h eq. TD, M2 "Systèmes Interactifs et Robotiques", CentraleSupélec, France.

Master: Francis Colas, "Planification de trajectoires", 12h eq. TD, M2 "Apprentissage, Vision, Robotique", Univ. Lorraine, France.

Master: Alexis Scheuer, "Modélisation et commande en robotique", 16h eq. TD, M2 "Apprentissage, Vision, Robotique", Univ. Lorraine, France.

Master: Francis Colas, "Autonomous Robotics", 39.5h eq. TD, M1, CentraleSupélec, France.

Master: Pauline Maurice, "Analyse Comportementale", 10h eq. TD, M2 "Sciences Cognitives", Univ. Lorraine, France.

Master: Jean-Baptiste Mouret, "Creative automatic design", 3h, M2, M2 "Management de l'innovation", Mines de Paris, France

Master: Serena Ivaldi, "Analyse Comportementale", 16h CM/TD, M2 "Sciences Cognitives", Univ. Lorraine, France.

Master: Amine Boumaza, "Méta-heuristiques et recherche locale stochastique", 30h eq. TD, M1 informatique, Univ. Lorraine, France.

Tutorial: Olivier Buffet, "Planification dans l'incertain", 3h CM, CNRS Formation Entreprise.

Tutorial, Jean-Baptiste Mouret, "Evolutionary robotics", 3h, ACM GECCO 2019 (with S. Doncieux and N. Bredeche, Sorbonne Université)

10.2.2. Supervision

PhD in progress: Adrien Malaisé, "*Capteurs portés dans la robotique collaborative : de l'apprentissage du mouvement à l'acceptabilité de cette technologie*", started in January 2017, Francis Colas (advisor), Serena Ivaldi (co-advisor).

PhD in progress: Yang You, "*Modèles probabilistes pour la collaboration humain-robot*", started in October 2019, Olivier Buffet (advisor), Vincent Thomas (co-advisor)

PhD canceled: Jérôme Truc, "*Apprentissage de comportement et interactions prédictives pour un robot d'assistance en environnement structuré*", started in September 2018, canceled in July 2019, Francis Colas (advisor)

PhD in progress: Rituraj Kaushik, "*Damage recovery by trial and error and multiple simulation priors*", started in October 2016, Jean-Baptiste Mouret (advisor)

PhD in progress: Adam Gaier, "*Surrogate-based illumination for aerodynamics*", started in October 2016, Jean-Baptiste Mouret (Advisor)

PhD in progress: Vladislav Tempez, "*Learning to fly a micro-UAVs in highly confined environments*", started in October 2018, Jean-Baptiste Mouret (advisor), Franck Ruffier (co-advisor, CNRS/Aix-Marseille Université)

PhD in progress: Waldez Azevedo Gomes Junior, "*Intelligent Human-Robot collaboration*", started in October 2018, Jean-Baptiste Mouret (advisor), Serena Ivaldi (co-advisor)

PhD in progress: Yoann Fleytoux, "*Human-guided manipulation learning of irregular objects*", started in April 2019, Jean-Baptiste Mouret (advisor), Serena Ivaldi (co-advisor)

PhD in progress: Luigi Penco, "*Intelligent whole-body tele-operation of humanoid robots*", started in April 2019, Jean-Baptiste Mouret (advisor), Serena Ivaldi (co-advisor)

PhD in progress: Lorenzo Vianello, "*Adaptation in human-robot collaboration*", started in December 2019, Alexis Aubry (advisor, CRAN, Univ. Lorraine), Serena Ivaldi (co-advisor)

PhD in progress : Yassine EL Khadiri, Cifre with Diatelic, "*Machine learning for Ambient Assisted Living (AAL)*", started in June 2017, François Charpillet adviser.

PhD in progress : Eloise Zehnder, "*Elderly-technology interaction: accessibility and acceptability of assistive technology (at) at home*", started October 2018, François Charpillet (advisor), Jérome Dinet (advisor, 2LPN).

PhD in progress : Julien Uzzan, Cifre with PSA, "*navigation of an autonomous vehicle in a complex environment using unsupervised or semi-supervised learning*", started in January 2019, François Charpillet (advisor), François Aioun (co-advisor, PSA).

PhD in progress : Jessica Colombel, "*Analysis of human movement for assistance*", started in Feburary 2019, François Charpillet (advisor) David Daney(advisor, Auctus team, Bordeaux)

PhD in progress : Nicolas Gauville, CIFRE with SAFRAN, "*Coordination of autonomous robots evolving in unstructured and unknown environment for Search and Rescue*", started in May 2019, François Charpillet (advisor), Christophe Guettier (co-adviser, Safran).

10.2.3. Juries

- François Charpillet was a reviewer for the HDR of Antony Fleury (Lille University)
- François Charpillet was a reviewer for the HDR of François Portet (LIG, Grenoble Alpes University)
- Pauline Maurice was an examinator for the PhD of Nolwenn Briquet-Kerestedjian (Univ. Paris-Saclay)
- Jean-Baptiste Mouret was a reviewer for the PhD of Christophe Reymann (INSA Toulouse / LAAS)
- Jean-Baptiste Mouret was a reviewer for the PhD of Daniele Gravina (University of Malta)
- Serena Ivaldi was an examiner for the PhD of Rohan Budhiraja (LAAS)
- François Charpillet was a reviewer for the PhD of Facundo Benavides Olivera (ISAE, Toulouse University & Universidad de la República, Uruguay)
- François Charpillet was a reviewer for the PhD of Mehdi Othmani-Guibourg (Sorbonne University)
- François Charpillet was a reviewer for the PhD of Sandra Castellanos (LIG, Grenoble Alpes University)
- François Charpillet was a examiner for the PhD of Pavan Vasishta(Grenoble Alpes University)

10.3. Popularization

10.3.1. Internal or external Inria responsibilities

- Amine Boumaza is a member of the editorial board of "Interstice".

10.3.2. Articles and contents

- Pauline Maurice gave an interview for Radio Canada (radio).
- Serena Ivaldi gave an interview to France 3 (TV) during the inauguration of the Creativ'Lab.

10.3.3. Education

- Vincent Thomas gave a tutorial on path planning for teachers during "journées ISN-EPI 2019" (Nancy, France).

10.3.4. Interventions

- Public workshop on robot programming with Thymio at "Fête de la Science" [Alexis Scheuer, Olivier Buffet, Jessica Colombel, Francis Colas, Yassine El Khadiri, Vincent Thomas, Yang You]
- Pauline Maurice gave a talk at the Forum Sciences Cognitives 2019 in Université de Lorraine.
- Jean-Baptiste Mouret was invited to debate about artificial intelligence at "La Tronche en Biais", an online popularization channel (27k view for this video)
- Eloïse Dalin and Pierre Desreumaux participated to a "Café des Sciences" artificial intelligence and robotics at the "Cité des Sciences et de l'Industrie" (Paris)
- Serena Ivaldi participated to the "Fête de la Science" as tutor for school children in Inria/Loria

PERVASIVE Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific Events: Organisation

9.1.1.1. Member of the Organizing Committees

    Eric Castelli Co-organised the workshop BREVES (Vietnam, France Belgique), in Hanoi the 5 and 6 november 2019

    Sabine Coquilart served as co-chair of the Paper Award committee for IEEE VR 2019 - IEEE Virtual Reality Conference

    Sabine Coquilart served as co-chair of the Paper Award committee for SUI 2019 - ACM Spatial User Interaction

    James Crowley served as Chairman of the Awards committee for ACM ICMI 2019 - International Conference on Multimodal Interaction.

    Eric Castelli served as "board member" of the international conference series SLTU'xx (Spoken Language Technologies for Under-resourced languages)

9.1.1.2. Member of the Conference Program Committees

    Sabine Coquilart served on the conference program committee for

- AIVR 2019 - International Conference on Artificial Intelligence and Virtual Reality
- CENTRIC 2019 - The Twelfth International Conference on Advances in Human-oriented and Personalized Mechanisms, Technologies, and Services
- GRAPP 2019 - International Conference on Computer Graphics Theory and Applications
- ICGI 2019 - International Conference on Graphics and Interaction
- ISVC 2019 - International Symposium on Visual Computing
- VRST 2019 - ACM Symposium on Virtual Reality Software and Technology
- WSCG 2019 - International Conferences in Central Europe on Computer Graphics, Visualization and Computer Vision

9.1.2. Scientific Events: Selection

9.1.2.1. Chair of Conference Program Committees

    Sabine Coquilart served as co-chair for the paper selection panel for IEEE VR 2019

    Sabine Coquilart served as co-chair for the paper selection panel for SUI 2019

9.1.2.2. Reviewer

    Sabine Coquilart reviewed papers IEEE World Haptics 2019

    Thierry Fraichard reviewed papers IEEE ICRA 2019

    James Crowley served as a reviewer for

- ICCV 2019 - International Conference on Computer Vision
- CVPR 2019 - IEEE Conference on Computer Vision and Pattern Recognition
- AAAI 2020 - Association for the Advancement of Artificial Intelligence
- iCMI 2019 - International Conference on Multimodal Interaction.
- IHM 2019 - Interaction Homme Machine

Eric Castelli served as a reviewer for

- SigTelCom 2019 (Hanoi, Vietnam)
- ICVES 2019 (Cairo, Egypt)
- ISEE2019 (Ho Chi Minh City, Vietnam)
- SPECOM 2019 (Istanbul, Turkey)
- SCS'19 (Kingdom of Bahrain)
- ATC2019 (Hanoi, Vietnam)
- ICMSAO2019 (Bahrain)
- IALP2019 (Taipei, Taiwan)
- SoICT 2019 (Hanoi & HaLong Bay, Vietnam)
- 3ICT'19 (Kingdom of Bahrain)
- NICS 2019 (Hanoi, Vietnam)
- FLAIRS'33 2020 (North Miami Beach, USA)
- ICWMC 2020 (Athens, Greece)
- LREC 2020 (Marseille, France)
- MAPR 2020 (Hanoi, Vietnam)

9.1.3. Journal

9.1.3.1. Member of the Editorial Boards

Patrick Reignier is a member of the editorial board of the Modeling and Using Context Journal.

Sabine Coquilart is a member of the Scientific Committee of the Journal of Virtual Reality and Broadcasting.

9.1.3.2. Reviewer - Reviewing Activities

Sabine Coquilart reviewed papers for IEEE Transactions on Haptics

Thierry Fraichard reviewed papers for IEEE Trans. Robotics and Automation (TRO)

James Crowley reviewed papers for Communications of the ACM

9.1.4. Invited Talks

James Crowley gave the following invited talks:

- **Artificial Intelligence: a Rupture Technology for Innovation**, invited lecture at Club des DIS, Dirigeants Innovation et Stratégie, Montbonnot, 14 March 2019.
- **Collaborative Intelligent Systems**, invited lecture at Simula Research Institute, Oslo Norway, Montbonnot, 27 September 2019.
- **Artificial Intelligence: a Rupture Technology for Innovation**, AI4EU Web Cafe (webinar), 13 November 2019
- **Artificial Intelligence for Human Computer Interaction**, Keynote lecture at IHM 2019, Grenoble 12 Dec 2019.

Eric Castelli gave the invited talk

- **Multimodal perception and Pervasive spaces for Sociable interaction** International workshop BREVES, USTH, Hanoi, Vietnam, 5 and 6 November 2019.

9.1.5. Leadership within the Scientific Community

Sabine Coquilart is elected member of the EUROGRAPHICS Executive Committee.

Sabine Coquilart is co-chair of the EUROGRAPHICS Working Group and Workshop board.

Sabine Coquilart is co-chair of the Steering Committee for EGVE - Eurographics Working Group on Virtual Environments

James Crowley is a member of the Steering Committee for ICMI - International Conference on Multimodal Interaction.

9.1.6. *Scientific Expertise*

Patrick Reignier is a member of the Scientific Council of the Amiqual4Home EquipEx.

Thierry Fraichard served as an expert reviewer for the European Commission, the IDEX of Aix-Marseille Université, and the IDEX of Université Grenoble Alpes

9.1.7. *Research Administration*

Thierry Fraichard is a member of the following Inria committees:

- Research Center Committee (CC), IT Service Committee (CUMI), and Technological Development Committee (CDT).

James Crowley is an elected member of the Conseil d'Administration of the Comue Univ Grenoble Alpes

James Crowley Served on the Bureau (executive committee) of the laboratoire LIG

Patrick Reignier is head of the engineering support group of the Laboratoire d'Informatique de Grenoble (13 members).

Patrick Reignier serves on the Administrative Office (Bureau) for the Laboratoire Informatique de Grenoble.

Patrick Reignier is at the head of the Domus Living Lab

Patrick Reignier is a member of the Comité Executif of the Amiqual4Home Equipex

Patrick Reignier is a member of the Comité de pilotage of the MACI (Maison de la Création et l'Innovation)

9.2. Teaching - Supervision - Juries

Patrick Reignier teaches

- elected member of the Conseil des Etudes et de la Vie Universitaire of Grenoble INP

- nominated as a member of the Conseil de la Formation Continue de Grenoble INP

- co-director of the "formation en apprentissage" of Ensimag (3 years program : 1 year for the Licence and 2 years for the Master)

- Supervises the industrial part of the "formation en apprentissage" of the Ensimag engineering school.

James Crowley and **Dominique Vaufreydaz** co-direct the Graphics - Vision - Robotics Specialisation of the MoSIG M2 Masters.

9.2.1. *Teaching*

James Crowley teaches

- M2 MoSIG Computer Vision

- ENSIMAG 3 Machine Learning.

- M1 MoSIG Intelligent Systems.

- ENSIMAG 2 Intelligent Systems.

Patrick Reignier teaches

- Projet Genie Logiciel, 55h eqTD, M1, Ensimag/Grenoble INP, France.

- Développement d'applications communicantes, 18h eqTD, M2, Ensimag/Grenoble-INP, France

- Introduction aux applications reparties, 18h eqTD, M2, Ensimag/Grenoble- INP, France

- Applications Web et Mobiles , 27h eqTD, M1, Ensimag/Grenoble-INP, France

- Projet Systeme, 12h eq TD, M1, Ensimag/Grenoble-INP, France

- Projet C, 20h eqTD, L3, Ensimag/Grenoble-INP, France.

Thierry Fraichard, taught Autonomous Robotics, 22.5h eqTD, M2 MOSIG, Univ. Grenoble Alpes.

9.2.2. *Supervision*

Thierry Fraichard directed the following Doctoral students

- Jose Grimaldo Da Silva Filho, "Human-Robot Motion, a Shared Effort Approach", Octobre 2015, Thierry Fraichard and James Crowley.

- Matteo Ciocca, "Safe Robot Motion", Octobre 2016, Thierry Fraichard and Pierre-Brice Wieber.

James Crowley directed the following Doctoral students

- Nachwa Abou Bakr, "Recognition, Modeling and Description of Manipulation actions "
- Thomas Guntz, "Estimating Expertise from Eye Gaze and Emotions", co-directed with Dominique Vaufreydaz

9.2.3. Juries

Patrick Reignier served as a president of the Doctoral Jury for

- Van Bao Nguyen
- Alessandro Fenicio

James Crowley served as a president of the Doctoral Jury for

- Mathieu Barbier
- David Sierre Gonzalez

9.3. Interventions

Thierry Fraichard participated to the event "A robot on trial", mock trial of a futuristic robot as part of the Transfo digital festival, Jan. 19. This successful event attracted around 200 participants

<p align="center">**RAINBOW Project-Team**</p>

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific Events: Organisation

9.1.1.1. General Chair, Scientific Chair

- Marie Babel was the Scientific Chair and the General co-chair of the workshop "Robotique de la marche" organized in Inria Rennes on December 13th 2019.

9.1.1.2. Member of the Organizing Committees

- P. Robuffo Giordano co-organized with F. Schiano and D. Floreano (EPFL) the Workshop on "Aerial Swarms" at the 2019 International Conference on Intelligent Systems and Robots, Macau, China

9.1.2. Scientific Events: Selection

9.1.2.1. Chair of Conference Program Committees

- Paolo Robuffo Giordano: Program Co-Chair of MRS 2019
- François Chaumette: Program Co-Chair of ICRA 2020 to be held in Paris in June 2020.

9.1.2.2. Member of the Conference Program Committees

- Claudio Pacchierotti: Eurohaptics (Associate Editor), World Haptics (Associate Editor), ICRA 2020 (Associate Editor), Demonstrations Co-Chair, IEEE Haptics Symposium (HAPTICS) 2020
- Paolo Robuffo Giordano: ICRA 2020 (Associate Editor), RSS 2019 (Area Chair)
- Eric Marchand: ICRA 2020 (Associate Editor)
- Julien Pettré: IEEE Virtual Reality 2019, ACM Motion and Interactions in Games 2019, ACM Symposium on Computer Animation

9.1.2.3. Reviewer

- Alexandre Krupa: IROS 2019 (1), ICRA 2020 (1)
- Eric Marchand: IROS 2019 (1), ICRA 2019 (2), ICRA 2020 (1)
- Marie Babel: ICRA 2020 (4), SMC 2019 (1)
- Paolo Robuffo Giordano: ICRA 2020 (2)
- François Chaumette: ICRA 2020 (1), CDC 2019 (1), RoMoCo 2019 (1)

9.1.3. Journal

9.1.3.1. Member of the Editorial Boards

- Paolo Robuffo Giordano is Editor for the IEEE Transactions on Robotics since January 2019
- Alexandre Krupa was Associate Editor of IEEE Robotics and Automation Letters (RA-L) (until June 2019) and is currently Associate Editor for the IEEE Transactions on Robotics (since July 2019)
- Eric Marchand is a Senior Editor of IEEE Robotics and Automation Letters (RA-L) and an Editor for Interstices)i(
- François Chaumette: Editor of the IEEE Transactions on Robotics, Editorial Board of the Int. Journal of Robotics Research, Editorial Board of the Springer Tracts in Advanced Robotics, Board Member of the Springer Encyclopedia of Robotics.
- Julien Pettré is Associate Editor for the Wiley's Computer Graphics Forum, and Associate Editor for the Wiley's Computer Animation and Virtual Worlds

9.1.3.2. Reviewer - Reviewing Activities

- Vincent Drevelle: ActaCybernetica
- Eric Marchand: IEEE RA-L (2)
- Marie Babel: IEEE RA-L (1)
- Paolo Robuffo Giordano: IJRR (1), IEEE RA-L (1), IEEE T-CST (2), IEEE T-RO (2)
- François Chaumette: IEEE Trans. on Industrial Electronics (2), IEEE RA-L (1), Acta Astronautica (1)
- Claudio Pacchierotti: RAL (1), IJHCS (5), TOH (7), JMRR (1), ICRA (4), TIE (2), TVCG (1), Frontiers in Robotics and AI (2), THMS (1), Presence (1), Scientific Reports (1)

9.1.4. Invited Talks

- Paolo Robuffo Giordano:
    - "Human-assisted Robotics", Robotics and Mechatronics lab, University of Twente, Netherlands, October 2019
    - "Collective Control, State Estimation and Human Interaction for Quadrotors in Unstructured Environments", Technoférence, Images et Réseaux, Rennes, October 2019
    - "Human-assisted Robotics", Robotics Research Jam Session, Univ. of Pisa, Italy, April 2019
- Claudio Pacchierotti:
    - with A. M. Okamura, "Learnings from cross-functional work on skin stretch haptics." Workshop "Cross-functional collaboration between engineering & perception researchers" at WHC Conference, Tokyo, Japan, 2019.
    - "Cutaneous haptic technologies for robotics and immersive environments." Cirrus Logic, Edinburgh, United Kingdom, 2019.
    - "Virtual Reality and Robotics for Industry 4.0." University of Aarhus, Herning, Denmark, 2019.
- Marie Babel:
    - "Simulation virtuelle et retour haptique du mouvement : une expérience de conduite réaliste immersive", Séminaire d'hiver de l'IFRATH, Paris, January 2019
    - "Fauteuil roulant intelligent : croiser les regards (académiques et cliniques)", Technoférence, Images et Reseaux, January 2019
- François Chaumette:
    - Plenary talk on "Geometric and end-to-end robot vision-based control" at 12th Int. Workshop on Robot Motion and Control (RoMoCo 2019), Poznan, Poland, July 2019 [33].
    - "Sensor-based Control", GdR Robotics Winter School : Robotics Principia, Sophia-Antipolis, January 2019.
- Fabien Spindler:
    - "Avancées en vision pour la saisie et la manipulation", Journée GT3 du GDR robotique, ISIR, Paris, Juin 2019

9.1.5. Leadership within the Scientific Community

- Claudio Pacchierotti is the Chair of the IEEE Technical Committee on Haptics and the Secretary of the Eurohaptics Society.
- François Chaumette is a member of the Scientific Council of RTE Vedecom, ImVIA lab in Dijon and Le Creusot, and a founding member of the Scientific Council of the "GdR Robotique".

9.1.6. Scientific Expertise

- Paolo Robuffo Giordano was reviewer for evaluating proposals of the ANR (French National Research Agency), Mitacs (Canada), SNSF (Swiss National Science Foundation), MIUR (Italian National Research Agency), and the EU commission (ERC Consolidator Grants)

- Claudio Pacchierotti was reviewer for evaluating proposals of the European Science Foundation (ESF).

- Fabien Spindler was a member of the HCERES evaluation committee of URIA, the laboratory of the Ecole des Mines de Douai, the DTIS laboratory of Onera and the LISTIC in Annecy.

- Marie Babel serves as an expert for the International Mission of the French Research Ministry (MEIRIES) - Campus France (about 30 expertises per year). She was also reviewer for evaluating proposals of the ANR (French National Research Agency)

- François Chaumette served for the fourth (and last) time as Panel Member of the PE7 ERC Consolidator Grants. He also served as member of IEEE RAS Pioneer Award Evaluation Panel and IEEE RAS Awards Evaluation Panel. He was a panel member of the 2019 ICREA Academia program (similar to IUF for Catalonia). Finally, he served in the jury for the Inria research positions (CR2) available for the Inria Rennes-Bretagne Atlantique centre.

9.1.7. Research Administration

- Alexandre Krupa is a member of the CUMIR ("Commission des Utilisateurs des Moyens Informatiques pour la Recherche") of Inria Rennes-Bretagne Atlantique, he also serves as Inria representative (correspondent) at the IRT Jules Verne.

- Eric Marchand served as secretary in the board of the "Association Française pour la Reconnaissance et l'interprétation des Formes" (AFRIF). He is the head of "Digital Signals and Images, Robotics" department at IRISA.

- François Chaumette serves as the president of the committee in charge of all the temporary recruitments ("Commission Personnel") at Inria Rennes-Bretagne Atlantique and IRISA. He is also a member of the Head team of Inria Rennes-Bretagne Atlantique, and of the Scientific Steering Committee (COSS) of IRISA. Since December 2019, he is a member of the Inria COERLE committee (in charge of the ethical aspects of all Inria research).

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Marie Babel:

       Master INSA2: "Robotics", 26 hours, M1, INSA Rennes

       Master INSA1: "Concepts de la logique à la programmation", 20 hours, L3, INSA Rennes

       Master INSA1: "Langage C", 12 hours, L3, INSA Rennes

       Master INSA2: "Computer science project", 30 hours, M1, INSA Rennes

       Master INSA1: "Practical studies", 16 hours, L3, INSA Rennes

       Master INSA2: "Image analysis", 26 hours, M1, INSA Rennes

       Master INSA1: "Remedial math courses", 50 hours, L3, INSA Rennes

François Chaumette:

       Master SISEA: "Robot Vision", 12 hours, M2, Université de Rennes 1

       Master ENS: "Visual servoing", 6 hours, M1, Ecole Nationale Supérieure de Rennes

       Master ESIR3: "Visual servoing", 8 hours, M2, Ecole supérieure d'ingénieurs de Rennes

Vincent Drevelle:

      Master ILA: "Terrain information systems", 30 hours, M2, Université de Rennes 1

      Master Info: "Artificial intelligence", 20 hours, M1, Université de Rennes 1

      Licence Info: "Computer systems architecture", 42 hours, L1, Université de Rennes 1

      Master Elec: "Electronics project", 16 hours, M1, Université de Rennes 1

      Portail Info-Elec: "Discovering programming and electronics", 22 hours, L1, Université de Rennes 1

      Licence Miage: "Computer programming", 78 hours, L3, Université de Rennes 1

      Master Elec: "Instrumentation, localization, GPS", 4 hours, M2, Université de Rennes 1

      Master Elec: "Multisensor data fusion", 20 hours, M2, Université de Rennes 1

      Master IL: "Mobile robotics", 32 hours, M2, Université de Rennes 1

Alexandre Krupa:

      Master FIP TIC-Santé: "Ultrasound visual servoing", 6 hours, M2, Télécom Physique Strasbourg

      Master ESIR3: "Ultrasound visual servoing", 9 hours, M2, Esir Rennes

Eric Marchand:

      Master Esir2: "Colorimetry", 24 hours, M1, Esir Rennes

      Master Esir2: "Computer vision: geometry", 24 hours, M1, Esir Rennes

      Master Esir3: "Special effects", 24 hours, M2, Esir Rennes

      Master Esir3: "Computer vision: tracking and recognition", 24 hours, M2, Esir Rennes

      Master MRI: "Computer vision", 24 hours, M2, Université de Rennes 1

      Master ENS: "Computer vision", 16 hours, M2, ENS Rennes

      Master MIA: "Augmented reality", 4 hours, M2, Université de Rennes 1

Julien Pettré:

      Master SIF: "Motion for Animation and Robotics", 6 hours, Unviersité de Rennes 1

      Master Artificial Intelligence and Advanced Visual Computing: "Advanced 3D graphics", 3 hours, Ecole Polytechnique

9.2.2. Supervision

- Ph.D. in progress: Agniva Sengupta, "Visual tracking of deformable objects with RGB-D camera", started in January 2017, supervised by Alexandre Krupa and Eric Marchand

- Ph.D. in progress: Xavier De Tinguy de la Girouliére, "Conception de techniques d'interaction multisensorielles pour la manipulation dextre d'objets en réalité virtuelle", started in September 2017, supervised by Maud Marchal, Anatole Lécuyer (Hybrid group) and Claudio Pacchierotti

- Ph.D. in progress: Rahaf Rahal, "Mixed tactile-force feedback for safe and intuitive robotic teleoperation", started in October 2017, supervised by Paolo Robuffo Giordano and Claudio Pacchierotti

- Ph.D. in progress: Romain Lagneau (Hybrid group), "Control of soft object deformation by visual servoing", started in October 2017, supervised by Alexandre Krupa and Maud Marchal (Hybrid group)

- Ph.D. in progress: Florian Berton, "Gaze analysis for crowd behaviours study", started in October 2017, supervised by Anne-Hélène Olivier (MimeTIC group), Ludovic Hoyet (MimeTIC group) and Julien Pettré

- Ph.D. in progress: Zane Zake (IRT Jules Verne), "Visual servoing for cable-driven parallel robots", started in January 2018, supervised by Stéphane Caro (LS2N) and François Chaumette

- Ph.D. in progress: Javad Amirian, "Crowd motion prediction for robot navigation in dense crowds", started in January 2018, supervised by Jean-Bernard Hayet (CIMAT, Guana) and Julien Pettré

- Ph.D. in progress: Xi Wang "Robustness of Visual SLAM techniques to light changing conditions", started in September 2018, supervised by Eric Marchand and Marc Christie (MimeTIC group)

- Ph.D. in progress: Alexander Oliva, "Coupling Vision and Force for Robotic Manipulation", started in October 2018, supervised by François Chaumette and Paolo Robuffo Giordano

- Ph.D. in progress: Ketty Favre "Lidar-based localization", started in October 2018, supervised by Eric Marchand, Muriel Pressigout and Luce Morin (IMAGE group)

- Ph.D. in progress: Fabien Grzeskowiak, "Crowd simulation for testing robot navigation in dense crowds", started in October 2018, supervised by Marie Babel and Julien Pettré

- Ph.D. in progress: Guillaume Vailland, "Outdoor wheelchair assisted navigation: reality versus virtuality", started in November 2018, supervised by Marie Babel and Valérie Gouranton (Hybrid group)

- Ph.D. in progress: Benoît Antoniotti "Scene reconstruction and exploration", started in March 2019, supervised by Eric Marchand, François Chaumette, and Antoine Lehuger (Creative)

- Ph.D. in progress: Pascal Brault, "Planification et optimisation de trajectoires robustes aux incertitudes paramétriques pour des taches robotiques fondées sur l'usage de capteurs", started in September 2019, supervised by Paolo Robuffo Giordano and Quentin Delamare

- Ph.D. in progress: Alberto Jovane, "Modélisation de mouvements réactifs et comportements non verbaux pour la création d'acteurs digitaux pour la réalité virtuelle", started in September 2019, supervised by Marc Christie (MimeTIC group), Claudio Pacchierotti, Ludovic Hoyet (MimeTIC group) and Julien Pettré

- Ph.D. in progress: Samuel Felton "Deep Learning for visual servoing", started in October 2019, supervised by Eric Marchand and Elisa Fromont (Lacodam group)

- Ph.D. in progress: Mathieu Gonzalez "SLAM in time varying environment", started in October 2019, supervised by Eric Marchand and Jérome Royan (IRT B<>COM)

- Ph.D. in progress: Adèle Colas, "Modélisation de comportements collectifs réactifs et expressifs pour la réalité virtuelle", started in November 2019, supervised by Claudio Pacchierotti, Anne-Hélène Olivier, Ludovic Hoyet (MimeTIC group) and Julien Pettré

- Ph.D. defended: Salma Jiddi, "Photometric Registration of Indoor Real Scenes using an RGB-D Camera with Application to Mixed Reality", defended in January 2019, supervised by Eric Marchand [2]

- Ph.D. defended: Ide-Flore Kenmogne "Localisation ensembliste de drones à l'aide de méthodes par intervalles", defended in March 2019, supervised by Eric Marchand and Vincent Drevelle [3]

- Ph.D. defended: Quentin Delamare, "Algorithmes d'estimation et de commande pour des quadrirotors en interaction physique avec l'environnement", defended on December 2019, supervised by Paolo Robuffo Giordano and Antonio Franchi (LAAS) [1]

- Ph.D. defended: Axel Lopez Gandia, "Optical flow-based navigation algorithms for virtual humans", defended on December 2019, supervised by Julien Pettré and François Chaumette [4]

- Ph.D. to be defended: Hadrien Gurnel "Needle comanipulation with haptic guidance for percutaneous interventions", to be defended in January 2020, supervised by Alexandre Krupa, Maud Marchal (Hybrid group) and Laurent Launay (IRT B<>com)

9.2.3. Internships

- Alexandre Bonneau, ENS Rennes - Univ. Rennes 1, "Haptic rendering of virtual contacts in crowded environments", supervised by J. Pettré

- Pascal Brault, ENS Rennes - Univ. Rennes 1, "Planning of Minimally Sensitive Trajectories for Mobile Robots", supervised by Q. Delamare and P. Robuffo Giordano

- Valerio Paduani, Univ. of Rome "La Sapienza", Italy, "Perception-Aware Human-Assisted Navigation of Mobile Robots on Persistent Trajectories", supervised by M. Cognetti and P. Robuffo Giordano

- Giulia Matarese, Univ. of Pisa, Italy, "Caring about the human operator: haptic shared control for enhanced user comfort in robotic telemanipulation", supervised by C. Pacchierotti and P. Robuffo Giordano

- Riccardo Arciulo, Univ. of Rome "La Sapienza", Italy, "Novel Solution For Human-Robot physical interaction in collaborative tasks", supervised by C. Pacchierotti and P. Robuffo Giordano

- Ahmed Elsherif, École Centrale de Nantes (EMARO), "Shared control of drones with wearable haptic interfaces", supervised by C. Pacchierotti and M. Aggravi

- Daniel Lemos Estima, University of Twente, "Integration between a grounded haptic interface and a robot-assisted flexible needle insertion system", supervised by C. Pacchierotti

- David Steeven Villa Salazar, Univ. Federal do Rio Grande do Sul, "Development of Virtual Reality scenes rendered using ultrasound and vibrotactile haptic interfaces", supervised by C. Pacchierotti

- Samuel Felton, INSA Rennes - Univ. Rennes 1, "Deep Learning for Visual Servoing", supervised by E. Marchand

- Gatien Gaumerais, ESIR 2 - Univ. Rennes 1, "Visual-servoing with Parrot Bebop 2 drone", supervised by F. Spindler

- Quentin Zanini, ENS - Univ. Rennes 1, "Design of a library of 3D shapes for haptic rendering using the ultrahaptics device", supervised by C. Pacchierotti and M. Marchal (Hybrid group)

9.2.4. Juries

- Paolo Robuffo Giordano: Davide Bicego (Ph.D., member, LAAS, Toulouse)

- Julien Pettré: Jennifer Vandoni (Ph.D., member, Paris Saclay) and Maxime Garcia (Ph.D., reviewer, Grenoble Alpes)

- Eric Marchand: Maxime Rousselot (Ph.D. president, univ. de Rennes 1), Dmitry Kuzovkin (Ph.D. president, univ. de Rennes 1), Gilles Simon (HDR, reviewer, Univ. de Lorraine)

- Marie Babel: Lydia Habib (Ph.D., member, LAMIH, Université Polytechnique Hauts de France)

- François Chaumette: Eulalie Coevet (Ph.D., president, Inria Lille), Mateus Laranjeira (Ph.D., reviewer, Cosmer, Toulon), Brahim Tamadazte (HdR, reviewer, Femto, Besançon), Guillaume Caron (HdR, member, MIS, Amiens)

9.3. Popularization

- Due to the visibility of our experimental platforms, the team is often requested to present its research activities to students, researchers or industry. Our panel of demonstrations allows us to highlight recent results concerning the positioning of an ultrasound probe by visual servoing, vision-based shared control using our haptic device for object manipulation, the control of a fleet of quadrotors, vision-based detection and tracking for space navigation in a rendezvous context, the semi-autonomous navigation of a wheelchair, the power wheelchair simulator, and augmented reality applications. Some of these demonstrations are available as videos on VispTeam YouTube channel (https://www.youtube.com/user/VispTeam/videos).

9.3.1. Interventions

- François Pasteau participated to the Tech'in Vitré forum with an interview in March 2019.

- Solenne Fortun participated to the Societé de gérontologie de l'ouest et du centre (SGOC) congress with an interview in May 2019.

- Marie Babel animated an interactive session organized in Inria Rennes about "J'peux pas, j'ai informatique" on April 3rd, 2019 for secondary-school pupils.

<p align="center">**RITS Project-Team**</p>

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific Events: Selection

9.1.1.1. Reviewer

Raoul de Charette: *BMVC 2019, CVPR 2019, ICCV 2019, AAAI 2019, IEEE ITSC 2019, IEEE IV 2019*.

Jean-Marc Lasgouttes: *IEEE ITSC 2019, ICVES 2019*.

Fawzi Nashashibi : *IEEE ICRA 2019, IEEE IROS 2019, IEEE IV 2019, IEEE ITSC 2019, IEEE VTC 2018, IEEE ICVES 2019*.

Anne Verroust-Blondet: *IEEE ICRA 2020, IEEE IV 2019, IEEE ITSC 2019, ICVES 2019*.

9.1.2. Journal

9.1.2.1. Member of the Editorial Boards

Guy Fayolle: associate editor of the journal *Markov Processes and Related Fields*.

Fawzi Nashashibi: associate editor of the journal *IEEE Transactions on Intelligent Vehicles*, associate editor of the journal *IEEE Transactions on Intelligent Transportation Systems*.

Fawzi Nashashibi: currently Guest Editor of the *IEEE Sensors* journal (ISSN 1424-8220), Special Issue on "The Application of Sensors in Autonomous Vehicles".

Anne Verroust-Blondet: associate editor of the journal *The Visual Computer*.

9.1.2.2. Reviewer - Reviewing Activities

Raoul de Charette: *IEEE Transactions on Intelligent Transportation Systems*

Guy Fayolle: *AAP, MPRF, PTRF, QUESTA, European Journal of Combinatorics, JSP, Physica A, Springer Science*.

Jean-Marc Lasgouttes: *IEEE Transactions on Intelligent Transportation Systems*, *Probability in the Engineering and Informational Sciences*.

Fawzi Nashashibi: *IEEE Transactions on Intelligent Transportation Systems*, *IEEE Transactions on Intelligent Vehicles*, *Transportation Research Part C*, *IEEE ACCESS*.

Anne Verroust-Blondet: *IEEE Transactions on Intelligent Vehicles*, *The Visual Computer*.

9.1.3. Invited Talks

Raoul de Charette: *Sparse and dense data in computer vision*, Universite Laval, Québec, Canada, July 5th 2019.

Guy Fayolle was invited participant at the conference *Transient Transcendence in Transylvania*, Braov, Romania, May 13–17, 2019.

Gérard Le Lann: *Automated Driving: Ethical/Moral Quandaries*, invitation by Comité d'éthique du CNRS (COMETS), Paris, 26 February 2019.

Gérard Le Lann: *Ethical and Privacy Issues in Autonomic Vehicular Networks*, invited talk, Symposium on Networking Research Topics: Past, Present and Future inspired by Mario Gerla, Politecnico di Milano (Italy), 3 June 2019.

Gérard Le Lann: *Une mise en perspective - Qu'avons-nous appris de l'aventure Arpanet/Internet qui puisse servir aujourd'hui ?*, Colloque SIF Les 50 ans d'Internet, CNAM, Paris, 29 October 2019.

Fawzi Nashashibi: *Connected autonomous vehicles: objectives and challenges*, invited plenary talk, at the JNRR 2019 (national days on robotics research), Vittel, October 18, 2019.

Fawzi Nashashibi: *Connected Autonomous Vehicles: selected challenges*, Keynote speaker, at the IEEE ITSC 2019 conference - workshop, Auckland (New Zealand), October 27, 2019.

Fawzi Nashashibi: *The role of the intelligent infrastructure in the development and deployment of autonomous vehicles*, Keynote speaker, at the SMIV international workshop, organised by Vedecom institute, Paris, November 13, 2019.

Fawzi Nashashibi: *Connected Autonomous Vehicles: next challenges*, Keynote speaker, at the IEEE CIS-RAM conference, Bangkok (Thailand), November 18-20, 2019.

9.1.4. Scientific Expertise

Guy Fayolle is scientific advisor and associate researcher at the *Robotics Laboratory of Mines ParisTech*. He is also collaborating member of the research-team SPECFUN at Inria-Saclay.

Jean-Marc Lasgouttes is member of the Inria *Commission d'Evaluation* of Inria and of the *Conseil Académique* of Université Paris-Saclay.

Gérard Le Lann: Contribution to White Book on Cybersecurity: current challenges and Inria's research directions, Section 6.3.2 on Robotics and connected autonomous vehicles, February 2019.

Fawzi Nashashibi is an associate researcher at the *Robotics Laboratory, Mines ParisTech*. He is an evaluator/reviewer of European H2020 projects.

Anne Verroust-Blondet was a member of the CRCN Recruiting Commission of the CRI Paris in 2019.

9.1.5. Research Administration

Jean-Marc Lasgouttes is a member of the *Comité Technique Inria* and of the *Comité Local Hygiène Sécurité et Conditions de Travail* of Inria Paris.

Guy Fayolle is a member of the working group IFIP WG 7.3.

Fawzi Nashashibi is a member of the international Automated Highway Board Committee of the TRB (AHB30).
He is a member of the Board of Governors of the VEDECOM Institute representing Inria and of the Board of Governors of MOV'EO Competitiveness cluster representing Inria. He is also member of the DAS-SMI of MOV'EO cluster.

Anne Verroust-Blondet is the scientific correspondent of the European affairs and of the International Partnerships for Inria Paris. She was a member of the COST-GTRI committee at Inria (Committee in charge of the evaluation of international projects) and a member of the "emplois scientifiques" committee of Inria Paris in 2019.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Primary school: Raoul de Charette, "Introduction à l'intelligence artificielle", 10h, -, Puck et Ribambelle, Castelnau-le-Lez, France.

Licence: Fawzi Nashashibi, "Programmation avancée", 84h, L1, Université Paris-8 Saint-Denis, France.

Engineering, 2nd year: Fawzi Nashashibi, "Image synthesis and 3D Infographics", 12h, M2, INT Télécom SudParis, IMA4503 "Virtual and augmented reality for autonomy".

Master: Jean-Marc Lasgouttes, "Analyse de données", 54h, second year of Magistère de Finance (M1), University Paris 1 Panthéon Sorbonne, France.

Master: Jean-Marc Lasgouttes, "Analyse de données", 52.5h, Master 1 SIC APP, University Paris 1 Panthéon Sorbonne, France.

Master: Kaouther Messaoud, "Machine learning 1", 22h (TP), M1, ESIEE, Paris.

Master: Fawzi Nashashibi, "Obstacle detection and Multisensor Fusion", 4h, M2, INSA de Rouen.

Master: Fawzi Nashashibi, "Perception and Image processing for Mobile Autonomous Systems", 12h, M2, University of Evry.

Mastere : Raoul de Charette, "Scene Understanding with Computer Vision", 20h, post master, Mines ParisTech, France.

Doctorat: Jean-Marc Lasgouttes, "Introduction au Boosting", 10.5h, Mastère Spécialisé "Expert en sciences des données", INSA-Rouen, France.

9.2.2. Supervision

PhD: Pierre de Beaucorps, "Planification de trajectoire dans un environnement peu contraint et fortement dynamique", UPMC Sorbonne University, July 2019, supervisor: Anne Verroust-Blondet, co-supervisor: Fawzi Nashashibi.

PhD: Danut Ovidiu Pop, "Multi-Task Cross-Modality Deep Learning for Pedestrian Risk Estimation", INSA Rouen, November 2016, supervisor: Abdelaziz Bensrhair, co-supervisor: Fawzi Nashashibi.

PhD in progress: Farouk Ghallabi, "Environment modeling and simultaneous localization of a mobile vehicle on motorways: a multi-sensor approach", Mines ParisTech, PSL Research University, October 2016, supervisor: Fawzi Nashashibi.

PhD in progress: Maximilian Jaritz, "Perception multi-capteur pour la conduite autonome grâce à l'apprentissage profond", Mines ParisTech, PSL Research University, January 2017, supervisor: Fawzi Nashashibi, co-supervisor: Raoul de Charette.

PhD in progress: Imane Matout, "Estimation de l'intention des véhicules pour la prise de décision et le contrôle sans faille en navigation autonome", Mines ParisTech, PSL Research University, December 2017, supervisor: Fawzi Nashashibi, co-supervisor: Vicente Milanés.

PhD in progress: Kaouther Messaoud, "Détermination des manoeuvres et des intentions des véhicules avoisinant un véhicule autonome", UPMC Sorbonne University, October 2017, supervisor: Anne Verroust-Blondet, co-supervisors: Fawzi Nashashibi, Itheri Yahiaoui.

PhD in progress: Fabio Pizzati, "Style transfer and domain adaptation for semantic segmentation, PSL Research University and University of Bologna, November 2019, co-supervisors: Andrea Prati, Stefano Selleri, Fawzi Nashashibi and Raoul de Charette.

PhD in progress: Renaud Poncelet, "Navigation autonome en présence d'obstacles fortement dynamiques au mouvement incertain", UPMC Sorbonne University, September 2018, supervisor: Anne Verroust-Blondet, co-supervisor: Fawzi Nashashibi.

PhD in progress: Luis Roldao, "Modélisation 3D de l'environnement et de la manoeuvrabilité d'un véhicule", UPMC Sorbonne University, October 2017, supervisor: Anne Verroust-Blondet, co-supervisor: Raoul de Charette.

9.2.3. Juries

Fawzi Nashashibi was a reviewer of the HDR thesis of Mr. Romuald Aufrère - *Systèmes de perception bayésienne pour la robotique mobile : application à la localisation de véhicules*, Université Clermont-Ferrand, July 10, 2019.

Fawzi Nashashibi was a reviewer of the PhD thesis of Mrs. Laurène Claussmann - *Motion Planning for Autonomous Highway Driving: A Unified Architecture for Decision-Maker and Trajectory Generator*, Université Versailles, September 27, 2019.

Fawzi Nashashibi was a reviewer of the PhD thesis of Mr. Mohamed-Taha Boudali - *Contributions au guidage d'un véhicule autonome en situations non conventionnelles de conduite*, Université Mulhouse, September 25, 2019.

Fawzi Nashashibi was a jury member of the PhD thesis of Mr. David Pérez Morales - *Multi-sensor-based control in Intelligent Parking applications*, Université Nantes, December 6, 2019.

Fawzi Nashashibi was a reviewer of the PhD thesis of Mr. Mathieu Barbier - *Crossing of Road Intersections: Decision-Making Under Uncertainty for Autonomous Vehicles*, Université Grenoble Alpes, December 11, 2019.

Anne Verroust-Blondet was a jury member of the PhD thesis of Mr. David Sierra Gonzalez - *Towards Human-Like Prediction and Decision-Making for Automated Vehicles in Highway Scenarios*, Université Grenoble Alpes, 1 April 2019.

Anne Verroust-Blondet was a reviewer of the PhD thesis of Mr. Hernan Gonzalez - *Complex Dynamic scene analysis through multi-body motion segmentation - application to intelligent vehicles*, Université Paris-Saclay, 13 December 2019.

9.3. Popularization

9.3.1. Internal or external Inria responsibilities

- Fawzi Nashashibi was audited by a joint committee from the Parliament-Senat and cited in a OPECST report titled *"End of thermal vehicles in 2040: what realistic scenarios"*. Authors: Mrs. Huguette Tiegna (Parliament Deputy, Vice President) and Mr. Stéphane Piednoir (Senator). ISSN: 1249-3872.
- Participation of several team members to PAC V2X "Forum des acteurs" through oral scientific presentations - Paris, September 11, 2019.
- Participation of several team members in oral presentations and demonstrations with real mobile platforms during the *Journées du Patrimoine (Heritage Days)*, Rocquencourt, September 21, 2019.

9.3.2. Articles and contents

Fawzi Nashashibi was interviewed by Eric Gibory in *Le Monde*[0]: "Flottes d'entreprise : "De nouveaux services pour la voiture connectée vont apparaître avec la 5G"", October 24th 2019.

Fawzi Nashashibi was interviewed by Muriel Jaoën in *Les Echos*[0]: "Le véhicule autonome en site ouvert ? Pas avant 2050", February 8th 2019.

9.3.3. Interventions

Raoul de Charette: *What is the limitation of artificial intelligence ?*, Arbre des Connaissances, Paris, France, February 12th 2019.

Raoul de Charette: *Dangers de l'intelligence artificielle ?*, Crégy-lès-Meaux, France, March 2019.

Raoul de Charette: *Qu'est-ce que l'intelligence artificielle ?*, Oissery, France, May 28th 2019.

Raoul de Charette: *Intelligence artificielle*, Arbre des Connaissances, Paris, France, June 17th 2019.

Fawzi Nashashibi: panelist, round table on the "Vehicle of the Future", Maison de la Recherche, Paris, April 2019.

Fawzi Nashashibi: panelist, round table on the "Autonomous Vehicle", Centrales-Supélec, Paris, September 16, 2019.

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[0](https://www.lemonde.fr/economie/article/2019/10/24/flottes-d-entreprise-de-nouveaux-services-pour-la-voiture-connectee-vont-apparaitre-avec-la-5g_6016755_3234.html)

[0](https://www.lesechos.fr/tech-medias/intelligence-artificielle/fawzi-nashashibi-le-vehicule-autonome-en-site-ouvert-pas-avant-2050-963047)

<p style="text-align:center;color:red;">**LINKMEDIA Project-Team**</p>

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events: Organisation

10.1.1.1. General Chair, Scientific Chair

- Laurent Amsaleg is general co-chair of ACM Intl. Conf. on Multimedia 2019.
- Guillaume Gravier is technical program co-chair for ACM Intl. Conf. on Multimedia 2019.

10.1.1.2. Member of the Organizing Committees

- Yannis Avrithis is workshops co-chair for ACM Intl. Conf. on Multimedia 2019.
- Simon Malinowski is member of the organizing commitee of the Advanced Analytics and Learning on Temporal Data workshop (Wurzburg, Sept. 2019)
- Vincent Claveau was Finance chair of SIGIR 2019, (Paris, July 2019)

10.1.2. Scientific Events: Selection

10.1.2.1. Chair of Conference Program Committees

- Vincent Claveau was co-chair of the text-mining workshop DeFT in Toulouse, July 2019

10.1.2.2. Member of the Conference Program Committees

- Laurent Amsaleg was a PC member of: Extraction et Gestion de Connaissances, ACM International Conference on Multimedia Retrieval, Multimedia Modeling, Content-Based Multimedia Indexing, IEEE International Conference on Multimedia & Expo, International Conference on Similarity Search and Applications, Multimedia Information Retrieval and Applications.
- Guillaume Gravier was PC member of: European Conf. on Information Retrieval, Intl. Symposium on Multimedia, ACM Intl. Conf. on Multimedia Retrieval, IEEE Workshop on Multimedia Modeling.
- Pascale Sébillot was a PC member of: Annual Meeting of the Association for Computational Linguistics (ACL), International Joint Conference on Artificial Intelligence on Artificial Intelligence (IJCAI), European Conference on Information Retrieval (ECIR), International Conference on MultiMedia Modeling (MMM), Terminologie et intelligence artificielle (TIA) workshop with TALN.
- Yannis Avrithis was PC member of: IEEE International Conference on Computer Vision and Pattern Recognition (CVPR), International Conference on Computer Vision (ICCV). He has been selected as Outstanding Reviewer of ICCV (91 selected out of 2506 reviewers in total).
- Vincent Claveau was a PC member of: European Conference on Information Retrieval (ECIR), EMNLP (demo), ACL (demo), TexMine workshop with EGC, DeFT workshop with TALN, TalMed workshop with MEDINFO, CORIA.
- Simon Malinowski is member of the program commitee of the Advanced Analytics and Learning on Temporal Data workshop (Wurzburg, Sept. 2019)
- Ewa Kijak was a PC member of: ACM Intl. Conf. on Multimedia (area chair), Intl. Conf. on Content-Based Multimedia Indexing (CBMI)
- Teddy Furon was a PC member of: IEEE Workshop on Information Forensics and Security (WIFS), Int. Conf. on Similarity Search and Applications (SISAP), IEEE Int. Conf. on Acoustic Speech and Signal Processing (ICASSP), ACM Information Hiding & Multimedia Security (IHMMSEC).

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

- Pascale Sébillot is editor of the Journal Traitement Automatique des Langues.
- Pascale Sébillot is member of the editorial board of the Journal Traitement Automatique des Langues.
- Vincent Claveau is Chief Editor of the ISTE journal RIDoWS
- Vincent Claveau is member of the editorial board of the journal Traitement Automatique des Langues (TAL)

10.1.3.2. Reviewer - Reviewing Activities

- Pascale Sébillot reviewed for Traitement Automatique des Langues.
- Vincent Claveau was a reviewer for: Multimedia Tools and Applications, Technique et Sciences Informatiques, Documents numériques, Traitement Automatique des Langues, RIDoWS
- Ewa Kijak was a reviewer for: Multimedia Tools and Applications, Remote Sensing journal
- Laurent Amsaleg was a reviewer for: IEEE Transactions on Information Forensics and Security, ACM Transactions on Information Systems.
- Pascale Sébillot was a reviewer for: Conference Traitement Automatique des Langues Naturelles (TALN).
- Simon Malinowski was a reviewer for the Data Mining and Knowledge Discovery (DAMI) journal, Springer.
- Teddy Furon was a reviewer for: Entropy (MDPI), IEEE Trans. on Dependable and Secure Computing, IEEE Trans. on Information Forensics and Security, IEEE Trans. on Pattern Analysis and Machine Intelligence, IEEE Trans. on Image Processing.

10.1.4. Invited Talks

- Vincent Claveau gave an invited talk at "La vie sociale du fake sur les espaces numériques", Tours, France, nov 2019.
- Ewa Kijak gave a talk on "Tampering detection in images to fight fake news" for the GFAIH (Global Forum on Artificial Intelligence for Humanity) in Paris, during the workshop "AI and information disorder".

10.1.5. Leadership within the Scientific Community

- Laurent Amsaleg is a member of the Steering Committee of SISAP for the 2016-2020 term
- Laurent Amsaleg is a member of the Steering Committee of ACM Multimedia for the 2020-2023 term
- Guillaume Gravier is a member of the scientific board of the pre-GDR Traitement Automatique des Langues.
- Pascale Sébillot is a member of the permanent steering committee of Conf. francophone Traitement Automatique des Langues Naturelles.
- Pascale Sébillot is a member of the board of the pre-GDR Traitement Automatique des Langues, leader of the Intermodality and Multimodality working group.
- Vincent Claveau is deputy head of the GdR CNRS MaDICS https://www.madics.fr
- Vincent Claveau is the finance head of ARIA https://www.asso-aria.org

10.1.6. Scientific Expertise

- Laurent Amsaleg has been involved in the writing of the "Rapport de la mission sur les outils de reconnaissance des contenus protégés et les plateformes de partage en ligne : état de l'art et propositions. Conseil supérieur de la propriété littéraire et artistique, Hadopi".

- Guillaume Gravier was auditioned by the EC for the report "Towards European Media Sovereignty: An industrial media strategy to leverage data, algorithm and artificial intelligence" by Guillaume Klossa, special advisor to EC VP Andrus Ansip.
- Guillaume Gravier was appointed by Technical University of Delft as an evaluator for a professorship position.
- Teddy Furon is scientific advisor for the startup Lamark.

10.1.7. Research Administration

- Guillaume Gravier is deputy director of the Institut de Rercherche en Informatique et Systèmes Aléatoires (IRISA, UMR 6074).
- Guillaume Gravier is a member of the Board of the technology cluster Images & Réseaux.
- Pascale Sébillot was a member of the Conseil National des Universités 27th section (computer science) until Nov 2019.
- Pascale Sébillot is the director of the Computer Science Laboratory, INSA Rennes.
- Pascale Sébillot is the deputy director of the Scientific Advisory Committee of IRISA UMR 6074.
- Pascale Sébillot is a member of the theses advisory committee of the MathSTIC doctoral school.
- Pascale Sébillot is a member of the board of the MathSTIC doctoral school.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Licence: Laurent Amsaleg & Teddy Furon, Indexation multimédia, 10h, L3-cours invité, ENS Rennes, France

Licence: Laurent Amsaleg, Bases de données avancées, 2h, L3-option génie mathématique, INSA Rennes, France

Licence: Guillaume Gravier, Databases, 30h, L2, INSA Rennes, France

Licence: Guillaume Gravier, Probability and statistics, 16h, L3, INSA Rennes, France

Licence: Guillaume Gravier, Natural Language Processing, 12h, L3 & M1, INSA Rennes, France

Licence: Pascale Sébillot, Natural Language Processing, 10h, L3, INSA Rennes, France

Master: Laurent Amsaleg, Bases de données avancées, 25h, M2, INSA Rennes, France

Master: Guillaume Gravier, Data analysis and probabilistic modeling, 30h, M2, University Rennes 1, France

Master: Pascale Sébillot, Natural Language Processing, 6h, M1, INSA Rennes, France

Master: Yannis Avrithis, Deep learning for vision, 20h, M2 SIF, France

Master: Yannis Avrithis, Computer vision, 30h, National and Kapodistrian University of Athens, Greece

Master : Simon Malinowski, Predictive analytics, 48h, M1 MIAGE, Univ. Rennes 1

Master : Simon Malinowski, Machine Learning, 32h, M2 MIAGE, Univ. Rennes 1

Master : Simon Malinowski, Symbolic data mining, 12h, M2 MIAGE, Univ. Rennes 1

Engineering school: Vincent Claveau, Machine Learning, 18h, 3rd year, INSA Rennes, France

Master: Vincent Claveau, Information Retrieval, 10h, M2 MIAGE, Univ. Rennes, France

Master: Ewa Kijak, Image processing, 55h, M1, ESIR, France

Master: Ewa Kijak, Supervised machine learning, 21h, M2R, University Rennes 1, France

Master: Ewa Kijak, Supervised machine learning, 15h, M2, University Rennes 1, France

Master: Ewa Kijak, Image classification, 45h, M1, ESIR, France

Master: Ewa Kijak, Image indexing, 17h, M2, University Rennes 1, France

Master: Ewa Kijak, Computer vision, 22h, M2, ESIR, France

Master: Teddy Furon, Rare Events, 20h, M2, Insa Rennes, France

10.2.2. Supervision

PhD in progress: Mathieu Laroze, Active learning on adaptive representations for object detection in high-resolution imaging, June 2016, Romain Dambreville, Chloe Friguet, Ewa Kijak & Sébastien Lefevre (with OBELIX, IRISA team)

PhD in progress: Hanwei Zhang, Deep Learning in Adversarial Contexts, October 2017, Laurent Amsaleg, Yannis Avrithis, Teddy Furon & Ewa Kijak

PhD in progress: Marzieh Gheisari Khorasgani, Secure identification in the Internet of Things, January 2018, Laurent Amsaleg & Teddy Furon

PhD in progress: Antoine Perquin, Universal speech synthesis through embeddings of massive heterogeneous data, October 2017, Laurent Amsaleg, Gwénolé Lecorvé & Damien Lolive (with Expression, IRISA team)

PhD in progress: Benoit Bonnet, Adversarial images, November 2019, Teddy Furon & Patrick Bas

PhD in progress: Tong Xue, Visualization and collaborative analysis of document collections and extracted knowledge for data journalism, October 2018, Laurent Amsaleg & Anastasia Bezerianos

PhD in progress: Mikail Demirdelen, User-adapted multi-document multimedia synthesis, started October 2016, Guillaume Gravier and Pascale Sébillot

PhD in progress: Cheikh Brahim El Vaigh, Incremental content to data linking leveraging ontological knowledge in data journalism, started October 2017, Guillaume Gravier, Pascale Sébillot and François Goasdoué (with CEDAR, Inria team)

PhD in progress: Cyrielle Mallart, Incremental dynamic construction of knowledge graphs from text mining, started December 2018, Guillaume Gravier, Michel Le Nouy (Ouest-France), Pascale Sébillot

PhD in progress: François Torregrossa, Heterogeneous data embedding for professional search, started November 2018, Robin Allessiardo (So Local), Vincent Claveau, Guillaume Gravier

PhD in progress: Oriane Siméoni, Invariance and supervision in visual learning, started October 2016, Yannis Avrithis & Guillaume Gravier

PhD in progress: Yann Lifchitz, Few shot learning for object recognition in aerial images. Started March 2018, Yannis Avrithis & Sylvaine Picard (Safran Tech).

PhD in progress: Zhaohui Yang, learning visual models with minimal human supervision, started January 2018, Miaojing Shi & Yannis Avrithis & Chao Xu (Peking University, Beijing)

PhD in progress: Raquel Almeida, Learning hierarchichal models for multimedia data, started January 2019, Ewa Kijak & Simon Malinowski & Laurent Amsaleg

PhD defended: Cédric Maigrot, Détection de fausses informations dans les réseaux sociaux, defended April 2019, Laurent Amsaleg, Vincent Claveau & Ewa Kijak. See [1].

PhD defended: Ricardo Carlini-Sperandio, Unsupervised motif mining in multimedia time series, defended December 2019, Laurent Amsaleg.

10.2.3. Juries

- Guillaume Gravier was involved in the following juries:
  – PhD Eloi Zabrocki, Paris-Sorbonne Université, Nov. 2019, reviewer
  – HDR Benoît Favre, Aix-Marseille Université, Nov. 2019, reviewer
- Pascale Sébillot was involved in the following juries:
  – HDR Natalia Grabar, Université Paris-Saclay, May 2019, member

- Vincent Claveau was reviewer for the mid-term PhD auditions of: Ygor Gallina (LS2N), Tsanta Randriatsitohaina (LIMSI), Oussama Ahmia (IRISA), Hyun Jung Kang (MoDyCo)
- Vincent Claveau was a member of the PhD jury of C. Artaud (Univ. La Rochelle)
- Teddy Furon was reviewer for the mid-term PhD auditions of: Alexandre Sablayrolles (Inria Grenoble - Facebook FAIR), Solène Bernard (CRIStAL Lille)
- Teddy Furon was a member of the PhD jury of Clément Feutry (CentraleSupelec Paris).

10.3. Popularization

10.3.1. Articles and contents

- Vincent Claveau was interviewed for his activities about fake news detection in: hors-série 199 de Sciences et avenir Oct/Nov 2019; Sciences Ouest n375; Télérama; Science et vie; Science et avenir; 01net N 894.
- Vincent Claveau was interviewed for his activities about text mining the Grand Débat contributions: AEG infos; Ouest France.
- Ewa Kijak and Vincent Claveau were interviewed for the TV show Télématin Science, nov 2019.
- Ewa Kijak was interviewed about fake news and deepfake detection in: AFP, Le Télégramme, Data Analytics Post, Sciences Ouest n375, Le Temps, FranceTV Info (TV show "Vrai ou Fake"), tv5 monde
- Ewa Kijak was invited on the radio show "La méthode scientifique", France culture, on "Deepfake : faut-il le voir pour le croire ?"
- Teddy Furon was interviewed by Data Analytics Post about the connection of deepfake and watermarking.

10.3.2. Education

LINKMEDIA has been actively involved into the "L codent, L créent" initiative with Cyrielle Mallart and Oriane Siméoni.

10.3.3. Interventions

- Guillaume Gravier gave an invited talk entitled "Strengths, weaknesses and limits of AI illustrated" at the West Data Festival (professional forum, 100 attendees)
- Ewa Kijak gave an invited talk entitled "Fighting Fake news and deep fakes" at the CEPIC congress (Coordination of European Picture Agencies Stock, Press and Heritage)

<p style="color:red; text-align:center;">**MAGRIT Team**</p>

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific Events: Selection

9.1.1.1. Reviewer

- Marie-Odile Berger was reviewer for ISMAR (International Symposium for Mixed and Augmented Reality), IPCAI (International Conference on Information Processing in Computer-Assisted Interventions), IROS (International Conference on Intelligent Robots and Systems), ICRA (International conference on Robotics and Automation), RSS (Robotics: Science and Systems), AE-CAI (Workshop on Augmented Environments for Computer Assisted Interventions), ORASIS (French conference on computer vision)

- Erwan Kerrien was reviewer for MICCAI 2019, IPCAI 2020, MIAR/AE-CAI/CARE 2019 workshop and Orasis 2019

- Gilles Simon was reviewer for IEEE VR 2019 and IEEE ISMAR 2019

- Pierre-Frederic Villard was a reviewer for MICCAI 2019, the Eurographics Workshop on Visual Computing for Biology and Medicine 2019 and the International Conference on Computer Graphics, Visualization, Computer Vision And Image Processing 2019

9.1.2. Journal

- Marie-Odile Berger was a reviewer for the International Journal of Computer Assisted Radiology and Surgery.

- Erwan Kerrien was a reviewer for IEEE Transactions on Medical Imaging

- Frédéric Sur was a reviewer for IEEE Transactions on Medical Imaging, Experimental Mechanics, Signal Processing: Image Communication, Digital Signal Processing, IEEE Transactions on Image Processing, SIAM Journal on Imaging Science

- Gilles Simon was a reviewer for IEEE Transactions on Visualization & Computer Graphics

- Pierre-Frédéric Villard was a reviewer for the International Journal of Computer Assisted Radiology and Surgery.

9.1.3. Invited Talks

- Fabien Pierre gave an invited talk entitled "Coupling Variational Method with CNN for Image Colorization" at the workshop "Variational methods and optimization in imaging" (Paris), at Jean Kuntzmann's laboratory (Grenoble), at ENSEEIHT(Toulouse) and at the one day workshop géométrie de la couleur, organized by GDR ISIS.

- Gilles Simon gave an invited talk at the Nanjing Institute of Advanced AI in China entitled "Camera localization for AR in large indoor environments".

- Pierre-Frédéric Villard gave a seminar at the department of information technology of Uppsala University. Title: "Segmentation of Mitral Valve Chordae".

- Daryna Panicheva gave a talk at the Harvard Biorobotics Lab. Title: "Physically-coherent Extraction of Mitral Valve Chordae".

- Pierre-Frederic Villard gave a talk at the Harvard Biorobotics Lab. Title: "An Overview of Deformable Models".

9.1.4. Scientific Expertise

- Erwan Kerrien was an expert to evaluate NExT Isite (https://next-isite.fr/) calls for projects.

9.1.5. Research Administration

- Marie-Odile Berger is the president of the Association française pour la reconnaissance et l'interprétation des formes (AFRIF).
- Marie-Odile Berger was a member of the Inria evaluation committee.
- Frédéric Sur was a member of the recruitment committee for a Professor at IUT Charlemagne.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

The academic members of the MAGRIT team actively teach at Université de Lorraine with an annual number of around 200 teaching hours in computer sciences each, some of them being accomplished in the field of image processing. Inria researchers have punctual teaching activities in computer vision and shape recognition mainly in the computer science Master of Nancy and in several Engineering Schools near Nancy (ENSMN Nancy, SUPELEC Metz, ENSG). Our goal is to attract Master students with good skills in applied mathematics towards the field of computer vision.

The complete list of courses given by staff members is detailed below:

- M.-O. Berger
  - Master : Shape recognition, 24 h, Université de Lorraine.
  - Master : Introduction to image processing, 12 h, École des Mines de Nancy .
  - Master : Image processing for Geosciences, ENSG, 12h.
- E. Kerrien
  - Master : Introduction to image processing, 15 h, École des Mines de Nancy.
  - Licence: Basics of computer science, 71h, IUT Saint-Dié-des-Vosges.
  - Professional training: Computer science unplugged for science teachers, 6h, INSPE de Lorraine.
- Fabien Pierre
  - Licence: Introduction au traitement d'image, 30h, IUT Saint-Dié des Vosges.
  - Master: Introduction à l'apprentissage automatique, 16 h, Université de Lorraine.
  - Licence: Algorithmique et programmation, 87h, IUT Saint-Dié des Vosges
  - Licence: Culture scientifique et traitement de l'information, 69h, IUT Saint-Dié des Vosges
  - Licence: Programmation objet et évènementielle, 35h, IUT Saint-Dié des Vosges
  - Licence: Initiation à l'intelligence artificiell, 8h, IUT Saint-Dié des Vosges
- G. Simon
  - Master: Augmented reality, 24 h, Télécom-Nancy.
  - Master : Augmented reality, 3 h, SUPELEC Metz.
  - Master: Augmented reality, 24h, M2 Informatique FST
  - Master: Visual data modeling, 12h, M1 Informatique FST
  - Image processing and computer vision, 12h, M1 informatique, FST
  - Licence pro : 3D modeling and integration, 40h FST - CESS d'Epinal
- F. Sur
  - Master: Introduction to machine learning, 60 h, Mines Nancy
  - Master: Time series analysis, 30h, Mines Nancy

- – Licence: Javascript programming, 150h, IUT Charlemagne
- – Introduction to signal processing, 20h, IUT Charlemagne
- P.-F. Villard
  - – Licence: Computer Graphics with webGL, 30h, IUT Saint-Dié des Vosges.
  - – Licence: Game design with Unity3D, 15h, IUT Saint-Dié des Vosges.
  - – Licence: Virtual and Augmented Reality in Industrial Maintenance, 2h, Faculty of Science and Technology, Université de Lorraine
  - – Master : Augmented and Virtual Reality, 16h, M2 Cognitive Sciences and Applications, Institut des Sciences du Digital, Université de Lorraine
  - – Virtual and Augmented Reality within Unity, 15h, Glyndwr University, Wrexham, UK (ERASMUS+ program)
  - – Licence: Web programming, 20h, IUT Saint-Dié des Vosges.
  - – Licence: Graphical user interface programming, 30h, IUT Saint-Dié des Vosges.
  - – Licence: Object-oriented programming, 20h, IUT Saint-Dié des Vosges.
  - – Licence: UML modeling,16h, IUT Saint-Dié des Vosges.
  - – Licence: Security and life privacy with internet, 2h, IUT Saint-Dié des Vosges.
  - – Licence: Parallel programming, 18h, IUT Saint-Dié des Vosges.
- Brigitte Wrobel-Dautcourt
  - – Master: modélisation objet et conception des systèmes d'information, 30h, Télécom
  - – Master: projet de conception et développement java, 27h, Télécom 2A
  - – Licence: bases de la programmation objet, 44h, Faculté des Sciences et Techniques, Université de Lorraine
  - – Licence: interfaces graphiques,22h, Faculté des Sciences et Techniques, Université de Lorraine
  - – Licence: projet de synthèse (activité intégratrice), 30 h, Faculté des Sciences et Techniques, Université de Lorraine
  - – Licence: système, 24h, Faculté des Sciences et Techniques, Université de Lorraine
  - – Licence: compilation, 16, Faculté des Sciences et Techniques, Université de Lorraine

9.2.2. Supervision

PhD: Jaime Garcia Guevara, Biomechanical graph matching for hepatic intra-operative image registration, October 2015, Marie-Odile Berger, Stéphane Cotin (MIMESIS). PhD defended in December 2019.

PhD in progress: Raffaella Trivisonne, Image-guided real-time simulation using stochastic filtering, November 2015, Erwan Kerrien, Stéphane Cotin (MIMESIS).

PhD in progress: Vincent Gaudillière, Reconnaissance de lieux et d'objets pour la réalité augmentée en milieux complexes, December 2016, Marie-Odile Berger, Gilles Simon.

PhD in progress: Daryna Panicheva, Image-based Biomechanical Simulation of Mitral Valve Closure, October 2017, Marie-Odile Berger, Pierre-Frédéric Villard.

PhD in progress: Matthieu Zins, Localization in a world of objects, October 2019, Marie-Odile Berger, Gilles Simon.

9.2.3. Juries

- Marie-Odile Berger was an external reviewer of the PhD of Karim Makki (IMT Atlantique, Brest) and of the HdR of Guillaume Caron (Univ Picardie Jules Verne). She was examiner of the PhD of Yilin Zhou (IGN, Paris), Florian Tilquin (ICUBE, Strasbourg) and of the HdR of Omar Ait Aider (Institut Pascal, Clermont Ferrand)

- Erwan Kerrien was an external reviewer for the PhD of Alessio Virzì (Université Paris Saclay and Telecom ParisTech) and Emmanuelle Poulain (I3S, Université Côte d'Azur)
- Frédéric Sur was an external reviewer for the PhD thesis of Debolina Chakraborty (IIEST Shibpur, India) and Alberto Lavatelli (Polytecnico di Milano, Italy)

9.3. Popularization

9.3.1. Internal or external Inria responsibilities

Erwan Kerrien is Chargé de Mission for scientific mediation at Inria Nancy-Grand Est, and thereby is part of the Inria scientific mediation network. As such, he is a member of the steering committee of "la Maison pour la Science de Lorraine" [0], and member of the IREM [0] steering council.

9.3.2. Education

- Pierre-Frédéric Villard is involved with the secondary school of Champigneulles (France) as a "Collège Pilote" of "La Main à la pâte" foundation. He gave a seminar on augmented and virtual realities to the pupils, he helped the teacher with preparing some activities with augmented and virtual reality technologies. Finally, he is supervising Université de Lorraine students to produce teaching applications with augmented and virtual reality technologies that will be used in secondary school classes.

- Erwan Kerrien participated in the creation and animation of a MOOC for teachers of the new SNT class (Sciences du Numérique et Technologie - *Digital Science and Technology* included in the 1st year of core curriculum in upper secondary education, see https://www.fun-mooc.fr/courses/course-v1:inria+41018+session01/about), where he brought his expertise in image processing. This MOOC is part of the Class'Code project (https://pixees.fr/classcode-v2).

  He also participates in *MOOCFOLIO*, a PIA3-funded project https://www.fun-mooc.fr/news/pia-3-le-projet-moocfolio-est-laureat/). The objective is to create a MOOC to help students choose their undergraduate studies to pursue after high schools. Erwan is part of a working group to create a module about studies and professions related to digital usages and sciences.

  He also participated in the creation, and teaching, of a 5-day training course for scientific animators (in a broad sense, from science club animators to science teachers). This course was funded by Région Grand-Est (see https://fan.loria.fr).

  He gave a 2-day class about the use of unplugged computer science to introduce computer science in science class, along with another researcher and 2 secondary school maths teachers. This class has been organized with Maison pour la Science since 2015, and is proposed to around 20 maths and science secondary school teachers each year.

9.3.3. Interventions

Erwan Kerrien was an associate researcher to a MATh.en.JEANS workshop (https://www.mathenjeans.fr) within Loritz high school in Nancy.

He also regularly intervenes to demonstrate computer science unplugged activities and/or give conferences to secondary school pupils and teachers.

9.3.4. Internal action

Pierre-Frédéric Villard participated to open days and science festival in the IUT of Saint-Dié des Vosges. He presented augmented and virtual reality demos and their link to the high school mathematics program.

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[0] "Houses for Science" project, see http://maisons-pour-la-science.org/en

[0] Institut de Recherche sur l'Enseignement des Mathématiques - *Research Institute for Teaching Mathematics*

<p align="center" style="color:red">MORPHEO Project-Team</p>

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events: Selection

10.1.1.1. Chair of Conference Program Committees

- Stefanie Wuhrer was program co-chair of 3DV 2019, held in Québec City, Canada

10.1.1.2. Member of the Conference Program Committees

- Edmond Boyer was area chair for BMVC and ICCV 2019.

10.1.1.3. Reviewer

- Stefanie Wuhrer reviewed for CVPR, ICCV, and SIGGRAPH
- Jean-Sébastien Franco reviewed for CVPR, ICCV, and 3DV
- Edmond Boyer reviewed for CVPR.

10.1.2. Journal

10.1.2.1. Member of the Editorial Boards

- Edmond Boyer is associate editor of the International Journal of Computer Vision (IJCV, Springer).

10.1.2.2. Reviewer - Reviewing Activities

- Edmond Boyer reviewed for IJCV and PAMI.
- Jean-Sébastien Franco reviewed for IJCV and Computer & Graphics.

10.1.3. Invited Talks

- Stefanie Wuhrer was invited to present at Dagstuhl seminar 19102
- Edmond Boyer gave invited talks at: ETH Zurich (February), Prague university (April), Naverlabs Grenoble (May), Lille University (June), Microsoft Zurich (October).

10.1.4. Scientific Expertise

- Jean-Sebastien Franco was a member of the Ensimag Engineering school - Grenoble INP steering commitee (Conseil d'École) in 2019.
- Jean-Sebastien Franco was a member of the recruiting commitee of Ensimag - Grenoble INP Engineering school for temporary research and teaching associates (ATER) in 2019.

10.1.5. Research Administration

- Edmond Boyer is auditor for the Computer Vision European Association.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Licence : Sergi Pujades, Algorithmique et programmation fonctionnelle, 41H équivalent TD, L1, Université Grenoble Alpes, France.

Licence : Sergi Pujades, Modélisation des structures informatiques: aspects formels, 45H équivalent TD, L1, Université Grenoble Alpes, France.

Master : Sergi Pujades, Numerical Geometry, 15H équivalent TD, M1, Université Grenoble Alpes, France

Licence: Jean-Sébastien Franco, Introduction to Imperative Programming, 57h, Ensimag 1st year, Grenoble INP.

Licence: Jean-Sébastien Franco, C Programming project, 20h, Ensimag 3rd year, Grenoble INP.

Master: Jean-Sébastien Franco, Supervision of the 2nd year program (300 students), 36h, Ensimag 2nd year, Grenoble INP.

Master: Jean-Sébastien Franco, Introduction to Computer Graphics, 45h, Ensimag 2nd year, Grenoble INP.

Master: Jean-Sébastien Franco, Introduction to Computer Vision, 27h, Ensimag 3rd year, Grenoble INP.

Master: Jean-Sébastien Franco, End of study project tutoring (PFE), 11h, Ensimag 3rd year, Grenoble INP.

Master: Edmond Boyer, 3D Modeling, 23h, M2R Mosig GVR, Grenoble INP.

Master: Edmond Boyer, Introduction to Visual Computing, 42h, M1 MoSig, Université Grenoble Alpes.

Master: Stefanie Wuhrer, 3D Graphics, 13.5h, M1 MoSig and MSIAM, Université Grenoble Alpes.

10.2.2. Supervision

PhD: Jinlong Yang, Learning shape space of dressed human in motion, Université Grenoble Alpes (France), March 2019, Franck Hétroy-Wheeler and Stefanie Wuhrer.

PhD: Vincent Leroy, 4D shape reconstruction from photoconsistency cues, Université Grenoble Alpes, October 2019, supervised by Edmond Boyer and Jean-Sébastien Franco.

PhD in progress : Sanae Dariouche, Anatomic Statistical Models of adipose, bone and muscle tissue, 01/11/2019, Sergi Pujades and Edmond Boyer

PhD in progress : Marilyn Keller, Ribs motion models for personalized 3D printed implants, 23/09/2019, Sergi Pujades and Michael Black

PhD in progress : Di Meng, , 23/09/2019, Edmond Boyer and Sergi Pujades

PhD in progress: Matthieu Armando, Temporal Integration for Shape and Appearance Modeling, Université Grenoble Alpes (France), started 01/01/2018, supervised by Edmond Boyer and Jean-Sébastien Franco.

PhD in progress: Boyao Zhou, Augmenting User Self-Representation in VR Environments, Université Grenoble Alpes (France), started 01/02/2019, supervised by Edmond Boyer and Jean-Sébastien Franco.

PhD in progress: Victoria Fernandez Abrevaya, 3D Dynamic Human Motion Representations, Université Grenoble Alpes (France), started 01/10/2016, supervised by Edmond Boyer and Stefanie Wuhrer.

PhD in progress: Jean Basset, Learning Morphologically Plausible Pose Transfer, Université Grenoble Alpes (France), started 01/10/2018, supervised by Edmond Boyer, Franck Multon and Stefanie Wuhrer.

PhD in progress: Abdullah Haroon Rasheed, Cloth Modeling and Simulation, Université Grenoble Alpes (France), started 01/11/2017, supervised by Florence Bertails-Descoubes, Jean-Sébastien Franco and Stefanie Wuhrer.

PhD in progress: Pierre Zins, Learning to infer human motion, Université Grenoble Alpes (France), started 01/10/2019, supervised by Edmond Boyer, Tony Tung (Facebook) and Stefanie Wuhrer.

PhD in progress: Mathieu Marsot, Generative modeling of 3D human motion, Université Grenoble Alpes (France), started 01/11/2019, supervised by Jean-Sébastien Franco and Stefanie Wuhrer.

10.2.3. Juries

- Stefanie Wuhrer was jury member for the PhD defense of Alban Fichet, Université Grenoble Alpes, December 2019.

- Edmond Boyer was president of the PhD jury of Romain Rombourg, Université Grenoble Alpes, December 2019.

- Edmond Boyer was jury member for the PhD defense of Arthur Crenn, Université de Lyon, December 2019.

10.3. Popularization

10.3.1. Articles and contents

- Edmond Boyer was interviewed by the journal *Vivre à Grenoble* en février 2019. An article mentioning his work with the Kinovis platform was published in april 2019.

PERCEPTION Project-Team

8. Dissemination

8.1. Promoting Scientific Activities

8.1.1. Scientific Events: Organisation

8.1.1.1. Member of the Organizing Committees

Xavier Alameda-Pineda

- 10th International Workshop on Human Behavior Understanding, in conjunction with the 2019 International Conference on Computer Vision (ICCV).
- 1st Workshop on Fairness, Accountability and Transparency in Multimedia, in conjunction with the 2019 ACM International Conference on Multimedia (ACM MM).
- 3rd Workshop on Understanding Subjective Properties of Data, Focus on Fashion and Subjective Search, in conjunction with the 2019 International Conference on Computer Vision and Pattern Recognition (CVPR).

8.1.2. Scientific Events: Selection

8.1.2.1. Member of the Conference Program Committees

- Area Chair of the 2019 ACM International Conference on Multimedia (ACM MM).
- Area Chair of the 2019 International Conference on Image Analysis and Processing (ICIAP).

8.1.2.2. Reviewer

Xavier Alameda-Pineda: CVPR 2019, NeurIPS 2019, ICCV 2019, ACII 2019, ICLR 2019, ICML 2019, ICIP 2019.

8.1.3. Journal

8.1.3.1. Member of the Editorial Boards

Xavier Alameda-Pineda is Associated Editor of the ACM Transactions on Multimedia Computing Communications and Applications

8.1.3.2. Reviewer - Reviewing Activities

Xavier Alameda-Pineda: TPAMI, TASLP, TMM.

8.1.4. Invited Talks

Xavier Alameda-Pineda:

- Significancy & Robustness in Deep Regression (July 2019) at University of Trento
- Probabilistic and deep methods for human behavior understanding (July 2019) at Media Integration and Communication Center

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

Master : Xavier Alameda-Pineda, Fundamentals of Probabilistic Data Mining, 18h, M2, UGA, France.

Master : Xavier Alameda-Pineda, Category Learning and Object Recognition, 11h, M2, UGA, France.

Master : Xavier Alameda-Pineda, Advanced Learning Models, 13.5h, M2, UGA, France.

8.2.2. Supervision

PhD: Yutong Ban, Audio-visual multiple-speaker tracking for robot perception [36], Université Grenoble Alpes, May 2019, Xavier Alameda-Pineda and Radu Horaud,

PhD in progress: Guillaume Delorme, Deep Person Re-identification, October 2017, Xavier Alameda-Pineda and Radu Horaud,

PhD in progress: Yihong Xu, Deep Multiple-person Tracking, October 2018, Xavier Alameda-Pineda and Radu Horaud,

PhD in progress: Wen Guo, Deep Human Pose, October 2019, Xavier Alameda-Pineda and Radu Horaud,

PhD in progress: Anand Ballou, Deep Reinforcement Learning for Robot Control, November 2019, Xavier Alameda-Pineda and Radu Horaud,

PhD in progress: Louis Airale, Data Generation for Deep Multimodal Interaction Algorithms, October 2019, Xavier Alameda-Pineda and Dominique Vaufreydaz,

PhD in progress: Xiaoyu Bie, Deep Generative Methods for Audio and Vision, December 2019, Xavier Alameda-Pineda and Laurent Girin.

8.2.3. Juries

Xavier Alameda-Pineda belonged to the following PhD Juries as "examinateur":

- Yutong Ban (University Grenoble-Alpes)
- Irtiza Hasan (University of Verona)
- Theodoros Tsesmelis (University of Verona)

<p align="center">**SIROCCO Project-Team**</p>

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events: Organisation

10.1.1.1. General Chair, Scientific Chair

- C. Guillemot has organized, as chair, the ERC-CLIM workshop, May 2019.

10.1.2. Scientific Events: Selection

10.1.2.1. Member of the Conference Program Committees

- C. Guillemot has been member of the international steering committee of the Picture Coding Symposium (PCS), 2019.
- C. Guillemot has been member of the technical programme committee of IEEE-ICASSP 2019.
- C. Guillemot has been a member of the technical program committee of the CVPR 2019 workshop on New Trends in Image Restoration and Enhancement (NTIRE), 2019.
- A. Roumy has been a member of the technical program committee of the CVPR 2019 workshop on New Trends in Image Restoration and Enhancement (NTIRE).
- A. Roumy has been a member of the technical program committee of the IEEE International Conference on Communications (ICC) 2019, Workshop on Machine Learning in Wireless Communications (ML4COM).
- A. Roumy has been a member of the technical program committee of the IEEE Wireless Communications and Networking Conference 2019 (IEEE WCNC).
- A. Roumy has been a member of the technical program committee of the International conference on Telecommunications (ICT) 2019.
- A. Roumy has been a member of the technical program committee of the Gretsi 2019 conference, organized by the National Research group in Image and Signal Processing.

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

- C. Guillemot is senior area editor of the IEEE Trans. on Image Processing.
- C. Guillemot is associate editor of the International Journal on Mathematical Imaging and Vision.
- T. Maugey is associate editor of the EURASIP Journal on Advances in Signal Processing (since Dec 2019).
- A. Roumy is associate editor of the Springer Annals of Telecommunications.
- A. Roumy is associate editor of the IEEE Trans. on Image Processing.

10.1.4. Invited Talks

- C. Guillemot gave a keynote talk on Light field image processing, at the Digital Optical Technologies International Conference, Munich, June 24-27, 2019.
- Thomas Maugey gave a seminar at IRISA's days on Art, Culture and Heritage, Rennes, France, "Data acquisition and compression for user immersion in a virtual scene" (Jan. 2019).
- Thomas Maugey gave a seminar at Orange Labs. PhD days, Rennes, France, "Light Field Acquisition and Depth estimation" (Mar. 2019).

- Thomas Maugey gave a seminar at GdR-Isis, Rennes, France, "Data acquisition and compression for user immersion in a 3D scene" (Mar. 2019).
- A. Roumy gave a talk on "Learning transforms for image compression", workshop on Learning for unstructured data, Univ. Paris 13, Nov. 2019.

10.1.5. Leadership within the Scientific Community

- C. Guillemot is member of the IEEE Signal Processing Society Nominations and Appointments Committee for a two-year term.
- A. Roumy is member of the IEEE IVMSP technical committee.
- A. Roumy is a Local Liaison Officer for the European Association for Signal Processing (EURASIP).
- A. Roumy is a member of the Executive board of the National Research group in Image and Signal Processing (GRETSI).

10.1.6. Scientific Expertise

- C. Guillemot has served as expert in a research proposal selection committee of the Irish Research Council, Feb. 2019.
- C. Guillemot is responsible of the theme « compression et protection des données images » for the realization of the encyclopedia SCIENCES of the publisher ISTE/Wiley (2019-2021).

10.1.7. Research Administration

- C. Guillemot is member of the "bureau du Comité des Projets".
- C. Guillemot has served as a member of the selection committee of a Prof. at the National University of Ireland (NUI), Galway, Ireland, Feb. 2019.
- C. Guillemot has served as a member of the selection committee of a Prof. at the Technical Univ. of Denmark, May 2019.
- A. Roumy is a member of Inria evaluation committee.
- A. Roumy has served as a member of the selection committee of an Assistant Prof. at University Paris 13 (May 2019).

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

- Master: C. Guillemot, Image and video compression, 10 hours (2018-2019), and advanced video processing, 4 hours (2018-2019), M2 SISEA, Univ. of Rennes 1, France.
- Undergraduate: L. Guillo, course of 35 hours on Functional immutable programming, 1st year of Mathematiques, Informatique, Electronique, mathematique-Economie" (MIEE), Univ. of Rennes 1
- Master: T. Maugey, course on 3D models in a module on advanced video, 4 hours (2018-2019), 12 hours (2019-2020), M2 SISEA, Univ. of Rennes 1, France.
- Master: T. Maugey, course on Image compression, 10 hours (2019-2020), M2 SISEA, Univ. of Rennes 1, France.
- Master: T. Maugey, course on Representation, editing and perception of digital images, 12 hours, M2 SIF, Univ. of Rennes 1, France.
- Engineering degree: A. Roumy, Sparse methods in image and signal processing, 13 hours, INSA Rennes, 5th year, Mathematical engineering, France.
- Master: A. Roumy, Foundations of smart sensing, 18 hours, ENSAI, Master of Science in Statistics for Smart Data, France.
- Master: A. Roumy, Information theory, 15 hours, University Rennes 1, SIF master, France.

10.2.2. Juries

- C. Guillemot has been reviewer of the PhDs of:
    - B. Ray, UNiv. Poitiers, March 2019
    - T. Trinh Le, Univ. Paris Saclay, June 2019
    - Z. Chen, Chinese Univ. of Hong Kong, June 2019
    - D. Tsai, Queensland Univ. of Technology (QUT), Nov. 2019
    - M. De Pinheiro Carvalho, Univ. Paris Saclay, Nov. 2019
- C. Guillemot has been member of the PhD committees of:
    - M. Bichon, Univ. Rennes 1, March 2019
    - C.A. Noury, Univ. Clermond Ferrand, Nov. 2019
    - S. Manandhar, Univ. Rennes 1, Nov. 2019
- Aline Roumy has been reviewer of the PhDs of:
    - Shuo Zheng, Univ. Paris Saclay, prepared at Telecom ParisTech, Feb. 2019
    - Mohsen Abdoli , Univ. Paris Saclay, prepared at Univ. Paris Sud, June 2019
    - David Kibloff , Univ. Lyon, prepared at Insa Lyon, Sept. 2019
- Aline Roumy has been member of the PhD committees of:
    - Yigit Ugur, Univ. Paris Est, Nov. 2019
    - Fangping Ye, IMT Atlantique, Brest, Dec. 2019

10.3. Popularization

10.3.1. Internal or external Inria responsibilities

- C. Guillemot is responsible of the theme « compression et protection des données images » for the realization of the encyclopedia SCIENCES of the publisher ISTE/Wiley (2019-2021).

<p align="center">**Stars Project-Team**</p>

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific Events: Organisation

9.1.1.1. General Chair, Scientific Chair

- Elisabetta De Maria was General chair of the international conference CsBio 2019 (10th International Conference on Computational Systems-Biology and Bioinformatics), Nice, France.

9.1.1.2. Member of the Organizing Committees

- Antitza Dantcheva, Abhijit Das and François Brémond organized the special session on human health monitoring based on computer vision at the 14th IEEE International Conference on Automatic Face and Gesture Recognition (FG'19).

- Antitza Dantcheva co-organized the Robust Tattoo Detection and Retrieval Competition (RTDRC 2019) associated to the 10th IEEE International Conferencce on Biometrics: Theory, Applications and Systems (BTAS 2019).

- Antitza Dantcheva co-organized the special session on The Future of Biometrics beyond Recognition and Anti-Spoofing at the 12th IAPR International Conference on Biometrics (ICB'19).

9.1.1.3. Chair of Conference Program Committees

- François Brémond was part of the Organization Committee for the workshop on "Crowd analysis and applications: simulations meet video analytics"

- François Brémond was part of the AVSS'19 Organization Committee

- François Brémond was a Session Chair of AVSS - 17th IEEE International Conference on Advanced Video and Signal-Based Surveillance, Taipei, Taiwan, 18-21 September 2019.

- Elisabetta De Maria was Program chair of the international conference BIOINFORMATICS 2019 (10th International Conference on Bioinformatics Models, Methods, and Algorithms), which is part of BIOSTEC 2019 (12th International Joint Conference on Biomedical Engineering Systems and Technologies), Prague, Czech Republic.

- Elisabetta De Maria was Program chair of the international conference CsBio 2019 (10th International Conference on Computational Systems-Biology and Bioinformatics), Nice, France.

- Antitza Dantcheva was program Co-chair at the International Conference of the Biometrics Special Interest Group (BIOSIG) 2019, Darmstadt, Germany.

9.1.1.4. Member of the Conference Program Committees

- Monique Thonnat was program committee member of the conference ICPRAM 2020.

- Elisabetta De Maria was member of the program committee of the ICML Workshop on Computational Biology 2019, Long Beach, CA, USA.

9.1.1.5. Reviewer

- François Brémond was reviewer for the conferences: CVPR2019-20, ICCV2019, ICPRS-19, ICDP19, WACV 2020, AVSS19.

- François Brémond was reviewer for the Journal: IEEE International Conference on Systems, Man, and Cybernetics (SMC), IET Computer Vision, IEEE Transactions on Circuits and Systems for Video Technology

- Antitza Dantcheva was reviewer for IEEE Transactions on Information Forensics and Security (TIFS), IEEE Transactions on Biometrics, Behavior, and Identity Science (T-BIOM), IEEE Transactions on Circuits and Systems for Video Technology (TCSVT), Pattern Recognition and Neurocomputing.
- Srijan Das was reviewer for KCST 2019, ICAML 2019, AVSS 2019 and WACV 2020.

9.1.2. Journal

9.1.2.1. Member of the Editorial Boards

- François Brémond was handling editor of the international journal "Machine Vision and Application".
- François Brémond was handling editor for the MDPI special issue sensors Deep Learning for multi-sensor fusion.
- Elisabetta De Maria was guest editor of the JBCB journal (Journal of Bioinformatics and Computational Biology) for the review process of selected papers for the special issue on the conference BIOINFORMATICS 2019.
- Antitza Dantcheva has been in the Editorial Board of the Journal Multimedia Tools and Applications (MTAP) since 2017.

9.1.3. Invited Talks

- François Brémond was invited at the Data Science Riviera to give the talk "Cross domain residual transfer learning for person re-identification" in April 2019.
- François Brémond was invited to give a keynote speech on people tracking at the T4S Workshop in AVSS Taipei, 21 September 2019.
- François Brémond was invited in HealthCare and AI CITEDI at Tijuana, 23 August 2019.
- Monique Thonnat was invited as Speaker on AI and Health session to the CEO Forum at VivaTech, Paris, 16 May 2019.
- Monique Thonnat was invited to give a talk entitled Where to Focus on for Human Action Recognition? at the Franco-Mexican workshop on AI, Mexico, 27-29 August 2019.
- Monique Thonnat was invited by TEC Monterey for to give a talk on AI for Daily Living Activity recognition from videos at the AI Hub Launch, Guadalajara, 27 November 2019.
- Elisabetta De Maria was invited at *School of Electrical Engineering and Computer Science*, University of Ottawa, Canada in June 2019. Title of the talk: Parameter Learning for Spiking Neural Networks Modelled as Timed Automata.
- Elisabetta De Maria was invited at *Center of Modeling, Simulation, and Interactions (MSI)*, Université Côte d'Azur, France in September 2019. Title of the talk: Parameter Learning for Spiking Neural Networks Modelled as Timed Automata.
- Srijan Das was invited at the Data Science Riviera to give the talk "Spatio-temporal attention mechanism for Activities of Daily Living" in November.
- S L Happy was invited at the Data Science Riviera to give the talk "Apathy diagnosis by analyzing facial dynamics in videos" in April.
- Abhijit Das was invited at the Data Science Riviera to give the talk "Robust face analysis employing machine learning techniques for remote heart rate estimation and towards unbiased attribute analysis" in January.

9.1.4. Leadership within the Scientific Community

- François Brémond was part of the Evaluation Committee for new Inria team creation, Chorale.
- François Brémond was part of the Evaluation Committee for PINZ Axel research application for Austrian Science Fund.

- Monique Thonnat is member of the scientific board of ENPC, Ecole Nationale des Ponts et Chaussées since June 2008.
- Jean-Paul Rigault is an ISO C++ expert and the head of the French delegation at the ISO C++ standardization committee.
- Antitza Dantcheva serves in the Technical Activities Committee of the IEEE Biometrics Council since 2017
- Antitza Dantcheva serves in the EURASIP Biomedical Image & Signal Analytics (BISA) SAT 2018-2021
- Antitza Dantcheva is member of the European Reference Network for Critical Infrastructure Protection (ERNCIP), Thematic Group Extended Virtual Fencing - use of biometric and video technologies, since 2017
- Antitza Dantcheva is member of the European Association for Biometrics, since 2018

9.1.5. *Scientific Expertise*

Elisabetta De Maria was facilitator of the brainstorming of the strategic axis "Humain-Biologie" during the meeting of the I3S Laboratory, Fréjus, France.

9.2. Teaching - Supervision - Juries

9.2.1. *Teaching*

Stars Team members (e.g. François Brémond) gave the class Master Data Science M2 in *Computer Vision and Deep Learning* from December 10, 2019 to February 25, 2020.

http://www-sop.inria.fr/members/Francois.Bremond/MSclass/deepLearningWinterSchool/index.html

9.2.2. *Supervision*

- PhD: U. Ujjwal, "Pedestrian detection to dynamically populate the map of a crossroad" [12], Thèses, Université Côte d'Azur, November 2019.
- PhD: I. Sarray, "Conception de systèmes de reconnaissance d'activités humaines" [11], Thèses, Université Côte d'Azur, March 2019.

  PhD in progress: Srijan Das, "Action recognition of daily living activities from RGB-D videos", 2017, PhD codirected 50% François Brémond and Monique Thonnat.

  PhD in progress: Yaohui Wang, 2017, "Automated holistic human analysis", Antitza Dantcheva.

  PhD in progress: Jen-Cheng Hou: "Quantified video analysis of seizure semiology in epilepsy", 2018, PhD codirected 50% Monique Thonnat and Prof. Fabrice Bartolomei, PU-PH AMU/Inserm.

  PhD in progress: Juan Diego Gonzales Zuniga, 2018, "People Tracking using Deep Learning algorithms on embedded hardware", 70% François Brémond and 30% Serge Tissot (Fellowship CIFRE - Kontron).

  PhD in progress: Thibaud L'Yvonnet, "Relations between human behaviour models and brain models - Application to serious games", 2018, Sabine Moisan and Elisabetta De Maria.

  PhD in progress: Hao Chen, 2019, "People Re-identification using Deep Learning methods", 70% François Brémond and 30% Benoit Lagadec (Fellowship CIFRE - ESI).

  PhD in progress: Rui Dai, 2019, "Action Detection for Untrimmed Videos based on Deep Neural Networks", François Brémond.

  Abdorrahim Bahrami, "Modelling and verifying dynamical properties of biological neural networks in Coq", Elisabetta De Maria.

Srijan Das was mentor for the Emerging Technology Business Incubator (ETBI) Led by NIT Rourkela, a platform envisaged transforming the start-up ecosystem of the region.

Srijan Das mentored for B.E.N.J.I. in GirlScript Summer of Code 2019 edition.

9.2.3. Juries

- François Brémond was jury member of Tenure Track Selection: committee member for permanent position, COS informatique, Lyon 2 University, 6 May 2019
- François Brémond was jury member for habilitation, Anthony Fleury, Lille University, 20 February 2019
- François Brémond was jury member for habilitation, Stefan Duffner, Lyon University, 5 April 2019
- François Brémond was jury member of the mid-term review for 6 PhDs - Nicolas Girard (May 3rd, 2019), Melissa Sanabria (May 21st, 2019), Lucas Pascal (July 11, 2019), Claire Labit (October 8, 2019), Renato Baptista (January 17 and August 28, 2019), Magali PAYNE (December 3, 2019).
- François Brémond was jury member of the following PhD theses:

  PhD, Jennifer Vandoni, Université de Paris Saclay, Saclay, 14 May 2019.

  PhD, Amr Alyafi, Grenoble Institute of Technology, 27 May 2019.

  PhD, Cristiano Massaroni, La Sapienza University in Rome, 13 December 2019.
- Monique Thonnat was reviewer for the PhD defense of Florent Lefevre, University of Lorraine, 4 December 2019
- Monique Thonnat was president for the PhD defense of Danny Francis, Sorbonne Université, 12 December 2019
- Jean-Paul Rigault was president of the HDR jury of Julien Deantoni.
- Elisabetta De Maria was member of the Ph.D. proposal defence jury of Abdorrahim Bahrami, University of Ottawa, Canada. Title of the thesis: Verifying Dynamic Properties of Neural Networks in Coq.
- Antitza Dantcheva was reviewer for the PhD defense of Mohamed Abdul Cader, Queensland University of Technology, Australia.

9.3. Popularization

9.3.1. Articles and contents

- François Brémond was interviewed for *Web Interview* on Facial recognition: limits and challenges for society, 16 Oct 2019.
- François Brémond was interviewed for *Graphical novel* about the challenges of AI, 29 Oct 2019.
- Antitza Dantcheva was interviewed for an article in *Science et Vie* on facial analysis in October 2019.
- Antitza Dantcheva was interviewed for an article in *Charlie Hebdo* on facial recognition in February 2019.

9.3.2. Interventions

- François Brémond, Thibaud L'Yvonnet, David Anghelone and Sandrine Boute represented STARS on the 19 October at the *La fête de la science* in Palais des Congrès d'Antibes Juan-les-Pins.
- STARS presented demos for Unlimitech Sport, Lyon, 18-21 September 2019.

<p align="center">**THOTH Project-Team**</p>

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events: Organisation

10.1.1.1. General Chair, Scientific Chair

- C. Schmid is a general chair for ECCV 2020, ICCV 2023.

10.1.1.2. Member of the Organizing Committees

- K. Alahari and J. Mairal co-organized the international summer school PAISS 2019.
- J. Mairal is a member of the organizing committee for the international conference SIAM Imaging Science 2020.
- J. Mairal is a co-organizer of the workshop OSL'19 at Les Houches.
- J. Mairal co-organized a discussion session at the Ellis/Dali workshop, San Sebastian, 2019.

10.1.2. Scientific Events: Selection

10.1.2.1. Member of the Conference Program Committees

- K. Alahari: area chair for CVPR 2020, ICCV 2019.
- K. Alahari: senior program committee member for AAAI 2020, IJCAI 2019, IJCAI 2020.
- K. Alahari: doctoral consortium chair for ICCV 2023.
- J. Mairal: area chair for NeurIPS 2019, AISTATS 2020 and ECCV 2020.
- J. Mairal: tutorial chair for CVPR 2022.
- C. Schmid: area chair for ICCV 2019.
- C. Schmid: senior area chair for NeurIPS 2019.
- J. Verbeek: area chair for ICCV 2019.

10.1.2.2. Reviewer

The permanent members, postdocs and senior PhD students of the team reviewed numerous papers for international conferences in artificial intelligence, computer vision and machine learning, including AAAI, AISTATS, CVPR, ICCV, ICML, ICLR, NeurIPS in 2019.

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

- K. Alahari: Associate editor of the International Journal of Computer Vision, since 2019.
- K. Alahari: Associate editor for Computer Vision and Image Understanding journal, since 2018.
- J. Mairal: Associate editor of the Journal of Machine Learning Research (JMLR), since 2019.
- J. Mairal: Associate editor of the International Journal of Computer Vision, since 2015.
- J. Mairal: Associate editor of Journal of Mathematical Imaging and Vision, since 2015.
- J. Mairal: Associate editor of the SIAM Journal of Imaging Science, since 2018.
- J. Verbeek: Associate editor International Journal on Computer Vision, 2014-2019.
- J. Verbeek: Associate editor IEEE Transactions Pattern Analysis and Machine Intelligence, since 2018.

10.1.3.2. Reviewer - Reviewing Activities

The permanent members, postdocs and senior PhD students of the team reviewed numerous papers for international journals in computer vision (IJCV, PAMI, CVIU), machine learning (JMLR, Machine Learning). Some of them also review for other reputed journals such as PLOS ONE, SIAM Journal on Optimization, SIAM Imaging Science.

10.1.4. Invited Talks

- K. Alahari: Speaker on the Panel on AI and Mathematics, Knowledge Summit, Lyon, France, 2019.
- K. Alahari: Invited talk, LIAMA workshop, Paris, France, 2019.
- A. Bietti: Invited talk, GIPSA Lab, Grenoble, 2019.
- A. Bietti: Invited talk, UC Berkeley, 2019.
- A. Bietti: Seminar, Microsoft Research AI, Redmond, 2019.
- A. Bietti: Seminar, TTI-Chicago, 2019.
- D. Chen: Machine Learning in Computational Biology (MLCB) workshop on recurrent kernel networks, Vancouver, 2019.
- J. Mairal: Invited talk at the YES workshop, Eindhoven, 2019.
- J. Mairal: Talk in mini-symposium, ICCOPT, Berlin, 2019.
- J. Mairal: Invited talk at the Imaging and Machine Learning conference, IHP, Paris, 2019.
- J. Mairal: Seminar. Centrale Lille, 2019.
- R. Klokov: Invited talk at Christmas Colloquium on Computer Vision, Yandex, Moscow, 2019.
- C. Schmid: Invited speaker at BMVA symposium in Video Understanding, London, September 2019.
- C. Schmid: Keynote speaker at BMVC, Cardiff, UK, September 2019.
- C. Schmid: Keynote speaker at SIGIR, Paris, July 2019.
- C. Schmid: Invited speaker at Computer Vision after 5 Years, in conjunction with CVPR, June 2019.
- C. Schmid: Invited speaker at Tutorial on Unifying Human Activity Understanding, in conjunction with CVPR, June 2019.
- C. Schmid: Invited speaker at Facebook AI Video Summit, June 2019.
- C. Schmid: Keynote speaker at AI Experts Workshop in conjunction with the AI for Good Global Summit, Geneva, May 2019.
- C. Schmid: Invited speaker at Women in Data Science Conference, Zürich, April 2019.
- C. Schmid: Invited speaker at Collège de France seminar (chair of Stephane Mallat), February 2019.
- C. Schmid: Talk at Google EMEA research days, Zurich, December 2019.
- C. Schmid: Talk at Workshop on AI for Robotics, Naver, Grenoble, November 2019.
- C. Schmid: Talk at Workshop, Robotics: A Challenge for the Artificial Intelligence, Toulouse, October 2019.
- C. Schmid: Presentation at PRAIRIE inauguration, Paris, October 2019.
- C. Schmid: Seminar at DeepMind, London, September 2019.
- C. Schmid: Seminar at Intel Network on Intelligent Systems, Munich, September 2019.
- C. Schmid: Seminar at Ellis workshop, September 2019.
- C. Schmid: Seminar at MPI Tübingen, July 2019.
- C. Schmid: Seminar at WILLOW/SIERRA retreat, Marseille, June 2019.
- C. Schmid: Dinner speaker at the workshop "Women in Computer Vision", in conjunction with CVPR'19.
- C. Schmid: Seminar at Google MTV, April 2019.
- C. Schmid: Seminar at ETH Zürich, March 2019.
- J. Verbeek: Invited talk at Breaking the Surface Workshop on maritime robotics and its applications, Biograd na Moru, Croatia, Oct 2019.

- J. Verbeek: Invited talk at Dagstuhl Workshop on Joint Processing of Language and Visual Data for Better Automated Understanding, Germany, Jan 2019.
- D. Wynen: SMILE Reading Group Paris, 2019.

10.1.5. Leadership within the Scientific Community

- J. Mairal, J. Verbeek and C. Schmid became Ellis fellows.
- C. Schmid: Participation in a round table on AI, a technology for innovation, forum 5i, Grenoble, May 2019.
- C. Schmid: Animating several mentorship sessions at Women in Data Science Conference, Zürich, April 2019.
- C. Schmid: Mentor at the Doctoral Consortium, in conjunction with ICCV'19, CVPR'19.
- C. Schmid: Mentor for female PhD students at the workshop "Women in Computer Vision", CVPR'19.

10.1.6. Scientific Expertise

- J. Mairal: Judge for the IBM Watson AI Xprize.
- J. Mairal: Expert for ANR.

10.1.7. Research Administration

- K. Alahari: One of the two referents for Human Resources - Excellence in Research (HRS4R) at Inria Grenoble.
- J. Mairal: Jury member for the Inria starting and advanced research positions.
- C. Schmid: Member of Scientific Advisory Committee of the Helmholtz AI Cooperation Unit, 2020—
- C. Schmid: Member of scientific advisory board for the German Competence Centers for AI Research, 2019—
- J. Verbeek: Member steering committee MinaLogic, innovation cluster for digital technologies based in France's Auvergne-Rhône-Alpes region, 2018-2019.
- J. Verbeek: Scientific correspondent national project calls, Inria Grenoble, 2017-2019.
- J. Verbeek: Member Scientific council Advanced Data Mining axis of Persyval Laboratory of Excellence, Grenoble, 2015-2019.
- J. Verbeek: Member Inria Grenoble working group on HPC - Big Data - Machine learning, 2018-2019.
- J. Verbeek: Member of Inria Commission Administrative Paritaire (advises on matters about individual careers: such as promotions, temporary outsourcing, etc.), 2016-2019.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

- Doctorat: K. Alahari, Lecturer at the CVIT summer school on machine learning, 4h eqTD, IIIT Hyderabad, India.
- Doctorat: J. Mairal, Large-Scale Optimization for Machine Learning, 9h eqTD, Lecture at OBA summer school, Veroli, 2019.
- Doctorat: J. Mairal, Large-Scale Optimization for Machine Learning, 4.5h eqTD. Invited Tutorial at IEEE Data Science Workshop on Minneapolis, 2019.
- Doctorat: J. Mairal, Large-Scale Optimization for Machine Learning, 4.5h eqTD. Invited Tutorial at the Quantitative BioImaging Conference, Rennes, 2019.

- Doctorat: C. Schmid, Course on action recognition at Data Science Summer School, Paris, June 2019.
- Doctorat: C. Schmid, Course on action recognition at Prairie artificial intelligence summer school (PAISS), 2.25h eqTD, Paris, October 2019.
- Master: K. Alahari, C. Schmid, Object recognition, Master-2 Computer Science, Grenoble University, 15.75h eqTD together, 2019.
- Master: K. Alahari, Understanding Big Visual Data, 13.5h eqTD, M2, Grenoble INP, France.
- Master: K. Alahari, Graphical Models Inference and Learning, 18h eqTD, M2, CentraleSupelec, Paris, France.
- Master: K. Alahari, Introduction to computer vision, 9h eqTD, M1, ENS Paris, France.
- Master: J. Mairal, Kernel methods for statistical learning, 15h eqTD, M2, Ecole Normale Supérieure, Cachan, France.
- Master: J. Mairal, Advanced Learning Models, 13.5h eqTD, M2, UGA, Grenoble.
- Master: C. Schmid, Object recognition and computer vision, Master-2 MVA, ENS, 9h eqTD, 2019.
- Master: A. Sablayrolles, Fundamentals of Machine Learning, African Masters of Machine Intelligence, Kigali, Rwanda.

10.2.2. Supervision

HDR: Karteek Alahari, Human, Motion and Other Priors for Partially-Supervised Recognition, Univ. Grenoble Alpes, 28/1/2019.

PhD: Alberto Bietti, Foundations of deep convolutional models through kernel methods, Univ. Grenoble Alpes, 27/11/2019, director: Julien Mairal.

PhD: Nikita Dvornik, Learning with Limited Annotated Data for Visual Understanding, Univ. Grenoble Alpes, 26/11/2019, thesis directors: Cordelia Schmid and Julien Mairal.

PhD: Konstantin Shmelkov, Approaches for incremental learning and image generation, Univ. Grenoble Alpes, 29/3/2019, thesis directors: Karteek Alahari and Cordelia Schmid.

10.2.3. Juries

- K. Alahari: External examiner for the PhD thesis of Alessandro di Martino, University of Bath, UK.
- K. Alahari: Examiner for the PhD thesis of Thomas Robert, Sorbonne Université, Paris, France.
- K. Alahari: Examiner for the PhD thesis of D. Khuê Lê-Huu, Université Paris-Saclay, France.
- K. Alahari: Member of comité de suivi for the PhD thesis of Miguel Angel Solinas, Univ. Grenoble-Alpes, France.
- J. Mairal: Reviewer for the PhD thesis of Zhenyu Liao, Université Paris-Saclay.
- J. Mairal: Reviewer for the PhD thesis of Belhal Karimi, Université Paris-Saclay
- J. Mairal: Reviewer for the PhD thesis of Martin Bompaire, Université Paris-Saclay
- J. Mairal: Reviewer for the PhD thesis of Yassine Yaakoubi, Polytechnique Montréal.
- J. Mairal: Examinateur for the PhD thesis of Mathurin Massias, Université Paris-Saclay.
- J. Mairal: Member of comité de suivi for the PhD thesis of Olga Permiakova, Univ. Grenoble Alpes.
- J. Verbeek: Member supervisory commitee for PhD of Riccardo Del Chiaro, 2018-2020, Univ. Florence, Italy.
- J. Verbeek: Member supervisory commitee for PhD of Fabien Baradel, 2017-2019, INSA Lyon, France.
- J. Verbeek: External reviewer for Shell Xu Hu, 2019, Ecole des Ponts, Paris Tech, Univ. Paris Est, Paris, France.
- J. Verbeek: Rapporteur for Hedi Ben Younes, 2019, Sorbonne University, Paris, France.

WILLOW Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events: Organisation

10.1.1.1. Member of the Organizing Committees

- I. Laptev was co-organizedr of BMVA Symposium on Video Understanding in London, September 2019.
- P.-L. Guhur was co-organizer of Junior Conference on Data Science and Engineering at Paris-Saclay, September 2019.

10.1.2. Scientific Events: Selection

10.1.2.1. Area chairs

- IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2019 (I. Laptev).
- Neural Information Processing Systems (NeurIPS), 2019 (J. Sivic).

10.1.2.2. Member of the Conference Program Committees / Reviewer

- IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2019 (A. Miech, M. Tapaswi).
- IEEE/CVF International Conference on Computer Vision (ICCV), 2019 (A. Miech, M. Tapaswi).
- Neural Information Processing Systems (NeurIPS), 2019 (I. Laptev, I. Rocco, M. Tapaswi).
- British Machine Vision Conference (BMVC), 2019 (I. Rocco).
- IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2019 (I. Laptev, J. Carpentier, J. Sivic, Y. Labbe).
- IEEE International Conference on Robotics and Automation (ICRA), 2019 (J. Carpentier, Y. Labbe, J. Sivic).

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

- International Journal of Computer Vision (I. Laptev, J. Ponce, J. Sivic).
- IEEE Transactions on Pattern Analysis and Machine Intelligence (I. Laptev, J. Sivic).
- Foundations and Trends in Computer Graphics and Vision (J. Ponce).

10.1.3.2. Reviewer - Reviewing Activities

- International Journal of Computer Vision (M. Tapaswi).
- IEEE Transactions on Pattern Analysis and Machine Intelligence (I. Rocco).
- IEEE Transactions on Robotics (J. Carpentier).
- IEEE Robotics and Automation Letters (J. Carpentier).
- Plos One (M. Tapaswi).

10.1.4. Invited Talks

- I. Laptev, invited talk, AI Video Summit, FAIR, Los Angeles, June 2019.
- I. Laptev, invited talk, ActivityNet CVPR Workshop, Long Beach, June 2019.
- I. Laptev, keynote, AIST, Kazan, July 2019.

- I. Laptev, invited talk, ELLIS Workshop, San Sebastian, September 2019.
- I. Laptev, seminar, KTH, Stockholm, September 2019.
- I. Laptev, invited talk, BMVA Symposium on Video Understanding, London, September 2019.
- I. Laptev, invited talk, Qualcomm-UvA Deep Learning Seminars, Amsterdam, September 2019.
- I. Laptev, invited talk, Extreme Vision ICCV Workshop, Seoul, October 2019.
- I. Laptev, invited talk, CoVieW ICCV Workshop, Seoul, October 2019.
- I. Laptev, invited talk, Hands in Action ICCV Workshop, Seoul, October 2019.
- I. Laptev, keynote, DICTA, Perth, December 2019.
- I. Laptev, invited talk, SkolTech, Moscow, December 2019.
- J. Ponce, invited talk, Pavillon des Sciences CCI, Montbelliard, March 2019.
- J. Ponce, invited talk, France is AI, Paris, Oct. 2019.
- J. Ponce, invited talk, Ecole navale, Brest, Jan. 2019.
- J. Sivic, Keynote, European Conference on Mobile Robots (ECMR), Prague, September 2019.
- J. Sivic, Seminar on Weakly supervised learning for visual recognition, College de France, February 2019
- J. Sivic, Invited speaker, ML in PL conference, Warsaw, November 2019
- J. Sivic, Seminar, DeepMind, London, February 2019
- J. Sivic, Talk at invited workshop of the ELLIS computer vision program, San Sebastian, September 2019
- I. Rocco, invited talk, SMILE seminar at Télécom Paris, Paris, March 2019.
- I. Rocco, seminar, IMAGINE group at ENPC, Paris, April 2019.
- J-P. Laumond, invited talk, La robotique, Café Scientifique, Cité des sciences et de l'industrie, Paris, Janurary 2019.
- J-P. Laumond, invited talk, Une machine peut-elle apprendre ?, Les Découvrades, Toulouse, February 2019.
- J-P. Laumond, invited talk, La robotique : retour vers le réel, Théatre Tourski, Marseille, February 2019.
- J-P. Laumond, invited talk, Robots, Exhibition opening, Cité des sciences et de l'industrie, Paris, March 2019.
- J-P. Laumond, scientific talk, Robot Motion, Workshop on Robotics and Art, IEEE ICRA, Montreal, May 2019.
- J-P. Laumond, scientific talk, Wording Robotics, Workshop on Rhetoric and Robotics, IEEE ICRA, Montreal, May 2019.
- J-P. Laumond, scientific talk, Robotique et Biomécanique, Keynote, Congrès de physiologie, Montpellier, June 2019.
- J-P. Laumond, scientific talk, Robotics and AI, Istituto di Robotica e Macchine Intelligenti Grand Opening, Roma, October 2019.
- J. Carpentier, scientific talk, La robotique envisagée comme une science des données, CNRS Grenoble, January 2019.
- J. Carpentier, scientific talk, La robotique envisagée comme une science des données, Inria Grenoble, February 2019.
- J. Carpentier, scientific talk, Analytical Derivatives of Rigid Body Dynamics algorithms, RSS, June 2019.

- J. Carpentier, scientific talk, La robotique : la fabrique du mouvement artificiel, Journées DGDI Inria, Rocquencourt, November 2019.
- M. Tapaswi, scientific talk, Understanding Humans and the Stories they Tell, LIMSI Paris, February 2019.
- M. Tapaswi, scientific talk, Understanding Humans and the Stories they Tell, UPC Barcelona, August 2019.

10.1.5. Leadership within the Scientific Community

- Member of the advisory board for the IBM Watson AI Xprize (J. Ponce).
- Member of the steering committee of France AI (J. Ponce).
- Member of advisory board, Computer Vision Foundation (J. Sivic).
- Board Member Deputy, European Laboratory for Learning and Intelligent Systems – ELLIS (J. Sivic)

10.1.6. Scientific Expertise

- J. Ponce, coordinator of the AI theme for the joint French-American Committee on Science and Technology, 2018-.
- I. Laptev, head of scientific board at VisionLabs, 2019-.

10.1.7. Research Administration

- Member, Bureau du comité des projets, Inria, Paris (J. Ponce)
- Member, Scientific academic council, PSL Research University (J. Ponce)
- Member, Research representative committee, PSL Research University (J. Ponce).
- Member of Inria Commission de développement technologique (CDT), 2012-2018 (J. Sivic).
- Member of the Hiring Committee at Computer Science department, École normale supérieure (I. Laptev).

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

- Master: M. Aubry, K. Alahari, I. Laptev and J. Sivic "Introduction to computer vision", M1, Ecole normale supérieure, 36h.
- Master: I. Laptev, J. Ponce and J. Sivic (together with C. Schmid, Inria Grenoble), "Object recognition and computer vision", M2, Ecole normale superieure, and MVA, Ecole normale superieure de Cachan, 36h.
- Master: J-P. Laumond and J. Carpentier, "Robotics", M1 MPRI, Ecole normale supérieure and Ecole normale superieure de Cachan, 48h.
- Master: J-P. Laumond, "Robotics", Ecole des Mines de Paris, 4h.
- Master: J. Sivic, three lectures (3 x 1.5h) in the 3D computer vision class of V. Hlavac at Charles University in Prague.
- License: P.L. Guhur, "Developping web applications with React Js", L3, Université Grenoble Alpes, 30h.
- J. Ponce co-organized the PRAIRIE AI Summer School in Paris, 2019.
- Bachelor: J. Ponce, "Inroduction to computer vision" MS level class, NYU Center for Data Science, Fall 2019

10.2.2. Supervision

PhD in progress : Vo Van Huy, started in Dec 2018, J. Ponce.

PhD in progress : Pierre-Louis Guhur, "Learning Visual Language Manipulation", started in Oct 2019, I. Laptev and C. Schmid.

PhD in progress : Aamr El Kazdadi, started in Oct 2019, J. Carpentier and J. Ponce.

PhD in progress : Bruno Lecouat, started in Sept 2019, J. Ponce and J. Mairal (Inria Grenoble).

PhD in progress : Robin Strudel, "Learning and transferring complex robot skills from human demonstrations", started in Oct 2018, I. Laptev, C. Schmid and J. Sivic.

PhD in progress : Yann Labbe, "Generalizing robotic sensorimotor skills to new tasks and environments", started in Oct 2018, J. Sivic and I. Laptev.

PhD in progress : Minttu Alakuijala, started in Feb 2019, J. Ponce and C. Schmid.

PhD in progress : Thomas Eboli, started in Oct 2017, J. Ponce.

PhD in progress : Zongmian Li, "Learning to manipulate objects from instructional videos", started in Oct 2017, I. Laptev, J. Sivic and N. Mansard (LAAS/CNRS, Toulouse).

PhD in progress : Yana Hasson, "Reconstruction and recognition of hand-object manipulations", started in Nov 2017, I. Laptev and C. Schmid.

PhD in progress : Ronan Riochet, "Reconstruction and recognition of hand-object manipulations", started in Oct 2017, E. Dupoux, I. Laptev and C. Schmid.

PhD in progress : Dmitry Zhukov, "Learning from instruction videos for personal assistants", started in Oct 2017, I. Laptev and J. Sivic.

PhD in progress : Ignacio Rocco, "Estimating correspondence between images via convolutional neural networks", started in Jan 2017, J. Sivic, R. Arandjelovic (Google DeepMind).

PhD in progress : Antoine Miech, "Understanding long-term temporal structure of videos", started in Oct 2016, I. Laptev, J. Sivic.

PhD defended : Gul Varol, "Deep learning methods for video interpretation", graduated in May 2019, I. Laptev, C. Schmid.

PhD defended : Julia Peyre, "Learning to reason about scenes from images and language", graduated in August 2019, C. Schmid, I. Laptev, J. Sivic.

PhD defended : Theophile Dalens, "Learning to analyze and reconstruct architectural scenes", graduated in September 2019, M. Aubry and J. Sivic.

10.2.3. Juries

- PhD thesis committee:
  - Dmitry Ulyanov, SkolTech, Russia, 2019 (I. Laptev, rapporteur).
  - Judith Bütepage, KTH, Sweden, 2019 (I. Laptev, rapporteur).
  - Alexander Richard, University of Bonn, Germany, 2019 (I. Laptev, rapporteur).
  - Rıza Alp Güler, Université Paris Saclay, France, 2019 (I. Laptev, rapporteur).
  - Tatiana Shpakova, l'École Normale Supérieure, France, 2019 (I. Laptev, examinateur).
  - Konstantin SHMELKOV, Universite Grenoble Alpes, (J. Sivic, examinateur)
  - Sanjeel PAREKH, Télécom Paris, (J. Sivic, rapporteur)
  - Filip RADENOVIC, Czech Technical University (J. Sivic, rapporteur)
  - Nathan PIASCO, Université Bourgogne Franche-Comte (J. Sivic, examinateur)
- HDR committee:
  - Karteek Alahari, HDR defense, Jan. 2019 (J. Ponce)
  - Mathieu Aubry, HDR defense, Aug. 2019 (J. Ponce)

10.3. Popularization

10.3.1. Internal or external Inria responsibilities

J.P. Laumond is the scientific curator of the permanent exhibition at Cité des Sciences et de l'Industrie. The aim of this exhibition is to help the general audience to understand the concepts of robotics. Indeed, the notion of robotics today is packed with many preconceived notions, phobias, and utopias, all fed by literature and a rich film culture. The real challenge of the exhibition is the presentation of authentic working robots that raises awareness of our relationship to these singular machines. How do they work? What are they for? What are their performances today and what will they be tomorrow? The exhibition lays bare the actual capabilities of robots and provides insight into the current issues.