Activity Report 2016

Section Dissemination

CAIRN Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific Events Selection

9.1.1.1. General Chair, Scientific Chair

E. Casseau was General Co-Chair of DASIP, Conference on Design and Architectures for Signal and Image Processing, October 12-14, 2016.

S. Derrien was Co-Chair of WRC, 10th HiPEAC Workshop on Reconfigurable Computing, January 18-20, 2016 (co-located with HiPEAC 2016).

T. Yuki was Co-Chair of IMPACT, 6th International Workshop on Polyhedral Compilation Techniques, January 18-20, 2016 (co-located with HiPEAC 2016).

9.1.1.2. Chair of Conference Program Committees

O. Sentieys was Track Chair at IEEE NEWCAS.

9.1.1.3. Member of the Conference Program Committees

D. Chillet was member of the technical program committee of HiPEAC RAPIDO, HiPEAC WRC, MCSoC, DCIS, ComPAS, DASIP, LP-EMS, ARC.

S. Derrien was a member of technical program committee of IEEE FPL and ARC conferences and of WRC and Impact workshops.

O. Sentieys was a member of technical program committee of IEEE/ACM DATE, IEEE FPL, ACM ENSSys, ACM SBCCI, IEEE ReConFig, CROWNCOM, FSP, FPGA4GPC.

T. Yuki was a member of technical program committee of SC'16, The International Conference for High Performance Computing, Networking, Storage and Analysis.

9.1.2. Journal

9.1.2.1. Member of the Editorial Boards

D. Chillet is member of the Editor Board of Journal of Real-Time Image Processing (JRTIP).

O. Sentieys is member of the editorial board of Journal of Low Power Electronics and International Journal of Distributed Sensor Networks.

A. Tisserand is Associate Editor of IEEE Transactions on Computers. He is a member of the editorial board of the International Journal of High Performance Systems Architecture, Inderscience.

9.1.3. Invited Talks

O. Sentieys gave an invited talk at FETCH (École d'hiver Francophone sur les Technologies de Conception des Systèmes embarqués Hétérogènes), Villard-de-Lans, France, in January 2016 on "Approximate Computing and Flexible Circuits for the IoT".

T. Yuki gave a half-day lecture at EJCP 2016, École Jeunes Chercheurs en Programmation, Lille.

T. Yuki gave an invited talk at University of Arizona in June 2016 on "Optimizing Compilers in High-Level Synthesis".

9.1.4. Leadership within the Scientific Community

D. Chillet is member of the Board of Directors of Gretsi Association.

F. Charot, O. Sentieys and A. Tisserand are members of the steering committee of a CNRS spring school for graduate students on embedded systems architectures and associated design tools (ARCHI).

O. Sentieys and A. Tisserand are members of the steering committee of a CNRS spring school for graduate students on low-power design (ECOFAC).

A. Tisserand is co-organizer and president of scientific council of Seminar on Security of Embedded Electronic Systems (IRISA-DGA).

O. Sentieys is a member of the steering committee of the GDR SOC-SIP.

9.1.5. *Scientific Expertise*

O. Sentieys served as a jury member in the EDAA Outstanding Dissertations Award (ODA).

9.2. Teaching - Supervision - Juries

9.2.1. *Teaching*

E. Casseau: signal processing, 16h, ENSSAT (L3)

E. Casseau: low power design, 6h, ENSSAT (M1)

E. Casseau: real time design methodology, 24h, ENSSAT (M1)

E. Casseau: computer architecture, 36h, ENSSAT (M1)

E. Casseau: system on chip and verification, 10h, Master by Research (SISEA) and ENSSAT (M2)

E. Casseau: high level synthesis, 12h, Master by Research (SISEA) and ENSSAT (M2)

E. Casseau: advanced processor architectures, 25h, Univ. of Science and Tech. of Hanoi (M2)

S. Derrien: component and system synthesis, 20h, Master by Research (MRI ISTIC) (M2)

S. Derrien: computer architecture, 12h, ENS Rennes (L3)

S. Derrien: computer architecture, 24h, ISTIC(L3)

S. Derrien: introduction to operating systems, 8h, ISTIC(M1)

S. Derrien: embedded architectures, 48h, ISTIC(M1)

S. Derrien: high-level synthesis, 6h, ISTIC(M1)

S. Derrien: software engineering project, 40h, ISTIC(M1)

F. Charot: processor architecture, 25h Univ. of Science and Tech. of Hanoi (M1)

D. Chillet: embedded processor architecture, 20h, ENSSAT (M1)

D. Chillet: multimedia processor architectures, 24h, ENSSAT (M2)

D. Chillet: low-power digital CMOS circuits, 6h, Telecom Bretagne (M2)

C. Killian: digital electronics, 62h, IUT Lannion (L1)

C. Killian: signal processing, 36h, IUT Lannion (L2)

C. Killian: automated measurements, 56h, IUT Lannion (L2)

C. Killian: measurement chain, 35h, IUT Lannion (L2)

C. Killian: embedded systems programming, 12h, IUT Lannion (L2)

C. Killian: automatic control, 9h, IUT Lannion (L2)

A. Kritikakou: computer architecture 1, 50h, ISTIC, Univ. Rennes 1 (L3)

A. Kritikakou: computer architecture 2, 50h, ISTIC, Univ. Rennes 1 (L3)

A. Kritikakou: operating systems 1, 24h, ISTIC, Univ. Rennes 1 (L3)

A. Kritikakou: operating systems 2, 64h, ISTIC, Univ. Rennes 1 (L3)

A. Kritikakou: multitasking operating systems, 45h, ISTIC, Univ. Rennes 1 (M1)

O. Sentieys: digital signal processing, 40h, ENSSAT (M1)

O. Sentieys: VLSI integrated circuit design, 40h, ENSSAT(M1)

O. Sentieys: high level synthesis, 16h, Master by Research (SISEA) and ENSSAT (M2)

A. Tisserand: multiprocessor architectures, 20h, ENSSAT and Master by Research (SISEA) (M2)

C. Wolinski: computer architectures, 92h, ESIR (L3)

C. Wolinski: design of embedded systems, 48h, ESIR (M1)

C. Wolinski: signal, image, architecture, 26h, ESIR (M1)

C. Wolinski: programmable architectures, 10h, ESIR (M1)

C. Wolinski: component and system synthesis, 10h, Master by Research (MRI ISTIC) (M2)

9.2.2. Teaching Responsibilities

C. Wolinski is the Director of ESIR.
S. Derrien is the responsible of the first year of the Master of Computer Science at ISTIC since Sep. 2012.
O. Sentieys is responsible of the "Embedded Systems" major of the SISEA Master by Research.
D. Chillet is the responsible of the ICT Master of University of Science and Technology of Hanoi.
C. Killian is the responsible of the second year of the Physical Measurement DUT at IUT of Lannion.

ENSSAT stands for *"École Nationale Supérieure des Sciences Appliquées et de Technologie"* and is an *"École d'Ingénieurs"* of the University of Rennes 1, located in Lannion.
ISTIC is the Electrical Engineering and Computer Science Department of the University of Rennes 1.
ESIR stands for *"École supérieure d'ingénieur de Rennes"* and is an *"École d'Ingénieurs"* of the University of Rennes 1, located in Rennes.

9.2.3. Supervision

PhD: Florent Berthier, Study and Design of an Ultra Low Power Asynchronous Core for Sensor Networks, Dec. 2016, O. Sentieys, E. Beigne.

PhD: Ali Hassan El-Moussawi, Performance/Accuracy Trade-Off in Automatic Parallelization for Embedded Many-Core Platforms, Dec. 2016, S. Derrien.

PhD: Jérémie Métairie, Reconfigurable Arithmetic Units for Secure Cryptoprocessors, May 2016, A. Tisserand, E. Casseau.

PhD in progress: Benjamin Barrois, Approximate Computing: a New Paradigm for Energy-Efficient Computing Architectures, Oct. 2014, O. Sentieys.

PhD in progress: Franck Bucheron, Secure Virtualization for Embedded Systems, Oct. 2011, A. Tisserand.

PhD in progress: Gaël Deest, Computing with Errors: Error-Tolerant Machine Code Generation for Unreliable Embedded Hardware, Oct. 2013, S. Derrien, O. Sentieys.

PhD in progress: Gabriel Gallin, Hardware Arithmetic Units and Crypto-Processor for Hyperelliptic Curves Cryptography, Oct. 2014, A. Tisserand.

PhD in progress: Aymen Gammoudi, New Visual Adaptive Real-Time OS for Embedded Multi-Core Architecture, Oct. 2015, D. Chillet, M.Khalgui.

PhD in progress: Mael Gueguen, Improving the performance and energy efficiency of complex heterogeneous manycore architectures with on-chip data mining, Nov. 2016, O. Sentieys, A. Termier.

PhD in progress: Xuan Chien Le, Indirect Monitoring in Self-Powered Wireless Sensor Networks for Smart Grid and Building Automation, Oct. 2013, O. Sentieys, B. Vrigneau.

PhD in progress: Audrey Lucas, Software support resistant to passive and active attacks for asymmetric cryptography on (very) small computation cores, Jan. 2016, A. Tisserand.

PhD in progress: Jiating, Luo, Communication protocol exploration in the context of 3D integration of multiprocessors interconnected by Optical Network-on-Chip with energy constraints, Nov. 2014, D. Chillet, C. Killian, S. Le-Beux.

PhD in progress: Genevieve Ndour, Approximate Computing with High Energy Efficiency for Internet of Things Applications, Apr. 2016, A. Tisserand, A. Molnos (CEA LETI).

PhD in progress: Joel Ortiz Sosa, Study and design of a digital baseband transceiver for wireless network-on-chip architectures, Nov. 2016, O. Sentieys, C. Roland (Lab-STICC).

PhD in progress: Kleanthis Papachatzopoulos, Predictable and fault-tolerant multicore architecture, Oct. 2016, A. Kritikakou, O. Sentieys.

PhD in progress: Tara Petric, Approximate@runtime: Playing with accuracy at run-time for low-power flexible circuits in IoT nodes, Nov. 2016, T. Yuki, O. Sentieys.

PhD in progress: Van Dung Pham, Design space exploration in the context of 3D integration of multiprocessors interconnected by Optical Network-on-Chip, Dec 2014, O. Sentieys, D. Chillet, C. Killian, S. Le-Beux.

PhD in progress: Rafail Psiakis, A Self-Healing Reconfigurable Accelerator Structure for Fault-Tolerant Multi-Cores, Oct. 2015, A. Kritikakou, O. Sentieys.

PhD in progress: Rengarajan Ragavan, Ultra-Low Power Reconfigurable Architectures for Computing and Control in Wireless Sensor Networks, Oct. 2013, O. Sentieys, C. Killian.

PhD in progress: Simon Rokicki, Hybrid Hardware/Software Dynamic Compilation for Adaptive Embedded Systems, Oct. 2015, S. Derrien.

PhD in progress: Baptiste Roux, Architectural Exploration of a Low-Power Flexible Radio Embedded on Drones, Oct. 2014, O. Sentieys, M. Gautier.

PhD in progress: Nicolas Roux, Sensor-aided Non-Intrusive Appliance Load Monitoring: Detecting Activity of Devices through Low-Cost Wireless Sensors, Oct. 2016, O. Sentieys, B. Vrigneau.

PhD in progress: Mai-Thanh Tran, Hardware Synthesis of Flexible and Reconfigurable Radio from High-Level Language Dedicated to Physical Layer of Wireless Systems, Oct. 2013, E. Casseau, M. Gautier.

CELTIQUE Project-Team

6. Dissemination

6.1. Promoting Scientific Activities

6.1.1. Scientific Events Organisation

6.1.1.1. General Chair, Scientific Chair

- PLMW@SPLASH 2016 (Programming Languages Mentoring Workshop) was chaired by Sandrine Blazy and Ulrik Prag-Schultz
- CoqPL 2017 (International Workshop on Coq for PL) was chaired by Sandrine Blazy and Emilio Jesus Gallego Arias

6.1.1.2. Member of the Organizing Committees

- JFLA 2016 (Journées Francophones des Langages Applicatifs) was locally organized by Julien Signoles and Alan Schmitt

6.1.2. Scientific Events Selection

6.1.2.1. Chair of Conference Program Committees

- VSTTE 2016 (Verified Software: Theories, Tools, and Experiments) was chaired by Sandrine Blazy and Marsha Chechik

6.1.2.2. Member of the Conference Program Committees

- CoqPL 2017 (International Workshop on Coq for PL) : Sandrine Blazy
- CPP 2017 (ACM SIGPLAN Conference on Certified Programs and Proofs) : Delphine Demange
- POPL 2017 (Symposium on Principles of Programming Languages) : Delphine Demange (External Program Committee)
- ESOP 2017 (European Symposium on Programming) : David Pichardie
- CC 2017 (International Conference on Compiler Construction) : David Pichardie
- IFL 2016 (International symposium on Implementation and application of Functional Languages) : Sandrine Blazy
- APLAS 2016 (Asian Symposium on Programming Languages and Systems) : Sandrine Blazy
- VSTTE 2016 (Verified Software: Theories, Tools, and Experiments) : Sandrine Blazy, Frédéric Besson
- GPCE 2016 (Generative Programming: Concepts & Experiences) : Sandrine Blazy
- DS@STAF 2016 (Doctoral Symposium) : Sandrine Blazy
- CPP 2016 (Certified Proofs and Programs) : Sandrine Blazy
- HaTT 2016 (International Workshop - Hammers for Type Theories) : Frédéric Besson
- AFADL 2016 (Approches Formelles dans l'Assistance au Développement de Logiciels) : Sandrine Blazy
- iFM 2016 (International Conference on integrated Formal Methods) : Delphine Demange
- FTfJP 2016 (Workshop on Formal Techniques for Java-like Programs) : Delphine Demange
- IFIP SEC 2016 (31st International Conference on ICT Systems Security and Privacy) : Thomas Jensen

6.1.2.3. Reviewer

- POPL 2017 (Symposium on Principles of Programming Languages): Alan Schmitt

- ESOP 2017 (European Symposium on Programming): Alan Schmitt
- VMCAI 2017 (International Conference on Verification, Model Checking, and Abstract Interpretation) : Delphine Demange

6.1.3. Journal

6.1.3.1. Reviewer - Reviewing Activities

- Journal of Software Evolution and Process: Sandrine Blazy
- International Journal of Computer Mathematics: Alan Schmitt
- Science of Computer Programming: Alan Schmitt

6.1.4. Invited Talks

- Journées nationales 2016 GDR Informatique Mathématique : Delphine Demange

6.1.5. Leadership within the Scientific Community

- Thomas Jensen is director of the Department NUMERIC of informatics, mathematics and electrical engineering at University Bretagne Loire.
- Thomas Jensen is leader of the security track of the LABEX Comin Labs.

6.1.6. Scientific Expertise

- Sandrine Blazy: expertise of 1 ANR project.
- Thomas Jensen: expertise of full project proposals for the ANR.

6.1.7. Research Administration

- Sandrine Blazy is member of Section 6 of the national committee for scientific research CoNRS from Sept. 2016.
- Sandrine Blazy is coordinator of the LTP (Languages, Types, Proofs) group of the French GDR GPL.

6.2. Teaching - Supervision - Juries

6.2.1. Teaching

Licence : Sandrine Blazy, Functional programming, 30h, L3, Université Rennes 1, France

Licence: Delphine Demange, Software Engineering, 40h, L2, Université de Rennes 1, France

Licence: Delphine Demange, Functional Programming, 75h, L1, Université de Rennes 1, France

Licence: Thomas Genet, Software Engineering, 58h, L2, Université de Rennes 1 / Istic, France

Licence : Alan Schmitt, Programmation Fonctionnelle, 72h (2 semestres), L3, Insa Rennes, France

Licence : David Pichardie, Algorithms, 36h, L3, ENS Rennes, France

Licence : David Cachera, Logic, 36h, L3, ENS Rennes, France

Master : Sandrine Blazy, Méthodes Formelles pour le développement de logiciels sûrs, 53h, M1, Université Rennes 1, France

Master : Thomas Genet, Formal Design and Verification, 108h, M1, Université de Rennes 1 / Istic, France

Master : Thomas Genet, Cryptographic Protocols, 24h, M2, Université de Rennes 1 / Istic, France

Master : David Pichardie, Mechanized Semantics, 15h, M2, Université Rennes 1, France

Master : Sandrine Blazy, Mechanized Semantics, 15h, M2, Université Rennes 1, France

Master : Sandrine Blazy, Semantics, 24h, M1, Université Rennes 1, France

Master : David Cachera, Semantics, 24h, M1, Université Rennes 1, France

Master : Sandrine Blazy, Software vulnerabilities, 20h, M2, Université Rennes 1, France

Master : Delphine Demange, Software Security, 9h, M2, Université Rennes 1, France

Master : Thomas Jensen, Program analysis and Software Security, 36h, M2, Université Rennes 1, France.

6.2.2. Supervision

PhD in progress : Alexandre Dang, Compiler for security, Octobre 2016, Thomas Jensen and Frédéric Besson

PhD in progress : Julien Lepiller, Binary Validation of Software Fault Isolation, Octobre 2016, Thomas Jensen and Frédéric Besson

PhD in progress : Gurvan Cabon, Analyse non locale certifiée en JavaScript grâce à une sémantique annotée, 1st september 2015, Alan Schmitt

PhD in progress : Florent Saudel, Vulnerability discovery, November 2015, Sandrine Blazy, Frédéric Besson and Dimitri Kirchner (Amossys)

PhD in progress : Alix Trieu, Formally verified compilation and static analysis, January 2016, Sandrine Blazy and David Pichardie

PhD in progress: David Bühler, Communication between analyses by deductive verification and abstract interpretation, November 2013, Sandrine Blazy and Boris Yakobowski (CEA)

PhD in progress : Yon Fernandez De Retana, Verified Optimising Compiler for high-level languages, 1st september 2015, David Pichardie and Delphine Demange

PhD in progress : Yannick Zakowski, Programs Logics for Concurrency, 1st september 2014, David Pichardie and David Cachera

PhD in progress : Oana Andreescu, Static analysis of functional specifications, 1st September 2013, Thomas Jensen, Stéphane Lescuyer (Prove & Run)

PhD in progress: Pauline Bolignano, Modeling and abstraction of system software, 1st November 2013, Thomas Jensen, Vincent Silés (Prove & Run)

Pierre Wilke, Formally verified compilation of low-level C code, Sandrine Blazy and Frédéric Besson, defended Nov 2016

Martin Bodin, Certified Analyses of JavaScript, Thomas Jensen and Alan Schmitt, defended Nov 2016

6.2.3. Juries

Sandrine Blazy, jury member (reviewer) for the PhD defense of Stefania Dumbrava, December 2016, Paris-Sud University, France

Sandrine Blazy, jury member (reviewer) for the PhD defense of Léon Gondelman, December 2016, Paris-Sud University, France

Sandrine Blazy, jury member (president) for the PhD defense of Thomas Degueule, December 2016, Rennes 1 University, France

Sandrine Blazy, jury member (president) for the PhD defense of Arjun Suresh, May 2016, Rennes 1 University, France

Sandrine Blazy, jury member for the selection of Inria CR (researcher) candidates, March and April 2016, Inria, Saclay, France.

Sandrine Blazy, jury member for the selection of a professeur at University of Perpignan, May 2016, Perpignan, France.

Alan Schmitt, jury member for the selection of Inria CR (researcher) candidates, March and April 2016, Inria, Rennes, France.

Delphine Demange, jury member for the selection of a Maître de Conférences at University Paris Diderot (Paris 7) / IRIF, May 2016, Paris, France.

Alan Schmitt, jury member (reviewer) for the PhD defense of Régis Spadotti, May 2016, Université Toulouse III

Alan Schmitt, jury member (reviewer) for the HDR defense of Nicolas Tabareau, November 2016, Université de Nantes

Thomas Jensen, jury member (reviewer) for the PhD defense of Denis Martinez, February 2016, Université de Montpellier

Thomas Jensen, jury member for the PhD defense of Oliver Schwarz, October 2016, KTH, Stockholm, Sweden

Thomas Jensen, jury member (reviewer) for the PhD defense of Rabah Laouadi, December 2016, Université de Montpellier

David Pichardie, jury member for the PhD defense of Jacques-Henri Jourdan, May 2016, Université de Paris Diderot

6.3. Popularization

Talk "Bug, Virus, Intrusion, Pirates... So many threats and no defense? Yes... maths.", Thomas Genet, given three times in high schools close to Rennes.

<h2 style="color:red; text-align:center">HYCOMES Project-Team</h2>

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific Events Selection

9.1.1.1. Member of the Conference Program Committees

Benoî Caillaud has served on the program committee of ACSD 2016 (http://acsd2016.mat.umk.pl), a conference on the applications of concurrency in system design. He is a member of the steering committe of ACSD since 2006.

9.1.1.2. Reviewer

Benoît Caillaud has reviewed papers submitted to the ACSD 2016 and ACC 2016 conferences.

Khalil Ghorbal reviewed two regular research papers for the Hybrid Systems: Computation and Control Conference.

Khalil Ghorbal reviewed two journal papers for the IEEE Transactions on Automatic Control.

Khalil Ghorbal reviewed a journal paper for the Computer Journal (Oxford Journals, Science and Mathematics).

Khalil Ghorbal reviewed a journal paper for the Information and Computation journal (Elsevier).

9.1.2. Invited Talks

Benoît Caillaud has given an invited talk on *Time Domains in Hybrid Systems Modeling* at the SHARC 2016 workshop and ALROB meetingthat took place in Brest in June 2016 (http://lab-sticc.univ-brest.fr/~goulven/sharc2016/program/index.html).

In May 13, 2016, Khalil Ghorbal gave an invited talk about the invariant generation for polynomial ordinary differential equations during the Effective Algebraic Geometry Seminar, IRMAR, Rennes, France.

In May 23, 2016, Ayman Aljarbouh presented a talk at the Embassy of Sweden in Tokyo for the first Japanese Modelica Conference (MODELICA2016), May 23-24, 2016, Tokyo, JAPAN.

In July 2016, Ayman Aljarbouh presented a poster during the French-American Doctoral Exchange Seminar (FADEx) 2016: Systèmes Cyber-Physiques, July 04-08, 2016, Grenoble, FRANCE.

In November, 5-12, Albert Benveniste was invited at the Systems Research Center, a center of excellence of the University of Maryland at College Park, USA.

9.1.3. Research Administration

Benoît Caillaud is head of the *Languages and Software Engineering* department of IRISA (http://www.irisa.fr/en/departments/d4-language-and-software-engineering). He has been in charge of presenting the departement during the evaluation seminar of IRISA by HCERES in January 2016.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Master : Benoît Caillaud is teaching with Marc Pouzet a first year master degree course on *hybrid systems modeling*. The course is open to the students registered to the computer science research and innovation curriculum of the university of Rennes 1 and ENS Rennes, France.

Master : Khalil Ghorbal was "Chargé de TD" (20h Eq TD) for the "Analyse et Conception Formelles" module open for students registered to the computer science master degree of the university of Rennes 1 and ENS Rennes, France.

9.2.2. Supervision

PhD in progress : Ayman Aljarbouh, *Accelerated Simulation of Hybrid Systems*, started january 2014, supervised by Benoît Caillaud. Ayman Aljarbouh is expected to defend his PhD in MArch 2017.

9.2.3. Juries

Khalil Ghorbal was reviewer in the PhD defense committee of Sameh Mohamed, "Une Méthode Topologique pour la Recherche d'Ensembles Invariants de Systèmes Continus et á Commutation", defended in October 17th, 2016, Univ. Paris Saclay (ENS Cachan).

PACAP Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events Organisation

10.1.1.1. Member of the Organizing Committees

A. Seznec is member of the ACM/IEEE PACT conference steering committee.

A. Seznec is member of the ACM/IEEE ISCA symposium steering committee.

10.1.2. Scientific Events Selection

10.1.2.1. Chair of Conference Program Committees

Isabelle Puaut is Program Chair of the 2017 IEEE Real-Time Systems Symposium (RTSS).

A. Seznec was PC chair of the 2016 ACM/IEEE ISCA symposium.

10.1.2.2. Member of the Conference Program Committees

Isabelle Puaut is member of the program committees of the Euromicro Conference on Real Time Systems (ECRTS) 2016 and 2017, the IEEE Real-Time Systems Symposium (RTSS) 2016, the IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS) 2017 and the WCET workshop 2016.

A. Seznec is a member of IEEE Micro 2017 Top Picks selection committee.

A. Seznec was a member of the SAMOS 2016 conference program committee.

Damien Hardy was a member of RTNS 2016 and WCET 2016 program committees.

Pierre Michaud was a member of the program committees of the HPCA 2017 conference and of the 5th JILP Workshop on Computer Architecture Competitions (JWAC-5).

Sylvain Collange was PC member of ISCA 2016 and of Compas'2016.

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

Isabelle Puaut is Associate Editor for IEEE Transactions on Computers (IEEE TC).

A. Seznec is a member of the editorial boards of IEEE Micro and ACM Transactions on Architecture and Compiler Optimization.

10.1.4. Invited Talks

Damien Hardy was invited to give a tutorial on Heptane at Tutor16 (1st Tutorial on Tools for Real-Time Systems) in conjunction with the Cyber-Physical Systems week 2016.

Damien Hardy was invited from August 31st to September 2nd at the Barcelona Supercomputing Center group. He presented an invited talk.

A. Seznec presented invited talks at Intel Bangalore (compressed caches, branch prediction, value prediction) in Sept. 2016.

A . Seznec presented the PACAP work on compressed caches at the ARM research summit in Sept. 2016.

A. Seznec presented the PACAP work on compressed caches and register equality prediction at the Intel low latency ISRA workshop in Dec. 2016.

10.1.5. Scientific Expertise

Erven Rohou was an expert for the ANR review process.

10.1.6. Research Administration

Isabelle Puaut is responsible of Short Term Scientific Missions (STSM) withing the European COST action Tacle (Timing Analysis at Code LEvel) (http://www.tacle.eu).

Isabelle Puaut is member of the steering committee of RTNS (Real-Time Networks and Systems).

Isabelle Puaut is member of the steering committee of the Worst Case Execution Time (WCET) workshop, held in conjunction with the Euromicro Conference on Real Time Systems (ECRTS).

Isabelle Puaut is member of the scientific council of University of Rennes 1.

Isabelle Puaut is member of the administration council of the computer science and electrical engineering department of University of Rennes 1.

A. Seznec is an elected member of the Administration Council of Inria.

Erven Rohou is a member of the Inria CDT (Commission du Développement Technologique).

As "correspondant scientifique des relations internationales" for Inria Rennes Bretagne Atlantique, Erven Rohou is a member of the Inria COST GTRI (Groupe de Travail "Relations Internationales" du Comité d'Orientation Scientifique et Technologique).

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Master: Isabelle Puaut, Operating systems, 1st year of master, total of 110 hours

Master: Isabelle Puaut, Damien Hardy, Real-time systems, 1st year of master, total of 58 hours

Master: Isabelle Puaut, Erven Rohou, Writing of scientific publications, 2nd year of master and PhD students, total of 24 hours

Licence: Damien Hardy, Real-time systems, L3 Université de Rennes I, total of 60 hours

Master: Damien Hardy, Operating systems, M2 Université de Rennes I, total of 60 hours

Master: Damien Hardy, Operating systems, M1 Université de Rennes I, total of 60 hours

Master: S. Collange, Programmation parallèle, 22 hours, M1, Université de Rennes I, France

10.2.2. Supervision

PhD: Sajith Kalathingal, "Transforming TLP into DLP with the Dynamic Inter-Thread Vectorization Architecture", Université Rennes 1, Dec 2016, co-advisors S. Collange and A. Seznec

PhD: Aswinkumar Sridharan, "Adaptive and Intelligent Memory Systems", Université Rennes 1, Dec. 2016, advisor A. Seznec

PhD: Arjun Suresh, "Intercepting Functions for Memoization", Université Rennes 1, May 2016, co-advisors E. Rohou and A. Seznec

PhD in progress, Viet Anh Nguyen, Worst-Case Execution Time (WCET) Estimation for Many-core Architectures, started in january 2015. Supervised by Isabelle Puaut and Damien Hardy.

PhD in progress, Benjamin Rouxel, Code optimizations for WCET calculation on many-core platforms, started in october 2015. Supervised by Isabelle Puaut and Steven Derrien from the CAIRN group.

PhD in progress: Nabil Hallou, Université Rennes 1, Feb 2013, co-advisors E. Rohou and P. Clauss (EPI Camus Inria Strasbourg)

PhD in progress: Andrea Mondelli, Université Rennes 1, Oct 2013, co-advisors P. Michaud and A. Seznec

PhD in progress: Rabab Bouziane, Université Rennes 1, Nov 2015, advisor E. Rohou and Abdoulaye Gamatié (LIRMM, Montpellier)

PhD in progress: Arif Ali Ana-Pparakkal, Université Rennes 1, Feb 2015, advisor E. Rohou

PhD in progress: Simon Rokicki, Université Rennes 1, Sep 2015, co-advisors E. Rohou and Steven Derrien (CAIRN)

PhD in progress: Kleovoulos, Kalitzidis, "Ultrawide Issue Superscalar Processors", Université Rennes 1, Dec. 2016, advisor A. Seznec

10.2.3. Juries

Isabelle Puaut was a member of the following committees:

- PhD: Pierre Wilke, Formally Verified Compilation of Low-Level C code, Université de Rennes 1, Nov 2016
- PhD: Guillaume Phavorin, Hard Real-Time Scheduling subjected to Cache-Related Preemption Delays, Université de Poitiers, Sep 2016 (rapporteur)
- PhD: Vincent Mussot, Automates d'annotation de flot pour l'expression et l'intégration de propriétés dans l'analyse de WCET, Université Paul Sabatier, Toulouse, Dec 2016 (rapporteur)
- HDR: Mathieu Jan, Contributions au paradigme par cadencement temporel (TT) et à l'embarquabilité des systèmes temps réel, Université Paris Sud, Dec 2016 (rapporteur)

Erven Rohou was a member of the following committees:

- PhD: Juan Manuel Martinez Caamano, Strasbourg
- PhD: Lénaïc Bagnères, Orsay
- PhD: Michele Scandale, Politecnico di Milano, Milan, Italy
- PhD: Amir Ashouri, Politecnico di Milano, Milan, Italy
- PhD: Sébastien Martinez, Télécom Bretagne, Brest
- PhD: Reem ElKhouly, Egypt-Japan University of Science and Technology, Alexandrie, Egypt

10.2.3.1. Assistant professor hiring committees

Isabelle Puaut: University of Toulouse (computer architecture and real-time systems)

Isabelle Puaut: University of Chalmers, Sweden (real-time systems)

10.2.3.2. Professor hiring committee:

Isabelle Puaut: UBO (Université de Bretagne Occidentale) - real-time systems

10.3. Popularization

Erven Rohou discussed the research axes of the team in the "émergences" newsletter http://emergences.inria.fr/2016/newsletter_n43/L42-PACAP.

Nicolas Kiss, Damien Hardy and Erven Rohou presented a poster at the "Rencontres inter-UMRs-DGA", of the "Pôle d'excellence Cyber".

Erven Rohou and Isabelle Puaut presented a poster (with ANR W-SEPT colleagues) at "Les rencontres du numérique de l'ANR".

SUMO Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events Organisation

10.1.1.1. Member of the Organizing Committees

Hervé Marchand is member of the IFAC Technical Committees (TC 1.3 on Discrete Event and Hybrid Systems) since 2005. He is member of the steering committee of MSR (Modélisation de systèmes réactifs).

Thierry Jéron and Nicolas Markey are members of the steering committee of the european summer school MOVEP (Modélisation et Vérification des Systèmes Parallèles). Nicolas Markey was co-chair of the edition that took place in Genova in July 2016.

Thierry Jéron is member of the steering committee of FMF 2017 (Formal Methods Forum) held in Toulouse in January 2017.

10.1.2. Scientific Events Selection

10.1.2.1. Chair of Conference Program Committees

Éric Badouel was Chair of conference program committee of CARI 2016.

10.1.2.2. Member of the Conference Program Committees

Éric Badouel was a member of the programme committee of ATAED 2016.

Nathalie Bertrand served on the Program Committees of the international conferences STACS'16, TACAS'16, Concur'16 and QEST'16.

Loïc Hélouët was member of the program committees of ACSD 2016 (Approaches of Concurrency for Systems Design) and SAM 2016 (System Analysis and Modeling).

Thierry Jéron served on the Program Committees of the following international conferences: ICTSS'16, RV'16, SAC-SVT 2017.

10.1.2.3. Reviewer

Nicolas Markey was reviewer for STACS 2017 and AAAI 2017.

Éric Badouel was reviewer for LICS 2016, VeCos 2016, CARI 2016, TACAS 2016, and ATAED 2016.

Loïc Hélouët was reviewer for SAM'2016, ACSD'2016, DNS'2016, STACS'2016, and ICTAC'2016

Thierry Jéron was reviewer for IEEE CASE & ISAM, CONCUR'16.

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

Éric Badouel is co-Editor-in-Chief of ARIMA Journal (https://arima.episciences.org/).

10.1.3.2. Reviewer - Reviewing Activities

Éric Fabre was reviewer for IEEE TAC, Automatica, JDEDS, CDC, and JONS.

Hervé Marchand was reviewer for JDEDS and Automatica.

Nathalie Bertrand was reviewer for JACM and JCSS.

Nicolas Markey was reviewer for FMSD and TCS.

Éric Badouel was reviewer for Fundamenta Informaticae and Mathematical review-AMS (MathSciNet).

Loïc Hélouët was reviewer for FAOC, TCS, TECS and Fundamenta Informaticae. He also served as reviewer for Mathematical review-AMS (MathSciNet).

Thierry Jéron was reviewer for FAOC and TECS.

10.1.4. Invited Talks

Nathalie Bertrand was invited speaker at MFPS international conference, and gave a lecture at MOVEP summer school.

Éric Badouel was invited speaker at VeCos 2016.

10.1.5. Scientific Expertise

Thierry Jéron served for the expertise of ANR and ASTRID (ANR/DGA) projects.

10.1.6. Research Administration

Éric Fabre is co-director, with Olivier Audouin, of the joint research lab of Nokia Bel Labs and Inria. He is member of the scientific board of the joint lab of Alstom Transport and Inria and member of the Bureau of the Scientific Board of Inria Rennes Bretagne Atlantique.

Hervé Marchand is chairman of the CUMI in Rennes.

Nathalie Bertrand is a nominated member of CNU27 (Conseil National des Universités, section 27).

Éric Badouel is co-director with Moussa Lo (UGB, Saint-Louis du Sénégal) of LIRIMA, the Inria International Lab for Africa. He is scientific officer for the African and Middle-East region at Inria European and International Partnerships Department and member of the executive board of GIS SARIMA.

Loïc Hélouët, Nathalie Bertrand and Ocan Sankur organize the weekly seminar 68NQRT at IRISA (40 talks each year).

Loïc Hélouët was elected representant of rank B researchers in the *Comité de Centre* of Inria Rennes. He is also part of the bureau of the *Comité de Centre*. He leads the P22 projects with Alstom transports and is responsible for Workpackage 2 of the Headwork ANR.

Thierry Jéron is Member Committee Substitute for COST IC1402 ARVI (Runtime Verification beyond Monitoring). He is member of the IFIP Working Group 10.2 on Embedded Systems. He is member of the COS Prospective of Irisa Rennes and member of the *Comité de Centre* of Inria Rennes. Since 2016 he is *référent chercheur* for the Inria Rennes research center.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Éric Fabre

> Master: "ASR: introduction to distributed systems and algorithms," 12h (eq. TD), M2, Univ. Rennes 1, France.
>
> Master: "Information theory", 30h (eq. TD), M1, Ecole Normale Superieure de Rennes, France.

Nathalie Bertrand

> Licence: "Algorithmics", 18h (eq. TD), L3, Univ. Rennes 1, France.
>
> Master: "Prépa. Agreg.", 40h (eq. TD), Ecole Normale Superieure de Rennes, France.

Loïc Hélouët

> Licence: JAVA and algorithmics, L2, 40h, INSA de Renne, France.
>
> Licence : practical studies (development of a small project), 8h, INSA de Renne, France.
>
> Master: "Prépa. Agreg.", 8h (eq. TD)+ mock exams, Ecole Normale Superieure de Rennes, France.

10.2.2. Supervision

- PhD in progress: Engel Lefaucheux, *Controlling information in Probabilistic Systems, Sept. 2015, Nathalie Bertrand, Serge Haddad (LSV, Cachan).*
- *PhD in progress: Karim Kecir,* Régulation et robustesse des systèmes ferroviaires urbains, May 2018, Loïc Hélouët and Pierre Dersin (Alstom).
- PhD in progress: The Anh Pham, *Dynamic Formal Verification of High Performance Runtimes and Applications, Nov. 2016, Thierry Jéron, Martin Quinson (Myriads, Inria Rennes).*
- *PhD in progress: Hugo Bazille,* Diagnosability and opacity analysis of large scale systems, Oct. 2016, Blaise Genest, Éric Fabre.
- PhD in progress: Sihem Cherrared, *Fault management in multi-tenant programmable networks, Oct. 2016, Éric Fabre, Gregor Goessler (Inria Grenoble), Sofiane Imadali (Orange Labs).*

10.2.3. Juries

Éric Fabre was reviewer in the PhD defense committee of Yoann Geoffroy, *A general framework for causality analysis based on traces, for composite systems*, Dec. 2016, Univ. Grenoble Alpes. He was also jury member for the Habilitation defense of Blaise Genest, *Taming Concurrency Using Representatives, March 2016, Univ. Rennes 1.*

Hervé Marchand was member of the PhD defences of Hassan Ibrahim, Analyse à base de SAT de la diagnosticabilité et de la prédictabilité des systèmes à événements discrets centralisés et distribués (Université Paris-Sud, Gif-sur-Yvette), December 2016 and of Toussaint Tigori, *Méthodes de génération d'exécutifs temps réel (Ecole centrale de Nantes, Nantes), in November 2016.*

Nicolas Markey was reviewer in the PhD defense committee of Thanh-Tung Tran (LaBRI; supervised by Igor Walukiewicz and Frédéric Herbreteau).

10.3. Popularization

Nathalie Bertrand gave an introductory talk on graph theory and its use to solve practical problems, to grad school students following the ISN (Introduction aux Sciences du Numérique) courses.

TAMIS Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events Organisation

10.1.1.1. General Chair, Scientific Chair

- Axel Legay has been the general chair for the 11th International Conference on Risks and Security of Internet and Systems

10.1.1.2. Member of Organizing Committees

- Axel Legay has been organizing the ICT-Energy Science Conference 2016.

10.1.2. Scientific Events Selection

10.1.2.1. Member of Conference Steering Committees

- Olivier Zendra is a founder and a member of the Steering Committee of ICOOOLPS (International Workshop on Implementation, Compilation, Optimization of OO Languages, Programs and Systems)

10.1.2.2. Chair of Conference Program Committees

- Axel Legay has been the chair for the 14'International Symposium on Automated Technology for Verification and Analysis

10.1.2.3. Member of Conference Program Committees

- Axel Legay has been PC member for ASE, MEMOCODE, FASE, RV, SPLC, FORMATS, FORMALIZE, SETTA,
- Jean-Louis Lanet has been PC member of Cardis 2016, 15th Smart Card Research and Advanced Application Conference, Crisis 2016 The Eleventh International Conference on Risks and Security of Internet and Systems CRiSIS 2016, GraMSec'16, The Third International Workshop on Graphical Models for Security, June 27th Lisbon, Portugal Ressi 2016, Rendez-Vous de la Recherche et de l'Enseignement de la Sécurité des Systèmes d'Information, Toulouse, France, Afadl2016, 15èmes Journées Francophones Internationales sur les Approches Formelles dans l'Assistance au Développement de Logiciels.
- Olivier Zendra has been PC member of PEC 2016 (International Conference on Pervasive and Embedded Computing)

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

- Axel Legay is a funder and member of the editorial board of "Foundations for Mastering Changes" journal.

10.1.3.2. Reviewer - Reviewing Activities

- Axel Legay has been reviewer for TCS, TSE, Information and Computation.

10.1.4. Invited Talks

- Axel Legay has been an invited speaker for the 10th International Workshop on Reachability Problems.
- Axel Legay has been an invited speaker for the ICT-Energy Science Conference 2016.
- The Wheel of Fault Injection, J.-L Lanet, Workshop Sertif, Grenoble, October 2016.

- Christian Grothoff. "Enabling Secure Web Payments with GNU Taler". Keynote at SPACE 2016 (December).

- Christian Grothoff. "Anonymous Payment Systems" at MAPPING Second General Assembly, Prague, 2016.

- Christian Grothoff. "Netzwerksicherheit: Probleme und Lösungsansätze" at NPO Kongress, Wien, 2016.

- Christian Grothoff. "The GNU Name System: A Public Key Infrastructure for Social Movements in the Age of Universal Surveillance" at Johns Hopkins University, Baltimore, USA, 2016.

- Christian Grothoff. "GNU Taler" at the Free Software Foundation Fellowship Meeting, Düsseldorf, 2016.

- Christian Grothoff. "The GNU Name System: A clean-slate solution to the DNS security and privacy nightmare" at Journée du Conseil scientifique de l'Afnic, Paris, 2016.

- Christian Grothoff. "GNU Taler: A privacy-preserving online payment system for libre society" at CubaConf, Havana, 2016.

- Jeffrey Burdges. "GNU Taler" at the Internet Freedom Festival, 2016.

- Jeffrey Burdges. Preliminary report "Xolotl A compact mixnet format with stronger forward secrecy and hybrid anonymity" at the GNU Hacker Meeting, 2016.

- Florian Dold presented "GNU Taler – Privacy preserving payments for the web" at the GNU Hacker Meeting, 2016.

- Jeffrey Burdges. Panel on "Privacy-preserving decentralization: what challenges are lying ahead?" at the ECRYPT 2016 Workshop on Strategic Research Challenges for Privacy Technologies.

- Christian Grothoff. Panel on "Innovation, Complexity, Risk and Trust" at MAPPING Second General Assembly, Prague, 2016.

10.1.5. Scientific Expertise

- Axel Legay is an expert for the Wallonie Government.

- Axel Legay is a member of Inria's evaluation committee. He participated to the CR2 and CR1 juries for Lille Center.

- Axel Legay has been in the jury for the chair on cyber security at CentralSupelec.

- Jeffrey Burdges, Christian Grothoff, and Florian Dold have been involved in the W3C Payments Working Group, primarily contributing security and privacy comments on their evolving standard.

- Olivier Zendra is a CIR expert for the MENESR.

- Olivier Zendra is a member of Inria's evaluation committee. He participated to the CR2 jury for Grenoble Center, to the national CR1 promotion jury, and to the workgroup on the creation of the PACAP team of Inria Rennes.

- Olivier Zendra is a member of the editorial board and co-author of the "HiPEAC Vision" [69]

10.1.6. Research Administration

- Axel Legay is a member of Inria's evaluation committee.

- Axel Legay is the Representative for non-permanent staff committees (in charge of postdocs).

- Olivier Zendra is a member of Inria's evaluation committee.

- Olivier Zendra was a member of Inria's Parity and Equal Opportunities committee.

- Olivier Zendra is a member of Inria's worksgroup on Inria's social barometer.

- Olivier Zendra was a member of Inria's CNHSCT.

- Olivier Zendra was Head of Inria Nancy's IES Committee (formerly IST).

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

- Master : Axel Legay, Introduction au Model Checking, 36, M2, Université de Bretagne Sud, France
- Master : Axel Legay, Introduction à l'analyse de risques, M2, Université de Bretagne Sud, France

10.2.2. Supervision

- PhD : Aymerick Savary, De la génération de suites de test à partir de modèles formels, University of Sherbrook and University of Limoges, 30th June 2016, Marc Frappier, Jean-Louis Lanet
- PhD : Tiana Razafindralambo, Attaques combinées sur appareil mobiles, University of Limoges, November 2016, Christophe Clavier, Jean-Louis Lanet
- PhD : Neal Walfield, Location prediction for context-aware applications, Johns Hopkins, 4th October 2016, Christian Grothoff
- PhD in progress : Kevin Bukasa, Démarrage sécurisé, 2015, Jean-Louis Lanet and Axel Legay
- PhD in progress : Mounir Chadli (Rennes 1), On Scheduling and SMC, December 2014, Axel Legay and Saddek Bensalem.
- PhD in progress : Olivier Descourbe, On Code Obfuscation, October 2016, Axel Legay and Fabrizio Biondi.
- PhD in progress : Mike Enescu, On Symbolic Execution for Malware Detection, October 2016, Axel Legay and Flavio Oquendo and Fabrizio Biondi.
- PhD in progress : Alexandre Gonsalvez, On Obfuscation via crypto primitives, April 2016, Axel Legay and Caroline Fontaine.
- PhD in progress : Nisrine Jafri (Rennes1), On fault Injection detection with MC of Binary code, December 2015, Axel Legay and Jean-Louis Lanet.
- PhD in progress : Razika Lounas, Validation des spécifications formelles de la mise à jour dynamique des applications Java Card, 2010, Mohamed Mezghiche and Jean-Louis Lanet
- PhD in progress : Aurélien Palisse, Observabilité de codes hostiles, 2015, Jean-Louis Lanet
- PhD in progress : Aurélien Trulla, Caractérisation de malware Android par suivi de flux d'information et nouvelles techniques d'évasion, 2016, Valerie Viet Triem Tong and Jean-Louis Lanet
- PhD in progress : Tristan Ninet (Rennes 1), Vérification formelle d'une implémentation de la pile protocolaire IKEv2, December 2016, Axel Legay, Romaric Maillard and Olivier Zendra

10.2.3. Juries

- Axel Legay has been a referee for the PhD defense of Najah Ben Said (University of Grenoble Alpes).
- Axel Legay has been a member of the jury for the PhD defense of Zaruhi Aslanyan (DTU Denmark).
- Jean-Louis Lanet has been a referee for the PhD defense of Pierre Belgarric (Télécom ParisTech).
- Jean-Louis Lanet has been a referee for the PhD defense of Louis Dureuil (University of Grenoble Alpes).
- Jean-Louis Lanet has been a referee for the PhD defense of Gabriel Risterucci (University of Aix Marseille).
- Jean-Louis Lanet has been a member of the jury for the PhD defense of Benoît Morgan (University of Toulouse).
- Jean-Louis Lanet has been a member of the jury for the PhD defense of Najah Ben Said (University of Grenoble Alpes).

- Olivier Zendra has been a co-referee for the PhD defense of Rabah Laouadi (University of Montpellier).

10.3. Popularization

- Vulnerability Prediction Against Fault Attacks , N. Jafri, A. Legay, J.-L. Lanet, Ercim news 106, 2016

- Skyfall : Tombé du ciel, J.-L. Lanet, Interstices, 2016 In this publication we revisit the movie Skyfall and explain on which scientific background rely some elements of the movie.

- FIC 2016 Internet des objets : la nouvelle fragilité ? We have been invited to participate at a panel with layers, IoT designer to discuss the security of the IoT.

- Atlantico, Et si les objets connectés étaient la plus grande faille qu'entreprises et particuliers pouvaient offrir aux hackers ? January 2016. In this interview we explain that the security is not the main concern of low end IoT, which is not the case with high end IoT.

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

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Leadership within the Scientific Community

Charlotte Truchet was elected in the ACP committee.

10.1.2. Research Administration

Preparation by the whole team of the two evaluations that respectively toke place in January 2016 (hceres evaluation) and in March 2016 (inria evaluation).

10.2. Teaching - Supervision - Juries

10.2.1. Supervision

PhD: Ignacio Salas Donoso, Packing curved objects with interval methods, Started in May 2013, PhD defense April 5 2016 with committee Luc Jaulin, Gilles Trombettoni, François Fages, see PhD thesis, Gilles Chabert and Nicolas Beldiceanu.

PhD in progress : Gilles Madi Wamba, Mixing constraint programming and behavioural models to manage energy consumption in data centre, October 2014, Nicolas Beldiceanu and Didier Lime.

PhD in progress : Alejandro Reyes Amaro, Toward autonomous parallel algorithms for constraint-based problems, October 2014, Eric Monfroy and Florian Richoux.

PhD in progress : Anicet Bart, Solving mixed constraints, application to the management of mobile sensors, October 2014, Eric Monfroy and Charlotte Truchet.

PhD in progress : Ekaterina Arafailova, Functional constraints, September 2015, Nicolas Beldiceanu and Rémi Douence.

PhD in progress : Nicolas Galvez, Hybrid Algorithms for Search Based Software Engineering, December 2014, Eric Monfroy with Frédéric Saubion from Angers University and C. Castro from UTFSM Valparaiso, Chili.

10.3. Popularization

- Maintenance of the global constraint catalogue.
- Illustrations of the volume II of the global constraint catalogue: 2000 figures.

<div align="center" style="color:red">

TEA Project-Team

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10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

10.1.1.1. General chair, scientific chair

Jean-Pierre Talpin served as General Chair and Finance Chair of the 14th. ACM-IEEE Conference on Methods and Models for System Design (MEMOCODE'16, IIT Kanpur, October 18-20.).

10.1.1.2. Member of the organizing committees

Jean-Pierre Talpin and Vania Joloboff co-organized the Shonan workshop on "Architecture-Centric Modeling, Analysis, and Verification of Cyber-Physical Systems" in collaboration with Toyota ITC and Denso, March 21-24.

Jean-Pierre Talpin is a member of the steering committee of the ACM-IEEE Conference on Methods and Models for System Design (MEMOCODE).

10.1.2. Scientific events selection

10.1.2.1. Member of the conference program committees

Jean-Pierre Talpin served the program committee of:
- ACVI'16, 3rd. Workshop on Architecture Centric Virtual Integration
- HLDVT'16, 18th. IEEE International High-Level Design Validation and Test Workshop
- ICESS'16, 13th. IEEE International Conference on Embedded Software and Systems
- IDEA'16, 2nd. International Workshop Integrating Data-flow, Embedded computing and Architecture
- LCTES'16, 19th. ACM SIGPLAN-SIGBED Conference on Languages, Compilers, and Tools for Embedded Systems
- MEMOCODE'16, 14th. ACM-IEEE Conference on Methods and Models for System Design
- SAC'16, 31st. ACM SIGAPP Symposium on Applied Computing
- SCOPES'16, 19th. International Workshop on Software and Compilers for Embedded Systems
- TASE'16, 10th. Theoretical Aspects of Software Engineering Conference

10.1.3. Journal

10.1.3.1. Member of the editorial boards

Jean-Pierre Talpin is Associate Editor with the ACM Transactions for Embedded Computing Systems (TECS), with the Springer journal on Frontiers of Computer Science (FCS) and with the EURASIP journal of embedded systems (JES).

10.1.3.2. reviewer

Jean-Pierre Talpin reviewed articles for Acta Informatica.

Thierry Gautier reviewed for Frontiers of Computer Science.

10.2. Teaching - Supervision - Juries

10.2.1. Invited talks

Vania Joloboff gave a talk in the series of the Distinguished Lecturers of the Computer Science and Engineering department at UC San Diego.

Jean-Pierre Talpin gave an invited presentation at the APAC 2016 Summit on Robotics at the HKSTP in Hong Kong https://www.apacinnosummit.net.

10.2.2. Supervision

Vania Joloboff supervised work of Master student Daian Yue that was selected in the joint program between ENS Rennes and ECNU.

Jean-Pierre Talpin is the supervisor of Simon Lunel's thesis on "*Timed contract algebras for correct by construction real-time system design*".

10.2.3. Juries

Jean-Pierre Talpin served as examiner for the Ph.D. Thesis defense of Fatma Jebali on "Formal Framework for modeling and Verifying Globally Asynchronous Locally Synchronous Systems", September 12., in Grenoble.

Jean-Pierre Talpin served as referee for the PhD. Thesis Defence of Amani Khecharem on "Une approche de méta-modélisation pour la représentation multi-vues des architectures hétérogènes embarqués", May 3., in Sophia Antipolis.

<p style="text-align:center;color:red;font-weight:bold;">ANJA Team</p>

7. Dissemination

7.1. Promoting Scientific Activities

7.1.1. Scientific Events Organisation

7.1.1.1. Member of the Organizing Committees

Bayesian workshop : Bayesian statistics applied to archaeology - May 2016 Nantes
Anne Philippe and Marie-Anne Vibet were main organizers.

7.1.2. Journal

Anne Philippe is an Associated editor of Computational Statistics and Data analysis
Jacques Lévy Véhel is associate editor of the journal « Fractals »

7.1.3. Invited Talks

Anne Philippe and Marie-Anne Vibet were invited to the Ibercrono conference, Barcelone Spain, October 2016
Anne Philippe was invited to ArcheoFoss, Cagliari Italy October 2016
Yue Huang gave a talk at the invited session of advanced SAR technologies at IEEE International Geoscience and Remote Sensing Symposium, Beijing Chine, 2016

7.1.4. Research Administration

Anne Philippe is a member of commits national du CNRS

7.2. Teaching - Supervision - Juries

7.2.1. Teaching

- Marie-Anne Vibet: Introduction to SAS software, Master 2 Ingénierie Mathématique, January and November 2016 (12hrs)
- Anne Philippe : Statistical inference, Master 1 Ingénierie Mathématique, Automne 2016 (24hrs)
- Anne Philippe : Bayesian statistics, Master 2 Ingénierie Mathématique, Automne 2016 (36hrs)

7.2.2. Supervision

- PhD in progress: Vytauté Pilipauskaité, supervised by Anne Philippe and Donatas Surgailis
- PhD in progress: Caroline Robet, supervised by Anne Philippe and Jacques Lévy-Véhel

7.2.3. Juries

Anne Philippe was in the jury of PhD theses :
- President of jury for Kaniav Canary
- Reporter and member of jury for Lilliam Urrego, Le Quyen Thieu

<center>**ASPI Project-Team**</center>

9. Dissemination

9.1. Promoting scientific activities

9.1.1. Scientific events organisation

As part of statistics semester of Labex Lebesgue, Valérie Monbet has co–organized the 3rd workshop on Stochastic Weather Generators, held in Vannes in May 2016. This workshop aimed at bringing together a wide range of researchers, practitioners, and graduate students whose work is related to the stochastic modelling of meteorological variables and stochastic weather generators. Stochastic weather generators give us ability to reliably predict climate-related risks by simulating sequences of daily weather and climate consistent with specific aspects of climate variability and change. The simulated sequences of meteorological variables (rainfall, wind, temperature,etc.) are typically used as inputs into complex environmental and ecosystem models. They have a wide range of applications in hydrology, agriculture and environmental management.

Within the programme *École d'été France Excellence* promoted by the French embassy in China, she has co–organized a two–weeks Summer School in Statistics, held in Rennes in June/July 2016. This initiative has offered Chinese students the opportunity to attend graduate courses in statistics, including practical and seminar sessions.

9.1.2. Participation in workshops, seminars, lectures, etc.

In addition to presentations with a publication in the proceedings, which are listed at the end of the document, members of ASPI have also given the following presentations.

Frédéric Cérou has given an invited talk on the convergence of adaptive multilevel splitting at the RESIM 2016 workshop held in Eindhoven in March/April 2016. He has given, jointly with Mathias Rousset, a talk on a central limit theorem for adaptive multilevel splitting at the 2nd meeting on Adaptive Multilevel Splitting and Rare Events, an event of the MSMath ERC project held at CERMICS in Marne–la–Vallée, in June 2016.

Patrick Héas has given a talk on learning geophysical systems from images, at the seminar of ENS Rennes, in April 2016, and a talk on reduced modeling from partial observations, at the SIAM conference on Uncertainty Quantification, held in Lausanne, in April 2016.

François Le Gland has given a talk on marginalization for rare event simulation in switching diffusions at the RESIM 2016 workshop held in Eindhoven in March/April 2016, and at the probability and statistics seminar of LJK (laboratoire Jean Kuntzmann) in Grenoble, in June 2016.

Valérie Monbet has given a talk on time varying autoregressive models for multisite weather generators at the 3rd workshop on Stochastic Weather Generators, held in Vannes in May 2016. She has also given given a series of three lectures (including a lab session) at the *École d'été France Excellence*Summer School in Statistics, held in Rennes in June/July 2016.

9.1.3. Research administration

François Le Gland is a member of the *conseil d'UFR* of the department of mathematics of université de Rennes 1. He is also a member of the *conseil scientifique* for the EDF/Inria scientific partnership.

Valérie Monbet is a member of both the *comité de direction* and the *conseil* of IRMAR (institut de recherche mathématiques de Rennes, UMR 6625). She is also the deputy head of the department of mathematics of université de Rennes 1, where she is a member of both the *conseil scientifique* and the *conseil d'UFR*.

9.2. Teaching, supervision, thesis committees

9.2.1. Teaching

Patrick Héas gives a course on Monte Carlo simulation methods in image analysis at université de Rennes 1, within the SISEA (signal, image, systèmes embarqués, automatique, école doctorale MATISSE) track of the master in electronical engineering and telecommunications.

François Le Gland gives

- a 2nd year course on introduction to stochastic differential equations, at INSA (institut national des sciences appliquées) Rennes, within the GM/AROM (risk analysis, optimization and modeling) major in mathematical engineering,
- a 3rd year course on Bayesian filtering and particle approximation, at ENSTA (école nationale supérieure de techniques avancées), Palaiseau, within the statistics and control module,
- a 3rd year course on linear and nonlinear filtering, at ENSAI (école nationale de la statistique et de l'analyse de l'information), Ker Lann, within the statistical engineering track,
- a course on Kalman filtering and hidden Markov models, at université de Rennes 1, within the SISEA (signal, image, systèmes embarqués, automatique, école doctorale MATISSE) track of the master in electronical engineering and telecommunications,
- and a 3rd year course on hidden Markov models, at Télécom Bretagne, Brest.

Valérie Monbet gives several courses on data analysis, on time series, and on mathematical statistics, all at université de Rennes 1 within the master on statistics and econometrics. She is also the director of the master on statistics and econometry at université de Rennes 1.

9.2.2. Supervision

François Le Gland has been supervising one PhD student

- Alexandre Lepoutre, title: *Tracking and detection in Track–Before–Detect context using particle filtering*, université de Rennes 1, started in October 2010, defense held on October 5, 2016, funding: ONERA grant, co–direction: Olivier Rabaste (ONERA, Palaiseau).

Frédéric Cérou and François Le Gland are jointly supervising one PhD student

- Ramatoulaye Dabo, provisional title: *Rare event simulation in epidemiology*, université Assane Seck de Ziguinchor (Senegal) and université de Rennes 1, started in September 2015, expected defense in 2018, co–direction: Alassane Diedhiou (université Assane Seck de Ziguinchor).

François Le Gland and Valérie Monbet are jointly supervising one PhD student

- Thi Tuyet Trang Chau, provisional title: *Non parametric filtering for Metocean multi–source data fusion*, université de Rennes 1, started in October 2015, expected defense in October 2018, funding: Labex Lebesgue grant and Brittany council grant, co–direction: Pierre Ailliot (université de Bretagne Occidentale, Brest).

François Le Gland is supervising two other PhD students

- Kersane Zoubert–Ousseni, provisional title: *Particle filters for hybrid indoor navigation with smartphones*, université de Rennes 1, started in December 2014, expected defense in 2017, funding: CEA grant, co–direction: Christophe Villien (CEA LETI, Grenoble),
- Audrey Cuillery, provisional title: *Bayesian tracking from raw data*, université du Sud Toulon Var, started in April 2016, expected defense in 2019, funding: CIFRE grant with DCNS, co–direction: Claude Jauffret (université du Sud Toulon Var) and Dann Laneuville (DCNS, Nantes).

Valérie Monbet is supervising two other PhD students

- Audrey Poterie, provisional title: *Régression d'une variable ordinale par des données longitudinales de grande dimension : application à la modélisation des effets secondaires suite à un traitement par radiothérapie*, université de Rennes 1, started in October 2015, expected defense in 2018, funding: INSA grant, co–direction: Jean–François Dupuy (INSA Rennes) and Laurent Rouvière (université de Haute Bretagne, Rennes).

- Marie Morvan, provisional title: *Modèles de régression pour données fonctionnelles. Application à la modélisation de données de spectrométrie dans le proche infra rouge*, université de Rennes 1, started in October 2016, expected defense in 2019, funding: MESR grant, co–direction: Joyce Giacofci (université de Haute Bretagne, Rennes) and Olivier Sire (université de Bretagne Sud, Vannes).

Mathias Rousset is supervising one PhD student

- Yushun Xu, provisional title: *Variance reduction of overdamped Langevin dynamics simulation*, université Paris-Est, started in October 2015, expected defense in 2018, co–direction: Pierre-André Zitt (université Paris–Est).

9.2.3. Thesis committees

François Le Gland has been a reviewer for the PhD theses of Tepmony Sim (Télécom ParisTech, advisors: Randal Douc and François Roueff) and Clément Walter (université Denis Diderot, Paris, advisor: Josselin Garnier).

Valérie Monbet has been a member of the committee for the HDR of Mathieu Emily (université de Haute Bretagne, Rennes).

Mathias Rousset has been a member of the committee for the PhD thesis of Zofia Trstanova (Inria Grenoble, EPI NANO-D, advisor: Stéphane Redon).

<center>**I4S Project-Team**</center>

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events Selection

10.1.1.1. Member of the Conference Program Committees

J.Dumoulin is

- member of the scientific committee of the GI Division (Geosciences Instrumentation and Data Systems) of EGU (European Geosciences Union) for infrastructure instrumentation and monitoring since April 2013. (http://www.egu.eu/gi/structure/)
- member of the scientific committee of QIRT (quantitative Infrared Thermography) since February 2014 (http://www.qirt.org/)
- organizer and chair of a session at EGU 2016 (http://www.egu2016.eu/).

L. Mevel

- is member of the EWSHM scientific committee.
- is member of the IOMAC scientific committee.

V. Le Cam is head and general secretary of the EWSHM scientific committee.

Q. Zhang:

- Member of IFAC Technical Committee on Modelling, Identification and Signal Processing.
- Member of IFAC Technical Committee on Fault Detection, Supervision and Safety of Technical Processes.

M. Doehler

- was organizer of an invited session at EWSHM 2016.
- session organizer at two COST workshops (http://www.cost-tu1402.eu/events).

10.1.1.2. Reviewer

V. Le Cam was session chairman for the EWSHM 2016 in Bilbao

L. Mevel was reviewer and session chairman for the EWSHM 2016 in Bilbao, and reviewer for IFAC WC 2017

Q. Zhang was reviewer for CDC 2016, IFAC WC 2017

M. Doehler was reviewer and session chairman for EWSHM 2016 in Bilbao, and reviewer for MED 2016, IFAC WC 2017

J. Dumoulin was reviewer and session chairman for QIRT 2016 and at EGU 2016 in GI division

10.1.2. Journal

10.1.2.1. member of the Editorial Boards

L. Mevel is member of the editorial board of journal of Mathematical Problems in Engineering.

L. Mevel is member of the editorial board of journal of Shock and Vibration.

Q. Zhang is member of the editorial board of the journal of Intelligent Industrial Systems.

J. Dumoulin is member of the editorial board of the journal of Quantitative Infrared Thermography.

J. Dumoulin is member of the editorial board of the journal of Geoscientific Instrumentation and Data Systems.

10.1.2.2. Reviewer - Reviewing activities

X. Chapeleau was reviewer for Journal: Sensors and Journal of Civil Structural Health Monitoring

L. Mevel was reviewer for Mechanical Systems and Signal Processing, journal of Sound And Vibration and Journal of Control and SHM.

M. Doehler was reviewer for Automatica, International Journal of Control, International Journal of Systems Science, Mechanical Systems and Signal Processing, Journal of Sound and Vibration, Mathematical Problems in Engineering, Smart Materials and Structures, Journal of Intelligent Material Systems and Structures

J. Dumoulin was reviewer for IEEE Transactions on Instrumentation and Measurement, Quantitative Infrared Thermography Journal, Optics and Lasers in Engineering journal , Journal Cultural Heritage, International Journal of Architectural Heritage, Journal of Geophysics and Engineering, Research in Nondestructive Evaluation

10.1.3. Invited Talks

J. Dumoulin was invited speaker at the 4th Youth in Conservation of Cultural heritage YOCOCU 2016, 21-23 September 2016, Madrid, Spain.

J. Dumoulin was invited keynote speaker at ERICE in October 2016.

J. Dumoulin was invited speaker at SFT 2016 in March 2016.

M. Mogoro (from SNCF) and V. Le Cam have been invited to give a keynote at the first SHM Conference dedicated to Railway in Qingdao, China, on October 2016 http://www.crrcgc.cc/iwshm-rs/english/.

V. Le Cam have was invited speaker at the "NDT Conference organized by Airbus Group at Pondichery, India, January 2016"

10.1.4. Scientific Expertise

10.1.4.1. Method and device for localizing faults in an electrical cable
Participants: Nassif Berrabah, Qinghua Zhang.

In modern engineering systems, fault diagnosis is frequently an integrated functionality for various components, but rarely for electrical cables. The fast development of electronic devices is accompanied by more and more connecting cables. The reliability of electrical connections becomes a crucial issue because of their large number. Moreover, some cables are operated under severe conditions, such as extreme temperature, nuclear radiation, humidity, mechanical strain, etc.. Based on the work reported in Section 7.5.1 , a patent has been registered at INPI jointly by EDF and Inria [46]. It is about a method for detecting, localizing and quantifying resistive faults in a cable, by means of estimating the series resistance per unit length distributed along the cable from reflectometry measurements made at the ends of the cable. Its fast numerical computation makes it suitable for real time applications.

10.1.4.2. Scientific Expertise in European Calls
Participant: Vincent Le Cam.

V. Le Cam : Expertise of a specific EUROPEAN SME project in the call EUROSTARS.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Licence Professionnelle TAM : J. Dumoulin, thermographie infrarouge active, 16h, Université Paris-Est, France

Master 2 MMMRI, (Maintenance et Maîtrise des Risques Industriels) , J. Dumoulin, contrôle non destructif par thermographie infrarouge active, 12h, Université Paris-Est, France

Master 2 ITII, J. Dumoulin, , BTP, module Maintenance et réhabilitation des ouvrages, « Transferts thermiques dans les Structures : Des principes physiques à l'application sur site réel », 12 h, Ecole Centrale de Nantes(ECN).

Master Système Communicant Mobile, V. Le Cam, embedded systems under Linux Operating System, 12h, Polytech Nantes, France

Master Civil engineering, V. Le Cam, Structural Monitoring, 4h, Université de Nantes, France

Licence 3 SEICOM, V. Le Cam, 3h, SHM and smart grids, Université de Nantes, France

Licence 3 SEICOM, V. Le Cam, 8h, TP, SHM and smart grids, Université de Nantes, France

ESEO, V. Le Cam, 16h, TP, embedded systems under Linux Operating System, France

Polytech, V. Le Cam, 14h, TP, embedded systems under Linux Operating System, France

Master 1 informatique, M. Doehler, 24 TD projet recherche, Université de Rennes 1 & ENS Rennes, France

Licence Pro Mesures physiques, X. Chapeleau, Mesures optiques, 15h, IUT de St Nazaire, Université de Nantes, France

10.2.2. Supervision

PhD : Antoine Bassil, *Fibre-optic sensor for fatigue monitoring*, D. Leduc, O. Abraham and X. Chapeleau, Ecole doctorale SPIGA, Université de Nantes, since November 2016.

PhD : Delwar Hossain Bhuyan, *Damage localisation on offshore platforms*, L. Mevel and M. Doehler, Ecole doctorale MATISSE, Université de Rennes 1, since November 2014

Guillaume Gautier's post-doctoral project on morphosense system monitoring, L. Mevel, 2015-2017.

PhD : Nassif Berrabah, Electrical cable ageing monitoring , Q. Zhang, Ecole doctorale MATISSE, Université de Rennes 1, since November 2014

PhD : Nicolas Le Touz. *Design and study of positive energy transport infrastructures: from thermomechanical modeling to the optimization of such energy systems* J. Dumoulin. at Ecole Centrale Nantes (ECN) since 2015.

PhD : Thibault Toullier. *Simultaneous characterization of the radiative properties and temperatures of envelopes of structures in natural environment by multispectral infrared thermography* L. Mevel, J. Dumoulin and M. Doehler. Ecole doctorale MATISSE, Université de Rennes 1, since November 2016.

PhD : Saeid Allahdadian, *Methods for vibration-based damage assessment*, M. Doehler, University of British Columbia, Canada, since 2015.

PhD : Eva Viefhues, *Statistical damage localization for civil structures*, L. Mevel and M. Doehler, Ecole doctorale MATISSE, Université de Rennes 1, since November 2016.

J. Dumoulin is associate professor at Laval University, Canada.

M. Doehler is associate researcher at BAM, Germany.

10.3. Popularization

J. Dumoulin was in charge of hybrid/solar road that was demonstrated at COP21 and COP22.

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IPSO Project-Team

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6. Dissemination

6.1. Promoting Scientific Activities

6.1.1. Scientific Events Organisation

6.1.1.1. Member of the Organizing Committees

- François Castella and Philippe Chartier organized the workshop "Multiscale methods for Schödinger and kinetic equations", Saint-Malo (France), december 12-14, 2016.
- Arnaud Debussche organized the conference "Stochastic Partial Differential Equations and Applications-X, Levico Terme (Italy), may 30-june 4, 2016.
- Erwan Faou organized the workshop "Geometric Numerical Integration", Oberwolfach (Germany), march 20-26, 2016. Co-organized with E. Hairer, M. Hochbruck and C. Lubich.

6.1.2. Journal

6.1.2.1. Member of the Editorial Boards

- Philippe Chartier is member of the editorial board of "Mathematical Modelling and Numerical Analysis" (2007-).
- Arnaud Debussche is editor in chief of the journal "Stochastics and Partial Differential Equations: analysis and computations".
- Arnaud Debussche is member of the editorial board of Potential Analysis (2011-).
- Arnaud Debussche is member of the editorial board of Differential and Integral Equations (2002-).
- Arnaud Debussche is member of the editorial board of ESAIM:PROC (2012-).
- Arnaud Debussche is member of the editorial board of Journal of Evolution Equation (2014-).
- Arnaud Debussche is member of the editorial board of Applied Mathematics & Optimization (2014-).
- Arnaud Debussche is member of the editorial board of the collection : "Mathématiques & Applications" (Springer).
- Erwan Faou was editor of the Oberwolfach reports [31] (2016).

6.1.2.2. Reviewer - Reviewing Activities

Members of IPSO are reviewers for almost the journals in which they publish.

6.1.3. Invited Talks

- Philippe Chartier was invited speaker at the workshop "Mould calculus, from multiple zeta values to B-series", Pau (France), december 1-2, 2016.
- Philippe Chartier was plenary speaker at the international conference ICNAAM, Rhodes (Greece), september 2016.
- Philippe Chartier was invited speaker at the workshop "GAMPP", IPP Garching (Germany), september 12-16, 2016.
- Philippe Chartier was invited speaker at the workshop "Stability and discretization issues in differential equations", Trieste (Italy), june 2016.
- Philippe Chartier gave a seminar at the university of Lille (France), june 9, 2016.
- Philippe Chartier was invited speaker at Meeting ANR Moonrise, Toulouse (France), june 2-3, 2016.

- Philippe Chartier gave a seminar at the university of Geneva (Switzerland), may 26-june 1, 2016.
- Philippe Chartier was invited at the workshop "Geometric Numerical Integration", Oberwolfach (Germany), march 20-26, 2016.
- Nicolas Crouseilles was invited at the workshop "Geometric Numerical Integration", Oberwolfach (Germany), march 20-26, 2016.
- Nicolas Crouseilles gave a seminar at the university of Geneva (Switzerland), may 13, 2016.
- Nicolas Crouseilles gave a seminar at the university of Paris Sud, Orsay (France), november 17, 2016.
- Nicolas Crouseilles was invited speaker at the workshop "NumKin", Strasbourg (France), october 17-21, 2016.
- Nicolas Crouseilles was invited speaker at the workshop "Kinet", Madison (US), april 21-25, 2016.
- Arnaud Debussche was invited speaker at the workshop "Probabilistic models-from discrete to continuous", university of Warwick (UK), march 29-april 2, 2016.
- Arnaud Debussche was invited speaker at the workshop "Stochastic Analysis and Related Fields", Humboldt university Berlin (Germany), july 28-30, 2016.
- Arnaud Debussche was invited speaker at the workshop "Nonlinear Wave and Dispersive Equations", Kyoto university (Japan), september 6-8, 2016.
- Arnaud Debussche was invited speaker at the workshop "Nonlinear Stochastic Evolution Equations: Analysis and Numerics", TU Berlin (Germany), november 3-5, 2016.
- Erwan Faou gave a seminar at the CERMICS, Marne-La-Vallée (France), december 2016.
- Erwan Faou was invited at the workshop "Structure and scaling in computational field theories", Oslo (Norway), november 2016.
- Erwan Faou was invited at the conference "Nonlinear waves", IHES (France), may 2016.
- Erwan Faou was invited at the workshop "Nonlinear Evolution Problems", Oberwolfach (Germany), march 2016.
- Erwan Faou was invited at the workshop "Recent trends in nonlinear evolution equations", CIRM-Luminy (France), april 4-8, 2016.
- Mohammed Lemou was plenary speaker at the workshop "Asymptotic behavior of systems of PDE arising in physics and biology: theoretical and numerical points of view", Lille (France), june 2016.
- Mohammed Lemou was invited speaker at the workshop "NumKin", Strasbourg (France), october 17-21, 2016.
- Mohammed Lemou was invited speaker at the workshop "Kinet", Madison (US), april 21-25, 2016.
- Mohammed Lemou was invited speaker at the ANR Moonrise Meeting, Toulouse (France), june 2016.
- Florian Méhats was plenary speaker at the workshop "Journée des jeunes EDPistes français", Bordeaux (France).
- Florian Méhats gave a seminar of the university of Paris Sud, Orsay (France).
- Florian Méhats gave a seminar of the university of Nice (France).
- Florian Méhats gave a seminar of the university of Lille (France).

6.1.4. Scientific Expertise

- Philippe Chartier was member of the hiring committee of an associate professor, university of Trondheim (Norway).
- Philippe Chartier was member of the hiring committee CR2-Inria (Bordeaux).
- Nicolas Crouseilles was member of the CORDI-S committee at Inria-Rennes.
- Arnaud Debussche was a member of the hiring committee of a professor, university of Rennes 1

- Arnaud Debussche was a member of the hiring committee of a "Maître de conférence", university of Orléans.
- Mohammed Lemou was member of the hiring committee of a professor, university of Rennes 1.
- Mohammed Lemou was was a member of the hiring committee of a "Maître de conférence", university of Nantes.

6.1.5. Research Administration

- François Castella is member of the IRMAR laboratory council.
- Philippe Chartier is the vice-head of science (DSA) of the Rennes Inria-Center.
- Philippe Chartier is member of the direction committee (ED) of the Rennes Inria-Center.
- Philippe Chartier is member of the national evaluation committee (CE) of Inria.
- Nicolas Crouseilles is member of the Scientific Council of the ENS Rennes.
- Nicolas Crouseilles is member of the committee of the Fédération de Fusion".
- Arnaud Debussche is vice president in charge of research and international relations of the Ecole Normale Supérieure de Rennes.
- Arnaud Debussche is member of the executive board of the Lebesgue Center.
- Arnaud Debussche is director of the "Agence Lebesgue de Mathématiques pour l'Innovation".
- Erwan Faou was member of the COST-GTRI (Comité d'orientation scientifique et technologique, groupe de travail pour les relations internationales) at Inria.
- Erwan Faou is member of the Scientific Council of the Pôle Universitaire Léonard de Vinci.
- Erwan Faou is member of the CNU 26.
- Mohammed Lemou is member of the Scientific Council of the ENS Rennes.
- Mohammed Lemou is member of the Scientific Council of the Lebesgue Center.
- Mohammed Lemou is head of the team "analyse numérique" of IRMAR laboratory.
- Florian Méhats is head of the IRMAR laboratory.

6.2. Teaching - Supervision - Juries

6.2.1. Teaching

- François Castella gave a course in M1 on kinetic equations, university of Rennes 1 (60 hours).
- Philippe Chartier gave a course in L3 on ordinary differential equations, Ecole Normale Supérieure de Rennes (24 hours).
- Philippe Chartier gave a course in M2 on geometric numerical integration and averaging methods, university of Rennes 1 (24 hours).
- Nicolas Crouseilles gave a course in M2 on numerical methods for kinetic equations, university of Rennes 1 (12 hours).
- Arnaud Debussche gave a course in M2 on stochastic partial differential equations, university of Rennes 1 (24 hours).
- Erwan Faou gave a course in M1 on modelisation and numerical analysis of PDEs, ENS Paris, in collaboration with E. Dormy.
- Mohammed Lemou gave a course in M2 on partial differential equations, university of Rennes 1 (24 hours).
- Mohammed Lemou is head of the M2 "Analyse et Applications".

6.2.2. Supervision

- François Castella supervises the PhD thesis of Valentin Doli, *Mathematical and ecological study of the propagation of a specific virus attacking plants*, (2014-). Co-advisor: Frédéric Hamelin (Agro-Rennes).

- François Castella and Philippe Chartier supervised the PhD thesis of Julie Sauzeau, *Highly-oscillatory central manifold and application to ecology* (2013-2016). Julie Sauzeau is now teacher.

- Nicolas Crouseilles and Erwan Faou supervise the PhD thesis of Joackim Bernier, *Mathematical and numerical anaysis of nonlinear transport equations*, (2016-).

- Nicolas Crouseilles and Mohammed Lemou supervised the PhD thesis of Hélène Hivert *Mathematical and numerical study of kinetic model and their asymptotics: diffusion and anomalous diffusion limit*, (2013-2016). Hélène Hivert is now post-doc at ENS Lyon.

- Erwan Faou supervises the PhD thesis of Romain Horsin, *Mathematical and numerical analysis of the Vlasov-HMF model*, (2014-). Co-advisor: Frédéric Rousset (university Paris Sud Orsay).

- Arnaud Debussche supervizes the PhD thesis of Mac Jugal Nankep *PDMP with spatial dependency for the dynamics of gene networks*, (2014-).

- Arnaud Debussche and Florian Méhats are supervisors of the PhD thesis of Maxime Tusseau. *Highly oscillatory nonlinear Schrödinger equation with stochastic potential*, (2013-).

- Mohammed Lemou and Florian Méhats are supervisors of the PhD thesis of Marine Malo *Collisionless kinetic equations: stability, oscillations*, (2015-).

6.2.3. Juries

- Erwan Faou was referee of the PhD thesis of Ahmed-Amine Homman (CEA and ENPC), june 2016.

- Nicolas Crouseilles was referee of the PhD thesis of Mehdi Badsi (university Paris 6), october 2016.

- Nicolas Crouseilles was referee of the PhD thesis of Nhung Pham (university of Strasbourg), december 2016.

- Nicolas Crouseilles was member of the jury of the PhD thesis of Julie Sauzeau (university of Rennes 1), june 2016.

- Arnaud Debussche was referee of the PhD thesis of Nathalie Ayi (university of Nice), june 2016.

- Arnaud Debussche was member of jury of the PhD thesis of Vincent Renault (university of Paris 6), september 2016.

- Mohammed Lemou was referee of the PhD thesis of Thomas Le Roy (university Paris 6), january 2016.

- Mohammed Lemou was referee of the PhD thesis of Ankit Ruhi (IIS, Bangalore, India), december 2016.

- Mohammed Lemou was member of the jury of the PhD thesis of Sébastien Guisset (university of Bordeaux 1), september 2016.

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

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific Events Selection

9.1.1.1. Member of the Conference Program Committees

- JOBIM (2016): French conference of Bioinformatics [A. Siegel]
- BBCC (2015): Bioinformatica e Biologia Computazionale in Campania [O. Dameron]
- IC 2016 Atelier IA et santé, Symposium sur l'Ingénierie des Connaissances [O. Dameron]
- JFO 2016: Journées Francophones sur les ontologies [O. Dameron]
- SASB 2016: The six international workshop on static analysis and system biology [N.Théret]
- ICGI 2016: The 13th International Conference on Grammatical Inference [F. Coste]

9.1.1.2. Review

- ISMB 2016, Biotechno 2016 [A. Siegel]

9.1.2. Journal

9.1.2.1. Member of the Editorial Boards

- Academic editor: Plos One [J. Bourdon]

9.1.2.2. Reviewer - Reviewing Activities

- Journal of Mathematical Biology. Bioinformatics. Theorie des Sciences Informatiques. [A. Siegel]
- Briefings in Bioinformatics, Journal of Biomedical Informatics, Journal of Biomedical Semantics. [O. Dameron]
- Molecular Cancer, Oncotarget,Hepatology, Int J cancer, Bioinformatics and Biology Insight, Chembioint, Cell death and Disease, Plos One [N. Théret]
- IEEE BIBM 2016: IEEE International Conference on Bioinformatics and Biomedicine [F. Coste]

9.1.3. Invited Talks

- M. Aite *User-control metabolic network reconstruction within flexible workflows with the PADMet Toolbox*, INRA Food Working Group annual assembly, Paris (Jul. 2016)
- F. Coste *Grammatical inference of protein languages*, Seminar of Department of Biomedical Engineering, Wroclaw University of Technology, Polland (May 2016)
- F. Coste *Partial multiple sequence alignments to model protein families*, Theoretical Biology and Bioinformatics Group, Utrecht Univ., Netherland (Sep. 1016)
- F. Coste *Modelling protein families with Protomata-Learner*, University of Chile (Nov. 2016)
- C. Trottier *The PADMET-Toolbox and AuReMe workflow: application to the genome-scale metabolic network reconstruction of algae*, IDEALG project Annual General Meeting, Lorient (Nov. 2016)
- C. Frioux *Metabolic network gap-filling: parsimonious combinatorial methods to approach biological reality*, INRA Food Working Group annual assembly, Paris (Jul. 2016)
- C. Frioux *Answer Set Programming for bioinformatics and metabolic networks*, University of Potsdam Knowledge Processing and Information System group weekly seminar, Potsdam, Germany (Oct. 2016)
- A. Siegel *Cancer biology in the Dyliss Group*, Inria (Mar. 2016)

- A. Siegel *Identification of logical models for signaling pathways: towards a systems biology loop*, EMCTS, Nottingham, UK (Jul. 2016) [39]

- A. Siegel *An introduction to metabolic networks modelling*, INRA (Oct. 2016)

- A. Siegel *A prospective about the construction of bioId chip based on multi-scale integrative methods*, University of Chile (Nov. 2016)

- A. Siegel *Combinatorial problems related to the reconstruction of genome-scale metabolic networks*, University of Lille, Workshop of the BIOSS working group on metabolism (Nov. 2016)

- N.Théret *Computational modeling to identify biomarkers and targets*, DHU2020, Fibrosis and remodelling: from common pathways to personalized targets, Autumn School (Oct. 2016)

9.1.4. Leadership within the Scientific Community

- Member of the steering committee of the International Conference on Grammatical Inference [F. Coste].

- The team was involved in the foundation of a national working group on the symbolic study of dynamical systems named bioss [web access]. The group gathers more 100 scientists, from computer science to biology. Three meetings were organized this year. The group is supported by two French National Research Networks: bioinformatics (GDR BIM : bioinformatique moléculaire) and informatics-mathematics (GDR IM : Informatique Mathématique). It gathered twice in 2016: for a general meeting in Lyon (Jul. 2016) and for a workshop focused on computational and methological insights about metabolic network in Lille (Nov. 2016) [A. Siegel]

9.1.5. Scientific Expertise

- Member (nominated) CNU section 65 [O. Dameron]

- Scientific Advisory Board of GDR BIM " Molecular Bioinformatics" [J. Nicolas].

- Inria National evaluation board [A. Siegel]

- Member of the Operational Legal and Ethical Risk Assessment Committee (COERLE) at Inria [J. Nicolas].

- Recruitment committees: Professor (UMPC, Paris) [A. Siegel, N Théret], Associate professor (Nancy) [O. Dameron], Engineer (INRA) [A. Siegel], Inria senior researcher (National committee) [A. Siegel].

- Member of the IRISA laboratory council [F. Coste].

- Member of the Inria Rennes center council [A. Siegel].

- Scientific Advisory Board of Biogenouest [J. Bourdon, N Théret].

- Member of SCAS (Service Commun d'Action Sociale) of Univ. Rennes 1 [C. Belleannée].

- Member of CUMIR (Commission des Utilisateurs des Moyens Informatiques, Inria Rennes) [F. Coste].

- Expertise for Prix Victor et Erminia MESCLE [N. Théret]

- Expertise for Ligue Contre le Cancer, InterRégion Rhône-Alpes-Auvergne-Drome-Saone et Loire [N. Théret]

- Member of the board of directors of the French Society for biology of the extracellular matrix [N. Théret]

9.2. Teaching - Supervision - Juries

9.2.1. Teaching track responsibilities

- Coordination of the doctoral school "Life, Agronomy and Health" of University of Rennes 1 [N. Théret]

- Coordination of the master degree "Bioinformatics and genomics", Univ. Rennes1 [O. Dameron]
- Coordination of the track "From Data to Knowledge: Machine Learning, Modeling and Indexing Multimedia Contents and Symbolic Data", Master in Computer Science, University of Rennes 1, France [F. Coste].

9.2.2. Course responsibilities

- "Bioinformatique expérimentale", Master 1 in computer science, Univ. Rennes1 & ENS [O. Dameron]
- "Bases de mathématiques et probablité" and "Méthodes en informatique", Master1 in public health, Univ. Rennes 1 [O. Dameron]
- "Représentation des connaissances biomédicales", Master 2 in public health, Univ. Rennes 1 [O. Dameron]
- "Principes de programmation et d'algorithmique", Master 1 in bioinformatics, Univ. Rennes 1 [O. Dameron]
- "Gestion de projets informatiques", Master 1 in bioinformatics, Univ. Rennes 1 [O. Dameron]
- "Standardisation des connaissances et bio-ontologies", Master 2 in bioinformatics, Univ. Rennes 1 [O. Dameron]
- "e-Santé et réseaux hospitaliers", last year in engineering school ESIR, Univ. Rennes 1, [O. Dameron]
- "Equilibre Dynamique de la communication Cellulaire" Master 2 in Sciences cellulaire et Moléculaire du Vivant, Univ. Rennes 1 [N. Theret]

9.2.3. Teaching

Licence: C. Belleannée, Langages formels, 22h, L3 informatique, Univ. Rennes1, France.

Licence: C. Belleannée, Traitement de textes et données tabulées, 40h, L1 informatique, Univ. Rennes1, France.

Licence: C. Belleannée, Algorithmique et Programmation Fonctionnelle, 60, L1 informatique, Univ. Rennes1, France.

Licence: J. Coquet, Algorithmique et Programmation Fonctionnelle, 40h, L1 informatique, Rennes1, France.

Licence: O. Dameron, Biostatistiques, 12h, PACES, Univ. Rennes 1, France.

Licence: V. Delannée, Bureautique, 36h, DFGSP2, Univ. Rennes 1, France.

Licence: C. Frioux, Bureautique, 12h, L1 informatique, Rennes1, France.

Master: C. Belleannée, Algorithmique du texte et bioinformatique, 10h, M1 informatique, Univ. Rennes1, France

Master: C. Belleannée, Préférences, Logique et Contraintes, 40h M1 informatique,Univ. Rennes1, France

Master: F. Coste, Apprentissage Supervisé, 10h, M2 Informatique, Univ. Rennes 1, France

Master: F. Coste, Données Séquentielles Symboliques, 10h, M2 Informatique, Univ. Rennes 1, France

Master: O. Dameron, Bases de mathématiques et probablité, 30h, Master1 in public health, Univ. Rennes 1, France.

Master: O. Dameron, Méthodes en informatique, 50h, Master1 in public health, Univ. Rennes 1, France.

Master: O. Dameron, Bioinformatique expérimentale, 10h, M1 informatique, Univ. Rennes 1 and ENS Rennes, France.

Master: O. Dameron, Principes de programmation et algorithmique, 50h, M1 bioinformatique et génomique, Univ. Rennes 1, France.

Master: O. Dameron, Gestion de projets informatiques, 23h, M1 bioinformatique et génomique, Univ. Rennes 1, France.

Master: O. Dameron, Standardisation des connaissances et bio-ontologies, 24h, M2 bioinformatique et génomique, Univ. Rennes 1, France.

Master: O. Dameron, Représentation des connaissances biomédicales, 20h, M2 bioinformatique et génomique, Univ. Rennes 1, France.

Master: A. Siegel, Integrative and Systems biology, 20h, M2, Univ. Rennes 1, France

Master: N. Théret, Extracellular matrix remodeling and Signaling, 3H, Univ. Rennes 1, France

Master: N. Théret, Extracellular matrix remodeling and Signaling, 3H, Univ. Cergy Pontoise, France

Doctorat: A. Siegel, Modelling the integration of heterogeneous knowledge with Answer Set Programming, 4h, Ecole de printemps, Porquerolles, France

9.2.4. Supervision

HDR: Olivier Dameron *Ontology-based methods for analyzing life science data* [12]

PhD : Aymeric Antoine-Lorquin, *TITRE*, started in Oct. 2013, supervised by C. Belleannée, defended on the 1st of December 2016 [11]

PhD in progress : Lucas Bourneuf, *Justifiable graph decomposition to assist biological network understanding*, started in Oct. 2016, supervised by J. Nicolas.

PhD in progress : Jean Coquet, *Semantic-based reasoning for biological pathways analysis*, started in Oct. 2014, supervised by O. Dameron and N. Théret.

PhD in progress : Victorien Delannée, *Optimisation à différentes échelles pour étudier la variabilité de la toxicité de contaminants alimentaires*, started in Oct. 2014, supervised by A. Siegel and N. Théret.

PhD in progress : Clémence Frioux, *Using preferences in Answer Set Programming to decipher interactions within the species of an ecosystem at the genomic scale*, started in Oct. 2015, supervised by A. Siegel.

PhD in progress : Julie Laniau, *Méthodes d'optimisation combinatoire pour reconstruire et analyser les systèmes métaboliques de microalgues*, started in Oct. 2013, supervised by A. Siegel and D. Eveillard.

PhD in progress : Yann Rivault, *Analyse de parcours de soins à partir de bases de données médico-administratives en utilisant des outils du Web Sémantique : identification de complications et de leurs déterminants suite à la pose chirurgicale de dispositif médical implantable en ambulatoire* , started in Oct. 2015, supervised by O. Dameron and N. Lemeur.

9.2.5. Juries

- *Member of Ph-D thesis juries*. M. Morterol, Univ. Paris Sud [A. Siegel, reviewer]. A. Rougny, Univ. Paris Sud [A. Siegel, reviewer]. P. Traynard, ENS Paris [A. Siegel, jury member]. A Lamora, Univ. Nantes [N. Théret, reviewer]. L. Alcaraz, Univ. Lyon [N. Théret, reviewer], F Courivaud, UMPC [N. Théret, reviewer]. P Hascoet, Univ. Rennes1 [N. Théret, president]

- *Member of habilitation thesis juries*. O. Dameron, Univ. Rennes 1 [A. Siegel, jury member], A. Chateau, Univ. Montpellier [A. Siegel, reviewer]. M. Elati, Univ. Evry [A. Siegel, reviewer]. L. Levy, Univ Paris-Diderot [N. Théret, reviewer]. C. Le Goff, Univ Paris Descartes [N. Théret, reviewer].

- *Member of medical thesis jury*. P. Hamon, Rennes [O. Dameron, jury member].

9.2.6. Internships

- Internship, from Jan until Jun 2016. Supervised by A. Siegel. Student: Mael Conan. Subject: Reconstruction of the metabolic map of E. Synecchococcus.

- Internship, from Jan until Jun 2016. Supervised by M. Chevallier and A. Siegel. Student: Pierre Vignet. Subject: Development of a web interface for the aided-curation of metabolic network identifiers.

- Internship, from Jun until Jul 2016. Supervised by O. Dameron and A. Siegel. Student: David Saulpic. Subject: Using formal concept analysis to classify the attractors of perturbated boolean networks.

- Internship, from Jan. until Jun 2016. Supervised by J. Nicolas. Student: Lucas Bourneuf. Subject: Model reduction with power graph algorithms.

- Internship, from Feb. until Jun 2016. Supervised by F. Coste. Student: Mikael Demirdelen. Subject: Fast parser for biological sequences and a new algorithm for the inference of substitutable languages.

- Internship, from Jun until Jul 2016. Supervised by O. Dameron. Student: Arnaud Belcour. Subject: Intégration de données biologiques en RDF pour l'analyse de réseaux de régulation.

- Internship, from Jun until Jul 2016. Supervised by O. Dameron. Student: Mael Kerbiriou. Subject: Création et analyse d'un réseau de régulation génique en RDF : application au puceron.

- Internship, from Jun until Jul 2016. Supervised by A. Evrard. Student: Xavier Garnier. Subject: Mise à jour et développement d'AskOmics, outil d'intégration et d'interrogation de données biologiques.

- Internship, from Jan. until Jun. 2016. Supervised by C. Belleannée. Student: Nathan Alary. Subject: Données génomiques et données ChIP-Seq au service de la prédiction de sites de fixation d'un facteur de transcription. Application au facteur LXRalpha.

- Internship, from Mar until Aug 2016. Supervised by J. Got. Student: Sanae El Mhijar, Subject: Analyse et vérifications du réseau métabolique de *Tisochrysis lutea*.

- Internship, from May until Jul 2016. Supervised by F. Coste. Student: RemySun, Subject: Learning Deep Latent Features of Proteins.

- Internship, from Jun. until Jul. 2016. Supervised by F. Morreews. Student: Vivien Le Breton Subject: RDF et SPARQL pour l'integration de réseaux métaboliques et génétiques de référence.

- Internship, from Jan. until Jun. 2016. Supervised by J. Nicolas. Student: Guillaume Lebreton Subject: Metabolic pathway reconstruction on metagenomes, application to the development of a bacterial consortium for fermented products.

- Internship, from Apr. until Jun. 2016. Supervised by J. Nicolas. Student: Marie Salmon Subject: Analyse par concepts formels de données génomiques sur le mélanome du chien.

9.3. Popularization

- *Organization of Sciences en Cour[t]s*. Since 2007, Sciences en Cour[t]s is a project of Nicomaque organization, the association of PhD and PhD students of Brittany. It is a popularization Festival where PhD students explain their thesis via short films of 5min. The goal is to present their scientific researches to the general public. Every year, PhD students of Inria/IRISA join the organization or make movies.[*J. Coquet (coordinator of the festival), V. Delannée (president of Nicomaque), A. Antoine-Lorquin (organizer of the festival)*] [more info].

- *Production of Sciences en Cour[t]s film*. "Une petite histoire de symbiose(s)" .[*C. Frioux*] [more info].

- *Bioinfo-fr.net* Bioinfo-fr.net is a french web site where researchers, engineers and students talks about bioinformatics. We have written or contributed to 3 articles for this web site on diverse subjects: "Remise des diplômes du master BIG (Rennes)", "Les dev' jam c'est bon pour vous !", "Ecrire son parseur à la main: chroniques d'une mauvaise bonne idée". [*L Bourneuf, O. Dameron*]. [more info].

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

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific Events Organisation

9.1.1.1. General Chair, Scientific Chair

- J. Erhel organizes with J-R. de Dreuzy and T. Le Borgne the international conference CWMR (Saint-Malo, France, June 2018).

9.1.1.2. Member of the Organizing Committees

Etienne Mémin

- SWGEN (Vannes) program committee
- Scientific committee of the national colloqium on data assimilation, (Grenoble)

9.1.2. Scientific Events Selection

9.1.2.1. Member of the Conference Program Committees

Jocelyne Erhel

- international advisory committee of the parallel CFD conferences (Kobe, Japan, May 2016).
- program committee of the international conference CARI 2016.
- scientific committee of JEMP 2016.
- scientific committee of NLAA 2016.
- program committee of the workshop Visualization in Environmental Sciences 2016 (co-event of EuroVis)

9.1.3. Journal

9.1.3.1. Member of the Editorial Boards

Jocelyne Erhel

- member of the editorial board of ETNA.
- member of the editorial board of ESAIM:Proceedings and Surveys.

Etienne Mémin

- Associate editor for the Int. Journal of Computer Vision (IJCV)
- Associate editor for the Image and Vision Computing Journal (IVC)

9.1.3.2. Reviewer - Reviewing Activities

Jocelyne Erhel: Reviewer for the journals ADWR, ARIMA, JCAM, MATCOM
Dominique Heitz: Reviewer for Exp. in Fluids, ASME J. on Heat Transfer
Cédric Herzet: Reviewer for IEEE Tr. on Signal Processing, IEEE Tr. on Information Theory
Etienne Mémin: Reviewer for Tellus-A, IEEE Im. Proc., IEEE trans. Pat. Anal. Mach. Intel. , Im. Vis. Comp.,
Exp. in Fluids, Nonlinear Proc. in Geophysics., Journ. of Comp. Phys, Fluid Dynamics Research.

9.1.4. Invited Talks

Dominique Heitz

- Next generation transport aircraft workshop, Honolulu, Hawai, 22-25, February, 2016.
- Cap Aliment training "Les technologies douces de conservation des denrées alimentaires", Nantes, 13, October, 2016. Assises du Génie des Procédés, région OUEST - Nantes, 9, november, 2016

Cédric Herzet

- GdR Isis « Algorithmes gloutons pour l'optimisation sous contrainte de parcimonie », Juin 2016

Roger Lewandowski

- Special Session on Above and Beyond Fluid Flow studies: In celebration of the 60th birthday of Prof. William Layton » within the Fall Western Sectional Meeting of the AMS, University of Denver, Denver, CO October 8-9, 2016.

Etienne Mémin

- E. Mémin. Représentation sous incertitude d'écoulements géophysiques, Huitième Ecole Interdisciplinaire de Rennes sur les Systèmes Complexes, Oct. 2016.

9.1.5. Leadership within the Scientific Community

- J. Erhel is scientific coordinator of the website Interstices (since June 2012). https://interstices.info.

9.1.6. Scientific Expertise

- J. Erhel is a member of the scientific council of IFPEN, since April 2016.
- J. Erhel was reviewer for ANR.

9.1.7. Research Administration

Jocelyne Erhel

- correspondent of Maison de la Simulation for Inria Rennes.
- correspondent of AMIES for Inria Rennes, from September 2015.
- member of the Inria national committee for secondment, 2016.
- member of the Inria local committee for health and safety (référent chercheur) from January 2016.
- member of the Inria administrative commission (CAP) for researchers, from January 2016.

Dominique Heitz

- Responsible of the Irstea ACTA Team
- Member of Pôle Cristal scientific council
- Member of Irstea OPAALE research unit Executive Committee
- Member of Irstea center of Rennes Executive Committee

Etienne Mémin

- Responsible of the "Commission Développement Technologique" Inria Rennes
- Member of the "Commission Personnel" Inria-IRISA Rennes

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Licence: Jocelyne Erhel, Optimisation, 24h, niveau L3, ENSAI Rennes

Licence : Dominique Heitz, Mécanique des fluides, 30h, niveau L2 INSA Rennes

Master: Jocelyne Erhel, modélisation et calcul scientifique, 12h, niveau M2, INSA Rennes

Master: Jocelyne Erhel, arithmétique flottante, 4h, niveau M1, INSA Rennes

Master : Dominique Heitz, Mécanique des fluides, 25h, niveau M1, Dep GMA INSA Rennes

Master : Cédric Herzet, Représentations parcimonieuses et compressed sensing, niveau M2, ENSAI, 12h

Master : Cédric Herzet, Représentations parcimonieuses et compressed sensing, niveau M2, niveau M2, INSA, 10h

Master: Roger Lewandowski, Euler and the Navier-Stokes equations, M2, master « fondamental mathematics ».

Master : Etienne Mémin, Analyse du mouvement, Mastere Informatique, 15h, niveau M2, Université de Rennes 1.

Master : Etienne Mémin, Vision par ordinateur , 15h, niveau M2, ESIR Université de Rennes 1.

9.2.2. Supervision

Master research work: C. Bonvoisin (ENS Cachan) February 2016 to June 2016, advisor R. Lewandowski

PhD in progress: B. Delfino, University of Rennes 1, November 2015, co-advisors J.-R. de Dreuzy and J. Erhel.

PhD in progress: P.-M. Gibert, University of Lyon, October 2015, co-advisors D. Tromeur-Dervout and J. Erhel.

PhD in progress: B. Hamlat, University of Rennes 1, October 2016, co-advisors J. Erhel and A. Michel.

PhD in progress : Benoit Pinier, Scale similarity and uncertainty for Ocean-Atmosphere coupled models, started 01/10/2014, supervisors: Roger Lewandowski, Etienne Mémin

PhD in progress : Valentin Resseguier, Oceanic models under uncertainty and image assimilitation, started 01/10/2013, Bertrand Chapron (Ifremer), Etienne Mémin

PhD in progress : Pranav Chandamouli, Turbulent complex flows reconstruction via data assimilation in large eddy models, started october 2015, Dominique Heitz, Etienne Mémin.

PhD in progress : Romain Schuster, Large-scale fluid motion estimation, started october 2016, Dominique Heitz, Etienne Mémin.

9.2.3. Juries

Jocelyne Erhel

- Rafife Nheili, PhD, Univ. Perpignan (rapporteur)

Etienne Mémin

- Laurent Cordier HDR, Univ. Poitiers.
- Nicolas Papadakis, HDR IMB, Univ. Bordeaux
- Yann Michel, HDR Meteofrance, Univ. Toulouse Paul Sabatier (Rapporteur)
- Van Linh Nguyen, PhD Univ. Lille (Rapporteur)
- Iliass Azijli, PhD TU Delft (Rapporteur),
- Raphael Legrand, PhD Meteofrance Univ. Paul Sabatier Toulouse (Rapporteur)

9.3. Popularization

Jocelyne Erhel

- présidente du jury du rallye de mathématiques du CNED, 2016.
- talk at day "au coeur des maths, enfermement ou liberté ?", LVN, May 2016.
- scientific responsible of the scientific culture web journal "Interstice" (https://interstices.info/)

Dominique Heitz

- Interview dans L'Usine Nouvelle, No 3479, pp. 30-31, 2016

GENSCALE Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events Organisation

10.1.1.1. General Chair, Scientific Chair

- Workshop Colib'read. Scientific and practical organization [C. Lemaitre, C. Marchet, P. Peterlongo]

10.1.2. Scientific Events Selection

10.1.2.1. Chair of Conference Program Committees

- WCO16, Gdansk, Poland (co-chair) [A. Mucherino]

10.1.2.2. Member of the Conference Program Committees

- BIBM 2016: IEEE International Conference on Bioinformatics and Biomedicine [D. Lavenier]
- BIOKDD 2016: 15th International Workshop on Data Mining in Bioinformatics [D. Lavenier]
- ACM PASC16 Conference : Platform for Advanced Scientific Computing [D. Lavenier]
- RECOMB 2016 : International Conference on Research in Computational Molecular Biology [D. Lavenier]
- ECCB 2016 : 15th European Conference on Computational Biology [P. Peterlongo]
- SeqBio 2016 : Bioinformatics multidisciplinary workshop [P. Peterlongo]
- WACEBI 2016 : Workshop on Accelerator-Enabled Algorithms and Applications in Bioinformatics [D. Lavenier]

10.1.2.3. Reviewer

- RECOMB 2017 [R. Andonov, C. Lemaitre]
- ECCB 2016 [P. Peterlongo]

10.1.3. Journal

10.1.3.1. Reviewer - Reviewing Activities

- Algorithms for Molecular Biology [P. Peterlongo]
- Bioinformatics [D. Lavenier, P. Peterlongo]
- BMC Bioinformatics [P. Peterlongo]
- Drug Dicovery Today [D. Lavenier]
- Journal of Parallel and Distributed Computing [D. Lavenier]
- Plos One [D. Lavenier, R. Andonov]
- Journal of Biomedical and Health Informatics [D. Lavenier]
- Briefing in Bioinformatics [D. Lavenier]
- Theoretical Computer Science [P. Peterlongo]
- Fundamenta Informaticae, Integrated Computer-Aided Engineering (IOS Press) [A. Mucherino]
- COMPAG, Elsevier [A. Mucherino]

10.1.4. Invited Talks

- D. Lavenier, *Parallel Processing of Sequencing Data*, Conférence d'informatique en Parallélisme, Architecture et Système, Lorient, France, July 2016

- D. Lavenier *GATB: A Genomic Analysis Tool Box for designing parallel and low memory fingerprint bioinformatics software*, Pasteur Institut, Paris, France, Sep. 2016.
- D. Lavenier, *Low memory fingerprint data structure for genomics*, ENS Rennes, France, oct. 2016.
- D. Lavenier *GATB: A Genome Analysis Tool Box for designing parallel and low memory footprint bioinformatics software*, Workshop on Emerging Bioinformatics Applications for Microbial Ecogenomics, Brest, France, oct. 2016.
- C. Lemaitre, *Comparing numerous metagenomics datasets*, Laboratoire de Biométrie et Biologie Évolutive, Lyon, France, Nov. 2016.
- P. Peterlongo *De novo comparison of (large number of) metagenomic samples*, Metagenomics day, Billile, Lille, France June 2016.
- P. Peterlongo *Finding SNPs de novo from reads* , Bioadvection workshop, Napoli, Italy, June 2016.
- P. Peterlongo *De novo comparison of (large number of) metagenomic samples, What are the technical challenges? what can we expect from this?*, RCAM workshop - keynote speaker, The Hague, Netherlands, September 2016.
- P. Peterlongo *Multiple Comparative Metagenomics using Multiset k-mer Counting*, Pasteur Summer School 2016 In Metagenomics, September 2016.
- C. Lemaitre *Comparaison (massive) de (nombreux) metagénomes. Passons par les kmers pour passer à l'échelle*, Journée scientifique sur "le Microbiome" organisée par Biogenouest, Rennes, France, December 2016.
- F. Legeai *Les analyses bioinformatiques pour les données épigénomiques*, Atelier ChIP du réseau REacTION, Paris, France, December 2016.
- R. Andonov, *Global Optimization Methods for Genome Scaffolding and Completing Genome Assemblies*, Workshop on Graph Assembly Algorithms for omics data, Univ. Milano-Bicocca, Italy, November 18, 2016

10.1.5. Leadership within the Scientific Community

- P. Peterlongo. Animator of one of the scientific axes of the GDR BIM group of research.
- P. Peterlongo. Member of the SFBI board.

10.1.6. Scientific Expertise

- Expert for the MEI (International Expertise Mission), French Research Ministry [D. Lavenier]
- Member of the Scientific Council of BioGenOuest [D. Lavenier]
- Member of the Scientific Council of the Computational Biology Institute of Montpellier [D. Lavenier]

10.1.7. Research and Pedagogical Administration

- Member of the CoNRS, section 06, [D. Lavenier]
- Member of the local Inria Rennes CDT (Technologic Transfer Commission) [D. Lavenier]
- Member of the steering committee of the INRA BIPAA Platform (BioInformatics Platform for Agro-ecosystems Arthropods) [D. Lavenier]
- Member of the steering committee of The GenOuest Platform (Bioinformatics Platform of BioGenOuest) [D. Lavenier]
- Representative of the environnemental axis of UMR IRISA [C. Lemaitre]
- AGOS first secretary [P. Peterlongo]
- Organisation of the weekly seminar "Symbiose" [P. Peterlongo]
- Scientific Responsible for International Relationships at ISTIC [A. Mucherino]
- Member of "Commission Affaires Internationales" at University of Rennes 1 [A. Mucherino]

- In charge of the bachelor's degree in the computer science department of University of Rennes 1 (90 students) [R. Andonov]

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Licence : R. Andonov, Graph Algorithms, 60h, Univ. Rennes 1, France.

Licence : A. Mucherino, Java basis, 80h, L1, Univ. Rennes 1, France.

Master : A. Mucherino, R. Andonov, Operational Research, 78h, M1, Univ. Rennes 1, France.

Master : A. Mucherino, Introduction to Computational Systems and Networks, 42h, M1, Univ. Rennes 1, France.

Master : A. Mucherino, Object Oriented Programming, 40h, M1, Univ. Rennes 1, France.

Master : A. Mucherino, P. Peterlongo and R. Andonov, Algorithms on Sequences and Structures, 36h, M2, Univ. Rennes 1, France.

Master : A. Mucherino, Parallel Computing (in English), 18h, M1, Univ. Rennes 1, France.

Master : C. Lemaitre, Dynamical systems for biological networks, 20h, M2, Univ. Rennes 1, France.

Master : C. Lemaitre, P. Peterlongo, Algorithms on Sequences for Bioinformatics, 24h, M1, Univ. Rennes 1, France.

Master : P. Peterlongo, Experimental Bioinformactics, 12h, M1, ENS Rennes, France.

Master : D. Lavenier, Research training module, 24h, M1, Univ. Rennes 1, Rennes, France.

Master : R. Andonov, Advanced Algorithmics, 25h, Univ. Rennes 1, France.

Training : P. Durand, G. Rizk, GATB Programming Day, 8h (June 16th), Univ. Rennes 1, Rennes, France.

Training : P. Durand, G. Rizk, GATB Programming Day, 8h (May 9th), Institut Henri Poincaré, France.

E-learning

Online tutorial : GATB-Core Online Training tool. http://gatb-core.gforge.inria.fr/training/

discoSnp tutorial available from the discoSnp webpage: https://colibread.inria.fr/software/discosnp/

10.2.2. Supervision

HdR : Pierre Peterlongo, Lire les lectures : analyse de données de séquençage, Univ. Rennes 1, 25/01/2016, [11] https://hal.inria.fr/tel-01278275.

PhD in progress : G. Benoit, New algorithms for comparative metagenomics, 01/11/2014, D. Lavenier and C. Lemaitre.

PhD in progress : A. Limasset, Algorithm for Genomics, 09/2014, D. Lavenier and P. Peterlongo.

PhD in progress : C. Guyomar, Bioinformatic tools and applications for metagenomics of bacterial communities associated to insects, 01/10/2015, C. Lemaitre and F. Legeai.

PhD in progress : C. Marchet, Nouvelles méthodologies pour l'assemblage de données de séquençage polymorphes, 01/10/2015, P. Peterlongo.

PhD in progress : P. Hoan Son, Data mining and bioinformatics, 01/2015, D. Lavenier and A. Termier.

PhD in progress : S. François, Combinatorial Optimization Approaches for Bioinformatics, 01/10/2016, R. Andonov.

10.2.3. Juries

- *President of Ph-D thesis jury*. Phuong Do Viet, University of Montpellier [R. Andonov], Karel Brinda, University of Marne la Vallée [D. Lavenier]
- *Member of Ph-D thesis juries*. Joseph Lucas, University Pierre et Marie Curie [C. Lemaitre].
- *Referee of Ph-D thesis*. Cécile Monat, University of Montpellier [D. Lavenier], C. Vroland, University of Lille [P. Peterlongo].
- *Member of Ph-D thesis comitees*. L. Ishi Soares de Lima, University of Lyon [C. Lemaitre], Yoann Aigu, University of Rennes [F. Legeai], Hélène Boulain, University of Rennes [F. Legeai], Chunxiang Hao, University of Rennes [D. Lavenier], Alix Mas, University of Rennes [P. Peterlongo], Pierre Charrier, University of Nantes [P. Peterlongo], Cervin Guyomar, University of Rennes [P. Peterlongo], Lea Siegwald, University of Lille [P. Peterlongo].

10.3. Popularization

- Operation "A la découverte de la recherche" [P. Peterlongo]

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

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events Organisation

10.1.1.1. Member of the Organizing Committees

Frédéric Lavancier and Charles Kervrann were head of the organizing committee of the international workshop "Spatial Statistics and Image Analysis in Biology" (SSIAB'16), Inria Rennes, May 2016.

Frédéric Lavancier was head of the workshop "Spatio-Temporal Models and Statistics", IRMAR University of Rennes 1, LMJL University of Nantes, ENSAI, University of Rennes 2, INRA Rennes, Inria Rennes, April 2016.

Patrick Bouthemy and Thierry Pécot were respectively main organizer and co-organizer of the BioImage Computing workshop in conjunction with ECCV'2016, Amsterdam, October 2016.

Patrick Bouthemy and Charles Kervrann were respectively main organizer and co-organizer of the mini-symposium "Image analysis advances in dynamic microscopy and live cell imaging" in SIAM Conference on Imaging Sciences, Albuquerque, New-Mexico, USA, May 2016.

Charles Kervrann was member of the organization committee of the Microscopy school MiFoBio'2016, Seignosse, October 2016.

10.1.2. Scientific Events Selection

10.1.2.1. Member of the Conference Program Committees

Charles Kervrann: member of the scientific committee of RFIA'2016 (Clermont-Ferrand), Associated Editor for the conference ISBI'2017, member of the scientific committee of the "Image the Cell 2017" conference (Rennes), member of the scientific committee "Journées d'Imagerie Optique Non-Conventionnelle" (JIONC'2016 and JIONC'2017).

Patrick Bouthemy: Associate Editor for the conference ISBI'2016 and ISBI'2017, Area Chair of ICIP'2016, member of the program committee of RFIA'2016.

Thierry Pécot: member of the program committee of BIOIMAGING'2016.

10.1.2.2. Reviewer

Charles Kervrann: reviewer for ICIP'2016, ICASSP'2016, ISBI'2016, ICASSP'2017, ICIP'2017.

Patrick Bouthemy: reviewer for ICIP'2016, ISBI'2016.

Thierry Pécot: reviewer for ISBI'2016, BIOIMAGING'2016.

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

Charles Kervrann is Guest Editor of the special issue entitled "Advanced Signal Processing in Microscopy and Cell Imaging" of the IEEE Selected Topics in Signal Processing Journal, February 2016.

Charles Kervrann is Associate Editor of the IEEE Signal Processing Letters journal (since January 2015).

Patrick Bouthemy is co-editor in chief of the open access journal Frontiers in ICT, specialty Computer Image Analysis.

10.1.3.2. Reviewer - Reviewing Activities

Charles Kervrann: BMC Bioinformatics, IEEE Transactions on Computational Imaging, SIAM J. on Imaging Sciences, Methods, expert for the project evaluation in the framework of FONDECYT Science Council (Chile).

Patrick Bouthemy: IEEE Transactions on Image Processing, Mathematical Problems in Engineering, IEEE Signal Processing Letters, IEEE Robotics and Automation Letters, Applied Soft Computing Journal, Computational Intelligence and Neuroscience.

Frédéric Lavancier: Spatial Statistics, R Journal

Thierry Pécot: Bioinformatics, IEEE Transactions on Medical Imaging.

10.1.4. Invited Talks

Charles Kervrann:

Invited talk at the FBI seminar (Paris centre), Computational methods for diffusion, motion and molecular interaction estimation, Pont l'Eveque, February 2016.

Invited talk at the Forum Mathématique Diderot, Computational analysis of intracellular membrane dynamics: from live cell images to biophysical model, Paris, March 2016.

Seminar UTSW, Danuser's lab, Computational analysis of intracellular membrane dynamics: from live cell images to biophysical model, Dallas, TX, USA, May 2016.

Invited talk at SIAM Conference on Imaging Sciences, PEWA: Patch-based Exponentially Weighted Aggregation for image denoising, Albuquerque, New-Mexico, USA, May 2016.

Patrick Bouthemy

Invited talk at SIAM Conference on Imaging Sciences, A scale-adaptive method for retracing and registering in correlative light-electron microscopy, Albuquerque, New-Mexico, USA, May 2016.

Vincent Briane:

Invited talk at SSIAB'2016 workshop, An adaptive statistical test to detect non Brownian diffusion from particle trajectories, Inria Rennes, May 2016.

Thierry Pécot:

Invited talk at SSIAB'2016 workshop, A non-parametric procedure for co-localization studies in fluorescence microscopy, Inria Rennes, May 2016.

Talk and practical course at Microscopy school MiFoBio'2016, mage processing methods for the temporal analysis of moving particles, Seignosse, October 2016.

Seminar IGDR, QuantEv: Quantifying the spatial distribution of intracellular events, Rennes, November 2016.

Frédéric Lavancier:

Seminar of Statistics and Probability in Lille 1, Determinantal point process models and statistical inference, Lille, March 2016.

Seminar in Statistics of University Toulouse 1, A general procedure to combine estimators, Toulouse, June 2016.

Invited talk at "Journées MAS", Determinantal point process models and statistical inference, Grenoble, August 2016.

10.1.5. Scientific Expertise

Charles Kervrann:

Member of the IEEE BISP "Biomedical Image and Signal Processing" committee.

Member of executive board of the GdR MIV (2588 - Microscopie Fonctionnelle du Vivant) CNRS.

Member of the scientific committee of the Interdisciplinary MiFoBio School CNRS (http://www.mifobio.fr).

Patrick Bouthemy:

>   Member of the board of AFRIF (Association Française pour la Reconnaissance et l'Interprétation des Formes).

>   Member of the Research Committee of Telecom Bretagne.

Frédéric Lavancier:

>   Elected member of CNU section 26.

>   Expert for the project evaluation in the framework of FNRS (Fonds de la Recherche Scientifique), Belgium.

10.1.6. Research Administration

Charles Kervrann:

>   Member of the executive board of the project committee of the Inria Rennes - Bretagne Atlantique centre.

>   Member of the Scientific Council of the INRA Rennes Research Centre.

>   Co-head of the "BioImage Informatics" node (ANR France-BioImaging project, National Infrastructure en Biologie et Santé).

Patrick Bouthemy:

>   Head of Excellence Lab CominLabs since April 2014.

>   Deputy member of the board of directors and member of the Selection and Validation Committee of the Images & Réseaux competitivity cluster.

>   Deputy member of the board of directors of IRT (Technological Research Institute) b<>com.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Charles Kervrann:

>   Engineer Degree: Genomics and Informatics, 4.5 hours, Ecole Nationale Supérieure des Mines de Paris.

>   Master: From Bioimage Processing to BioImage Informatics, 5 hours, coordinator of the module (30 hours), Master 2 Research IRIV, Telecom-Physique Strasbourg and University of Strasbourg.

>   Master: Geometric Modeling for Shapes and Images, 6 hours, Master 2 Research SISEA, University of Rennes 1.

>   Engineer Degree and Master 2 Statistics and Mathematics: Statistical Models and Image Analysis, 37 hours + 15 hours (TP, Emmanuel Moebel), 3rd year, Ecole Nationale de la Statistique et de l'Analyse de l'Information (ENSAI), Rennes.

Patrick Bouthemy:

>   Master: Analysis of Image Sequences, 18 hours, Master 2 Research SISEA, ISTIC & University of Rennes 1.

>   Master: Video Indexing, 9 hours, Master 2 Research Computer Science, ISTIC & University of Rennes 1.

>   Engineer Degree and Master 2 Research IRIV: Motion Analysis, 12 hours, Telecom-Physique Strasbourg & University of Strasbourg.

Frédéric Lavancier:

>   Master: Linear Models, 36 hours, Master 2 Mathematics & Engineering, option Statistics, University of Nantes.

>   Master: Time Series, 36 hours, Master 2 Mathematics & Engineering, option Statistics, University of Nantes.

10.2.2. Supervision

PhD in progress: Arnaud Poinas, Inference for inhomogeneous determinantal point processes, started in September 2016, supervised by Bernard Delyon and Frédéric Lavancier

PhD in progress: Hoai Nam Nguyen, Methods and algorithms for tissue microarrays image analysis, started in October 2013, supervised by Charles Kervrann and Vincent Paveau (Innopsys).

PhD in progress: Vincent Briane, Statistical methods and models for motion analysis in microscopy, started in October 2014, supervised by Charles Kervrann and Myriam Vimond (ENSAI-CREST).

PhD in progress: Bertha Mayela Toledo Acosta, Methods and algorithms for 3D image registration and correlative microscopy, started in October 2014, supervised by Patrick Bouthemy and Charles Kervrann.

PhD in progress: Emmanuel Moebel, New strategies for the nonambiguous identification and enumeration of macromolecules in cryo electron tomograms, started in November 2015, supervised by Charles Kervrann.

PhD in progress: Juan Manuel Perez Rua, Semantically meaningful motion descriptors for video understanding, started in January 2015, supervised by Patrick Bouthemy in collaboration with Tomas Crivelli and Patrick Pérez (Technicolor).

PhD in progress: Ancageorgiana Caranfil, Data assimilation methods for cell division mechanisms and molecule trafficking analysis, started in December 2016, supervised by Charles Kervrann and Yann Le Cunff.

PhD in progress: Sandeep Manandhar, Optical flow methods for 3D fluoresence imaging, started in October 2016, supervised by Patrick Bouthemy and Charles Kervrann.

10.2.3. Juries

Referee of PhD thesis: G. Michelin (University of Côte d'Azur, supervised by G. Malandain) [P. Bouthemy], L. Azzari (Tampere University of Technology, Finland, supervised by A. Foi) [C. Kervrann], H. Robjani (University of Strasbourg, supervised by C. Ronse) [C. Kervrann].

VISAGES Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events Organisation

10.1.1.1. General Chair, Scientific Chair

- Olivier Commowick was General Chair of the "Multiple Sclerosis Lesions Segmentation Challenge", MICCAI 2016.

10.1.1.2. Member of the Organizing Committees

- Olivier Commowick, Michael Kain, Florent Leray, Jean-Christophe Ferré, Anne Kerbrat, Mathieu Simon and Christian Barillot organized the "Multiple Sclerosis Lesions Segmentation Challenge", MICCAI 2016.
- Christian Barillot is member of the Board of Directors of IPMI conference series (Information Processing in Medical Imaging)

10.1.2. Scientific Events Selection

10.1.2.1. Chair of Conference Program Committees

- Christian Barillot was area chair of SPIE Medical Imaging 2016
- Christain Barillot was area chair of IEEE ISBI 2016

10.1.2.2. Member of the Conference Program Committees

- Christian Barillot was TPC Member of PatchMI-2016, MICCAI-MCV2016
- Emmanuel Caruyer was Program Committee member of the CDMRI MICCAI workshop.

10.1.2.3. Reviewer

- ISBI (Emmanuel Caruyer, Olivier Commowick), ISMRM (Élise Bannier), MICCAI (Emmanuel Caruyer, Olivier Commowick).

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

- Christian Barillot is member of Editorial Boards of Medical Image Analysis, Current Medical Imaging Reviews, ISRN Signal Processing
- Christian Barillot is Editor-in-Chief of Frontiers in ICT: Computer Image Analysis.

10.1.3.2. Reviewer - Reviewing Activities

- Am J Neuroradiol (Élise Bannier), Comput Biol Med (Christian Barillot), Comput Meth Prog Bio (Christian Barillot), Front Neurosc (Pierre Maurel), Hum Brain Mapp (Emmanuel Caruyer), IEEE TMI (Pierre Maurel, Olivier Commowick), Med Image Anal (Olivier Commowick), Med Phys (Christian Barillot) Neuroimage (Christian Barillot, Isabelle Corouge, Emmanuel Caruyer, Olivier Commowick), Pattern Recog Lett (Christian Barillot).

10.1.4. Invited Talks

- Gilles Edan gave an invited keynote at the world 2016 ECTRIMS conference (London, UK)
- Christian Barillot published an invited position paper for the 20th anniversary of Medical Image Analysis
- Christian Barillot gave an invited lecture at the 25ème COLLOQUE DE LA CONFÉRENCE NATIONALE DES COMITÉS DE PROTECTION DES PERSONNES (CNCP)

- Christian Barillot gave an invited lecture at the Global Bioimaging Training Program, Eurobioimaging ESFRI program, EMBL, Germany
- Christian Barillot gave an invited lecture at the Miccai-BrainLes Workshop 2016, Athenes, GR
- Christian Barillot gave an invited lecture at the Maria de Maeztu Strategic Research Program; Department of Information and Communication Technologies, UPF, Barcelona, Spain
- Christian Barillot gave an invited lecture at the RIR 2016 - Emerging challenges in neuroscience, neurology & psychiatry, Paris, France
- Christian Barillot gave an invited lecture at the Biomedical Imaging Seminar, Erasmus MC, Rotterdam
- Christian Barillot gave an invited lecture at the FCRIN day on "Specificities of clinical research in imaging"
- Christian Barillot, Emmanuel Caruyer and Olivier Commowick gave an invited talk at the "MRI based Virtual Histology: Meeting Tomorrow's Healthcare Challenges Today" workshop, University College London, May 26-27th.

10.1.5. Leadership within the Scientific Community

- Gilles Edan was elected Fellow of the European Academy of Neurologie. Member of the EAN teaching committee in 2015
- Christian Barillot is member of the Scientific Council of the INS2I [0] Institute of CNRS since 2011 and is Chairman of the Board since 2015
- Christian Barillot is member of the C3N committee (CNRS)
- Christian Barillot is member of the scientific board of "GIS France Grilles"

10.1.6. Scientific Expertise

- Christian Barillot provided an expertise for the Royal Netherlands Academy of Arts and Sciences (KNAW)
- Christian Barillot provided expertise for the EPSRC, UK
- Christian Barillot provided an expertise for ANRT
- Christian Barillot provided expertise for the Assistant professor committee for the University of Paris Sud
- Emmanuel Caruyer provided expertise for the Inria Associate Team program.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Master SIBM, University of Angers-Brest-Rennes

Christian Barillot, Élise Bannier, Emmanuel Caruyer, Olivier Commowick, Isabelle Corouge, Jean-Yves Gauvrit, Sylvain Prima, 3D medical imaging – visualization, segmentation, fusion, management, normalization (26h)

Sylvain Prima, Master 1 SIBM, University of Rennes (5h)

Christian Barillot is responsible for one semester

Jean-Yves Gauvrit is the coordinator for the Master

École Supérieure d'Ingénieur de Rennes (ESIR): Pierre Maurel, General image processing (60h), Algorithmics and complexity (60h), Medical imaging (60h)

ENS Rennes: Pierre Maurel, Introduction to image processing (24h)

ISTIC – Université of Rennes 1: Emmanuel Caruyer, Software Engineering (12h)

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[0] http://csins2i.irisa.fr

10.2.2. Supervision

PhD: Hrishikesh Deshpande, "Dimensionality Reduction and Statistical Learning for Computational Modeling of Natural Evolution of Brain Pathologies", Inria, Jun 2012, Christian Barillot, Pierre Maurel.

PhD in progress: Sudhanya Chatterjee, "Image-based Tissue Compartment Characterization of Neural Circuits with in-vivo MRI", Inria, from Nov 2015, Christian Barillot, Olivier Commowick, Jean-Christophe Ferré, Simon Warfield.

PhD in progress: Renaud Hédouin, "Biomarker discovery in brain imaging by using diffusion MRI", Inria/Inserm, from November 2013, Christian Barillot, Olivier Commowick.

PhD in progress: Cédric Meurée, "Quantitative Analysis Of Arterial Spin Labeling MRI For Robust Parametric Information Of Perfusion Maps", Inria / Siemens, from Mar 2014, Christian Barillot, Pierre Maurel.

PhD in progress: Corentin Vallée, "Joint estimation of neuronal activation, resting-state and basal metabolism from Arterial Spin Labeling", Christian Barillot, Isabelle Corouge, Pierre Maurel.

PhD in progress: Antoine Legouhy, "Analyse IRM multimodale pour l'e´tude du de´veloppement ce´re´bral chez le pre´mature´", from Nov 2016, Christian Barillot, Olivier Commowick, François Rousseau.

PhD in progress: Lorraine Perronnet, "Neurofeedback Using Virtual Reality And Combining Eeg-Mri For Brain Rehabilitation", Inria/CominLabs Hemisfer project, from Dec 2013, Christian Barillot, Maureen Clerc (Inria Sophia-Antipolis), Anatole Lecuyer (HYBRID project), Fabien Lotte (Inria Bordeaux)

PhD in progress: Haykel Snoussi, "Diffusion MRI detection of early occurring spine lesions in relapsing-remitting multiple sclerosis with late physical impairment", from Nov 2015, Christian Barillot, Gilles Edan, Emmanuel Caruyer

PhD in progress: Pierre-Yves Jonin, "Relationships between context-free and context-rich memory: cognitive and neural subtrates", Inria/Inserm/CNRS from Oct 2014, Christian Barillot (co-supervisor)

PhD in progress: Maia Proisy, "Perfusion in neonates and in pediatric diseases", Univ. Rennes 1/CHRU Rennes, from Oct 2014, Jean-Christophe Ferré (supervisor)

PhD in progress: Anne Kerbrat, "Quantitative MR imaging in MS for Brain and Spine", Univ. Rennes 1/CHRU Rennes, from Oct 2014, Gilles Edan (supervisor)

10.2.3. Juries

- Pierre Maurel, PhD committee Hrishikesh Despande, Inria, Rennes July 2016.
- Christian Barillot, PhD committees: Hrishikesh Despande, Inria, Rennes July 2016.
- Christian Barillot, PhD reviewer: Mehdi Hadj-Hamou, Inria, Sophia; Dec 2016; Ester Bron, Erasmus MC, NL, March 2016

10.3. Popularization

- Inria demonstration stand, Journées Françaises de Radiologie.

<div align="center">

ASAP Project-Team

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9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific Events Organisation

9.1.1.1. General Chair, Scientific Chair

George Giakkoupis was the General Chair of the 35th ACM SIGACT-SIGOPS Symposium on Principles of Distributed Computing (PODC 2016), Chicago, IL, USA, Jul 2016.

9.1.2. Scientific Events Selection

9.1.2.1. Member of Conference Program Committees

Pierre-Louis Roman served in the program committee of the 6th IEEE International Symposium on Cloud and Service Computing (SC2), Nadi, Fiji, Dec 2016.

Francois Taiani served in the program committee of the:

> 17th ACM/IFIP/USENIX International Conference on Middleware (Middleware), Trento, Italy, Dec 2016.

> 15th Workshop on Adaptive and Reflective Middleware (ARM'16), Trento, Italy, Dec 2016.

> 4th workshop on Distributed Cloud Computing (DCC), Chicago, USA, Jul 2016

> International Workshop on Assurance in Distributed Systems and Networks (ADSN 2016), Nara, Japan, Jun 2016.

> IEEE International Conference on Cloud Engineering 2016 (IC2E 2016), Berlin, Germany, Apr 2016.

David Bromberg served in the program committee of the:

> 17th ACM/IFIP/USENIX International Conference on Middleware (Middleware), Trento, Italy, Dec 2016.

> IEEE International Conference on Cloud Engineering 2016 (IC2E 2016), Berlin, Germany, Apr 2016.

Davide Frey served in the program committee of the

> 11th ACM International Conference on Distributed and Event-Based Systems (DEBS 2017), Barcelona, Spain, Jun 2017.

> 17th ACM/IFIP/USENIX International Conference on Middleware (Middleware), Trento, Italy, Dec 2016.

George Giakkoupis served in the program committee of the:

> 17th International Conference on Distributed Computing and Networking (ICDCN 2017), Singapore, Jan 2016.

> 3rd ACM-W Europe Celebration of Women in Computing (womENcourage 2016), Linz, Austria, Sep 2016.

> 31st IEEE International Parallel & Distributed Processing Symposium (IPDPS 2017), Orlando, FL, USA, May 2017.

9.1.3. Journal

9.1.3.1. Member of Editorial Boards

Anne-Marie Kermarrec is an associate editor of IEEE Internet Computing.

Anne-Marie Kermarrec is an associate editor of the Springer Computing Journal.

9.1.4. Invited Talks

Michel Raynal, A Look at Basics of Distributed Computing, Keynote Talk in the 36th International Conference on Distributed Computing Systems (ICDCS 2016), Nara, Japan, June 2016.

Pierre-Louis Roman, Bringing secure Bitcoin transactions to your smartphone, Technicolor, Rennes, Nov 24 2016.

Francois Taiani, Being prepared in a sparse world: The case of KNN graph construction, Invited Seminar of the Département Informatique et télécommunications (DIT) of ENS Rennes, Sep 2016.

Francois Taiani, Being prepared in a sparse world: The case of KNN graph construction, Invited Seminar of the Inria Project Team TAO, Inria Saclay, May 2016.

David Bromberg, Towards microservices architecture to transcode videos in the large at low costs, Invited seminar of the computer science department of UFG - Instituto de Informatica, Goiâna, Brasil, Jun 2016.

George Giakkoupis, Randomized adversary models. CMO-BIRS Workshop on Complexity and Analysis of Distributed Algorithms, Oaxaca, Mexico, Dec 1 2016.

George Giakkoupis, Amplifiers and suppressors for the Moran process on undirected graphs. ART-Oberseminar, University of Hamburg, Germany, Nov 8 2016.

George Giakkoupis, Amplifiers and suppressors of evolutionary dynamics on undirected graphs. Workshop on Random Processes in Discrete Structures, University of Warwick, UK, Aug 31 2016.

George Giakkoupis, Recent advances in randomized rumor spreading. Nexus of Information and Computation Theories, Distributed Computation and Communication Theme, The Henri Poincare Institute (IHP), Paris, France, Feb 1 2016.

Davide Frey gave an Invited (Keynote) talk at the W-PSDS workshop co-located with SRDS 2016 in Budapest, Hungary, on Sep 26, 2016.

Davide Frey gave an Invited talk at the SG-2 meeting of the BDVA Summit in Valencia, Spain, on Dec 1, 2016.

9.1.5. Leadership within the Scientific Community

Anne-Marie Kermarrec has been a member of the Academia Europea since 2013.

Anne-Marie Kermarrec is a member of the scientific committee of the Société Informatique de France.

George Giakkoupis was a member of the Steering Committee of the 35th ACM SIGACT-SIGOPS Symposium on Principles of Distributed Computing (PODC 2016), Chicago, IL, USA, Jul 2016.

Francois Taiani has been a member of the Steering Committee of IFIP WG 6.1 International Conference on Distributed Applications and Interoperable Systems (DAIS) since 2013.

Francois Taiani has been a member of the Steering Committee of the ACM/IFIP/USENIX International Conference on Middleware (Middleware) since 2014.

Francois Taiani served on the hiring committee for the position of Maître de Conférence a the University of Perpignan – Via Domitia in 2016.

9.1.6. Research Administration

David Bromberg is member of the scientific committee of the Media & Networks competitiveness cluster.

David Bromberg is scientific correspondent for ICT Digital in Rennes.

Davide Frey is "correspondant scientifique Europe" at the DPEI for Inria Rennes.

Davide Frey is an associate member of the COST-GTRI of Inria.

Anne-Marie Kermarrec has been a member of the ERC panel for Consolidator Grants since 2013.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Licence : Olivier Ruas, Initiation au Génie Logiciel (GEN), 40, L2, Univ. Rennes I (ISTIC), France

Licence : Olivier Ruas, Algorithmique Fonctionnelle (APF), 24, L1, Univ. Rennes I (ISTIC), France

Engineering School : Simon Bouget, SYS1 (Introduction aux Systèmes d'exploitation), 6 HEQTD (3x 2 heures de TP), ESIR1 (L3), Univ. Rennes I (ESIR), France

Master : Simon Bouget, TLC (Techniques Logicielles pour le Cloud computing), 18 HEQTD (7x 2 heures de TP + 2x 2 heures de TD), M2 Génie Logiciel Alternance, Univ. Rennes I (ISTIC), France

Engineering School: Francois Taiani, Synchronization and Parallel Programming, 34h, 2nd year of Engineering School (M1), ESIR / Univ. Rennes I, France.

Engineering School: Francois Taiani, Distributed Systems, 24h, 3rd year of Engineering School (M2), ESIR / Univ. Rennes I, France.

Engineering School: Francois Taiani, Parallel Algorithms for Big Data, 24h, 3rd year of Engineering School (M2), ESIR / Univ. Rennes I, France.

Engineering School: Francois Taiani, Introduction to Operating Systems, 24h, 1st year of Engineering School (L3), ESIR / Univ. Rennes I, France.

Master: Francois Taiani, Programming Technologies for the Cloud, 14h, M2, Univ. Rennes I, France.

Engineering School: David Bromberg, tools and programming languages for the Web, 48h, 2nd year of Engineering School (M1), ESIR / Univ. Rennes I, France.

Engineering School: David Bromberg, Distributed software architecture, 24h, 2nd year of Engineering School (M1), ESIR / Univ. Rennes I, France.

Engineering School: David Bromberg, Network security, 48h, 2nd year of Engineering School (M1), ESIR / Univ. Rennes I, France.

Engineering School: David Bromberg, Cloud for the Internet of Things, 24h, 3rd year of Engineering School (M2), ESIR / Univ. Rennes I, France.

Master: Davide Frey, Scalable Distributed Systems, 10 hours, M1, EIT/ICT Labs Master School, Univ. Rennes I, France.

9.2.2. Supervision

PhD: Antoine Rault, User privacy in collaborative filtering systems [13], Univ. Rennes I, Jun 23, 2016, Anne-Marie Kermarrec and Davide Frey.

PhD: Fabien Andre, Exploiting Modern Hardware for Large Scale Nearest Neighbor Search [52], [0] Nov 25 2016, Anne-Marie Kermarrec (and Nicolas Le Scouarnec–Technicolor).

PhD: Nupur Mittal, Data, Learning & Privacy in Recommendation Systems [11], Nov 25, 2016, George Giakkoupis and Anne-Marie Kermarrec.

PhD: Javier Olivares, Scaling Out-of-Core K-Nearest Neighbors Computation on Single Machines [12], Dec 19 2016, Anne-Marie Kermarrec.

PhD in progress : Pierre-Louis Roman, Epidemic Distributed Convergence for Decentralized Social Networking, Oct 2014, Francois Taiani and Davide Frey.

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[0]The thesis was not yet available at HAL at the time when this report was submitted.

PhD in progress : Stéphane Delbruel, Towards a Decentralized Embryomorphic Storage System, Oct 2013, Francois Taiani and Davide Frey (since Oct 2014).

PhD in progress : Resmi Ariyattu Chandrasekharannair, Towards Decentralized Federations for Plug-based Decentralized Social Networks, Dec 2013, Francois Taiani.

PhD in progress : Olivier Ruas, Dynamic Learning and Recommendations in Very Large Distributed Computing Infrastructures, Oct 2015, Anne-Marie Kermarrec and Francois Taiani.

PhD in progress: Simon Bouget, EMILIO: Emergent Middleware for Extra-Large-Scale Self Adaptation, Sep 2014, Francois Taiani and David Bromberg (since Sep 2015).

PhD in progress: Adrien Luxey, Towards New Solutions to Build Large Scale Distributed Applications in the Cloud, Oct 2016, David Bromberg.

9.2.3. Juries

Francois Taiani was an internal examiner of the PhD of Jackie Bourgeois. Interactive Demand Shifting in the Context of Domestic Micro-Generation. Open University (UK) / Univ. Rennes I, Jun 30 2016.

Francois Taiani was the chair of the PhD panel of Anca Iordache. Performance-Cost Trade-Offs in Heterogeneous Clouds. Univ. Rennes I, Sep 9 2016.

Francois Taiani was a reviewer of the PhD of Milan Kabac. A Design-Driven Methodology for the Development of Large-Scale Orchestrating Applications. Univ. Bordeaux, rapporteur, Sep 26 2016.

Francois Taiani was a reviewer of the PhD of Thomas Hartmann. Enabling Model-Driven Live Analytics For Cyber-Physical Systems: The Case of Smart Grids. Univ. of Luxembourg (Luxembourg), Nov 8 2016.

Francois Taiani was a reviewer of the PhD of Lucas Perrone. Vers des protocoles de tolérance aux fautes Byzantines efficaces et robustes. Univ. Grenoble Alpes, Dec 8 2016.

Francois Taiani was the chair a of the PhD panel of Javier Olivares. Scaling out-of-core K-Nearest Neighbors Computation on Single Machines. Univ. Rennes I, Dec 19 2016.

Francois Taiani was a reviewer of the HDR of Fabien Huet. From HPC to Big Data : Models and Tools for Large Scale Middleware. Université of Nice, Sophia Antipolis, Feb 12 2016.

Francois Taiani was the chair of the HDR panel of Erwan Le Merrer. Structuring Overlays for Distributed Computing: From Edge-Devices to the Clouds. Univ. Rennes I, Nov 23 2016.

George Giakkoupis was a member of the PhD committee of Maryam Helmi. The Space Complexity of Distributed Tasks in the Shared Memory Model. University of Calgary, Jun 7 2016.

George Giakkoupis was a member of the PhD committee member of Scott Roche. Robust Local Algorithms for Communication and Stability in Distributed Networks. Northeastern University, Nov 14 2016.

George Giakkoupis was an external reviewer of the PhD dissertation of Emanuele Natale. On the Computational Power of Simple Dynamics. Sapienza University of Rome, Dec 15 2016.

ASCOLA Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events Organisation

10.1.1.1. Member of the Steering and Organizing Committees

- A. Lebre took part to the organisation of the Grid'5000 school in Grenoble (70 attendees).
- A. Lebre took part to the organisation of the workshop "Stockage informatique" during the Journées Scientifiques event in Nantes.
- J. Noyé was a co-organizer of LaMod '16, a workshop on Language Modularity co-located with Modularity '16 in Málaga, Spain.

10.1.2. Scientific Events Selection

10.1.2.1. Member of the Conference Program Committees

- J.-C. Royer was a member of the program committes WETCIE 2016, CAL 2016, ICIS 2016, IWAISE 2016, IIAI 2016.
- T. Ledoux was member of the program committees of the following workshops: Greens'16@ICSE, ARM'16@Middleware, CrossCloud'16@EuroSys.
- A. Lebre was a member of the program committees of ACM/IEEE CCGRID 2016, Europar 2016, ACM/IEEE SC 2016, IEEE CloudCom 2016, IEEE SSS 2016, OPTIM 2016.
- J. Noyé was a member of the program committee of Modularity '16 (Málaga, Spain).

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

- A. Lebre is associate editor for the IEEE Transactions on Big Data journal.
- M. Südholt is joint editor-in-chief of the journal Transactions on Modularity and Software Composition (Springer), formerly Transactions on AOSD.
- M. Südholt is an associate editor of the Journal on Programming, an open access journal.

10.1.3.2. Reviewer - Reviewing Activities

- A. Lebre has been a reviewer for the IEEE TPDS and IEEE TCC Journals, the IEEE Cloud Computing magazine, and the Journal of Parallel and Distributed Computing.
- T. Ledoux has been a reviewer for the IEEE Communications Letters.
- J. Noyé has been a reviewer for the Journal of Object Technology and Science of Computer Programming.

10.1.4. Invited Talks

- A. Lebre and Anthony Simonet have been invited to the 9th edition of the CloudControl Workshop (Sweden).
- A. Lebre has been invited to the BigStorage Initial Training Schoom (Spain).

10.1.5. Leadership within the Scientific Community

- A. Lebre is leading the OpenStack "Massively Distributed Working Group" (further information at: https://wiki.openstack.org/wiki/Massively_Distributed_Clouds).

- A. Lebre is member of the executive committee of the GDR CNRS RSD (Reseau et Système distribué). He is also co-leading the transversal action Virtualization and Clouds of this GDR.
- A. Lebre is member of the executive and architect committees of the Grid'5000 GIS (Groupement d'intérêt scientifique).
- T. Ledoux is member of the board of the Green Lab Center association. This association promotes and disseminates Green IT practices and research prototypes to the world of education, research and companies [0].
- M. Südholt is a member of the steering committees of the two international conferences on Programming and Modularity.
- M. Südholt has been a member of the board of the Aspect-Oriented Software Association.

10.1.6. Research Administration

- Pierre Cointe has been the head of the Lina laboratory that managed research in Computer Science of the main research institutions in Nantes.
- Jacques Noyé is the deputy head of the Mines Nantes department of Automation, Production and Computer Sciences.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

The team is involved in the following undergraduate and graduate-level programs at Mines Nantes and University of Nantes (the institutions all of eaching staff belongs to):
- The team is a main contributor to the **engineering program of EMN**.
- Within this engineering program, the team is steering, chairing and the main contributor to a two-year **graduate-level informatics specialization**. H. Grall is managing this program.
- The team is leading a three-year **engineering program on software engineering**. T. Ledoux is managing this program.

The team has also been involved in the following MSc programs that have been carried out with partners from French and foreign universities:
- The team participates in the **MSc program "Alma"** on software architecture and distributed systems, a joint program steered by colleagues from University of Nantes. In this context, we are responsible for a 48-hour module on advanced software composition and take part in the program's governing board. M. Südholt is managing the participation of Mines Nantes in this program.
- J.-C. Royer was teaching "Architecture, component programming and OSGi", from March 7 until 12, level M1, at the University of Monastir (Tunisia).

m members have taught for about 220 hours on average in 2015 (hours of presence in front of students). Hereby, we have taken into account that researchers and some professors have not taught at times. In addition, another significant part of the program is taught by temporary staff, whose participation is managed by ASCOLA members.

10.2.2. Juries

- J.-C. Royer was reviewer of the HDR of Mohamed Bhiri (Université Grenoble), September 7, 2016. He was also member of the PhD defense of Jonathan Pépin (Université de Nantes) December 5, Madhi Benmoussa (Université Paris XIII) December 6, and Amine Benelallam (Ecole des Mines) December 7.
- A. Lebre was a member of the PhD committee of Vincent Kherbache, "Ordonnancement des migrations a` chaud de machines virtuelles", Université de Nice - Sophia Antipolis, Dec. 7.
- T. Ledoux was a member of the PhD committee of Zakarea Al Shara (Univ. Montpellier), Nov. 17.

10.3. Popularization

- A. Lebre has been invited to the CargoDays event (Nantes).

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[0]Green Lab Center

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

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events Organisation

10.1.1.1. General Chair, Scientific Chair

Emmanuelle Anceaume served as the general chair of OPODIS 2015 (19th International Conference on Principles of Distributed Systems), December 2015, Rennes, France.

10.1.1.2. Member of the Organizing Committees

Christophe Bidan served as a member of the organization committee of C&ESAR 2016 (23rd Computers & Electronics Security Applications Rendez-vous), November 2016, Rennes, France.

Nicolas Prigent served as a member of the organization committee of SSTIC 2016 (Symposium sur la sécurité des technologies de l'information et des communications), June 2016, Rennes, France.

Frédéric Tronel served as a member of the organization committee of SSTIC 2016 (Symposium sur la sécurité des technologies de l'information et des communications), June 2016, Rennes, France.

10.1.2. Scientific Events Selection

10.1.2.1. Chair of Conference Program Committees

Nicolas Prigent serves as a program chair of VizSec 2016 (IEEE Symposium on Visualization for Cyber Security), October 2016, Baltimore, MD, USA.

10.1.2.2. Member of the Conference Program Committees

Emmanuelle Anceaume served as a member of the following program committees:
- Algotel 2016 (18èmes Rencontres Francophones sur les Aspects Algorithmiques des Télécommunications), May 2016, Bayonne, France.
- DSN 2016 (46th Annual IEEE/IFIP International Conference on Dependable Systems and Networks), June 2016, Toulouse, France.
- ATC 2016 (13th IEEE International Conference on Advanced and Trusted Computing), July 2016, Toulouse, France.
- PECCS 2016 (6th International Joint Conference on Pervasive and Embedded Computing and Communication Systems), July 2016, Lisbon, Portugal.
- TrustCom 2016 (5th IEEE International Conference on Trust, Security and Privacy in Computing and Communications, security track), August 2016, Tianjin, China.
- SRDS 2016 (35th International Symposium on Reliable Distributed Systems), September 2016, Budapest, Hungary.
- NCA 2016 (15th International Symposium on Network Computing and Applications), October 2016, Cambridge, MA, USA.

Christophe Bidan served as a member of the following program committees:
- CRiSIS 2016 (11th International Conference on Risks and Security of Internet and Systems), September 2016, Roscoff, France.
- C&ESAR 2016 (23rd Computers & Electronics Security Applications Rendez-vous), November 2016, Rennes, France.
- IWTCC 2016 (3rd International Workshop on Trust in Cloud Computing), December 2016, Shanghai, China.

Christopher Humphries served as a member of the program committee of VizSec 2016 (IEEE Symposium on Visualization for Cyber Security), October 2016, Baltimore, MD, USA.

Michel Hurfin served as a member of the following program committees:

- Ubisafe 2016 (8th IEEE International Symposium on UbiSafe Computing) August 2016, Tianjin, China.
- CARI 2016 (13rd African Conference on Research in Computer Science and Applied Mathematics), October 2016, Hammamet, Tunisia.

Frédéric Majorczyck served as a member of the program committee of VizSec 2016 (IEEE Symposium on Visualization for Cyber Security), October 2016, Baltimore, MD, USA.

Ludovic Mé served as a member of the following program committees:

- CARI 2016 (13rd African Conference on Research in Computer Science and Applied Mathematics), October 2016, Hammamet, Tunisia.
- AICCSA 2016 (13th ACS/IEEE International Conference on Computer Systems and Applications), November 2016, Agadir, Morocco.

Nicolas Prigent served as a member of the following program committees:

- SSTIC 2016 (Symposium sur la sécurité des technologies de l'information et des communications), June 2016, Rennes, France.
- GraMSec 2016 (3rd International workshop on Graphical Models for Security), June 2016, Lisbon, Portugal.

Eric Totel served as a member of the program committee of Ubisafe 2016 (8th IEEE International Symposium on UbiSafe Computing), August 2016, Tianjin, China.

Frédéric Tronel served as a member of the program committee of SSTIC 2016 (Symposium sur la sécurité des technologies de l'information et des communications) June 2016, Rennes, France.

10.1.2.3. Reviewer

- Laurent Georget - AICCSA 2016 (13th ACS/IEEE International Conference on Computer Systems and Applications).
- Gilles Guette - ICISSP 2016 (International Conference on Information System Security and Privacy) and AICCSA 2016 (13th ACS/IEEE International Conference on Computer Systems and Applications).
- Michel Hurfin - NCA 2016 (15th International Symposium on Network Computing and Applications).
- Ludovic Mé - NETYS 2016 (5th International Conference on NETworked sYStems).
- Valérie Viet Triem Tong - ICISSP 2016 (International Conference on Information Systems Security and Privacy).

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

Michel Hurfin belongs to the editorial board of the Springer open access journal of Internet Services and Applications.

- Emmanuelle Anceaume - Elsevier JPDC (Journal of Parallel and Distributed Computing), Performance Evaluation, IEEE TDSC (Transactions on Dependable and Secure Computing), and IEEE TPDS (Transactions on Parallel and Distributed Systems).
- Michel Hurfin - Springer JISA (Journal of Internet Services and Applications) and Elsevier JPDC (Journal of Parallel and Distributed Computing).
- Ludovic Mé - journal "Revue Africaine de la Recherche en Informatique et Mathématique Appliquée".
- Guillaume Piolle - IJIS (International Journal on Information Security) and IEEE IS (Intelligent Systems).
- Valérie Viet Triem Tong - IEEE TPDS (Transactions on Parallel and Distributed Systems).

10.1.4. Invited Talks

Eric Totel has been invited to SEC2 (2nd workshop on Security in Clouds), July 2016, Lorient, France. He has given a talk about "Anomaly Based Intrusion Detection in Distributed Applications without global clock".

Valérie Viet Triem Tong has been invited to the Journées scientifiques Inria for a short presentation entitled Helping malware to execute themselves. She was also invited to give a talk during the Séminaire Aristote at the école Polytechnique (Palaiseau, France). Her presentation was concerning Android Malware analysis. Lastly, she has been invited at the 4th International Symposium on Information Systems Security (CISSI'2016 Morocco) for a invited talk about the need and the challenges in Education of formal computer programming.

10.1.5. Leadership within the Scientific Community

Ludovic Mé serves the Scientific Council of the LIRIMA (Laboratoire International de Recherche en Informatique et Mathématiques Appliquées).

Ludovic Mé chairs the steering Committee of the annual French conference RESSI (Rendez-Vous de la Recherche et de l'Enseignement de la Sécurité des Systèmes d'Information). He is a member of the Steering Committee of the annual international conference RAID (International Symposium on Research in Attacks, Intrusions and Defenses).

10.1.6. Scientific Expertise

Guillaume Piolle has been heard by the LIBE commission of the 82nd Internal Session of the European Youth Parliament, on "Data encryption, data protection and terrorism".

10.1.7. Research Administration

Emmanuelle Anceaume has participated in various juries (Post-doctoral grants, delegation Inria, PEDR Inria). As a member of the CE Inria, Emmanuelle Anceaume has participated to the hiring committee CR2/CR1 of Rennes and Sophia Antipolis.

Michel Hurfin is the local representative of the "mission jeunes chercheurs" in Rennes. He is a member of the "Commission personnel" and is in charge of the PhD student recruitment campaign of Inria Rennes Bretagne Atlantique. He is a member of the councils of the doctoral school Matisse. He is a member of the advisory board of the doctoral training center of EIT Digital in Rennes.

Ludovic Mé acts as Scientific Officer for the Rennes - Bretagne Atlantic Inria Research Center. As such, he is also a member of the Evaluation Commission and of the Internal Scientific Council of Inria.

Valérie Viet Triem Tong is member of the group working on the new Master proposal in computer science (for both CentraleSupelec and Inria)

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Licence: Christophe Bidan, *Algorithms and Data Structures*, 36 hours of lecture including 7.5 hours of lectures, L3 - first year of the engineering degree, CentraleSupélec, France;

Licence: Christophe Bidan, *Software Engineering*, 12 hours, L3 - first year of the engineer degree, CentraleSupélec, France;

Licence: Christophe Bidan, *Supervision of student project*, 1 project, L3 - first year of the engineer degree, CentraleSupélec, France;

Master: Christophe Bidan is responsible for the module *Secured information systems*, M2 - third year of the engineer degree, CentraleSupélec, France;

Master: Christophe Bidan, *Applied cryptography*, 6 hours of lecture, M2 - master 2 degree, University of Rennes 1, France;

Master: Christophe Bidan, *Applied cryptography*, 15 hours including 6 hours of lecture, M2 - third year of the engineer degree, CentraleSupélec, France;

Master : Christophe Bidan, *Cryptographic Protocols*, 6 hours of lecture, mastère CS (Cyber Security), CentraleSupélec, France;

Master: Christophe Bidan, *Information systems*, 4.5 hours, M1 - second year of the engineer degree, CentraleSupélec, France;

Master: Christophe Bidan, *Supervision of student project*, 2 projects, M1 - second year of the engineer degree, CentraleSupélec, France;

Licence: Gilles Guette, *Network Initiation*, 57.5 hours, L3 - Licence, ISTIC/University of Rennes 1, France;

Licence: Gilles Guette, *Network Initiation*, 41.5 hours, L3 - first year of the engineer degree, ESIR, France;

Master: Gilles Guette, *Network Routing*, 32 hours, M1 - second year of the engineer degree, ESIR, France;

Master: Gilles Guette, *Mobile Network Routing*, 5 hours, M1 - second year of the engineer degree, ESIR, France;

Master: Gilles Guette, *Advanced Network Services*, 10 hours, M1 - second year of the engineer degree, ESIR, France;

Master: Gilles Guette, *Network Project*, 24 hours, M1 - second year of the engineer degree, ESIR, France;

Master: Gilles Guette, *Security*, 28 hours, M1 - second year of the engineer degree, ESIR, France;

Master: Gilles Guette, *Network and System Security*, 12 hours, M2 - third year of the engineer degree, ESIR, France;

Master: Gilles Guette, *Network Modeling*, 18 hours, M2 - third year of the engineer degree, ESIR, France;

Master: Gilles Guette, *Supervision of student project*, 1 project, M2 - third year of the engineer degree, ESIR, France;

Master: Gilles Guette, *Supervision of student internship*, M2 - Université Claude Bernard Lyon 1, France, Institut Francophone International, Hanoï, Viet-Nam;

Licence: Guillaume Hiet, *Algorithms and Data Structures*, 12.5 hours, L3 - first year of the engineer degree, CentraleSupélec, France;

Master: Guillaume Hiet, *Computer security and privacy for the engineer*, 8 hours, M1 - second year of the engineer degree, CentraleSupélec, France;

Master: Guillaume Hiet, *Buffer overflow vulnerabilities*, 16 hours, M2 - third year of the engineer degree, CentraleSupélec, France;

Master: Guillaume Hiet, *Buffer overflow vulnerabilities*, 16 hours, M2 - Mastère Spécialisé CS (Cyber Security), CentraleSupélec, France;

Master: Guillaume Hiet, *Pentest*, 19 hours, M2 - third year of the engineer degree, CentraleSupélec, France;

Master: Guillaume Hiet, *Pentest*, 3 hours, M2 - Mastère Spécialisé CS (Cyber Security), Centrale-Supélec, France;

Master: Guillaume Hiet, *Introduction to Linux*, 3 hours, M2 - Mastère Spécialisé CS (Cyber Security), CentraleSupélec, France;

Master: Guillaume Hiet, *Java Security*, 4.5 hours, M2 - Mastère Spécialisé CS, CentraleSupélec, France;

Master: Guillaume Hiet, *Linux Security*, 18 hours, M2 - Mastère Spécialisé CS , CentraleSupélec, France;

Master: Guillaume Hiet, *Linux Security*, 7.5 hours, third year of the engineer degree, Centrale-Supélec, France;

Master: Guillaume Hiet, *LDAP*, 7.5 hours, third year of the engineer degree, CentraleSupélec, France;

Master: Guillaume Hiet, *Intrusion Detection*, 15 hours, M2 - Mastère Spécialisé CS, Centrale-Supélec, France;

Master: Guillaume Hiet, *Intrusion Detection*, 13.5 hours, M2 - third year of the engineer degree, M2 research degree of University of Rennes 1, CentraleSupélec, France;

Master: Guillaume Hiet, *Security Monitoring*, 3 hours, M2, cycle "Sécurité Numérique", INHESJ, France;

Master: Guillaume Hiet, *Computer Security*, 31.5 hours, M2, Mastère Spécialisé Architecte des Systèmes d'Information, CentraleSupélec, France;

Master: Guillaume Hiet, *Intrusion Detection*, 16 hours, M2, University of Rennes 1, France;

Master: Guillaume Hiet, *Intrusion Detection*, 10 hours, M2 - third year of the engineer degree, ESIR, France;

Master: Guillaume Hiet, *Intrusion Detection*, 9 hours, M2, Université of Limoges, France;

Master: Guillaume Hiet, *Firewall*, 6 hours, M2, University of Rennes 1, France;

Master: Guillaume Hiet, *Supervision of student project*, 4 projects, M1 - second year of the engineer degree, CentraleSupélec, France;

Master: Guillaume Hiet, *Supervision of student project*, 2 projects, M2 - third year of the engineer degree, CentraleSupélec, France;

Master: Guillaume Hiet, *Supervision of student project*, 2 projects, M2 - Mastère Spécialisé CS (Cyber Security), CentraleSupélec, France;

Licence : Ludovic Mé, *Software Engineering*, 18 hours, L3 - first year of the engineer degree, CentraleSupélec, France;

Licence : Ludovic Mé, *Software Engineering tutorials*, 6 hours, L3 - first year of the engineer degree, CentraleSupélec, France;

Licence : Ludovic Mé, *Software Engineering and Java development*, 18 hours, L3 - first year of the engineer degree, CentraleSupélec, France;

Master : Ludovic Mé, *Information systems tutorials*, 6 hours, M1 - second year of the engineer degree, CentraleSupélec, France;

Master : Ludovic Mé, *Operating systems tutorials*, 3 hours, M1 - second year of the engineer degree, CentraleSupélec, France;

Master : Ludovic Mé, *Supervision of student project*, 1 project, 38 hours, M1 - second year of the engineer degree, CentraleSupélec, France;

Licence : Guillaume Piolle, *Algorithms*, 16.5 hours, L3 - first year of the engineer degree, Centrale-Supélec, France;

Licence : Guillaume Piolle, *Software engineering*, 18 hours, L3 - first year of the engineer degree, CentraleSupélec, France;

Master : Guillaume Piolle, *Modelling, Algorithms and Programming*, 30 hours, M1 - second year of the engineer degree, CentraleSupélec, France;

Master : Guillaume Piolle, *Computer security and privacy*, 9 hours, M1 - second year of the engineer degree, CentraleSupélec, France;

Master : Guillaume Piolle, *Computer networks*, 9 hours, M1 - second year of the engineer degree, CentraleSupélec, France;

Master : Guillaume Piolle, *Software project*, 8.5 hours, M1 - second year of the engineer degree, CentraleSupélec, France;

Master : Guillaume Piolle, *Security Policies*, 4.5 hours, M2 - third year of the engineer degree, CentraleSupélec, France;

Master : Guillaume Piolle, *Java programming*, 4.5 hours, M2 - third year of the engineer degree, CentraleSupélec, France;

Master : Guillaume Piolle, *Computer networks*, 9 hours, M2 - third year of the engineer degree, CentraleSupélec, France;

Master : Guillaume Piolle, *Software engineering*, 18 hours, M2 - third year of the engineer degree, CentraleSupélec, France;

Master : Guillaume Piolle, *Network Access Control*, 9 hours, M2 - third year of the engineer degree, CentraleSupélec, France;

Master : Guillaume Piolle, *Web development*, 18 hours, M2 - third year of the engineer degree, CentraleSupélec, France;

Master : Guillaume Piolle, *Privacy protection*, 4.5 hours, M2 - third year of the engineer degree, CentraleSupélec, France;

Master : Guillaume Piolle, *Computing project*, 40 hours, M2 - third year of the engineer degree, CentraleSupélec, France;

Licence : Eric Totel, *Models and programming languages*, 19.5 hours including 10.5 hours of lecture, L3 - first year of the engineer degree, CentraleSupélec, France;

Licence : Eric Totel, *Foundations of computer science, data structures and algorithms*, 6 hours, L3 - first year of the engineer degree, CentraleSupélec, France;

Licence : Eric Totel, *Software Modeling*, 15 hours, L3 - first year of the engineer degree, Centrale-Supélec, France;

Master : Eric Totel, *Computer systems' architecture*, 60 hours, M1 - second year of the engineer degree, CentraleSupélec, France;

Master : Eric Totel, *C language*, 24 hours including 6 hours of lecture, M2 - master CS (Cyber Security), CentraleSupélec, France;

Master : Eric Totel, *C language and C++ language*, 12 hours including 6 hours of lecture, M2 - third year of the engineer degree, CentraleSupélec, France;

Master : Eric Totel, *Dependability* , 9 hours including 7.5 hours of lecture, M2 - third year of the engineer degree and master research, CentraleSupélec, France;

Master : Eric Totel, *Dependability*, 3 hours of lecture, M2 - third year of the engineer degree (ingénierie des systèmes automatisés), CentraleSupelec, France;

Master : Eric Totel, *Dependability*, 4.5 hours of lecture, M2 - post-graduate training (master Architecture des Réseaux de Communication), CentraleSupélec, France;

Master : Eric Totel, *Intrusion Detection*, 6 hours of lecture, M2 - M2 - master CS (Cyber Security), CentraleSupélec, France;

Master : Eric Totel, *Intrusion Detection*, 8 hours of lecture, M2 - master 2 degree, University of Rennes 1, France;

Master : Eric Totel, *Intrusion Detection*, 4 hours of lecture, M2 - master 2 degree, University of Rennes 1, France;

Master : Eric Totel, *Supervision of student project*, 4 projects, M1 - second year of the engineer degree, CentraleSupélec, France;

Master : Eric Totel, *Supervision of student project,* 1 project, M2 - third year of the engineer degree, CentraleSupélec, France;

Licence: Frédéric Tronel, *Software engineering*, 40 hours, L3 - first year of the engineer degree, CentraleSupélec, France;

Licence: Frédéric Tronel, *Operating Systems*, 12 hours, L3 - first year of the engineer degree, CentraleSupélec, France;

Master: Frédéric Tronel is responsible of the M2 degree in *CyberSecurity* (mastère spécialisé), organized jointly by CentraleSupélec and Télécom Bretagne, France;

Master: Frédéric Tronel, *Operating systems*, 21 hours hours, M2 - third year of the engineer degree, CentraleSupélec, France;

Master: Frédéric Tronel, *Compilers*, 18 hours, M2 - third year of the engineer degree, Centrale-Supélec, France;

Master: Frédéric Tronel, *Automatic reasoning*, 4.5 hours, M2 - third year of the engineer degree, CentraleSupélec, France;

Master: Frédéric Tronel, *Assembly Language*, 6 hours, M2 - third year of the engineer degree, CentraleSupélec, France;

Master: Frédéric Tronel, *Buffer overflow vulnerabilities (theory and practice)*, 20.5 hours, M2 - third year of the engineer degree, CentraleSupélec, France;

Master: Frédéric Tronel, *Firewall*, 15 hours, M2 - third year of the engineer degree, CentraleSupélec, France;

Master: Frédéric Tronel, *Calculability in distributed systems*, 6 hours, M2, jointly with University of Rennes 1 and CentraleSupélec, France;

Master: Frédéric Tronel, *Computer network*, 8 hours, M2, jointly with University of Rennes 1 and CentraleSupélec, France;

Licence : Valérie Viet Triem Tong, *Algorithms and Data Structures*, 36 hours of lecture including 7 hours of lectures, L3 - first year of the engineering degree, CentraleSupélec, France;

Licence : Valérie Viet Triem Tong, *Supervision of student project*, 6 projects of 2nd year of the engineer degree, CentraleSupélec, France;

Master : Valérie Viet Triem Tong, *Games Theory*, 18 hours, M1 - second year of the engineering degree, CentraleSupélec, France;

Master : Valérie Viet Triem Tong, *Formal Methods*, 9 hours, M2 - third year of the engineering degree, CentraleSupélec, France;

Master : Valérie Viet Triem Tong, *Intrusion detection using information flow control*, 9 hours, M2 / third year of the engineering degree, CentraleSupélec, France;

Master : Valérie Viet Triem Tong, *Programming in Java*, 12 hours, M1 - international students (NplusI) second year of the engineering degree, CentraleSupélec, France;

Master : Valérie Viet Triem Tong, *Small elements of decidability*, 7.5 hours, M2 - third year of the engineering degree, CentraleSupélec, France;

Master : Valérie Viet Triem Tong, *Supervision of student project*, 1 project, mastere CS (Cyber Security), CentraleSupélec, France;

Master : Valérie Viet Triem Tong, *Supervision of student project*, 8 projects, M1 - second year of the engineer degree, CentraleSupélec, France;

Master : Valérie Viet Triem Tong, *Supervision of student project*, 2 projects mastere CS (Cyber Security), CentraleSupélec, France;

Master : Valérie Viet Triem Tong, *Supervision of student project*, 1 project year of the engineer degre, CentraleSupélec, France;

Doctorant : Valérie Viet Triem Tong, *Malware analysis by OS information flow tracking*, 2 hours, Inria, Summerschool - Cyber in Bretagne, France;

10.2.2. Supervision

PhD : Julien Lolive, *Entrelacement des mécanismes d'identification et de respect de la vie privée pour la protection des contenus externalisés*, May 2016, supervised by Caroline Fontaine (50% - Télécom-Bretagne) and Sébastien Gambs (50%);

PhD : Erwan Godefroy, *Définition et évaluation d'un mécanisme de génération de règles de corrélation liée à l'environnement*, September 2016, supervised by Michel Hurfin (33%), Eric Totel (33%), and Frédéric Majorczyk (34% - DGA MI);

PhD : Pierre Obame Meye, *Sûreté de fonctionnement dans le nuage de stockage*, December 2016, supervised by Emmanuelle Anceaume (33%), Frédéric Tronel (33%), and Philippe Raipin Parvedy (34% - Orange Labs);

PhD in progress: Deepak Subramanian, *Multi-level Information Flow Monitoring*, started in January 2013, supervised by Christophe Bidan (20%) and Guillaume Hiet (80%);

PhD in progress: Antoine Guellier, *Utilisation de la cryptographie homomorphe pour garantir le respect de la vie privée*, started in October 2013, supervised by Christophe Bidan (50%) and Nicolas Prigent (50%);

PhD in progress: Kun He, *Mise en œuvre de techniques de droit à l'oubli pour les contenus numériques*, started in October 2013, supervised by Christophe Bidan (50%) and Gaëtan LeGuelvouit (50% - IRT B-Com);

PhD in progress: Mouna Hkimi, *Détection d'intrusion dans les systèmes distribués*, started in October 2013, supervised by Eric Totel (50%) and Michel Hurfin (50%);

PhD in progress: Solenn Brunet, *Privacy-preserving location-based services*, started in October 2014, supervised by Sébastien Gambs (50%) and Jacques Traoré (50% - Orange Labs Caen);

PhD in progress: Laurent Georget, *Validation Formelle d'un moniteur de flux d'information pour le noyau Linux*, started in October 2014, supervised by Mathieu Jaume (25% - MdC LIP6), Guillaume Piolle (25%), Frédéric Tronel (25%), and Valérie Viet Triem Tong (25%);

PhD in progress : Florian Grandhomme, *Protocole de routage externe type BGP dans un environnement réseaux tactiques adhoc mobiles : faisabilité, performances et qualité de service*, started in October 2014, supervised by Gilles Guette (50%), Adlen Ksentini (25% - Eurecom), and Thierry Plesse (25% - DGA MI);

PhD in progress: Thomas Letan, *Contribution à la sécurité des couches basses des systèmes d'information*, started in January 2015, supervised by Guillaume Hiet (50%), Pierre Chifflier (25% - ANSSI), and Ludovic Mé (25%);

PhD in progress: Oualid Koucham, *Détection d'intrusions pour les systèmes de contrôle industriels*, started in January 2015, supervised by Stéphane Mocanu (50% - Gipsa-lab), Guillaume Hiet (25%), and Jean-Marc Thiriet (25% - Gipsa-lab);

PhD in progress: Damien Crémilleux, *Visualisation d'évènements de sécurité pour la supervision*, started in October 2015, supervised by Christophe Bidan (30%), Nicolas Prigent (35%), and Frédéric Majorczyk (35% - DGA MI);

PhD in progress: Mourad Leslous, *Déclenchement automatique de codes jugés suspects dans les applications Android*, started in October 2015, supervised by Thomas Genet (20% - Celtique Inria project 20), Jean François Lalande (40% - INSA Centre Val de Loire), and Valérie Viet Triem Tong (40%);

PhD in progress: Mounir Nasr Allah, *Contrôle de flux d'information par utilisation conjointe d'analyse statique et d'analyse dynamique accélérée matériellement*, started in November 2015, supervised by Guillaume Hiet (75%) and Ludovic Mé (25%);

PhD in progress: Pernelle Mensah, *Adaptation de la Politique de Sécurité guidée par l'Evaluation du Risque dans les Infrastructures de Communication modernes*, started in January 2016, supervised by Eric Totel (25%), Guillaume Piolle (25%), Christine Morin (25% - Myriad Inria project), and Samuel Dubus (25% - Nokia);

PhD in progress: David Lanoë, *Détection d'intrusion dans les applications distribuées : l'approche comportementale comme alternative à la corrélation d'alertes*, started in october 2016, supervised by Michel Hurfin (50%) and Eric Totel (50%);

PhD in progress: Aurélien Trulla, *Caractérisation de malware Android par suivi de flux d'information et nouvelles techniques d'évasion*, started in October 2016, supervised by Jean Louis Lanet (25% - Tamis Inria project) and Valérie Viet Triem Tong (75%);

PhD in progress : Ronny Chevalier , "Enhanced computer platform security through an intrusion-detection approach", started in November 2016, supervised by Guillaume Hiet (50%), Boris Balacheff (25% - HP), and Ludovic Mé (25%);

PhD in progress: Laetitia Leichtnam, *Visualisation pour la caractérisation d'événements de sécurité*, started in october 2016, supervised by Eric Totel (40%), Nicolas Prigent (30%) and Ludovic Mé (30%);

PhD in progress : Charles Xosanavongsa, *Combining Attack Specification and Dynamic Learning from traces for correlation rule generation*, started in december 2016, supervised by Eric Totel (50%) and Ludovic Mé (50%);

PhD in progress : Yves Mocquard, *Population protocols*, started in september 2015, supervised by Bruno Sericola (Dyonisos Inria project) and Emmanuelle Anceaume.

10.2.3. Juries

Ludovic Mé was a member of the PhD committee for the following PhD thesis:

- Antoine Rault, *Protection de la vie privée des utilisateurs dans un système de recommandations collaboratif distribué*, University of Rennes 1, 06/23/2016 (President of the Jury);
- Tarek Sayeh, '*Contrôle sélectif de l'accès à des données RDF*', University of Lyon 1, 09/08/2016 (President of the Jury);
- Ronan-Alexandre Cherrueau, *Composition de techniques de sécurité pour préserver la vie privée dans le contexte de l'informatique en nuage*, Ecole des Mines de Nantes, 11/18/2016 (Reviewer).

Eric Totel was a member of the PhD committee for the following PhD thesis:

- Siwar Kriaa, *Modélisation conjoint de la sûreté et de la sécurité pour l'évaluation des risques dans les systèmes cyber-physiques*, University of Paris-Saclay, Mars 2016 (President of the Jury);
- François Xavier Aguessy, *Evaluation Dynamique de Risque et Calcul de Réponses Basés sur des Modèles d'Attaques Bayésiens*, Telecom Sud-Paris and University Pierre & Marie Curie, September 2016. (Reviewer).

Guillaume Hiet was a member of the PhD committee for the PhD of Florent Marchand de Kerchov entitled *étendre des interpréteurs par détournement, ou comment étendre des interpréteurs sans en modifier le code*, prepared at Ecole des Mines de Nantes, 18 november 2016.

10.3. Popularization

Emmanuelle Anceaume was interviewed on the topic « Blockchain : comment le bitcoin révolutionne l'économie numérique ? » in a broadcast of "le labo des savoirs" (http://labodessavoirs.fr/emissions-du-labo/).

Guillaume Piolle has participated to the scientific popularization program *à la découverte de la recherche* aimed at secondary education pupils. His participation consisted in presentations about the objectives, methods and results of research activities in computer security and privacy (including, but not limited to our activities in CIDRE). It took place in high schools in Redon, Cesson-Sévigné and Dol-de-Bretagne.

Valérie Viet Triem Tong participates to (the stand and demo of) the 8h International Forum of CyberSecurity (FIC 2016).

Valérie Viet Triem Tong has published in Interstice a paper entitled "Lutter contre les codes malveillants" (https://interstices.info/jcms/p_91111/lutter-contre-les-codes-malveillants).

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

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events Organisation

10.1.1.1. Member of the Organizing Committees

Pierre L'Ecuyer is member of the Steering Committee of MCQMC.

G. Rubino and B. Tuffin are members of the Steering Committee of the International Workshop on Rare Event Simulation (RESIM).

Y. Hadjadj-Aoul is a member of the steering committee of the International Conference on Information and Communication Technologies for Disaster Management (ICT-DM) from December 2015.

Yann Busnel has been "Habilité à diriger les recherches" at the École Normale Supérieure de Rennes, under the seal of University Bretagne Loire, in December 2016, presenting a defense entitled "Analyse et traitement de flux de données large échelle".

10.1.2. Scientific Events Selection

10.1.2.1. Chair of Conference Program Committees

- Bruno Tuffin served as TPC co-chair for the 10th International Conference Performance Evaluation Methodologies and Tools (Valuetools'16), September 2016, Taormina, Italy.
- Yassine Hadjadj-Aoul served as TPC co-chair for the 3rd International Symposium on Networks, Computers and Communications (ISNCC 2016), May 2016, Hammamet, Tunisia.
- Yassine Hadjadj-Aoul served as TPC co-chair for the 13th conférence francophone sur les nouvelles technologies de la répartition (NOTERE 2016), Paris, France.

10.1.2.2. Member of the Conference Program Committees

Pierre L'Ecuyer was a member of the program committee of the following events:

- MCQMC'2016: Twelve International Conference on Monte Carlo and Quasi-Monte Carlo Methods in Scientific Computing, Stanford, California, Aug. 2016.
- SIMULTECH 2016: International Conference on Simulation and Modeling Methodologies, Technologies and Applications, Lisbon, Portugal, July 2016.
- ICORES 2016: International Conference on Operations Research and Enterprise Systems, Rome, Italy, Feb. 2016.

Bruno Tuffin was a member of the program committee of the following events:

- 5th Workshop on Smart Data Pricing (SDP 2016), Workshop of IEEE INFOCOM 2016, San Francisco, USA, April 2016.
- IEEE ICC 2016 - Communications Software, Services and Multimedia Applications Symposium, 23-27 May 2016, Kuala Lumpur, Malaysia.
- 22nd Asia-Pacific Conference on Communications (APCC 2016), Yogyakarta, Indonesia on 25-27 August 2016.
- GECON2016 (13th International Conference on Economics of Grids, Clouds, Systems, and Services), 20-22 September 2016, Athens, Greece.
- The International Conference on Wireless Networks and Mobile Communications (WINCOM?16). Fez, Morocco, October 26-29, 2016.
- Globecom'16 - CSSMA (2016 IEEE Global Communications Conference: Communications Software, Services and Multimedia Apps), 4-8 December 2016, Washington VD, USA.

Bruno Sericola was member of the program committee of the following events:

- ASMTA 2016: 23rd International Conference on Analytical and Stochastic Modelling Techniques and Applications, Cardiff, Wales, UK, August 2016.
- MACOM 2016: 9th International Workshop on Multiple Access Communications, Aalborg, Denmark, November 2016.
- INTERNET 2016: 8th International Conference on Evolving Internet, Barcelona, Spain, November 2016.
- DEPEND 2016: 9th International Conference on Dependability, Nice, France, July 2016.

Yann Busnel was a member of the program committee of the following events:

- NCA 2016: 15th IEEE International Symposium on Network Computing and Applications, Boston, USA, October 2016.
- CoRes 2016: 1ères Rencontres Francophones sur la Conception de Protocoles, l'Évaluation de Performance et l'Expérimentation des Réseaux de Communication, Bayonne, France, May 2016.

Adlen Ksentini was member of the program committee of the following events:

- IEEE ICC 2016 Mobile Wireless Networks Symposium, Kuala Lumpur, Malaysia 2016.
- IEEE Globecom 2016 Mobile Wireless Networks Symposium, Washington, DC USA 2016.
- IEEE WCNC 2016, Doha, Qatar, 2016.

Yassine Hadjadj-Aoul was a member of the program committee of the following events:

- IEEE ICC 2016 Mobile Wireless Networks Symposium, Kuala Lumpur, Malaysia 2016.
- IEEE Globecom 2016 Mobile Wireless Networks Symposium, Washington, DC USA 2016.
- IEEE WCNC 2016, Doha, Qatar, 2016.
- IEEE CSCN 2016 IEEE Conference on Standards for Communications & Networking, Berlin, Germany, 2016.

Gerardo Rubino was a member of the program committee of the following events:

- Networking 2016, The IFIP Networking Conference, Vienne, Autriche, May 2016.
- MAM9 (9th) International Conference on Matrix Analytic Methods in Stochastic Models, Budapest, Hongrie, June 2016.
- COMTEL 2016, VIII International Congress in Computer Science and Telecommunications, Lima, Perú, September 2016.
- Mascots 2016, the IEEE International Symposium on Modelling, Analysis and Simulation of Computer and Telecommunications Systems, Londres, UK, September 2016.

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

Bruno Tuffin is the Simulation Area Editor for *Informs Journal on Computing*.

Bruno Tuffin is an associate editor for the following journal:

- Mathematical Methods of Operations Research, since November 2008.

Pierre L'Ecuyer is an associate editor for the following journals:

- ACM Transactions on Mathematical Software, since August 2004.
- Statistics and Computing (Springer-Verlag), since June 2003.
- International Transactions in Operational Research, since May 2007.

Bruno Sericola is an associate editor for the following journals:

- International Journal of Stochastic Analysis, since April 2010.
- Performance Evaluation, since April 2015.

Bruno Sericola is Editor in Chief of the books series "Stochatic Models in Computer Science and Telecommunications Networks", ISTE/WILEY, since March 2015.

Yassine Hadjadj-Aoul is a member of the editorial broad of the CSC "International Journal of Computer Networks (IJCN)" since 2012.

Yassine Hadjadj-Aoul was a member of the guest editorial board of the following journals:

- Special issue in IGI, International Journal of Distributed Systems and Technologies (IJDST), "Information and Communication Technologies for Disaster Management" [99], Vol. 7, Issue 4, ISSN: 1947-3532 (October 2016)
- Hindawi Mobile Information Systems (Editorial), "Wireless and Mobile Technologies for the Internet of Things" [100], vol. 2016, ID 8206548 (2016)

10.1.3.2. Reviewer - Reviewing Activities

In addition to the reports done during his associate editor and conference TPC member duties, Bruno Tuffin has reviewed papers in 2016 for COMNET, Operations Research, Stochastic Models, Computers & OR, Journal of Communications & Networks.

Bruno Sericola served as a reviewer for several major international journals and conferences.

Adlen Ksentini has reviewed papers in 2016 for Transaction Paralel Distributed Systems-TPDS, Transaction on Wireless Communication - TWC, Transaction on Vehicular Technology - TVT, Wireless Communication Magazine, Elsevier Computer Communication.

Yassine Hadjadj-Aoul has reviewed papers in 2016 for Transaction on Vehicular Technology-TVT, Wireless Communication Magazine, Elsevier Computer Communication and for the following international conferences: Globecom'16, ICC'16, WCNC'16 and others.

César Viho has reviewed project proposals for the ANR and for CIFRE contracts for the ANRT. He has reviewed papers for the journals IEEE Transaction on Wireless Communication, IEEE Transactions on Vehicular Communications, IEEE Communications Magazine, and for the following international conferences: IWCNC, Globecom, and CCNC.

Gerardo Rubino has reviewed papers for several international journals and conferences (Networking 2016, MAM9, Mascots 2016, ...), ANR projects, etc.

10.1.4. Invited Talks

B. Tuffin. gave a plenary talk "Some applications of importance sampling to dependability analysis" at the International Conference on Monte Carlo techniques, Paris, France, July 2016.

B. Tuffin gave the following seminar presentations:

- B. Tuffin. Net neutrality. IRISA Evaluation by HCRES, Jan. 2016.
- P. L'Ecuyer, P. Maillé, N. Stier-Moses, B. Tuffin. Stochastic Optimization for Search Engines: Revenue-Maximizing Rankings with Quality-Sensitive Consumers. CREM-IRISA Workshop on Network Economics, January 2016.
- P. Maillé, G. Simon, B. Tuffin. On revenue-oriented Content Delivery Networks and their impact on Net Neutrality. CREM-IRISA Workshop on Network Economics, January 2016.
- B. Tuffin. La neutralité du Net. Journées scientifiques Inria, Rennes, Juin 2016.
- P. Maille and B. Tuffin. Auctions For Online Ad Space Among Advertisers Mixing Pay-per-view And Pay-per-click. DIRO, Université de Montréal, Canada, Nov 30, 2016.

Y. Hadjadj-Aoul gave a plenary talk "Efficient support of Massive M2M communications during emergency situations" at the International Conference on Information and Communication Technologies for Disaster Management (ICT-DM 2016), Vienna, Austria, December 2016.

Y. Busnel gave a plenary talk "Comment générer des échantillons uniformes sur des grandes masses de données ?" at the 9ème Colloque Francophone sur les sondages, Gatineau, Canada, October 2016.

G. Rubino made several invited and keynote talks in 2016:

- an invited talk at Advances in Uncertainty Quantification Methods, Algorithms and Applications, Kaust, Saudi Arabia, about rare event analysis [37];
- an invited talk at SIAM Conference on Uncertainty Quantification, Lausanne, Suisse, about rare event analysis in static models [39];
- a keynote at Mascots'16, London, UK, about a new performance metric [34];
- an invited talk at Technoconférence "Nouvelles expériences son et vidéo", Rennes, France, about QoE measuring [35];
- a keynote in Math AmSud Seminar, Montevideo, Uruguay, about QoE analysis and Big Data problems [38];
- a keynote at SoCPaR'16, Vellore, India, about new results concerning Perceptual Quality measuring [36].

10.1.5. Leadership within the Scientific Community

Bruno Tuffin is the co-director of the common lab ALSTOM-Inria since 2014.

Gerardo Rubino is one of the three French representatives at the Scientific Committee of the IFCAM (Indo-French Centre for Applied Mathematics), managing the cooperation in mathematics of the two countries, and federating at the French side, among several other participants, Inria and CNRS.

Gerardo Rubino is a member of the CSV (the technical committee) of the Images and Networks Cluster of Brittany, France.

10.1.6. Research Administration

- Bruno Sericola is responsible for the Inria Rennes-Bretagne Atlantique budget.
- Bruno Sericola is the leader of the research group MAPI (Math Appli Pour l'Info) the goal of which is to improve the collaboration between computer scientists and mathematicians.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Master 2nd year: Bruno Sericola, Mathematics, 12 hours, M2, Istic/University of Rennes 1, France.

Master 2nd year: Bruno Sericola, Logistic and performance, 12 hours, M2, Faculté de sciences économiques/University of Rennes 1, France.

Master 2nd year: Gerardo Rubino, Performance Evaluation, Istic/University of Rennes 1, France, 16 hours.

Master 2nd year: Performance Evaluation, Bruno Tuffin, Istic/University of Rennes 1, France, 4 hours.

Master 2nd year: César Viho, Algorithms on graphs, 40 hours, Istic/University of Rennes 1, France

Master 2nd year: César Viho, Multimedia Networking, 8 hours, Istic/University of Rennes 1, France

Master 2nd year: Yassine Hadjadj-Aoul, Multimedia streaming over IP (MMR), 48 hours, Esir/University of Rennes 1, France

Master 2nd year: Yassine Hadjadj-Aoul, Multimedia services in IP networks (RSM), 29 hours, Esir/University of Rennes 1, France

Master 2nd year: Yassine Hadjadj-Aoul, Software Defined Networks, 4 hours, Istic/University of Rennes 1, France

Master 2nd year: Yassine Hadjadj-Aoul, Video streaming over IP, 8 hours, Istic/University of Rennes 1, France

Master pro. 2nd year: Yassine Hadjadj-Aoul, C Programming, 12 hours, Istic/University of Rennes 1, France

ENSAI Rennes 3rd year: Gerardo Rubino, Neural Networks, 9 hours.

Supelec Rennes 3rd year: Gerardo Rubino, Dependability Analysis, 15 hours.

Seminars: Yann Busnel, Big Data for Security and Safety, 12 hours, Sapienza Universitá di Roma, Italy, April 2016.

Seminars: Yann Busnel, Big Data for Security and Safety, 18 hours, Indian Institute of Technology, Indore, India, October 2016.

10.2.2. Supervision

PhD in progress: Ajit Rai, "Availability prediction with logistics", started in May 2015; advisors: B. Tuffin & G. Rubino, University Rennes 1.

PhD in progress: Corentin Hardy,"Device-Assisted Distributed Machine-Learning on Many Cores", started in April 2016; advisors: Bruno Sericola & Erwan Le Merrer from team Cidre, University Rennes 1.

PhD in progress: Yves Mocquard, "Analyse de flux de données massifs dans les systèmes distribués large échelle", started on September 2015; advisors: Bruno Sericola and Emmanuelle Anceaume from team Cidre, University Rennes 1.

PhD in progress: Ali Hodroj, "Enhancing content delivery to multi-homed users in broadband mobile networks", started in November 2015; advisors: Bruno Sericola, Marc Ibrahim and Yassine Hadjadj-Aoul, University Rennes 1 and St Joseph University of Beyrouth.

PhD in progress: Hamza Ben Ammar, "Socially-aware network and cache resources optimization for efficient media content delivery in Content Centric Networks", started in October 2015; advisors: Yassine Hadjadj-Aoul, Adlen Ksentini and Soraya Ait Chellouche, University Rennes 1.

PhD in progress: Imad Alawe, "Mobile SDN architecture", started in October 2015; advisors: César Viho, Yassine Hadjadj-Aoul, University Rennes 1, Philippe Bertin, B-COM and Davy Darche, TDF.

PhD in progress: Jean-Michel Sanner; Cifre Grant, Orange Labs, "SDN technologies for network services performances adaptation of carriers networks"; started on January 2013; Advisors: Y. Hadjadj-Aoul and G. Rubino; University Rennes 1.

PhD in progress: Yue Li; Cifre Grant, Orange Labs; title: "Elaboration d'une architecture réseau unifiée, ouverte et flexible", started on October 2013; Advisors: Y. Hadjadj-Aoul and G. Rubino; University Rennes 1.

PhD in progress: Nicolás Jara, "Fault tolerant design of dynamic WDM optical networks", Technical University Federico Santa María (UTFSM) and university of Rennes 1, France. Advisors: R. Vallejos (Chile) and G. Rubino (France). Defense in 2017.

PhD in progress: Laura Aspirot, "Fluid Approximations for Stochastic Telecommunication Models", University of the Republic, Uruguay. Advisors: E. Mordecki (Uruguay) and G. Rubino (France). Defense in 2017.

PhD in progress: Jorge Graneri, "Mathematical Models for Semantic Memory", University of the Republic, Uruguay. Advisors: E. Mizraji (Uruguay) and G. Rubino (France). Started end 2016.

Master Project R& I 2016–2017, of Joshua Peignier and Estelle Varloot: "Game-theoretic tools to analyze classical vs collaborative economies". Advisors: B. Tuffin and P. Maillé from Telecom Bretagne.

10.2.3. Juries

Bruno Tuffin was a member of the following PhD defense committees:

- Juan Eduardo Piccini: "Static Reliability and Resilience in Dynamic Systems", University of the Republic, Montevideo, Uruguay, Mars 2016; reviewer.

- Maïder Estécahandy: "Méthodes accélérées de Monte-Carlo pour la simulation d'événements rares. Applications aux Réseaux de Petri", Université de Pau et de l'Amour, Mars 2016; reviewer.
- Wenjing Shuai: "Management of electric vehicle systems with self-interested actors", Telecom Bretagne, Sept. 2016; president.
- Simon Theissing: "Supervision en Transport Multimodal", université de Paris-Saclay, Dec. 2016.

Bruno Sericola was a reviewer of the following PhD defense committee:

- A. Anjuka: "Stationary analysis of fluid queueing models", Faculty of Science and Humanities, Anna University, Chennai, India.

Bruno Sericola was the president of the jury for the recruitement of Inria researchers in 2016.

Gerardo Rubino was a member of the following PhD defense committees:

- Juan Eduardo Piccini: "Static Reliability and Resilience in Dynamic Systems", University of the Republic, Montevideo, Uruguay, Mars 2016; reviewer.
- Wassim Abbessi: "Mesures et Modélisation Fluide de Trafic Multimédia en Vue d'une Meilleure Gestion du Flux", ENSI, Tunisia, November 12, 2016; reviewer.
- Yu-Ting Lin: "Performance analysis of video streaming services in mobile networks', ParisTech, Paris, December 9, 2016; reviewer.

César Viho was:

- a member of juries for the recruitment of young graduate scientists and senior researchers at Inria;
- a member of the juries for the recruitment of young Associate Professors and Full Professors at ISTIC-Université Rennes 1;
- the Director of the MATISSE (Mathematics, Electronics and Computer Sciences) doctoral school in charge of managing the recruitment of PhD students and their activities during their doctorate, in all the concerned areas of the doctoral school.

10.3. Popularization

- P. Maillé and B. Tuffin responded to the public consultation on draft BEREC Guidelines on implementation of net neutrality rules. 2016.
- G. Rubino makes regular presentations to high school students about the research work in general, and specific technical topics in particular. Current talks:
  - Randomness as a tool
  - Internet as a research problem
  - Great challenges in maths: the Riemann Hypothesis
  - Great challenges in math/computer science: the "P versus NP" problem

DIVERSE Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific Events Organisation

9.1.1.1. General Chair, Scientific Chair

Benoit Baudry and Benoit Combemale have been general co-chairs for MODELS 2016, the major international conference in the area of model-driven software and systems engineering.

9.1.1.2. Member of the Organizing Committees

Mathieu Acher:

- Social media chair, MODELS 2016

Arnaud Blouin:

- Student volunteers co-chair, MODELS 2016
- Social Media Chair, EICS 2016

9.1.2. Scientific Events Selection

9.1.2.1. Chair of Conference Program Committees

Noël Plouzeau was the program committee chair of the Component Based Software Engineering (CBSE) in 2016. Jean-Marc Jézéquel was co-chair of Digital Intelligence 2016, April 2016, Quebec City, Canada.

9.1.2.2. Member of the Conference Program Committees

Mathieu Acher:

- PC member SPLC 2016
- PC member SAC 2016
- PC member VaMoS 2016
- PC member SEAA 2016
- PC member REVE 2016

Olivier Barais:

- PC member SEAA 2016
- PC member 10th IEEE ICOSST-2016
- PC member compas2016
- PC member ASE 2016
- PC member TTC 2016
- PC member SAC 2016

Benoit Baudry:

- PC member ICSE 2016
- PC member ISSTA 2016
- PC member ICST 2016
- PC member ASE 2016

Arnaud Blouin:
- PC member of the foundation track for MODELS 2016
- PC member for IHM 2016
- PC member of the NIER/demo track for VISSOFT 2016
- PC member for the UCDAS workshop at COMPSAC 2016

Benoit Combemale:
- PC member for ECMFA'16
- PC member for ICMT'16
- PC member for the GEMOC'16 workshop at MODELS'16
- PC member for the EXE'16 workshop at MODELS'16
- PC member for the MiSE'16 workshop at ICSE'16
- PC member for the LaMOD'16 workshop at Modularity'16
- PC member for the MoMo'16 workshop at Modularity'16

Johann Bourcier:
- PC member for the SEsCPS'16 workshop at ICSE'16

Jean-Marc Jézéquel:
- Program Board of MODELS 2016
- PC member for SPLC 2016 Industry Track
- PC member for SPLC 2016 Vision Track
- PC member for SEAMS 2016
- PC member for GEMOC 2016

9.1.2.3. Reviewer

Arnaud Blouin was a reviewer for ICST 2016, ASE 2016, ECMFA 2016. Noël Plouzeau was a reviewer for ICSE 2016. Olivier Barais was a reviewer for ICSE 2016, Sosym 2016. Johann Bourcier was a reviewer for ICSE 2016, ASE 2016 and Middleware 2016.

9.1.3. Journal

9.1.3.1. Member of the Editorial Boards

Benoit Baudry:
- SOSYM
- STVR

Benoit Combemale:
- Springer Journal on Software and System Modeling (SoSYM),
- Elsevier Journal on Computer Languages, Systems and Structures (COMLAN),
- Elsevier Journal on Science of Computer Programming (SCP), Advisory Board member of the Software Section.

9.1.3.2. Reviewer - Reviewing Activities

Mathieu Acher was a reviewer for TSE, JSS, IST.

Johann Bourcier was a reviewer for JSS, IEEE Communications Magazine,

Arnaud Blouin: SoSyM

Jean-Marc Jézéquel:

- Associate Editor in Chief of SOSYM
- IEEE Computer
- JSS
- JOT

9.1.4. Invited Talks

Benoit Baudry:

- Running software in uncertain environments. Invited talk at the ACCESS Distinguished Lecture Series at KTH, Stockholm.
- ECSLER: tool support for runtime evolution inside the JVM at the CREST workshop on genetic improvement, University College London.
- Improving software quality and DevOps automation with STAMP at OW2'con 2016.

Benoit Combemale:

- Towards Language-Oriented Modeling. Invited talk at RWTH Aachen University, Germany.
- Dynamic Validation & Verification in Language-Oriented Modeling. Keynote at MoDeVVA 2016.
- On the Globalization of Modeling Languages. Invited talk at CNES.
- A Bit of Software Engineering! Invited talk at Airbus.
- Modeling for Smart Cyber-Physical Systems. Invited talk at the French CPS days.
- Modeling for Sustainability. Invited talk at Lancaster University, United Kingdom.

9.1.5. Leadership within the Scientific Community

Benoit Baudry:

- Steering committee member for the ACM/IEEE MODELS conference

Benoit Combemale:

- Steering committee member for the ACM SLE conference
- Founding member and member of the advisory board of the GEMOC initiative.

9.1.6. Research Administration

Benoit Baudry is the leader of the DiverSE research team; he is in the scientific advisory board of the SVV lab, University of Luxembourg.

Jean-Marc Jézéquel is Director of IRISA (UMR 6074). He is Coordinator of the academic club of the French Cyber-defense Excellence Cluster, and Director of the Rennes Node of EIT Digital.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

The DIVERSE team bears the bulk of the teaching on Software Engineering at the University of Rennes 1 and at INSA Rennes, for the first year of the Master of Computer Science (Project Management, Object-Oriented Analysis and Design with UML, Design Patterns, Component Architectures and Frameworks, Validation & Verification, Human-Computer Interaction) and for the second year of the MSc in software engineering (Model driven Engineering, Aspect-Oriented Software Development, Software Product Lines, Component Based Software Development, Validation & Verification, *etc.*).

Each of Jean-Marc Jézéquel, Noël Plouzeau, Olivier Barais, Johann Bourcier, Arnaud Blouin, and Mathieu Acher teaches about 200h in these domains, with Benoit Baudry and Benoit Combemale teaching about 50h, for a grand total of about 1300 hours, including several courses at ENSTB, Supelec, and ENSAI Rennes engineering school.

Olivier Barais is deputy director of the electronics and computer science teaching department of the University of Rennes 1. Mathieu Acher is in charge of teaching duties management of this department. Noël Plouzeau is the head of the final year of the Master in Computer Science at the University of Rennes 1. Johann Bourcier is co-manager of the Home-Automation option at the ESIR engineering school in Rennes.

The DIVERSE team also hosts several MSc and summer trainees every year.

9.2.2. Supervision

- PhD: Sana Ben Nasr [17], *Mining and Modeling Variability from Natural Language Documents: Two Case Studies*, Inria, April 2016, B. Baudry and M. Acher
- PhD: Guillaume Becan [19] *Metamodels and Feature Models: Complementary Approaches to Formalize Product Comparison Matrices*, MESR, September 2016, B. Baudry and M. Acher
- PhD: Thomas Degueule , *Composition and interoperability of domain-specific language engineering*, Univ. Rennes I, 02/12/16
- PhD: Francisco Acosta , *Automatic Deployment and Reconfigurations in Internet of Things*, Univ. Rennes I, 12/12/2016
- PhD: David Mendez Acuna , *Variability in Modeling Languages*, Inria, 16/12/2016
- PhD: Jacky Bourgeois , *Automatic Synchronization of Energy Production and Consumption*, Open University, DATE
- PhD in progress: Mohamed Boussaa, *An Architecture for Testing Large-Scale Dynamic Distributed Systems*, 2013, B. Baudry, O. Barais
- PhD in progress: Alejandro Gomez Boix, *Distributed counter-measure against browser fingerprinting*, 2016, B. Baudry, D. Bromberg
- PhD in progress: Nicolas Harrand, *Automatic diversity for code obfuscation*, 2016, B. Baudry
- PhD in progress: Pierre Laperdrix, *Secretless moving target against browser fingerprinting*, B. Baudry, G. Avoine
- PhD in progress: Johan Pelay, *Langage pour une programmation incrémentale de réseau*, 2016, O. Barais, F. Guillemin
- PhD in progress: Quentin Plazar, *Combining Decision Procedures for Constraint Programming and SMT*, 2015, M. Acher, A. Goetib
- PhD in progress: Marcelino Rodriguez Cancio, *Automatic computation diversification*, 2015, B. Baudry and B. Combemale
- PhD in progress: Paul Temple, *Variability Testing of Computer Vision Algorithms*, 2015, M. Acher, J.-M. Jézéquel
- PhD in progress: Kwaku Yeboah-Antwi, *Runtime emergence of software diversity*, 2013, B. Baudry
- PhD in progress: Manuel Leduc, *TITRE*, 2016, O. Barais, B. Combemale
- PhD in progress: Youssou NDiaye, *Modelling and evaluating security in user interfaces*, 2016, N. Aillery, O. Barais, A. Blouin, A. Bouabdallah
- PhD in progress: Jean-Émile Dartois, *TITRE*, 2016, O. Barais
- PhD in progress: Oscar Luis, *Automatic test amplification*, 2016, B. Baudry
- PhD in progress: Alexandre Rio, *TITRE*, 2016, O. Barais, Y. Morel
- PhD: in progress, Kevin Corre, *Modélisation de la confiance dans les services sociaux et conversationnels*, 2014, O. Barais, G. Sunye
- PhD: in progress, Gwendal Le Moulec, *Towards the automatic synthesis of virtual reality applications*, 2015, B. Arnaldi, A. Blouin, V. Gouranton

9.2.3. Juries

9.2.3.1. Mathieu Acher

was in the examination committee of the following PhD thesis:
- Guillaume Becan, September 2016, Univ Rennes I, Supervisor
- Sana Ben Nasr, April 2016, Univ Rennes I, Supervisor
- Jaime Chavarriaga, December 2016, Vrije Universiteit Brussel, Reviewer

9.2.3.2. Arnaud Blouin

was in the examination committee of the following PhD thesis:
- Thomas Degueule, December 2016, Univ Rennes I, Supervisor

9.2.3.3. Olivier Barais

was in the examination committee of the following PhD thesis:
- Thomas Degueule, December 2016, Univ Rennes I, Supervisor
- Maxime Colman, December 2016, Univ Lille I, Reviewer
- Alexandre Garnier, December 2016, EMN - Univ Nantes, Reviewer
- Matias Ezequiel Vara Larsen, April 2016, Univ Nice, Reviewer
- Djamel Khelladi, September 2016, UPMC, Reviewer
- Simon Dupont, April 2016, EMN - Univ Nantes, Reviewer

9.2.3.4. Benoit Baudry

was in the examination committee of the following PhD thesis:
- Guillaume Becan, September 2016, Univ Rennes I, Supervisor
- Sana Ben Nasr, April 2016, Univ Rennes I, Supervisor
- David Mendez, December 2016, Univ Rennes I, Supervisor

9.2.3.5. Olivier Barais

was in the examination committee of the following HDR:
- Sébastien Leriche, November 2016, ENAC, Reviewer

9.2.3.6. Jean-Marc Jézéquel

was in the examination committee of the following HDR:
- Tewfik Ziadi, December 2016, UPMC, Reviewer

9.2.3.7. Benoit Combemale

was in the examination committee of the following PhD thesis:
- Thomas Degueule, December 2016, Univ Rennes I, Supervisor
- Blazo Nastov, november 2016, Univ. Montpellier, Reviewer
- Florent Latombe, June 2016, Univ Toulouse, Examiner
- Andreas Wortmann, June 2016, Aachen University, Germany, Reviewer
- Matias Ezequiel Vara Larsen, April 2016, Univ Nice, Examiner

9.2.3.8. Johann Bourcier

was in the examination committee of the following PhD thesis:
- Francisco Javier Acosta Padilla, December 2016, Univ Rennes I, Supervisor

9.2.3.9. Jean-Marc Jézéquel

was in the examination committee of the following PhD thesis:
- Jabier Martinez, October 2016, Univ. Luxemburg, Examiner

9.3. Popularization

- IT industry forums. Our recent work on diversity against browser fingerprinting and the associated web site [0] have been demonstrated in the a major cybersecurity forum (FIC'15 [0]), the largest IT event organized by the European commission (ICT'15 [0]) and two open source forums (OWF'14 [0] and FOSSA'14 [0]).
- General-audience press. Our work on browser fingerprinting has been featured Le Monde [0], and two full articles appeared in the MISC [0] and the Clubic magazines [0].

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[0]https://amiunique.org/

[0]https://fic2015.com/home/

[0]https://ec.europa.eu/digital-single-market/en/ict2015

[0]http://www.openworldforum.paris/

[0]https://fossa.inria.fr/

[0]http://abonnes.lemonde.fr/sciences/article/2014/11/24/le-fossa-bazar-techno-participatif_4528568_1650684.html

[0]http://connect.ed-diamond.com/MISC/MISC-081/Le-fingerprinting-une-nouvelle-technique-de-tracage

[0] http://pro.clubic.com/webmarketing/publicite-en-ligne/actualite-742853-fingerprinting-cookies.html

<p align="center">**KERDATA Project-Team**</p>

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events Organisation

10.1.1.1. General Chair, Scientific Chair

- Luc Bougé: Vice-Chair of the Steering Committee of the Euro-Par Series of conferences.

10.1.2. Scientific Events Selection

10.1.2.1. Chair of Conference Program Committees

- Gabriel Antoniu: Vice-Chair of the Program Committee of the ACM/IEEE CCGrid 2016 international conference (Hybrid and Mobile Clouds Tracks), Cartagena, May 2016.
- Alexandru Costan: Program Co-Chair of the ScienceCloud 2016 international workshop held in conjunction with HPDC 2016, Kyoto, June 2016.

10.1.2.2. Member of the Conference Program Committees

- Gabriel Antoniu: ACM HPDC 2016, IEEE Cluster 2016, PDSW-DISCS workshop (held in conjunction with ACM/IEEE SC16 conference), ARMS-CC 2016 workshop (held in conjunction with the PODC 2016 conference).
- Luc Bougé: Euro-Par 2016, IPDPS 2017, ICDE 2017, Euro-Par 2017, ISPDC 2017.
- Alexandru Costan: ACM/IEEE SC'16 BoF Applications Track, ACM/IEEE CCGrid 2016, IEEE BigData 2016, ICPP 2016, ARMS-CC 2016 workshop (held in conjunction with PODC 2016), FiCLOUD 2016, ScienceCloud 2016 workshop (held in conjunction with HPDC 2016).
- Shadi Ibrahim: IEEE Cluster 2016, IEEE/ACM CCGrid 2016, IEEE ICPADS 2016, IEEE CloudCom 2016, IEEE ICA3PP 2016, SCRAMBL 2016 (held in conjunction with Euro-Par 2016).

10.1.2.3. Reviewer

- Alexandru Costan: ACM/IEEE SC16, ACM HPDC 2016, IEEE Cluster 2016.
- Shadi Ibrahim: ACM HPDC 2016, Euro-Par 2016.

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

- Gabriel Antoniu: Future Generation Computer Systems, Special Issue on Resource Management for Big Data Platforms.
- Luc Bougé: Concurrency and Computation: Practice and Experience, Special Issues on the Euro-Par conference.
- Alexandru Costan: Soft Computing Journal, Special Issue on Autonomic Computing and Big Data Platforms

10.1.3.2. Reviewer, Reviewing Activities

- Alexandru Costan: IEEE Transactions on Parallel and Distributed Systems, Future Generation Computer Systems, Concurrency and Computation Practice and Experience, IEEE Communications, IEEE Transactions on Storage, Information Sciences
- Shadi Ibrahim: IEEE Transactions on Parallel and Distributed Systems, Future Generation Computer Systems, IEEE Transactions on Big Data, IEEE Transactions on Cloud Computing, Springer Parallel Computing, Computers and Electrical Engineering, Journal of Healthcare Engineering

10.1.4. Invited Talks

- Gabriel Antoniu:
  - BDEC 2016: Invited keynote talk at the *4th Big Data and Exascale Computing (BDEC) workshop*, Frankfurt, June 2016.
  - First Chinese-French Workshop on Extreme Computing: *Damaris: Jitter-Free I/O Management and In Situ Visualization of HPC Simulations using Dedicated Cores*, Guangzhou, May 2016.
  - 5th JLESC workshop: *Spark versus Flink: Understanding Performance in Big Data Analytics Frameworks*, Lyon, June 2016.
  - Inria/CIC-IPN workshop: *Scalable Big Data Processing on Clouds: A-Brain and Z-CloudFlow*, Mexico City, November 2016.
  - Inria/Technicolor workshop: *Spark versus Flink: Understanding Performance in Big Data Analytics Frameworks*, Rennes, November 2016.
  - 6th JLESC workshop: *Storage-Based Convergence Between HPC and Big Data*, Kobe, Japan, December 2016.
- Luc Bougé:
  - Comin Labs-DGA-ENSAI BigData day: *Support logiciel pour la gestion de données distribuées à très grande échelle*, IRISA, January 2016.
  - Société des agrégés: *Teaching informatics as a first-class subject*, annual meeting of the Regional Section, April 2016.
  - Luminy Algorithmics and Programming School: *Big Data: Tremendous challenges, great solutions*, Preparatory school teachers in Mathematics and Informatics, May 2016.
- Alexandru Costan:
  - UPB Scientific Days: *Big Data and Extreme Computing: A Storage-Based Pathway to Convergence*, The UPB Research Workshop on Distributed Systems, University Politehnica of Bucharest, June 2016.
  - Inria/CIC-IPN workshop: *Science Driven, Scalable Data-Intensive Processing on Clouds*, Mexico City, November 2016.
- Shadi Ibrahim:
  - Inria Scientific Days: *Big Data management at scale*, Rennes, June 2016.
- Chi Zhou:
  - 5th JLESC workshop: *Incorporating Probabilistic Optimizations for Resource Provisioning of Cloud Workflow Processing*, Lyon, June 2016.
- Nathanaël Cheriere:
  - 6th JLESC Workshop: *Accelerating the Scatter Operation on Dragonfly Networks*, Kobe, Japan, December 2016.
- Orçun Yildiz:
  - Grid'5000 Winter School: *Investigating the Root Causes of I/O Interference on Grid'5000*, Grenoble, February 2016.
  - 6th JLESC Workshop: *Towards Efficient Big Data Processing in HPC Systems*, Kobe, Japan, December 2016.
- Luis Eduardo Pineda Morales:
  - 5th JLESC workshop: *Exploring Elastic Scaling on Chameleon Cloud*, Lyon, June 2016.
  - Inria / CIC-IPN workshop: *Metadata Management for Geo-distributed Cloud Workflows*, Mexico City, November 2016.

10.1.5. Leadership within the Scientific Community

- Gabriel Antoniu: Scientific leader of the KerData project-team.
- Gabriel Antoniu: Topic leader for Inria for the *Data storage, I/O and in situ processing* topic, supervising collaboration activities in this area within the JLESC, Joint Inria-Illinois-ANL-BSC-JSC-RIKEN/AICS Laboratory for Extreme-Scale Computing.
- Luc Bougé: serves as a Vice-President of the *French Society for Informatics* (SIF), in charge of the teaching department.
- Gabriel Antoniu: Work package leader within the BigStorage H2020 ETN project for the *Data Science* work package.
- Alexandru Costan: Leader of the *Smart Cities* Working Group within the BigStorage H2020 ETN project.
- Shadi Ibrahim: Leader for the *Resource Management and Scheduling for Data-Intensive HPC Workflows* activity within the JLESC, Joint Inria-Illinois-ANL-BSC-JSC-RIKEN/AICS Laboratory for Extreme-Scale Computing.

10.1.6. Scientific Expertise

- Gabriel Antoniu served as a project evaluator for the ANR 2016 call (Phase 1).
- Luc Bougé: Member of the jury for the *Agrégation de mathématiques* and the *CAPES of mathématiques*. These national committees select high-school mathematics teachers in secondary schools and high-schools, respectively.
- Luc Bougé has been solicited by the Ministry of Education to participate to the committee in charge of designing and preparing the new *Informatics track* in the CAPES of mathematics. It will be offered for the 2017 session.
- Shadi Ibrahim served as a project evaluator in the DOE-ECP Program 2016: The research and development in Software Technology of the US Department of Energy's (DOE's) *Exascale Computing Project* (ECP).

10.1.7. Research Administration

- Luc Bougé: Nominated to seat at the CNU (*National University Council*) in the *Informatics* Section (27). His term ended in November 2016.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Gabriel Antoniu

- Master (Engineering Degree, 5th year): Big Data, 24 hours (lectures), M2 level, ENSAI (*École nationale supérieure de la statistique et de l'analyse de l'information*), Bruz, France.
- Master : Cloud Computing, 15 hours (lectures and lab sessions), M2 level, ENSAI (*École nationale supérieure de la statistique et de l'analyse de l'information*), Bruz, France.
- Master: Distributed Systems, 8 hours (lectures), M2 level, ALMA Master, Distributed Architectures module, University of Nantes, France.
- Master: Scalable Distributed Systems, 12 hours (lectures), M1 level, SDS Module, EIT ICT Labs Master School, France.

Luc Bougé

- Bachelor: Introduction to programming concepts, 36 hours (lectures), L3 level, Informatics program, ENS Rennes, France.

- Master: Introduction to compilation, 24 hours (exercice and practical classes), M1 level, Informatics program, Univ. Rennes I, France.

Alexandru Costan

- Bachelor: Software Engineering and Java Programming, 28 hours (lab sessions), L3, INSA Rennes.

- Bachelor: Databases, 68 hours (lectures and lab sessions), L2, INSA Rennes, France.

- Bachelor: Practical case studies, 24 hours (project), L3, INSA Rennes.

- Master: Big Data and Applications, 36h hours (lectures, lab sessions, project), M1, INSA Rennes.

Shadi Ibrahim

- Master (Engineering Degree, 5th year): Big Data, 24 hours (lectures and lab sessions), M2 level, ENSAI (*École nationale supérieure de la statistique et de l'analyse de l'information*), Bruz, France.

- Master : Cloud Computing and Hadoop Technologies, 16.5 hours (lectures and lab sessions), M2 level, ENSAI (*École nationale supérieure de la statistique et de l'analyse de l'information*), Bruz, France.

- Master: Cloud and Big data, 24 hours (lectures and lab sessions), M1 level, ENS Rennes, France.

- Master: Cloud1, Map-Reduce, (lectures, lab sessions), 15 hours (lectures and lab sessions), M2 level, Ecole des Mines de Nantes (EMN Nantes), Nantes, France.

10.2.2. Supervision

10.2.2.1. PhD in progress

Lokman Rahmani: *Big Data Management For Next Generation High Performance Computing Systems*, thesis started in October 2013, co-advised by Gabriel Antoniu and Luc Bougé.

Luis Eduardo Pineda Morales: *Efficient Big Data Management for Geographically Distributed Workflows*, thesis started in January 2014, co-advised by Alexandru Costan and Gabriel Antoniu. Defense planned in Spring 2017.

Orçun Yildiz: *Energy-Efficient Big Data Management in Petascale Supercomputers and Beyond*, thesis started in September 2014, co-advised by Shadi Ibrahim and Gabriel Antoniu.

Tien-Dat Phan: *Green Big Data Processing in Large-scale Clouds*, thesis started in October 2014, co-advised by Shadi Ibrahim and Luc Bougé.

Pierre Matri: *Predictive Models for Big Data*, thesis started in March 2015, co-advised by María Pérez and Gabriel Antoniu.

Mohammed-Yacine Taleb: *Energy-impact of data consistency management in Clouds and Beyond*, thesis started in August 2015, co-advised by Shadi Ibrahim and Gabriel Antoniu.

Ovidiu-Cristian Marcu: *Efficient data transfer and streaming strategies for workflow-based Big Data processing*, thesis started in October 2015, co-advised by Alexandru Costan and Gabriel Antoniu.

Nathanaël Cheriere: *Resource Management and Scheduling for Big Data Applications in Large-scale Systems*, thesis started in September 2016, co-advised by Shadi Ibrahim and Gabriel Antoniu.

Paul Le Noac'h: *Workflow Data Management as a Service for Multi-Site Applications*, thesis started in November 2016, co-advised by Alexandru Costan and Luc Bougé.

10.2.3. Juries

Gabriel Antoniu: Referee for the PhD thesis of Ms. Zhou Chi at the Nanyang Technological University (NTU), Singapore (January 2016).

Luc Bougé: Referee for the PhD thesis of Matthieu Perrin, LINA, Univ. Nantes (June 2016). Member of several PhD and HDR thesis juries in France.

10.2.4. Miscellaneous

10.2.4.1. Responsibilities

Luc Bougé: Co-ordinator between ENS Rennes and the Inria Research Center and the IRISA laboratory.

Luc Bougé: In charge of the Bachelor level (L3) and of the student seminar series at the Informatics Departement of ENS Rennes.

Alexandru Costan: In charge of communication at the Computer Science Department of INSA Rennes.

Alexandru Costan: In charge of the organization of the IRISA D1 Department Seminar.

Shadi Ibrahim: Member of Grid'5000 Sites Committee: Responsible for the Rennes site.

10.2.4.2. Tutorials

Gabriel Antoniu and Shadi Ibrahim   gave tutorials on *Big Data technologies and Hadoop* at the BigStorage Winter School in Barcelona (March 2016).

Shadi Ibrahim   gave a Tutorial on *Green Big Data Processing using Hadoop* at the at the Euro-Par 2016 conference, Grenoble, France (with Anne-Cécile Orgerie).

10.3. Popularization

Luc Bougé:

Master Program, Rennes.   Invited presentation to the M2 students about *Informatics as a scientific activity: Toward a responsible research* (December 2016).

Alexandru Costan:

Master Program, Rennes.   Invited presentation to the M2 students about *Big Data Analytics* (November 2016).

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

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events Organisation

10.1.1.1. Member of the Organizing Committees

- Anne-Cécile Orgerie was the main organizer of the research school E3-RSD on energy-efficiency in networks and distributed systems held in Dinard in June 2016 (http://e3rsd.irisa.fr).
- Louis Rilling was the main organizer of the SEC2 2016 workshop on security in Clouds held in Lorient in July 2016 in conjunction with the Compas 2016 conference (https://sec2-2016.inria.fr/).
- Guillaume Pierre was co-workshop/tutorials chair of the ACM/IFIP/USENIX Middleware 2016 conference.
- Martin Quinson was the main organizer of the research school SUD gathering the SimGrid user community held in Fréjus in January.
- Nikos Parlavantzas was a member of the organizing committee for MMS 2016 (INSA Science Day) in April 2016

10.1.2. Scientific Events Selection

10.1.2.1. Chair of Conference Program Committees

- Guillaume Pierre was the program chair of the Systems track of the Compas 2016 national conference.
- Guillaume Pierre was a program co-chair of CloudDP 2016 (6th International Workshop on Cloud Data and Platforms)

10.1.2.2. Member of the Conference Program Committees

- Christine Morin was a member of the program committee of the ACM/IEEE, SC'16, IEEE ICDCS 2016, ACM/IEEE CC-Grid 2016, IEEE CloudCom 2016, IEEE NFV-SDN 2016, Euromicro PDP 2016, ICCCN 2016 conferences and Resilience'16, ScienceCloud'16, CrossCloud'16 workshops.
- Anne-Cécile Orgerie was a member of the program committee of the PASA 2016 workshop and the Compas 2016 conference.
- Guillaume Pierre was a member of the program committees of IEEE IC2E 2016, ICPP 2016, DADS track of ACM SAC 2016, CloudCom 2016, and IEEE ScalCom 2016.
- Martin Quinson was a member of the program committees of SimulTech 2016.
- Nikos Parlavantzas was a member of the program committees of VHPC 16, and CLOSER 2016.
- Cédric Tedeschi was a member of the program committee of ICWS 2016, ICCS 2016, CloSer 2016 and Compas 2016 conferences. He was a member of the program committee of the ERROR 2016 workshop.

10.1.2.3. Reviewer

- Jean-Louis Pazat was a reviewer for the Compas Conference.
- Martin Quinson was a reviewer for the Compas Conference.

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

Christine Morin is associate editor in the IEEE's Transactions on Parallel and Distributed Systems' Editorial Board.

10.1.3.2. Reviewer - Reviewing Activities
- Cédric Tedeschi was a reviewer for the TPDS journal.

10.1.4. Invited Talks

- "Developing an Understanding of Ecosystems and Energy-Water Interactions Through Data", keynote talk, Inria@Silicon Valley BIS workshop, Paris, June 8th, 2016.
- "Infection dynamics in a metapopulation of cattle herds: models and their execution in large-scale computing infrastructure"; Christine Morin (together with Pauline Ezanno), talk for Rencontres INRA-Inria, Pont Royal en Provence, October 3rd, 2016.
- "Le coût énergétique du stockage dans le Cloud", Anne-Cécile Orgerie, talk for the scientific days of the University of Nantes, Nantes, June 10, 2016.
- "Green Computing and Sustainability", Anne-Cécile Orgerie, Keynote at the Annual Workshop of the French section of URSI (International Union of Radio Science), Rennes, France, March 2016.
- "L'axe Green IT à l'IRISA", Anne-Cécile Orgerie, talk for the HCERES evaluation of IRISA, Rennes, January 21, 2016.
- "Real-time stream data processing for hyper-interactive applications in fog computing platforms", Guillaume Pierre, invited presentation at the US-EU Invited Workshop on the Next Generation Internet of Things, Los Angeles (USA), March 31st 2016.
- "Toward hyper-interactive applications in fog computing platforms", Guillaume Pierre, invited presentation at the 9th Cloud control workshop, Friiberghs Herrgård (Sweden), 27-29 June 2016.
- "Experimental methodologies for large-scale distributed systems", Martin Quinson, research school E3-RSD on energy-efficiency in networks and distributed systems held in Dinard in June 2016.

10.1.5. Leadership within the Scientific Community

- Christine Morin was invited to participate in the CRA-W career mentoring workshop held in Washington DC on November 19-20, 2016. Together with AJ Brush she organized a panel on "Growing Research/Surviving First 2 Years" and together with Lori Pollock she organized a panel on "Networking and Finding Advocates". She also did 1-1 mentoring for junior computer scientists (postdocs, assistant-professors, junior scientists and junior R&D engineers).
- Anne-Cécile Orgerie is co-responsible for the Green axis of the CNRS GDR RSD (Network and Distributed Systems working group).
- Anne-Cécile Orgerie is secretary of the ASF: the French chapter of ACM SIGOPS.
- Cédric Tedeschi is a member of the steering committee of the Compas conference.

10.1.6. Scientific Expertise

Yvon Jégou is a member of the **Comité de Sélection et de Validation** (CSV) of the *Images & Réseaux* cluster (until June 2016).

Christine Morin was a member of the HCERES evaluation committee of the LORIA (visit in Nancy December 13-15, 2016). She was a remote reviewer for the Call 2015 of CHIST-ERA on the topic User-Centric Security, Privacy and Trust in the Internet of Things. She was a member of the Jury for the Inria - Académie des Sciences prizes 2016.

Jean-Louis Pazat is the coordinator of experts in Information Technology for the evaluation of international bilateral collaborations at the ministry of research and education.

Martin Quinson is a member of the scientific committee of the Blaise Pascal foundation for the scientific dissemination of Maths and Computer Science, and also of the 2017 forum "Vivid Maths" (mathématiques vivantes) organized by the CFEM (French commission for the teaching of maths). He acted as an expert for a project of the UNIT foundation, the technical and engineering numerical university.

Nikos Parlavantzas acted as an expert reviewer for ANR and ANRT CIFRE projects.

10.1.7. Research Administration

- Yvon Jégou is a member of the Grid 5000 executive committee (until June 2016).
- Christine Morin is a member of the board of the Project-Team Committee of Inria Rennes Bretagne Atlantique.
- Christine Morin was the scientific coordinator for the Inria evaluation seminar of the "distributed system and middleware" theme, held in Rungis in October 2016.
- Christine Morin has been a member of the University of Rennes 1 board of directors and of the International Affairs Commission and its board since March 2016.
- Anne-Cécile Orgerie is officer (chargée de mission) for the IRISA cross-cutting axis on Green IT.
- Jean-Louis Pazat was the leader of the "Large Scale Systems" department of IRISA until October 2016, after which this responsibility was taken over by Martin Quinson.
- Jean-Louis Pazat was the leader of the IRISA-INSA computing lab until October 2016

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Christine Morin is responsible for the Internet of Services: Programming Models & Things and Clouds (ISI) teaching unit of the Master in research in Computer Science of the University of Rennes 1 and of the EIT Digital Master School at the University of Rennes 1.

Christine Morin:

- Master 1: FreeRoom project (spanning the two semesters) co-supervised with Cédric Tedeschi and Paul Couderc, University of Rennes 1, France.
- Master 2: 4.5 hours ETD, Energy management in Large Scale Distributed Systems, Centrale-Supelec, Rennes, France.
- Master 2: Internet of Services: Programming Models & Things and Clouds (ISI), 12 hours ETD, EIT Digital Master School, University of Rennes 1, France.

Anne-Cécile Orgerie:

- Licence 3: ARCSYS2: Architecture and System - 24 hours of lecture at ENS Rennes
- Master 1: Cloud & Big Data - 12 hours of lecture and 12 hours of practical sessions at ENS Rennes
- Master 2: Green ICT - 5 hours of invited lecture at Telecom SudParis
- PhD students: Energy issues in HPC and Clouds - 1.5 jours of invited lecture at the research school of the ETN BigStorage

Guillaume Pierre (at the University of Rennes 1):

- License 3: Systèmes (25 hours ETD)
- License 3: Organisation et utilisation des systèmes d'exploitation 2 (67 hours ETD)
- Master 2: Techniques de développement logiciel dans le Cloud (39 hours ETD)
- Master 1: Service Technologies (24 hours ETD)
- Master 2: Approche algorithmique des applications et systèmes répartis (32 hours ETD)
- DU D$\sqrt{}$©veloppeur-Concepteur Logiciel: Systèmes (42 hours ETD)

Martin Quinson (at ENS Rennes):

- Licence 3: Programming and Software Engineering (30 hours ETD); ARCSYS2 - architecture et syst$\sqrt{}$®mes 2 (60 hours ETD); Pedagogy (15 hours ETD).
- Agregation Science Industrielle: Programming and Software Engineering (20 hours ETD); Operating Systems and C programming (20 hours ETD); Networking (20 hours ETD).
- Master 2: Pedagogy and Scientific Mediation for Computer Science (30 hours EDT)

Jean-Louis Pazat (at INSA Rennes):

- Licence 3: Parallel and Multicore Programming (36 hours ETD)
- Master 1: Parallel and Distributed Programming (36 hours ETD)
- Master 1: Scientific Parallel Programming (36 hours ETD)
- Licence 3: Networks and SOA (20 hours ETD)

Nikos Parlavantzas (at INSA Rennes):

- Master 1: Performance Evaluation (32 hours ETD)
- Master 1: Operating Systems (36 hours ETD)
- Master 1: Big Data and Applications (15 hours ETD)
- Master 1: Networks and SOA (20 hours ETD)
- Master 1: Advanced Operating Systems (20 hours ETD)
- Master 1: Parallel programming (12 hours ETD)
- Master 1: Software Development Project (30 hours ETD)
- Licence 3: Networking (16 hours ETD)
- Master 2: Component-based Software Engineering (16 hours ETD)

Cédric Tedeschi (220 hours ETD at Univ. Rennes 1):

- Master 1: Cooperation and concurrency in Systems and Networks
- Master 1: Projects (in charge of the *UE*)
- Master 1: Parallel programming
- Master 2: Internet of Services and Infrastructures

10.2.2. Supervision

PhD in progress: Arif Ahmed, "Scalable Decentralized Edge Cloud Infrastructures", started in October 2016, Guillaume Pierre.

PhD in progress: Ismael Cuadrado Cordero, Energy-efficient and network-aware resource allocation in Cloud infrastructures, started in October 2013, Christine Morin, Anne-Cécile Orgerie.

PhD in progress: Anna Giannakou, Self-adaptable security monitoring in Clouds, started in March 2014, Louis Rilling, Christine Morin, Jean-Louis Pazat.

PhD in progress: Baptiste Goupille-Lescar, Designing agile, distributed cyber-physical systems with advanced collaboration capabilities, started in January 2016, Michel Barreteau (Thales) Eric Lenormand (Thales), Christine Morin, Nikos Parlavantzas.

PhD in progress: David Guyon, Supporting energy-awareness for cloud users, started in September 2015, Anne-Cécile Orgerie, Christine Morin.

PhD in progress: Sabbir Hasan, SLA Driven Cloud autoscaling for optimizing energy footprint, started in December 2013, Thomas Ledoux (Ascola), Jean-Louis Pazat.

PhD: Ancuta Iordache, "Performance-cost tradeoffs in heterogeneous clouds", University of Rennes 1, successfully defended on September 9th 2016. Guillaume Pierre.

PhD in progress: Yunbo Li, Resource allocation in a Cloud partially powered by renewable energy sources, started in October 2013, Anne-Cécile Orgerie, Jean-Marc Menaud (Ascola).

PhD in progress: Pernelle Mensah, Security policy adaptation driven by risk evaluation in modern communication infrastructures, started in December 2015, Samuel Dubus (Alcatel-Lucent), Christine Morin, Guillaume Piolle (Cidre), Eric Totel (Cidre).

PhD in progress: Édouard Outin, A multi-objective adaptation system for the management of a Distributed Cloud, started in October 2013, Olivier Barais (Triskell), Yvon Jégou, Jean-Louis Pazat.

PhD in progress: The Anh Pham, Dynamic Formal Verification of High Performance Runtimes and Applications, started in November 2016, Martin Quinson, Thierry Jéron.

PhD in progress: Issam Rais, Multi criteria scheduling for large scale High Performance Computing environments, started in October 2015, Anne-Cécile Orgerie, Anne Benoit (ROMA), Laurent Lefèvre (Avalon).

PhD in progress: Bruno Stevant, Resource allocation strategies for service distribution at the Internet edge to optimize end-to-end latency, started in December 2014, Jean-Louis Pazat.

PhD in progress: Genc Tato, Locality-aware Lazy Overlay Networks for WANS, started in December 2015, Marin Bertier, Cédric Tedeschi, Christine Morin.

PhD in progress: Amir Teshome, Definition and enforcement of Service-Level Agreements for Cloud security monitoring, started in October 2015, Louis Rilling, Christine Morin.

10.2.3. Juries

- Christine Morin was a reviewer in the PhD committee of Maxime Lorrillere, university Pierre et Marie Curie, February 4th, 2016.
- Christine Morin was a reviewer in the PhD committee of Richard Relaza, university of Toulouse, February 12th, 2016.
- Christine Morin was a member in the PhD committee of Anca Iordache, university of Rennes 1, September 9th, 2016.
- Christine Morin chaired the PhD committee of Ji Liu, university of Montpellier, November 3rd, 2016.
- Christine Morin was a member in the PhD committee of Daniel Balouek-Thomert, ENS Lyon, December 5th, 2016.
- Christine Morin chaired the PhD committee of Violaine Villebonnet, ENS Lyon, December 6th, 2016.
- Christine Morin was a reviewer in the PhD committee of Vincente Kherbache, university of Nice, December 7th, 2016.
- Anne-Cécile Orgerie was a member in the PhD committee of Frédéric Dumont, Ecole des Mines de Nantes, 21st of September 2016.
- Anne-Cécile Orgerie was a member in the PhD committee of Maxime Colmant, University of Lille, 24th of November 2016.
- Jean-Louis Pazat chaired the PhD committee of Pierre Obame Meye, University of Rennes 1, December 1st, 2016.
- Jean-Louis Pazat chaired the PhD committee of Fran$\sqrt{}$ßois Lehericey, INSA Rennes, September 20, 2016.
- Guillaume Pierre was a reviewer in the PhD committee of Luc André, University of Lorraine, May 13th 2016.
- Guillaume Pierre was a reviewer in the HDR committee of Christoph Neumann, University of Rennes 1, November 23rd 2016.
- Guillaume Pierre was a reviewer in the PhD committee of Vincent Kherbache, university of Nice, December 7th, 2016.
- Louis Rilling was a member in the PhD committee of Allan Blanchard, University of Orléans, 6th of December 2016.
- Martin Quinson was a reviewer in the PhD committee of Dimitri Pertin, University of Nantes, April 22th, 2016.
- Martin Quinson was a member in the PhD committee of David Beniamine, University of Grenoble, December 5th, 2016.

- Cédric Tedeschi was a member of the PhD committee of Sajith Kalathingal, University of Rennes 1, December 13th, 2016.

10.3. Popularization

- Martin Quinson is a scientific expert in a teaching manual of Computer Science for primary schools, authored within the "La main à la pâte" popularization network. This manual was released this summer.

- Martin Quinson co-founded a working group of the Société Informatique de France toward the creation of new unplugged activities to teach the informatics to pupils. This group met twice in Lyon this year, in April and November.

- Martin Quinson participated and co-organized to several workshops and open events where high-school students were invited to discover Computer Science (March at ENS Rennes, November on the Beaulieu campus). He was a scientific expert to the MathC2+ event at ENS-Rennes in June.

- Martin Quinson participated to the full day meeting "Splash Education" targeting at determining the fundamental programming concepts that should be taught to every pupils, co-located with the SPLASH conference http://2016.splashcon.org/track/splash-2016-splash-e. He organized the 3-days event on instrumented teaching of computer science, co-located with the Orphee-RDV event https://apprentissageinstrumentdelinformatique.wordpress.com/.

- Martin Quinson continued the development of the PLM web platform, which is an exerciser to teach programming to beginners. He also submitted several project applications to pursue this work in the future. Unfortunately, none of these applications have been accepted so far. Prof Peter Hubwieser (Technical University of Munchen, chair of didactics of Computer Science) visited us for two weeks in November. Developing the PLM and exploiting the data already gathered were central elements of this work meeting. A joint publication is currently prepared, targeting the ItiCSE'17 conference.

TACOMA Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific Events Organisation

9.1.1.1. Member of the Organizing Committees

- PC member for Ehpwas 2016: 4th IEEE Int. Workshop on E-Health , 2016, F. Weis
- PC member of The 83th IEEE Vehicular Technology Conference, 15-18 May 2016, Nanjing, China, JM. Bonnin
- PC member of EAI International Conference on Mobile Medical Multimedia Technologies, Applications and Services, 14-15 June 2016, Budapest, Hungary, JM. Bonnin
- PC member of 13th African Conference on Research in Computer Science and Applied Mathematics, 11 - 14 October 2016, Tunis, Tunisia, JM. Bonnin
- PC member of The 84th IEEE Vehicular Technology Conference, 18-21 September 2016, Montreal, Canada, JM. Bonnin

9.1.2. Scientific Events Selection

9.1.2.1. Reviewer

- Mobile Networks and Applications, JM. Bonnin
- IEEE transactions on Mobile Computing, JM. Bonnin
- Simulation Modeling Practice and Theory, JM. Bonnin
- Computer Standards & Interfaces, an international journal on Engineering Science and Technology, JM. Bonnin

9.1.3. Invited Talks

- Keynote speech at the 6th NGNS international conferences, 17/12/2016, Rabat, Morocco, JM. Bonnin
- Invited talk at the Drive for All seminary, 31/08/2016, Paris, France, JM. Bonnin
- RFIDay Event, June 2016, Vitré. Talk and demos, P. Couderc
- Invited talk at the BMW Summer School, "New Business, New Mobility - YoGoKo case study", July 2016, Tegernsee, Bavaria, Germany, JM. Bonnin
- SESAME school of Tunis, Nov 2016, Tunis, Tunisia, JM. Bonnin
- Invited Talk at Smart Systems inter Labex Symposium, November 2016, Besançon, P. Couderc
- ENSAM school of Meknes, Dec 2016, Meknes, Morocco, JM. Bonnin

9.1.4. Leadership within the Scientific Community

- Jean-Marie Bonnin is member of the scientific council of the GIS ITS
- Jean-Marie Bonnin is member of the scientific council the Id4Car cluster
- Jean-Marie Bonnin is an elected member of the Scientific Council of IMT

9.1.5. Scientific Expertise

- Evaluation committee for the Belgium government, JM. Bonnin
- Expert for ANR, F. Weis and JM Bonnin
- Expert for CSV board of "Pôle Images et Réseaux", P. Couderc

9.1.6. Research Administration

- Head of the Networks, Telecommunication and service department at IRISA, JM. Bonnin

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

L2/L3: network computing (lectures, tutorials, labs), 250 hours, F. Weis, University Rennes 1

Master: Wireless LANs, F. Weis, 20 hours, M2, Telecom Bretagne

Master: Supervision of a Master 1 project related to the smart building (in collaboration with Myriads), 48 hours, P. Couderc, University Rennes 1

Master 2: Pervasive computing introduction course, Paul Couderc, 4 hours, University Rennes 1

Master 1: Network programming (lectures, tutorial, labs), 78 hours, Y. Maurel

L3/M2: network communications protocol for building automation (lectures, labs), 80 hours, Y. Maurel

Master 2: Software engineering (lectures, tutorial, labs), 82 hours, Y. Maurel

9.2.2. Supervision

PhD in progress: Adrien Capaine, Vers une plate-forme de LED connectées comme vecteur de services contextuels dans le cadre des bâtiments intelligents, 01/05/15, Frédéric Weis and Yoann Maurel

PhD in progress: Zaineb Lioune, Une Architecture pour des Services e-Santé évolutifs dans le cadre des Maisons Intelligentes, 01/09/14, Frédéric Weis, Tayeb Lemlouna and Philippe Roose

PhD in progress: Indra Ngurah, Protocoles de routage pour l'ITS, 01/05/16, Jean-Marie Bonnin

PhD in progress: Christophe Couturier, Exploitation de mécanismes EDGE pour l'ITS, 01/11/16, Jean-Marie Bonnin

PhD in progress: Alexandre Rio, Modélisation des activités de site consommateur d'énergie, 01/10/16, Olivier Barais and Yoann Maurel

9.2.3. Juries

Clément DUHART, "Toward Organic Ambient Intelligences ? EMMA", University du Havre, F. Weis, PhD referee

Minh Huong NGUYEN, "Contribution to Intelligent Transportations Systems: Security of Safety applications in Vehicular Ad hoc Networks", JM Bonnin, PhD referee

Matthieu KANJ, "Intelligent Supervision of Flexible Optical Networks", JM Bonnin, Président

9.3. Popularization

- Invited talk at the Telecom ParisTalks on "De la voiture connectée à la voiture autonome", "Le véhicule autonome, un véhicule ultra-communicant", March 2016, Paris, France, JM. Bonnin
- Invited talk at the A3C7 public event: "L?automobile intelligente et communicante: Carminat, GPS et demain?", "L?automobile communicante dans la ville", June 2016, Cesson-Sévigné, France, JM. Bonnin
- Invited talk at the workshop "Atelier Cybercriminalité dans les transports - Véhicule autonome et transport connecté : quelles stratégies de fiabilité et de sécurité ?","Sécurité des Communications pour les ITS", June 2016, Angers, France, JM. Bonnin
- "Les véhicules autonomes seront communicants?, Revue TELECOM 182, Oct 2016, JM. Bonnin
- Special issue TPC for Revue TEC mobilité intelligente : "Routes & Véhicules : Quelles Connexions ?", Nov 2016, JM. Bonnin

- "Standards et ITS : vers un écosystème ouvert ?", Revue TEC Mobilité intelligente, Nov 2016, JM. Bonnin

- "Quand les modes de vie actuels façonnent l'habitat du futur", Site Internet Batiactu, Jan 2016, http://www.batiactu.com/edito/quand-modes-vie-actuels-faconnent-habitat-futur-43438.php

- Invited talk "Le logement évolutif, Michele Dominici", Matin de l'aura angevine, Jan 2016, Angers

- Cardinal Edifice imagine l'habitat de demain, Communiqué de presse de Cardinal, relayé sur le site Batinfo, Jan 2016. http://batinfo.com/actualite/cardinal-edifice-imagine-lhabitat-de-demain_4339

- Invited talk "Ville et Habitat intelligent : des innovations au service du vivre-ensemble ?", Michele Dominici, Feb 2016, La Friche la Belle de Mai, Marseille

- "Place au logement caméléon - freemium" - Métiers. LeMoniteur, 1 mars 2016. http://www.lemoniteur.fr/articles/place-au-logement-cameleon-31516795

- Invited talk "L'habitat d'hier, d'aujourd'hui et de demain, intervention de Michele Dominici", Apr 2016 dans le cadre du Printemps du Développement Durable, Langueux

- Ecole d'été "Ecologie et biens communs", Université de Bretagne Occidentale, Sept 2016, Michele Dominici

HYBRID Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

10.1.1.1. General chair, scientific chair

- Bruno Arnaldi was Scientific Chair of "Journées de l'AFRV" 2016, Brest, France.
- Anatole Lécuyer was Program Chair of IEEE Virtual Reality 2016.
- Maud Marchal was Program Chair of IEEE Symposium on 3D User Interfaces 2016.

10.1.2. Scientific events selection

10.1.2.1. Member of the conference program committees

- Anatole Lécuyer was Member of the conference program committee of Eurohaptics 2016.
- Ferran Argelaguet was Member of the conference program committee of IEEE Symposium on 3D User Interfaces 2016, ACM Virtual Reality Software and Technology 2016, and ACM Symposium on Spatial User Interfaces 2016.
- Maud Marchal was Member of the best paper committee of "Journées Françaises de l'Informatique Graphique" 2016.
- Valérie Gouranton was Member of the program committee of 3DCVE Workshop 2016.

10.1.2.2. Reviewer

- Ferran Argelaguet was Reviewer for ACM CHI 2016, Eurohaptics 2016.
- Maud Marchal was Reviewer for ACM Siggraph 2016, IEEE Virtual Reality 2016, IEEE Symposium on 3D User Interfaces 2016, Eurohaptics 2016.
- Valérie Gouranton was Reviewer for IEEE Virtual Reality 2016.

10.1.3. Journal

10.1.3.1. Member of the editorial boards

- Anatole Lécuyer is Associate Editor of Frontiers in Virtual Environments, and Presence journals.
- Ferran Argelaguet is Review Editor of Frontiers in Virtual Environments.
- Maud Marchal is Associate Editor of Computer Graphics Forum, Review Editor of Frontiers in Virtual Environments, and Member of the Editorial Board of Revue Francophone d'Informatique Graphique.

10.1.3.2. Reviewer - Reviewing activities

- Ferran Argelaguet was Reviewer for ACM Transactions on Graphics, IEEE Transactions on Visualization and Computer Graphics, and The Visual Computer.
- Maud Marchal was Reviewer for IEEE Transactions on Visualization and Computer Graphics, IEEE Transactions on Haptics, and The Visual Computer.
- Valérie Gouranton was Reviewer for Revue d'Intelligence Artificielle.

10.1.4. Invited talks

- Ferran Argelaguet was invited at the Bauhaus University Weimar (November 16).

10.1.5. Leadership within the scientific community

- Bruno Arnaldi is Vice-President of AFRV (French Association for Virtual Reality).

- Valérie Gouranton is Member of Executive Committee of AFRV (French Association for Virtual Reality).

10.1.6. Scientific expertise

- Bruno Arnaldi was Expert for French ANR (Agence Nationale de la Recherche).
- Maud Marchal was Expert for the Natural Sciences and Engineering Research Council of Canada (NSERC).

10.1.7. Research administration

- Bruno Arnaldi is Deputy Director of IRISA.
- Maud Marchal is Co-Head of the MRI Master Research in Computer Science.

10.2. Teaching - Supervision - Juries

Anatole Lécuyer:

Master MNRV: "Haptic Interaction", 9h, M2, ENSAM, Laval, FR

Ecole Centrale de Nantes : "Haptic Interaction and Brain-Computer Interfaces", 4.5h, M1-M2, Ecole Centrale de Nantes, FR

Master SIBM: "Haptic and Brain-Computer Interfaces", 4.5h, M2, University of Rennes 1, FR

Bruno Arnaldi:

Master INSA Rennes: "VAR: Virtual and Augmented Reality", 12h, M2, INSA Rennes, FR

Master INSA Rennes: "Virtual Reality", courses 6h, projects 16h, M1 and M2, INSA Rennes, FR

Master INSA Rennes: Projects on "Virtual Reality", 20h, M1, INSA Rennes, FR

Ferran Argelaguet:

Master STS Informatique MITIC: "Techniques d'Interaction Avancées", 26h, M2, ISTIC, University of Rennes 1, FR

Master INSA Rennes: "Modeling and Engineering for Biology and Health Applications", 12h, M2, INSA Rennes, FR

Maud Marchal:

Master INSA Rennes: "Modeling and Engineering for Biology and Health Applications", 48h, M2 and responsible of this lecture, INSA Rennes, FR

Master SIBM: "Biomedical simulation", 3h, M2, University of Rennes 1, FR

Valérie Gouranton:

Licence: "Introduction to Virtual Reality", 22h, L2 and responsible of this lecture, INSA Rennes, FR

Licence: Project on "Virtual Reality", 16h, L3 and responsible of this lecture, INSA Rennes, FR

Master INSA Rennes: "Virtual Reality", 16h, M2, INSA Rennes, FR

Master INSA Rennes: Projects on "Virtual Reality", 20h, M1, INSA Rennes, FR

Florian Nouviale:

Ecole Centrale de Nantes: "Training on Unity3D", 6h, M1/M2, Ecole Centrale de Nantes, FR

Ronan Gaugne:

Insa Rennes: Projects on "Virtual Reality", 50h, L3/M1/M2, Insa Rennes, FR

10.2.1. Supervision

10.2.1.1. PhD (defended)

- Guillaume Claude, "The sequencing of actions in collaborative virtual environments", INSA Rennes, July 2016, Supervised by Bruno Arnaldi, Valérie Gouranton
- François Lehericey, "Détection de collision par lancer de rayon : la quête de la performance", INSA Rennes, September 2016, Supervised by Bruno Arnaldi, Valérie Gouranton
- Jérémy Lacoche, "Plasticity for User Interfaces in Mixed Reality", Université Rennes 1, July 2016, Supervised by Thierry Duval, Bruno Arnaldi, Jérôme Royan, Eric Maisel
- Morgan Le Chénéchal, "Awareness Model for Asymmetric Remote Collaboration in Mixed Reality", INSA Rennes, July 2016, Supervised by Bruno Arnaldi, Thierry Duval, Valérie Gouranton, Jérôme Royan
- Lucas Royer, "Visualization tools for needle insertion in interventional radiology", INSA Rennes, December 6th, 2016, Supervised by Alexandre Krupa and Maud aud Marchal
- Andéol Evain, "Optimizing the Use of SSVEP-based Brain-Computer Interfaces for Human-Computer Interaction", University of Rennes 1, December 6th, 2016, Supervised by Anatole Lécuyer, Nicolas Roussel, Géry Casiez and Ferran Argelaguet

10.2.1.2. PhD (in progress)

- Jean-Baptiste Barreau, "Virtual Reality and Archaelogy", Started in February 2014, Supervised by Valérie Gouranton and Bruno Arnaldi
- Benoit Le Gouis, "Multi-scale physical simulation", Started in October 2014, Supervised by Bruno Arnaldi, Maud Marchal and Anatole Lécuyer
- Lorraine Perronet, "Neurofeedback applications based on EEG, fMRI and VR", Started in January 2014, Supervised by Christian Barillot and Anatole Lécuyer
- Gwendal Le Moulec, "Automatic generation of VR applications", Started in October 2015, Supervised by Valérie Gouranton, Bruno Arnaldi and Arnaud Blouin
- Anne-Solène Dris-Kerdreux, "Training in virtual reality for construction applications", Started in November 2015, Supervised by Valérie Gouranton and Bruno Arnaldi
- Antoine Costes, "Haptic texturing", Started in November 2015, Supervised by Anatole Lécuyer and Ferran Argelaguet
- Guillaume Cortes, "Improving tracking in VR", Started in November 2015, Supervised by Anatole Lécuyer
- Hakim Si-Mohammed, "BCI and HCI", Started in October 2016, Supervised by Anatole Lécuyer and Ferran Argelaguet
- Gautier Picard, "Collaborative VR", Started in October 2016, Supervised by Valérie Gouranton, Bernard Gibaud and Bruno Arnaldi
- Hadrien Gurnel, "Prise en compte de la déformation d'organe pour l'assistance robotisée d'insertion d'aiguille", Started in October 2016, Supervised by Alexander Krupa and Maud Marchal

10.2.2. Juries

10.2.2.1. Selection committees

- Bruno Arnaldi was Member of Selection committee of Assistant Professor Position at Ecole Centrale de Nantes.

10.2.2.2. PhD and HDR juries

- Anatole Lécuyer was Member of PhD committees of Henrique Debarba (EPFL, Switzerland), Axelle Pillain (Telecom Bretagne), Maxence Rangé (Univ. Rennes 1), Jérémie Plouzeau (ENSAM Chalon), Andéol Evain (Univ. Rennes 1), and Member of HDR committee of Reinhold Scherer (TU Graz, Austria).

- Bruno Arnaldi was President of PhD committees of Kévin Jordao (INSA de Rennes), Hui-Yin Wu (Univ. Rennes 1), Charlotte Hoareau (Enib Brest), Sabhi Ahmed (Paris 8), Guillaume Claude (INSA Rennes), Morgan Le Chénéchal (INSA Rennes) and François Lehericey (INSA Rennes), Jérémy Lacoche (Univ. Rennes 1)

- Valérie Gouranton was Member of PhD committees of Guillaume Claude (INSA Rennes), Morgan Le Chénéchal (INSA Rennes) and François Lehericey (INSA Rennes)

- Maud Marchal was Reviewer of PhD theses of Johan Sarrazin (Univ. Grenoble Alpes), Pierre-Luc Manteaux (Univ. Grenoble Alpes) and Camille Schreck (Univ. Grenoble Alpes), and Member of PhD committee of Lucas Royer (INSA Rennes).

- Ferran Arguelaguet was Member of PhD committee of Andéol Evain (Univ. Rennes 1).

10.3. Popularization

The team has organized, together with MimeTIC team, a press conference and a press release on the "6-Finger Illusion" in May 2016. This event has been followed by lots of articles (internet, press) and radio coverages, including: France Inter, RFI, Europe 1, Le Monde, Libération, Les Echos, etc.

In addition, the results of the team have been disseminated in several other media coverages in 2016:

- "Journal télévisé 20h" (National prime time news), France2 channel (02/16) : presentation of the BCI activity.

- "Journal télévisé du soir", TVRennes channel (04/16) : presentation of the Forum Eurocities visit in Immersia.

- "La tête au carré", France Inter radio (10/16) : participation of Anatole Lécuyer.

The team has also participated to numerous dissemination events in 2016 (chronological order):

- "Open House ISTIC 2016" (Rennes, 01/16) : booth and demos of the team.

- "Forum EuroCities" (Rennes, 04/16) : presentation from Ronan Gaugne and demos in Immersia.

- "Les 10 ans du Quai Branly" (Paris, "Quai Branly" Museum, 06/16) : talk from Valérie Gouranton and Ronan Gaugne on virtual archaeology.

- "French-American Doctorat Exchange program 2016" (Rennes, 07/16): presentation from Ferran Argelaguet on Hybrid activities.

- "Journées du Patrimoine 2016" (Rennes, "Champs Libres" Museum, 09/16) : demos related to virtual archaelogy.

- "Journées Science et Musique 2016" (Rennes, 10/16) : co-organization of this event, and presentation of several demos.

- "Nuit Art et Science 2016" (Brest, 10/16) : demo on musical composition history in virtual reality and Immersia.

- "NEUROPLANETE 2016" (Nice, 10/16) : talk from Anatole Lécuyer and dissemination in "Le Point" journal.

- "Rencontres Inria Industrie: Interactions avec les objets et services numériques" (Lille, 11/16): demonstration from Ferran Argelaguet.

LACODAM Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events Organisation

10.1.1.1. Member of the Organizing Committees

- Local chair of the Mini-symposium on instant data mining, interactive data mining, preference-based pattern mining, Rennes, October 26-28, 2016 (A. Termier)
- Organization chair (T. Guyet) and program committee members (T. Guyet, R. Quiniou) of GAST workshop at EGC 2017 and at EGC 2016.

10.1.2. Scientific Events Selection

10.1.2.1. Member of the Conference Program Committees

EGC 2017 (T. Guyet, R. Quiniou, A. Termier).

ICDM 2016 (A. Termier)

KDD 2016 (A. Termier)

IJCAI 2016 (T. Guyet, B. Negrevergne)

ECAI 2016 (T. Guyet)

KR 2016 (T. Guyet)

RFIA/CNIA 2016 (T. Guyet)

APIA 2016 (C. Largouët)

10.1.2.2. Reviewer

R. Quiniou: KDD 2016, ECAI 2016, IJCAI 2016, ICDM 2016, CNIA 2016, AKDM7

T. Guyet: KDD 2016, ECAI 2016, IJCAI 2016, ICDM 2016, RFIA/CNIA 2016, KR 2016, AALTD16, SimBig 2016

A. Termier: IJCAI 2016

Y. Dauxais, C. Gautrais: IJCAI 2016, ICDM 2016, KDD 2016, EGC 2016

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

T. Guyet: RIA (Revue d'Intelligence Artificielle)

10.1.3.2. Reviewer - Reviewing Activities

A. Termier: Data Mining and Knowledge Discovery, Knowledge and Information Systems, Discrete Applied Mathematics

T. Guyet: Journal of Biomedical Informatics, AI Communications, ACM Computing Surveys, TKDE

C. Gautrais: Data Mining and Knowledge Discovery

10.1.4. Invited Talks

A. Termier gave an invited talk at the SMiLe 2016 workshop.

C. Largouët gave a invited talk at the UMR-AMURE Seminar on the 15th september 2016,

10.1.5. Leadership within the Scientific Community

A. Termier is the representative of Inria for the #DigitAg Convergence Institue

T. Guyet is member of the AFIA board (since october 2011). AFIA is the french chapter of ECCAI, the European Association for Artificial Intelligence.

10.1.6. Scientific Expertise

Evaluation of a project proposal for the ANR: R. Quiniou

Evaluation of a project proposal for the Medicen competitive cluster: T. Guyet

10.1.7. Research Administration

Member of INRA CEI (Engineers Evaluation Committee): T. Guyet

Member of the scientific board of department EA of INRA: A. Termier

Member of the scientific board of Agrocampus Ouest - COREGE: C. Largouët.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

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

Master 2 Module DSS: Apprentissage sur des données séquentielles symboliques, 10 h, M2, Istic University of Rennes 1 (R. Quiniou)

Master 2 Géoinformation, Agrocampus Ouest Rennes (L. Bonneau, T. Guyet)

Master 2 Artificial Intelligence, Agrocampus Ouest Rennes (Louis Bonneau, C. Largouët)

Master 1 Scientific Programming, Data Management, Python Programming, Agrocampus Ouest Rennes (C. Largouët)

10.2.2. Supervision

PhD in progress: Maël Guillemé, "New data mining approaches for improving energy consumption in factory"", october 3rd 2016, Alexandre Termier, Véronique, Masson and Laurence Rozé

PhD in progress: Clément Gautrais, "Mining massive data from client purchases", october 1st 2015, Alexandre Termier, Peggy Cellier, Thomas Guyet and René Quiniou

PhD in progress: Yann Dauxais, ""Query-language for care-pathway mining and analysis", february 1st 2015, David Gross-Amblard, Thomas Guyet, André Happe

PhD in progress: Alban Siffer, "DataMining approaches for cyber attack detection", mars 2016, Pierre-Alain Fouque, Alexandre Termier, Christine Largouët

10.2.3. Juries

Committee member of Rémy Dautriche Phd defense (Université de Grenoble Alpes): A. Termier

Reviewer of Olivier Cavadenti Phd (INSA Lyon): A. Termier

Committee member of Samir Loudni HDR (Université de Caen): A. Termier

Thesis advisory committee member of Jean Coquet (Univ. Rennes 1): A. Termier

Thesis advisory committee member of Benoit Bellot (INRA/IGEPP): T. Guyet

Thesis advisory committee member of Zhi Cheng (UNC/PPME): T. Guyet

10.3. Popularization

M.-O. Cordier is editorial board member of Interstices webzine.

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

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events Organization

10.1.1.1. General Chair, Scientific Chair

- Marie Babel was the Scientific Chair of the workshop "Innovation Robotique et Santé : Assistance à la conduite de fauteuil roulant" organized in Inria Rennes on December 2016 (150 participants).

10.1.1.2. Member of the Organizing Committees

- François Chaumette was in charge of organizing a Tutorial on Vision for Robotics at ICRA'2016: http://www.icra2016.org/conference/tutorials. The plenary speakers were Peter Corke (QUT, Australia), Jana Kosecka (George Mason University, US), Eric Marchand [45] and François Chaumette [44]. Around 200 participants attended this tutorial.

- Patrick Rives was in charge of co-organizing the "Journée Transports Intelligents " on behalf of the RFIA'2016 conference in Clermont-Ferrand: http://rfia2016.iut-auvergne.com/index.php/rfp-ia

- Paolo Robuffo Giordano has co-organized the Invited Session "Rigidity Theory for Problems in Multi-Agent Coordination" at the 54th IEEE Conf. on Decision and Control (CDC 2015), together by D. Zelazo (Technion, Israel) and A. Franchi (LAAS, France).

10.1.2. Scientific Events Selection

10.1.2.1. Chair of Conference Program Committees

- Paolo Robuffo Giordano: Workshop/Tutorial Session Chair for IROS 2016, Daejeon, Korea

10.1.2.2. Member of the Conference Program Committees

- François Chaumette: ICRA'2016
- Eric Marchand: ICRA 2016
- Patrick Rives: ICRA'2016, CVPR'2016
- Paolo Robuffo Giordano: ICRA'2016

10.1.2.3. Reviewer

- Marie Babel: IROS'2016 (2), ICIP'2016 (4)
- François Chaumette: IROS'2016 (1), ICRA'2017 (1)
- Vincent Drevelle: IFAC 2017 World Congress (1).
- Alexandre Krupa: IROS'2016 (1), ICRA'2017 (1)
- Eric Marchand: IROS 2016, ICRA 2017 (1), RFIA 2016 (2)
- Julien Pettré: SIGGRAPH 2016 (3), Collective Dynamics (1), CASA 2016 (3), IROS 2016 (3), ALIFE 2016 (2), ACM SCA 2016 (1), ACM CIE (1), TVCG (1), SIGGRAPH ASIA 2016 (1), Elsevier CAG (1), Pacific Graphics 2016 (1), Plos ONE (1), ACM MIG 2016 (2), IEEE VR 2017 (1), IEEE TBME (1), Taylor and Francis JMB (1), Eurographics 2017 (4), Elsevier TRB (1).
- Patrick Rives: ICRA'2016, ITSC'2016, CVPR'2016, ECCV'2016, IV'2016, ICINCO'2016, RFIA'2016, ICRA'2017
- Paolo Robuffo Giordano: ACC'2017 (1), DARS'2016 (2), ICRA'2017(2), IROS'2016 (3), RSS'2016 (1)

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

- François Chaumette: Editorial Board of the Int. Journal of Robotics Research, Senior Editor of the IEEE Robotics and Automation Letters, Editorial Board of the Springer Tracts in Advanced Robotics, Board Member of the Springer Encyclopedia of Robotics.
- Alexandre Krupa: Associate Editor of the IEEE Robotics and Automation Letters
- Eric Marchand: Associate Editor of the IEEE Robotics and Automation Letters
- Julien Pettré: Associate Editor for Computer Animation and Virtual Worlds, Associate Editor for Collective Dynamics
- Paolo Robuffo Giordano: Associate Editor of the IEEE Transactions on Robotics

10.1.3.2. Reviewer - Reviewing Activities

- Marie Babel: IEEE Trans. on Human-Machine Systems (1)
- François Chaumette: IEEE Trans. on Robotics (2), IEEE/ASME Trans. on Mechatronics (1), Robotics and Autonomous Systems (1), Journal of Intelligent and Robotic Systems (1), Control Engineering Practice (1)
- Vincent Drevelle: Transportation Research Part C (1)
- Eric Marchand : Int. Journal of robotics Research (1), Software, Practice and Experience (1), IEEE Trans. on Visualization and Computer Graphics (1), Visual Computer (1)
- Patrick Rives: IEEE Robotics and Automation Letters (1), Robotics and Autonomous Systems (1)
- Paolo Robuffo Giordano: IEEE Robotics and Automation letters (2), IEEE Trans. on Control of Network Systems (1), IEEE Trans. on Haptics (1)

10.1.4. Invited Talks

- François Chaumette: Plenary talk at RCAR'2016, Angkor Wat, Cambodia [43].
- Paolo Robuffo Giordano. Invited Talk: Collective Control, State Estimation and Human Interaction for Quadrotors in Unstructured Environments. 2016 GIS Micro-Drones Day, ENAC, Toulouse, France, October 2016
- Paolo Robuffo Giordano. Invited Seminar: Estimation and Control for Multi-Robot Systems. 2016 IEEE RAS Summer School on Multi-Robot Systems, Singapore, June 2016

10.1.5. Leadership within the Scientific Community

- François Chaumette is a 2016-2019 elected member of the Administrative Committee of the IEEE Robotics and Automation Society. He is also a member of the Scientific Council of the CNRS INS2I.
- François Chaumette and Patrick Rives are members of the scientific council of the "GdR Robotique".

10.1.6. Scientific Expertise

- François Chaumette is vice-president of the ANR Tremplin-ERC program (in charge of providing grants to recipients of non-funded A and B Starting and Consolidator ERC proposals). He was also a member of the "Institut Universitaire de France (IUF)" selection committee in charge of evaluating senior proposals, and served in the jury to select an Irstea senior researcher (DR2).
- Julien Pettré is project proposal reviewer for the Netherlands Organisation for Scientific Research.
- Paolo Robuffo Giordano is a reviewer for EU FP7 projects, for the ANR (French National Research Agency) ASTRID 2016 Program, for the "Comité ECOS Nord" of the "Ministère des affaires étrangères et du développement international" and the "Ministère de l'Enseignement supérieur et de la Recherche", and for the DGA as expert on algorithms and sensors for drones.

10.1.7. Research Administration

- François Chaumette serves as the president of the committee in charge of all the temporary recruitments ("Commission Personnel") at Inria Rennes-Bretagne Atlantique and Irisa. He is also a member of the Head team of Inria Rennes-Bretagne Atlantique.

- Alexandre Krupa and Julien Pettré are members of the CUMIR ("Commission des Utilisateurs des Moyens Informatiques pour la Recherche") of Inria Rennes-Bretagne Atlantique.

- Eric Marchand served as secretary in the board of the "Association Française pour la Reconnaissance et l'Interprétation des Formes (AFRIF)". He is also in charge of the Irisa Ph.D. students in the committee in charge of all the temporary recruitments ("Commission Personnel") at Inria Rennes-Bretagne Atlantique and Irisa. He is in the board of the "Pôle Images et Réseaux" and in the board of "Ecole doctorale Matisse".

- Julien Pettré is an elected member of the "Comité de Centre" at Inria Rennes-Bretagne Atlantique.

- Patrick Rives is a member of the "Comité des projets" and "Comité de Centre" at Inria Sophia Antipolis-Méditerranée.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Marie Babel:

Master INSA2: "Robotics", 26 hours, M1, INSA Rennes

Master INSA1: "Architecture", 30 hours, L3, INSA Rennes

Master INSA2: "Computer science project", 30 hours, M1, INSA Rennes

Master INSA2: "Image analysis", 18 hours, M1, INSA Rennes

Master INSA1: "Remedial math courses", 50 hours, L3, INSA Rennes

François Chaumette:

Master ESIR3: "Visual servoing", 8 hours, M2, Ecole supérieure d'ingénieurs de Rennes

Vincent Drevelle:

Master ESIR2: "Real-time systems and RTOS", 24 hours, M1, Esir Rennes

Master GLA: "Terrain information systems", 14 hours, M2, Université de Rennes 1

Master Info: "Artificial intelligence", 12 hours, M1, Université de Rennes 1

Licence Info: "Computer systems architecture", 20 hours, L1, Université de Rennes 1

Licence Miage: "Computer programming", 78 hours, M1, Université de Rennes 1

Master CTS: "Instrumentation, localization, GPS", 4 hours, M2, Université de Rennes 1

Licence and Master ET: "Electronics project", 23 hours, L3 and M1, Université de Rennes 1

Alexandre Krupa:

Master SIBM (Signals and Images in Biology and Medicine): "Medical robotics guided from images", 4.5 hours, M2, Université de Rennes 1, Brest and Angers

Master FIP TIC-Santé: "Ultrasound visual servoing", 6 hours, M2, Télécom Physique Strasbourg

Master INSA3: "Modeling and engineering for Biology and Health applications", 12 hours, M2, INSA Rennes

Master ESIR3: "Ultrasound visual servoing", 9 hours, M2, Esir Rennes

Eric Marchand:

> Master Esir2: "Colorimetry", 24 hours, M1, Esir Rennes
>
> Master Esir2: "Computer vision: geometry", 24 hours, M1, Esir Rennes
>
> Master Esir3: "Special effects", 24 hours, M2, Esir Rennes
>
> Master Esir3: "Computer vision: tracking and recognition", 24 hours, M2, Esir Rennes
>
> Master MRI: "Computer vision", 24 hours, M2, Université de Rennes 1
>
> Master MIA: "Augmented reality", 4 hours, M2, Université de Rennes 1

Julien Pettré:

> Licence Info : "Programmation Informatique", 40, LI1, Université de Rennes 1, Rennes
>
> INSA1: "Programmation Informatique", 40 hours, INSA Rennes

10.2.2. Supervision

- Ph.D.: Le Cui, "Robust micro/nano-positioning by visual servoing", defended on January 2016, supervised by Eric Marchand [15]

- Ph.D.: Vishnu Karakkat Narayanan, "Semi-autonomous navigation of a wheelchair by visual servoing and user intention analysis", defended in November 2016, supervised by Marie Babel and Anne Spalanzani (Chroma group at Inria Rhône-Alpes) [16]

- Ph.D.: Nicolas Cazy, "Commande prédictive pour la réalisation de tâches d'asservissement visuel successives", defended in November 2016, supervised by Paolo Robuffo Giordano, François Chaumette and Pierre-Brice Wieber (Bipop group at Inria Rhône-Alpes) [13]

- Ph.D.: Julien Bruneau, "Studying and modeling complex interactions for crowd simulation", defended in November 2016, supervised by Julien Pettré and Anne-Hélène Olivier (Mimetic group at Inria Rennes-Bretagne Atlantique and Irisa) [12]

- Ph.D.: Aly Magassouba, "Aural servo: towards an alternative approach to sound localization for robot motion control", defended in December 2016, supervised by François Chaumette and Nancy Bertin (Panama group at Inria Rennes-Bretagne Atlantique and Irisa)

- Ph.D.: Lucas Royer, "Real-time tracking of deformable targets in 3D ultrasound sequences", defended in December 2016, supervised by Alexandre Krupa, Maud Marchal (Hybrid group at Inria Rennes-Bretagne Atlantique and Irisa) and Guillaume Dardenne (IRT b<>com)

- Ph.D.: Pierre Chatelain, "Quality-driven control of a robotized ultrasound probe", defended in December 2016, supervised by Alexandre Krupa and Nassir Navab (Technische Universität München) [14]

- Ph.D.: Suman Raj Bista, "Indoor Navigation of Mobile Robots based on Visual Memory and Image-Based Visual Servoing", defended in December 2016, supervised by Paolo Robuffo Giordano and François Chaumette [11]

- Ph.D. in progress: Renato José Martins, "Robust navigation and control of an autonomous vehicle", started in November 2013, supervised by Patrick Rives and Samuel Siqueira Bueno (CTI)

- Ph.D. in progress: Jason Chevrie, "Control of a flexible needle by visual servoing using B-mode ultrasound images", started in September 2014, supervised by Alexandre Krupa and Marie Babel

- Ph.D. in progress: Quentin Bateux, "Visual servoing from global descriptors", started in October 2014, supervised by Eric Marchand

- Ph.D. in progress: Fabrizio Schiano, "Collective control with onboard sensors for multiple quadrotor UAVs", started in October 2014, supervised by Paolo Robuffo Giordano

- Ph.D. in progress: Pedro Patlan-Rosales, "Enhancement of ultrasound elastography by visual servoing and force control", started in October 2014, supervised by Alexandre Krupa

- Ph.D. in progress: Noël Mériaux, "Landing by visual servoing", started in October 2014, supervised by François Chaumette, Eric Marchand and Patrick Rives

- Ph.D. in progress: Lesley-Ann Duflot, "Visual servoing using shearlet transform", started in November 2014, supervised by Alexandre Krupa and Brahim Tamadazte (Minarob group at FEMTO-ST, Besançon)

- Ph.D. in progress: Firas Abi Farraj, "Shared Control Architectures for Visual Servoing Tasks", started in October 2015, supervised by Paolo Robuffo Giordano

- Ph.D. in progress: Salma Jiddi, "Analyses géométrique et photométrique pour des applications de réalité mixte", started in October 2015, supervised by Eric Marchand and Philippe Robert (Technicolor)

- Ph.D. in progress: Ide Flore Kenmogne Fokam, "Cooperative localization in multi-robot fleets using interval analysis", started in October 2015, supervised Vincent Drevelle and Eric Marchand

- Ph.D. in progress: Bryan Penin "Model predictive visual servoing for UAVS", started in October 2015, supervised by Paolo Robuffo Giordano and François Chaumette

- Ph.D. in progress: Guillaume Cortes, "Motion Capture", started in October 2015, supervised Eric Marchand and Anatole Lecuyer.

- Ph.D. in progress: Muhammad Usman, "Robust Vision-Based Navigation for Quadrotor UAVs", started in October 2015, supervised by Paolo Robuffo Giordano

- Ph.D. in progress: Louise Devigne, "Contribution d'une aide technique robotique à l'évaluation de pathologies neurologiques : Application à la navigation d'un fauteuil roulant", started in November 2015, supervised by Marie Babel and Philippe Gallien (Pôle Saint Hélier)

- Ph.D. in progress: Quentin Delamare, "Algorithmes d'estimation et de commande pour des quadrirotors en interaction physique avec l'environnement", started in September 2016, supervised by Paolo Robuffo Giordano

- Ph.D. in progress: Axel Lopes, "Data assimilation for synthetic vision-based crowd simulation algorithms", started in October 2016, supervised by Julien Pettré and François Chaumette

- Ph.D. in progress: Aline Baudry, "Contribution à la modélisation des fauteuils roulants pour l'amélioration de leur navigation en mode semi-autonome", started in October 2016, supervised by Marie Babel and Sylvain Guégan (Mechanical Engineering Dpt/LGCGM at Insa Rennes)

- Ph.D. in progress: Hadrien Gurnel, "Shared control of a biopsie needle from haptic and ultrasound visual feedback", started in October 2016, supervised by Alexandre Krupa and Maud Marchal (Hybrid group at Inria Rennes-Bretagne Atlantique and Irisa)

- Ph.D. in progress: Dayana Hassan, "Plate-forme robotisée d'assistance aux personnes à mobilité réduite", started in November 2016, supervised by Paolo Salaris, Patrick Rives and Frank Anjeaux (Axyn robotique)

- Internship: Valentin Bureau from May 2016 until Sep 2016 (2 months in mobility in University College of London within ISI4NAVE associated team), M1/Second year of Computer Science department, INSA Rennes, supervised by Marie Babel

- Internship: Timothée Collard "Adapting a localization application to ROS and MAV navigation" from Jun 2016 until Aug 2016, M1, Université de Rennes 1, supervised by Vincent Drevelle

- Internship: Benjamin Fasquelle from May 2016 until Aug 2016, M1, ENS Rennes, supervised by Eric Marchand

- Benoit Heintz from Mar 2016 until Jul 2016, L2 level, ENSIL Limoges, supervised by Fabien Spindler and Giovanni Claudio

- Internship: Manutea Huang from Jun 2016 until Sep 2016, L3/First year of Computer Science department, INSA Rennes, supervised by Marie Babel

- Internship: Daniel Huc from May 2016 until Sep 2016, M2, IM2AG Grenoble, supervised by Julien Pettré

- Internship: Valentin Limantour from Sep 2016 until December 2016, M1, ENIB Brest, supervised by Paolo Robuffo Giordano
- Internship: Etienne Moisdon from May 2016 until Jun 2016, M, Univ. Rennes 1, supervised by Julien Pettré

10.2.3. External Ph.D. and HdR Juries

- François Chaumette: Julien Bruneau (Ph.D., president, Inria Rennes), Andrea Cherubini (HdR, president, Lirmm, Montpellier)
- Alexandre Krupa: Laure-Anais Chanel (Ph.D., reviewer, ICube, Strasbourg), Mouloud Ourak (Ph.D., reviewer, FEMTO-ST, Besançon), Paul Mignon (Ph.D., reviewer, TIMC-IMAG, Grenoble)
- Eric Marchand: Vishnu Karakkat Narayanan (Ph.D., president, Inria Rennes), Suman Raj Bista (Ph.D., president, Inria Rennes), Limming Yang (Ph.D., reviewer, EC Nantes), Tu-Hoa Pham (Ph.D., reviewer, Lirmm, Montpellier).
- Julien Pettré: Christian Vassallo (Ph.D., Laas, Toulouse), Fabien Cissé (Ph.D., UPMC, Paris), Thomas Pitiot (PH.D., ICube, Strasbourg)
- Patrick Rives: Zui Tao (Ph.D., president, UTC, Compiègne), Bruno Ricaud (Ph.D., reviewer, Ecole des Mines, Paris), Victor Gibert (Ph.D., member, IRCCyN, Nantes), Yue Kang (Ph.D., reviewer, UTC, Compiègne), Abdelhamid Dine (Ph.D., president, ENS-Cachan, Paris-Saclay), Pierre Merri-aux (Ph.D., reviewer, Esigelec, Rouen), Fabrice Mayran de Chamiso (Ph.D., member, CEA-LIST, Paris-Saclay), Bruno Vallet (HdR, member, IGN, Paris).
- Paolo Robuffo Giordano: Osamah Saif (Ph.D., UTC, Compiègne, France), Marco Aggravi (Ph.D., University of Siena, Italy), Leonardo Meli (Ph.D., University of Siena, Italy).

10.3. Popularization

- Due to the visibility of our experimental platforms, the team is often requested to present its research activities to students, researchers or industry. Our panel of demonstrations allows us to highlight recent results concerning the positioning of an ultrasound probe by visual servoing, grasping and dual arm manipulation by Romeo, vision-based shared control using our haptic device for object manipulation, the control of a fleet of quadrotors, vision-based detection and tracking for space navigation in a rendezvous context, the semi-autonomous navigation of a wheelchair, and augmented reality applications. Some of these demonstrations are available as videos on VispTeam YouTube channel (https://www.youtube.com/user/VispTeam/videos). This year there were among others, demonstrations organized for the HCERES expert committee that evaluated IRISA, about twenty people affiliated to the CNRS electronics network, students of the "Innovation et entreprenariat" Master, those of the L3 R&I at ENS Rennes, about twenty students from the "Ecole des Mines de Nancy", several classes of high school students around Rennes, without forgetting the members of the Ph.D. thesis juries.
- Fabien Spindler and Giovanni Claudio were interviewed by TV Rennes about Pepper robot (https://www.facebook.com/166100743494694/videos/vb.166100743494694/959489554155805/?type=2&theater).
- Marie Babel participated to "15$^\mathrm{e}$ Journée nationale des pôles de compétitivité" in March 2016 (Paris): HandiViz project was selected by the French Ministry of Finance
- Marie Babel participated to the Science Festival in October 2016 with an interview at "Village des Sciences" and a workshop for general public organized in Acigné near Rennes.
- Marie Babel participated to the "Convention Nationale des SATT" (October 2016, Paris).
- Marie Babel gave a talk on "HandiViz: a new driving experience" in October 2016, during the "Semaine des Technologies - Robotique et santé" organized at Insa Rennes.

- Vincent Drevelle participated to the "Journée science et musique" in Rennes, with an interactive demonstration of sound-based tracking of a micro aerial vehicle with a beam projector (in cooperation with the Panama team).

- An article related to the research activity of Alexandre Krupa on robotic needle steering entitled "Un robot qui apprend à viser" has been published in March 2016 in the general-audience magazine "Sciences Ouest": http://www.espace-sciences.org/sciences-ouest/340/dossier/un-robot-qui-apprend-a-viser.

- Paolo Robuffo Giordano has given press releases on the activities involving formation control for multiple quadrotor UAVs to Émergences Inria, Sciences Ouest, and "Industrie & Technologies".

LINKMEDIA Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events Organisation

10.1.1.1. General Chair, Scientific Chair

Laurent Amsaleg was the technical program chair of the Intl. Conf. on Similarity Search and Applications 2016.

Laurent Amsaleg and Vincent Claveau, with X. Tannier (LIMSI-CNRS), D. Nouvel (Inalco) organized a workshop about Computational Journalism. More than 50 persons (computer scientists, sociologists, and news/media compan fellows) attented. Program available at http://compjournalism2016.irisa.fr.

Pascale Sébillot is a member of the permanent steering committee of Conf. Francophone en Traitement Automatique des Langues Naturelles.

10.1.1.2. Member of the Organizing Committees

Simon Malinowski was in the organizing committee of the Workshop on Advanced Analysis and Learning on Temporal Data (AALTD 16) held in Riva del Garda, colocated with ECML/PKDD 2016.

Guillaume Gravier was co-chair of a special session at The Speaker and Language Recognition Workshop Odyssey 2016.

10.1.2. Scientific Events Selection

10.1.2.1. Chair of Conference Program Committees

Vincent Claveau was area chair of the French-speaking conference Traitement Automatique du Langage Naturel 2016.

Guillaume Gravier was technical program chair of the International Workshop on Content-Based Multimedia Indexing 2016.

Guillaume Gravier was area chair of the ACM Intl. Conf. on Multimedia 2016.

Guillaume Gravier was technical program chair of the French-speaking international conference Journées d'Études sur la Parole 2016.

Pascale Sébillot was area chair of the French-speaking conference Traitement Automatique du Langage Naturel 2016.

10.1.2.2. Member of Conference Program Committees

Laurent Amsaleg was a PC member of: Intl. Conf. on Similarity Search and Applications; ACM Intl. Conf. on Multimedia Retrieval; IEEE Intl. Conf. on Multimedia and Exhibition.

Yannis Avrithis was a PC member of: IEEE Conference on Computer Vision and Pattern Recognition; European Conference on Computer Vision; British Machine Vision Conference; ACM Multimedia Conference on Multimedia; European Signal Processing Conference; Intl. Conference on Multimedia and Expo; IEEE Intl. Conference in Image Processing; IEEE Intl. Conference on Acoustics, Speech, and Signal Processing; Intl. Workshop on Content-Based Multimedia Indexing.

Vincent Claveau was a PC member of: ACL demonstration track; Workshop on Content-Based Multimedia Indexing; Conf. Traitement Automatique du Langage Naturel; CORIA; Language Resources and Evaluation Conf.

Teddy Furon was a PC member of ACM Information Hiding and Multimedia Security.

Guillaume Gravier was a PC member of: ACM Intl. Conf. on Multimedia; IEEE Intl. Conf. on Multimedia and Exhibition; Annual Conf. of the Intl. Speech Communication Association; IEEE Intl. Workshop on Multimedia Signal Processing; European Conf. on Information Retrieval; Conf. on Knowledge and Information Management; IEEE Intl. Conf. on Acoustics, Speech and Signal Processing; Intl. Conf. on Statistical Language and Speech Processing; Language Resources and Evaluation Conf.

Ewa Kijak was a PC member of Intl. Workshop on Content-Based Multimedia Indexing.

Pascale Sébillot was a PC member of: ACM International Conference on Information and Knowledge Management; European Conference on Information Retrieval; Conférence nationale en intelligence artificielle; Conf. Traitement Automatique des Langues Naturelles; Colloque international sur l'écrit et le document

10.1.2.3. Reviewer

Ewa Kijak reviewed for ACM Conf. on Multimedia.

Pascale Sébillot was a scientific committee member of: Language Resources and Evaluation Conference

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

Vincent Claveau is member of the editoral board of the journal Traitement Automatique des Langues.

Vincent Claveau was guest editor of the special issue on Information Retrieval and Natural Language Processing of the journal Traitement Automatique des Langues (published in 2016).

Guillaume Gravier was appointed associate editor of IEEE Trans. on Multimedia in Sep. 2016.

Guillaume Gravier is guest editor of the special issue of Multimedia Tools and Applications on content-based multimedia indexing (to appear in 2017).

Guillaume Gravier was editor of the Working Notes Proc. of the MediaEval Multimedia Benchmark.

Pascale Sébillot is editor of the Journal Traitement Automatique des Langues.

Pascale Sébillot is member of the editorial board of the Journal Traitement Automatique des Langues.

10.1.3.2. Reviewer - Reviewing Activities

Laurent Amsaleg was a reviewer for: IEEE Trans. on Circuits and Systems for Video Technology, IEEE Trans. on Multimedia, Pattern Recognition Letters, IEEE Trans. on Information Forensics & Security, IEEE Trans. on Image Processing.

Yannis Avrithis was a reviewer for Multimedia Tools and Applications, Elsevier Neurocomputing.

Vincent Claveau reviewed for Multimedia Tools and Applications, Elsevier Knowledge-Based Systems, Elsevier Information Sciences, Traitement Automatique des Langues.

Teddy Furon is a reviewer for IEEE Trans. on Information Forensics and Security, Elsevier Digital Signal Processing, EURASIP Journal of Information Security, IEEE Trans. on Image Processing, IEEE Trans. on Signal Processing.

Guillaume Gravier reviewed for Computer Speech and Language.

Pascale Sébillot was member of the reading committee for several issues of the Journal Traitement Automatique des Langues.

10.1.4. Invited Talks

Yannis Avrithis gave an invited talk at Pattern Recognition and Computer Vision Colloquium on March 31 in Prague, http://cmp.felk.cvut.cz/cmp/events/colloquium-2016.03.31.

Vincent Claveau gave an invited talk at Congrès de l'ACFAS, colloque Documents et ressources pour leur traitement : un couplage crucial, Montreal.

Vincent Claveau gave an invited talk at Séminaire D2K du labex Digicosme, Paris.

Vincent Claveau gave an invited talk at Séminaire commun RALI-OLST, Montréal.

Guillaume Gravier gave an invited talk at the ACM Multimedia 2016 TPC workshop.

Guillaume Gravier was invited as a panelist at the Intl. Workshop on Content-Based Multimedia Indexing.

Guillaume Gravier gave an invited talk at the Journées de Statistique de Rennes (JSTAR).

Guillaume Gravier animated a round-table on 'Jeux de données et données en jeu : l'accès des données à des fins de recherche' at the Rencontres du Numérique organized by the National Research Agency (ANR).

Simon Malinowski gave an invited talk on time series classification at PUC Minas, Brazil.

Pascale Sébillot gave an invited tutorial (8h) about NLP at Institut de l'information scientifique et technique (INiST) Nancy.

10.1.5. Leadership within the Scientific Community

Laurent Amsaleg was nominated to be part of the Steering Committee of SISAP for a 2016–2020 term.

Vincent Claveau is finance head of the Association pour la Recherche d'Informations et ses Applications (ARIA).

Guillaume Gravier is president of the Association Francophone de la Communication Parlée (AFCP), French-speaking branch of the Intl. Speech Communication Association.

Guillaume Gravier is co-founder and general chair of the ISCA SIG Speech, Language and Audio in Multimedia.

Guillaume Gravier is member of the Community Council of the Mediaeval Multimedia Evaluation series.

Guillaume Gravier is the technical representative of Inria in the cPPP Big Data Value Association, actively working on technical aspects of data analytics.

10.1.6. Scientific Expertise

Laurent Amsaleg was an Expert Evaluator for the Luxembourg National Research Fund, 2016.

Vincent Claveau was an expert for the FNRS (Belgian funding agency).

Vincent Claveau was an expert for GIFAS - Groupement des Industries Françaises Aéronautiques et Spatiales.

Vincent Claveau was an expert for the Programme Hubert Curien (funding program for bilateral projects).

Teddy Furon is scientific adviser for the company LAMARK.

Guillaume Gravier was vice-president of the Scientific Evaluation Committee of the National Research Agency for the theme 'Interaction, Robotic, Content, Automatic' up to July 2016.

Since September 2016, Guillaume Gravier is president of the Scientific Evaluation Committee of the National Research Agency for the theme 'Knowledge, data, content, big data, HPC, simulation'.

10.1.7. Research Administration

Vincent Claveau is deputy head of the GdR MaDICS, a CNRS inter-lab initiative to promote research about Big Data and Data Science.

Guillaume Gravier is a member of the Board of the technology cluster Images & Réseaux.

Guillaume Gravier is a member of the Board of the Comité des Projets of Inria - Rennes Bretagne Atlantique.

Pascale Sébillot is a member of the Conseil National des Universités 27th section (computer science).

Pascale Sébillot is the director of the Computer Science Laboratory, INSA Rennes.

Pascale Sébillot is the deputy director of the Scientific Advisory Committee of IRISA UMR 6074.

Pascale Sébillot is a member of the theses advisory committee of the Matisse doctoral school.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

For reseachers, all activities are given. For professors and assistant professors, only courses at the M. Sc. level are listed.

Licence: Teddy Furon, Probabilities, 40h, L1, Agrocampus Rennes, France

Licence: Guillaume Gravier, Databases, 30h, L2, INSA Rennes, France

Licence: Guillaume Gravier, Probability and statistics, 16h, L3, INSA Rennes, France

Licence: Guillaume Gravier, Natural Language Processing, 12h, L3, INSA Rennes, France

Master: Laurent Amsaleg, Multidimensional indexing, 13h, M2, University Rennes 1, France

Master: Vincent Claveau, Information retrieval, 7h, M2, ENSAI, Rennes, France

Master: Vincent Claveau, Data-Based Knowledge Acquisition: Symbolic Methods, 20h, M1, INSA de Rennes, France

Master: Vincent Claveau, Text Mining, 36h, M2, Univ. Rennes 1, France

Master: Vincent Claveau, Machine Learning for symbolic and sequential data, 7h, M2, Univ. Rennes 1, France

Master: Vincent Claveau, Information Retrieval, 15h, M2, ENSSAT, France

Master: Vincent Claveau, Information Retrieval, 13h, M2, Univ. Rennes 1, France

Master: Teddy Furon, Rare events, 20h, M2, Insa Rennes, France

Master: Guillaume Gravier, Data analysis and probabilistic modeling, 30h, M2, University Rennes 1, France

Master: Ewa Kijak, Image processing, 64h, M1, ESIR, France

Master: Ewa Kijak, Supervised learning, 15h, M2R, University Rennes 1, France

Master: Ewa Kijak, Supervised learning, 45h, M1, ESIR, France

Master: Ewa Kijak, Statistical data mining, 14h, M2, University Rennes 1, France

Master: Ewa Kijak, Indexing and multimedia databases, 15h, M2, ENSSAT, France

Master: Ewa Kijak, Computer vision, 15h, M2, ESIR, France

Master: Simon Malinowski, Short-term time series prediction, 29h, M1, Univ. Rennes 1

Master: Simon Malinowski, Supervised Learning, 10h, M2, Univ. Rennes 1

Master: Pascale Sébillot, Data-Based Knowledge Acquisition: Symbolic Methods, 14h, M1, INSA Rennes, France

Master: Pascale Sébillot, From multimedia documents structuring to multimedia collections structuring, 2h, M2 Language Industry, Université Grenoble-Alpes, France

Master: Pascale Sébillot, Advanced Databases and Modern Information Systems, 70h, M2, INSA Rennes, France

Master: Pascale Sébillot, Logic Programming, 12h, M1, INSA Rennes, France

10.2.2. Supervision

PhD: Raghavendran Balu, Privacy-preserving data aggregation and service personalization using highly-scalable data indexing techniques, defended Nov. 2016, Teddy Furon and Laurent Amsaleg

PhD: Petra Bosilj, Content based image indexing and retrieval using hierarchical image representations, defended Jan. 2016, Ewa Kijak and Sebastien Lefèvre (with OBELIX, IRISA team)

PhD: Thomas Gaillat, Reference in interlanguage: The case of this and that, defended Jun. 2016, Nicolas Ballier and Pascale Sébillot (with Université Paris Diderot)

PhD in progress: Rémi Bois, Navigable directed multimedia hypergraphs: construction and exploitation, started October 2014, Guillaume Gravier and Pascale Sébillot

PhD in progress: Ricardo Carlini Sperandio, Unsupervised motif mining in multimedia time series, started August 2015, Laurent Amsaleg and Guillaume Gravier

PhD in progress: Ahmet Iscen, Continuous memories for representing sets of vectors and image collections, started September 2014, Teddy Furon

PhD in progress: Grégoire Jadi, Opinion mining in multimedia data, started October 2014, Vincent Claveau, Béatrice Daille (LINA, Nantes) and Laura Monceaux (LINA, Nantes)

PhD in progress: Raheel Kareem Qader, Phonology modeling for emotional speech synthesis, started January 2014, Gwénolé Lecorvé and Pascale Sébillot (with EXPRESSION, IRISA Team)

PhD in progress: Mathieu Laroze, Active learning on adaptive representations for object detection in high-resolution imaging, started June 2016, Romain Dambreville, Chloe Friguet, Ewa Kijak and Sebastien Lefevre (with OBELIX, IRISA team)

PhD in progress: Cédric Maigrot, Detecting fake information on social networks, started October 2015, Laurent Amsaleg, Vincent Claveau and Ewa Kijak

PhD in progress: Vedran Vukotič, Deep neural architectures for automatic representation learning from multimedia multimodal data, started October 2014, Guillaume Gravier and Christian Raymond

PhD in progress: Oriane Simeoni, Invariance and supervision in visual learning, started Oct. 2016, Yannis Avrithis and Guillaume Gravier

PhD in progress: Mikail Demirdelen, User-adapted multi-document multimedia synthesis, started Oct. 2016, Guillaume Gravier and Pascale Sébillot

PhD in progress: Clément Dalloux, Clinical Text Mining and Indexing, started Dec. 2016, Olivier Dameron and Vincent Claveau (with DYLISS projet-team)

10.2.3. Juries

Vincent Claveau

PhD, reviewer, Gabriel Bernier-Colborne, Université de Montréal, Canada

Teddy Furon

PhD, reviewer, Thijs Laarhoven, Eindhoven University

PhD, jury member, Julien Lolive, Télécom-Bretagne Brest

Guillaume Gravier

PhD, reviewer and president, Xavier Bost, Université d'Avignon et des Pays du Vaucluse

Ewa Kijak

PhD, Hassan Wehbe, Université Toulouse III

Pascale Sébillot

PhD, reviewer, Jean-Philippe Fauconnier Biard, Université Toulouse 3

PhD, member, Abdessalam Bouchekif, Université du Maine

PhD, member, Sana Ben Nasr, Université de Rennes 1

HDR, member, Olivier Ferret, Université Paris Sud 11

10.3. Popularization

Vincent Claveau

An article entitled 'Vélos, bicyclettes et moteur de recherche', was published by ACFAS on its website

An article entitled 'Détecter l'intox sur Twitter' was published in a special issue of the Dossiers de l'Université de Rennes 1

MIMETIC Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events Organisation

10.1.1.1. General Chair, Scientific Chair

> Marc Christie, Program chair of Motion in Games 2015 (but held in 2016)

10.1.1.2. Member of the Organizing Committees

> Antonio Mucherio, organiser of Distance Geometry Day 2016, Rennes, France, December 2016

> Anne-Hélène Olivier, co-chair of Workshop VHCIE 2016, IEEE VR 2016, Greenville, United-States, October 2016

> Marc Christie, steering committee of Motion in Games 2015 and 2016, co-chair of WICED 2016 (Eurographics Workshop on Intelligent Cinematography and Editing)

10.1.2. Scientific Events Selection

10.1.2.1. Member of the Conference Program Committees

Marc Christie

> ACM Motion in Games MIG 2016, San Francisco, United-States, October 2016

> ACM Symposium on Computer Animation 2016, Zurich, Switzerland, July 2016

Ludovic Hoyet

> ACM Motion in Games MIG 2016, San Francisco, United-States, October 2016

> ACM Symposium on Applied Perception 2016, Los Angeles, United-States, July 2016

> International Conference on Computer Graphics Theory and Applications 2017, Porto, Portugal, February 2017

Richard Kulpa

> International Conference on Computer Graphics Theory and Applications 2017, Porto, Portugal, February 2017

Franck Multon

> ACM Motion in Games MIG 2016, San Francisco, United-States, October 2016

> Computer Animation and Social Agents CASA 2016, Geneva, Switzerland, May 2016

Anne-Hélène Olivier

> ACM Motion in Games MIG 2016, San Francisco, United-States, October 2016

10.1.2.2. Reviewer

Marc Christie

> Eurographics, Lyon, France, April 2017

> ACM CHI, Denver, United-States, May 2017

> ACM Siggraph, Anaheim, United-States, July 2016

> Eurographics 2017, CHI 2017, Siggraph 2017,

Ludovic Hoyet

ACM Siggraph, Anaheim, United-States, July 2016

ACM SigChi, San Jose, United-States, May 2016

Eurographics, Lyon, France, April 2017

IEEE VR 2017, Los Angeles, United-States, March 2017

Pacific Graphics, Okinawa, Japan, October 2016

Richard Kulpa

IEEE International Conference on Automatic Face and Gesture Recognition, 2017

Franck Multon

IEEE VR 2017, Los Angeles, United-States, March 2017

Anne-Hélène Olivier

IEEE VR 2017, Los Angeles, United-States, March 2017

ACM Siggraph, Anaheim, United-States, July 2016

ACM Siggraph Asia 2016, Macao, China, December 2016

Charles Pontonnier

ACM VRST 2016, Munich, Germany, November 2016

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

Marc Christie, Associate Editor of the Visual Computer

Armel Crétual, Editorial board of Journal of Electromyography and Kinesiology

Franck Multon, Presence, MIT Press

10.1.3.2. Reviewer - Reviewing Activities

Marc Christie

IEEE Transactions on Visualization and Computer Graphics, The Visual Computer, Computer Graphics Forum

Armel Crétual

Journal of Electromyography and Kinesiology, British Medical Journal open, Clinical Biomechanics, Journal of Orthopaedic Research, IEEE Computer Graphics and Applications

Ludovic Hoyet

IEEE Transactions on Visualization and Computer Graphics, IEEE Computer Graphics & Applications, Computer & Graphics, The Visual Computer Journal, Computer Animation and Virtual Worlds

Richard Kulpa

Journal of Sports Engineering and Technology, Computer

Antonio Mucherino

Mathematical Programming Series A and B, Springer, October 2016.

Franck Multon

Journal Applied Ergonomics, IEEE Transaction on Haptics, IEEE Trans. on Visualization and Computer Graphics, ACM Transactions on Applied Perception, IEEE Computer Graphics and Applications, International Journal of Computer Games Technology

Anne-Hélène Olivier

Journal of Experimental Psychology Human Perception and Performance

Charles Pontonnier

> Applied Ergonomics, IEEE Computer Graphics and Applications, MDPI Computers, IEEE Transactions on Visualization and Computer Graphics, ACM Computing surveys

10.1.4. Invited Talks

> Ludovic Hoyet. Perception of Biological Human Motion for Plausible Character Animation. Invited speaker at Université Bretagne Sud, team Expression, Vannes, France, June 2016

> Antonio Mucherino. Vertex Orders in Distance Geometry. Invited seminar at LIA, University of Avignon, France. Invited by R. Figueiredo. November 2016.

10.1.5. Scientific Expertise

> Marc Christie, expert for CIR (credit impot recherche – three cases in 2016)

> Georges Dumont, expert for Dutch Research Council VENI (Netherlands) project

> Franck Multon, HCERES expert for UMR 7287 AMU/CNRS "Institut des Sciences du Mouvements" in Marseille en 2016-2017, ANR expert, member of the ANR CPDS 4 "Santé Bien-être" through the Allistene national Alliance to design the next ANR call for projects, expert for international NSRC (Canada), CRSNG (Canada) and Dutch Research Council VENI (Netherlands) projects

> Charles Pontonnier, Member of the Normalization Work Group "Impact of exoskeletons on work conditions", groupe AFNOR.

10.1.6. Research Administration

> Georges Dumont is president of the elected group at scientific council of École Normale Supérieure de Rennes, member of the scientific council of École Normale Supérieure de Rennes

> Georges Dumont is scientific head of Immerstar platforms (Immersia + Immermove) jointly for Inria and Irisa Partners

> Ludovic Hoyet participated in the local MESR PhD Grant Auditions 2016

> Richard Kulpa is member of the University Rennes2 Research steering committee "commission recherche", and Academic Council "CAC"

> Fabrice Lamarche is a member of the national council of universities (Conseil National des Universités - CNU) since november 2015

> Antonio Mucherinon is the person in charge of International Relationships at ISTIC, and member of the "Commission Affaires Internationales" at Université Rennes 1

> Franck Multon, member of the "Conseil Académique" and "Commission Recherche" of University Rennes2, head of Immermove platform in the Immerstar group, member of the D6 "Media and Interactions" department in IRISA, head of MimeTIC team

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

10.2.1.1. Master

Marc Christie

> "Multimedia Mobile", Master 2, leader of the module, 32h, Computer Science, University of Rennes 1, France

> "Projet Industriel Transverse", Master 2, 32h, leader of the module, Computer Science, University of Rennes 1, France

> "Outils pour la Conception d'IHM", Master 2, 32h, leader of the module, Computer Science, University of Rennes 1, France

Armel Crétual

"Méthodologie", leader of the module, 20h, Master 1 M2S, University Rennes2, France

"Biostatstiques", leader of the module, 30h, Master 2 M2S, University Rennes2, France

Georges Dumont

Responsible of the second year of the master Mechatronics, Rennes 1 University and École Normale Supérieure de Rennes, France

"Mechanical simulation in Virtual Reality", 36h, Master Mechatronics, Rennes 1 University and École Normale Supérieure de Rennes, France

"Mechanics of deformable systems", 40h, Master FE, École Normale Supérieure de Rennes, France

"Oral preparation to agregation competitive exam", 20h, Master FE, École Normale Supérieure de Rennes, France

"Vibrations in Mechanics", 10h, Master FE, École Normale Supérieure de Rennes, France

"Multibody Dynamics", 9h, Master FE, École Normale Supérieure de Rennes, France

"Finite Element method", 12h, Master FE, École Normale Supérieure de Rennes, France

Ronan Gaugne

"VR projects", 40h, M1/M2, INSA Rennes, France

Ludovic Hoyet

"Images et Mouvement - IMO", Part "Mouvement Humain", 10h, Master 2 research in computer sciences, University Rennes1, France

Richard Kulpa

"Boucle analyse-modélisation-simulation du mouvement", 27h, leader of the module, Master 2 M2S, Université Rennes 2, France

"Méthodes numériques d'analyse du geste", 27h, leader of the module, Master 2 M2S, Université Rennes 2, France

"Cinématique inverse", 3h, leader of the module, Master 2 M2S, Université Rennes 2, France

Fabrice Lamarche

"Compilation pour l'image numérique", 29h, Master 1, ESIR, University of Rennes 1, France

"Synthèse d'images", 12h, Master 1, ESIR, University of Rennes 1, France

"Synthèse d'images avancée", 28h, Master 1, ESIR, University of Rennes 1, France

"Modélisation Animation Rendu", 36h, Master 2, ISTIC, University of Rennes 1, France

"Jeux vidéo", 26h, Master 2, ESIR, University of Rennes 1, France

Antonio Mucherino

"Parallel Computing" (in English), 30h, M1 Informatique, Université Rennes 1, France

"Introduction aux Systèmes et Réseaux", 42h, M1 BIG (SVE), Université Rennes 1, France

"Programmation Orienté à Objets", 40h, M1 BIG (SVE), Univ. Université Rennes 1, France

"Algorithmes pour les Séquences et les Structures", 12h, M2 BIG (SVE), Université Rennes 1, France

Franck Multon

"Images et Mouvement - IMO", leader of the module, 20h, Master 2 research in computer sciences, University Rennes1, France

"Santé et Performance au Travail : étude de cas", leader of the module, 30h, Master 1 M2S, University Rennes2, France

"Analyse Biomécanique de la Performance Motrice", leader of the module, 30h, Master 1 M2S, University Rennes2, France

"Modélisation et Simulation du Mouvement", leader of the module, 30h, Master 2 M2S, University Rennes2, France

"Connaissances neurophysiologiques et biomécaniques", Mastere "Excellence Operationnelle", INSA Rennes, France

Anne-Hélène Olivier

"Biostatstiques", 18h, Master 2 M2S, University Rennes2, France

"Biostatstiques", 16h, Master 1 2SEP, École Normale Supérieure de Rennes, France

"Contrôle moteur : loi de contrôle de la locomotion", 3h30, Master 1 M2S, Université Rennes 2, France

"Contrôle moteur : Boucle perceptivo-motrice", 3h30, Master 1 M2S, Université Rennes 2, France

"Analyse Biomécanique de la Performance Motrice", 15h, Master 1 M2S, University Rennes2, France

Charles Pontonnier

"Numerical methods", leader of the module, Mechanics, École Spéciale Militaire de Saint-Cyr Coëtquidan, France

"Numerical simulation of mechanical systems", leader of the module, Mechanics, École Spéciale Militaire de Saint-Cyr Coëtquidan, France

"Analytical Mechanics" , Mechanics, École Spéciale Militaire de Saint-Cyr Coëtquidan, France

"Design and control of legged robots", leader of the module, Electronics, École Spéciale Militaire de Saint-Cyr Coëtquidan, France

"Design, simulation and control of mechanical systems", leader of the module, Lecturers training in mechatronics, École Normale Supérieure de Rennes, France

"Musculoskeletal modeling and ergonomics", 30h, Master 1 M2S, University Rennes2, France

10.2.1.2. License level

Marc Christie

"Programmation Impérative 1", leader of the module, University of Rennes 1, France

Armel Crétual

"Analyse cinématique du mouvement", 100h, Licence 1, University Rennes 2, France

Richard Kulpa

"Biomécanique (dynamique en translation et rotation)", 48h, Licence 2, Université Rennes 2, France

"Méthodes numériques d'analyse du geste", 48h, Licence 3, Université Rennes 2, France

"Statistiques et informatique", 15h, Licence 3, Université Rennes 2, France

Ronan Gaugne

"VR projects", 10h, L3, INSA Rennes, France

Fabrice Lamarche

"Initiation à l'algorithmique et à la programmation", 56h, License 3, ESIR, University of Rennes 1, France

"Programmation en C++", 46h, License 3, ESIR, University of Rennes 1, France

"IMA", 24h, License 3, ENS Rennes, ISTIC, University of Rennes 1, France

Antonio Mucherino

"Programmation Impérative 1", 80h, L1, Université Rennes 1, France

Franck Multon

"Ergonomie du poste de travail", Licence STAPS L2 & L3, University Rennes2, France

Anne-Hélène Olivier

"Analyse cinématique du mouvement", 100h , Licence 1, University Rennes 2, France

"Anatomie fonctionnelle", 8h , Licence 2, University Rennes 2, France

"Effort et efficience", 12h , Licence 2, University Rennes 2, France

"Locomotion et handicap", 12h , Licence 3, University Rennes 2, France

"Biomécanique du viellissement", 12h , Licence 3, University Rennes 2, France

Charles Pontonnier

"Numerical control", leader of the module, Electronics, École Inter-Armes de Saint-Cyr Coëtquidan, France

10.2.2. Supervision

10.2.2.1. PhD (defended)

Julien Bruneau, Studying and modeling complex interactions for crowd simulation, University Rennes 1, defended in Nov. 2016, Julien Pettré (Lagadic) & Anne-Hélène Olivier

Ana Lucia Cruz Ruiz, Low-Dimensional Control Representations for Muscle-Based Characters: Application to Overhead Throwing, ENS Rennes, defended in Dec. 2016, Georges Dumont & Charles Pontonnier

Pierre Plantard, Estimation des efforts musculaires à partir de données in situ pour l'évaluation ergonomique d'un poste de travail, defended in July 2016, Franck Multon & Anne-Sophie LePierres

Cunka Sanokho, Data-driven Virtual Cinematography, University Rennes1, defended in Feb. 2016, Marc Christie

Hui-yin Wu, Cinematic discourse for Interactive 3D Storytelling, University Rennes1, defended in Oct. 2016, Marc Christie

10.2.2.2. PhD (in progress)

Yacine Bouhalia, Approche transversale pour l'analyse et la reconnaissance de gestes 2D et 3D, INSA of Rennes, September 2015, Richard Kulpa & Franck Multon & Eric Anquetil

Charles Faure, Stratégies coopératives et compétitives dans des tâches d'interactions physiques multiples, Université Rennes 2, September 2016, Benoit Bideau & Richard Kulpa

Florence Gaillard, Evaluation en situation écologique des capacités fonctionnelles des membres supérieurs d'enfants hémiplégiques, University Rennes 2, December 2015, Armel Crétual & Isabelle Bonan

Karim Jamal, Les effets des stimulations sensorielles par vibration sur les perturbations posturales secondaires à des troubles de la cognition spatiale après un Accident vasculaire Cérébrale, University Rennes 2, September 2016, Isabelle Bonan & Armel Crétual

Sean D. Lynch, Perception visuelle du mouvement humain dans les interactions lors de tâches locomotrices, M2S - University Rennes 2, September 2015, Anne-Hélène Olivier & Richard Kulpa

Marion Morel, Suivi et étude des interactions pour l'analyse des tactiques durant un match de basket-ball, UPMC - University Rennes 2, September 2014, Catherine Achard & Séverine Dubuisson & Richard Kulpa

Antoine Muller, Design of a modular and multiscale musculoskeletal library as a support to motion analysis-synthesis, Ecole normale supérieure, September 2014, Georges Dumont & Charles Pontonnier

Camille Pouliquen, Optimization of musculoskeletal models during the sporting gesture: Cycling application, University Rennes 2, September 2013, Paul Delamarche & Nicolas Bideau

Pierre Touzard, Suivi longitudinal du service de jeunes joueurs de tennis élite : identification biomécanique des facteurs de performance et de risque de blessures, University Rennes 2, September 2014, Benoit Bideau & Richard Kulpa & Caroline Martin

10.2.3. Juries

PhD: Deep Seth, Contribution to the evaluation of muscle fatigue model and recovery model, Centrale Nantes, Rapporteur Franck Multon

PhD: Pamela Carreno Medrano, Analysis and Synthesis of Expressive Theatrical Movements, Université Bretagne Sud, Rapporteur Franck Multon

10.3. Popularization

Franck Multon managed a 4 days Booth to present ergonomic work in MIDEST in Paris, with a plenary session conference about penibility at work, MIDEST December 2016

Franck Multon and Richard Kulpa managed a 2 days Inria Booth to present VR and Sports in Futur en Seine in Paris, June 2016

Ludovic Hoyet, Journées Scientifiques Inria 2016, exposé court en 180s, "Perceptual Effect of Shoulder Motions on Crowd Animations".

Ludovic Hoyet, Press conference, « Six-Finger Illusion : pour mieux comprendre la perception de notre corps et de notre avatar ». With Ferran Argelaguet and Anatole Lécuyer, Inria, Paris, 12 May 2016, https://www.inria.fr/centre/rennes/actualites/six-finger-illusion

PANAMA Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

Rémi Gribonval is a member of the IEEE Technical Committee on Signal Processing Theory and Methods (2012–2017), and a member of the Awards sub-committee.

Rémi Gribonval is a member of the program committee of the GRETSI.

Rémi Gribonval is a member of the Steering Committee of the SPARS international workshop (chairman until 2013).

Frédéric Bimbot is the Head of the "Digital Signals and Images, Robotics" department in IRISA (UMR 6074).

Frédéric Bimbot is a member of the International Advisory Council of ISCA (International Speech Communication Association).

Rémi Gribonval and Frédéric Bimbot are the scientific coordinators of the Science and Music Day (Journée Science et Musique) organized by IRISA.

Antoine Deleforge organized and co-chaired with Prof. Sharon Gannot (Bar-Ilan University) a special session on "Learning-Based Sound Source Localization and Spatial Information Retrieval" at ICASSP 2016, Shanghai, China.

N. Bertin, A. Deleforge, and R. Gribonval co-organized a special session entitled "From Source Position to Room Properties : Learning Methods for Audio Scene Geometry Estimation", at the 2017 LVA/ICA Conference, Grenoble, February 2017

R. Gribonval was the organizer of a special session on "Multiscale Factorizations and Learning", at the 2016 IEEE Information Theory Workshop, Cambridge, UK, September 2016

R. Gribonval was guest editor of a special issue of IEEE Journal on Selected Topics in Signal Processing, on Structured Matrices in Signal and Data Processing.

F. Bimbot was an invited speaker at the Dagstuhl Seminar 16092 on Computational Music Structure Analysis (February 2016, Dagstuhl, Germany)

R. Gribonval was an invited speaker at the London Workshop on Sparse Signal Processing (Imperial College, September 2016), the DALI (Data Learning and Inference) Workshop on Learning Theory (Sestri Levante, March 2016), the Workshop on Computational and Statistical Trade-offs in Learning (IHES, Bures-sur-Yvette, March 2016), and the Workshop on Low Complexity Models in Signal Processing (Hausdorff Institute, Bonn, February 2016).

R. Gribonval is a member of the jury of the GDR ISIS / GRETSI / Club EAA thesis prize in signal and image processing since 2014.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Bachelor : N. Bertin, "Discovery of selected topics in audio signal processing research", 6 hours, L3, École Supérieure de Réalisation Audiovisuelle (ESRA), France.

Master : N. Bertin, "Audio rendering, coding and source separation", 6 hours, M2, Université Rennes 1, France.

Master : N. Bertin, "Audio indexing and classification", 6 hours, M2, Université Rennes 1, France.

Master : N. Bertin, "Fundamentals of Signal Processing", 24 hours, M1, Ecole Normale Supérieure de Bretagne, Rennes, France.

Master : N. Bertin, "Sparse representations and compressive sensing", 15 hours, M2, Ecole Nationale de la Statistique et de l'Analyse de l'Information, Rennes, France.

Master : N. Bertin, "Sparsity in Signal and Image Processing", 10 hours, M1, Ecole Normale Supérieure de Bretagne, Rennes, France.

Master : N. Bertin, "Sparsity in Signal and Image Processing", 12 hours, M2, Institut National des Sciences Appliquées (INSA) de Rennes, France.

Master : R. Gribonval, "Signal and image representations", 8 hours, M2, Université Rennes 1, France.

Master: R. Gribonval, coordination of the ARD module "Acquisition et Représensation de Données", 20hours, M2, Université Rennes 1, France.

Master : R. Gribonval, "Sparsity in Signal and Image Processing", 6 hours, M2, Institut National des Sciences Appliquées (INSA) de Rennes, France.

Master : R. Gribonval, coordination of the module "Sparsity in Signal and Image Processing", 48 hours, M2, Institut National des Sciences Appliquées (INSA) de Rennes, France.

Bachelor : A. Deleforge, "Discovery of selected topics in audio signal processing research", 6 hours, L3, École Supérieure de Réalisation Audiovisuelle (ESRA), France.

Master : A. Deleforge, "Sparsity in Signal and Image Processing", 4 hours, M2, Institut National des Sciences Appliquées (INSA) de Rennes, France.

10.3. Popularization

10.3.1. *Journée Science et Musique*

Participants: Antoine Deleforge, Rémi Gribonval, Frédéric Bimbot, Romain Lebarbenchon, Adrien Leman, Nicolas Bellot, Clément Gaultier, Nancy Bertin, Nicolas Keriven, Ewen Camberlein, Luc Le Magoarou, Armelle Mozziconacci, Stéphanie Lemaile, Corentin Louboutin, Nicolas Tremblay, Corentin Guichaoua, Srdan Kitic.

with contributions and support from: Valérie Gouranton, Laurent Perraudeau, Nathalie Denis, Evelyne Orain, Agnès Cottais, and many more.

PANAMA coordinated the organization of a public event called "Journãe Science et Musique" ("Music and Science Day"). This yearly event organized by the METISS/ PANAMA Team since 2011 aims at sharing with the wide audience the latest innovations and research projects in music. The motivation for hosting this event is to explain and promote the technology behind audio-processing that people face in their daily lives. The event is free to everyone and people have the possibility to attend talks by selected speakers or meet numerous experts that demonstrate current projects in which people can interactively participate. Edition 2016 hosted more than 500 visitors and was the official opening event of the "Festival des Sciences" week in Rennes.

SIROCCO Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events Organisation

10.1.1.1. Member of Organizing Committees

- C. Guillemot has served as area chair for the European Signal Processing Conference (EUSIPCO), 2016.
- C. Guillemot co-organized (together with Joachim Weickert, Prof. Universität des Saarlandes, and Thomas Pock, Prof. TU Graz, and Gerlind Plonka-Hoch, Prof. Universität Göttingen) a Schloss Dagstuhl seminar on inpainting-based image compression (Nov. 13-18, 2016).

10.1.1.2. Chair of Conference Program Committees

- C. Guillemot was technical co-chair of the IEEE image, video and multi-dimensional signal processing workshop, 11-12 July 2016
- C. Guillemot was general co-chair of the IEEE International workshop on Multimedia Signal Processing (IEEE-MMSP), Montreal, 21-23 Sept. 2016.

10.1.1.3. Member of Conference Program Committees

- O. Le Meur has been a member of technical program committees of international conferences: EUVIP 2016, QoMEX 2016
- A. Roumy has been a member of the technical program committee of the ACCV 2016 workshop on New Trends in Image Restoration and Enhancement.

10.1.2. Journal

10.1.2.1. Member of the Editorial Boards

- C. Guillemot has been associate editor of the Eurasip International Journal on Image Communication (2010-2016).
- C. Guillemot is senior area editor of the IEEE Trans. on Image Processing.
- C. Guillemot is associate editor of the International Journal on Mathematical Imaging and Vision.
- O. Le Meur is member of the editorial board of the IET Image Processing Journal.
- T. Maugey has been Guest editor for the Special Issue on Interactive Multi-view Video Services: from acquisition to Rendering, IEEE Multimedia Communication Technical Committee letters, Vol. 11(2), March 2016 (Guest Editors: Erhan Ekmekcioglu, Thomas Maugey, Laura Toni)
- A. Roumy is associate editor of the Springer Annals of Telecommunications.

10.1.3. Invited Talks

- O. Le Meur has been invited for a talk at Harmonic (Rennes) on "Computational Modelling of visual attention"
- O. Le Meur participated to the TechnoConference at Inria. The presentation dealt with spatio-temporal video inpainting.
- T. Maugey has been invited for a talk at I3S (Nice, France) on "Enabling user to interactively select viewpoint : a challenge for 3D data compression ", May 2016.
- C. Guillemot gave an overview talk on image compression at the Dagstuhl seminar (13-18 Nov. 2016).

10.1.4. Leadership within the Scientific Community

- C. Guillemot is member of the IEEE IVMSP technical committee
- C. Guillemot is senior member of the steering committee of IEEE Trans. on Multimedia (2016-2018).

10.1.5. Scientific Expertise

- C. Guillemot is member as scientific expert of the CCRRDT (Regional Committee of Research and Technological Development) of the Brittany region.

10.1.6. Research Administration

- C. Guillemot has been (Sept. 2015-Dec. 2016) vice-chair of Inria's evaluation committee.
- C. Guillemot is member of the "bureau du Comité des Projets".
- T. Maugey has been member of the selection comitee for the assigment of the ministerial PhD grants at IRISA.
- A. Roumy served as a member of Board of Examiners (Comité de sélection) for an Associate Professor position (Maitre de Conférences) at CREATIS Polytech Lyon (MCU61-46 2016).
- A. Roumy served as a member of Board of Examiners (Comité de sélection) for an Associate Professor position (Maitre de Conférences) at ENSEIRB-MATMECA Bordeaux (MCF61-0127 2016).
- A. Roumy is a member of the Inria Joint Administrative Committee (CAP commission administrative paritaire).

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Master: C. Guillemot, Image and video compression, 8 hours, M2 computer science, Univ. of Rennes 1, France.

Master: C. Guillemot, Image and video compression, 8 hours, M2 SISEA, Univ. of Rennes 1, France.

Master: O. Le Meur, Selective visual attention, 6 hours, M2, Univ. of Paris 8, France.

Master: O. Le Meur, Acquisition/Image Processing/Compression, 22 hours, M2 MITIC, Univ. of Rennes 1, France.

Engineer degree: O. Le Meur, Image Processing, video analysis and compression, 54 hours, ESIR2, Univ. of Rennes 1, France.

Engineer degree: O. Le Meur, Visual communication, 65 hours, ESIR3, Univ. of Rennes 1, France.

Professional training: O. Le Meur, Image Processing and OpenCV, 42 hours, Technicolor Rennes.

Engineering degree: A. Roumy, Compressive sensing, 17 hours, INSA Rennes, 5th year, Mathematical engineering, France.

Master: A. Roumy, Compressive sensing, 15 hours, ENSAI Bruz, Master Big Data, France.

10.2.2. Supervision of PhD defended during the year

PhD-VAE: P. Bordes, Adapting video compression to new formats, Univ. of Rennes 1, 18 Jan. 2016, C. Guillemot.

PhD : M. Le Pendu, Backward compatible approaches for the compression of high dynamic range videos, Univ. of Rennes 1, 17 March 2016, C. Guillemot (Cifre contract with Technicolor).

PhD : J. C. Ferreira, Algorithms for Super-resolution of Images based on Sparse Representation and Manifolds, co-tutelle Univ. of Rennes 1/ University of Uberlandia Brazil, 6 July 2016, C. Guillemot.

PhD: C. Chamaret, Color Harmony: experimental and computational modeling, University of Rennes 1, 28th of April, 2016.

10.2.3. Juries

- C. Guillemot has been member (rapporteur) of the PhD jury of:
    - T. Biatek, INSA-Rennes, Apr. 2016
    - A. Akl, Univ. of Bordeaux, Feb. 2016
- C. Guillemot has been member of the PhD jury of:
    - A. Gilles, INSA-Rennes, Sept. 2016
    - L. LE Magoarou, Univ. Rennes 1, Nov. 2016
- O. Le Meur has been member (rapporteur) of the jury of the PhD committee of:
    - Romain Cohendet, University Bretagne Loire, IRCCyN, 2016
    - Andrea Helo, University Paris Descartes, 2016
    - Ala Aboudib, Telecom Bretagne, 2016
    - Franck Chi, Telecom Bretagne, 2016