



RESEARCH CENTER
Lille - Nord Europe

FIELD

Activity Report 2015

Section Dissemination

Edition: 2016-03-21

ALGORITHMICS, PROGRAMMING, SOFTWARE AND ARCHITECTURE

1. ATEAMS Project-Team 4
2. DREAMPAL Project-Team 7

APPLIED MATHEMATICS, COMPUTATION AND SIMULATION

3. DOLPHIN Project-Team 9
4. INOCS Team 15
5. MEPHYSTO Team 16
6. MODAL Project-Team 19
7. NON-A Project-Team 24
8. RAPSODI Team 26
9. SEQUEL Project-Team 28

DIGITAL HEALTH, BIOLOGY AND EARTH

10. BONSAI Project-Team 33

NETWORKS, SYSTEMS AND SERVICES, DISTRIBUTED COMPUTING

11. FUN Project-Team 37
12. RMOD Project-Team 41
13. SPIRALS Project-Team 45

PERCEPTION, COGNITION AND INTERACTION

14. DEFROST Team 51
15. LINKS Team 54
16. MAGNET Team 56
17. MINT Project-Team 60
18. Mjolnir Team 63

ATEAMS Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events organisation

9.1.1.1. General chair, scientific chair

- Tijs van der Storm: co-organizer of the 3rd Workshop on Domain-Specific Language Design and Implementation (DSLDI'15).

9.1.1.2. Member of the organizing committees

- Tijs van der Storm: Publicity co-chair SPLASH and track organizer SPLASH-I
- Jurgen Vinju: co-organizer Bits & Chips Software Event (Legacy Software Track), Eindhoven, The Netherlands

9.1.2. Scientific events selection

9.1.2.1. Member of the conference program committees

- Paul Klint: International Conference on Software Language Engineering (SLE'15), 14th edition of the BELgian-NEtherlands software eVOLution seminar (BENEVOL 2015), 22nd IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER'15)
- Tijs van der Storm: International Conference on Model Transformation (ICMT'15), International Conference on Software Language Engineering (SLE'15), Transformation Tool Context (TTC'15), Future Programming Workshop (FPW'15).
- Jurgen Vinju: 10th Joint Meeting of the European Software Engineering Conference and the ACM SIGSOFT Symposium on the Foundations of Software Engineering (ESEC/FSE'15), 3rd International Workshop on The Globalization of Modeling Languages Workshop (GEMOC'15), 5th Summer School on Grand Timely Topics in Software Engineering (GTTSE'15), IEEE International Conference on Software Comprehension (ICPC'15), 14th edition of the BELgian-NEtherlands software eVOLution seminar (BENEVOL 2015).

9.1.2.2. Reviewer

9.1.2.2.1. Journal

- Member of the editorial boards:
 - Paul Klint: editor of Science of Computer Programming (Elsevier SCP)
- Reviewer - Reviewing activities:
 - Paul Klint: Science of Computer Programming
 - Tijs van der Storm: Science of Computer Programming (SCP), Computer Languages and Systems (COMLAN)
 - Jurgen Vinju: Science of Computer Programming (SCP), Computer Languages and Systems (COMLAN), Journal on Empirical Software Engineering (ESE), Journal of Software Maintenance and Evolution (JSME)

9.1.3. Invited talks

- Textual and projectional language workbenches. Tijs van der Storm, Dagstuhl on “Domain-Specific Languages”.
- “Software Engineering: The War Against Complexity”, Jurgen Vinju. CHA-Q Open Tool Demonstrations Event (keynote), February 24, Antwerpen, Belgium.

- “Program Analysis and Transformation with Rascal” tutorial at the 36th annual ACM SIGPLAN conference on Programming Language Design and Implementation (PLDI) in Portland, USA. Mark Hills, Jurgen Vinju, Paul Klint.

9.1.4. Leadership within the scientific community

9.1.4.1. Member of steering committees

- Jurgen Vinju: International Conference on Software Language Engineering (ACM SLE) (*chair*)
- Jurgen Vinju: International Working Conference on Source Analysis and Manipulation (IEEE SCAM)

9.1.4.2. Member of other groups

- Jurgen Vinju: Member of IFIP WG 2.3 — Working Group on Software Implementation Technology
- Tijs van der Storm: Member of IFIP WG 2.16 — Working Group on Language Design
- Tijs van der Storm: Member of the board of European Association for Programming Languages and Systems (EAPLS)

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Tijs van der Storm, “Software Construction”, Masters, Universiteit van Amsterdam

Jurgen J. Vinju, “Software Evolution”, Masters, Universiteit van Amsterdam

9.2.2. Supervision

PhD : Atze van der Ploeg, “Efficient Abstractions for Visualization and Interaction”, Universiteit van Amsterdam, April, 8th, 2015 [48] (advisors: Tijs van der Storm and Paul Klint)

PhD in progress : Ali Afroozeh, “Closing the Book on Parsing”, 2017 (advisors: Jurgen Vinju and Paul Klint)

PhD in progress : Pablo Inostroza Valdera, “Modular Language Implementation with Object Algebras”, 2018 (advisors: Tijs van der Storm and Paul Klint)

PhD in progress : Anastasia Izmaylova, “Parser Combinators Revisited”, 2017 (advisors: Jurgen Vinju and Paul Klint)

PhD in progress : Davy Landman, “Source Code Complexity in Context”, 2016 (advisors: Jurgen Vinju and Paul Klint)

PhD in progress : Riemer van Rozen, “Domain-Specific Languages for Game Development”, 2017 (advisors: Paul Klint and Tijs van der Storm)

PhD in progress : Michael Steindorfer, “Fast and Lean Immutable Data Structures”, 2017 (advisors: Jurgen Vinju and Paul Klint)

PhD in progress : Jouke Stoel, “Solving the Bank”, 2019 (advisors: Jurgen Vinju and Tijs van der Storm)

Msc : Zisimopolous, P.: “A Grid Scheduling infrastructure for SmartConnect’s performance monitoring calculations”, Universiteit van Amsterdam, The Netherlands

Msc : Zhelyazkov, A.T.: “Form controls in WebGL. A stepping stone to a WebGL library for developing commercial interactive 3D websites”, Universiteit van Amsterdam, The Netherlands

Msc : Valencia Vargas, S.: “Begelman vs. FolkRank. The Comparison of Two Algorithms in the Tag Recommendation Context: An Exploratory Study”, Universiteit van Amsterdam, The Netherlands

Msc : Heimensen, M.: “JavaScript language extension with language workbenches”, Universiteit van Amsterdam, The Netherlands

Msc : Harezlak, H.: “Geographically-aware scaling for real-time persistent WebSocket applications”, Universiteit van Amsterdam, The Netherlands

Msc: Chow, K.: “Performance of Face Recognition Algorithms on Mobile Devices”, Universiteit van Amsterdam, The Netherlands

Msc: Iwan Flaming: “An automatic CSRF protection tool”, Universiteit van Amsterdam, The Netherlands

Msc: Omar Pakker: “Graph-Based Querying On top of the Entity Framework”, Universiteit van Amsterdam, The Netherlands

9.2.3. Juries

- Jurgen Vinju:
 - Phd Reza Yazdanshenas, A. — Universitet i Oslo, Norway
 - Phd Hafeez Osman, M. — Universiteit Leiden, The Netherlands

9.3. Popularization

- Ali Afroozeh and Anastasia Izmaylova: “Meerkat parsers: a general parser combinator library for real programming languages”, Scala Days 2015, Amsterdam, The Netherlands.
- Paul Klint: “Paul Klint in RTL Nieuws over het nieuwe betalingssysteem van het pgb” (radio interview).
- Paul Klint: “De evolutie van codetaal”, media appearance, NRC Handelsblad
- Paul Klint: “Première internetfilm over Nederlands informatica erfgoed”, media appearance, Automatisering Gids.
- Paul Klint: “Remembering Arra: a pioneer in Dutch computing”, media appearance, <http://www.engineersonline.nl/>.
- Davy Landman: “Let’s talk about complexity”, Devnology software development community talk, Amsterdam, The Netherlands.
- Tijs van der Storm: “Opportunities and Risks of MDSE: experience with Derric, a DSL for Digital Forensics”, Bits&Chips industry conference.
- Jouke Stoel and Tijs van der Storm: “Hack Your Language with Rascal”, workshop at Joy of Coding conference, Rotterdam, The Netherlands.
- Tijs van der Storm, “Live Little Languages”, JBI Colloquium, Groningen, The Netherlands.
- Jurgen Vinju: “Public/Private Collaboration {in,for,with} Software Engineering”, 21st Annual Conference of the European Association of Research Managers and Administrators , Leiden, The Netherlands
- Jurgen Vinju: OSSMETER Pitch EU Concertation Meeting - Turning cloud research into innovative software & services, March 25th 2015, Brussels, Belgium.
- Jurgen Vinju: Challenges and Opportunities of Big Software-based Innovation NWO Big Software Match Making Day, July 1st, 2015, Utrecht, The Netherlands.

DREAMPAL Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events organisation

9.1.1.1. member of the organizing committee

F. Guyomarch, P. Marquet and S. Meftali were members of the ComPAS 2015 organizing committee (Lille, 2015).

F. Guyomarch and S. Meftali were members of the Archi summer school organizing committee (Lille, 2015).

9.1.2. Scientific events selection

9.1.2.1. responsable of the conference program committee

S. Meftali was responsible of the ComPAS 2015 conference program committee.

9.1.2.2. Member of the conference program committees

J.-L. Dekeyser was member of the ComPAS 2015 conference program committee and is member in the Reconfig 2016 and ReCoSoc 2016 program committees.

F. Guyomarch is member of the ComPAS 2016 program committee, which will take place in Lorient (<http://compas2016.sciencesconf.org>).

V. Rusu is member of the WRLA 2016 program committee, which will take place in Eindhoven (<https://fmse.info.uaic.ro/events/WRLA2016/>).

9.1.3. Research administration

V. Rusu is elected member of the Inria evaluation committee.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Licence : Philippe Marquet, Introduction to Computer Science, 15h, Secondary Education Teacher Training, Université Lille 1, France

Licence : Philippe Marquet, System Programming, 60h, L3, Université Lille 1, France

Master: Philippe Marquet, Design of Operating System, 60h, M1, Université Lille 1, France

Master: Philippe Marquet, Web of Things: Embedded System Programming, 20h, M1, Université Lille 1, France

Master: Philippe Marquet, Parallel and Distributed Programming, 24h, M1, Université Lille 1, France

Master: Philippe Marquet, Introduction to Innovation and Research, 15h, M2, Université Lille 1, France

Licence : Samy Meftali, Architecture des ordinateurs, 75h, L2, UFR IEEA, Université Lille 1, France

Licence : Samy Meftali, Programmation du matériel, 40h, L3, UFR IEEA, Université Lille 1, France

Master: Samy Meftali, Architectures évoluées des ordinateurs, 80h, M1, UFR IEEA, Université Lille 1, France

Master: Samy Meftali, Vérification des SoC, 16h, M2, UFR IEEA, Université Lille 1, France

Licence : Jean-Luc Dekeyser, Architecture des ordinateurs, 80h, L2, UFR IEEA, Université Lille 1, France

Master: Jean-Luc Dekeyser, Architectures évoluées des ordinateurs, 105h, M1, UFR IEEA, Université Lille 1, France

Licence : F. Guyomarch, Algorithmique et programmation, 72h, L1, IUT-A (Univ. Lille 1)

Licence : F. Guyomarch, Conception de sites web, 8h, L1, IUT-A (Univ. Lille 1)

Licence : F. Guyomarch, Modélisation et théorie des langages, 64h, L2, IUT-A (Univ. Lille 1)

Licence : F. Guyomarch, Algorithmique avancée, 44h, L2, IUT-A (Univ. Lille 1)

Licence : F. Guyomarch, Modélisation mathématique, 28h, L2, IUT-A (Univ. Lille 1)

Licence : Rabie Ben Atitallah, Introduction to Computer Architecture and Operating System, 36h, L2, Université de Valenciennes et du Hainaut-Cambrésis, France

Licence : Rabie Ben Atitallah, Algorithms and Language C Programming, 48h, L2, Université de Valenciennes et du Hainaut-Cambrésis, France

Master: Rabie Ben Atitallah, Tools for Embedded System Design, 32h, M2, Université de Valenciennes et du Hainaut-Cambrésis, France

Master: Rabie Ben Atitallah, Development and Compilation of Embedded Application, 32h, M2, Université de Valenciennes et du Hainaut-Cambrésis, France

Licence : V. Rusu, Logique , 30h, M1, UFR IEEA, (Univ. Lille 1)

Master : V. Rusu, Architecture avancée des ordinateurs, 36h, M1, UFR IEEA, (Univ. Lille 1)

9.2.2. Supervision

PhD : H. Krichene, SCAC : *Modèle d'exécution générique faiblement couplé pour les architectures massivement parallèle sur puce*, March 2011, Philippe Marque & Jean-Luc Dekeyser

PhD : V. Viswanathan, *Parallel and Dynamic reconfigurable computing system*, 01/02/2012, Jean-Luc Dekeyser and Rabie Ben Atitallah

PhD in progress : W. Chouchene, *Partial reconfiguration model for dynamic and massively parallel architecture : towards 3D FPGAs*, 01/10/2013, Jean-Luc Dekeyser, Rabie Ben Atitallah and Samy Meftali

PhD in progress : K. Ali, *Massively parallel dynamically reconfigurable architecture for real-time vidéo processing applications*, 01/10/2013, Jean-Luc Dekeyser, Rabie Ben Atitallah

9.3. Popularization

Philippe Marquet is vice-president of the *Société informatique de France*, the French learned society in computer science.

Philippe Marquet is involved in scientific popularization and co-animate the group of people interested in science popularization within the Inria Lille - Nord Europe Research Center. He is also of member of the group for networking about computer science popularization inside Inria.

He organizes and participates to the visit of classrooms on the Inria Plateau at EuraTechnologies, promoting interactions between the scientific community and secondary school students and their teachers. He organizes and/or animates events with children and/or adults in order to initiate them to code via Scratch or to computer science via unplugged activities, and more generally promoting computer science education.

Philippe Marquet is a member of the editorial board of 1024, the bulletin of the *Société informatique de France* that aims at showing informatics, science and technology, in all its dimensions. 1024 targets a wide audience, from high school students to researcher, including anyone interested in computer science.

DOLPHIN Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

10.1.1.1. General chair, scientific chair

- L. Jourdan, C. Dhaenens, M-E. Marmion: Learning and Intelligent OptimizatioN Conference; LION 9, Lille, FRANCE, Jan. 12-15, 2015.
- N. Melab: Chair of the McM'2015 workshop (Multi/Many-core computing for parallel Metaheuristics) organized in conjunction with MIC'2015, Agadir, June 7th 2015.
- N. Melab: Chair of 5 simulation and HPC-related seminars at Lille 1 oct-dec. 2015 (UPMC, Nvidia, LATMOS/UPMC, VU Leuven, Intel).
- E-G. Talbi: General chair MIC'2015 Int. Conf. on Metaheuristics, Agadir, Morocco, June 2015.

10.1.1.2. Member of the organizing committees

- D. Brockhoff: Lorentz Center workshop "SAMCO - Surrogate-Assisted Multi-Criteria Optimization", Leiden, Netherlands together with Michael Emmerich, Boris Naujoks, and Tobias Wagner, March 2016
- D. Brockhoff: special session on "Evolutionary Multiobjective Optimization" at the MCDM'2015 conference, Hamburg, Germany, together with Joshua Knowles, Boris Naujoks, and Karthik Sindhya, August 2015
- D. Brockhoff: GECCO 2015 workshop entitled "Blackbox Optimization Benchmarking", Madrid, Spain, together with Youhei Akimoto, Anne Auger, Nikolaus Hansen, Olaf Mersmann, and Petr Pošík, July 2015
- D. Brockhoff: CEC 2015 special session entitled "Blackbox Optimization Benchmarking", Sendai, Japan, together with Youhei Akimoto, Anne Auger, Nikolaus Hansen, Olaf Mersmann, and Petr Pošík, May 2015
- L. Jourdan: MIC'2015 Int. Conf. on Metaheuristics and Nature Inspired Computing, Agadir, Morocco, June 2015.
- L. Jourdan: EA'2015 Biennial International Conference on Artificial Evolution Publicity chair
- A. Liefooghe: CEC 2015 special session entitled "Fitness landscape analysis and search space structure", Sendai, Japan, together with Hernan Aguirre, Kiyoshi Tanaka and Sébastien Verel, May 2015

10.1.2. Scientific events selection

10.1.2.1. Chair of conference program committees

- E-G. Talbi: Track chair « Big data and smart applications » of IIT'2015 11th IEEE Int. Conf. on Innovation in Information Technology, Dubai, Nov 2015.
- E-G. Talbi: Program chair IEEE NIDISC'2015 Workshop on Nature Inspired distributed Computing, Hyderabad, India, May 2015.

10.1.2.2. Member of the conference program committees

- CEC'2015: IEEE Congress on Evolutionary Computation (Sendai, Japan, 2015)
- EA'2015: 12th International Conference on Artificial Evolution (Lyon, France 2015)

- EMO'2015: 8th International Conference on Evolutionary Multi-criterion Optimization (Guimarães, Portugal, 2015)
- EPIA'2015: 17th Portuguese Conference on Artificial Intelligence, Track on Artificial Life and Evolutionary Algorithms (Coimbra, Portugal, 2015)
- EvoCOP'2015: 15th European Conference on Evolutionary Computation in Combinatorial Optimisation (Copenhagen, Denmark, 2015)
- GECCO'2015: Genetic and Evolutionary Computation Conference, Evolutionary Combinatorial Optimization and Metaheuristics (ECOM) track (Madrid, Spain, 2015)
- LION'2015: 9th Learning and Intelligent Optimization Conference (Lille, France, 2015)
- ICCS'2015 International Conference on Computational Science, Reykjavik, Iceland, June 1-3, 2015.
- IEEE IPDPS/NIDISC'2015 IEEE International Workshop on Nature Inspired Distributed Computing, Hyderabad, India, May 25-29, 2015.
- IEEE IPDPS/PCO'2015 IEEE Intl. Workshop on Parallel Computing and Optimization, Hyderabad, India, May 25-29, 2015.
- MIC'2015 Metaheuristics Intl. Conf., Agadir, Morocco, June 7-10, 2015.
- COSI'2015 Colloque sur l'Optimisation et les Systèmes d'information, Oran, Algérie, June 1-3, 2015.
- INCoS 2015 Intl. Conf. on Intelligent Networking and Collaborative Systems, Taipei, Taiwan, Sep. 2-4, 2015.
- CoCoNet'2015 Intl. Conf. on Computing and Network Communications, Trivandrum, India, Dec. 16-19, 2015.
- IC3'2015 Intl. Conf. on Contemporary Computing, Noida, India, Aug. 20-22, 2015.
- CloudTech'2015 Intl. Conf. of Cloud Computing Technologies and Applications, Marrakech, Morocco, June 2-4, 2015.
- Workshop on Foundations of Genetic Algorithms (FOGA 2015).

10.1.3. Journal

10.1.3.1. Member of the editorial boards

- E-G. Talbi : Editor of the Journal « Computers and Industrial Engineering (CAIE, Elsevier)» Area «Computational Intelligence».
- D. Brockhoff, B. Derbel, A. Liefooghe and S. Verel: Guest editors of a special issue on Evolutionary Multiobjective Optimization, European Journal of Operational Research.
- N. Melab Guest Editor for the special issue on Multi/Many-core Computing for Parallel Metaheuristics. In Concurrency and Computation: Practice and Experience, 2015.
- E-G. Talbi, P. Bouvry : Guest editor of a special issue on Computational intelligence for Cloud computing, IEEE Computational Intelligence Magazine, Vol.10, No.1, 2015.
- D. Brockhoff : Special Issue “Evolutionary Multiobjective Optimization” of Computers and Operations Research journal (C&OR), together with Joshua Knowles, Boris Naujoks, and Karthik Sindhya, submission deadline in September 2015
- L. Jourdan : Review Editor Frontiers in Big Data.

10.1.3.2. Reviewer - Reviewing activities

- A Quarterly Journal of Operations Research (4OR, Springer)
- European Journal of Operational Research (EJOR, Elsevier)
- Journal of Heuristics (HEUR, Springer)
- Soft Computing (SOCO, Springer)

- IEEE Transactions on Evolutionary Computation
- Applied Soft Computing
- International Transactions in Operational Research (ITOR)
- IEEE/ACM Transactions on Computational Biology and Bioinformatics
- Computers & Operations Research (COR, Elsevier)
- Computers & Industrial Engineering (CAIE, Elsevier)
- ACM Computing Surveys
- Computation and Concurrency: Practice and Experience
- Parallel Processing Letters
- Omega, The International Journal of Management Science

10.1.4. Invited talks

- L. Jourdan, Combinatorial optimization for Bioinformatics, invited talk (1day), summer school of Bioinformatics, Angers, 2015.
- A. Liefooghe, “On multi-objective fitness landscapes and the performance of EMO algorithms”, Dec 2015, Shinshu University, Nagano, Japan
- D. Brockhoff, invited tutorial “Evolutionary Multiobjective Optimization”, GECCO 2015, Madrid, Spain, July 12, 2015, together with Tobias Wagner
- N. Melab, Invited lecture “Basics on parallel programming”, HPC day organized in conjunction with COSI’2015, May 31th, Oran, Algeria, 2015.
- E-G. Talbi, “Combining metaheuristics with mathematical programming, constraint programming and machine learning”, Keynote speaker ROADEF’2015 Société Française de Recherche Opérationnelle, Marseille, France, Feb 2015.
- E-G. Talbi, “Solving complex optimization problems”, Tutorial IIT’2015 11th Int. Conf. on Innovations in Information Technology, Dubai, UAE, Nov 2015.
- C. Dhaenens, L. Jourdan and M-E. Marmion, “Synergy of knowledge and optimization”, KU Leuven KULAK, April 2015
- C. Dhaenens and M-E. Marmion, “Synergy of knowledge and optimization”, Shinshu University, Nagano, Japan, Feb. 2015

10.1.5. Leadership within the scientific community

- L. Jourdan : Co-president of the working group “ATOM: Multi-objective optimization”, GDR RO.
- N. Melab : scientific leader of Grid’5000 (<https://www.grid5000.fr>) at Lille, Since 2004
- N. Melab : Chargé de Mission of High Performance Computing and Simulation at Université Lille 1, Since 2010
- E-G. Talbi : Co-president of the working group “META: Metaheuristics - Theory and applications”, GDR RO and GDR MACS.
- E-G. Talbi : Co-Chair of the IEEE Task force on Cloud Computing within the IEEE Computational Intelligence Society.
- L. Jourdan, A. Liefooghe : Secretary of the association “Artificial Evolution” (EA).

10.1.6. Scientific expertise

- C. Dhaenens: Jury of the contest “les pros de la RO”, organised by the ROADEF society, Nov 2015.
- L. Jourdan: external reviewer for the Luxembourg National Research Fund (FNR).
- L. Jourdan: external reviewer for the FWO (Research Foundation Flanders).

- L. Jourdan : Jury of the contest "prix Robert Faure" for contribution in the field of Operational research organized by ROADEF Feb. 2015
- E-G. Talbi : Expert for Qatar Foundation QNRF projects, 2015.

10.1.7. Research administration

- C. Dhaenens : Vice-head of CRISAL laboratory (Centre de Recherche en Informatique, Signal et Automatique de Lille), common to CNRS, University of Lille and Ecole Centrale de Lille, 430 people.
- F. Dufossé : Member of the Inria "center committee" and "research applications".
- N. Melab : Member of the steering committee of "Maison de la Simulation" at Université Lille 1.
- L. Jourdan Membre du bureau de la direction des écoles doctorales en Informatique du Nord Pas de Calais.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

- Licence: A. Liefoghe, Algorithmic and Data structure, 36h ETD, L2, Université de Lille 1, France
- Licence: A. Liefoghe, Algorithmic for Operations Research, 36h ETD, L3, Université de Lille 1, France
- Master: A. Liefoghe, Databases, 30h ETD, M1, Université de Lille 1, France
- Master: A. Liefoghe, Advanced Object-oriented Programming, 53h ETD, M2, Université de Lille 1, France
- Master: A. Liefoghe, Combinatorial Optimization, 10h ETD, M2, Université de Lille 1, France
- Master: A. Liefoghe, Multi-criteria Decision Aid and Optimization, 25h ETD, M2, Université de Lille 1, France
- A. Liefoghe is supervising the Master 2 MIAGE IPI-NT
- B. Derbel is the co-supervising the Master 2 MOCAD (Complex Models, Algorithms, Data)
- Master : Bilel Derbel, Combinatorial Optimization, 35h, M2, University Lille 1, France
- Master : Bilel Derbel, Grid Computing, 16h, M2, University Lille 1, France
- Master : Bilel Derbel, Parallel and Distributed Programming, 35h, M1, University Lille 1, France
- Master : Bilel Derbel, Advanced Object Programming, 132h, M1, University Lille 1, France
- Master : Bilel Derbel, Algorithms and Applications, 28h, M1, University Lille 1, France
- Laetitia Jourdan: Master in Computer Sciences and Master MIAGE of University of Lille 1: Business Intelligence (30h), Datamining (60h), Datawarehouse (30h)
- Laetitia Jourdan : Informatique L1 University of Lille 1 48h
- Laetitia Jourdan: Responsible of sandwich courses in Master Lille 1
- Laetitia Jourdan : Responsible of Master MIAGE Formation en Alternance
- Laetitia Jourdan: Co-responsible of Licence 1 Computer Science
- Dimo Brockhoff: Introduction to Optimization, Ecole Centrale Paris, Supelec, ESSEC, MSc in Data Sciences & Business Analytics
- Dimo Brockhoff: Introduction to Optimization, Univ. Paris-Sud, MSc (together with Anne Auger (TAO team)), M2 Apprentissage, Information et Contenu
- Master lecture: N. Melab, Supercomputing, 33h, Master 2, Université Lille 1, France
- Master lecture: N. Melab, Operations Research, 82h, Master 1, Université Lille 1, France

- Master leading: N. Melab, Co-head (with C. Chainais) of the master 2 of advanced scientific computing, U. Lille 1
- Engineering school : Clarisse Dhaenens, Graphs and Combinatorics, 80 HeqTD, Polytech Lille, University Lille 1, France
- Engineering school : Clarisse Dhaenens, Operations Research, 70 HeqTD, Polytech Lille, University Lille 1, France
- Engineering school : Clarisse Dhaenens, Algorithmics and programming, 45 HeqTD, Polytech Lille, University Lille 1, France
- Engineering school : El-Ghazali Talbi, Advanced optimization, 36h, Polytech'Lille, University Lille 1, France
- Engineering school : El-Ghazali Talbi, Data mining, 36h, Polytech'Lille, University Lille 1, France
- Engineering school : El-Ghazali Talbi, Operations research, 60h, Polytech'Lille, University Lille 1, France
- Engineering school : El-Ghazali Talbi, Graphs, 25h, Polytech'Lille, University Lille 1, France
- Polytech Lille : Marie-Eléonore Marmion, Database (responsible), 60h, 1st year, Université Lille 1, France
- Polytech Lille : Marie-Eléonore Marmion, Algorithm and Programming, 44h, 1st year, Université Lille 1, France
- Polytech Lille : Marie-Eléonore Marmion, Graphs (responsible), 44h, 1st year, Université Lille 1, France
- Polytech Lille : Marie-Eléonore Marmion, Optimization, 14h, 2nd year, Université Lille 1, France
- Polytech Lille : Marie-Eléonore Marmion, Optimization, 8h, 3rd year, Université Lille 1, France
- Polytech Lille : Marie-Eléonore Marmion, Data mining, 10h, 3rd year, Université Lille 1, France

10.2.2. Supervision

PhD defended : Sophie Jacquin, Combining exact method and metaheuristics for production problems, 11/2015, Co-direction : El-Ghazali Talbi et Laetitia Jourdan

Phd defended : Nicolas Dupin, Modélisation et résolution de grands problèmes stochastiques et combinatoires : Application à la gestion de production électrique, Oct 2015, El-Ghazali Talbi

Phd defended : Mathieu Gérard, Contribution à la résolution de problèmes d'optimisation en distribution, Dec 2015, Francois Clautiaux.

PhD defended: Rudi LEROY, Parallel Branch-and-Bound revisited for solving permutation combinatorial optimization problems on multi-core processors and coprocessors, Nouredine Melab and Mohand Mezmaç (UMONS, Belgium), Defended on 19/11/2015

PhD in progress: Maxence Vandromme, Datamining et optimisation combinatoire adaptés à la prévention et à l'orientation de patients, début : 1/06/2014, CIFRE with Alicante Co-direction : Clarisse Dhaenens and Laetitia Jourdan

PhD in progress: Gauvain Marquet, Mono-objective decomposition for multi-objective optimization, University Lille 1, Sep. 2014, Bilel Derbel and El-Ghazali Talbi

PhD in progress : Thanh-Do Tran, Benchmarking Continuous Multiobjective Optimization Algorithms, since 12/2011, Dimo Brockhoff and El-Ghazali Talbi

PhD in progress: Jan GMYS, Optimization and simulation of electrical networks using massively parallel heterogeneous computing, Nouredine Melab and Daniel Tuytens (UMONS, Belgium), since October 2014

PhD in progress : Sylvain Dufourny, Optimisation de décisions économiques concurrentielles dans un simulateur de gestion d'entreprise, Novembre 2012, Clarisse Dhaenens

PhD in progress : A. Q. Nguyen, Green scheduling on cloud computing systems, 11/2012, El-Ghazali Talbi and Pascal Bouvry

PhD in progress : Oumayma Bahri, Fuzzy multi-objective optimization, 11/2013, El-Ghazali Talbi and Nayla Ben-Omar

PhD in progress : Asma Gannouni, Stochastic multi-objective optimization using metaheuristics , 11/2013, El-Ghazali Talbi and Rachid Ellaia

New PhD : Aymeric Blot, Réagir et s'adapter à son environnement : Concevoir des méthodes autonomes pour l'optimisation combinatoire à plusieurs objectifs , ENS Student co-directed Laetitia Jourdan and Marie-Eléonore Marmion

New PhD : AnneLise Bedenel, Classification supervisée et non supervisée en présence de descripteurs évoluant dans le temps. Application à la comparaison d'assurances en ligne, CIFRE with Pixeo co-directed Laetitia Jourdan and Christophe Biernacki (Modal Inria Team)

New PhD : Gautier Vaillant, Parallel combinatorial optimization for molecular sampling and docking on hybrid clusters, Nouredine Melab and Daniel Tuytens (UMONS, Belgium), Started in 09/2015

10.2.3. Juries

- L. Jourdan: PhD thesis: Pierrick Buret, "Sécurité temporelle des hyperviseurs aérospatiaux", Université de Limoges, Dec 2015.
- L. Jourdan: Phd thesis: CHRAIBI Abdelahad, "A Decision Making System for Operating Theater Design: Application of Facility Layout Problem", Université Américaine de Beyrouth, Liban, Dec 2015.
- L. Jourdan : Optimization of the car relocation operations in one-way carsharing systems, de Rabih ZAKARIA de l'UTBM, December 14th 2015 (L. Jourdan, Rapporteur)
- N. Melab: HDR: Patricia Stolf, "Resource management for green infrastructures through reconfiguration", Université de Toulouse, November 13th, 2015.
- E-G. Talbi: PhD thesis: Charlie Vanaret "Hybridation d'algorithmes évolutionnaires et de méthodes d'intervalles pour l'optimisation de problèmes difficiles», Université de Toulouse, Jan 2015.
- E-G. Talbi: HDR : A. Sbihi "Contributions à la résolution de quelques problèmes d'optimisation combinatoire avec contraintes complexes: Etude et stratégie algorithmique", Université de Cergy-Pontoise, Jan 2015.
- E-G. Talbi: PhD : Simon Thevenin "Metaheuristics for constrained production scheduling problems", Université Genève, Switzerland, June 2015.
- E-G. Talbi: HDR : D. Duvivier "Contributions au couplage de l'optimisation et de la simulation", Université de Valenciennes, Sept 2015.
- E-G. Talbi: HDR : A. Nakib "From static to dynamic metaheuristics", Université de Paris Est, Dec 2015.

10.3. Popularization

- D. Brockhoff: Blackbox Optimization talk at 30min of Inria.
- L. Jourdan: Bioinspired computing - talk in undergraduate and graduate schools.
- L. Jourdan: Operational research - for 2nde during integration week (June 2015).
- L Jourdan, C. Dhaenens "Data et Santé", in "Data for you, data for business", organized by inria Lille (Nov 2015).
- L. Jourdan : Coding gouter for children (Dec. 2015).

INOCS Team

7. Dissemination

7.1. Teaching - Supervision - Juries

7.1.1. Supervision

PhD in progress : Luciano Porretta, "Models and methods for the study of genetic associations", May 2011, Bernard Fortz

PhD in progress : Sezin Afsar, "Revenue Optimization and Demand Response Models using bilevel programming in smart grid systems", October 2011 , Luce Brotcorne

PhD in progress : Martim Moniz, "Traffic engineering in Ethernet networks", November 2012, Bernard Fortz and Luis Gouveia

PhD in progress : Bayrem Tounsi, "Gestion de réseaux de services porte à porte pour le transport de marchandises ", October 2012 , Luce Brotcorne

PhD in progress : Carlos Casorran, "A Mathematical Optimization Approach for Stack- elberg Solutions of Bimatrix Games", July 2013, Martine Labbé

PhD in progress : Fabio Sciamannini, "Exact algorithms for variants of the coloring problem", September 2014, Bernard Fortz, Martine Labbé and Isabella Lari

PhD in progress : Jérôme De Boeck, "Decomposition methods for combinatorial optimization problems", Octobre 2015, Bernard Fortz

PhD in progress : Léonard Von Niederhausern, "Approches bi-niveau pour la tarification de services énergétiques ", Octobre 2015 , Luce Brotcorne

MEPHYSTO Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events organisation

9.1.1.1. General chair, scientific chair

Denis Bonheure was General chair of the committee of the workshop in nonlinear PDEs in Brussels from Sept. 7 to 11 2015.

9.1.1.2. Member of the organizing committees

Antoine Gloria and Scott Armstrong organized a minisymposium on stochastic homogenization at the EQUADIFF'15 conference held in Lyon in July.

D. Bonheure and A. Gloria organize a PDE and analysis seminar at Brussels (<http://homepages.ulb.ac.be/~dbonheur/seminaire-ANEDP.html>).

9.1.2. Journal

9.1.2.1. Member of the editorial boards

D. Bonheure is associate editor at the Bulletin of the Belgian Mathematical Society - Simon Stevin (<http://projecteuclid.org/DPubS?service=UI&version=1.0&verb=Display&handle=euclid.bbms>) and International Scholarly Research Notices (<http://www.hindawi.com/journals/isrn/>).

Antoine Gloria is editor at the Northwestern European Journal of Mathematics.

9.1.2.2. Reviewer - Reviewing activities

The members of the team review articles for many journals on a regular basis.

9.1.3. Invited talks

Denis Bonheure was invited speaker at

- 1st Joint Meeting Brazil-Spain in Mathematics, Universidade Federal do Ceara, Brazil, December
- Variational and Topological methods in the study of nonlinear problems, Besançon, June
- Unplugged in PDE's, Sapienza di Roma, June
- AMS-EMS-SPM International Meeting in Porto, June
- Workshop in PDE's, Calais, May
- Nonlinear elliptic PDEs at the End of the World Congress, Universidad de Magallanes, Punta Arenas - Chile, March
- Xth Americas Conference on Differential Equations and Nonlinear Analysis, Universidad de Buenos Aires, February
- Karlsruhe, seminar of Nonlinear PDE, October
- Karlsruhe, Colloquium of the Collaborative Research Centre on wave phenomena, October
- Santiago de Chile, Seminar of the Center for Analysis and Partial Differential Equations, October
- Instituto Superior Tecnico de Lisboa, Departamento de Matematica, June
- TU Delft, Analysis seminar, June
- Université de Lorraine, Séminaire d'Analyse et EDP de l'Institut Elie Cartan, June
- Université de Aix-Marseilles, Séminaire d'Analyse Appliqué du Laboratoire d'Analyse, Topologie, Probabilités UMR 7353, May
- Lille 1, Séminaire Analyse Numérique - Equations aux Dérivées Partielles, January

Stephan De Bièvre was invited speaker at

- Colloquium bisontin sur les EDPs dispersives et problèmes liés, Besançon, January.

Mitia Duerinckx was invited speaker at

- Numerical analysis and PDE seminar at the Université Lille 1, March
- Minisymposium on Stochastic Homogenization at the conference EquaDiff 2015 in Lyon, July.

Antoine Gloria was invited speaker at

- BelPRO conference on probability, Liège, January;
- PDE seminar, Université de Nice, March;
- AMS-EMS-SPM international meeting in Porto, June;
- Workshop on stochastic homogenization, Banff research center, August;
- Workshop on the calculus of variations, Lille, October;
- Séminaire EDP-Proba, IHP, Paris, December.

Christopher Shirley was invited speaker at

- Workshop on Spectra of Random Operators and Related Topics, Keio University, Yokohama.

9.1.4. Leadership within the scientific community

Denis Bonheure is member of the Executive board of the Belgian Mathematical Society.

Stephan De Bièvre is

- the scientific coordinator of the CEMPI,
- member of the drafting committee of the IDEX UDL, and of the delegation that presented the pre-project to the jury in Paris (April 2015),
- member of the Executive Committee of International Association of Mathematical Physics (since 2012).

9.1.5. Scientific expertise

Denis Bonheure is a member of the European Science Foundation panel elected by the Fundação para a Ciência e a Tecnologia for the evaluation of the research centers in Portugal for the period 2015-2020.

Guillaume Dujardin is an elected member of the Commission d'Evaluation of Inria (since 2015).

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Licence

Guillaume Dujardin, Integral and differential calculus, 60h, L2 (mathematics & physics), Université Libre de Bruxelles

Stephan De Bièvre, Probability, 15h, L2 (physics), Université Lille 1

Stephan De Bièvre, Applied mathematics, 30h, L2 (physics), Université Lille 1

Stephan De Bièvre, Probability, 50h, L3 (mathematics), Université Lille 1

Master

Antoine Gloria, Elliptic regularity theory, 30h, M2, Université Libre de Bruxelles

Doctorat

Christopher Shirley, Decorrelation estimates for random operators, 4h, Gakushuin University, Tokyo

9.2.2. Supervision

PhD supervision in the team:

PhD : Emilie Soret, Stochastic acceleration in an inelastic Lorentz gaz, Université Lille 1, June 30th 2015, Stephan De Bièvre & Thomas Simon (Lille 1)

PhD in progress : Mitia Duerinckx, Qualitative and quantitative aspects in stochastic homogenization of some PDEs, September 2014, Antoine Gloria & Sylvia Serfaty (Paris 6)

PhD supervision outside the team:

PhD : Manon Nys, Schrödinger equations with an external magnetic field: spectral problems & semiclassical states, Université Libre de Bruxelles and Università di Milano-Bicocca, September 11th 2015, Denis Bonheure (ULB) & Susanna Terracini (Torino)

PhD : Isabel Coelho, Boundary Value Problems for Some Curvature Operators, Université Libre de Bruxelles, June 20th 2015, Denis Bonheure (ULB)

9.2.3. Juries

Denis Bonheure was member of the jury of the PhD defence of Thuy Lien Nguyen (Université de Toulouse III - Paul Sabatier).

Antoine Gloria was in the jury of the PhD defences of Emilie Soret and Manon Nys.

Stephan De Bièvre was in the HDR jury of Dominique Spehner (April 2015, Institut Fourier, Grenoble).

MODAL Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

10.1.1.1. General chair, scientific chair

Christophe Biernacki was the General chair of the “47èmes Journées de Statistique de la SFdS” in Lille (JdS 2015, <http://jds2015.sfds.asso.fr/>). It holds during one week from June 1st to 5th 2015 with about 200 talks and about 400 registrations. It is the main annual French statistical conference, with international audience.

Christophe Biernacki co-organised a one-day meeting “Big-Data : Une vision globale Gestion, Analyse, Ethique et Logiciels” in Paris on March 13 2015 (<http://www.sfds.asso.fr/393-Big-Data>). It brought together about 80 registered people.

Sophie Dabo participates to the organisation of the Ecole Mathématique Africaine, 30/11-5/12 2015, Institut Polytechnique de Yamoussoukro, Côte d’ivoire

Benjamin Guedj is a founder and co-organizer of the **YSP seminar** (Young Statisticians and Probabilists), from the SFdS (Société Française de Statistique).

Benjamin Guedj is the organizer of the Modal team weekly seminar.

Benjamin Guedj is the co-organizer of the "Ateliers de la Statistique" from the SFdS.

10.1.1.2. Member of the organizing committees

Christophe Biernacki co-organized a one-day meeting “Statistique et données massives : enjeux et perspectives” in Paris on October 13th 2015 (<http://bigdata2015.sfds.asso.fr/comite-dorganisation/>).

Sophie Dabo co-organise session "Asymptotic properties in nonparametric problems (EO116)" in "The 8th International Conference of the ERCIM WG on Computational and Methodological Statistics" (CMStatistics 2015)

Sophie Dabo co-organise of "Forum of Young Mathematicians", Lille, 27-29, November, 2015

Guillemette Marot is a member of the organizing committee of seminars from Bilille platform. More information about all seminars is available on <https://wikis.univ-lille1.fr/bilille/animation>.

Benjamin Guedj has been a member of the steering committee of the 47th Journées de Statistique (JdS 2015, Lille, June 2015) from the SFdS.

10.1.2. Scientific events selection

10.1.2.1. Member of the conference program committees

Christophe Biernacki was in the conference program committee of the “Sixièmes rencontres des jeunes statisticiens” in parc ornithologique du Teich (near Bordeaux) on August 28th to September 2nd (<http://rencontres-jeunes-statisticiens.sfds.asso.fr/>).

Julien Jacques is member of the program committees of StatLearn’15 (Grenoble, april 2015) and StatLearn’16 (Vannes, april 2016).

Benjamin Guedj has been a member of the program committee of CaP’2015 (Conférence Franco-phone sur l’Apprentissage automatique, Lille, July 2015).

Alain Celisse was a member of the Journées de Statistique de la SFdS program committee.

10.1.3. Journal

10.1.3.1. Member of the editorial boards

Christophe Biernacki is an Associate Editor of the North-Western European Journal of Mathematics (NWEJM).

Sophie Dabo is an Associate editor of *Revista Colombiana de Estadística*

Benjamin Guedj has been a reviewer for the conference CaP'2015 (Conférence Francophone sur l'Apprentissage automatique, Lille, July 2015).

Cristian Preda is an Associate Editor for the Journal Methodology and Computing in Applied Probability (<http://www.springer.com/statistics/journal/11009>) and Romanian Journal of Mathematics and Computer Science (www.rjm-cs.ro/).

10.1.3.2. Reviewer - Reviewing activities

Christophe Biernacki has acted as a reviewer for the a dozen journal papers: *Journal de la Société française de Statistique (JSFds)*, *Journal of Classification (JoC)*, *Computational Statistics and Data Analysis (CSDA)*, *Journal of Statistical and Planning Inference (JSPI)*, *Advances in Data Analysis and Classification (ADAC)*, *Communication in Statistics – Theory and Methods*, *Data Mining and Knowledge Discovery (DAMI)*, *Journal of Statistical Software (JSS)*, *Statistica Sinica*, *Electronical Journal of Statistics (EJS)*, *Canadian Journal of Statistics (CJS)*.

Sophie Dabo is reviewer of *Statistical Inference for Stochastic Processes*, *Computational Statistics and Data Analysis*, *Statistics*, *Journal Afrika Statistika*, *Journal of Multivariate Analysis*, *Journal of Nonparametric statistics*, *Annales de l'ISUP*, *Electronic journal of statistics*, *Metika*, *Annals of Statistics*

Julien Jacques has referee in 2015 papers for CSDA and Statistical Paper.

Benjamin Guedj is a reviewer for the following journals: *Journal of the Royal Statistical Society (Series A)*, *Journal of the American Statistical Association*, *Molecular Ecology Resources*, *Journal of Multivariate Analysis*, *BMC Medical Research Methodology*, *Neurocomputing*.

Alain Celisse is a reviewer for the following journals: *Annals of Statistics*, *JMLR*, *Bernoulli*, *JMVA*,....

Guillemette Marot has reviewed in 2015 papers for BMC Bioinformatics and the Journal of Bioinformatics Research Studies.

10.1.4. Invited talks

Christophe Biernacki has been invited to give a talk at the following meetings:

- a tutorial “Model-based clustering/imputation with missing/binned/mixed data using the new software MixtComp” at the MissData conference in Rennes on June 18-19 2015 (<http://missdata2015.agrocampus-ouest.fr/infoglueDeliverLive/>).
- two lectures, named “Part I: CorReg Linear regression with correlated and numerous data” and “Part II: MixtComp Supervised classification with mixed data, missing data and uncertain data”, at the National Institute for Public Health (RIVM) in Utrecht (The Netherlands) on April 8-9 2015.
- a lecture “Clustering: evolution of methods to meet new challenges” to the one-day clustering meeting of Orange Labs, Issy Les Moulineaux on October 20th 2015 (<http://www.vincentlemaire-labs.fr/Clustering2015/>).
- a research talk at CMStatistics 2015 (ERCIM 2015) in London (UK) on December 12-14 2015 [25].

Sophie Dabo give an invited talk at *Tunisian Association of Statistics and Applications Conference*, march 2015 and an invited talk at the *African Women in Mathematics Association Conference*, july 2015, Kenya.

Julien Jacques has given an invited talks at CMStatistics 2015 (London, UK, december 2015), ISI2015 (Rio de Janeiro, Brasil, July 2015). He has been also invited at Università degli Studi di Napoli Federico II to give a talk on a workshop on Ordinal Data Modelling.

Alain Celisse has given invited talks at

- Nice: Calibration project meeting
- Rennes: talk at the seminar
- LSTA/UMPC: talk at the seminar
- IHP: talk at the séminaire parisien de statistique

Vincent Vandewalle has given invited talks at

- Classification society meeting, June 2015, Mc Master University, Hamilton, Canada [31]
- 8th International Conference of the ERCIM WG on Computational and Methodological Statistics, December 2015, Senate House, London, United Kingdom [33]

10.1.5. Scientific expertise

Christophe Biernacki is an elected member to the “Conseil National des Universités” (CNU) since October 2015.

Sophie Dabo, Expertise of l’Oreal’s Award "Womens in Science" since 2014.

Julien Jacques is referee for ANRT PhD grant.

10.1.6. Research administration

Christophe Biernacki is “Délégué Scientifique Adjoint” of the Inria Lille center since August 2014.

Julien Jacques is responsible of the Data Mining & Decision team of ERIC laboratory (Université de Lyon).

Vincent Vandewalle, with Chloé Friguet (Laboratoire de Mathématiques de Bretagne Atlantique) and Frédérique Letué (Laboratoire Jean Kuntzmann): organisation of a roundtable during the "47èmes Journées de Statistique de la SFdS" about how to teach the big data [51].

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Christophe Biernacki is head of the M2 “Ingénierie Statistique et Numérique” <http://mathematiques.univ-lille1.fr/Formation/> at University Lille 1.

Julien Jacques is the coordinator of the European Master on Data Mining and Knowledge Management (Université de Lyon).

Vincent Vandewalle was head of the DUT STID at IUT of University Lille 2 until June 2015.

Master: Christophe Biernacki, mathematical statistics, 60h, M1, Lille 1, France

Master: Christophe Biernacki, coaching project, 10h, M1, Lille 1, France

Master: Christophe Biernacki, data analysis, 97.5h, M2, Lille 1, France

Master: Christophe Biernacki, analysis of variance and experimental design, 22.5h, M2, Lille 1, France

Master: Christophe Biernacki, coaching internship, 20h, M2, Lille 1, France

Master: Sophie Dabo, "Spatial Statistics" 24h, M2, Lille 3, France

Master: Sophie Dabo, "Advanced Statistics" 24h, M2, Lille 3, France

Master: Sophie Dabo, "Non-parametric Statistics" 25h, M2, UGB, Senegal

Licence: Sophie Dabo, "Probability" , 24h, L2, Lille 3, France

Licence: Quentin Grimonprez, TP Probabilités, 12h, L3, Polytech’Lille, France

Master: Quentin Grimonprez, TP Classification Supervisée, 32h, M1, Polytech’Lille, France

Master: Quentin Grimonprez, TP Séries Temporelles, 14h, M2, Polytech’Lille, France

Licence: G. Marot, Biostatistics, 9h, L1, U. Lille 2, France

Master: G. Marot, Biostatistics, 45h, M1, U. Lille 2, France
 Doctorat: G. Marot, Data Analysis with R, 24.5h, U. Lille 2, France
 Master: B. Guedj, Statistical Learning, 10h, ENSAE ParisTech, Paris, France. 20 students.
 Master: B. Guedj, Statistical Learning, 10h, Université de Lille, master de mathématiques, M2, parcours mathématiques et finance. 8 students.
 Licence: S. Iovleff, Analysis and numerical methods, 28h, L1, U. Lille 1, France.
 Licence: S. Iovleff, Linear Algebra, 74h, L1, U. Lille 1, France
 Licence: S. Iovleff, Operational research, 28h, L2, U. Lille 1, France
 Licence: S. Iovleff, Probability and Statistics, 32h, L3, U. Lille 1, France.
 Master: S. Iovleff, Monte Carlo method, 30h, M1, U. Lille 1, France
 Master: Maxime Brunin, TP du module "Modèle linéaire", 12h, M1, Polytech Lille, FRANCE.
 Licence: V. Vandewalle, Probability, 142h, L2, U. Lille 2, France
 Licence: V. Vandewalle, Classification, 32h, L2, U. Lille 2, France
 Licence: V. Vandewalle, Case study and survey, 52h, L2, U. Lille 2, France
 Licence: V. Vandewalle, Analysis, 28h, L2, U. Lille 2, France
 Master: V. Vandewalle, Classification 34h, M1, U. Lille 1, France
 Licence: Alain Celisse, Proba-Stat, 64h, niveau L2, université Lille, France
 Licence: Alain Celisse, Analyse numérique, 32h, niveau L1, université Lille, France
 Formation continue: Alain Celisse, Analyse numérique, 24h, niveau L1, université Lille, France
 Licence: Alain Celisse, Algèbre, 68h, niveau L2, université Lille, France
 Master: Alain Celisse, mémoire de Proba-Stat, 10h, niveau M2, université Lille, France
 Licence: Cristian Preda, Probability, 40h, L1, Polytech'Lille, France
 Licence: Cristian Preda, Inferential Statistics, 50h, L1, Polytech'Lille, France
 Licence: Cristian Preda, Data Analysis, 40h, M1, Polytech'Lille, France
 Licence: Cristian Preda, Biostatistics, 12h, M2, Polytech'Lille, France
 Licence: Cristian Preda, Functional data analysis, 12h, M2, Lille 1, France

10.2.2. Supervision

PhD: Clément Thery, Model-based covariable decorrelation in linear regression (CorReg). Application to missing data and to steel industry, University Lille 1, defended on July 8th 2015, Christophe Biernacki.
 PhD: Stéphane Bouka, Modélisation non-paramétrique pour des observations spatialement dépendantes, Lille 3 et USTM Dabon, 21/12/2015, Sophie Dabo, Guy-martial Nkiet
 PhD in progress: Aladji Bassene (2011-), co-tutelle between Lille 3 (Sophie Dabo) and UGB (Sénégal) (defense, April 2016)
 PhD in progress: Emad Drwesh (2012-) (defense, december 2016), Lille 3, Sophie Dabo, Jérôme Foncel
 PhD in progress: Mohamed Yayaha (2012-) (defense, december 2016), Lille 3, Sophie Dabo and Aboubacar Amiri
 PhD in progress: Mohamed Ould Yehdhih (2014-) (defense, december 2017), Lille 3, Sophie Dabo and Mohamed Attouch
 PhD in progress: Komi Nagbe, Prédiction de production et de consommation d'énergie renouvelable, septembre 2015, Julien Jacques

PhD in progress: Yosra Ben Slimen, Extraction de connaissances dans de gros volumes de données hétérogènes (Big Data) pour la gestion automatique des réseaux radio, juin 2015, Julien Jacques

PhD in progress : Florence Loingeville, Mise en place d'outils statistiques spécifiques au contrôle de procédé en analyse microbiologique, décembre 2012, Julien Jacques and Cristian Preda

PhD in progress : Le LI, "PAC-Bayesian Online Clustering: theory and algorithms", 01/11/2014, together with Sébastien Loustau (Université d'Angers).

PhD in progress: Jérémie Kellner, Processus gaussien dans les RKHS et test d'adéquation, Université de Lille, Alain Celisse and Christophe Biernacki

PhD in progress: Quentin Grimonprez, Sélection de variable en très grande dimension par prise en compte de la dépendance, Alain Celisse, Guillemette Marot and Julien Jacques

PhD in progress: Maxime Brunin, Compromis temps de calcul-précision statistique, Alain Celisse and Christophe Biernacki

PhD in progress: Anne-Lise Bedenel, supervised and unsupervised classification with descriptors evolving in time. Application to online comparisons of insurances, Université Lille 1, Christophe Biernacki and Lætitia Jourdan

10.2.3. Juries

- PhD: Sophie Dabo has been examiner for Hassan Maatouk, Ecole of Mines of St-Etienne, 1/10/2015
- PhD: Sophie Dabo has been examiner for Sobom Matthieu Somé, University Franche-Comté, November 16, 2015.
- PhD: Sophie Dabo has been examiner for Abdoulaye Faye, Université Blaise Pascal, Clermont-Ferrand, december, 8, 2015.
- PhD: Sophie Dabo has been examiner for Zahraa Salloum, University of Lyon 2, 19/1/2016
- PhD: Julien Jacques has been referee for the PhD thesis of Amaury Labenne (Université de Bordeaux) and Henri Wallard (CNAM Paris)
- Christophe Biernacki participated as a reviewer to 5 PhD theses and 1 HdR, and as an examiner to 1 PhD thesis and 1 HdR.
- Cristian Preda has been for the PhD thesis of Alin Rusu (Facultatea de Matematica, Universitatea Bucuresti, June 2015).
Guillemette Marot was a member of an INSERM competition jury (IE number 13 BAP A)

10.3. Popularization

- **Research Sensibilisation**
 - Christophe Biernacki has given a talk “Big Stat / MixtComp: A SaaS platform for easy Big Data analysis” to the one-day meeting Data For You at EuraTechnologie in Lille on November 26th 2015 (<http://www.euratechnologies.com/actualites/2015/10/data-you-10381>).
 - Sophie Dabo has participated to research valorisation days for high school students female.
 - Benjamin Guedj has participated in a meeting with undergraduate students at Université de Lille to promote research positions in mathematics (January 2015).
 - Benjamin Guedj has been a speaker for the “30 minutes de science” seminar (Inria Lille - Nord Europe, April 2015).
 - Vincent Vandewalle has given a talk “Clustering et modèles prédictif” to the third R&D du Plateau at EuraTechnologie in Lille on April 22th 2015 <http://www.euratechnologies.com/actualites/2015/04/3eme-r-dv-plateau-10038>

- **XPérium Lille 1**

Participants: Christophe Biernacki, Maxime Brunin, Quentin Grimonprez, Vincent Kubicki, Vincent Vandewalle

Vulgarization of MODAL's research to sensitize students and businesses: <https://modal.lille.inria.fr/xperium/>

NON-A Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events organisation

9.1.1.1. Member of the organizing committees

- J.-P. Richard, a member of NOC of 20th IFAC World Congress, Toulouse, France, 10-14 July 2017

9.1.2. Scientific events selection

9.1.2.1. Member of the conference program committees

- J.-P. Richard, Associate Editor, EUCA-IEEE ECC'15, Linz, Austria (14th European Control Conference) June 15-17, 2015, <http://www.ecc15.at>
- J.-P. Richard, Associate Editor, IEEE MED'2015, Torremolinos, Spain (23rd IEEE Mediterranean Conference on Control and Automation) June 16-19, 2015, <http://med2015.uma.es>
- J.-P. Richard, Associate Editor, IFAC TDS'2015, Ann Arbor, MI, USA (12th IFAC Workshop on Time Delay Systems), Univ. of Michigan, 28-30 juin 2015, <http://me.engin.umich.edu/dirifac/>
- Gang Zheng, Associate Editor, SIAM CT15, Paris, France (SIAM Conference of Control & Its Applications 2015), 8-10 July 2015, <http://www.siam.org/meetings/ct15/>

9.1.2.2. Reviewer

The members of NON-A team are reviewers and contributors of all top-ranked conferences in the field of automatic control (IEEE Conference on Decision and Control, IFAC World Congress, European Control Conference, American Control Conference, etc)

9.1.3. Journal

9.1.3.1. Member of the editorial boards

- T. Floquet, Member of Editorial Board, Mathematical Problems in Engineering (Impact Factor: 1.082)
- A. Polyakov, Member of Editorial Board, Journal of Optimization Theory and Applications (Impact Factor: 1.406)
- A. Polyakov, Associate Editor, Journal of the Franklin Institute (Impact Factor: 2.260)
- A. Polyakov, Editor, International Journal of Robust and Nonlinear Control (Impact Factor: 3.176)

9.1.3.2. Reviewer - Reviewing activities

The members of NON-A team are reviewers of all top-ranked journals in the field of automatic control (IEEE Transactions on Automatic Control, Automatica, SIAM Journal of Control and Optimization, International Journal of Robust and Nonlinear Control, etc)

9.1.4. Invited talks

- Andrey Polyakov has been invited to give a talk for the conference "Optimization and Applications in Control and Data Science", 13-15 May 2015, Moscow, Russia, (<https://sites.google.com/site/polconf/>).

9.1.5. Leadership within the scientific community

The NON-A team is the leader in the field of non-asymptotic control and estimation using homogeneity framework. For European Control Conference 2015 the tutorial session "Homogeneity in Control: Geometry and Applications" has been organized and contributed by members of NON-A team.

9.1.6. Research administration

- Wilfrid Perruquetti, directeur adjoint scientifique de l'INS2I, CNRS

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Licence : Lotfi Belkoura; Automatique (systèmes linéaires monovariables)(75h), Introduction à la Robotique (25h), L3; Lille 1; France

Licence : Gang Zheng; TP Automatic control (16h), L2; EC Lille; France

Licence : Rosane Ushirobira; TP Automatic control (16h), L2; TP Numerical Analysis (20h), L1; EC-Lille and Polytech Lille; France

Master : Jean-Pierre Richard; Systèmes dynamiques (30h), Métiers de la recherche (4h), Modélisation des systèmes complexes(12h), Séminaire episteme (24h); EC-Lille; France

Master : Lotfi Belkoura; Représentation d'état (55h), M1; Projets (10h), M1; Introduction aux distributions (10h), M2; Lille 1; France

Master : Rosane Ushirobira; Probability and Statistics (20h); M2; EC-Lille; France

Master : Denis Efimov; TD Automatic control (12h), M1; Analysis of Nonlinear Systems (28h), M2, Lille 1; France

9.2.2. Supervision

HdR : Gang Zheng, "Analyse d'observabilité et synthèse d'observateur pour des systèmes dynamiques complexes", "Université Lille de Sciences et Technologies", 26 November 2015

PhD: Guo Qi, "Estimation dynamique des paramètres de robots manipulateur", EC-Lille, 8 December 2015, supervisors are W. Perruquetti and M. Gautier

PhD: Nehla Debbabi, "Approches algébriques et Théorie des valeurs extrêmes pour la détection de ruptures : Applications aux signaux biomédicaux", Tunis, 14 December 2015

PhD: Matteo Guerra, "Supervisory control of collective motion of mobile robots", EC-Lille, 17 December 2015, supervisors are W. Perruquetti, D. Efimov and G. Zheng

PhD in progress : Zilong Shao, "Oscillatory control of robot manipulator", 2013–..., supervisors are W. Perruquetti, D. Efimov and G. Zheng

PhD in progress : Hafiz Ahmed, "Identification and modeling of circadian rhythms for oysters", 2013–..., supervisors are D. Efimov, R. Ushirobira and D. Tran

PhD in progress : Essaid Edjekouane, "Cyber-physical systems", 2012–..., supervisors are J.P. Barbot, S. Riachy and M. Ghanes

PhD in progress: Zohra Kader, "Observation et commande des systèmes affines à commutation", 2014–..., supervisors are L. Belkoura, C. Fiter, L. Hetel

PhD in progress: Maxime Feingesicht, "Dynamic Observers for Control of Separated Flows", 2015–..., supervisors are J.-P. Richard, F. Kerherve, A. Polyakov

PhD in progress: Francisco Lopez Ramirez, "Control and Estimation via Implicit Homogeneous Lyapunov Function", 2015–..., supervisors are W. Perruquetti, D. Efimov and A. Polyakov

PhD in progress: Tatiana Kharkovskaia, "Interval Observers for Distributed Parametr Systems", 2015–..., supervisors are D. Efimov, J.-P. Richard, A. Kremlev

PhD in progress: Langueh Désiré Kokou, "Inversion a gauche, singularités d'inversion, immersion et formes normales pour les systemes dynamiques", 2015–..., supervisors are Thierry Floquet and Gang Zheng

PhD in progress: Gabriele Perozzi, "Save exploration of aerodynamic field by microdrone", 2015–..., supervisors are Denis Efimov and Jean-Marc Biannic

PhD in progress: Guillaume Rance, "Etude de systèmes flexibles a retard et application aux viseurs", 2015–..., the supervisors are Alban Quadrat and Hugues Mounier

9.2.3. Juries

The team members are also involved in various examination committees of Theses and Habilitations, recruitment committees, in France and abroad.

RAPSODI Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

I. Lacroix-Violet is in charge of the organization of the weekly seminary of the Numerical Analysis and Partial Differential Equations (ANEDP) research team at the Laboratoire Paul Painlevé, Université de Lille 1.

In the framework of the ANR GEOPOR project, C. Cancès organized a two-days workshop on gradient flows in metric spaces in Paris last June 22-23 (<https://www.ljll.math.upmc.fr/cances/GFIP/>).

B. Merlet organized of a one day conference on *Calculus of Variations* at Université Lille 1, October 15, 2015.

E. Creusé organized a one-day workshop on Mathematics and Entrepreneurship on November 17, 2015.

10.1.2. Journal

10.1.2.1. Member of the editorial boards

C. Chainais-Hillairet is a member of the editorial board of the North-Western European Journal of Mathematics (<http://math.univ-lille1.fr/nwejm/>) and of the International Journal on Finite Volumes (<http://www.i2m.univ-amu.fr/IJFV/>).

10.1.2.2. Reviewer - Reviewing activities

The members of the team RAPSODI reviewed numerous papers for numerous international journals.

10.1.3. Research administration

C. Cancès was vice-head of the MoMaS research group (<http://www.gdrmmas.org>) funded by the Institute for Mathematical Sciences and Interaction (INSMI) of the French National Center for Research (CNRS)

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

The group is strongly involved in teaching at the Université Lille 1. C. Calgaro and C. Chainais-Hillairet are in charge respectively of the Master of Mathematical Engineering and of the Master 2 of Scientific Computing. C. Calgaro has contacts with the University of Padua (Italy). Each year, the reception of an Erasmus student (with a strong mathematical background) at the master's level is possible.

10.2.2. Supervision

HDR : C. Cancès, *Analyse mathématique et numérique d'équations aux dérivées partielles issues de la mécanique des fluides : applications aux écoulements en milieux poreux*, defended at Université Pierre et Marie Curie on December 7, 2015.

PhD in progress: P.-L. Colin, *Theoretical and numerical study of some corrosion models*, since 01/10/2012, advisors: C. Chainais-Hillairet & I. Lacroix-Violet.

PhD in progress: A. Aït Hammou Oulhaj, *Design and analysis of nonlinear numerical schemes for solving parabolic problems: application to porous media flows*, since 01/10/2014, advisors: C. Cancès & C. Chainais-Hillairet.

PhD in progress: C. Lecerf, *Analyse numérique et simulations de modèles multifuïdes*, since 01/10/2015, advisors: C. Calgaro & E. Creusé.

PhD in progress: N. Peton, *Numerical methods for a stratigraphic model with nonlinear diffusion and moving frontier areas*, 15/10/2015, C. Cancès, Q. H. Tran (IFPEN) & S. Wolf (IFPEN).

PhD in progress: Luca Ferrari, *Line energies and applications to image reconstruction of partially masked objects*, since 01/09/2015, advisors: A. Chambolle (CNRS & CMAP, École Polytechnique) & B. Merlet.

10.2.3. Juries

- B. Merlet was a member of Pierre Bochar's PhD Thesis jury on June 24, 2015 at Université Paris-Sud. Title: "Vortex, entropies et énergies de ligne en micromagnétisme".
- E. Creusé was a member of Matthieu Merle's PhD Thesis jury on September 25, 2015 at École Nationale des Arts et Métiers, Paris. Title: "Approches numériques pour l'analyse de stabilité globale d'écoulements pariétaux en régime subsonique".
- Claire Chainais-Hillairet was a member of different juries:
 - Pierre Feron's PhD thesis on November 16, 2015 at Université Paris-Est (Marne-la-Vallée). Title: "Schémas gradients appliqués aux équations elliptiques et paraboliques, linéaires et non-linéaires."
 - Yumeng Zhang's PhD thesis on December 17, 2015 at Université de Nice. Title: "Modélisation et simulation des dispositifs de ventilation dans les stockages de déchets radioactifs."
 - Ulrich Razafison's HDR on December 3, 2015 at Université de Franche-Comté. Title: "Contribution à l'analyse théorique de problèmes elliptiques en domaine non borné, à la simulation numérique d'équations hyperboliques et aux méthodes de bases réduites."
- C. Cancès and C. Chainais-Hillairet were members of the hiring jury of french Agrégation de mathématiques.

10.3. Popularization

C. Calgario is the organizer of the action "Mathématiques itinérantes" (<http://mathematiques.univ-lille1.fr/Ouvertures/Mathematiques-itinerantes/>), which promotes mathematics among young people (conferences in highschools, "journées de la science", etc.). Members of the team regularly participate in these actions.

SEQUEL Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

10.1.1.1. Member of the organizing committees

Participation to the organization of the 32nd International Conference on Machine Learning:

- Philippe Preux, local chair organization of ICML
- Jérémie Mary, conference webmaster
- Romaric Gaudel, local volunteer chair

Co-organization of ICML workshops:

- 12th European Workshop on Reinforcement Learning (EWRL)
- 4th Workshop on Machine Learning for Interactive Systems
- Jeremie Mary was Co-organizer of the workshop “Offline and Online Evaluation of Web-based Services” at WWW’15 with Lihong Li (MSR) as main organizer.

10.1.2. Scientific events selection

10.1.2.1. Member of the conference program committees

- International Joint Conference on Artificial Intelligence (IJCAI 2015)
- International Conference on Pattern Recognition Applications and Methods (ICPRAM 2015)
- Approximate Dynamic Programming and Reinforcement Learning (ADPRL 2015)
- International Conference on Machine Learning (ICML 2015)
- Annual Conference on Neural Information Processing Systems (NIPS 2015)

French-speaking conferences:

- French Conference on Planning, Decision-making, and Learning in Control Systems (JFPDA 2015)
- Extraction et Gestion des Connaissances (EGC 2015)
- XXIIè rencontres de la société francophone de classification

10.1.2.2. Reviewer

- International Conference on Pattern Recognition Applications and Methods (ICPRAM 2015)
- Algorithmic Learning Theory (ALT 2015)
- AAAI Conference on Artificial Intelligence (AAAI 2015)
- Conference on Learning Theory (COLT 2015)
- European Workshop on Reinforcement Learning (EWRL 2015)
- Annual Conference on Neural Information Processing Systems (NIPS 2015)
- International Conference on Artificial Intelligence and Statistics (AISTATS 2015)
- European Conference on Machine Learning (ECML 2015)
- International Conference on Machine Learning (ICML 2015)
- International Joint Conferences on Artificial Intelligence (IJCAI 2015)
- Reinforcement Learning and Decision Making (RLDM 2015)
- International Conference on Uncertainty in Artificial Intelligence (UAI 2015)
- International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2015)
- International Conference on Acoustics, Speech and Signal Processing (ICASSP 2015)

French-speaking conferences:

- French Conference on Planning, Decision-making, and Learning in Control Systems (JFPDA 2015)
- Conférence francophone sur l’Apprentissage Automatique (CAP 2015)

10.1.3. Journal

10.1.3.1. Member of the editorial boards

- Neurocomputing

10.1.3.2. Reviewer - Reviewing activities

- IEEE Signal Processing Letters
- IEEE Transactions on Information Theory
- IEEE Transactions on Neural Networks and Learning Systems
- Scandinavian Journal of Statistics
- Speech Communication
- Journal of Machine Learning Research
- Artificial Intelligence Journal
- Machine Learning Journal
- Journal of Artificial Intelligence Research

10.1.4. Invited talks

- Gergely Neu, invited talk at the “Data, Learning, and Inference” (DALI) workshop on Learning Theory, Spain, April 2015.
- Gergely Neu, invited talk at the “Learning Faster from Easy Data” NIPS workshop, Montreal, December 2015.
- Olivier Pietquin, NIPS Workshop on Spoken Language Understanding (SLU NIPS 2015).
- Michal Valko, invited talk at “LIX, École Polytechnique” April 2015
- A. Lazaric, *Open Questions in Transfer in RL*, “Machine Learning with Interdependent and Non-identically Distributed Data”, Dagstuhl, Germany, April 2015.
- A. Lazaric, *Exploiting Easy Data in Online Optimization*, “Modal Seminar Series”, Inria Lille, May 2015.
- A. Lazaric, *Policy Search in Reinforcement Learning*, Criteo, Paris, June 2015.
- A. Lazaric, *Transfer in Multi-Armed Bandit*, Aston University, Birmingham, July 2015.
- A. Lazaric, *Transfer in Reinforcement Learning*, “Promotion et Developpement de l’Intelligence Artificielle”, Paris, October 2015.
- A. Lazaric, *The Hidden World of Bandits*, “Workshop on Sequential Learning and Applications”, Toulouse, November 2015.
- J. Mary, Invited talk at Euratechnologies on *recent advances of machine learning and deep learning for Sequential data*, Lille, November 2015.
- J. Mary, Invited talk at Recommender Days organized by CRITEO <http://recommenders.fr/>, December 2015.

10.1.5. Scientific expertise

- Agence Nationale pour la Recherche (ANR)
- Fonds National pour la Recherche Scientifique (FNRS), Belgium
- Olivier Pietquin and Philippe Preux are expert for H2020 European Program
- *M. Valko* is an elected member of the evaluation committee and participates in the hiring, promotion, and evaluation juries of Inria, notably
 - Hiring committee for junior researchers at Inria Nancy (2015)
 - Selection committee for Inria award for scientific excellence (2015)
 - Selection committee for CR promotions (2015)

- Jérémie Mary is expert for the Research Council of Norway.
- A. Lazaric is a member of the committee for research evaluation (CER) at Inria Lille.
- A. Lazaric was a member of the hiring committee for junior researchers at Inria Lille (2015).

10.1.6. Research administration

- Philippe Preux is:
 - head of the DatInG (Data Intelligence Group) thematic group at CRISAL that gathers 4 research groups, totaling more than 70 people,
 - member of the scientific committee of CRISAL,
 - member of the Bureau du Comité des Projets at Inria Lille.
- Romaric Gaudel is:
 - board member of CRISAL
 - manager of proml mailing list. This mailing list gathers French-speaking researchers from Machine Learning community.
- Olivier Pietquin is:
 - board member of CRISAL
 - board member of the IEEA faculty at Univ. Lille 1
 - member of the computer science department of the Ecole Doctorale SPI
 - in charge of research and innovation for the computer science department of Univ. Lille 1

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Licence: R. Gaudel, 2015/2016 Spring: programmation R pour statistiques et sociologie quantitative, 28h eqTD, L1, université Lille 3, France

Licence: R. Gaudel, 2015/2016 Fall: préparation au C2i niveau 1, 24h eqTD, L1-3, université Lille 3, France

Licence: R. Gaudel, 2015/2016 Fall: travail collaboratif et à distance dans un monde numérique, 13h eqTD, L1-3 (enseignement à distance), université Lille 3, France

Master: M. Valko, 2014/2015 Spring: Graphs in Machine Learning, 27h eqTD, M2, ENS Cachan

Master: M. Valko, 2015/2016 Fall: Graphs in Machine Learning, 27h eqTD, M2, ENS Cachan

Master : A. Lazaric, Reinforcement Learning, 25h eqTD, M2, ENS Cachan, France

Master : A. Lazaric, Reinforcement Learning, 25h eqTD, M2, Ecole Centrale Lille, France

Summer school : A. Lazaric, Reinforcement Learning, 8h eqTD, Toulouse, France

Master: J. Mary, 2015/2016 Fall: Machine learning with R, 20h eqTD, M2, Ecole Centrale de Lille.

E-learning

SPOC: R. Gaudel, Marc Tommasi and Alain Preux, culture numérique S3, 8 semaines, Moodle, université Lille 3, licence (L1), formation initiale, tous les étudiants (> 3 000).

Ph. Preux:

- modeling and simulation of the dynamics of behavior, Master 1 in Psychology & master in Cognitive Science, Université de Lille 3
- Formal neural networks, Master 1 in Cognitive Science, Université de Lille 3
- Supervised Learning, Licence 3 MIASHS, Université de Lille 3
- Advanced Data Mining, master 2 MIASHS, Université de Lille 3
- Unsupervised learning, master 1 MIASHS, Université de Lille 3

C. Dimitrakakis:

- Web Fundamentals, Licence MIASHS, Université de Lille 3
- Supervised Learning, Master MIASHS, Université de Lille 3

B. Piot:

- Networks, Master SID, Université de Lille 3
- Databases, Licence MIASHS, Université de Lille 3
- Excel, Licence MIASHS, Université de Lille 3
- Databases, Master SIAD, Université de Lille 1
- Networks, Master SIAD, Université de Lille 1
- UML, Université de Lille 1

O. Pietquin:

- Machine learning, Master Informatique, Université Lille 1
- Machine learning and decision making, Master Informatique, Université Lille 1
- Bayesian signal processing, Engineering degree, Université de Mons (Belgique)

10.2.2. Supervision

Supervision of PhD:

- HDR: Jérémie Mary, Université de Lille 3, defended Nov 2015
- PhD: Amir Sani, Université de Lille 1, defended May 2015, Munos, Lazaric
- PhD: Marta Soare, Université de Lille 1, defended Dec 2015, Munos, Lazaric
- PhD in progress: Marc Abeille, since Sept. 2014, Munos, Lazaric
- PhD in progress: Merwan Barlier, since oct. 2014, Pietquin
- PhD in progress: Alexandre Bérard, since Oct. 2014, Pietquin
- PhD in progress: Daniele Calandriello, since Oct. 2014, Preux, Lazaric, Valko
- PnD in progress: Nicolas Carrara, since Oct. 2015, Pietquin
- PhD in progress: Ronan Fruit, since Dec. 2015, Ryabko, Lazaric
- PhD in progress: Pratik Gajane, since oct. 2014, Preux
- PhD in progress: Hadrien Glaude, since Feb. 2014, Pietquin
- PhD in progress: Jean-Bastien Grill, since Oct. 2014, Munos, Valko
- PhD in progress: Frédéric Guillou, since Oct. 2013, Preux, Mary, Gaudel
- PhD in progress: Tomáš Kocák, since Oct. 2013, Munos, Valko
- PhD in progress: Vincenzo Musco, since Nov. 2013, Preux, Monperrus
- PhD in progress: Julien Perolat, since Oct. 2014, Pietquin
- PhD in progress: Florian Strub, since Jan. 2016, Pietquin, Mary
- PhD in progress: Romain Warlop, since Sep. 2015, Preux, Mary, Lazaric

Management of diplomas:

- Ph. Preux is the head of the master in computer science “machine learning and data science”, Université de Lille 3.
- J. Mary is the head of the “Web analyst” track in master MIASHS, Université de Lille 3.
- head of the MoCAD master at Université Lille 1.

10.2.3. Juries

Ph. Preux has been member of the PhD juries:

- Manel Tagorti, Université de Lorraine,
- Yacine Nair Benrekia, Université de Nantes,
- El Mehdi Rochd, Université de Marseille.

Ph. Preux has been member of the HdR juries:

- Jérémie Mary, Université de Lille 3.

A. Lazaric has been member of the PhD juries:

- Rodrigue Talla Kuate, Aston University, Birmingham, UK.
- Kamyar Azzizade (PhD qualification), University of California Irvine, USA.

O. Pietquin has been member of the PhD juries:

- Nicolas Galichet, Université Paris-Saclay,
- Alaedine Mihoub, Université Grenoble-Alpes,
- Emmanuel Ferreira, Université d'Avignon et des Pays du Vaucluse.

10.3. Popularization

- Ph. Preux participates to a radio program on machine learning.
- Ph. Preux co-authors two papers on “Le Monde” binaire blog [38].
- Inria interview with N. Vayatis and M. Valko about teaching machine learning at ENS, July 2015.
- Rue89 interviewed M. Valko about machine learning at Inria, June 2015.
- Intel advertising face recognition software (that included the work of M. Valko), February 2015.
- M. Valko volunteered in teaching mathematics in “Association de la Clé”, that helps students from underprivileged backgrounds.
- Jérémie Mary was interviewed by "Ca m'intéresse" for a special issue on artificial intelligence.

BONSAI Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

10.1.1.1. Member of the organizing committees

- workshop *3rd generation sequencing*, June 9, 117 attendees
- workshop *Bioinformatics tools for NRPS discovery, from genomic data to the products*, october 28-30, 32 attendees
- workshop *Drug design and virtual screening* November 30, 60 attendees

10.1.2. Scientific events selection

10.1.2.1. Chair of conference program committees

- H. Touzet was PC chair of the international conference **WABI 2015** (Atlanta, USA, september 10-12)

10.1.2.2. Member of the conference program committees

- HiCOMB 2015 (M. Giraud)
- JOBIM 2015 (H. Touzet).
- RECOMB-seq 2015 (H. Touzet, L. Noé).
- SeqBio 2015 (H. Touzet).
- WABI 2015 (H. Touzet, L. Noé, R. Chikhi).

10.1.3. Journal

10.1.3.1. Reviewer - Reviewing activities

- Bioinformatics (M. Pupin, L. Noé, R. Chikhi)
- BMC Bioinformatics (M. Salson, R. Chikhi)
- Genome Biology (R. Chikhi)
- GigaScience (R. Chikhi)
- Microbiology Open (V. Leclère)
- Nucleic Acids Journal (R. Chikhi)
- Synthetic and Systems Biotechnology (M. Pupin)

10.1.4. Scientific expertise

- Expert for Allistène (H. Touzet)
- Expert for the French-Brazilian program CAPES-COFECUB (H. Touzet)
- Expert for Département de l'Essone (H. Touzet)

10.1.5. Research administration

- Member of the CUB for Inria Lille (S. Blanquart)
- Member of the Charles Viollette Institute Laboratory council (V. Leclère)
- Member of the Charles Viollette Institute scientific committee (V. Leclère)
- Member of the scientific operational committee of Xperium, Univ. Lille 1 (V. Leclère)

- Member of the Inria local committee for technology development (M. Pupin)
- Member of the national evaluation committee of computer science for University members (M. Pupin)
- Member of the executive council of the IFB, Institut Français de Bioinformatique, (M. Pupin)
- Member of the Inria local committee for the IT users (M. Salson)
- Member of the national scientific committee of INS2I–CNRS (H. Touzet)
- Member of the Gilles Kahn PhD award national committee (H. Touzet)
- Member of the CRIStAL Laboratory council (H. Touzet)
- Member of the GRIOTE (Groupement de Recherche en Intégration de données Omics à Très grande Echelle, région Pays de Loire) scientific council (H. Touzet)
- Member of the scientific committee of the national program Environmics (H. Touzet)
- Member of the CRIStAL scientific council, representant of the thematic group “Modeling for life sciences” (J.-S. Varré)

10.2. Teaching - Supervision - Juries

10.2.1. Teaching administration

- Head of the GIS department (Software Engineering and Statistics) of Polytech’Lille (S. Janot)
- Member of UFR Biologie council (V. Leclère)
- Head of the master “Innovations en biotechnologies végétales, enzymatiques et microbiennes”, univ. Lille 1 (V. Leclère)
- Member of UFR IEEA council (M. Pupin, J.-S. Varré)
- Head of the 3rd year of licence of computer science, univ. Lille 1 (J.-S. Varré)
- Head of the licence semester “Computer Science – S3 Harmonisation (S3H)”, univ. Lille 1 (L. Noé)

10.2.2. Teaching

Licence: S. Blanquart, R. Chikhi, M. Giraud *Bioinformatics*, 40h, L3 Computer Science, Univ. Lille 1

Master: S. Blanquart, *Algorithms and applications in bioinformatics*, 24h, M1 Computer Science, Univ. Lille 1

Master: Y. Dufresne, *Algorithmics and complexity*, 36h, M1 Computer Science, Univ. Lille 1

Master: M. Giraud, *Algorithms for RNA Analysis*, 12h, M2 Bioinformatique et Modélisation, Univ. Paris 6

Licence: S. Janot, *Introduction to programming (C)*, 50h, L3 Polytech’Lille, Univ. Lille 1

License: S. Janot, *Databases*, 30h, L3 Polytech’Lille, Univ. Lille 1

Master: S. Janot, *Databases*, 12h, M1 Polytech’Lille, Univ. Lille 1

Master: S. Janot, *Logic and Semantic Web*, 80h, M1 Polytech’Lille, Univ. Lille 1

Master: V. Leclère, *Bioinformatics*, 30h, M2 Transformation Valorisation Industrielles des Agro-ressources, Univ. Lille 1

Master: V. Leclère, *Secondary metabolites*, 20h, M1 Biology, Univ. Lille 1

Master: V. Leclère, *Biotechnology*, 20h, M1 Biology, Univ. Lille 1

Master: V. Leclère, *Microbiology*, 20h, M1 Biology, Univ. Lille 1

Master: L. Noé, *Bioinformatics*, 40h, M1 Biotechnologies, Univ. Lille 1

License: L. Noé, *Networks*, 42h, L3 Computer science, Univ. Lille 1

License: L. Noé, *Programming (Python)*, 54h, L3 Computer science’ S3H, Univ. Lille 1

License:L. Noé, *Coding and information theory*, 36h, L2 Computer science, Univ. Lille 1
 License:P. Pericard, *Data structures*, 18h, L3 Polytech'Lille, Univ. Lille 1
 License:P. Pericard, *Introduction to programming (C)*, 34h, L3 Polytech'Lille, Univ. Lille 1
 License:M. Pupin *Introduction to programming (Python)*, 36h, L1 Computer science, Univ. Lille 1
 License:M. Pupin, *Databases*, 36h, L3 Computer science, Univ. Lille 1
 License:M. Pupin, *Professional project*, 18h, L3 Computer science, Univ. Lille 1
 Master: M. Pupin, *Introduction to programming (JAVA)*, 24h, M1 Mathématiques et finance, Univ. Lille 1
 Master: M. Pupin, M. Salson *Bioinformatics*, 40h, M1 Biology and Biotechnologies, Univ. Lille 1
 License:T. Rocher, *Algorithmics and programming*, 28h, L3 Polytech'Lille, Univ. Lille 1
 License:T. Rocher, *Algorithmics and programming (remedial course)*, 14h, L3 Polytech'Lille, Univ. Lille 1
 License:T. Rocher, *Databases*, 24h, L3 Polytech'Lille, Univ. Lille 1
 License: M. Salson, *Automata and language theories*, 36h, L3 Computer science, Univ. Lille 1
 License: M. Salson, *Skeptical thinking*, 30h, L3 Computer science, Univ. Lille 1
 License: M. Salson, *Coding and information theory*, 63h, L2 Computer science, Univ. Lille 1
 Master: M. Salson, *Skeptical thinking*, 14h, M2 Journalist and Scientist, ESJ, Univ. Lille 1
 Master: M. Salson, *Algorithms for life sciences*, 18h, M2 Complex models, algorithms and data, Univ. Lille 1
 License: J.-S. Varré, *Web programming*, 36h, L2 (licence "Computer Science", Univ. Lille 1
 License: J.-S. Varré, *Programming with Python*, 36h, L2 (licence "Sciences for Engineers", Univ. Lille 1
 License: J.-S. Varré, *Algorithms and Data structures*, 50h, L2 (licence "Computer science", Univ. Lille 1
 License: J.-S. Varré, *System*, 36h, L3 Computer science", Univ. Lille 1

10.2.3. Supervision

PhD in progress: Y. Dufresne, Modèles et algorithmes pour la gestion de la biodiversité des peptides non-ribosomiques et la mise en évidence de nouveaux peptides bioactifs, 2013/10/01, M. Pupin, L. Noé
 PhD in progress: P. Pericard, Methods for taxonomic assignation in metagenomics, 2013/11/01, H. Touzet, S. Blanquart.
 PhD in progress: T. Rocher, Indexing VDJ recombinations in lymphocytes for leukemia follow-up, 2014/11/01, J.-S. Varré, M. Giraud, M. Salson
 PhD in progress: C. Saad, Caractérisation des erreurs de séquençage non aléatoires, application aux mosaïques et tumeurs hétérogènes, 2014/10/01, M.-P. Buisine, H. Touzet, J. Leclerc, L. Noé, M. Figeac
 PhD in progress: L. Siegwald, Bionformatic analysis of Ion Torrent metagenomic data, 2014/01/03, H. Touzet, Y. Lemoine (Institut Pasteur de Lille)
 PhD in progress: C. Vroland, Indexing data for microRNA and microRNA target site identification in genomes, 2012/10/01, H. Touzet, V. Castric (EEP), M. Salson

10.2.4. Juries

- Member of the thesis committee of Souhir Sabri (CIRAD, Montpellier, V. Leclère)
- Member of the PhD thesis jury of Laetitia Bourgeade (LABRI, Bordeaux, H. Touzet)
- Member of the thesis committee of Florian Plaza Onate (Ecole Centrale, Paris, R. Chikhi)

- Member of the thesis committee of Jérôme Audoux (INSERM, Montpellier, R. Chikhi, M. Salson)
- Member of the HDR jury of Fabien Jourdan (INRA, Toulouse, H. Touzet)
- Member of the hiring committee Professor of Université de Nantes (H. Touzet)
- Member of the hiring committee Professor of Université d'Evry (H. Touzet)
- Member of the hiring committee McF of Université Lille 1 (H. Touzet)
- Member of the hiring committee Professor of University of Montréal (H. Touzet)
- Member of the hiring committee ATER of Université Lille 1 (L. Noé, J.S. Varré)

10.3. Popularization

- We made seven presentations, using dedicated “genome puzzles” in high schools during the “Science week” to popularize bioinformatics.
- During a whole day in June we made presentations on bioinformatics with our “genome puzzles” to several groups of high school students.
- V. Leclère has created a demonstration stand for Xperium, part of the Learning center Innovation of Lille 1 University.

FUN Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

10.1.1.1. General chair, scientific chair

- Valeria Loscri is/was (co)general chair for SwanSity 2015 and PACS 2015, of the special track "Body Area NanoNETworks: Electromagnetic, Materials and Communications (BANN-EMC)" in Body Area Networks conference.
- Aziz Mbacke is publicity chair for AdHocNow 2016.
- Nathalie Mitton is/was (co)general chair for AdHocNow 2016, Cloudification of IoT 2015, AdHoc-Nets 2015 and Inter-IoT 2015.
- Nathalie Mitton was demo chair for MobiCom 2015.
- Riccardo Petrolo is publicity chair for AdHocNets 2015 and web chair for AdHocNow 2016.
- Jean Razafimandimby Anjalalaina, was Publicity Chair for IoTIP 2015.
- Viktor Toldov is publicity chair for IndiaCom 2015.

10.1.1.2. Member of the organizing committees

- The full team organizes AdHocNow 2016.

10.1.2. Scientific events selection

10.1.2.1. Chair of conference program committees

- Valeria Loscri is co-program chairs for AdHocNow 2016 and Member of the IEEE SMC (Systems, Man and Cybernetics Society) TC on "Interactive and Wearable Computing and Devices".
- Nathalie Mitton was co-program chair of the summer school RESCOM 2015 and of the RESCOM community days in January 2016.
- Nathalie Mitton is co-program chair for AdHocNow 2016, IEEE CSE 2016, SmartComp 2016, UIC 2016, VTC-Spring 2016, ICC 2016, NOMS 2015.

10.1.2.2. Member of the conference program committees

- Valeria Loscri is/was in the Technical Program Committee (TPC) of MoWNet' 15/16, IDCS 2015/16, SWIT-Health 2015, HPCC 2015, WiMob'2015, Ntms 2015, IoTIP' 15, IoT2015, ICARSC 2015,
- Nathalie Mitton is/was in the Technical Program Committee (TPC) of Algotel 2015, NOMS 2015, ICC 2015.
- Tahiry Razafindralambo is/was in the Technical Program Committee (TPC) of Globecom 2015.

10.1.3. Journal

- Valeria Loscri is Co-editor of SPART, special Issue on Signal Processing Algorithms for Real-Time Sensing by Means of Wireless Sensor Networks.
- Valeria Loscri is Co-editor in the Special Issue on Smart Wireless Access Networks and Systems For Smart Cities, Elsevier Ad Hoc Networks.
- Valeria Loscri is Co-editor for the book MIoT2015, Management of Cyber Physical Objects in the Future Internet of Things on behalf of Springer.
- Valeria Loscri is a member of the 'Research Group on IoT Communications and Networking Infrastructure' at ComSoc Communities.

- Nathalie Mitton is editorial board members of AHSWN since 2011.
- Nathalie Mitton is editorial board member of Adhoc Networks since 2012.
- Nathalie Mitton is editorial board member of IET-WSS since 2013.
- Nathalie Mitton is editorial board member of ComSoc MMTTC e-letter since 2014.

10.1.4. Invited talks

- Valeria Loscri was invited speaker at "Cloudification of the Internet of Things - CIoT" conference in Paris in June 2015.
- Valeria Loscri gave a talk at ICT2B "Innovation Runway Event" in Frankfurt, to present Vital project (February 2015).
- Valeria Loscri gave a talk at ICT2B "Venture Academy Event", in Chaldiki, Greece (June 2015).
- Nathalie Mitton was invited speaker at the French-India Architecture and Technological Trends and Issues in Indiacom in New Delhi in March 2015.
- Nathalie Mitton was invited speaker at IIIT Allahabad at the event on Smart Cities in Allahabad in March 2015.
- Nathalie Mitton was invited speaker at Rencontres Inria Industries in San Francisco in May 2015.
- Nathalie Mitton was invited speaker at BIS meeting in Berkeley in May 2015.
- Nathalie Mitton was invited speaker at the Inria-Mexico meeting in Mexico in June 2015.

10.1.5. Scientific expertise

Nathalie Mitton is an elected member of the evaluation community of Inria. She has acted as a reviewer for ANRT and ANR project submissions. She is also member of the scientific committees of the competitiveness cluster of MATIKEN and for CITC (International Contactless Technologies Center).

10.1.6. Research administration

Nathalie Mitton is a member of the Steering Committee of the GDR Rescom.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

E-learning

Mooc, Nathalie Mitton, "Villes intelligentes : défis technologiques et sociétaux", 5-week mooc by the IPL CityLab@Inria team, FUN, Inria, to open in January 2016

Master : Roudy Dagher, Objets Communicants, 24h (Mineure Habitat Intelligent), Ecole des Mines de Douai, France.

Master: Valeria Loscri, Connected Objects, 24h eqTD (Engineer), Ecole des Mines, Douai

Master: Valeria Loscri, Telecom, 6h supervision TP (Engineer), Paris Telecom

Master : Nathalie Mitton, Wireless sensor networks, 36h eqTD (Master TIIR and MINT), Université Lille 1 and Telecom Lille 1, France

Bsc: Nathalie Mitton, Contactless technologies, 20h eqTD, Université de Valenciennes, France

BSC: Riccardo Petrolo, Réseaux Informatique, 36h TP and TD (Licence Info), Université Lille 1, France

BSC: Riccardo Petrolo, Technologies du Web, 36h TP and TD (Licence 1), Université Lille 1, France

Master : Viktor Toldov, Systèmes Numériques (VHDL), 18h eqTD (Formation d'ingénieur), Télécom Lille, France

Master : Viktor Toldov, Systèmes Numériques (Projet VHDL), 15h eqTD (Formation d'ingénieur), Télécom Lille, France

Master : Viktor Toldov, Communication numérique (Communication en bande transposée), 6h eqTD (Formation d'ingénieur), Télécom Lille, France

Master : Viktor Toldov, Communication numérique (Projet), 10h eqTD (Formation d'ingénieur), Télécom Lille, France

Master : Viktor Toldov, Technologie de l'électronique numérique et du signal, 25.5h eqTD (Formation d'ingénieur), Télécom Lille, France

Master : Viktor Toldov, Réseaux d'Objets Communicants (Projet), 15h eqTD (Formation d'ingénieur), Télécom Lille, France

Master : Viktor Toldov, Signal et Communication (Signaux déterministes), 3h eqTD (Formation d'ingénieur), Télécom Lille, France

Master : Viktor Toldov, Signal et Communication (Signaux aléatoires), 4.5h eqTD (Formation d'ingénieur), Télécom Lille, France

Master : Viktor Toldov, Projets Scientifiques et Technologiques 10h eqTD (Formation d'ingénieur), Télécom Lille, France

Licence : Jean Razafimandimby, Algorithms and Programming, 30h eqTD, Université Lille 1, France

Master : Tahiry Razafindralambo, Réseaux d'Objets Communicants (Projet), 9h eqTD (Formation d'ingénieur), Télécom Lille, France

Master : Tahiry Razafindralambo, Qualité de Service, 7h eqTD (Formation d'ingénieur - SPIRALE), Télécom Lille - , France

10.2.2. Supervision

PhD defended on Dec 15th, 2015: Natale Guzzo, Auto - organisation et économie d'énergie dans un réseau sans fil de surveillance de fret, Université Lille 1, 2013-2015, Nathalie Mitton

PhD defended on Oct 6th 2015: Roudy Dagher, Géolocalisation en environnement réel, extérieur et intérieur avec réseau de capteurs, Université Lille 1, 2013-2015, Nathalie Mitton

PhD in progress: Riccardo Petrolo, Internet of Things and Smart Cities, Université Lille 1, 2013-2016, Nathalie Mitton and Valeria Loscri

PhD in progress: Viktor Toldov, : Interférence et consommation dans les réseaux de capteurs, Université Lille 1, 2013-2016, Nathalie Mitton and Laurent Clavier

PhD in progress: Mouna Rekik, geographic multi path routing protocol based on swarm intelligence for wireless sensor and actuator networks in the context of Smart Grids, co-supervision Université Lille 1 and University of Sfax (Tunisia), 2013-2017, Nathalie Mitton and Zied Chtourou

PhD in progress: Jean Razafimandimby, Distributed Cooperation and Communication among Heterogeneous Devices, Université Lille 1, 2014-2017, Tahiry Razafindralambo and Valeria Loscri

PhD in progress: Aziz Mbacke, Smart Deployment of heterogeneous sensors and RFID in a Smart City, Université Lille 1, 2015-2018, Nathalie Mitton and Hervé Rivano (Urbanet)

PhD in progress: Jad Nassar, Ubiquitous networks for smart grids, Université Lille 1, 2015-2018, Nathalie Mitton and Nicolas Gouvy (HEI)

10.2.3. Juries

- Nathalie Mitton was reviewer of the following PhD thesis:
 - Mario Antonio Gasperin Zancanaro, UPMC, January 2015
 - Benjamin Billet, Inria Rocquencourt, 19 march 2015
 - Farouk Mezghani, University of Toulouse, 9 october 2015

- Malisa Vucinic, University of Grenoble, 17 november 2015
- Nathalie Mitton was member of the PhD defense committee of Filippo Rebecchi, 18 september 2015, UPMC.
- Nathalie Mitton was member of the Inria CR2 Lille and Nancy competition selection committee.

10.3. Popularization

- Salvatore Guzzo Bonifacio gave a talk on "Introduction to Wireless Sensor Networks" in the framework of "Fête de la Science".
- Nathalie Mitton gave a talk on "Introduction to RFID" to Terminales S a in the framework of "Fête de la Science".
- Nathalie Mitton gave a talk at the BIS conference on Smart Cities in Berkeley in May 2015.
- Nathalie Mitton presented the wireless networks to ISN classes on March 2015.
- Nathalie Mitton gave a talk on the Connected bike to the BeyondLab PlugTest on March 2015.
- Jean Razafimandimby gave a talk on "Can robots cooperate?" to BTS a in the framework of "Fête de la Science".
- Viktor Toldov gave a talk on "Introduction to Wireless Sensor Networks" in the framework of "Fête de la Science".
- Viktor Toldov gave a talk on the PREDNET project to the BeyondLab PlugTest on March 2015.
- Viktor Toldov gave a talk on the PREDNET project during the IAE conference on Connected objects in December 2015, Lille.

RMOD Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

10.1.1.1. General chair, scientific chair

Anne Etien was General chair of IWST15, the International Workshop of Smalltalk Technologies (part of ESUG 2015).

10.1.1.2. Member of the organizing committees

- Nicolas Anquetil, Anne Etien and Damien Cassou organized the umbrella conference EvoLille (= EOSESE + RIMEL + BENEVOL) as well as BENEVOL. Funding was acquired from sponsors (8000 EUR). The event had 60 participants.
- Nicolas Anquetil organized RIMEL.
- Marcus Denker and Stéphane Ducasse are in the board of ESUG and organized ESUG 2015, the yearly Smalltalk industrial conference.
- RMoD organized Pharo Conf 2015, the yearly Pharo meeting of both industrial and reserach users.

10.1.2. Scientific events selection

10.1.2.1. Chair of conference program committees

- Nicolas Anquetil, Anne Etien and Damien Cassou where program chairs of BENEVOL, Belgian-Netherlands software eVOLution seminar (Dec 03-04, 2015. Lille, France)
- Anne Etien was program chair at IWST 2015 (International Workshop of Smalltalk Technologies).

10.1.2.2. Member of the conference program committees

- Anne Etien
 - BENEVOL 2015 : BELgian-Netherlands software eVOLution seminar (Dec 03-04, 2015. Lille, France)
 - Modelsward16 : 4th International Conference on Model-Driven Engineering and Software Development (19 - 21 Feb 2016, Rome, Italy)
 - ICSoft-PT15 : 10th International Conference on Software Paradigm Trends
 - ICSoft-PT16 : 11th International Conference on Software Paradigm Trends (24 - 26 Jul 2016, Lisbon, Portugal)
- Nicolas Anquetil
 - BENEVOL 2015 : BENEVOL 2015 : BELgian-Netherlands software eVOLution seminar (Dec 03-04, 2015. Lille, France)
 - SANER 2015 : International Conference on Software Analysis, Evolution, and Reengineering (Mar 2–6, 2015; Montreal, Canada)
 - CIEL 2015 : 4 me Conference en Ingenierie du Logiciel (Jun 9–11, 2015; Bordeaux, France)
 - ICSoft-EA : 10th International Joint Conference on Software Engineering and Applications (Jul 20–22, 2015; Colmar, France)
 - AICCSA 2015 : ACS/IEEE International Conference on Computer Systems and Applications (Nov 17–20, 2015; Marrakech, Morocco)
- Damien Cassou

- BENEVOL 2015 : BElgian-NEtherlands software eVOLution seminar (Dec 03-04, 2015, Lille, France)
- Marcus Denker
 - SANER 2016 (23rd IEEE International Conference on Software Analysis, Evolution, and Reengineering)
 - VISSOFT'15 NIER/TD (IEEE Working Conference on Software Visualization, NIER and Tool Track)
- Martin Dias
 - DChanges 2015 (International Workshop on (Document) Changes: Modeling, Detection, Storage and Visualization 2015)
- Stéphane Ducasse
 - International Conference Onward! 2015.
 - International Conference 18th International Conference on Fundamental Approaches to Software Engineering (FASE) 2015, 2016
 - declined: ECOOP 2015, ECOOP 2016.

10.1.2.3. Reviewer

- Gustavo Santos reviewed for SANER 2016 (23rd IEEE International Conference on Software Analysis, Evolution, and Reengineering).
- Klérison Paixão reviewed for SANER 2016 (23rd IEEE International Conference on Software Analysis, Evolution, and Reengineering).
- Klérison Paixão reviewed for 19th International Conference on Fundamental Approaches to Software Engineering (FASE).

10.1.3. Journal

10.1.3.1. Reviewer - Reviewing activities

Nicolas Anquetil reviewed a book on software evolution for Springer. He also reviewed manuscripts for the following international journals:

- IEEE Transactions on Software Engineering (IEEE Computer Society, ISSN: 0098-5589)
- Journal of Software: Evolution and Process (Wiley, ISSN: 2047-7481)
- Journal of Systems and Software (Elsevier, ISSN: 0164-1212)
- IET Software (IET, ISSN 1751-8806)

Marcus Denker reviewed an article for Science of Computer Programming (Elsevier, ISSN: 0167-6423)

10.1.4. Scientific expertise

- Damien Cassou reviewed a proposal for *Jeune Entreprise Innovante*.
- Marcus Denker reviewed a research proposal for *Fondo Nacional de Desarrollo Científico y Tecnológico (FONDECYT), Chile*

10.1.5. Research administration

- Marcus Denker and Stéphane Ducasse are Moderators of arXiv cs.SE, from 2015. <http://arxiv.org/list/cs.SE/recent>
- Marcus Denker was vice president of the local Inria Lille *commission développement technologique*.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Master: C. Demarey, Intégration Continue, 4h (M2), GIS2A5, Polytech'Lille, France
 Master: C. Demarey, Intégration Continue, 12h (M2), IAGL, Université de Lille 1, France
 Licence : Damien Cassou, OpenDevs Communauté de Développeurs, 40, L3, Université Lille 1, France
 Licence : Damien Cassou, Conception orientée objet, 52.5, L3, Université Lille 1, France
 Master : Damien Cassou, Qualité logicielle, 30, M2, Université Lille 1, France
 Master : Damien Cassou, CAL Tests et Maintenance, 12, M2, Université Lille 1, France
 Master: Anne Etien, Test et Maintenance, 10, M2, Polytech-Lille, France
 Master : Anne Etien, Système d'information objet, 22, M1, Polytech-Lille, France
 Master : Anne Etien, Bases de données, 44, M1, Polytech-Lille, France
 Master : Anne Etien, Bases de données Avancées, 12, M1, Polytech-Lille, France
 Licence : Anne Etien, Bases de données, 22, L3, Polytech-Lille, France
 Licence : Damien Pollet, Java lecture, L3 level, 130 students, 30 hours (for the students), Telecom Lille, France
 Licence : Damien Pollet, Java lecture, L3 level, 60 remote students, 20h, Telecom Lille, France
 Licence : Damien Pollet, Java project, L3 level, 10 remote students, 20h, Telecom Lille, France
 Licence : Damien Pollet, Computer architecture, L3 level, 10h, Telecom Lille, France
 Master : Damien Pollet, Technologies for information systems, M1 level 30h, Telecom Lille, France
 Master : Damien Pollet, Network algorithms, M2, 30h, Telecom Lille, France
 Master : Damien Pollet, Software engineering, M1, 6h, Telecom Lille, France
 Nicolas Anquetil, Conception et programmation objet avancées, 64h, L2, Univ. Lille1, France
 Nicolas Anquetil, Programmation Système, 48h L2, Univ. Lille1, France
 Nicolas Anquetil, Projet tuteuré, 32h L2, univ. Lille1, France
 Nicolas Anquetil, Programmation mobile, 32h L2, univ. Lille1, France

10.2.2. Supervision

Martin Dias, Supporting Merging, 27/11/2015, Damien Cassou, Stéphane Ducasse.
 Guillermo Polito, Isolation and Reflection in Dynamic Object Oriented Languages, 13/04/2015, Noury Bouraqadi, Luc Fabresse, Stéphane Ducasse.
 PhD in progress: Vincent Blondeau, CIFRE Worldline, started Oct 2014, Anne Etien, Nicolas Anquetil.
 PhD in progress: Brice Govin, CIFRE Thales, started Jan 2015, Anne Etien, Nicolas Anquetil, Stéphane Ducasse.
 PhD in progress: Gustavo Santos, started April 2014, Anne Etien, Nicolas Anquetil
 PhD in progress: Camille Teruel, Security for dynamic languages, 01/12/2012, Stéphane Ducasse, Damien Cassou
 PhD in progress: Marco Naddeo, Evolvable and reusable software: from language design to developer tools, started 01/01/2014, Viviana Bono (University of Turin), Damien Cassou, Stéphane Ducasse
 PhD in progress: Clément Béra: Evolvable Runtimes for a Changing World, started Oct 2014, Stéphane Ducasse, Marcus Denker.
 PhD in progress: Klérisson Paixao, Automating reactions for API changes based on dynamic analysis, started 16/08/2014, Marcelo Maia, Damien Cassou, Stéphane Ducasse.
 Internships: Cyril Ferlicot, Yann Lesage, Skip Lentz, Thomas Durieux, Cédric Lenquette, Xavier Koma, Mathieu Schepens, Thomas Heniart.

10.2.3. Juries

- Anne Etien: Eli Richa, Qualification des générateurs de code source dans le domaine de l'avionique: le test automatisé des chaînes de transformation de modèles, 15/12/15, Telecom ParisTech (reviewer)
- Damine Cassou: Martin Dias, Supporting Integration Activities with First-Class Code Changes, 27/11/2015, Lille.
- Stéphane Ducasse:
 - *Habilitation*
 - * *Reflective Languages for Mobile Robotics Applications Development*, Dr. Luc Fabresse, Université de Lille 1, Lille, 08/12/15.
 - * *Supporting Software Evolution in Organizations*, Dr. Nicolas Anquetil, Université de Lille 1, Lille, 09/05/14.
 - *Thèses*
 - * *Organisation des développeurs open-source et fiabilité logicielle*, Mathieu Foucault, Université de Bordeaux, France. 30/11/15. (referee)

10.3. Popularization

- Marcus Denker gave one presentation about Pharo at the open source conference FOSDEM 2015.
- RMOD co-organized and participated at ESUG 2015.
- Multiple public Pharo Sprints in Lille.
- A MOOC for Pharo is in preparation (Stéphane Ducasse, Damien Cassou)

SPIRALS Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

10.1.1.1. General chair, scientific chair

Martin Monperrus has been General Chair of the 2nd European Open Symposium on Empirical Software Engineering (**EOSESE'2015**), organized in Lille on 3 December 2014 in the context of EvoLille 2015.

Romain Rouvoy has been General Chair of (**Compas'2015**), that is the national research conference on parallelism, architecture, and system. The conference was held in Lille from 30 June to 3 July 2015.

10.1.1.2. Member of the organizing committees

Martin Monperrus has been member of the organization committee of the **EvoLille'2015** scientific conference on software evolution and empirical software engineering that was held in Lille from 2nd December to 4th December 2015.

10.1.2. Scientific events selection

10.1.2.1. Chair of conference program committees

Romain Rouvoy is member of the Steering Committee of the IFIP International Conference on Distributed Applications and Interoperable Systems (**DAIS**) and the French conference Compas.

10.1.2.2. Member of the conference program committees

Laurence Duchien

International Software Product Line Conference (SPLC), track Vision

International Workshop on Software Engineering Research and Industrial Practice (SER&IP) at the ACM/IEEE International Conference on Software Engineering

European Conference on Software Architecture (ECSA)

IEEE International Conference on Cloud and Autonomic Computing (ICCAC)

Belgian-Netherlands software eVOLution seminar (BENEVOL)

IEEE International Conference on Software Analysis Evolution and Reengineering Committee for Female Student Funding

Filip Krikava

Transformation Tool Contest (TTC) at the Software Technologies Applications and Foundations (STAF) International Conference

Philippe Merle

International Workshop on Combining Model-Driven Engineering and Cloud Computing (Cloud-MDE)

Intelligent Service Clouds Workshop (ISC) at the International Conference on Services Oriented Computing

International Symposium on Security in Computing and Communications (SSCC)

International Workshop on Adaptive and Reflective Middleware (ARM)

Conférence en Ingénierie Logicielle (CIEL)

Martin Monperrus

ACM /IEEE International Conference on Software Engineering (ICSE)
International Conference on Software Maintenance and Evolution (ICSME)
International Workshop on Computational Antifragility and Antifragile Engineering (ANTIFRAG-
ILE)

Daniel Romero Acero

IEEE International Conference on Enabling Technologies: Infrastructure for Collaborative Enter-
prises (WETICE), track on Adaptive and Reconfigurable Service-Oriented and Component-Based
Applications and Architectures (AROSA)

Romain Rouvoy

ACM/IFIP/USENIX International Middleware conference (Middleware)
Dependable and Adaptive Distributed Systems track (DADS) at the Annual ACM Symposium on
Applied Computing (SAC)
Distributed Computing track (DC) of the International Symposium on Symbolic and Numeric
Algorithms for Scientific Computing (SYNASC)
Vision Track of the International Software Product Line Conference (SPLC)
International Conference on Computer Communications and Networks (ICCCN)
International Conference on Ambient Systems, Networks and Technologies (ANT)
IEEE International Workshop on Big Data Management for the Internet of Things (BIOT)
International Workshop on Adaptive and Reflective Middleware (ARM)
International Workshop on Adaptive Services for the Future Internet (WAS4FI)
International Workshop on Software Architectures for Next-generation Cyber-physical Systems
(SANCS)
International Workshop on Self-aware Internet of Things (Self-IoT)
International Workshop on Scalable Computing For Real-Time Big Data Applications (SCRAMBL)

Lionel Seinturier

IEEE/IFIP Conference on Software Architecture (WICSA)
International ACM Symposium on Component-Based Software Engineering (CBSE)
ACM Symposium on Applied Computing (SAC), tracks Software Architecture Theory Technology
and Applications (SA-TTA), Operating Systems (OS), Software Engineering Aspects of Green
Computing (SEGC)
International Workshop on Software Engineering for Smart Cyber-Physical Systems (SEsCPS) at
the ACM/IEEE International Conference on Software Engineering
IEEE International Symposium on Software Crowdsourcing (ISCC)
IEEE International Conference on Service Oriented Computing & Applications (SOCA)
Australasian Software Engineering Conference (ASWEC)
International Workshop on Model-Driven Engineering for Component-Based Software System
(ModComp)
Euromicro Conference on Software Engineering and Advanced Applications (SEAA), track Model-
based development Components and Services (MOCS)
IEEE Service Visionary Track on Service Composition for the Future Internet (SCFI)
IEEE/ACIS International Conference on Software Engineering Research Management and Applica-
tions (SERA)
IEEE International Conference on Enabling Technologies: Infrastructure for Collaborative Enter-
prises (WETICE), track on Formal Verification of Service Based Systems (FVSBS)
Workshop on Patterns Promotion and Anti-patterns Prevention (PPAP)
Conférence francophone en sur les Architectures Logicielles (CAL)

10.1.2.3. Reviewer

Philippe Merle has reviewed papers for the International ACM SIGSOFT Symposium on Component-Based Software Engineering (CBSE).

10.1.3. Journal

10.1.3.1. Member of the editorial boards

Laurence Duchien is member of the editorial board of the journal Lavoisier Technique et Science Informatiques (TSI).

Martin Monperrus is member of the editorial board of the international journal Springer Empirical Software Engineering (IF-2014: 2.161).

Lionel Seinturier is editor for software engineering of the ISTE-Wiley Computer Science and Information Technology book collection.

10.1.3.2. Reviewer - Reviewing activities

Laurence Duchien: Elsevier Science of Computer Programming (SCP), Elsevier Journal of Systems and Software (JSS), Wiley Software Practice and Experience (SPE).

Philippe Merle: Elsevier Journal of Systems and Software (JSS), Lavoisier Technique et Science Informatiques (TSI), IEEE Cloud Computing.

Martin Monperrus: IEEE Transactions on Dependable and Secure Computing (TDSC), Wiley Journal of Software Testing, Verification and Reliability (STVR), Software Quality Journal (SQJ), Springer Empirical Software Engineering (EMSE), Communications of the ACM (CACM).

Romain Rouvoy: IEEE Computer, IEEE Internet of Things Journal, Lavoisier Technique et Science Informatiques (TSI), Journal of Network and Computer Applications (JNCA), Elsevier Computer Communications (COMCOM), Elsevier Science of Computer Programming (SCP), IEEE Journal of Software: Evolution and Process (JSME).

Lionel Seinturier: Elsevier Journal of Systems and Software (JSS), Elsevier Journal of Network and Computer Applications (JNCA), Science China Information Sciences (SCIS), Springer Journal of Internet Services and Applications (JISA), Wiley Software Practice and Experience (SPE).

10.1.4. Invited talks

Martin Monperrus gave on keynote in Barcelona at IEEE CNSM 2012, and an invited course on automatic repair at the Escuela de Ciencias Informáticas, a winter school held in Buenos Aires (Argentina).

10.1.5. Leadership within the scientific community

Laurence Duchien is the head of the CNRS GDR GPL (Génie de la Programmation et du Logiciel). GDR GPL gathers 700 researchers from 90 teams in the domain of software engineering and programming languages.

Martin Monperrus is the co-head of the "Groupe de Travail Génie Logiciel Empirique" of the GDR GPL.

Romain Rouvoy is the co-head of the "Groupe de Travail Composants Objets Services : Modèles, Architectures et Langages" of the GDR GPL.

10.1.6. Scientific expertise

Laurence Duchien was member of a recruitment committee for a Senior Research Scientist position at the University of Luxembourg, for a Full Professor Position at the University of Montpellier and at the University of Bordeaux, for a Full Professor and an Inria Chair at Ecole des Mines de Nantes. She is expert for Program Hubert Curien.

Philippe Merle was member of the recruitment committee for research engineers for Inria SED Lille and Grenoble.

Martin Monperrus has been expert for the Natural Sciences and Engineering Research Council of Canada (NSERC/CRSNG).

Romain Rouvoy has been expert for the Natural Sciences and Engineering Research Council of Canada (NSERC/CRSNG).

Lionel Seinturier has been expert for the EU COST program, the Swiss National Science Foundation, the Qatar National Research Fund, and the French DRRT. He was member of a recruitment committee for a Senior Research Scientist position at the University of Luxembourg.

10.1.7. Research administration

Laurence Duchien is member of the Scientific Advisory Board for the Certus Center of the Simula Lab Norway (2014-2016). She is member of the CNRS PEDR committee.

Philippe Merle is member of the scientific board of Inria. He is in charge of creating the Lille's instance of the Irill research and innovation institute on free software. He is vice-president of the CUMI (Comité des Utilisateurs des Moyens Informatiques), alternate member of the Comité de centre, member of the CLHSCT (Comité Local d'Hygiène, de Sécurité et de Conditions de Travail).

Romain Rouvoy is president of the CLDD (Commission Locale de Développement Durable), member of the CUB (Commission des Utilisateurs du Bâtiment), and member of the Horizon Startup committee for the Inria Lille - Nord Europe research center.

Lionel Seinturier is member of the CDT (Commission Développement Technologique), member of the CER (Commission Emplois Recherche), and scientific correspondent for DPEI (Direction Partenariat Europe et International), for the Inria Lille - Nord Europe research center. He heads the committee (so-called "vivier 27 rang A") that selects members of recruitment committees in Computer Science at University of Lille 1.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Laurence Duchien teaches at the University of Lille 1, IEEA faculty. She heads the **research program** in Master of Computer Science at University Lille 1. She heads the Carrières et Emplois service and is referent for the professional insertion in the PhD program in Computer Science at ComUE University Lille Nord de France. She is also Director of Doctoral Studies for Computer Science in Doctoral School Engineering Science (SPI) - ComUE Lille Nord de France.

Software Project Management, 50h, Level M2, Master MIAGE,
 Design of distributed applications, 42h, Level M1, Master of Computer Science,
 Software Product Lines, 8h, Level M2, Master of Computer Science,
 Research and Innovation Initiation, 22h, Level M2 IAGL, Master of Computer Science,
 Tutoring Internship, 16h, Level M2, Master of Computer Science.

Martin Monperrus teaches at the University of Lille 1, IEEA faculty.

Introduction to programming, 48h, Level L1, Licence of Computer Science,
 Object-oriented design, 39h, Level L3, Licence of Computer Science,
 Automated software engineering, 40h, Level M2 IAGL, Master of Computer Science.

Romain Rouvoy teaches at the University of Lille 1, IEEA faculty. He heads the **IAGL** specialty of the Master of Computer Science at the University Lille 1. He supervises the Agil-IT Junior Enterprise.

Infrastructures et Frameworks Internet, 32h, Level M2 IAGL, Master of Computer Science,
 Innovation & Initiation à la Recherche, 14h, Level M2 IAGL, Master of Computer Science special-
 ity,
 Outils pour la Programmation des Logiciels, 12h, Level M2 IAGL, Master of Computer Science,
 Suivi de projets, 20h, Level M2, Master of Computer Science,
 Suivi d'alternants, 20h, Level M2, Master of Computer Science.

Walter Rudametkin Ivey teaches at the University of Lille 1, Polytech engineering school.

GIS4 Programmation par Objets
 GIS4 Architectures Logicielles
 GIS2A3 (apprentissage) Projet programmation par Objet
 IMA2A4 (apprentissage) Conception Modélisation Objet
 GBIAAL4 Bases de données

Lionel Seinturier teaches at the University of Lille 1, IEEA faculty.

Conception d'Applications Réparties, 18h, Level M1, Master of Computer Science,
 Infrastructures et Frameworks Internet, 6h, Level M2 E-Services and TIIR, Master of Computer Science.

10.2.2. Supervision

Defended HdR: Philippe Merle, Intergiciel d'intergiciels adaptable à base de services, composants et aspects, University Lille 1, 24 September 2015.

Defended PhD: Benoit Cornu, Automatic Analysis and Repair of Exception Bugs for Java Programs, 26 November 2015, Lionel Seinturier & Martin Monperrus.

Defended PhD: Marc Sango, Traceability of Concerns and Observer-Based Verification for Railway Safety-Critical Software, 18 September 2015, Laurence Duchien & Christophe Gransart.

In progress PhD: Yahya Al Dhuraibi, Un cadre flexible pour l'élasticité dans les nuages, October 2015, Philippe Merle.

In progress PhD: Stéphanie Challita, Un cadre formel et outillé pour la gestion de toute ressource en nuage, October 2015, Philippe Merle.

In progress PhD: Thomas Durieux, Search-based Monitoring and Root Cause Diagnosis in Production, September 2015, Lionel Seinturier & Martin Monperrus.

In progress PhD: Maria Gomez Lacruz, Self-Optimization of Software Systems Driven by Wisdom of the Crowds, October 2013, Lionel Seinturier & Romain Rouvoy.

In progress PhD: Geoffrey Hecht, Auto-optimisation des architectures orientées services : Application aux applications mobiles et Cloud, October 2013, Romain Rouvoy.

In progress PhD: Vincenzo Musco, Etude de la topologie et de l'évolution des graphes logiciels, October 2013, Philippe Preux (Inria SequeL) & Martin Monperrus.

In progress PhD: Gustavo Sousa, Towards dynamic software product lines to optimize management and reconfiguration of cloud applications, October 2012, Laurence Duchien & Walter Rudametkin Ivey.

In progress PhD: Amal Tahri, Evolution logicielle multi-vues, des réseaux domestiques au Cloud, March 2013, Laurence Duchien.

In progress PhD: Bo Zhang, Elasticité spontanée des services et infrastructures dans le Cloud, October 2013, Lionel Seinturier & Romain Rouvoy.

10.2.3. Juries

Laurence Duchien

HDR Reda Bendraou (Université Paris 6), reviewer

HDR Jean-Rémy Falleri (University of Bordeaux), reviewer

HDR Anis Sharfi (Université of Nice-Sophia Antipolis), reviewer

Marc Sango (University Lille 1), director

Jonathan Aceituno (University Lille 1), chair

Radu Ciucanu (University Lille 1), chair

Fabien Gilson (University of Namur), reviewer

Sam Rottenberg (Telecom SudParis), reviewer

Shuai Wang (University of Oslo), reviewer

Jakub Zwolakowski (University Paris VII), reviewer

Jacob Geisel (Université of Toulouse), examiner

Vincent Lanore (ENS Lyon) Dec 2015, examiner

Martin Monperrus

Benoit Cornu (University Lille 1), co-supervisor

Romain Rouvoy

Codé Diop (INSA Toulouse), reviewer

Ivan Paez (University of Rennes 1), reviewer

Paul van der Walt (University of Bordeaux), reviewer

Lionel Seinturier

HDR Rémi Douence (University of Nantes), reviewer

HDR Patricia Stolf (University of Toulouse), reviewer

HDR Philippe Merle (University Lille 1), examiner

Benoit Cornu (University Lille 1), director

Damien Riquet (University Lille 1), chair

Nour Assy (Telecom SudParis), reviewer

Thomas Calmant (University of Grenoble), reviewer

Cédric Eschler (University of Toulouse), reviewer

Leandro Fountoura-Cupertino (University of Toulouse), reviewer

Ilias Gerostathopoulos (Charles University Prague), reviewer

Pierre Samson (University of Pau), reviewer

Abderrahmane Seriai (University Bretagne Sud), reviewer

Borjan Tchakaloff (University Bretagne Occidentale), reviewer

Ghada Ben Nejma (University of Pau), examiner

10.3. Popularization

Julien Duribreux and **Antoine Vuiller** has given a demonstration of the APISSENSE[®] crowd-sensing platform (see Section 6.1) at the RIC day in September. The event targets students from computer science master programs and engineering schools in Lille.

Loïc Huertas has participated in June to Rencontres Inria Industries (RII) Futur en Seine organized by the Paris Rocquencourt research center where he presented the PowerAPI software library (see Section 6.2) for energy monitoring of software systems.

Lionel Seinturier has participated in October to the event Chercheur itinérant organized by the Inria Lille Nord Europe research center in the context of La Fête de la science. Two classrooms (2nde and 1^{ère}) have been visited. The theme of the visit was crowd-sensing and data gathering from mobile devices.

DEFROST Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events selection

9.1.1.1. Member of the conference program committees

- Christian Duriez is member of the WorldHaptics 2015 Conference Editorial Board and Vriphys 2015
- Jérémie Dequidt has been member of the program committee of AFIG 2016

9.1.1.2. Reviewer

- Christian Duriez has been reviewer for SIGGRAPH 2015, Vriphys 2015, ISBI 2015.
- Jeremie Dequidt has been reviewer for MICCAI 2015, Haptics Symposium 2016
- Damien Marchal was reviewer for IEEE 3D User Interface 2016 (3DUI 2016), VriPhys 2015, "la Conférence francophone sur l'Interaction Homme-Machine" (IHM 2015), World Haptics Conference (WHC 2015)
- Alexandre Kruszewski was reviewer for American Control Conference 2016, European Control Conference 2016, World Haptics Conference 2015, International Conference on Fuzzy Systems 2015.

9.1.2. Journal

9.1.2.1. Reviewer - Reviewing activities

- Christian Duriez has received an award from the journal IEEE transactions on haptics for outstanding review activities
- Christian Duriez has been reviewer for the following journals: Computer Graphics Forum, IEEE Transaction on Automation Science and Engineering, Mechanism and Machine Theory, IEEE Transactions on Haptics, IEEE Transactions on Visualization and computer Graphics
- Jeremie Dequidt was reviewer for the following journals: IEEE Transactions on Haptics, Computers and Graphics, Computer Graphics and Applications, Annals of Biomedical Engineering, REFIG
- Alexandre Kruszewski was reviewer for International Journal of Systems Science, Fuzzy sets and systems (2 papers), IEEE Transaction on Fuzzy systems (4 papers), Control Engineering Practice.

9.1.3. Invited talks

- Christian Duriez has been invited for a talk on the summer school on surgical robotics (Montpellier) and for the Autumn school on soft robotics and surgery (Torino).

9.1.4. Scientific expertise

- Christian Duriez is one of the founder and scientific advisor of the startup InSimo (www.insimo.com)

9.1.5. Research administration

- Christian Duriez was reviewer for the founding program AIRR (Nord-Pas de Calais) and Ecos-Sud (France-South America)

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Master : Christian Duriez, Simulation interactive basé sur la physique, niveau M2, université de Lille, France

Master : Jérémie Dequidt is in charge of the "Fillière Systèmes Communicants (IMA)" at Polytech Lille, France

Master : Jérémie is in charge of the transversal modules, which are common to all students M2 at Polytech Lille, France

Licence : Alexandre Kruszewski is in charge of Teaching Automation in the "Cursus Iteem" (L1 to M2) at Centrale Lille, France

Master : Alexandre Kruszewski, Advanced Automatic, Centrale Lille, France

Master : Damien Marchal, "Introduction to Unity 3D" Master 2 IVI de l'UFR d'IEEA, université de Lille, France

Master : Damien Marchal, "Introduction to Unity 3D" professional training SUDES, université de Lille, France

9.2.2. Supervision

- PhD: Julien Bosman, Physically-based 6DOF Nodes deformable models: Application to connective tissues simulation and soft-robots control, Université de Lille, 27 Novembre 2015, encadrée par C.Duriez
- PhD: Raymundo Márquez, «New control and observation schemes based on Takagi-Sugeno models», Université de Valenciennes, 12 Novembre 2015, encadrée par A. Kruszewski
- PhD in progress: Frederick Largillière, Control and Modelling of Interfaces based on Soft-robots, Université de Lille, advisors: C. Duriez and L.Grisoni (3d year)
- PhD in progress: Thor Morales, Feedback Control and Design of Soft-robots manipulators, Université de Lille, advisors: C. Duriez and R.Merzouki (3d year)
- PhD in progress: Zhongkai Zhang, Real-time control of deformable robot using visual servoing. Encadrement: J. Dequidt et C.Duriez (1st year)

9.2.3. Juries

- Christian Duriez was reviewer for the HdR of Pierre Joli (Université d'Evry)
- Christian Duriez was member of the committee for the position "Chargés de Recherche" (Inria Lille)

9.3. Popularization

- Presentation of a deformable robot in the Senate on 02/11/2015 at the "journée du numérique".
- A popular article on the work of the team was simultaneously broadcast on the BIT Blog Site lemonde.fr and the Interstices website.
- We worked with the Fresnoy (National Studio of Contemporary Arts) on the work of art: Exo-Biota artist Jonathan Pepe. This work was presented at the Panorama exhibition. It will be exhibited at the Palais de Tokyo in 2017. This project was the subject of an article on the humanoide.fr site.
- At the Science Festival, our team has greatly contributed to the itinerant scholars operation. Scientists and engineers have moved in colleges and high school in the region to present their work. This year, 15 one hour lessons were conducted in front of 430 students in secondary schools (<http://www.inria.fr/centre/lille/agenda/chercheurs-itinerants-2015>).
- Participation in various operations Chti'Code. Chti'Code is an action of the University of Lille 1, which aims to promoting computer education in primary schools. Damien Marchal intervened with 4 CM2 classes for a total of 20h. <https://wikis.univ-lille1.fr/chticode/>.
- In march 2015 Presentation of the work of Defrost students ISN Terminal specialty by Eulalie Coevoet and Jeremie Dequidt.

- J.Dequidt made an invited presentation and was a member of the jury of robotics competition organized by the High School Baggio (SI @ Baggio): <https://www.inria.fr/centre/lille/actualites/un-defi-de-robotique-interscolaire-a-lille>.
- J.Dequidt participated in the organization of the Robotics Cup of Primary Schools Polytech Lille. <http://crep.plil.net/>.
- J.Dequidt was a member of the European competition Android application creation students, supported by Google. <https://competition.eestec.net/>.
- A reporter did a paper about our team, posted on the site rue89 (over 11,000 visits to the article): <http://rue89.nouvelobs.com/2015/10/27/les-robots-mous-solution-medecine-moins-douloureuse-261847>
- Defrost research works have been presented to students (Terminale ISN) by E. Coevoet and J. Dequidt in march 2015.

LINKS Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events selection

10.1.1.1. Member of conference program committees

J. Niehren was member of the program committees of LPAR (International Conference on Logic Programming and Automatic Reasoning) 2016, LATA (International Conference on Language and Automata Theory and Applications) 2015, and WPTE (Rewriting Techniques for Program Transformations and Evaluation) 2015.

S. Tison is member of the program committees of FSCD (First International Conference on Formal Structures for Computation and Deduction) 2016, and CIAA (International Conference Implementation and Application of Automata) 2015.

S. Staworko is member of the program committees of PODS (ACM Symposium on Principles of Database Systems) 2016 and BICOD (British International Conference on Databases) 2015.

I. Boneva was member of program committee of EDBT (International Conference on Extending Database Technology) 2016 Vision Track.

P. Bourhis was member of program committee of RuleML (International Web Rule Symposium) 2015 and BDA (Journées Bases de données avancées) 2015

A. Bonifati was member of the program committees of VLDB (Very large Database Conference) 2015, ICDT (International Conference on Database Theory) 2015 and ICDE (International Conference of Data Engineering) 2015.

10.1.2. Journal

10.1.2.1. Member of the editorial boards

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

J. Niehren is in the editorial board of Fundamenta Informaticae.

10.1.2.2. Reviewer - Reviewing activities

To many to be enumerated

10.1.3. Leadership within the scientific community

S. Tison is member of the "Comité National de la Recherche Scientifique (CoNRS)" (Section 6).

I. Boneva is a member of the Data Shapes Working Group of the W3C which the mission is to produce a language for defining structural constraints on RDF graphs. <http://www.w3.org/2014/data-shapes/charter>

10.1.4. Research administration

S. Tison has been an elected member of the Administrative committee of University of Lille 1 until October 2015. She is an elected member of the academic council of "ComUE Lille Nord de France" since November 2015.

S. Tison is a vice president of the University of Lille 1 since October 2015, where she is responsible for industrial partnerships, innovation, and valorisation.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

License: A. Bonifati, Introduction to Databases, 54h, L3, Université Lille 1, France

Master (Mocad): P. Bourhis Information extraction, 18h, M2, Université Lille 1, France

Master (Mocad): A. Bonifati Information extraction, 9h, M2, Université Lille 1, France

Master (Mocad): J. Niehren Information extraction, 9h, M2, Université Lille 1, France

Master : S. Tison Advanced algorithms and complexity, M1, 57h, Université Lille 1, France

Master : S. Tison, Fouille de données, M1, 30h, Université Lille 1, France

Master: A. Lemay, XML Technologies, 16h, M2, Université Lille 3, France

DUT : I. Boneva, 100h, Université Lille 1, France

A. Bonifati was the co-responsible of the Master MOCAD of the University of Lille1.

A. Lemay is pedagogical responsible for Computer Science and numeric correspondent for UFR LEA Lille 3.

10.2.2. Supervision

PhD defended : R.CIUCANU, cross-model queries and schema mappings: evaluation and learning. Since Sept. 2012. Supervised by Bonifati.

PhD in progress : T. SEBASTIAN, Streaming algorithms for XPath. Since January 2011. Supervised by Niehren.

PhD in progress: A. BOIRET, Top-down tree transformations with look-ahead: foundations and learning. Since Sept. 2011. Supervised by Niehren and Lemay.

PhD in progress: D. Gallois started his PhD project on Recursive Queries under the supervision of Bourhis and Tison.

10.2.3. Juries

S. Tison was reviewer for the HDR of Sylvain Salvati at the University of Bordeaux, director of the HDR of Slawek Staworko at the University of Lille 1, and member of the HdR committee of Pierre-Alain Reynier from the University of Marseille. She was also a member of the PhD committee for Nadime Francis at the ENS Cachan.

10.2.4. Selection Committees

S. Tison was member of the selection committees for 2 professorships at University of Paris-Diderot, 1 assistant professorship at the Université Artois, and 2 assistant professorships at the University of Lille 3.

J. Niehren was member of the section committee for a professorship at the University of Bordeaux 1.

I. Boneva was member of the section committee for a assistant professorship at the University of Lens.

A. Lemay was member of the section committee for 2 assistant professorship at the University of Lille 3.

10.3. Popularization

Popularization on associate team Lille - Oxford: [Popularization on associate team Lille - Oxford](http://www.inria.fr/centre/lille/actualites/lille-et-oxford-une-double-expertise-au-service-de-la-donnee) par Inria à <http://www.inria.fr/centre/lille/actualites/lille-et-oxford-une-double-expertise-au-service-de-la-donnee>.

Popularization on awarded ICJAI paper of P. Bourhis on "Reasonable Highly Expressive Query Languages". Une avancée en équivalence de requêtes pour interroger les données sur le web distinguée à IJCAI <http://www.cnrs.fr/ins2i/spip.php?article1465>

MAGNET Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

10.1.1.1. Member of the organizing committees

MIKAELA KELLER, GÉRAUD LE FALHER and PAULINE WAUQUIER were members of the organizing committee of CAp 2015.

10.1.2. Scientific events selection

10.1.2.1. General chair, scientific chair

PASCAL DENIS served as an Area Chair (Discourse, Coreference, Pragmatics) for ACL 2015.

10.1.2.2. Chair of conference program committees

MARC TOMMASI was the program chair of CAp 2015.

10.1.2.3. Member of the conference program committees

PASCAL DENIS was member of the program committees of EMNLP 2015 and NAACL 2015.

PASCAL DENIS, RÉMI GILLERON, MIKAELA KELLER and MARC TOMMASI were members of the program committee of CAp 2015.

PASCAL DENIS and MIKAELA KELLER were members of the program committee of IJCAI 2015.

MIKAELA KELLER was member of the program committee of ICLR 2016.

MIKAELA KELLER and MARC TOMMASI were members of the program committee of NIPS 2015.

JAN RAMON was member of the program committee of BNAIC 2015.

JAN RAMON and MARC TOMMASI were members of the program committee of ICML 2015.

MARC TOMMASI was member of the program committee of CRI 2015.

FABIO VITALE was member of the program committees of COLT 2015 and WWW 2016.

10.1.2.4. Other

PASCAL DENIS is the program co-chair of the Polaris Colloquium.

10.1.3. Journal

10.1.3.1. Member of the editorial boards

JAN RAMON is member of the editorial boards of Machine Learning Journal (MLJ) and Data Mining and Knowledge Discovery (DMKD).

10.1.3.2. Reviewer - Reviewing activities

AURÉLIEN BELLET was reviewer for IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), IEEE Transactions on Cybernetics (TCYB) and Signal Processing (SIGPRO).

MARC TOMMASI was reviewer for Computer Communications (COMCOM).

FABIO VITALE was reviewer for the European Journal of Operational Research (EJOR).

10.1.4. Invited talks

MIKAELA KELLER was invited to give a talk at "Journée scientifique sur gestion de la connaissance à l'aide des Méthodes formelles pour la prévision des crises en épilepsie" (CRAN, Nancy).

JAN RAMON was invited to give a talk at the International Conference on Concept Lattices and their Applications (CLA 2015).

MARC TOMMASI was invited to give a talk at Data, Learning and Inference (DALI 2015): Networks – Processes and Causality.

10.1.5. Scientific expertise

PASCAL DENIS was member of the PhD Award Committee of ATALA (French association for NLP).

RÉMI GILLERON was member of the AERES evaluation committee of the LITIS Computer Science research laboratory (Rouen, France).

RÉMI GILLERON was also head of the selection committee for PhD and postdoctoral researchers at Inria Lille.

RÉMI GILLERON, MIKAELA KELLER and MARC TOMMASI were members of evaluation committees for the French Research Agency (ANR).

MARC TOMMASI was president of the jury for the recruitment of Junior Research Scientists (CR1/CR2) at Inria Lille.

FABIEN TORRE is elected for "CNU section 27 (informatique)" since Oct 2011 (reelected in Oct 2015) and is also member of the bureau since Nov 2015.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

University courses

Licence Informatique: DAVID CHATEL, Initiation à l'informatique, 45.5h, L1, Université de Lille, France

Master MOCAD: PASCAL DENIS, Apprentissage artificiel et aide à la décision, 37.5h, M2, Université de Lille, France

Master MIASHS: RÉMI GILLERON, NoSQL databases, 24h, M1, Université de Lille, France

Master MIASHS: RÉMI GILLERON, Programming in R, 24h, M1, Université de Lille, France

Master MIASHS: RÉMI GILLERON, Search Engine Optimization, 24h, M2, Université de Lille, France

Licence SID: RÉMI GILLERON, Information Digital Representation, 24h, L2, Université de Lille, France

Licence MIASHS: RÉMI GILLERON, Data Processing with Spreadsheet Program, 24h, L1, Université de Lille, France

Licence: MIKAELA KELLER, C2i, 25h, L2, Université de Lille, France

Licence MIASHS: MIKAELA KELLER, Information digital representation, 42h, L1, Université de Lille, France

Licence Sociologie: MIKAELA KELLER, Programming and algorithms, 28h, L2, Université de Lille, France

Licence Digital Humanities: MIKAELA KELLER, Information digital representation, 24h, L2, Université de Lille, France

Licence MIASHS: MARC TOMMASI, Réseaux, 64h, L1, Université de Lille, France

Licence MIASHS: MARC TOMMASI, Programmation client, 24h, L2, Université de Lille, France

Licence: MARC TOMMASI, C2i, 25h, L2, Université de Lille, France

Licence: MARC TOMMASI, Culture numérique, 30h, L2, Université de Lille, France.
Online courses for all students in Lille 3 university L1/L2/L3.

Master Information Documentation: FABIEN TORRE, Langages statiques du web, 37h, M1, Université de Lille, France

Master Information Documentation: FABIEN TORRE, Algorithmique et programmation PHP pour le web, 75h, M1, Université de Lille, France

Master SdL: FABIEN TORRE, Algorithmique et programmation pour l'extraction d'information, 55h, M2, Université de Lille, France

Master Information Documentation: FABIEN TORRE, Javascript langage dynamique du web, 38h, M2, Université de Lille, France

Master MIASHS: FABIEN TORRE, Informatique pour le référencement, 12h, M2, Université de Lille, France

Licence MIASHS: FABIO VITALE, Introduction à l'algorithmique, 66h, L2, Université de Lille, France

Licence Sociologie: FABIO VITALE, Algorithmique des graphes, 28h, L3, Université de Lille, France

Licence SID: FABIO VITALE, Information Coding, 24h, L1, Université de Lille, France

Master MIASHS: FABIO VITALE, Unsupervised Classification, 30h, M1, Université de Lille, France

Licence MIASHS: FABIO VITALE, Unsupervised Classification, 28h, L3, Université de Lille, France

Invited lectures

Séminaire de rentrée: MARC TOMMASI, ENS Cachan, France

Course on Graph-based Machine Learning: MARC TOMMASI, University of Yaoundé, Cameroon.

Administration

MARC TOMMASI is a council member of the UFR MIME.

10.2.2. Supervision

Master: MATHIEU DEHOUCK, Graph-based Semi-Supervised Learning for Dependency Parsing, Université de Lille, Aug 2015, PASCAL DENIS and MARC TOMMASI

PhD: CHLOÉ BRAUD, Discourse Relation Identification from Labeled and Unlabeled Data, Université Paris-Diderot, Dec 2015, PASCAL DENIS (co-supervision with Laurence Danlos, Université Paris-Diderot)

PhD: EMMANUEL LASSALLE, Structured Learning with Latent Trees: a Joint Approach to Coreference Resolution, Université Paris-Diderot, May 2015, PASCAL DENIS (co-supervision with Laurence Danlos, Université Paris-Diderot)

PhD: THOMAS RICATTE, Hypernode graphs for learning from binary relations between sets of objects, Université de Lille, Jan 2015, RÉMI GILLERON

PhD in progress: DAVID CHATEL, Supervised Spectral Clustering and Information Diffusion in Graphs of Texts, since Sep 2012, PASCAL DENIS and MARC TOMMASI

PhD in progress: MATHIEU DEHOUCK, Graph-based Learning for Multi-lingual and Multi-domain Dependency Parsing, since Oct 2015, PASCAL DENIS and MARC TOMMASI

PhD in progress: GÉRAUD LE FALHER, Machine Learning in Signed Graphs, since Oct 2014, MARC TOMMASI, FABIO VITALE and CLAUDIO GENTILE (Università dell'Insubria, Italy)

PhD in progress: PAULINE WAUQUIER, Recommendation in Information Networks, since Dec 2013, MARC TOMMASI and MIKAELA KELLER

10.2.3. Juries

PASCAL DENIS was member of the PhD committee of Juliette Conrath (IRIT, Université Paul Sabatier) in Toulouse.

RÉMI GILLERON was member of the following committees: PhD committee of Marta Soare (Lille), Habilitation committee of Jérémie Mary (Lille), head of the selection committee for assistant professor (Lille).

MIKAELA KELLER was member of the following selection committees: assistant professor in Université de Lille 1, in Université de Lille 3 and at INSA Rouen.

MARC TOMMASI was member of the following committees: selection committee for assistant professor at UPMC (Paris 6), PhD committee (and reviewer) of Nadia Ouali Sebti (LITIS, Rouen), PhD committee of Fragkiskos D. Malliaros (École polytechnique, Paris) and PhD committee of Thomas Ricatte (Lille).

10.3. Popularization

MIKAELA KELLER was involved in the Fête de la Science as a "chercheur itinérant".

MARC TOMMASI was co-author of the article "L'apprentissage automatique : le diable n'est pas dans l'algorithme" in the blog Binaire of the newspaper Le Monde.

MINT Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events organisation

9.1.1.1. General chair, scientific chair

Frédéric Giraud: General co-chair EMR'2015 (Lille)

9.1.1.2. Member of the organizing committees

Laurent Grisoni: Workshop on Collaboration Meets Interactive Surfaces (CMIS): workshop at ACM ITS tabletop. Co-organised with Andres Lucero, Craig Anslow, Pedro Campos

9.1.2. Scientific events selection

9.1.2.1. Member of the conference program committees

Laurent Grisoni: Computer Graphics International (CGI, 32nd event) , GRAPP (Computer Graphics theory and applications, 11th event), ISEA (21st International Symposium on Electronic Art), MOCO (2nd International workshop on Motion and Computing), VRIPHYS (12th workshop on Virtual Reality Interaction and Physical Simulation)

9.1.2.2. Reviewer

Florent Berthaut: Reviewer for ACM CHI Conference

9.1.3. Journal

9.1.3.1. Member of the editorial boards

Frédéric Giraud: Associate Editor IEEE Transactions on Haptics

9.1.3.2. Reviewer - Reviewing activities

Frédéric Giraud: reviewer for IEEE Transactions on Mechatronics, IEEE Transactions on Power Electronics, Elsevier Sensors and Actuators

Christophe Giraud-Audine: reviewer for IEEE Transactions on Mechatronics, IEEE Transactions on Power Electronics, IEEE Transactions on Haptics, IEEE Transactions on Industrial Electronic

9.1.4. Scientific expertise

Frédéric Giraud: Expert for the ANR (france), MITACS acceleration (CANADA) Laurent Grisoni: ANR CES 38 2015, 2016 («numérique et société» commitee), Fondecyt (CHILE national research agency), CIR (credit impot recherche) evaluation for French ministry of industry.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

- Licence: Florent Berthaut, Tableur et Programmation VBA, LEA L3 TCI (22h), Université Lille 3, France
- Licence: Frédéric Giraud, Physique pour le génie électrique (30h), Université Lille 1
- Master: Christophe Giraud-Audine: Control of electrical machines (30h), Power Electronics (30h), signal processing (30h), niveau M1, ENSAM, France
- Master: Florent Berthaut, Conception Web, LEA M1 TSM (16,5h) et LEA M1 RICHI (48h), Bases de données, LEA M1 ANI (22h), Université Lille 3, France
- Master : Frédéric Giraud, Control of electrical machines (30h), Power Electronics (40h) niveau M1, Université Lille1, France
- Master : Laurent Grisoni, NIHM : nouvelles Interactions Homme-Machine, (6h), niveau M2, Université Lille 1, France
- Master: Laurent Grisoni, représentation et compression de données (24h), introduction à la programmation (38h), cryptographie (8h), Ecole Polytech'lille (dept IMA)
- Master : Laurent Grisoni, IHM et Interface à Gestes, (24h), niveau M2 (IMA5), Polytech Lille, France

9.2.2. Supervision

- PhD in progress: Ehsan Enferad, Modélisation et Commande d'une Interface Tactile à Stimulation Hybride par Modulation de Friction et Retournement Temporel, nov. 2015, F. Giraud, C. Giraud-Audine
- Phd in progress: Cagan Arslan, Fusion de données pour l'interaction homme-machine, oct. 2015, L. Grisoni/J. Martinet
- Phd in progress: Farzan Kalantari, Interaction sur dispositif à retour tactile et kinesthésique, oct. 2014, L. Grisoni, F. Giraud
- PhD in progress: Sofiane Ghenna, Contrôle multimodal d'actuateurs piézo-électriques pour applications tactiles, F.Giraud, C.Giraud-Audine
- PhD in progress: Eric Vezzoli, oct 2013, B. Lemaire-Semail, F. Giraud
- PhD in progress: Wael ben Messaoud, Développement et contrôle d'un Stimulateur Tactile pour textures réelles, oct 2012, B. Lemaire-Semail, M.-A. Bueno
- Phd in progress: Hanae Rateau, l'interaction esquissée, oct. 2012, L. Grisoni
- Phd in progress: Nicolas Bremard, oct 2012, L. Grisoni/F. Aubert
- Phd in progress: Vincent Gouezou: L'architecte et ses outils, au travers de l'histoire et dans sa relation actuelle au numérique, oct. 2014, L. Grisoni 25% (with F. Vermandel, architect, Lille school of architecture)
- Phd in progress: Charlotte Planckeel, Le sens de la lacunae en archéologie de l'Âge du bronze, archéologie et outils numériques, L. Grisoni (25%, with A. Lehoerff, Lille 3, archeologist)

9.3. Popularization

9.3.1. Laurent Grisoni

Geste d'interaction, immersion, RV: une vue sur les enjeux, workshop VR/Rehabilitation, Tourcoing (imaginarium), mars 2015.

La réalité augmentée (sa réalité), Déjeuner technologiques du master Informatique de Lille 1, mars 2015

Dessin et Interaction (homme-machine), Journée épistémologie Sciences et Cultures du Visuel, Tourcoing (imaginarium), juin 2015

Situated Interaction and contemporary art, Journées scientifiques Inria, juin 2015, nancy

Hands on 3D Models (Virtual Reality and Physicality), 4th Sino-French Symposium on VR, Xi' An (Chine), aout 2015

Sketch and Human-Computer Interaction, invited talk at the LJK (Inria Rhones-Alpes), Nov 2015 and at the doctoral school of LACTH (Lille school of architecture) Nov. 2015

L'interaction en général, le geste et le tactile en particulier, Séminaire Inria/Euratechnologie, déc. 2015

9.3.2. Florent Berthaut

Reflets: a mixed-reality display for musical performances. Public demonstration for the Bristol Bright Night at the @Bristol Science Museum, September 2015, Bristol, UK

Mjolnir Team

9. Dissemination

9.1. Promoting scientific activities

9.1.1. Scientific events organisation

- **CHI** (ACM): Stéphane Huot (video previews co-chair)
- **UIST** (ACM): Stéphane Huot (video previews co-chair)
- **VIS** (IEEE): Fanny Chevalier (arts program co-chair)
- **IHM** (AFIHM): Stéphane Huot (*alt.IHM* co-chair)
- **RES#01**: Nicolas Roussel

9.1.2. Scientific events selection

Conference program committees:

- **UIST** (ACM): Géry Casiez
- **InfoVis** (IEEE): Fanny Chevalier
- **UbiComp** (ACM): Stéphane Huot
- **IHM** (AFIHM): Sylvain Malacria
- **MOCO**: Nicolas Roussel

Reviewing activities:

- **CHI** (ACM): Géry Casiez, Fanny Chevalier, Stéphane Huot, Sylvain Malacria, Thomas Pietrzak, Nicolas Roussel
- **UIST** (ACM): Alix Goguy, Stéphane Huot, Sylvain Malacria, Thomas Pietrzak, Nicolas Roussel
- **MobileHCI** (ACM): Sylvain Malacria
- **ITS** (ACM): Sylvain Malacria
- **VR** (IEEE): Stéphane Huot
- **NIME**: Stéphane Huot
- **ICMI** (ACM): Géry Casiez
- **IHM** (AFIHM): Géry Casiez, Fanny Chevalier, Nicolas Roussel

9.1.3. Journal

Editorial boards:

- *Journal d'Interaction Personne-Système* (AFIHM): Géry Casiez

Reviewing activities:

- *Transactions on Computer Human Interaction* (ACM): Sylvain Malacria, Thomas Pietrzak
- *Transactions on Visualization and Computer Graphics* (IEEE): Fanny Chevalier
- *Behaviour & Information Technology* (Taylor & Francis): Thomas Pietrzak

9.1.4. Scientific expertise

- *IDEX Université de Lille* project: Nicolas Roussel (strategic research council and writing committee member)
- PICOM competitiveness cluster: Nicolas Roussel (scientific board member)
- HAP2U startup: Nicolas Roussel (scientific board member)
- IRISA lab: Nicolas Roussel (scientific orientation committee member)
- Pictanovo: Nicolas Roussel (*Expériences Interactives* jury member)
- Agence Nationale de la Recherche (ANR): Fanny Chevalier (reviewer), Stéphane Huot (reviewer), Sylvain Malacria (reviewer), Thomas Pietrzak (reviewer)
- Aquitaine and Nord - Pas de Calais regions: Nicolas Roussel (reviewer)
- Délégation Régionale à la Recherche et à la Technologie Nord-Pas-de-Calais (DRRT): Fanny Chevalier (reviewer)

9.1.5. Research administration

For Inria:

- **Evaluation committee:** Nicolas Roussel (member)
- Gender equity and equality committee: Nicolas Roussel (member)
- Strategic orientation committee for the information system (COSS scientifique): Nicolas Roussel (member)
- International relations working group (COST-GTRI): Stéphane Huot (member)

For Inria Lille – Nord Europe:

- Scientific officer (délégué scientifique): Nicolas Roussel
- Technical development committee (CDT): Nicolas Roussel (member)
- Research jobs committee (CER): Nicolas Roussel (member)
- Support to researchers (accompagnement des chercheurs): Nicolas Roussel (adviser)
- Consultative committee (Comité de centre): Fanny Chevalier (member), Alix Goguy (member)
- Operational legal and ethical risk assessment committee (COERLE): Stéphane Huot (local correspondent)
- Activity reports (RAweb): Fanny Chevalier & Nicolas Roussel (local correspondents)

For the CRISAL lab of Univ. Lille 1:

- Laboratory council: Géry Casiez (elected member)

9.1.6. Learned societies

- Association Francophone d'Interaction Homme-Machine (AFIHM): Géry Casiez (board member, president), Stéphane Huot (board member and scientific council member), Thomas Pietrzak (board member)

9.1.7. Hiring committees

- Inria's eligibility jury for senior researcher positions (DR2): Nicolas Roussel
- Inria Lille's eligibility jury for junior researcher positions (CR2 & CR1): Stéphane Huot (vice-president)
- Univ. Lille 1's hiring committee for a Computer Science Professor position: Géry Casiez (president)
- Univ. Paris-Sud's hiring committee for a Computer Science Assistant Professor position: Géry Casiez (member), Fanny Chevalier (member)

9.2. Teaching, supervision, juries

9.2.1. Teaching

- DUT Informatique: Géry Casiez, *Algorithmique*, 80 hrs, 1st year, IUT A de Lille - Univ. Lille 1
- DUT Informatique: Géry Casiez, *Modélisation mathématique*, 14 hrs, 2nd year, IUT A de Lille - Univ. Lille 1
- DUT Informatique: Géry Casiez, *Projets*, 18 hrs, 2nd year, IUT A de Lille - Univ. Lille 1
- Licence Informatique: Thomas Pietrzak, *AEL : Automates et Langages*, 36 hrs, L3, Univ. Lille 1
- Licence Informatique: Thomas Pietrzak, *ASD : Algorithmes et Structures de Données*, 36 hrs, L3, Univ. Lille 1
- Master Informatique: Thomas Pietrzak (32 hrs), Nicolas Roussel (8 hrs), Sylvain Malacria (8 hrs), *IHM : Interaction Homme-Machine*, M1, Univ. Lille 1
- Master Informatique: Géry Casiez, *Multi-Touch Interaction*, 10 hrs, M1, Univ. Lille 1
- Master Informatique *Image Vision Interaction (IVI)*: Géry Casiez (16 hrs), Fanny Chevalier (16 hrs), Thomas Pietrzak (16 hrs), *NIHM : Nouvelles Interactions Homme-Machine*, M2, Univ. Lille 1
- Master: Thomas Pietrzak, *IHM et Interface à Gestes*, 12 hrs, IMA5 (M2 level), Polytech Lille
- Master: Géry Casiez (6 hrs), Thomas Pietrzak (10.5 hrs), *3DETech : 3D Digital Entertainment Technologies*, M2 level, Télécom Lille
- Master Sociologie *Réseaux Sociaux Numériques (RSN)* : Fanny Chevalier, *Statistiques et visualisation de données*, 8 hrs, M2, Univ. Lille 1
- Master Sociologie *Réseaux Sociaux Numériques (RSN)*: Fanny Chevalier, *Outils et Pratiques Numériques*, 6 hrs, M1, Univ. Lille 1
- Research Masters in Computer Science & HCID Masters (EIT ICT Labs European Master in Human-Computer Interaction and Design): Stéphane Huot, *Mixed Reality and Tangible Interaction*, 18 hrs, M2, Univ. Paris Sud
- Research Masters in Computer Science & HCID Masters (EIT ICT Labs European Master in Human-Computer Interaction and Design): Stéphane Huot, *Advanced Programming of Interactive Systems*, 13.5 hrs, M1 & M2, Univ. Paris Sud

9.2.2. Supervision

- PhD in progress: Thibault Raffailac, *Languages and system infrastructure for interaction*, started October 2015, advised by Stéphane Huot & Stéphane Ducasse
- PhD in progress: Amira Chalbi, *Comprendre et mieux concevoir les animations dans le contexte des interfaces graphiques*, started October 2014, advised by Nicolas Roussel & Fanny Chevalier
- PhD in progress: Alexandre Kouyoumdjian, *Multimodal selection of numerous moving targets in large visualization platforms: application to interactive molecular simulation*, started October 2013, advised by Stéphane Huot, Patrick Bourdot & Nicolas Ferey (in Saclay)
- PhD in progress: Alix Goguet, *Interacting between physical and digital tools*, started October 2013, advised by Géry Casiez
- PhD in progress: Andéol Evain, *BCI-based interactions*, started September 2013, advised by Anatole Lecuyer, Géry Casiez & Nicolas Roussel (in Rennes)
- PhD in progress: Oleksandr Zinenko, *Interactive code restructuring*, started September 2013, advised by Stéphane Huot & Cédric Bastoul (Université de Strasbourg)
- PhD in progress: Justin Mathew, *New visualization and interaction techniques for 3D spatial audio*, started June 2013, advised by Stéphane Huot & Brian Katz (in Saclay)
- PhD: Jonathan Aceituno, *Direct and expressive interaction on the desktop: increasing granularity, extent, and dimensionality*, Univ. Lille 1, defended in October 2015, advised by Nicolas Roussel

9.2.3. Juries

- Merwan Achibet (PhD, Université de Rennes): Géry Casiez, examiner
- Louis-Pierre Bergé (PhD, Université de Toulouse): Géry Casiez, reviewer
- Mohamed Ikbel Boulabiar (PhD, Université de Bretagne Sud): Géry Casiez, reviewer
- William Delamare (PhD, Université de Grenoble): Géry Casiez, reviewer
- Camille Fayollas (PhD, Université de Toulouse): Nicolas Roussel, reviewer
- Jérémy Frey (PhD, Université de Bordeaux): Nicolas Roussel, president
- Nazim Haouchine (PhD, Université Lille 1): Géry Casiez, president
- Leonhard Lichtschlag (PhD, RWTH Aachen University): Stéphane Huot, reviewer
- Gustavo Rovelo (PhD, Universitat Politècnica de València): Géry Casiez, reviewer
- Quentin Roy (PhD, Télécom ParisTech): Stéphane Huot, reviewer
- Matthias Schwaller (PhD, Université de Fribourg): Nicolas Roussel, reviewer
- Siju Wu (PhD, Université d'Evry): Géry Casiez, reviewer

9.3. Popularization

- “*L’onde de choc des attentats du 13 Novembre, jusque dans Wikipédia*” article published on Rue89’s Web site, December: Fanny Chevalier
- “*Data Visualization - Voir grand, petit à petit*”, talk at the Big Data day organized at EuraTechnologies, November: Fanny Chevalier
- “*Mouvement & Informatique*”, talk for **TEDx Valenciennes**, October: Nicolas Roussel
- “*Des ordinateurs et des Hommes - les défis de l’Interaction Homme-Machine*”, talk at Lycée César Baggio as part of Inria Lille’s “Chercheurs Itinérants” program, October: Stéphane Huot
- “*Adoiraccourcix : l’identification des doigts au service de raccourcis tactiles*”, talk at Lycée Thérèse d’Avila and Lycée Queneau during as part of Inria Lille’s “Chercheurs Itinérants” program, October: Alix Goguey
- “*J’étudie les relations homme-machine, posez-moi vos questions*”, Ask-me-anything article published on Rue89’s Web site, October: Fanny Chevalier
- “*La Recherche en Interaction Homme-Machine*”, talk at Rue89, October: Fanny Chevalier
- “*Recherche en Sciences du Numérique & Design*”, talk for **Lille Design** at EuraTechnologies, September: Nicolas Roussel
- “*Inria and its Lille – Nord Europe research center*”, talk as part of the press visit organized for the ICML conference, July: Nicolas Roussel
- “*Mieux explorer pour mieux raisonner - la visualisation interactive au service du savoir-faire de l’analyse*”, talk at EuraTechnologie, July: Fanny Chevalier
- “*Des ordinateurs et des Hommes - les défis de l’Interaction Homme-Machine*”, talk for the Centre de Vulgarisation de la Connaissance at Université Paris-Sud, January: Stéphane Huot