



RESEARCH CENTER
Grenoble - Rhône-Alpes

FIELD

Activity Report 2015

Section Dissemination

Edition: 2016-03-21

ALGORITHMICS, PROGRAMMING, SOFTWARE AND ARCHITECTURE

1. ARIC Project-Team	4
2. COMPSYS Project-Team	7
3. CONVECS Project-Team	10
4. CORSE Team	15
5. DICE Team	20
6. PRIVATICS Project-Team	22
7. SPADES Project-Team	25

APPLIED MATHEMATICS, COMPUTATION AND SIMULATION

8. BIPOP Project-Team	28
9. MISTIS Project-Team	31
10. NANO-D Project-Team	35
11. NECS Project-Team	37

DIGITAL HEALTH, BIOLOGY AND EARTH

12. AIRSEA Team	40
13. BEAGLE Project-Team	44
14. DRACULA Project-Team	47
15. ERABLE Project-Team	50
16. IBIS Project-Team	55
17. NUMED Project-Team	62
18. STEEP Project-Team	64

NETWORKS, SYSTEMS AND SERVICES, DISTRIBUTED COMPUTING

19. AVALON Project-Team	67
20. CTRL-A Team	71
21. DANTE Project-Team	73
22. MESCAL Project-Team	77
23. MOAIS Project-Team	79
24. ROMA Project-Team	82
25. SOCRATE Project-Team	86
26. URBANET Team	90

PERCEPTION, COGNITION AND INTERACTION

27. Chroma Team	95
28. EXMO Project-Team	98
29. IMAGINE Project-Team	101
30. LEAR Project-Team	106
31. MAVERICK Project-Team	109
32. MORPHEO Project-Team	111
33. PERCEPTION Project-Team	114
34. PRIMA Project-Team	115
35. TYREX Project-Team	119

ARIC Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

10.1.1.1. General chair, scientific chair

Jean-Michel Muller was the General Chair of ARITH'22, Lyon.

10.1.1.2. Member of the organizing committees

Bruno Salvy is a co-organizer with Alin Bostan of Alea'2016, Luminy.

10.1.2. Scientific events selection

10.1.2.1. Member of the conference program committees

Fabien Laguillaumie was a member of the program committee of WCC'15.

Benoît Libert was a member of the program committees of ACM-CCS'15, Eurocrypt'15, PKC'15 and '16, Africacrypt'16.

Jean-Michel Muller was a member of the program committee of ASAP'2015.

Nathalie Revol was a member of the program committee of NRE1 at SuperComputing'15.

Bruno Salvy is a member of program committee of AofA'2016, Warsaw, Poland.

Damien Stehlé was member of the program committees of Latincrypt'15, Asiacrypt'15, PQCrypto'16, PKC'15 and '16. He is a member of the program committee of ANTS'16 and SCN'16.

10.1.3. Journal

10.1.3.1. Member of the editorial boards

Jean-Michel Muller is a member of the editorial board of the *IEEE Transactions on Computers*. He is a member of the board of foundation editors of the *Journal for Universal Computer Science*.

Bruno Salvy is a member of the editorial boards of the *Journal of Symbolic Computation*, of the *Journal of Algebra* (section Computational Algebra) and of the collections *Texts and Monographs in Symbolic Computation* (Springer) and *Mathématiques et Applications* (SMAI-Springer).

Gilles Villard is a member of the editorial board of the *Journal of Symbolic Computation*.

10.1.4. Invited talks

Claude-Pierre Jeannerod was an invited speaker at the MACIS conference (Sixth International Conference on Mathematical Aspects of Computer and Information Sciences, Berlin, November 2015).

Damien Stehlé gave two invited talks at the HEAT workshop on fully homomorphic encryption and multilinear maps, held in Paris in October. He gave an invited talk at a Sloan Foundation workshop on the mathematics of modern cryptography, which was held in Berkeley in July. He gave two invited talks at the summer school on real-world crypto and privacy that was held in Sibenik in June.

10.1.5. Leadership within the scientific community

Damien Stehlé is a member of the steering committee of the PQCrypto conference series. He is also a member of the steering committee of the Cryptography and Coding French research grouping (C2).

Claude-Pierre Jeannerod is a member of the scientific committee of JNCF (Journées Nationales de Calcul Formel).

Nathalie Revol is the chair of the IEEE 1788 group for the standardization of interval arithmetic: the general standard has been published in July 2015 (IEEE 1788-2015) and the work now addresses the set-based model (IEEE P1788.1). She was a member of a hiring committee at U. Montpellier 2 (MCF position). She is a member of the Equality-Parity Committee at Inria.

10.1.6. Scientific expertise

Jean-Michel Muller is a member of the Scientific Council of CERFACS (Toulouse). He was a member of the Scientific Council of the “La Recherche” prize for 2015.

10.1.7. Research administration

Guillaume Hanrot is director of the LIP laboratory (Laboratoire de l’Informatique du Parallélisme).

Jean-Michel Muller is co-director of the Groupement de Recherche (GDR) *Informatique Mathématique* of CNRS.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Master: Nicolas Brisebarre, *Introduction to Effective Approximation Theory* (24h), Hanoi Institute of Mathematics (Vietnam).

Master: Claude-Pierre Jeannerod, Nathalie Revol, *Algorithmique numérique et fiabilité des calculs en arithmétique flottante* (24h), M2 ISFA (Institut de Science Financière et d’Assurances), Université Claude Bernard Lyon 1.

Master: Fabien Laguillaumie, Cryptography, Error Correcting Codes, 150h, Université Claude Bernard Lyon 1.

Master: Vincent Lefèvre, *Arithmétique des ordinateurs* (20h), M2 ISFA (Institut de Science Financière et d’Assurances), Université Claude Bernard Lyon 1.

Master: Benoît Libert, Advanced cryptographic protocols, 24h, ENS de Lyon; Computer science and privacy, 12h, ENS de Lyon; Cryptography, 12h, ENS de Lyon; Public-key cryptology, (21h), M2 ISFA (Institut de Science Financière et d’Assurances), Université Claude Bernard Lyon 1.

Master: Bruno Salvy, Calcul Formel (9h), MPRI.

Master: Bruno Salvy, Mathématiques expérimentales (44h), École polytechnique.

Master: Bruno Salvy, Logique et complexité (32h), École polytechnique.

Master: Damien Stehlé, Cryptography, 24h, ENS de Lyon.

Master: Nicolas Louvet, *Compilation* (24h), Lyon 1.

Bachelor: Nicolas Louvet, *Algorithmique, Architecture des ordinateurs, Unix, ...*, (170h), Lyon 1.

Professional teaching: Nathalie Revol, *Contrôler et améliorer la qualité numérique d’un code de calcul industriel* (2h30), Collège de Polytechnique.

Divers: Bruno Salvy, Introduction à la D-finitude (2h), *Leçons de mathématiques d’aujourd’hui*, Bordeaux.

10.2.2. Supervision

- PhD in progress: Louis Dumont, *Algorithmique efficace pour les diagonales, applications en combinatoire, physique et théorie des nombres*, since September 2013, co-supervised by Alin Bostan (SpecFun team) and Bruno Salvy.
- PhD in progress: Silviu Filip, *Filtroptim : tools for an optimal synthesis of numerical filters*, since September 2013, co-supervised by Nicolas Brisebarre and Guillaume Hanrot.
- PhD in progress: Stephen Melczer, *Effective analytic combinatorics in one and several variables*, since September 2014, co-supervised by George Labahn (U. Waterloo, Canada) and Bruno Salvy.

- PhD in progress: Fabrice Mouhartem, *Privacy-preserving protocols from lattices and bilinear maps*, since September 2015, co-supervised by Benoît Libert (95%) and Damien Stehlé (5%).
- PhD in progress: Vincent Neiger, *Multivariate interpolation in computer algebra: efficient algorithms and applications*, since September 2013, co-supervised by Claude-Pierre Jeannerod and Gilles Villard (together with Éric Schost (Western University, London, Canada)).
- PhD in progress: Marie Paindavoine, *Méthodes de calculs sur des données chiffrées*, since October 2013 (Orange Labs - UCBL), co-supervised by Fabien Laguillaumie (together with Sébastien Canard).
- PhD in progress : Antoine Plet, *Contribution à l'analyse d'algorithmes en arithmétique virgule flottante*, since September 2014, co-supervised by Nicolas Louvet and Jean-Michel Muller.
- PhD in progress : Valentina Popescu, *Vers des bibliothèques multi-précision certifiées et performantes*, since September 2014, co-supervised by Mioara Joldes (LAAS) and Jean-Michel Muller.
- PhD in progress : Serge Torres, *Some tools for the design of efficient and reliable function evaluation libraries*, since September 2010, co-supervised by Nicolas Brisebarre and Jean-Michel Muller.
- PhD in progress: Weiqiang Wen, *Hard problems on lattices*, since September 2015, supervised by Damien Stehlé.

10.2.3. Juries

Nicolas Brisebarre was in the PhD committee of Catherine Lelay (LRI, Inria Saclay, Université Paris-Sud) and Esteban Segura Ugalde (XLIM, Université de Limoges).

Fabien Laguillaumie was in the PhD committee of Oliver Sanders (DI, ENS Paris, Orange Labs).

Benoît Libert was a reviewer and a member of the PhD committee for the PhD thesis of Olivier Sanders (DI, ENS Paris, Orange Labs).

Nathalie Revol was in the PhD committee of Qiaochu Li (Université de Technologie de Compiègne).

Bruno Salvy was a reviewer for the PhD thesis of Amaury Pouly (LIX, École polytechnique). He was in the PhD committees of Simone Naldi (LAAS, Toulouse) and Romain Serra (LAAS, Toulouse).

Damien Stehlé was a reviewer for the PhD theses of Thomas Prest (DI, ENS Paris), Zheng Wang (Imperial College, UK), Rina Zeitoun (LIP6, UPMC) and Cheng Shantian (NTU, Singapore). He is in the PhD committee of Thijs Laarhoven (TU Eindhoven, The Netherlands) and in the Habilitation thesis of Ludovic Perret (LIP6, UPMC).

10.3. Popularization

Nicolas Brisebarre co-organizes scientific conferences, called «Éclats de sciences», at Maison du Livre, de l'Image et du Son in Villeurbanne. Around three conferences take place per year.

Nathalie Revol is a member of the steering committee of the MMI: Maison des Mathématiques et de l'Informatique. She led a "Coding morning" for Inria assistants at Montbonnot (February 2015). She gave two conferences for high-school teachers (Montbonnot, February and Grenoble, May 2015). As an incentive for high-school pupils, and especially girls, to choose scientific careers, she gave talks at Lycée Simone Veil (Châtillon d'Azergues) and Mondial des Métiers (both in March 2015). She gave conferences for Rallye des Maths (May 2015) and during the Science Fair (2 high-school classes, October 2015). During the Science Fair, she was also present one afternoon at Médiathèque du Bachut - Lyon 8e. She presented computer science unplugged for primary school pupils (CM1, École Guilloux, St-Genis-Laval: 8 lectures of 45mn each) and computer science plugged (CM2, École Guilloux, St-Genis-Laval: 10 lectures of 1h in 2015-2016, 2 classes). She presented this work during Forum Maths Vivantes (October 2015). She also met people from Ébulliscience and FERS (Fondation Entreprise Réussite Scolaire) to give advice on their projects of popularization of computer science towards primary schools and high school pupils.

COMPSYS Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events Organization

10.1.1.1. General Chair, Scientific Chair

Laure Gonnord is co-chair of the “french compilation community”, with Florian Brandner (ENSTA, then Telecom ParisTech) and Fabrice Rastello (Inria Corse).

Alain Darté is general chair of the steering committee of CPC (International Workshop on Compilers for Parallel Computing), which regroups in Europe, every 18 months, a large community of researchers interested in compilers for HPC. Also, Alain Darté and Alexandre Isoard participated to CPC’15 in London (Jan. 15).

10.1.1.2. Member of Organizing Committees

Alain Darté was co-organizer of IMPACT’15 (International Workshop on Polyhedral Compilation Techniques) and Tomofumi Yuki is co-organizer of IMPACT’16.

Tomofumi Yuki was publicity co-chair of GPCE 2015 (15th International Conference on Generative Programming: Concepts & Experience).

Alain Darté and Tomofumi Yuki are currently organizing a second polyhedral spring school in 2016, with connections with HPC users from numerical analysis.

10.1.2. Scientific Events Selection

10.1.2.1. Chair of Conference Program Committees

Alain Darté was program co-chair of IMPACT’15, with Alexandra Jimborean (Uppsala University). Tomofumi Yuki is program co-chair of IMPACT’16, with Michelle Strout (University of Arizona).

Alain Darté was program chair of the topic E2 “Compilers for Embedded Systems” of DATE’15 (International Conference on Design, Automation, and Test in Europe), with Rodric Rabbah (IBM).

10.1.2.2. Member of Conference Program Committees

Tomofumi Yuki was a program committee member for the RST Track (Reliable Software Technologies and Communication Middleware) of SAC’16 (31st ACM Symposium on Applied Computing).

Paul Feautrier was a member of the program committees of IMPACT’15, IMPACT’16, and PECCS’15 (5th International Conference on Pervasive and Embedded Computing and Communication Systems).

Christophe Alias was a member of the program committee of IMPACT’16.

Alain Darté was a member of the program committees of PACT’15 (International Conference on Parallel Architectures and Compilation Techniques) and X10’15 (international workshop on X10, part of PLDI’15).

10.1.2.3. Reviewer

Paul Feautrier was a reviewer for IMPACT’15, IMPACT’16, PARCO’15, and PACT’15.

Tomofumi Yuki was a reviewer for PACT’15 and X10’15.

Christophe Alias was a reviewer for DATE’15.

Laure Gonnord was a reviewer for VMCAI’15, CGO’15, and PARCO’15.

Alain Darté was a reviewer for DATE’15, IMPACT’15, X10’15, and PACT’15.

10.1.3. Journal

10.1.3.1. Member of Editorial Boards

Paul Feautrier is a member of the editorial board of IJPP, the “International Journal of Parallel Programming”.

10.1.3.2. Reviewer - Reviewing Activities

Paul Feautrier was reviewer for “Information and Computation”, ACM TODAES, ACM TOPLAS, and IJPP.

Tomofumi Yuki was reviewer for the PARCO journal.

Alain Darté was reviewer for the ACM TACO journal and the “Software Practice and Experience” journal.

Christophe Alias was reviewer for Parallel Computing and IEEE TVLSI.

10.1.4. Invited Talks

Paul Feautrier was invited to give a talk on “The Numerical Solution of the Transfer Equation”, at a workshop in honor of Roger Cayrel, Paris Observatory, Dec. 2015.

In June 2015, Laure Gonnord was invited at Google, Mountain View and SRI, to give talks about her research about static analyses for compilers.

10.1.5. Scientific Expertise

Alain Darté was invited to be part of the scientific committee of the CPU (“certification numérique et fiabilité”) cluster of excellence (from Bordeaux Idex), and its internal evaluation in Sep. 2015.

In 2015, Maroua Maleej has produced 7 Research Tax Credit documents for Accenture group France as a scientific consultant. The goal is to expertise research done by Accenture project-teams and suggest further ideas by evaluating the state of the art.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Licence:

- Laure Gonnord: Architecture des ordinateurs (TD+TP=40h), L2, Université Lyon 1 Claude Bernard: Spring 2015.
- Maroua Maleej: Algorithmique et Programmation Fonctionnelle et Récursive (TP=28h), L1, Université Lyon 1 Claude Bernard: Fall 2015.
- Christophe Alias: Introduction à la compilation (CM+TD=24h), L3, INSA Centre-Val-de-Loire: Spring 2015.
- Christophe Alias: Concours E3A—épreuve informatique MPSI (correcteur): Spring 2015.

Master:

- Laure Gonnord, Program Analysis and Verification (CM 24h), M1, Ecole Normale Supérieure de Lyon. With David Monniaux.
- Laure Gonnord, Compilation (TP 28h), M1, Ecole Normale Supérieure de Lyon.
- Laure Gonnord, Introduction aux systèmes et réseaux (CM/TP 52h), M2 Pro, Université Lyon 1.
- Laure Gonnord, Compilation (TD/TP 24h), M1, Université Lyon 1 Claude Bernard.
- Laure Gonnord, Complexité (TD 15h), M1, Université Lyon 1 Claude Bernard.
- Laure Gonnord, Temps Réel (TP 24h), M1, Université Lyon 1 Claude Bernard.
- Christophe Alias, Optimisation d’applications embarquées (CM+TD=18h), M1, INSA Centre-Val-de-Loire.

- Christophe Alias, Advanced Compilers: Loop Transformations and High-Level Synthesis (CM 8h), M2, Ecole Normale Supérieure de Lyon.
- Christophe Alias, Compilation (CM 16h), M1, Ecole Normale Supérieure de Lyon.
- Tomofumi Yuki and Christophe Alias, Advanced Compilers: Loop Transformations and High-Level Synthesis, 24h, M2, ENS Lyon.

Master school:

- Laure Gonnord organized in Jan. 2015 a research school entitled “Static analyses in the state-of-the-art compilers” (invited speaker: Fernando Pereira). See http://laure.gonnord.org/pro/research/compil_research_school.html

EJCP:

Tomofumi Yuki has given a one-day lecture at the École Jeunes Chercheurs en Programmation 2015. See <http://ejcp2015.inria.fr/>.

10.2.2. Supervision

PhD in progress: Guillaume Iooss, “Semantic tiling”, started in September 2011, joint PhD ENS-Lyon/Colorado State University, advisors: Christophe Alias and Alain Darté (ENS-Lyon) / Sanjay Rajopadhye (Colorado State University).

PhD in progress: Alexandre Isoard, “Streaming-related code optimizations”, started in September 2012, advisor: Alain Darté.

PhD in progress: Maroua Maleej, “Low cost static analyses for compilers”, started in October 2014, advisors : Laure Gonnord and Alain Darté, then Laure Gonnord and Frédéric Vivien (Roma team).

10.2.3. Juries

Paul Feautrier was a member of the defense committee of the PhD of Alexis Foulhié (Grenoble, Oct. 2015), entitled “Revisiting the abstract domain of polyhedra: constraints-only representation and formal proof”, and was a reviewer for the HDR thesis of Corinne Ancourt (UPMC, May 2015), entitled “Sûreté: de l’analyse à l’instrumentation et à la synthèse de code”.

Laure Gonnord was a member of the doctoral committee for the evaluation of the first year of the PhD of F. Maurica, Université de la Réunion, in Dec. 2015.

Alain Darté was the reviewer of the PhD of Gergö Barany (Technische Universität Wien, Austria, March 2015), entitled “Integrated Code Motion and Register Allocation”.

10.3. Popularization

Compsys was involved in the proposal of the inter-disciplinary project EMI, with the maison des mathématiques et de l’informatique (MMI), and the Grame laboratory (computer music). See Section 9.1.3 .

Tomofumi Yuki has given a one-day lecture at the École Jeunes Chercheurs en Programmation 2015 (<http://ejcp2015.inria.fr/>), entitled “Research in Compilers and How it Relates to Software Engineering”.

CONVECS Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events organisation

9.1.1.1. Member of the organizing committees

- H. Garavel is a member of the model board of MCC'2015 (*Model Checking Contest*). In 2015, he verified the forms describing the benchmark models and enhanced the format of these forms by adding new model properties. He contributed to the formalization of the contest's rules and to the writing of the two contest calls (call for models and call for tools). He also participated in migrating the PetriWeb model base (developed at the Technical University of Eindhoven) to the format and conventions of the contest. A journal article describing the achievements of the 5th Model Checking Contest has been written and submitted for publication.
- G. Salaün was a member of the organizing committee of SEFM'2015 (*13th International Conference on Software Engineering and Formal Methods*), York, United Kingdom, September 7–11, 2015.

9.1.2. Scientific events selection

9.1.2.1. Chair of conference program committees

- G. Salaün was programme committee co-chair of SVT-SAC'2015 (the *Software Verification Track of the Symposium on Applied Computing*), Salamanca, Spain, April 13–17, 2015.

9.1.2.2. Member of the conference program committees

- H. Garavel was program committee member of TACAS'2015 (*21th International Conference on Tools and Algorithms for the Construction and Analysis of Systems*), London, United Kingdom, April 11–19, 2015.
- G. Salaün and W. Serwe were program committee members of FSEN'2015 (*6th International Conference on Fundamentals of Software Engineering*), Tehran, Iran, April 22–24, 2015.
- H. Garavel was program committee member of DCDS'2015 (*5th International Workshop on Dependable Control of Discrete Systems*), Cancun, Mexico, May 27–29, 2015.
- G. Salaün was program committee member of ICE'2015 (*8th Interaction and Concurrency Experience*), Grenoble, France, June 4-5, 2015.
- F. Lang, R. Mateescu, and W. Serwe were program committee members of FMICS'2015 (*20th International Workshop on Formal Methods for Industrial Critical Systems*), Oslo, Norway, June 22–23, 2015.
- G. Salaün was program committee member of WWV'2015 (*11th International Workshop on Automated Specification and Verification of Web Systems*), Oslo, Norway, June 23, 2015.
- F. Lang was program committee member of ETR'2015 (*École d'été Temps Réel*), Rennes, France, August 24–28, 2015.
- H. Garavel and G. Salaün were program committee members of SEFM'2015 (*13th International Conference on Software Engineering and Formal Methods*), York, United Kingdom, September 7–11, 2015.
- G. Salaün was program committee member of SCART'2015 (*1st International Workshop on the ART of Software Composition*), York, United Kingdom, September 8, 2015.
- G. Salaün was program committee member of FACS'2015 (*12th International conference on Formal Aspects of Component Software*), Rio de Janeiro, Brazil, October 14–16, 2015.

- H. Garavel was program committee member of MARS'2015 (*Workshop on Models for Formal Analysis of Real Systems*), Suva, Fiji, November 23, 2015.

9.1.2.3. Reviewer

- H. Garavel was a reviewer for CONCUR'2015 (*26th Conference on Concurrency Theory*), Madrid, Spain, September 1–4, 2015.
- R. Mateescu was a reviewer for FORTE'2015 (*35th IFIP International Conference on Formal Techniques for Distributed Objects, Components and Systems*), Grenoble, France, June 2–5, 2015.
- G. Salaün was a reviewer for SOCA'2015 (*8th IEEE International Conference on Service Oriented Computing and Applications*), Rome, Italy, October 19–21, 2015.
- W. Serwe was a reviewer for ATVA'2015 (*13th International Symposium on Automated Technology for Verification and Analysis*, October 12–15, 2015, Shanghai, China), MARS'2015, and TACAS'2016.

9.1.3. Journal

9.1.3.1. Member of the editorial boards

- H. Garavel is an editorial board member of STTT (*Springer International Journal on Software Tools for Technology Transfer*).
- G. Salaün is an editorial board member of SOCA (*Springer International Journal on Service Oriented Computing and Applications*).

9.1.3.2. Reviewer - Reviewing activities

- H. Garavel was a reviewer for the Mathematical Reviews (MathSciNet) of the American Mathematical Society.
- F. Lang was a reviewer for SOSYM (*International Journal on Software and Systems Modeling*).
- R. Mateescu was a reviewer for JISA (*Journal of Internet Services and Applications*), IEEE TSE (*Transactions on Software Engineering*), JLAMP (*Journal of Logical and Algebraic Methods in Programming*), FAoC (*Formal Aspects of Computing*), and STTT.
- G. Salaün was a reviewer for FAoC, JLAMP, JSS (*Journal of Systems and Software*), and MPE (*Mathematical Problems in Engineering*).

9.1.4. Software Dissemination and Internet Visibility

The CONVECS project-team distributes several software tools: the CADP toolbox (see § 5.1), the TRAIAN compiler, the PIC2LNT translator, and the PMC model checker (see § 5.2).

In 2015, the main facts are the following:

- We prepared and distributed twelve successive versions (2015-a to 2015-l) of CADP.
- We were requested to grant CADP licenses for 434 different computers in the world.

The CONVECS Web site⁰ was updated with scientific contents, announcements, publications, etc. Following a request from the computer staff of Inria Grenoble, we worked on the migration of the former Web site “<http://www.inrialpes.fr/vasy>” to a more recent web infrastructure. This former site was split into three new, distinct Web sites “<http://vasy.inria.fr>”, “<http://cadp.inria.fr>”, and “<http://fmics.inria.fr>”. Dedicated effort was made to properly redirect all former URLs so as not to create dead links.

By the end of December 2015, the CADP forum⁰, opened in 2007 for discussions regarding the CADP toolbox, had over 350 registered users and over 1600 messages had been exchanged.

Also, for the 2015 edition of the Model Checking Contest, we provided two families of models (totalling 15 Nested-Unit Petri Nets) derived from our LNT models.

⁰<http://convecs.inria.fr>

⁰<http://cadp.inria.fr/forum.html>

Other research teams took advantage of the software components provided by CADP (e.g., the BCG and OPEN/CAESAR environments) to build their own research software. We can mention the following developments:

- The Ocarina tool for analysing AADL descriptions [58]
- The MIstRAL tool for middleware reconfiguration based on formal methods [61]
- The DFTCalc tool for analysing dynamic fault trees [49]
- The Vercors integrated environment for verifying and running distributed components [52]
- The IMCReo tool for Interactive Markov Chains in Stochastic Reo [60]
- The GROOVE tool for verification based on graph rewriting [54]

Other teams also used the CADP toolbox for various case studies:

- Improving design patterns finder precision using model checking [34]
- Applying automata learning to embedded control software [62]
- Testing autonomous systems using communicating extended finite-state machines [32]
- Assisting refinement in system-on-chip design [59]
- Formal verification of plastic user interfaces exploiting domain ontologies [37]
- Action-based verification of a fire alarm system [35]

9.1.5. Awards and Distinctions

H. Garavel is an invited professor at Saarland University (Germany) as a holder of the Gay-Lussac Humboldt Prize.

9.1.6. Invited talks

- G. Salaün gave a talk entitled “*Reliable Deployment, Reconfiguration, and Control of Cloud Applications*” on February 12, 2015 at the University of Málaga, Spain.
- H. Garavel gave a talk entitled “*Nested-Unit Petri Nets: A Useful Concept for PseuCo?*” on March 9, 2015 at Saarland University, Saarbrücken, Germany.
- W. Serwe gave a talk entitled “*Using a Formal Model to Improve Verification of a Cache-Coherent System-on-Chip*” on March 19, 2015 at the Cadence Club Formal, Grenoble, France.
- R. Mateescu gave a talk entitled “*Overview of MCL, a Data-Based Model Checking Language*” on March 31, 2015 at Inria Grenoble — Rhône-Alpes, Montbonnot, France.
- G. Salaün gave a talk entitled “*Reliable Deployment, Reconfiguration, and Control of Cloud Applications*” on March 26, 2015 at LIRMM, Montpellier, France.
- G. Salaün gave a talk entitled “*Reliable Deployment, Reconfiguration, and Control of Cloud Applications*” on April 2, 2015 at LABRI, Bordeaux, France.
- G. Salaün gave a talk entitled “*Verification of Asynchronously Communicating Systems*” on April 9, 2015 at IRISA, Rennes, France.
- H. Garavel gave a talk entitled “*Nested-Unit Petri Nets: Combining Hierarchy with Concurrency*” on May 6, 2015 at LIP6, Université Pierre et Marie Curie, Paris, France.
- G. Salaün gave a talk entitled “*Formal Modelling and Analysis of BPMN Processes*” on July 9, 2015 at XEROX, Meylan, France.
- F. Lang gave two talks entitled “*Vérification de systèmes concurrents asynchrones par des méthodes compositionnelles*” and “*CADP : une boîte à outils pour la construction et l’analyse de processus distribués*” on August 25, 2015 at ETR (*Ecole d’Été Temps Réel*), Rennes, France. He also held a lab session on CADP.
- G. Salaün gave a talk entitled “*Formal Modelling and Analysis of BPMN Processes*” on October 27, 2015 at the University of Málaga, Spain.

- H. Garavel gave a talk entitled “*Les aspects probabilistes dans CADP*” on December 8, 2015 at the “*Journées Inria*” held at LIP6, Université Pierre et Marie Curie, Paris, France.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

CONVECS is a host team for the computer science master entitled “*Mathématiques, Informatique, spécialité : Systèmes et Logiciels*”, common to Grenoble INP and University Joseph Fourier.

In 2015, we carried out the following teaching activities:

- G. Salaün is co-responsible of the ISI (*Ingénierie des Systèmes d’Information*) department of ENSIMAG since September 1, 2011.
- F. Lang gave a lecture on formal methods (6 hours) in the framework of the software engineering course given to the first year students of the MOSIG (Master of Science in Informatics at Grenoble).
- G. Salaün gave lectures (192 hours “*équivalent TD*”) to computer science engineering students of ENSIMAG (“*École Nationale Supérieure d’Informatique et de Mathématiques Appliquées*”, Grenoble INP) on “*Théorie des langages*” (first year), “*Programmation orientée objet*” (second year), and “*Modélisation et vérification de systèmes concurrents*” (third year). He also organized a series of “*Conférences technologiques*” (third year).
- H. Garavel, together with Laurence Pierre (TIMA, Grenoble), created a new curriculum “*High-confidence Embedded and Cyberphysical Systems*” of the international masters programme.

9.2.2. Supervision

- PhD: Hugues Evrard, “*Génération automatique d’implémentation distribuée à partir de modèles formels de processus concurrents asynchrones*”, Université Grenoble-Alpes, July 10, 2015, G. Salaün, F. Lang
- PhD: Abderahman Kriouile, “*Formal Methods for Functional Verification of Cache-Coherent System-on-Chip*”, Université Grenoble-Alpes, September 17, 2015, R. Mateescu, W. Serwe, M. Zendri
- PhD: Raquel Oliveira, “*Formal Specification and Verification of Interactive Systems with Plasticity: Applications to Nuclear-Plant Supervision*”, Université Grenoble-Alpes, December 3, 2015, H. Garavel, S. Dupuy-Chessa, G. Calvary, F. Lang
- PhD: Rim Sakka Abid, “*Coordination et Reconfiguration des Applications Distribuées Cloud*”, Université Grenoble-Alpes, December 16, 2015, G. Salaün, N. de Palma
- PhD in progress: Fatma Jebali, “*A Framework for the Formal Specification and Verification of Globally Asynchronous Locally Synchronous Systems*”, since December 2012, F. Lang, R. Mateescu
- PhD in progress: Gianluca Barbon, “*Debugging Concurrent Programs using Model Checking and Mining Techniques*”, since October 2015, G. Salaün

9.2.3. Juries

- H. Garavel was member of the jury for David Lugato’s habilitation thesis, entitled “*Formaliser par la modélisation : Applications au calcul haute performance et à la génération de tests par exécution symbolique*”, defended at Université de Bordeaux, France, on March 5, 2015.
- W. Serwe was PhD committee member for Zhen Zhang’s PhD thesis, entitled “*Verification Methodologies for Fault-Tolerant Network-on-Chip Systems*”, defended at University of Utah, Salt Lake City, USA, on October 26, 2015.

9.3. Popularization

H. Garavel participates to the committee in charge of organizing the Aerospace Valley series of industrial conferences on formal methods.

The fifth conference ⁰, devoted to testing, held on June 16 in Toulouse and retransmitted by video-conference in Grenoble and Saclay, attracted participants from industry and academia. W. Serwe gave a talk (with Thierry Jérón, Inria Rennes), entitled “*TGV: Génération de tests de conformité à partir de modèles formels*”, and a talk (with Massimo Zendri, STMicroelectronics), entitled “*Génération de tests basés sur les modèles pour des systèmes sur puce avec cohérence de caches*”.

The sixth conference ⁰, devoted to safety, is to be held on January 26, 2016.

9.4. Miscellaneous Activities

H. Evrard is a member of the council of the MSTII doctoral school.

H. Evrard and G. Salaün are members of the council of the LIG laboratory.

H. Garavel is a member of the LIG commission in charge of preparing candidates selected for recruitment interviews at CNRS.

H. Garavel is an expert evaluator for Minalogic “*pôle de compétitivité mondial*”.

H. Garavel was a reviewer for various ongoing ANR (*Agence Nationale de la Recherche*) pre-propositions and projects evaluated in 2015.

F. Lang is chair of the “*Commission du développement technologique*”, which is in charge of selecting R&D projects for Inria Grenoble – Rhône-Alpes.

F. Lang is (together with Laurent Lefèvre from the AVALON Inria project-team) correspondent in charge of the 2014 and 2015 Inria activity reports at Inria Grenoble Rhône-Alpes.

E. Léo and W. Serwe are members of the “*Comité de centre*” of Inria Grenoble – Rhône-Alpes.

R. Mateescu is the correspondent of the “*Département des Partenariats Européens*” for Inria Grenoble – Rhône-Alpes.

R. Mateescu is a member of the “*Comité d’orientation scientifique*” for Inria Grenoble – Rhône-Alpes.

R. Mateescu is a member of the “*Bureau*” of the LIG laboratory.

G. Salaün is a member of the scientific council of Grenoble INP (*Conseil scientifique de l’institut*).

W. Serwe is “*chargé de mission*” for the scientific axis *Formal Methods, Models, and Languages* of the LIG laboratory.

⁰<http://projects.laas.fr/IFSE/FMF/J5/index.html>

⁰<http://projects.laas.fr/IFSE/FMF/J5/index.html>

CORSE Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events organisation

9.1.1.1. Member of the organizing committees

- Fabrice Rastello: Publication Chair ACM/IEEE CGO 2015
- Fabrice Rastello: Steering Committee Journées française de la compilation
- Fabrice Rastello: Steering Committee ACM/IEEE CGO
- Frédéric Desprez: Steering committee for the ISC Cloud & Big Data conference 2015
- Frédéric Desprez: General chair of VTDC 2015 (workshop within HPDC 2015)
- Ylies Falcone: Chair of the second international competition on Runtime Verification (CRV 15)

9.1.2. Scientific events selection

9.1.2.1. Chair of conference program committees

- Fabrice Rastello: Program Chair ACM/IEEE CGO 2016
- Frédéric Desprez: Program co-chair BigDataCloud'2015 (workshop within EuroPAR 2015)
- Frédéric Desprez: Global chair of topic "Grid, Cluster and Cloud Computing" within EuroPAR 2015

9.1.2.2. Member of the conference program committees

- Fabrice Rastello: ACM/IEEE CGO 2016
- Fabrice Rastello: CRI 2015
- Alain Ketterlin: ACM/IEEE CGO 2016
- Frédéric Desprez: ACM/IEEE CCGrid 2015
- Frédéric Desprez: CLOSER 2015
- Frédéric Desprez: Workshop Committee at the 2015 ACM/IEEE Supercomputing Conference 2015
- Frédéric Desprez: IEEE CAC 2015
- Frédéric Desprez: IEEE Cluster 2015
- Ylies Falcone SAC-SVT 2015
- Ylies Falcone IPAC 2015
- Ylies Falcone CRI 2015
- Ylies Falcone MSR 2015
- Ylies Falcone PCODA 2015

9.1.2.3. Reviewer

- François Broquedis: EUROPAR 2015, SAC 2015
- Brice Videau: EUROPAR 2015, SAC 2015, IPDPS 2015, COMPASS 2015
- Ylies Falcone MSR 2015, RV 2015, ASE 2015, OOPSLA 2015, FM 2015, CAV 2015, DAC2015, DATE 2015

9.1.3. Journal

9.1.3.1. Reviewer - Reviewing activities

- Fabrice Rastello: ACM TACO, ACM TOCS

- François Broquedis: ACM TACO
- Brice Videau: ACM TACO, PARCO, JPDC
- Kevin Pouget: ACM TACO
- Frédéric Desprez: JPDC
- Frédéric Desprez: Journal of Supercomputing
- Ylies Falcone Formal Methods in System Design, International Journal of Information and Computer Security, Science of Computer Programming, Software Tools for Technology Transfer, Journal of Systems and Software, ACM Transaction on Aspect-Oriented Development, The Computer Journal, ACM Transactions on Information and System Security, Elsevier Computer Review, Software Testing, Verification and Reliability.

9.1.4. Invited talks

- HiPEAC ACACES Summer School 2015 (teacher): “SSA-based Compiler Design”
- Fabrice Rastello: LLNL, Apple Dec 2015: “Toward Automatic Characterisation of the Data Access Complexity of Programs”
- Frédéric Desprez: Inria/EPFL Workshop, Jan. 2015: “Grid’5000: Running a Large Instrument for Parallel and Distributed Computing Experiments”
- Jean-François Méhaut, Maison de la simulation, Saclay, France, March 2015: “BOAST: Un environnement de metaprogrammation pour une génération de code portable et efficace des noyaux de calcul HPC”
- Jean-François Méhaut, Laboratoire Jacques-Louis Lions, Paris, France, Journées inaugurales de la machine de calcul, June 2015: “BOAST: Programmation des noyaux de calcul pour les projets européens Mont-Blanc”
- Jean-François Méhaut, Federal University of Santa Catarina, Florianopolis, Brazil, October 2015: “CORSE: Compiler Optimizations and Runtime Systems”

9.1.5. Scientific expertise

- Frédéric Desprez: Referee for the Research Council of Norway
- Frédéric Desprez: ANR
- Frédéric Desprez: Reviewer for a project within the FET Initiatives in FP7 of the European Commission
- Ylies Falcone Representative of France in the COST Action ARVI
- Ylies Falcone COST Action ARVI, co-leader of Working Group on Core Runtime Verification
- Jean-François Méhaut Eurolab-4-HPC EU action, member of the panel

9.1.6. Research administration

- Frédéric Desprez: Deputy Scientific Director at Inria
- Frédéric Desprez: Director of the GIS GRID5000

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Master : Fabrice Rastello (external intervention), Programming Languages and Compiler Design, 3 hours, M1 of international MoSIG, UJF, Grenoble, France

Master and PhD: Jean-François Méhaut, Parallel Programming, 40 hours, University of Yaoundé 1, LIRIMA, CETIC, February 2015

Master I: Jean-François Méhaut, Operating System Design, 50 hours, Polytech Grenoble

L3, Jean-François Méhaut, Numerical Methods, 50 hours, Polytech Grenoble,
 M1, Jean-François Méhaut, Operating System Project, 20 hours, UFR IM2AG
 L3, Jean-François Méhaut, Advanced Algorithm, 50 hours, UFR IM2AG
 L3, François Broquedis, Introduction to algorithms and programming, 80 hours, Grenoble Institute of Technology (ENSIMAG)
 L3, François Broquedis, Introduction to UNIX, 20 hours, Grenoble Institute of Technology (ENSIMAG)
 L3, François Broquedis, C programming, 50 hours, Grenoble Institute of Technology (ENSIMAG)
 M1, François Broquedis, Operating Systems and Parallel Programming, 20 hours, Grenoble Institute of Technology (ENSIMAG)
 M1, François Broquedis, Operating Systems Project, 20 hours, Grenoble Institute of Technology (ENSIMAG)
 M2, François Broquedis, Parallel and Distributed Programming, Grenoble Institute of Technology (ENSIMAG)
 Master, Florent Bouchez Tichadou, Compilation project, 15.5 hours, M1 Info & M1 MoSig, UFR IM2AG
 Licence, Florent Bouchez Tichadou, C programming, 33 hours, L3, Grenoble Institute of Technology (ENSIMAG)
 Master, Florent Bouchez Tichadou, Algorithms and Program Design, 33 hours, M1 MoSIG, UFR IM2AG
 Licence, Florent Bouchez Tichadou, Algorithms languages and programming, 71 hours, L2, UFR IM2AG
 Master, Florent Bouchez Tichadou, Operating Systems, 28.5 hours, M1 Info, UFR IM2AG
 Master, Ylies Falcone Programming Language Semantics and Compiler Design, MoSIG, 66 hours
 License, Ylies Falcone Languages and Automata, UJF, 105 hours
 Master, Ylies Falcone is co-responsible of the first year of the International Master of Computer Science (Univ. Grenoble Alpes and INP ENSIMAG)

9.2.2. Supervision

9.2.2.1. Fabrice Rastello

PhD in progress: Duco van Amstel, Scheduling and optimization for memory locality of dataflow programs on many-core processors, April 1st 2013, advised by Fabrice Rastello and Benoit Dupont-de-Dinechin

PhD in progress: Diogo Sampaio, Profiling Guided Hybrid Compilation, October 8 2013, advised by Fabrice Rastello

PhD in progress: François Gindraud, Semantics and compilation for a data-flow model with a global address space and software cache coherency, January 1st 2013, advised by Fabrice Rastello and Albert Cohen.

PhD in progress: Venmugil Elango, Dynamic Analysis for Characterization of Data Locality Potential, September 2010, advised by Fabrice Rastello and P. Sadayappan.

9.2.2.2. Jean-François Méhaut

PhD in progress: Serge Emteu, CIFRE ST Microelectronics, advised by Miguel Santan (STM), Alexandre Termier (Dream/Irisa), Jean-François Méhaut

PhD in progress: Oleg Iegorov, advised by Alexandre Termier (Dream/Irisa) and Jean-François Méhaut

PhD in progress: Nassim Halli, CIFRE with Asselta, advised by Henri-Pierre Charles (CEA/DRT List, CRI PILSI), Jean-François Méhaut

PhD in progress: Naweiluo Zhou, advised by Eric Rutten (Inria, CtrlA), Gwenael Delaval (UGA, CtrlA), Jean-François Méhaut

PhD in progress: Thomas Messi Nguelé, advised by Maurice Tchuenté (Yaoundé I, LIRIMA) and Jean-François Méhaut

PhD in progress: Thomas Goncalves, advised by Marc Perache (CEA/DAM), Frédéric Desprez, Jean-François Méhaut

PhD in progress: Vanessa Vargas, advised by Raoul Velzco (CNRS, TIMA) and Jean-François Méhaut

9.2.2.3. Frédéric Desprez

PhD in progress: Jonathan Pastor, advised by Frédéric Desprez, Adrien Lèbre (EMN Nantes, Ascola team)

PhD in progress: Pedro Silva, advised by Frédéric Desprez, C. Perez (Inria, Avalon team)

PhD in progress: Georgios Christodoulis, advised by Frederic Desprez, Olivier Muller (TIMA/SLS) and François Broquedis

PhD in progress: Thomas Goncalves, advised by Marc Perache (CEA/DAM), Frédéric Desprez, Jean-François Méhaut

9.2.2.4. François Broquedis

PhD in progress: Georgios Christodoulis, *Adaptation of a heterogeneous runtime system to efficiently exploit FPGA* advised by Frederic Desprez, Olivier Muller (TIMA/SLS) and François Broquedis

PhD in progress: Philippe Virouleau, *Improving the performance of task-based runtime systems on large scale NUMA machines*, co-advised by Thierry Gautier (Inria/AVALON), Raymond Namyst (Inria/STORM), Bruno Raffin (Inria/MOAIS), François Broquedis

Engineer internship: Olivier Soldano, *Efficient execution of OpenMP applications: a compiler/runtime cooperation*, co-advised by Jean-François Méhaut and François Broquedis

9.2.2.5. Ylies Falcone

PhD in progress: Antoine El-Hokayem, *Decentralised and Distributed Monitoring of Cyber-Physical Systems*

PhD defended: Abdurrahman Pektas, *Behavior based malware classification using online machine learning*, co-advised by Jean-Claude Fernandez (Vérimag)

9.2.3. Juries

9.2.3.1. Fabrice Rastello

Emmanuelle Saillard, Reviewer, *Static/Dynamic Analyses for Validation and Improvement of Multi-models HPC Applications*, PhD of the University of Bordeaux, 24/05/15

9.2.3.2. Jean-François Méhaut

PhD: Ashraf Elantably, *Study of task migration in a multi-tiles architecture: Automatic generation of an agent based solution*, Université de Grenoble, TIMA, 16/12/2015

PhD: Pei Li, *Système Unifié de transformation de code et d'exécution pour un passage aux architectures multi-coeurs hétérogènes*, Université de Bordeaux, Inria/Storm, Telecom SudParis, 17/12/2015

PhD: Anastasia Butko, *Fast Cycle-approximate Simulation Techniques for Manycore Architecture Exploration*, Université de Montpellier, LIRMM, 10/12/2015

PhD: Fabien Rozar, *Contributions à l'amélioration de l'extensibilité de simulations parallèles de plasmas turbulents*, Université de Bordeaux, CEA Cadarache, Maison de la simulation Saclay, 5/11/2015

PhD: Mohamed Bergach, *Adaptation de la Transformée de Fourier rapide sur une architecture mixte CPU/GPU intégrée*, Université de Nice Sophia Antipolis, 2/10/2015

PhD: Andi Drebes, *Dynamic Optimization of Data-flow task-parallel applications for large scale NUMA systems*, Université Pierre et Marie Curie, 25/6/2015

PhD: Corentin Rossignon, *Un modèle de programmation à grain fin pour la parallélisation de solveurs linéaires creux*, Université de Bordeaux, Inria/Storm, Total, 17/07/2015

PhD: Abal Cheick Ahamed, *Méthodes Numériques pour la résolution accélérée des systèmes linéaires de grandes tailles sur architectures hybrides massivement parallèles*, Ecole Centrale de Paris, 7/7/2015

HDR: Patrick Carribault, *Compiler/Runtime Cooperation for Multi-Paradigm Parallelism*, Université de Versailles Saint Quentin en Yveline, CEA Bruyères, 8/7/2015

HDR: Marc Perache, *Vers des supports exécutifs et des outils de profilage adaptés aux architectures many/multi coeurs dans le cadre du calcul hautes performances*, Université de Versailles Saint-Quentin en Yvelines, CEA Bruyères, 3/11/2015

9.2.3.3. Frédéric Desprez

PhD: Xavier Lacoste, Reviewer, *Scheduling and memory optimizations for sparse direct solver on multi-core/multi-gpu cluster systems*, Université de Bordeaux, 18/02/15

PhD: Sylvain Gault, *Improving MapReduce Performance on Clusters*, Ecole normale supérieure de Lyon, 23/03/15

HDR: Philippe Merle, Reviewer, *Intergiciel d'intergiciels adaptable à base de Services, Composants et Aspects*, Université de Lille3, 24/09/15

PhD: Emmanuel Cieren, Reviewer, *Molecular Dynamics for Exascale Supercomputers*, Université de Bordeaux, 09/10/15

PhD: Astrid Casadei, *Optimisations des solveurs linéaires creux hybrides basés sur une approche par complément de Schur et décomposition de domaine*, Université de Bordeaux, 19/10/15

HDR: Sébastien Monnet, *Contributions à la réplique de données dans les systèmes distribués à grande échelle*, Université Pierre et Marie Curie, 03/11/15

HDR: Georges Da Costa, *Évaluation et optimisation de performance énergétique des centres de calcul*, Université de Toulouse 3 Paul Sabatier, 12/11/15

HDR: Patricia Stolf, Reviewer, *La gestion des ressources pour des infrastructures vertes par la reconfiguration*, Université de Toulouse 3 Paul Sabatier, 13/12/15

PhD: Florent Lopez, *Solveur multifrontal QR à base de tâches pour architectures hétérogènes*, Université de Toulouse 3 Paul Sabatier, 11/12/15

9.2.3.4. Ylies Falcone

PhD: reviewer of the thesis of Eric Lupaud Ngoupé (University of Québec at Chicoutimi).

PhD: examiner of the thesis of Srinivas Pinisetty (Inria Rennes) on *Runtime Enforcement of Timed Properties*

DICE Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events organisation

9.1.1.1. Member of the organizing committees

- Stéphane Frénot, French Tech, représentant de la COMUE de Lyon
- Stéphane Grumbach, ANR, Comité de Pilotage Scientifique du Défi 8 « Sociétés innovantes »
- Stéphane Grumbach, scientific committee Global Forum
- Stéphane Grumbach, scientific committee Collège des Bernardins, Journalisme et bien commun à l'heure des algorithmes,
- Stéphane Grumbach, scientific committee BlendWebMix, annual conference, Lyon

9.1.2. Scientific events selection

9.1.2.1. Chair of conference program committees

- Stéphane Grumbach, co-chair Seminar Intermediation and Smartness, Anthropocene Curriculum, The Technosphere Issue, Haus der Kulturen der Welt, Berlin, 15-23 April 2016
- Stéphane Grumbach, co-chair Working group on digital sovereignty with UC Berkeley, Chaire Castex, Les Houches 8-10 december 2015.

9.1.3. Invited talks

- Stéphane Frénot, Plateformes d'intermédiations : Le Web, le temps et ... javascript Inforsid, mai 2015

Stéphane Grumbach has given the following invited talks:

- Political challenges of intermediation platforms, Lunch Lecture at TU Delft - Faculty of Technology, Policy and Management, Delft, 16 December 2015
- Libérer les données dans la ville intelligente : de la défiance à la confiance ? Panel Entretiens Jacques Cartier Smart cities, quelles réponses aux aspirations des citoyens ? Lyon, 2 décembre 2015
- Enjeux stratégiques et économiques des données personnelles, Entretiens Jacques Cartier, La vie privée à travers les cultures. Convergences et divergences dans un monde globalisé, Lyon, 30 novembre 2015
- Géopolitique dans l'espace numérique: la place de la Chine, Séminaire de l'Institut d'Asie Orientale, Lyon, 19 novembre 2015
- Challenges of algorithmic intermediation, ECNU, Shanghai, 21 october 2015
- Panel on New Innovation Strategies in a Challenging Global Environment Global Forum, Digitalization, From Disruption to Sustainability, Oulu, 28-29 september 2015
- Des masses de données aux services de masse globalisés, Assemblée Générale constitutive du GdR MaDICS, Groupement de Recherche Masses de Données, Informations et Connaissances en Sciences, Lyon, 24-25 juin 2015
- Place du numérique, le big data, les réseaux et l'intermédiation : une (r)évolution ? Assises scientifiques, département Environnement et Agronomie INRA, Pont Royal en Provence, 3 juin 2015
- Panel on Public data & Private Interests, Who Owns the Data?, An International Conference on Digital Assets, Data Philanthropy and Public Benefit", BIS 2015, Berkeley, May 14th, 2015
- Les bouleversements politiques et économiques dans la société numérique, Conférence de l'Institut des Sciences du Numérique, Hôtel Potocki, Paris, 9, 10 avril 2015 video
- Maître de la Donnée, Maître du monde, avec Gilles Babinet, Congrès Big Data, CNIT, Paris, 10 mars 2015
- Privacy and Big Data, Byte session, Computers Privacy and Data Protection Conference CPDP2015, Brussels, 22 January 2015

Aurélien Faravelon has given the following talk:

- Education in the age of platforms, ECNU, Shanghai, 21 october 2015

9.1.4. Scientific expertise

Stéphane Grumbach has been involved in public hearing in the political sphere

- Stéphane Grumbach, Big Data : création de valeur, enjeux et stratégies de régulation, Cycle "Mutations technologiques, mutations sociales", France Stratégie, Paris, 12 novembre 2015
- Stéphane Grumbach, La place du traitement massif des données (Big data) dans l'agriculture, audition publique de l'OPECST, Assemblée nationale, Paris, 2 juillet 2015
- Stéphane Grumbach, Des données aux plateformes d'intermédiation : une disruption en profondeur, Journée numérique au Sénat, Paris, 11 février 2015

9.1.5. Research administration

Stéphane Grumbach is director of IXXI, the complex Systems Institute.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Licence : Stéphane Frénot, Stéphane Grumbach: Twitter, Facebook et le Web2.0, Module INSA Lyon,

INSA, Stéphane Frénot, Agility: A 32 hours optional course on agile software development presenting both iterative (SCRUM) and stream based approaches (LEAN IT). M1. (since 2011)

INSA, Stéphane Frénot, Innovating Project: Supervising 250 hours student project aim at managing innovating projects. Each student group leads its own subject during one semester. All projects and organizational details are publicly available here: <http://tc-pi.fr> M1 (Since 2006)

INSA, Stéphane Frénot, Learn Other Languages: The aim of the course is to improve one's skills in current state-of-the-art programing and discover different ways to develop using mainly web-oriented programming languages. M1 (Since 2013)

Licence : Robert Riemann, INSA, Algorithmique et programmation 1, 27HETD, L1, INSA Lyon, France

Master : Aurélien Faravelon, Réseaux informatiques et recomposition des frontières sociales, 3HETD, M2, EHESS, France

Master : Aurélien Faravelon, Master Biosciences, 3HETD, M1, ENS Lyon, France

Master : Stéphane Grumbach, Le pouvoir aux algorithmes, introduction du Mooc "Villes intelligentes : défis technologiques et sociétaux", MOOC IPL Citylab, 2016

Master : Stéphane Grumbach, Des masses de données à l'intermédiation algorithmique, les grandes plateformes numériques, une disruption politique, Réseaux complexes: une approche interdisciplinaire, ENS Lyon, mars 2015

9.2.2. Supervision

PhD in progress : Etienne Brodu, DataFlow compilation from JavaScript, Jan 2013, Stéphane Frénot

PhD in progress : Robert Riemann, systemes de vote decentralisés, sept 2014, Stéphane Grumbach

9.3. Popularization

- Stéphane Grumbach, Big Data : quel impact sur la relation aux citoyens ? Journée #ComDemainIDF de la Région Ile de France, Paris, 13 octobre 2015
- Stéphane Grumbach, Comment le numérique change-t-il la société ? Cycle de conférences Homo numericus, Fête de la science, Bourg-en-Bresse, 10 octobre 2015
- Stéphane Grumbach, Les données numériques : une nouvelle matière première ? Pint of Science, Lyon, 20 mai 2015
- Stéphane Grumbach, A qui profitent les Big Data? Soirée-débat Et si on en parlait, "La Révolution Big Data : chance ou menace?" Grand Amphithéâtre, Université de Lyon, 28 avril 2015

PRIVATICS Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events organisation

9.1.1.1. Member of the organizing committee

Cédric Lauradoux : GREHACK 2015.

Daniel Le Metayer : La vie privée à travers les cultures: divergences et convergences dans un monde globalisé, Rencontres Jacques Cartier, Lyon, 31 November 2015.

9.1.2. Scientific events selection

9.1.2.1. Chair of conference program committee

Cédric Lauradoux : GREHACK 2015.

9.1.2.2. Member of the conference program committee

Mathieu Cunche : Trustcom 2015, ICISSP 2015, HotPlanet 2015.

Cédric Lauradoux : Wisec 2015.

Daniel Le Métayer : IWPE 2015, WETICE 2015.

Claude Castelluccia : WISEC 2015, PETS'15.

Marine Minier : WCC 2015.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Undergraduate course : Vincent Roca, On Wireless Communications, 12h, L1, Polytech' Grenoble, France.

Undergraduate course : Vincent Roca, On Network Communications (44h), L1, IUT-2 (UPMF University) Grenoble, France.

Undergraduate course : Marine Minier, Probabilities, 80h, L3, INSA-Lyon, France.

Undergraduate course : Marine Minier, Signal Processing, 20h, L3, INSA-Lyon, France.

Undergraduate course : Marine Minier, Analysis, 20h, L3, INSA-Lyon, France.

Undergraduate course : Marine Minier, Introduction to Cryptography, 10h, L3, INSA-Lyon, France.

Undergraduate course : Marine Minier, Information Theory, 10h, L3, INSA-Lyon, France.

Undergraduate course : Marine Minier, Computer Architecture, 20h, L3, INSA-Lyon, France.

Undergraduate course : Marine Minier, Computer Security, 20h, L3, IUT-Lyon, France.

Undergraduate course : Mathieu Cunche, Introduction to computer science, 120h, L1, INSA-Lyon, France.

Master : Mathieu Cunche, Wireless Security, 6h, M2, INSA-Lyon, France.

Undergraduate course : Mathieu Cunche, On Wireless Network Security, 10h, L1, IUT-2 (UPMF - Grenoble University), France.

Undergraduate course : Cédric Lauradoux, Advanced Topics in Security, 20h, L3, ENSIMAG, France.

Master : Cédric Lauradoux, Introduction to Cryptology, 30h, M1, University of Grenoble, France.

Master : Cédric Lauradoux, Internet Security, M2, University of Grenoble, France.

Master : Claude Castelluccia, Advanced Topics in Security, 20h, M2, Ensimag/University of Grenoble, France.

Master : Claude Castelluccia, Advanced Topics in Security, 15h, M2, Ensimag/INPG, France.

Master : Marine Minier, Security for wireless networks, 20h, M2, INSA-Lyon, France.

Master : Mathieu Cunche, Wireless Security, 6h, M2, INSA-Lyon, France.

9.2.2. Supervision

PhD defended : Gael Thomas, Algebraic Automata in Symetric Cryptography, Marine Minier.

PhD defended : Lukasz Olejnik, Internet Tracking and Profiling, Claude Castelluccia.

PhD in progress : Jagdish Achara, Mobile devices and operating systems from a privacy point of view, October 2013, Vincent Roca and Claude Castelluccia.

PhD in progress : Thibaud Antignac, New solutions for a better privacy, September 2011, Daniel Le Métayer.

PhD in progress : Jessye Dos Santos, Wireless physical tracking, October 2013, Cédric Lauradoux and Claude Castelluccia.

PhD in progress : Amrit Kumar, Privacy and multiparty computation, November 2013, Cédric Lauradoux.

PhD in progress : Vincent Primault, Privacy and geolocated services, November 2013, Cédric Lauradoux.

PhD in progress : Célestin Matte, Système d'observation des flux humains via Wi-Fi respectueux de la vie privée, October 2014, Marine Minier et Mathieu Cunche.

Intern (M2): Khaoula Dhifallah, Resiliency properties of protocols for WSNs (02/2015 - 07/2015)

Intern (M2): Saikou Fall, Packet Too Big or Too Small ? The PTB-PTS ICMP-based attack against IPsec gateways and tunneling mechanisms (05/2015 - 09/2015)

Intern (M2): Aude Tessier, Etude comparee technico-juridique des lois dites de renseignement (02/2014- 09/2014)

Intern (M2): Leo Letaro, Détection des altération de pages Web (02/2015-07/2015)

Intern (M1): Mathieu Thiery, NeuroAuth-Authenticating People from their Implicit Memory (03/2015 - 09/2015)

Intern (M1): Lenka Kunikova, An efficient implementation of a generic two-party secure computation protocol in the UC framework (02/2015 - 06/2014)

Intern (M1): Jose Paul Dominguez, Tarantula: individual targeting for passphrase attacks (02/2015 - 06/2014)

Intern (M1): Michael Omer, Security and QR-codes (02/2015 - 06/2014)

Intern (M1): Quentin Ricard, Algorithmic complexity attacks against sorting algorithms (02/2015 - 08/2014)

Intern (M1): Jonathan Tournier, Evaluating Forensics Tools (02/2015 - 06/2014)

9.2.3. Juries

PhD : Lukasz Olejnik, Internet Tracking and Profiling, Université de Grenoble, Grenoble, 30/01/2015, Claude Castelluccia.

HDR : Benoît Parrein, Le code à effacement Mojette: applications dans les réseaux et dans le Cloud, Université de Nantes, Nantes, 22/06/2015, Vincent Roca.

PhD : Regina Melo Marin, Enhancing Privacy Protection in Social Network Systems Through Decentralization and Policy Conflict Management, Université de Rennes, Rennes, 07/09/2015, Daniel Le Métayer.

PhD : Paul Mazenc-Lajoie, Réputation et respect de la vie privée dans les réseaux dynamiques auto-organisés, Université de Rennes, Rennes, 25/09/2015, Daniel Le Métayer.

PhD : Koen Decroix, Model-Based Analysis of Privacy in Electronic Services, Université de Leuven, Leuven, 21/10/2015, Daniel Le Métayer.

PhD : Thibaud Antignac, Méthodes formelles pour le respect de la vie privée par construction, INSA Lyon, Lyon, 25/02/2015, Daniel Le Métayer.

PhD : Joëlle Roué, Analyse de sécurité des chiffrements par bloc, 14/10/2015, Université Pierre et Marie Curie, Paris, Marine Minier.

9.3. Popularization

Article of C.Castelluccia and D.Le Métayer in le Monde, Oui, la loi sur le renseignement prépare bien une surveillance de masse, 09/06/2015.

Article of C.Castelluccia and D.Le Métayer in Pour La Science, Renseignement : le traitement massif de données est aussi dangereux qu'inefficace, 11/06/2015.

Interview of C.Castelluccia and D.Le Métayer in le Monde, Des dizaines de milliers de personnes vont être suspectées à tort, 06/05/2015.

Article of C.Castelluccia and D.Le Métayer in La Recherche, Les failles de la loi sur le renseignement, 11/2015.

Interview of V. Roca on France Culture in Les Nouvelles Vagues, Privacy leaks in smartphones, 10/2015

Article of V. Roca in Interstice, Quand nos smartphones sont espionnés, https://interstices.info/jcms/p_83464/quand-nos-smartphones-sont-espionnes, 09/2015.

Representation of Privatics by V. Roca at Journée numérique au Sénat, 11/02/2015.

Representation of Privatics by M. Cunche at Journée numérique au Sénat, 11/02/2015.

Seminar of C. Lauradoux at the security seminar LORIA, Google Safe Browsing: Security and Privacy, 18/11/2015.

Seminar of C. Lauradoux at GRACE seminar (Inria Saclay), Membership Tests in Security, 18/11/2015.

Seminar CCA of C. Lauradoux, Exploitations concrètes des mauvaises utilisations des fonctions de hachage, 12/06/2015.

Workshop of C. Lauradoux at GREHACK 2015, Sécurité des drones.

Seminar of Marine Miner at LIMOS seminar, CUBE Cipher: Une Famille de Chiffrement par Blocs Quasi-Involutifs et Facile à Masquer, 01/10/2015.

Seminar of Marine Miner at XLIM seminar, CUBE Cipher: Une Famille de Chiffrement par Blocs Quasi-Involutifs et Facile à Masquer, 10/02/2015.

Seminar of Marine Miner at Rennes, Some solutions for security of WSNs, 11/2015.

SPADES Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events organisation

9.1.1.1. General chair, scientific chair

- Alain Girault was general chair of the 10th International Federated Conference on Distributed Computing Techniques (DisCoTec'15), held in Grenoble in June 2015. <http://discotec2015.inria.fr>
- Jean-Bernard Stefani was the organization chair of the 7th Reversible Computation (RC'15) conference, held in Grenoble in July 2015. <http://www.reversible-computation.org/2015>

9.1.1.2. Member of the organizing committees

- Jean-Bernard Stefani was organiser chair for the 10th International Federated Conference on Distributed Computing Techniques (DisCoTec'15), held in Grenoble in June 2015. <http://discotec2015.inria.fr>
- Sophie Quinton was workshops chair for the 10th International Federated Conference on Distributed Computing Techniques (DisCoTec'15), held in Grenoble in June 2015. <http://discotec2015.inria.fr>

9.1.2. Scientific events selection

9.1.2.1. Chair of conference program committees

- Alain Girault was technical program committee co-chair for the ACM/IEEE International Conference on Embedded Software (EMSOFT'15), held in Amsterdam in October 2015. <http://esweek.acm.org/esweek2015/emsoft>
- Jean-Bernard Stefani was program committee co-chair for the 5th Reversible Computation conference (RC'15), held in Grenoble in July 2015. <http://www.reversible-computation.org/2015>
- Sophie Quinton was co-chair of the 6th International Workshop on Analysis Tools and Methodologies for Embedded and Real-time Systems (WATERS'15), held in Lund in July 2015. <http://waters2015.inria.fr>

9.1.2.2. Member of the conference program committees

- Pascal Fradet served in the program committee of the 15th International Conference on Modularity (MODULARITY'16).
- Alain Girault served in the program committees of the International Conference on Design and Test in Europe (DATE'15), the Design Automation Conference (DAC'15), and the International Symposium on Industrial Embedded Systems (SIES'15).
- Gregor Gössler served in the program committee of the 10th International Federated Conference on Distributed Computing Techniques (FORTE'15).
- Sophie Quinton served in the program committees of the 27th Euromicro Conference on Real-Time Systems (ECRTS'15), the 20th IEEE International Conference on Emerging Technologies and Factory Automation (ETFA'15), the 2nd International Workshop on Multi-Objective Many-Core Design (MOMAC'15), and the 3rd International Workshop on Mixed Criticality Systems (WMC'15).
- Jean-Bernard Stefani served in the program committee of the 12th International Colloquium on Theoretical Aspects of Computing (ICTAC'15).

9.1.2.3. Reviewer

- Alain Girault reviewed an article for ECRTS'15.

- Gregor Gössler reviewed articles for ECRTS' 15
- Xavier Nicollin reviewed an article for DATE' 16.
- Sophie Quinton reviewed articles for DAC' 15, FORTE' 15, SIES' 15, DATE' 16.

9.1.3. Journal

9.1.3.1. Member of the editorial boards

- Alain Girault is a member of the editorial board of the EURASIP Journal on Embedded Systems.
- Jean-Bernard Stefani is a member of the editorial board of Annals of Telecommunications.

9.1.3.2. Reviewer - Reviewing activities

- Pascal Fradet reviewed articles for LNCS Transactions on Aspect-Oriented Software Development.
- Alain Girault reviewed an article for the Journal on Advances in Signal Processing.
- Gregor Gössler reviewed articles for ACM Transactions on Embedded Computing Systems (TECS), Acta Informatica, and the EURASIP Journal on Embedded Systems.
- Sophie Quinton reviewed articles for the journal Real-time Systems and the Transactions on Design Automation of Electronic Systems,
- Jean-Bernard Stefani reviewed articles for Theoretical Computer Science.

9.1.4. Scientific expertise

- Alain Girault was reviewer for an ERC grant.

9.1.5. Research administration

- Pascal Fradet is head of the committee for doctoral studies (“Responsable du comité des études doctorales”) of the INRIA Grenoble – Rhône-Alpes research center.
- Alain Girault was head of science (“Délégué scientifique”) of the INRIA Grenoble – Rhône-Alpes research center until June 2015.
- Alain Girault has been Vice Chair of the INRIA Evaluation Committee since September 2015. As such, he co-organizes in particular the evaluation seminars of the INRIA teams (twice a year) and all the juries for the hiring and promotion of INRIA’s researchers (CR2, CR1, DR2, DR1, and DR0).
- Gregor Gössler has been leading a working group with the goal of fostering collaborations on the topic of formal methods for system design between the INRIA Grenoble – Rhône-Alpes research center and CEA Tech since September 2015.
- Jean-Bernard Stefani has been head of science of the INRIA Grenoble – Rhône-Alpes research center from July 2015. As such, he manages with the research center director all aspects of the scientific life of the research center (creation of the research teams and their evaluation by international panels, scientific relationships with our academic and industrial partners, hiring of the new junior researchers, ...).
- Jean-Bernard Stefani is co-director of I/O LAB, the joint research laboratory with Orange Lab.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Licence : Pascal Fradet, Théorie des Langages 1, 18 HeqTD, niveau L3, Grenoble INP (Ensimag), France

Licence : Xavier Nicollin, Algorithmique et Structures de données 1, 22,5 HeqTD, niveau L3, Grenoble INP (Ensimag), France

Licence : Xavier Nicollin, Théorie des Langages 2, 18 HeqTD, niveau L3, Grenoble INP (Ensimag), France

Master : Jean-Bernard Stefani, Formal aspects of component software, 6h, MOSIG, Univ. Grenoble Alpes, France

9.2.2. Supervision

- PhD: Vagelis Bebelis, “Boolean Parametric Data Flow – Modeling – Analyses – Implementation”, Univ. Grenoble Alpes, defended on February 26th 2015, co-advised by Pascal Fradet and Alain Girault.
- PhD: Dmitry Burlyaev, “Design, Optimization, and Formal Verification of Circuit Fault-Tolerance Techniques”, Univ. Grenoble Alpes, defended on November 26th 2015, co-advised by Pascal Fradet and Alain Girault.
- PhD in progress: Yoann Geoffroy, “Towards a general causality analysis framework”, Univ. Grenoble Alpes, since October 2013, advised by Gregor Gössler.
- PhD in progress: Christophe Prévot, “Early Performance assessment for evolving and variable Cyber-Physical Systems”, Univ. Grenoble Alpes, since November 2015, advised by Alain Girault and Sophie Quinton.

9.2.3. Juries

- Alain Girault was member of the PhD jury of Paul-Antoine Arras (Univ. Bordeaux).
- Alain Girault was referee for the PhD of Julien Heulot (INSA Rennes).
- Jean-Bernard Stefani was president of the PhD jury of Jakub Zwolakowski (U. Paris-Diderot).
- Jean-Bernard Stefani was member of the HDR jury of Philippe Merle (U. Lille).
- Jean-Bernard Stefani was referee for the HDR of Luc Fabresse (U. Lille).
- Jean-Bernard Stefani was referee for the PhD of Vincent Lanore (ENS Lyon).
- Sophie Quinton was member of the jury for a “Maître de Conférences” position in Nancy.

9.3. Popularization

Gregor Gössler was the scientific organizer of an In’Tech seminar on *Embedded systems and liability. Failures, accidents: who’s to blame*⁰ featuring seven invited speakers and a panel. Led by the INRIA Grenoble - Rhône-Alpes research centre, the In’Tech seminars strive to offer an opportunity for SMEs, industrial operators and researchers to come together, thus promoting technology monitoring and the exchange of information among the various participants in the development of the region’s Information Sciences and Technologies.

⁰<http://www.inria.fr/centre/grenoble/actualites/logiciel-embarque-et-responsabilite>

BIPOP Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events organisation

9.1.1.1. General chair, scientific chair

G. James is chairing with C.Daraio (ETH Zürich) and A. Vakakis (Univ. Illinois) the forthcoming Euromech colloquium 580 *Strongly nonlinear dynamics and acoustics of granular metamaterials*, which will be organized by the BIPOP team at Inria in July 2016.

9.1.2. Scientific events selection

9.1.2.1. Chair of conference program committees

- Florence Bertails-Descoubes was Program Chair of the 2015 **ACM/EG Symposium on Computer Animation**, together with Stelian Coros (Carnegie Mellon University).

9.1.2.2. Member of the conference program committees

- Bernard Brogliato was Program Committee Member for the first IEEE International Conference on Event-based Control, Communication, and Signal Processing (EBCCSP 2015), June 17-19, 2015, Krakow, Poland
(www.ebccsp2015.org).
- Bernard Brogliato was in the International Program Committee de 14th European Control Conference, Linz, Austria, July 15-17, 2015.
- Florence Bertails-Descoubes was in the Program Committee of ACM SIGGRAPH Asia 2015.
- Pierre-Brice Wieber was Associate Editor for the 2015 IEEE RAS Humanoids Conference.

9.1.3. Journal

9.1.3.1. Member of the editorial boards

- Pierre-Brice Wieber is Associate Editor for IEEE Transactions on Robotics.
- Bernard Brogliato is Associate Editor for Nonlinear Analysis: Hybrid Systems (starting January 2016).

9.1.3.2. Reviewer - Reviewing activities

- Bernard Brogliato is a reviewer for Automatica, IEEE Transactions on Automatic Control, ASME Journal of Applied Mechanics, Multibody System Dynamics, Nonlinear Analysis, Systems and Control Letters.
- Arnaud Tonnelier is a reviewer for Physical Review E, Nonlinear Analysis: Hybrid Systems, Journal of Physics A, International Journal of Bifurcation and Chaos, SIADS, Mathematical Biosciences and Engineering.
- Florence Bertails-Descoubes is a reviewer for ACM SIGGRAPH, ACM SIGGRAPH Asia, ACM Transactions on Graphics, IEEE Transactions of Vizualisation and Computer Graphics, Eurographics, Computer Graphics Forum.
- Jérôme Malick is reviewer for SIAM Journal of Optimization, Computational Optimization and Applications, Set-Valued and Variational Mathematics

9.1.4. Invited talks

- Florence Bertails-Descoubes gave the following invited talks in 2015:

- “Geometry and mechanics of fibers: some numerical models”, **Mathematical Progress in Expressive Image Synthesis**, Kyushu University (Fukuoka, Japon), September 2015.
- “Geometry and mechanics of fibers: some numerical models”, **Rencontres DYSCO**, organized in Treffort (Isère) by the interdisciplinary laboratory of physics (LIPhy), May 2015.
- “Modélisation numérique de fibres en contact : application à la synthèse de chevelures réalistes”, **Collège de France**, Paris (within the course series given in 2015 by M.-P. Cani), April 2015.

9.1.5. Research administration

- Arnaud Tonnelier is member of CNU 26 (2011-2015).

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Master 2015-2016: Pierre-Brice Wieber, Autonomous Robotics, 9h, M2, MOSIG (Grenoble INP)

Master 2015 : Jérôme Malick, Numerical Optimization, 50 h., M1, ENSIMAG (Grenoble INP)

Master 2015 : Jérôme Malick, Mathematical Programming, 16 h., M2, UJF

Master 2015-2016: Florence Bertails-Descoubes, IRL Module, 3 h., M1, ENSIMAG (Grenoble INP)

9.2.2. Supervision

HdR : Vincent Acary, université Grenoble-Alpes, July 2015.

PhD : Romain Casati, Quelques contributions à la modélisation numérique de structures élançées pour l’informatique graphique, université Grenoble-Alpes, June 2015, F. Bertails-Descoubes.

PhD : Olivier Huber, Commande par modes glissants en temps discret, université Grenoble-Alpes, B. Brogliato and V. Acary.

PhD : Mounia Haddouni, Algorithmes de résolution de la dynamique du contact avec impact et frottement, université Grenoble-Alpes, B. Brogliato and V. Acary.

PhD : Jory Lafaye, Control of movements and balance of a humanoid robot with omnidirectional wheels, université Grenoble-Alpes, P.B. Wieber.

PhD in progress : Narendra Akadkhar, Analysis of multibody systems with joint clearances, January 2013, université Grenoble-Alpes, to be defended in March 2016, B. Brogliato and V. Acary.

PhD in progress : Alejandro Blumentals, Analysis of rigid and deformable mechanical systems with frictional constraints, université Grenoble-Alpes, September 2013, B. Brogliato and F. Bertails-Descoubes.

PhD in progress : Jose Morales Morales, Soliton in the excitable Burridge-Knopoff model, université Grenoble-Alpes, September 2013, G. James and A. Tonnelier.

PhD in progress : Gilles Daviet, Macroscopic modeling of granular and fibrous materials, université Grenoble-Alpes, September 2014, F. Bertails-Descoubes and B. Raffin.

PhD in progress : A. Sherikov, Control of humanoid robots, Université Grenoble-Alpes, P.B. Wieber.

PhD in progress : Alexandre Vieira, Commande optimale de systèmes linéaires de complémentarité, université Grenoble-Alpes, B. Brogliato and C. Prieur.

PhD in progress : Nestor Bohorquez, Safe motion for humanoid robots in human environments, Université Grenoble-Alpes, P.B. Wieber.

PhD in progress : Federico Pierucci, nonsmooth optimization for machine learning , université Grenoble-Alpes, J. Malick and A. Ioudilski.

PhD in progress : Saed Al Homsy, Génération en ligne de trajectoires optimales en temps pour des robots industriels en environnements dynamiques, 17 March 2016, université Grenoble-Alpes, P.B. Wieber.

9.2.3. Juries

- Bernard Brogliato:
 - Habilitation (HDR) of Gang Zheng, November 2015, Inria Lille.
 - PhD thesis of P.O. Lamarre (LJK, Grenoble), September 2015.
- Pierre-Brice Wieber:
 - PhD thesis of J. Agravante (LIRMM, Montpellier), December 2015.

9.3. Popularization

- Florence Bertails-Descoubes co-authored the paper “Approcher des courbes par des hélices” in the journal *Quadrature* (making the *cover* of the journal), together with Alexandre Derouet-Jourdan, April 2015.
- Pierre-Brice Wieber gave a lecture on “The best way to walk for a robot” to 100 high-school students during the national Mathematics week, March 2015.

MISTIS Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

10.1.1.1. Member of the organizing committees

- **IEEE DSAA 2015, IEEE international conference on Data Science and Advanced Analytics**, <http://dsaa2015.lip6.fr/>, in Paris, Oct. 19-21, 2015. F. Forbes was member of the scientific committee and organized with W. Buntine a special session on "**Trends and controversies**". 150 participants. 81 accepted papers. Acceptance ratio 29%.
- Stéphane Girard was co-chair of the Astrostatistics summer school dedicated to "Classification & Clustering" held in Les Houches, <http://stat4astro2015.sciencesconf.org/>.
- **2nd conference of the SFRMBM society (Société Française de Résonance Magnétique en Biologie et Médecine)**, <http://sfrmbm2015.sciencesconf.org/>, March 18-20, 2015, Grenoble. F. Forbes was a member of the organizing committee. 200 participants. 140 submissions. Approximate funding: 80 keuros.
- Stéphane Girard was a member of the organizing committees of "4èmes rencontres R" <http://r2015-grenoble.sciencesconf.org/> and of the 6th workshop Statlearn "Challenging problems in Statistical Learning", both held in Grenoble.
- **INRA AIGM network day** in Grenoble June 30, 2015. F. Forbes was program co-chair with N. Peyrard. 20 participants. Approximate funding: 1 keuros. AIGM events web site: <https://carlit.toulouse.inra.fr/AIGM/events.html>.

10.1.2. Scientific events selection

10.1.2.1. Member of the conference program committees

- Stéphane Girard was a member of the conference program committee of the "Mathematical Finance and Actuarial Sciences conference organized by the AIMS (African Institute for Mathematical Sciences), Mbour, Sénégal.

10.1.2.2. Reviewer

In 2015, F. Forbes has been reviewer for NIPS 2015 and GRETSI 2015.

10.1.3. Journal

10.1.3.1. Member of the editorial boards

- Stéphane Girard is Associate Editor of the *Statistics and Computing* journal since 2012. He is also member of the Advisory Board of the *Dependence Modelling* journal since december 2014.
- F. Forbes is Associate Editor of the journal *Frontiers in ICT: Computer Image Analysis* since its creation in Sept. 2014. *Computer Image Analysis* is a new specialty section in the community-run openaccess journal *Frontiers in ICT*. This section is led by Specialty Chief Editors Drs Christian Barillot and Patrick Bouthemy.

10.1.3.2. Reviewer - Reviewing activities

In 2015, S. Girard has been a reviewer for *Scandinavian Journal of Statistics*, *Extremes* and *Journal of Statistical Software*.

In 2015, F. Forbes has been reviewer for *Statistics and Computing*, *Computational Statistics and Data Analysis* journals, *IEEE trans. on Signal Processing*, *IEEE trans. on Image Processing* journals.

10.1.4. Invited talks

Stéphane Girard was invited to give a talk at the SMAI Conference [32] and at the Extreme Value Analysis conference [33].

F. Forbes was invited to give a talk at the Working Group on Model-Based Clustering Summer Session, in Seattle, USA, July 19-25, 2015, <http://mathsci.ucd.ie/~brendan/wgmbc2015.html>. Title: High dimensional regression with Gaussian mixtures and partially latent response variables. 30 participants.

F. Forbes was invited to give a talk at the CHUV/SIEMENS workshop on Quantitative magnetic resonance imaging for neuroradiology, in Lausanne, Switzerland, June 29, 2015. Title: Automatic brain lesion segmentation: methodological challenges. 20 participants.

F. Forbes and S. Girard gave a tutorial at the Astrostatistics School in Les Houches in Oct. 2015, <http://stat4astro2015.sciencesconf.org/>.

10.1.5. Leadership within the scientific community

Stéphane Girard is at the head of the associate team (*Statistical Inference for the Management of Extreme Risks and Global Epidemiology*) created in 2015 between Mistis and LERSTAD (Université Gaston Berger, Saint-Louis, Sénégal). The team is part of the LIRIMA (Laboratoire International de Recherche en Informatique et Mathématiques Appliquées), <http://mistis.inrialpes.fr/simerge/>.

10.1.6. Scientific expertise

- Stéphane Girard was in charge of evaluating PEPS research projects (projets exploratoires premier soutien) for the CNRS and MITACS projects from Québec, Canada.
- F. Forbes is a member of the ERCIM working group on Mixture models.

10.1.7. Research administration

- Stéphane Girard is at the head of the Probability and Statistics department of the LJK (Laboratoire Jean Kuntzmann) since september 2012.
- Grenoble Pole Cognition. F. Forbes is representing Inria and LJK in the pole.
- PRIMES Labex, Lyon. F. Forbes is a member of the strategic committee. F. Forbes is representing Inria.
- F. Forbes was elected in 2010 and is since then a member of the bureau of the “Statistics and Images” group in the Société Française de Statistique (SFdS), http://www.sfds.asso.fr/318-Actualites_du_groupe_Statistique_et_Images. The group is made of 5 persons. F. Forbes is vice-president.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Licence : Alexis Arnaud, *Probability and statistics*, 56 ETD, L2 level, IUT2 Grenoble, Université Pierre Mendès France.

Master : Stéphane Girard, *Statistique Inférentielle Avancée*, 45 ETD, M1 level, Ensimag. Grenoble-INP, France.

Master: Jean-Baptiste Durand, *Statistics and probability*, 192 ETD, M1 and M2 levels, Ensimag Grenoble INP, France.

J.-B. Durand is a faculty member at Ensimag, Grenoble INP.

10.2.2. Supervision

PhD in progress: Aina Frau-Pascual, “*Statistical Models for the coupling of ASL and BOLD Magnetic Resonance modalities to study brain function and disease*”, October 2013, Florence Forbes and Philippe Ciuciu.

PhD in progress: Alexis Arnaud “*Multiparametric MRI statistical analysis for the identification and follow-up of brain tumors*”, October 2014, Florence Forbes and Emmanuel Barbier.

PhD in progress: Pierre-Antoine Rodesch, “*Spectral tomography and tomographic reconstruction algorithms*”, october 2015, Florence Forbes.

PhD in progress: Thibaud Rahier, “*Data-mining pour la fusion de données structurées et non-structurées*”, november 2015, Florence Forbes and Stéphane Girard.

PhD in progress: Clément Albert, “*Limites de crédibilité d’extrapolation des lois de valeurs extrêmes*”, october 2015, Stéphane Girard.

PhD in progress: Maïlys Lopes, “*Téledétection en écologie du paysage : statistiques en grande dimension pour la multirésolution spatiale et la haute résolution temporelle*”, november 2014, Stéphane Girard and Mathieu Fauvel (INRA Toulouse).

PhD in progress: Alessandro Chiancone, “*Sequential dimension reduction*”, november 2013, Stéphane Girard and Jocelyn Chanussot (Grenoble INP).

PhD in progress: Seydou Nourou Sylla, “*Modélisation statistique pour l’analyse des causes de décès décrites par autopsie verbale en milieu rural africain : cas du Sénégal*”, october 2012, Stéphane Girard and Abdou Diongue (Université Gaston Berger, Sénégal).

PhD in progress: Brice Olivier, “*Joint analysis of eye-movements and EEGs using coupled hidden Markov and topic models*”, october 2015, Jean-Baptiste Durand, Marianne Clausel and Anne Guérin-Dugué (Université Grenoble Alpes).

10.2.3. Juries

10.2.3.1. PhD

- F. Forbes has been reviewer for four PhD theses in 2015:
 - Theodosios Gkamas, University of Strasbourg, Sept. 29, 2015.
 - Brice Ozenne, University of Lyon 1, Sept, 2015.
 - Julien Stoehr, University Montpellier 2, Oct. 2015.
 - Hajer Braham, Telecom ParisTech and Orange, December 2015.
- F. Forbes was also president for the PhD committee of Haithem Boussaid, "Efficient Inference and learning in Graphical models for multi-organ shape segmentation", Ecole Centrale Paris, January 8, 2015.
- Stéphane Girard has been reviewer of two PhD theses:
 - “*Modélisation de la dépendance et estimation du risque agrégé*”, by Andrés Cuberos, Univ. Claude Bernard - Lyon and
 - “*Analyse de données de cytométrie de flux pour un grand nombre d’échantillons*” by Xiaoyi Chen, Univ. Cergy-Pontoise.
- S. Girard was also a member of the PhD committee of Jonathan Jalbert “*Développement d’un modèle statistique non stationnaire et régional pour les précipitations extrêmes simulées par un modèle numérique de climat*”, Univ. Laval (Québec, Canada).

10.2.3.2. HDR

F. Forbes was also a member of the HDR committee of Estelle Kuhn, University Paris Orsay, November 2015.

10.2.3.3. Other committees

- F. Forbes is a member of the Committee for technological project and engineer candidate selection at Inria Grenoble Rhône-Alpes ("Commission du développement technologique").
- F. Forbes was a member of the committee for Inria research scientist candidate (CR) selection at Inria Rennes in 2015.
- F. Forbes was a member of the committee for attributing the bi-annual Jean Kuntzman award.
- Stéphane Girard is a member of the "Comité des Emplois Scientifiques" and "Comité de Centre" at Inria Grenoble Rhône-Alpes since 2015.
- Since 2015, Stéphane Girard is a member of the INRA committee (CSS MBIA) in charge of evaluating INRA researchers once a year in the MBIA dept of INRA.

10.3. Popularization

Pixyl communication. F. Forbes gave several large audience presentations related to the Pixyl startup and more recently interviews for journals such as **Presence** and INSERM Science et Santé Magazines.

NANO-D Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events organisation

9.1.1.1. Member of the organizing committees

Stephane Redon is a member of the organizing committee of JOBIM 2016

9.1.2. Scientific events selection

9.1.2.1. Reviewer

- Leonard Jaillet was a reviewer ISRR (International Symposium on Robotics Research)

9.1.3. Journal

9.1.3.1. Reviewer - Reviewing activities

- Leonard Jaillet was a reviewer for T-RO (Transactions on Robotics)

9.1.4. Invited talks

- S. Grudinin gave an invited talk titled "Using Machine Learning and Polynomial Expansions to Predict Protein-Protein Interactions " at the 3rd International Conference on Protein and RNA Structure Prediction, 14th - 18th of December 2015, at Punta Cana, Dominican Republic.
- Stephane Redon gave a talk at IMPMC.
- Stephane Redon gave a talk at TEDx Grenoble 2015

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

- Stephane Redon is teaching INF585 (Introduction to C++) at Ecole polytechnique
- Stephane Redon is part of the teaching team of INF442 (Big data and high-performance computing) at Ecole polytechnique

9.2.2. Supervision

- Leonard Jaillet is advising the PhD of Minh Khoa Nguyen
- Sergei Grudinin is advising the PhD of Alexandre Hoffmann
- Sergei Grudinin advised the PhD of Petr Popov (defended February 2015)
- Stephane Redon is co-advising the PhD of Krishna Kant Singh in collaboration with Jean-Francois Mehaut
- Stephane Redon is advising the PhD of Francois Rousse
- Stephane Redon is advising the PhD of Semeho Edoh
- Stephane Redon is co-advising the PhD of Zofia Trstanova in collaboration with Gabriel Stoltz

9.2.3. Juries

- Stephane Redon was in the PhD committee of Matthieu Dreher

9.3. Popularization

- NANO-D participated to the 2015 Fete de la Science (science fair): SAMSON was used by high school students to perform various activities related to computational nanoscience.
- Emilie Neveu participated with the AirSea team to the 2015 Fete de la Science (science fair).
- Emilie Neveu is part of the group “Cafes Sciences et Citoyens de l’Agglomeration Grenobloise”, which organises public roundtables every month.
- Stephane Redon gave a talk at TEDx Grenoble <https://www.youtube.com/watch?v=Atpigmv529E>

9.4. Participation to conferences, seminars

- L. Jaillet, and S. Grudinin attended 2015 Inria Scientific Days, 16th June – 19th June, Nancy, France.
- E. Neveu attended the Basel Computational Biology Conference, 7th June – 10th June, in Basel Switzerland where she presented a poster about Pepsi-Dock.
- S. Redon, L. Jaillet, E. Neveu, Minh-Khoa Nguyen, and S. Grudinin attended the 2015 GT Enzymes / GGMM workshop, 25-28 Mai 2015, Sète France. They gave two talks and presented four posters.
- S. Redon, L. Jaillet, and S. Grudinin attended the AlgoSB winter school, 29th Nov – 04th Dec, Cargèse, France.

NECS Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

10.1.1.1. Member of the organizing committees

Alain Kibangou was member of the organizing committee of 'Premières Journées de l'Automatique du GDR MACS', 5-6 October 2015, Grenoble.

10.1.2. Scientific events selection

10.1.2.1. Member of the conference program committees

Alain Kibangou was a member of the program committee for the International Workshop on Big Data and Smart Sustainable Society (BigData-2015), <http://www2.docm.mmu.ac.uk/STAFF/L.Han/BigData-2015/index.htm>, held in conjunction with the 14th IEEE International Conference on Ubiquitous Computing and Communications (IUCC-2015), <http://cse.stfx.ca/~iucc2015>.

Hassen Fourati was a member of the International and Scientific Program Committees of:

- 4th International Conference on Systems and Control (ICSC'15), Hammamet, Tunisia, April 28-30, 2015 (<http://lias.labo.univ-poitiers.fr/icsc/icsc2015/index.php>);
- International Electrical and Computer Engineering Conference IECEC'15, Setif, Algeria, May 23-25, 2015 (<http://www.univ-setif.dz/IECEC2015>);
- 16th International Conference on Sciences and Techniques of Automatic Control and Computer Engineering STA'2015, Monastir, Tunisia, December 21-23, 2015.

10.1.2.2. Reviewer

Team members have been reviewers for many conferences (including the most prestigious ones in their research area): IEEE Conference on Decision and Control CDC, European Control Conference ECC, American Control Conference ACC, European Signal Processing Conference, IEEE International Conference on Robotics and Automation ICRA, IEEE/RSJ International Conference on Intelligent Robots and Systems IROS, IFAC Workshop on Distributed Estimation and Control in Networked Systems (NecSys).

10.1.3. Journal

10.1.3.1. Member of the editorial boards

Carlos Canudas de Wit is Associate Editor of IEEE Transactions on Control of Networks Systems IEEE-TCNS (since June 2013), Associate Editor of IEEE Transactions on Control System Technology IEEE-TCST (since January 2013), and Editor of the Asian Journal of Control AJC (since 2010).

10.1.3.2. Reviewer

Team members have been reviewers for many journals (including the most prestigious ones in their research area): IEEE Trans. on Automatic Control, IEEE Trans. on Control of Network Systems, IEEE Trans. on Signal Processing, Automatica, IEEE Signal Processing Letters, Systems and Control Letters, IEEE Transactions on Information Theory, Journal of the Franklin Institute, Journal of Process Control, Elsevier Signal Processing, Int. Journal of Robust and Nonlinear Control, IET Communications, IET Wireless Sensor Networks, IEEE/ASME Trans. on Mechatronics, IEEE Trans. on Instrumentation and Measurements, IEEE Sensors journal, Sensors, IEEE Trans. on Robotics, Micromachines.

10.1.4. Invited talks

- C. Canudas de Wit, *Nash Game Based Distributed Control Design for Balancing of Traffic Density over Freeway Networks*, Transportation seminar series of the Institute of Transportation Studies (ITS) and the Transportation Program of the Civil and Environmental Engineering Department at the University of California, Berkeley, Oct. 2015.
- C. Canudas de Wit, *Distributed Optimal Traffic Control*, IPAM Workshop ‘New Directions in Mathematical Approaches for Traffic Flow Management – Workshop III-Traffic Control’, Oct. 2015.
- F. Garin, *Towards on-line optimization of urban traffic lights*, IPAM Workshop ‘New Directions in Mathematical Approaches for Traffic Flow Management – Workshop III-Traffic Control’, Oct. 2015.

10.1.5. Leadership within the scientific community

C. Canudas de Wit has been president of the European Control Association (EUCA) until June 2015, and is now Past-president and member of the EUCA Council.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Master: F. Garin, Distributed Algorithms and Network Systems, 13.5h, M2, University Joseph Fourier, France.

Licence: H. Fourati, Informatique Industrielle, 105h, L1, IUT 1 (GEII), University Joseph Fourier, France;

Licence: H. Fourati, Réseaux locaux industriels, 50h, L1 et L2, IUT1 (GEII), University Joseph Fourier, France.

Licence: H. Fourati, Automatique, 61,5h, L3, UFR physique, University Joseph Fourier, France.

Licence: H. Fourati, Automatique échantillonnée, 15h, L2, IUT 1 (GEII), University Joseph Fourier, France.

Licence: A. Kibangou, Automatique, 52h, L2, IUT1(GEII1), University Joseph Fourier, France.

Licence: A. Kibangou, Mathématiques, 33h, L2, IUT1 (GEII1), University Joseph Fourier, France.

Licence: A. Kibangou, Mathématiques, 44h, L1, IUT1 (GEII1), University Joseph Fourier, France.

Licence: A. Kibangou, Automatique, 16h, L3, IUT1 (GEII1), University Joseph Fourier, France

10.2.2. Supervision

PhD: Thi-Minh Dung Tran, Methods for finite-time average consensus protocols design, network robustness assessment and network topology reconstruction, Grenoble University, March 26th, 2015

PhD: Ruggero Fabbiano, Collaborative source seeking-seeking control, Grenoble University, May 25th, 2015.

PhD: Giovanni de Nunzio, Traffic eco-management in urban traffic networks, Grenoble University, Oct. 2nd, 2015.

PhD in progress: Aida Makni, Fusion de données inertielles et magnétiques pour l’estimation de l’attitude sous contrainte énergétique d’un corps rigide accéléré, from Oct. 2012, co-advised by H. Fourati, A. Kibangou and C. Canudas de Wit.

PhD in progress: Simon Gerwig, Collaborative, reconfigurable and resilient control for hydro-electric power-plants, from Feb. 2014, co-advised by C. Canudas de Wit, F. Garin and B. Sari (Alstom).

PhD in progress: Pietro Grandinetti, Control of large-scale traffic networks, from Apr. 2014, co-advised by C. Canudas de Wit and F. Garin.

PhD in progress: Andrés Alberto Ladino Lopez, Robust estimation and prediction in large scale traffic networks, from Oct. 2014, co-advised by C. Canudas de Wit, A. Kibangou and H. Fourati.

PhD in progress: Thibaud Michel, Mobile Augmented Reality Applications for Smart Cities, from Nov. 2014, co-advised by N. Layaïda, H. Fourati and P. Geneves.

PhD in progress: Sebing Gracy, Cyber-physical systems: a control-theoretic approach to privacy and security, from Oct. 2015, co-advised by A. Kibangou and F. Garin.

PhD in progress: Stéphane Durand, Coupling distributed control and game theory: application to self-optimizing systems, from Oct. 2015, co-advised by B. Gaujal and F. Garin.

10.2.3. Juries

- C. Canudas was president of the Ph.D. defense committee of Pascal Combes, École Nationale Supérieure des Mines de Paris, Spécialité Mathématique et Automatique, Dec. 3rd, 2015
- A. Kibangou was external reviewer and committee member of two master thesis defenses for University of Pretoria: Roy Fisher (July 2015) and Daniel Ramotsoela (November 2015).
- F. Garin was committee member of the master thesis defense of Hourai Bettahar, MiSCIT Master, Grenoble, July 2015.

10.3. Popularization

The team's work on traffic prediction and control, with Grenoble Traffic Lab, has been popularized as follows:

- an interview reported in an article in CNRS 'Le Journal', and a related video (in French, see <https://lejournal.cnrs.fr/articles/quelle-voiture-pour-demain>)
- a video prepared by Inria for RII–Rencontres Inria-Industrie (in English, see https://www.youtube.com/watch?v=Uia4Y-9c6k0&index=5&list=PLV1fJrIaqWIMe5savY102Oz-M_hVmXg30).
- H. Fourati gave a talk 'Prédiction et contrôle du trafic routier sur Grenoble : une solution automatisée avec MATLAB' at the 'journée Nouveautés MATLAB 2015a, Data Analytics & Calcul Parallèle', Grenoble, March 26th.

AIRSEA Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

A.Vidard was a member of the organizing committee of the Summer school “Traitement du signal et des images”, Peyresq, juin 2015

C.Prieur was a member of the organizing committee of the Journées MAS 2016, Grenoble <http://mas2016.sciencesconf.org/>

E. Blayo and L. Debreu have organized a mini-symposium “Mathématiques et prévision climatique” within the SMAI 2015 conference (Les Karellis, June 2015).

L. Debreu have organized the international workshop "DRAKKAR" on global ocean modelling with the NEMO system (January 2015).

F. Lemarié and L. Debreu have organized a mini-symposium entitled "Recent algorithmic developments in oceanic models : numerical schemes and test-cases for model assessment" at the European Geosciences Union General Assembly, Vienne, April 2015.

10.1.2. Scientific events selection

C.Prieur was a member of the program committee of the SAMO 2016 La Réunion <http://samo2016.univ-reunion.fr/>

10.1.3. Journal

10.1.3.1. Reviewer - Reviewing activities

E. Blayo: reviewer for Mathematics and Computers in Simulation, Ocean Modelling.

L. Debreu:reviewer for Ocean Modelling, Ocean Dynamics, Geophysical Model Development.

F. Lemarié : reviewer for Ocean Modeling, Dynamics of Atmospheres and Oceans, SIAM Journal on Scientific Computing

E. Kazantsev: reviewer for International Journal for Numerical Methods in Fluids.

10.1.4. Leadership within the scientific community

E. Blayo is the chair of the CNRS-INSU research program LEFE-MANU on mathematical and numerical methods for ocean and atmosphere . <http://www.insu.cnrs.fr/co/lefe>

C. Prieur chairs GdR MASCOT NUM, in which are also involved M. Nodet, E. Blayo, C. Helbert, E. Arnaud, L. Viry, S. Nanty, L. Gilquin. <http://www.gdr-mascotnum.fr/doku.php>

L. Debreu is the coordinator of the national group COMODO (Numerical Models in Oceanography)

10.1.5. Scientific expertise

F-X. Le Dimet is reviewer for the PRACE consortium (scientific computing)

10.1.6. Research administration

C.Prieur is an elected member of CNU20

C.Prieur is a member of CS of SMF

C.Prieur is a member of the Committee of Statistical Mathematics Group of SFdS

E.Arnaud is a member of the executive committee of IXXI (complex system institute) <http://www.ixxi.fr>

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Licence: A.Vidard, Mathématiques pour l'ingénieur, 26h, L1, Universités Grenoble-Alpes, France

Licence: E. Arnaud, Statistics for biologist, 20h, L1, University of Grenoble, France.

Licence: E. Arnaud, Mathematics upgrade, 14h, L1, University of Grenoble, France.

Licence: E. Blayo, Mathématiques pour l'ingénieur, 66h, L1, UJF Grenoble.

Licence: E. Blayo, Méthodes statistiques pour la biologie, 39h, L2, UJF Grenoble.

Licence: M.Nodet, Outils maths pour les scientifiques et ingénieurs, 90h, L1, UJF Grenoble.

Licence: M.Nodet, Projet anglophone pour les L2 math info international 18h, L2, UJF Grenoble.

Licence: Ch. Kazantsev, Mathématiques pour les sciences de l'Ingenieur, L1, 60h UJF Grenoble.

Master: E. Arnaud, Advising students on apprenticeship, 28h, M2, University of Grenoble, France.

Master: E. Arnaud, Image processing, 18h, M2, University of Grenoble, France.

Master: E. Blayo, Méthode des éléments finis, 47h, M1, UJF Grenoble

Master: E. Blayo, Modelling and control of PDEs, 17h, M2, UJF Grenoble

Master: E. Blayo, F. Lemarié, Model coupling, 27h, M2, UJF Grenoble

Master: F. Lemarié, E. Blayo, An introduction to Schwarz domain decomposition methods, 24h, M2, Grenoble

Master: M.Nodet, Méthodes numériques, 15h, M1, UJF Grenoble

Master: M.Nodet, Méthodes inverses assimilation de données, 36h, M2, UJF Grenoble

Doctorat: E. Blayo, M. Nodet, A. Vidard, Introduction to data assimilation, 20h, University of Grenoble

Doctorat : Laurent Debreu, Formation doctorale nationale Modélisation numérique de l'océan et de l'atmosphère, 16-20 novembre 2015, Brest, France. With T. Dubos (LMD/Ecole Polytechnique, Paris), G. Rouillet (Brest University), F. Hourdin (LMD/CNRS, Paris)

E-learning

Elise Arnaud, Maëlle Nodet, Mathematics for engineer, L1, University of Grenoble,

Pedagogical resources : <http://tinyurl.com/youtube-mat126>

10.2.2. Supervision

HDR : Laurent Debreu, Modélisation numérique de l'océan, Université Grenoble Alpes, 17 décembre 2015.

PhD : Simon Nanty, Quantification des incertitudes et analyse de sensibilité pour codes de calcul à entrées fonctionnelles et dépendantes, Université Grenoble-Alpes, 15 octobre 2015, Clémentine PRIEUR, Céline Helbert

PhD in progress : Nelson Feyeux, Application du transport optimal pour l'assimilation de données images, novembre 2013, A. Vidard, M. Nodet

PhD in progress : Thomas Capelle, Calibration of LUTI models, octobre 2013, P. Sturm (EPI STEEP), A. Vidard

PhD in progress : Rémi Pellrej, Assimilation de données pour les modèles couplés, octobre 2014, A. Vidard, F. Lemarié

PhD in progress : Laurent Gilquin, Sensitivity analysis of a macroeconomic LUTI model, started in October 2013, E. Arnaud and C. Prieur

PhD in progress : Patricia Tencaliec, Approches stochastiques pour la gestion des risques environnementaux extrêmes, October 2013, Clémentine Prieur, Anne-Catherine Favre (LTHE)

PhD in progress: Mehdi-Pierre Daou, Développement d'une méthodologie de couplage multi-modèles avec changements de dimension. Validation en dynamique littorale. May 2013, E. Blayo and A. Rousseau.

PhD in progress: Charles Pelletier, Etude mathématique et numérique de la formulation du couplage océan-atmosphère dans les modèles de climat. December 2014, E. Blayo, F. Lemarié and P. Braconnot.

PhD in progress: Alexis Ropiquet, Parameter estimation for subgrid modelling, Sept.2015, C.Prieur and E. Blayo.

10.2.3. Juries

E. Blayo

- 4 May 2015 - HDR thesis of Emmanuel Witrant, University of Grenoble (president)
- 12 May 2015 - PhD thesis of Sébastien Barthélémy, University of Toulouse (reporter)
- 26 Jun 2015 - PhD thesis of Romain Casati, University of Grenoble (president)
- 30 Jun 2015 - HDR thesis of Isabelle Herlin, University Pierre et Marie Curie, Paris (examiner)
- 2 Dec 2015 - PhD thesis of Lucie Rottner, University of Toulouse (reporter)
- 17 Dec 2015 - HDR thesis of Laurent Debreu, University of Grenoble (examiner)

F. Lemarié : 4 novembre 2015 - PhD thesis of Aimie Moulin, University of Grenoble (examiner)

M. Nodet : jury de bac technologique 2015

F.-X. Le Dimet : 17 Dec 2015 - HDR thesis of Laurent Debreu, University of Grenoble (president)

10.3. Popularization

- A. Vidard has Animated the stand Inria at the exposition "Solutions - COP 21", December,9, 2015
- A. Vidard has given a Conference «Le numérique au service de l'observation et de l'anticipation des changements climatiques» at the Exposition "Solutions - COP 21", December,9, 2015
- C.Prieur has given an interview to Interstices.info https://interstices.info/jcms/p_86521/mieux-modeliser-le-climat-grace-aux-statistiques
- E. Blayo participated to a Journée numérique, at the French Senate (Paris), on Feb. 11th, 2015. http://www.senat.fr/evenement/journee_numerique_inria.html
- E. Blayo gave several outreach talks, in particular for high school students and for groups of teachers.
- M. Nodet co-organises a year-round weekly math club in two secondary schools, where pupils research open mathematical problems.
- M. Nodet organised a two-month weekly meeting at a secondary school to explain mathematical research, in particular modelling for ocean and climate.
- M. Nodet gave an outreach talk about maths and oceanic currents in a secondary school during the mathematical week 2015.
- M. Nodet wrote, with J. Ehrel, two outreach papers for Interstices about glaciology and inverse problems [32], [31].
- M. Nodet gave an outreach talk about mathematical modelling for the environment at the IREM Lille 2015 conference [33].
- Several members of the AIRSEA team have contributed to the 2015 Science Festival through an information stand entitled "Understanding oceanic and atmospheric circulations".

- Since 2010, Ch. Kazantsev is the Director of the IREM of Grenoble <http://www-irem.ujf-grenoble.fr/irem/accueil/>. The Institute is under rapid development now, joining about 50 teachers of primary and secondary schools of the Grenoble region and 15 university professors. They work together 16 times a year on the development of the teaching strategy for the educational community. In addition to this, IREM is the editor of two journals: "Grand N" destined to primary schools teachers and "Petit x" – to the secondary schools.
- Ch. Kazantsev and E. Blayo participate in the creation of "La Grange des maths" in Varcès
- Ch. Kazantsev has organized two stages of one or two days for children 14 or 15 years old during the holidays in the framework of "MathC2+", participation in these stages for one or two animations (in calculus and in modelisation), 2x2h for each animation
- A. Vidard gave an outreach talk at the Summer school "Traitement du signal et des images", Peyresq, juin 2015
- M. Nodet and Ch. Kazantsev are involved in an IREM group which aims to bring interdisciplinarity into secondary school curriculum and proposes activities for teachers.
- M. Nodet co-organised a two day training session for secondary and high school teachers, about modelling and mathematics for the newly created Maison Pour la Science Alpes Dauphiné.
- M. Nodet is involved in various events and groups related to pedagogy at university levels.

BEAGLE Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events organisation

9.1.1.1. General chair, scientific chair

- We organized the first EvoEvo workshop as a satellite meeting of the 2015 ECAL conference (<http://www.evoevo.eu>), July, York, UK (G. Beslon, C. Knibbe, co-organizers).
- Workshop “Molecule Trajectories in Cellular Spaces: promoting interactions between theoreticians and experimentalists” (<http://traece.inria.fr>), November, Lyon (H. Berry, organizer)
- Annual CNRS-INRA thematic school “EIEFB: Ecole interdisciplinaire d’échanges et de formation en biologie” (<http://ecoleporquerolles.inria.fr>), June, Villers-sur-Mer (H. Berry, co-organizer)

9.1.1.2. Member of the organizing committees

- Bis-annual CNRS thematic school “CompSysBio: Advanced Lecture Course on Computational Systems Biology” (<http://compsysbio.inria.fr>), Autrans (H. Berry, G. Beslon)
- “EvoLyon 2015: Conference Lyonnaise sur l’évolution” (<http://evolyon.universite-lyon.fr>), Lyon (G. Beslon)
- International Conference on Systems Biology, “LyonSysBio 2015” (<http://lyonsysbio2015.sciencesconf.org/?lang=en>), Lyon (G. Beslon)

9.1.2. Scientific events selection

9.1.2.1. Member of the conference program committees

- Conférence en Parallélisme, Architecture et Système “COMPASS” (<http://compas15.lifl.fr/>) Lille (J. Rouzaud-Cornabas)
- 13th European Conference on Artificial Life “ECAL 2015” (<https://www.cs.york.ac.uk/nature/ecal2015/>), York, UK (G. Beslon, C. Knibbe)
- International Conference on Data Mining (ICDM) (<http://icdm2015.stonybrook.edu>), Atlantic City, NJ, USA (C. Rigotti)
- RECOMB-Comparative Genomics, 2015 (<https://applbio.biologie.uni-frankfurt.de/recombcg2015/>), Frankfurt, Germany (E. Tannier)

9.1.2.2. Reviewer

- Euro-Par 2015, Vienna, Austria (J. Rouzaud-Cornabas)
- RECOMB-Comparative Genomics 2015 (E. Tannier)
- RECOMB-2016 (E. Tannier)

9.1.3. Journal

9.1.3.1. Member of the editorial boards

- Journal of Complex Systems, AIMS Biophysics (H. Berry)

9.1.3.2. Reviewer - Reviewing activities

In 2015, Beagle members have reviewed numerous papers for international journals, including PLoS Comput Biol, Frontiers Synaptic Neuroscience, Frontiers Computational Neuroscience, J Comput Neurosci, J Theor Biol, New J Physics, Systematic Biology, BMC Bioinformatics, IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing....

9.1.4. Invited talks

- H. Berry gave invited talks at the Quantitative BioImaging 2015 conference (Paris), the NYU Abu-Dhabi Workshop on Computational Neuroscience (Abu-Dhabi) and the Neuron-Glia Interactions Workshop of the European Institute for Theoretical Neuroscience (Paris) as well as invited seminars in the following labs / groups: Center for Mathematical Medicine and Biology (Nottingham, UK), Phlam (Lille), Laboratoire de bioenergetique fondamentale et appliquee (Grenoble) and Centre de Recherche en Neurobiologie et Neurophysiologie (Marseille).
- G. Beslon has been invited to give seminars at the Basel Biozentrum (Switzerland), at the UTH Zurich systems biology doctoral program (Switzerland), at the Evolutionary Algorithms conference (Lyon), at the BioVision days (Lyon) and at the Laboratoire de Biologie Quantitative et Computationnelle (UPMC, Paris).
- H. Soula gave an invited talk to the Workshop “Molecule Trajectories in Cellular Spaces: promoting interactions between theoreticians and experimentalists” in Lyon and an invited seminar at the Laboratoire de Recherche en Informatique (LRI), Orsay.
- E. Tannier was invited to give a series of 4 lectures at Simon Fraser University, Vancouver, Canada and gave invited talks to the "Phylogenetic Networks" conference (Singapore). He was also invited to give seminars at the Biosticker seminar (Nantes), to the G-Scop lab (Grenoble) and during the interdisciplinary meeting "evolution of genomes and languages" (Lyon).

9.1.5. Scientific expertise

- ANR call “Numerique et Societe” (C. Rigotti)
- Evaluation committee for the calls for funding “Systems Biology and cancer” of the “ITMO Cancer” (H. Berry)
- Science Steering Committee of the Rhone-Alpes Complex Systems Institute (IXXI) (<http://www.ixxi.fr>) (H. Berry)
- Scientific board of CNRS GdR MIV (Microscopie et Imagerie du Vivant, GdR 2588, <http://gdr-miv.fr>) (H. Berry)

9.1.6. Research administration

- Comite National de la Recherche Scientifique, CNRS, Section 6 (G. Beslon, member)
- Comite National de la Recherche Scientifique, CNRS, Section 51 (G. Beslon, member)
- Inria Administration council (Conseil d'Administration, E. Tannier, member)
- Inria Scientific board (Conseil scientifique, H. Berry, member)
- Inria “Parity-Equality” committee (H. Berry, member)
- Inria “Symposium committee” (E. Tannier, scientific director)
- Inria Grenoble-Rhone Alpes hiring committee for “young researchers” (CR2) (H. Berry, head of the committee)
- Inria Grenoble-Rhone Alpes Comite de Developpement Technologique (CDT) (C. Knibbe, member)
- Selection committee of section 64 at INSA de Lyon (H. Soula)
- Inria hiring committee for “senior researchers” (DR2) (H. Berry, member)
- Conseil de Laboratoire LIRIS lab (UMR 5205 CNRS) (G. Beslon, C. Knibbe, members)

9.2. Teaching - Supervision - Juries

9.2.1. Supervision

In addition to the PhD students of the group, listed above, Beagle members have been co-supervising PhD students from other groups. In 2015 E. Tannier has been co-supervising the PhD of Y. Anselmetti (Isem, Montpellier, co-supervised with Severine Berard) and M. Semeria (LBBE, Lyon, co-supervised with Laurent Gueguen). E. Tannier has also supervised P. Do Nascimento Biller’s one-year doctoral internship (Universidade Estadual de Campinas, Brazil) in Beagle.

9.2.2. Juries

9.2.2.1. PhD Juries

- A. Garnier, Univ. P & M Curie, Paris, December 2015 (H. Berry, rapporteur)
- A. Grignard, Univ. P & M Curie, Paris, Octobre 2015 (G. Beslon, rapporteur)
- N. Subramaniyam, Tampere University of Technology, Finland, December 2015 (H. Berry, rapporteur)
- L. Viraphong-Caudwell, Universite Grenoble Alpes, Octobre 2015 (G. Beslon, Rapporteur)
- Z. Yekuieii, Tel Aviv University, Israel, June 2015 (H. Soula, rapporteur)

9.2.2.2. HDR Juries

P. Redou, University of Brest, France, June 2015(H. Soula, rapporteur)

9.3. Popularization

- Eric Tannier gave a series of three lectures to the “Université populaire de Lyon”, entitled “Biocritique”

DRACULA Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events organisation

9.1.1.1. Member of the organizing committees

- Conference "LyonSysBio" (Lyon Systems Biology), Lyon (France), 18 - 20 November 2015 (<http://lyonsysbio2015.sciencesconf.org/?lang=en>). Co-organizers : Fabien Crauste and Olivier Grandrillon.
- Regular Semovi seminar series (http://www.biosyl.org/news/copy_of_semovi), 4 seminars organized in 2015. Co-organizer : Olivier Grandrillon and Fabien Crauste.
- BioSyL (<http://www.biosyl.org>) workshops organization. Co-organizer : Olivier Grandrillon.
- Equadiff conference, Lyon (France), 6-10 July 2015 (<http://equadiff2015.sciencesconf.org/>). Co-organizers : Thomas Lepoutre and Laurent Pujo-Menjouet.

9.1.2. Journal

9.1.2.1. Member of the editorial boards

- Mostafa Adimy: Journal of Nonlinear Systems and Applications (JNSA); The Scientific World Journal; Chinese Journal of Mathematics.
- Fabien Crauste: Computational and Mathematical Methods in Medicine (HPG)
- Laurent Pujo-Menjouet: Mathematical modelling natural phenomena; Frontiers Mathematics and Computers in Simulation.
- Olivier Gandrillon: BMC research Notes.

9.1.2.2. Reviewer

- Mostafa Adimy : Zeitschrift fuer Angewandte Mathematik und Physik (ZAMP); Funkcialaj Ekvacioj, Journal of Fixed Point Theory and Applications.
- Fabien Crauste : Journal of Mathematical Biology, Plos Comp Biol.
- Olivier Gandrillon : Genes, Gene, BioEssays, Nature, Journal of the Royal Society Interface, Plos Comp Biol.
- Thoms Lepoutre : Bulletin of mathematical biology, Communications in Mathematical Sciences, Networks and Heterogeneous Media, Kinetic and Related Models.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

- Licence : Phillipe Michel, Analyse appliquée, 56h, L3, Ecole Centrale de Lyon.
- Licence : Phillipe Michel, Probabilités et statistique, 30h, L3, Ecole Centrale de Lyon.
- Licence: Samuel Bernard, Algèbre linéaire et matricielle, 45h, L3, INSA Lyon.
- Licence : Laurent Pujo-Menjouet, les réels et les fonctions, 36h, L1, Université Lyon 1.
- Licence : Laurent Pujo-Menjouet, suites et séries de fonctions, 36h, L1, Université Lyon 1.
- Licence : Laurent Pujo-Menjouet, Equations Différentielles, 18h, L2, Université Lyon 1.
- Licence : Laurent Pujo-Menjouet, Projet de l'étudiant de Licence, 14h, L2, Université Lyon 1.
- Licence : Laurent Pujo-Menjouet, Biomathématiques et modélisation, 10h, L3, Université Lyon 1.

- Licence : Laurent Pujo-Menjouet, Equations différentielles et aux dérivées partielles, 36h, L3, Université Lyon 1.
- Licence: Léon Matar Tine, Techniques mathématiques de base (TMB), 42h, L1, Université Lyon 1.
- Licence: Léon Matar Tine, Maths PMI-Analyse, 42h, L2, Université Lyon 1.
- Licence: Léon Matar Tine, Analyse Numérique, 36h, L3, Université Lyon 1.
- Master : Phillipe Michel, Algorithmes pour la décision en entreprise, 15h, M2, Ecole Centrale de Lyon.
- Master : Phillipe Michel, Méthodes variationnelles pour les EDP, 35h, M2, ECL, Ecole Centrale de Lyon.
- Master : Phillipe Michel, Systèmes embarqués collaboratifs, 14h, M1, Ecole Centrale de Lyon.
- Master: Fabien Crauste, Dynamique des populations cellulaires, 15h, M2, Université Lyon 1.
- Master: Samuel Bernard, Dynamique des populations cellulaires, 20h, M2, Université Lyon 1.
- Master : Laurent Pujo-Menjouet, Modélisation en biologie et médecine, 8h, M2, Université Lyon 1.
- Master : Laurent Pujo-Menjouet, Gestion de projet en ingénierie mathématique, 3h, M1, Université Lyon 1.
- Master : Laurent Pujo-Menjouet, Systèmes dynamiques, 66h, M1, Université Lyon 1.
- Master : Laurent Pujo-Menjouet, Projet tutoré en Mathématiques, 3h, M2, Université Lyon 1.
- Master: Léon Matar Tine, Dynamique des protéine, 18h, M2, Université Lyon 1.
- Master: Thomas Lepoutre, Dynamique des protéine, 18h, M2, Université Lyon 1.

9.2.2. Supervision

- PhD in progress : Marine Jacquier, Contribution à l'étude de modèles à retards modélisant l'impact physiologique du comportement de prise alimentaire, Université Lyon 1, October 2012, Mostafa Adimy and Fabien Crauste.
- PhD in progress : Abdennasser Chekroun, Équations différentielles et aux différences à retard pour des modèles de dynamique des cellules souches hématopoïétiques, Université Lyon 1, October 2012, Mostafa Adimy.
- PhD in progress : Loïc Barbarroux, modélisation mathématique de la réponse immunitaire chez un individu en vue d'optimiser des stratégies de vaccination, Université de Lyon 1, October 2013, Mostafa Adimy and Phillipe Michel.
- PhD in progress : Raouf El Cheikh, Multiscale modelling of the interaction between the cell cycle and the circadian clock, Université Lyon 1, October 2011, Samuel Bernard and Vitaly Volpert.
- PhD in progress : Apollos Besse, The role of tumor-immune interaction in combined treatments for chronic myeloid leukemia, Université Lyon 1, October 2014, Samuel Bernard and Thomas Lepoutre.
- PhD in progress : Alvaro Mateso Gonzales, Models for anomalous diffusion, ENS Lyon, October 2014, Thomas Lepoutre, Hugues Berry and Vincent Calvez (Alvaro is not member of Dracula team).
- PhD in progress : Flavien Duparc, Etude d'un modèle mathématiques de régulation de l'hémoglobine chez les patients dialysés, Université Lyon 1, October 2014, Mostafa Adimy and Laurent Pujo-Menjouet.
- PhD in progress : Loïs Boullu, Modélisation de la mégacaryopoïèse et applications aux maladies liées à la production des plaquettes, Université Lyon 1, October 2014, Laurent Pujo-Menjouet and Jacques Bélair (co-tutelle avec l'Université de Montréal).
- PhD in progress : Simon Girel, Contribution à la modélisation multi-échelles de la réponse immunitaire : Analyse d'équations aux dérivées partielles et identifiabilité paramétrique, Université de Lyon (LabEx), Septembre 2015, Fabien Crauste

- PhD in progress : Ulysse Herbach, Modèles graphiques probabilistes pour l'inférence de réseaux de gènes, Université Lyon 1, October 2015, Olivier Gandrillon, Thibault Espinasse (ICJ) and Anne-Laure Fougères (ICJ).
- PhD in progress : Arnaud Bonnafoux, Vers une inférence automatique de réseaux de gènes dynamiques à partir de « mégadonnées » temporelles discrètes acquises sur cellules uniques, Université Lyon 1, November 2015, Olivier Gandrillon (CIFRE with the COSMO company).

9.2.3. Juries

- Fabien Crauste was reviewer and member of the PhD of Ana Jarne Munoz (Université de Bordeaux), Modeling the effect of exogenous Interleukin 7 in HIV patients under antiretroviral therapy with low immune reconstitution.
- Mostafa Adimy was reviewer and member of the PhD of Patrice Ndambomve (University of Abuja, Nigeria), Contributions to control theory of nonlinear systems and split feasibility problems.
- Mostafa Adimy was reviewer of the PhD of Abdelkarim Nidal Akdad (University of Marrakesh, Morocco), Contribution to quantitative and qualitative analysis for neutral partial functional differential equations - Existence and regularity.

9.3. Popularization

- Fabien Crauste : conference "grippe saisonnière, épidémie, pandémie : quel apport des mathématiques ?" à l'Université Ouverte, Lyon, 20 January 2015.
- Thomas Lepoutre is one of the organizer of Mathalyon (Mathematical exhibitions in highschool with 4 researchers, 20 days of intervention in 2015).

ERABLE Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events organisation

9.1.1.1. General chair, scientific chair

- Pierluigi Crescenzi was co-chair of the 16th Italian Conference on Theoretical Computer Science, 9-11 September 2015, Florence, Italy.
- Alberto Marchetti-Spaccamela is member of the Steering committee of WG, Workshop on Graph Theoretic Concepts in Computer Science, and of ATMOS, Workshop on Algorithmic Approaches for Transportation Modeling, Optimization, and Systems. He was Chair of the 12th Workshop on Models and Algorithms for Planning and Scheduling Problems (MAPSP), 8-12 June 2015, La Roche-en-Ardenne, Belgium.
- Marie-France Sagot is since 2010 member and since 2014 Chair of the Steering Committee of the International Conference *LATIN* (<http://www.latintcs.org/>). She is member of the Steering Committee of the *European Conference on Computational Biology (ECCB)* since 2002 and of the International Symposium on Bioinformatics Research and Applications (ISBRA) since 2008.

9.1.1.2. Member of the organising committees

- Leen Stougie was co-organiser with Nikhil Bansal (TU Eindhoven) and Sem Borst (TU Eindhoven) of the *EURANDOM/Networks* workshop Scheduling under Uncertainty, 1-5 June, 2015, EURANDOM, Eindhoven, The Netherlands.
- Fabrice Vavre organised the symposium "Evolution and ecology of trait loss and dependency" at the 15th Congress of the European Society for Evolutionary Biology, Lausanne, August 9-14, 2015 in collaboration with J. Ellers (Amsterdam).

9.1.2. Scientific events selection

9.1.2.1. Member of the conference program committee

- Pierluigi Crescenzi was a member of the program committee for the following international conferences in 2015: 30th IEEE International Parallel & Distributed Processing Symposium (IPDPS), 8th International Conference on Algorithms and Complexity (CIAC).
- Roberto Grossi was a member of the program committee for the following international conferences in 2015: 26th Annual Symposium on Combinatorial Pattern Matching (CPM), 26th International Workshop on Combinatorial Algorithms (IWOCA), ACM-SIAM Symposium on Discrete Algorithms (SODA).
- Alberto Marchetti-Spaccamela was a member of the program committee for the following international conferences in 2015: 40th International Symposium on Mathematical Foundations of Computer Science (MFCS), 14th International Symposium on Experimental Algorithms (SEA).
- Nadia Pisanti was a member of the program committee for the following international conferences in 2015: 11th International Symposium on Bioinformatics Research and Applications (ISBRA), 22nd International Symposium on String Processing and Information REtrieval (SPIRE), 4th International Symposium on Network Enabled Health Informatics, Biomedicine and Bioinformatics (Hi BI BI), 16th Italian Conference on Theoretical Computer Science (ICTCS), 15th Workshop on Algorithms in Bioinformatics (WABI), IEEE Conference on Information Reuse and Integration in Health Informatics (IEEE IRI-HI), 5th IEEE International Conference on Computational Advances in Bio and Medical Sciences (ICCABS).

- Marie-France Sagot was a member of the program committee for the following international conferences in 2015: 8th International Conference on Algorithms and Complexity (CIAC), 26th Annual Symposium on Combinatorial Pattern Matching (CPM), 17th Portuguese Conference on Artificial Intelligence (EPIA), 23rd Annual European Symposium on Algorithms (ESA), 23rd Annual International Conference on Intelligent Systems in Molecular Biology (ISMB), 40th International Symposium on Mathematical Foundations of Computer Science (MFCS), The Prague Stringology Conference 2015, 19th Annual International Conference on Research in Computational Molecular Biology (RECOMB), 13th RECOMB Satellite Workshop on Comparative Genomics (RECOMB-CG), The 15th Workshop of Algorithms in Bioinformatics (WABI).
- Blerina Sinimeri was a member of the program committee of the 10th International Workshop on Algorithms and Computation (WALCOM).

9.1.2.2. Reviewer

Besides the above, various other members of ERABLE have been reviewer for other international conferences such as FAW, IWOCA, and WADS.

9.1.3. Journal

9.1.3.1. Member of the editorial board

- Pierluigi Crescenzi is member of the Editorial Board of *Journal of Computer and Systems Science* and *Electronic Notes on Theoretical Computer Science*.
- Roberto Grossi is member of the Editorial Board of *Theory of Computing Systems (TOCS)* and *RAIRO – Theoretical Informatics and Applications – Informatique Théorique et Applications*.
- Alberto Marchetti-Spaccamela is member of the Editorial Board of *Theoretical Computer Science* and *Transaction on Algorithms Engineering*.
- Nadia Pisanti is since 2012 member of Editorial Board of *International Journal of Computer Science and Application (IJCSA)*.
- Marie-France Sagot is member of the Editorial Board of *Lecture Notes in Bioinformatics* (subseries of *Lectures Notes in Computer Science*), *Journal of Discrete Algorithms*, *BMC Bioinformatics*, and *BMC Algorithms for Molecular Biology*.
- Leen Stougie is member of the Editorial Board of *Transactions on Algorithms Engineering* since 2010, *Surveys in Operations Research and Management Science* since 2011, and *Journal of Industrial and Management Optimization* since 2013.

Cristina Vieira is Executive Editor of *Gene*, and since 2014 member of the Editorial Board of *Mobile DNA*.

9.1.3.2. Reviewer for Journals

Members of ERABLE have reviewed papers for the following journals: *Theoretical Computer Science*, *Algorithmica*, *IEEE/ACM Transactions in Computational Biology and Bioinformatics (TCBB)*, *Algorithms for Molecular Biology*, *Scientific Reports*, *Journal of Computational Biology*, *BMC Bioinformatics*, *Computing and Informatics*, *BMC Evolutionary Biology*, *Genetica*, *Gene*, *Genome Biology and Evolution*, *Genetical Research*, *Genome Research*, *Molecular Biology and Evolution*, *Insect Biochemistry and Molecular Biology*, *PLoS Genetics*, *Mutation research*, *mBio*, *Frontiers in Microbiology*, *Infection*, *genetics and evolution*, *PLoS Biology*.

9.1.4. Invited talks

Pierluigi Crescenzi gave three seminars (University of Padova; FSMP, Paris; Istituto Stensen, Florence); Leandro Ishi Soares de Lima gave a talk at the SeqBio Meeting in Paris; Gunnar Klau gave four invited lectures (CS Colloquium of the Heinrich Heine University Düsseldorf, Germany; Bertinoro Computational Biology 2015, Italy; Amsterdam Data Science Seminar, The Netherlands; Integrated Systems Biology Symposium at Maastricht, The Netherlands); Vincent Lacroix made two invited presentations in the context of training meetings (Formation Bioinformatique pour les NGS Montpellier; Formation FC3Bio Lyon); Alberto

Marchetti-Spaccamela gave two seminars, one at TU Berlin, Germany, and the other at Laboratorio Nazionale CINI-InfoLife, Certosa di Calci, Italy; Nadia Pisanti gave four seminars (IMT Lucca; Laboratorio Nazionale CINI-InfoLife, Certosa di Calci, Italy; Glaxo-Novartis, Siena, Italy; Internet Festival 2015, Pisa, Italy); Blerina Sinimeri gave three seminars (LIRMM, Montpellier, France; Tor Vergata University of Rome, Italy; Sapienza University of Rome, Italy); Leen Stougje gave an invited plenary lecture at the MOABI-workshop in Paris; Fabrice Vavre gave two invited talks (Symposium Communication between genomes, and Symposium Mathematical modeling and new methods for dengue control, Paris in both cases) and one seminar (University of Groningen, The Netherlands).

9.1.5. Leadership within the scientific community

Alberto Marchetti-Spaccamela is Member of the Council of EATCS, the European Association for Theoretical Computer Science.

Leen Stougje is Chairman of the Dutch Network on the Mathematics of Operations Research (Landelijk Netwerk Mathematische Besliskunde (LNMB)) and member of the Board of the research school ABRI-VU, Amsterdam.

Cristina Vieira is director of the GDRE “Comparative genomics” since the latter was renewed in 2010.

Marie-France Sagot and Fabrice Vavre are members of the Steering Committee of the LabEx Ecofect (<http://ecofect.universite-lyon.fr/>).

9.1.6. Scientific expertise

Marie-France Sagot is member of the Advisory Board of the CWI, Amsterdam, The Netherlands, and chair of the “Commissions Scientifiques Spécialisées” (CSS) of the INRA for the Department of Applied Mathematics and Computer Science. She was also a Panel Member for the ERC.

Fabrice Vavre is member of the Section 29 of the Comité National de la Recherche Scientifique (CoNRS).

9.1.7. Research administration

Hubert Charles is director of the Biosciences Department of the Insa-Lyon.

Alberto Marchetti-Spaccamela is Director of the Department of Computer, Control, and Management Engineering Antonio Ruberti at Sapienza University of Rome, Italy.

Nadia Pisanti is since 2013 member of the Board of the Regional PhD School of Computer Science at the University of Pisa, Italy; she was in 2015 member of the hiring committee of 2 Researcher positions at the University of Pisa.

Marie-France Sagot was until December 2015 member of the Scientific Advisory Board (“Conseil Scientifique (COS)”) for the Inria Grenoble Rhône-Alpes Research Center.

Alain Viari is since 2012 Deputy Scientific Director at Inria responsible for the domain “Digital Health, Biology and Earth”. He thus represents Inria at several national instances related to Life Sciences, Health and Environment.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Most of the members of ERABLE are Assistant / Associate or Full Professors and as such have a heavy load of teaching. Depending on the country, this represents between 150 to 192 hours in front of a class plus the additional work of preparing the courses and exams, and of correcting the latter. Many are also responsible for some of the university courses at the undergraduate or graduate levels.

More in detail:

- In France:
 - Hubert Charles is responsible for the Master of Modelling and Bioinformatics (BIM) at the Insa of Lyon. He teaches 192 hours per year in statistics and biology.
 - Pierluigi Crescenzi taught 120h (72h of Programming in Java for the undergraduate program in Computer Science and 48 of Distributed Algorithms for the Master in Computer Science) at the University of Florence.
 - Vincent Lacroix is responsible for several courses both at the University (L2: Bioinformatics, L3: Advanced Bioinformatics) and at the Insa (M1: Gene Expression, M2: Introduction to Bioinformatics for Biochemists). He teaches 192 hours per year in bioinformatics and statistics.
 - Arnaud Mary taught 110 hours in 2015 as a recently recruited personnel of the University of Lyon (L1: mathematics; L2: bioinformatics; M1: data analysis; M1: computer science, as well as 8h at the M2 in Computer Science at the ENS Lyon).
 - Cristina Vieira is responsible for the Evolutionary Genetics and Genomics academic career of the Master Ecosciences-Microbiology. She was awarded an IUF (Institut Universitaire de France) distinction and teaches genetics 64 hours per year at the University and ENS Lyon.
- In Italy:
 - Alberto Marchetti-Spaccamela taught 60 hours of Computing Models (undergraduate class) and 30 hours of Privacy in the electronic society (master class) at Sapienza University of Rome.
 - Nadia Pisanti taught 72h (24h of Programming in C for the undergraduate program in Computer Science and 42 of Algorithms for Bioinformatics for the Master in Computer Science) at the University of Pisa.
- In The Netherlands:
 - Gunnar Klau taught 40h (BSc course in Algorithm Engineering) at the Free University of Amsterdam, as well as one day of a two-day summer school for PhD students and postdocs on Biological Network Analysis at Free University Medical Center Amsterdam.

Inria or CNRS Junior and senior researchers as well as PhD students and postdocs are also involved in teaching. Notably Alice Julien-Laferrière (PhD student) taught 80 hours of Applied Mathematics and Bioinformatics at the Department of Biology (undergraduate students); H el ene Lopez-Maestre (PhD student) and Laura Urbini (PhD student) taught each 64 hours of Mathematics and Statistics at the Department of Biology (undergraduate students); Marie-France Sagot (Senior Inria Researcher) taught 6 hours at the Master 2 in Computer Science at the ENS Lyon; Blerina Sinimeri (Junior Inria Researcher) taught 8h in Discrete Mathematics at the Master of Modelling and Bioinformatics (BIM), INSA, and Master 1 MIV, University Lyon 1, as well as 10h at the Master 2 in Computer Science at the ENS Lyon; Fabrice Vavre taught 25h on symbiosis (L3, M1, M2, University Lyon 1, ENS Lyon, University of Poitiers).

9.2.2. Supervision

The following are the PhDs defended in ERABLE in 2015.

- Sandro Andreotti, FU Berlin, February 2015, supervisor: G. Klau.
- Mohammed El-Kebir, VU University Amsterdam, October 2015, supervisor: G. Klau.
- Mariana Galv o Ferrarini, University of Lyon 1, December 2015, supervisors: M.-F. Sagot and A. Zaha.
- Nela Lekic, University of Maastricht, December 2015, supervisor: L. Stougie, R. Peeters, S. Kelk.

9.2.3. Juries

The following are the PhD or HDR juries to which members of ERABLE participated in 2015.

- Gunnar Klau: Reviewer of the PhDs of Timo Maarleveld, VU Amsterdam, The Netherlands; Kasper Dinkla, TU Eindhoven, The Netherlands; Martina Summer-Kutmon, Maastricht University, The Netherlands; Daniel Taliun, University of Bozen, Italy.
- Nadia Pisanti: Reviewer of the PhD of Michele Schimd, University of Padova, Italy.
- Leen Stougie: Member of the PhD committee of Ward Romeijnders, University of Groningen, The Netherlands; Mohammed El-Bekir, Free University of Amsterdam, The Netherlands.
- Fabrice Vavre: Reviewer of the PhDs of S. Gerritsma, Groningen University, The Netherlands, and Z.S. Wong, University of Queensland, Australia; member of the PhD committee of R. Stalinski, University of Grenoble Alpes, France; reviewer of the HDR of O. Kaltz, University of Montpellier 2, France; member of the HDR committee of F. Dedeine, University of Tours, France.
- Alain Viari: Reviewer of the HDR of Sarah Cohen-Boulakia and member of the HDR committee of Julie Bernauer, both University of Paris 11, France.

9.3. Popularisation

Laura Urbini and Blerina Sinimeri participated at the Fête de la Science of Inria. The title of the workshop they presented was: “Du passé au présent : explorons l’évolution”. More information may be found at this address: <http://www.inria.fr/centre/grenoble/actualites/fete-de-la-science-les-coulisses-du-numerique>.

Fabrice Vavre participated to the “La foire aux savoirs”, Les Subsistances, Lyon on the topic of “Le savoir-faire de nos bactéries”, and to the “Université Ouverte” of the University Lyon 1 on the topic of “Quoi de neuf sur nos relations avec les bactéries”?

IBIS Project-Team

9. Dissemination

9.1. Research

9.1.1. Scientific events: organizing committees

9.1.1.1. Member of organizing committees

IBIS members	Conference, workshop, school	Date
Hidde de Jong, Johannes Geiselmann	BEEsy Conference on Perspectives in Environmental and Systems Biology, Grenoble	April 2015
Hidde de Jong	CompSysBio: Advanced Lecture Course on Computational Systems Biology, Aussois	April 2015
Delphine Ropers	Séminaires de l'IXXI, Grenoble	2015
Delphine Ropers	Séminaire de Modélisation du Vivant (SeMoVi), Lyon and Grenoble	2015

9.1.2. Scientific events: selection committees

9.1.2.1. Chair of conference program committees

IBIS member	Conference, workshop, school	Role
Eugenio Cinquemani	European Control Conference (ECC) 2015 and 2016	Associate editor
Hidde de Jong	International Conference on Intelligent Systems in Molecular Biology (ISMB) jointly held with European Conference on Computational Biology (ECCB) 2015 and ISMB 2016	Area chair

9.1.2.2. Member of conference program committees

IBIS member	Conference, workshop, program
Hidde de Jong	CMSB 2015, HSB 2015, FOSBE 2016

9.1.3. Journals

9.1.3.1. Member of editorial boards

IBIS member	Journal
Johannes Geiselmann	Frontiers in Microbiology (review editor)
Hidde de Jong	Journal of Mathematical Biology
Hidde de Jong	Biosystems
Hidde de Jong	ACM/IEEE Transactions on Computational Biology and Bioinformatics

9.1.4. Scientific evaluation and expertise

IBIS member	Organism	Role
Johannes Geiselmann	BGene	Member scientific advisory board
Johannes Geiselmann	ANR	Member of selection committee
Johannes Geiselmann	INRA	Member of scientific advisory committee Microbiology Microbiologie, Adaptation, Pathogénie
Johannes Geiselmann	UMR5240 CNRS-UCBL-INSA-BayerCropScience	Member scientific council
Johannes Geiselmann	ARC1, Rhône-Alpes region	Member scientific committee
Hidde de Jong	International Human Frontier Science Program (HFSP)	Member selection and review committees
Hidde de Jong	Microbiology and Food Chain Department, Inra	Member scientific council
Hidde de Jong	BGene	Member scientific advisory board
Delphine Ropers	IXXI, Complex Systems Institute in Lyon	Member scientific board

9.1.5. Recruitment committees

IBIS member	Organism	Recruitment
Johannes Geiselmann	INSA de Lyon	Professor
Delphine Ropers	Inria	Chargés de recherche (jury d'admission)
Delphine Ropers	INSA de Lyon	Assistant professor

9.1.6. Invited talks**Eugenio Cinquemani**

Title	Event and location	Date
Reconstruction of promoter activity statistics from reporter protein population snapshot data	Presentation at 54th IEEE Conference on Decision and Control (CDC), Osaka, Japan	December 2015
Reconstructing statistics of promoter switching from reporter protein population snapshot data	Presentation at 4th International Workshop on Hybrid Systems Biology (HSB), Madrid, Spain	September 2015

Hidde de Jong

Title	Event and location	Date
Global physiological effects and the analysis of gene regulatory networks	Invited talk at Lorentz center workshop Integrated cell models, Leiden, the Netherlands	January 2015
Modeling gene regulatory networks by means of piecewise-linear models	Invited talk during Spring school on Sliding mode control: theory and applications, Aussois	June 2015
Integrated models of the cell: metabolism, gene expression, signalling	Tutorial at CompSysBio: Advanced Lecture Course on Computational Systems Biology, Aussois	March 2015
Analysis and control of bacterial regulatory networks	Seminar Centre for Research and Interdisciplinarity (CRI), INSERM, Paris, with Johannes Geiselmann and Delphine Ropers	June 2015
Accounting for global physiological effects in the analysis of gene regulatory networks	Seminar BrisSynBio, University of Bristol, UK	February 2015
Global physiological effects in the analysis of gene regulatory networks	Invited talk ETH Systems biology student retreat, Reichenau, Germany	September 2015

Johannes Geiselmann

Title	Event and location	Date
Analysis and control of bacterial regulatory networks	Seminar Centre for Research and Interdisciplinarity (CRI), INSERM, Paris, with Hidde de Jong and Delphine Ropers	June 2015
A synthetic growth switch and its biotechnological application	Presentation at BioSynSys Conference, Paris	September 2015
Control of bacterial growth	Seminar ENS Cachan	December 2015

Nils Giordano

Title	Event and location	Date
Understanding regulatory strategies for dynamical resource allocation in microorganisms	Presentation at CompSysBio (Advanced Lecture Course on Computational Systems Biology), Aussois	April 2015
Dynamical allocation of cellular resources as an optimal control problem: Novel insights into microbial growth strategies	Invited presentation at Séminaire de Modélisation du Vivant (SeMoVi), Grenoble	October 2015
Dynamical allocation of cellular resources as an optimal control problem: Novel insights into microbial growth strategies	Poster at Journée Annuelle des Doctorants de l'Ecole Doctorale CSV, Grenoble	October 2015

Stéphane Lacour

Title	Event and location	Date
Characterization of the Escherichia coli sigmaS core regulon by Chromatin Immunoprecipitation-sequencing (ChIP-seq) analysis: regulation of ncRNA by the alternative sigmaS factor	Regulating with RNA in Bacteria and Archaea Conference, Cancun, Mexico	December 2015

Delphine Ropers

Title	Event and location	Date
Analysis and control of bacterial regulatory networks	Seminar Centre for Research and Interdisciplinarity (CRI), INSERM, Paris, with Hidde de Jong and Johannes Geiselmann	June 2015
Adaptation of E. coli growth to environmental cues: global control of gene expression and post-transcriptional regulation	CEA Grenoble	November 2015

9.1.7. Research administration

IBIS member	Committee	Role
Eugenio Cinquemani	Inria Grenoble - Rhône-Alpes	Member Commission des Emplois Scientifiques
Eugenio Cinquemani	Comité des Utilisateurs des Moyens Informatiques (CUMI), Inria Grenoble - Rhône-Alpes	Member
Johannes Geiselmann	Department of Biology, Université Joseph Fourier	Member scientific council
Hidde de Jong	Grenoble - Rhône-Alpes research centre, Inria	Member scientific council
Hidde de Jong	Conseil d'Orientation Scientifique et Technique (COST), Inria	Member working group on International Relations
Delphine Ropers	Référente chercheurs, Inria Grenoble - Rhône-Alpes	
Delphine Ropers	Commission de Formation Permanente, Inria Grenoble - Rhône-Alpes	Member
Delphine Ropers	Inria	Member of Commission d'évaluation

9.2. Teaching - Supervision - Committees**9.2.1. Teaching**

Four members of the IBIS team are either full professor, associate professor or assistant professor at the Université Grenoble Alpes. They therefore have a full teaching service (at least 192 hours per year) and administrative duties related to the organization and evaluation of the university course programs on all levels (from BSc to PhD). Besides the full-time academic staff in IBIS, the following people have contributed to courses last year.

Eugenio Cinquemani

Master: Identification of dynamical models of genetic networks, M2, BIM, INSA de Lyon (4 h)

Master: Statistics for biologists, M1, Master Approches Interdisciplinaires du Vivant, CRI/Université Paris Descartes (24 h)

Master: Modelling and identification of metabolic networks, M1, Phelma, INP Grenoble (4 h)

Hidde de Jong

Master: Modeling and simulation of gene regulatory networks, M2, BIM, INSA de Lyon (20 h)

Master: Integrated models of the cell: metabolism, gene expression, signalling, with Nils Giordano, M2, ENS Paris (8 h)

Nils Giordano

Master: Integrated models of the cell: metabolism, gene expression, signalling, with Hidde de Jong, M2, ENS Paris (8 h)

Master: Génétique des populations et biologie de la conservation, M1, Université Grenoble Alpes (6 h)

Bachelor: La bio-informatique : de l'analyse du génome à la modélisation, L2, Université Grenoble Alpes (24 h)

Bachelor: Génétique prokaryote, L2, Université Grenoble Alpes (40 h)

Bachelor: Génétique des populations, L2-L3, Université Grenoble Alpes (27 h)

Delphine Ropers

Master: Modelling in systems biology, M1, Phelma, INP Grenoble (16 h)

Master: Modeling and simulation of genetic regulatory networks, M1, Université Grenoble Alpes (7.5 h)

Master: Modeling and simulation of genetic regulatory networks, M2, INSA de Toulouse (5 h)

François Rechenmann

E-learning: MOOC Bioinformatics: Genomes and Algorithms (<http://www.inria.fr/actualite/actualites-inria/mooc-bioinformatique-genomes-et-algorithmes>)

9.2.2. Supervision

PhD: **Manon Morin**, Rôle du régulateur post-transcriptionnel CSR dans l'adaptation métabolique de la bactérie modèle *Escherichia coli*, November 2015. Supervisors: Muriel Coccagn-Bousquet (INRA) and Delphine Ropers

PhD: **Stéphane Pinhal**, Adaptation d'*E. coli* à la croissance sur acétate : une approche pluridisciplinaire, Université Grenoble Alpes, March 2015. Supervisors: Johannes Geiselmann, Delphine Ropers, and Hidde de Jong

PhD: **Valentin Zulkower**, Etude de la dynamique des mécanismes de la répression catabolique : des modèles mathématiques aux données expérimentales, Université Grenoble Alpes, March 2015. Supervisors: Hidde de Jong, Johannes Geiselmann, and Delphine Ropers

PhD in progress: **Stefano Casagrande**, Analysis and control of cell growth models. Supervisors: Jean-Luc Gouzé (BIOCORE) and Delphine Ropers

PhD in progress: **Nils Giordano**, Régulation de la croissance chez *Escherichia coli* : étude théorique et expérimentale à l'aide de modèles coûts-bénéfices. Supervisors: Hidde de Jong and Johannes Geiselmann

PhD in progress: **Bernard Chielli Ponce de Leon**, Stochasticity of gene expression in strains of *E. coli* with a controlled growth rate and number of chromosomes. Supervisors: Irina Mihalcescu (Université Grenoble Alpes) and Johannes Geiselmann

9.2.3. PhD thesis committees, PhD advisory committees, and habilitation committees**PhD thesis committees**

IBIS member	Role	PhD student	University	Date
Johannes Geiselmann	Membre	Stéphane Pinhal	Université Grenoble Alpes	March 2015
Johannes Geiselmann	Membre	Valentin Zulkower	Université Grenoble Alpes	March 2015
Johannes Geiselmann	Rapporteur	Marie Carquet	Université Paul Sabatier, Toulouse	March 2015
Johannes Geiselmann	Membre	Marie-Cecilia Duvernoy	Université Grenoble Alpes	November 2015
Johannes Geiselmann	Membre	Christopher Swale	Université Paul Grenoble Alpes	November 2015
Johannes Geiselmann	Rapporteur	Aleksandra Delplanque	Université Paris-Saclay	December 2015
Hidde de Jong	Rapporteur	Thomas Todd	University of Bristol, UK	February 2015
Hidde de Jong	Rapporteur	Thomas Duigou	Université Paris Sud	May 2015
Hidde de Jong	Rapporteur	Abhishekh Gupta	Tampere University of Technology, Finland	June 2015
Hidde de Jong	Président	Adrien Richard	Université Paris Descartes	December 2015
Hidde de Jong	Invité	Stéphane Pinhal	Université Grenoble Alpes	March 2015
Hidde de Jong	Membre	Valentin Zulkower	Université Grenoble Alpes	March 2015
Stéphan Lacour	Examineur	Xuejiao Jiang	INSA de Lyon	September 2015
Delphine Ropers	Membre	Stéphane Pinhal	Université Grenoble Alpes	March 2015
Delphine Ropers	Membre	Valentin Zulkower	Université Grenoble Alpes	March 2015
Delphine Ropers	Examineur	Ismail Belgacem	Université de Nice-Sophia Antipolis	March 2015
Delphine Ropers	Membre	Manon Morin	Université de Toulouse	November 2015

habilitation (HDR) committees

IBIS member	Role	PhD student	University	Date
Johannes Geiselmann	Membre	Gilles Curien	Université Grenoble Alpes	February 2015

PhD advisory committees

IBIS member	PhD student	University
Eugenio Cinquemani	Artemis Llamosi	Université Paris Descartes
Johannes Geiselmann	Jean-Baptiste Lugagne	Université Paris Descartes
Stéphan Lacour	Alexandre Duprey	INSA de Lyon
Delphine Ropers	Alice Julien-Laferrière	Université de Lyon
Delphine Ropers	Martin Wannagat	Université de Lyon

9.2.4. Teaching administration

Yves Markowicz is director of the BSc department at Université Joseph Fourier.

Michel Page is coordinator of the master Systèmes d'information et d'organisation at the Institut d'Administration des Entreprises (IAE), Université Grenoble Alpes.

Delphine Ropers organizes a module on the mathematical modeling of biological systems at PHELMA, INP Grenoble.

Hidde de Jong organizes with Daniel Kahn a module on the modeling of genetic and metabolic networks at INSA de Lyon.

NUMED Project-Team

7. Dissemination

7.1. Promoting Scientific Activities

7.1.1. Scientific events organisation

7.1.1.1. General chair, scientific chair

Emmanuel Grenier: scientific chair: conference on tumor modeling, Marseille, december 2015.

7.1.1.2. Member of the organizing committees

- Vincent Calvez and Paul Vigneaux: Co-organizers of the maths seminar (since September 2008) Modelling, PDE and Scientific Computing, joint between Institut Camille Jordan and UMPA.
- Alvararo Mateos Gonzalez, Nils Caillerie: PhD student seminar (Lyon I - ENSL).

7.1.2. Scientific events selection

7.1.2.1. Reviewer

Vincent Calvez is reviewever for the Deutsche Forschungsgemeinschaft (DFG).

7.1.3. Journal

7.1.3.1. Member of the editorial boards

Vincent Calvez: Journal of Mathematical Biology (Springer)

7.1.3.2. Reviewer - Reviewing activities

- Vincent Calvez is reviewer for Comm. Part. Diff. Eq. (CPDE), J. Comp. Phys., J. Funct. Anal., J. Math. Biol., Nonlinearity, Duke Math. J.
- Paul Vigneaux is reviewer for Journal of Computational Physics, Elsevier ; Journal of Scientific Computing, Springer ; ESAIM: M2AN, Mathematical Modelling and Numerical Analysis ; International Journal for Numerical Methods in Fluids, Wiley ; Computers & Fluids international journal, Elsevier ; ZAMP, Springer (Zeitschrift fuer Angewandte Mathematik und Physik – J. of Appl. Math. and Physics) ; Biomicrofluidics American Institute of Physics

7.1.4. Invited talks

- Alvaro Mateos Gonzalez: Colloque Interactions 2015 (Grenoble)
- Thibault Bourgeron: Journées EDP Rhône Alpes Auverge, Clermont-Ferrand, november 2015
- Thibault Bourgeron: Modelling Seminar in Biology, ENS Lyon, october 2015
- Paul Vigneaux: CEMRACS 2015 "Coupling Multi-Physics Models involving Fluids". Small scale fluid dynamics, interfaces and numerics. PhD lecture at the 20th CEMRACS Summer School. July 20 - August 28, 2015. CIRM, Marseille.
- Paul Vigneaux: International Workshop on Intracranial Tumors Modeling. Bordeaux, France. September 21-22, 2015. Invited speaker.
- Paul Vigneaux: Applied Analysis Seminar, LAGA, Paris 13 University, april 2015.

7.1.5. Research administration

Paul Vigneaux is a member of the Board of UMPA (since October 2009), of the Board of the Numerical Modelling Center of Lyon (PSMN), representing UMPA (since September 2008)

7.2. Teaching - Supervision - Juries

7.2.1. Teaching

- Alvaro Mateos Gonzalez at ENS Lyon (PDEs, introduction to Latex, oral exams)
- Paul Vigneaux at ENS Lyon: Agrégation, L3 (numerical methods), M2 (Level set methods)
- Paul Vigneaux is member of the Board of MILYON, the Laboratory of Excellence (Labex) in Mathematics of Lyon (Since September 2011). This Labex aims at federating international research, higher education and society activities. In charge of evaluation and grant attribution for foreign students for M1, M2 and PhD in Lyon, since 2011.
- Paul Vigneaux Membre du Conseil du Département de mathématiques, ENS de Lyon (Janvier 2010 - aujourd'hui).
Responsable c2i2e pour les mathématiques, ENS de Lyon (Janvier 2011 - aujourd'hui).
- Emmanuel Grenier at ENS Lyon: L3 (Topology, PDE) and Agrégation.

7.2.2. Supervision

- Vincent Calvez: Alvaro Mateos Gonzalez, Nils Caillerie
- Paul Vigneaux: Arthur Marly
- Emmanuel Grenier: Edouard Ollier

7.2.3. Juries

- Vincent Calvez: PhD juries of Ariane Trescases (ENS Cachan) and Claire Guerrier (ENS Ulm)
- Vincent Calvez: assistant professor juries: Ecole Centrale Marseille, Ceremade (Dauphine)

7.3. Popularization

- Paul Vigneaux is a member of the board of "Images des Maths", a pedagogic website of CNRS.
- Vincent Valvez is coordinator of Math à Lyon, a monthly two-days mathematical exhibition in public highschoools.

STEPP Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events organisation

9.1.1.1. General chair, scientific chair

Peter Sturm co-chaired, together with François Sillion, the program committee of the annual edition of the Inria Science Days, held in Nancy.

9.1.2. Scientific events selection

9.1.2.1. Member of the conference program committees

Peter Sturm was a member of the program committees of the German Conference on Pattern Recognition and the Journées Jeunes Chercheurs ORASIS.

Emmanuel Prados was a member of the program committees of IJCAI 2015 CompSust track (International Joint Conference on Artificial Intelligence), Buenos Aires, Argentina, 2015.

9.1.3. Journal

9.1.3.1. Member of the editorial boards

Until 2015, Peter Sturm was member of the editorial boards of the IEEE Transactions on Pattern Analysis and Machine Intelligence, the Image and Vision Computing Journal, and the Journal on Mathematical Imaging and Vision.

9.1.4. Invited talks

Peter Sturm gave seminars at Lund University and the Université de Bourgogne.

Denis Dupré gave a conference at the special event of COP 21 called “SOLUTIONS COP21 Paris 2015” [Grand Palais, Paris, France]. Conference title: “Les outils économiques et financiers du développement durable en débat”, December 10, 2015.

Denis Dupré gave a conference at the “journées scientifiques de l’Inria” Conference title: “Les hommes maitres du chaos climatique ? Citoyens et institutions face à la simulation scientifique”, Nancy, June 18, 2015.

Emmanuel Prados gave a conference at the Séminaire In’Tech “*Inventer de nouveaux produits et services répondant à l’évolution de la société*”. Conference title: “*Outils d’analyse des pressions environnementales des territoires pour une mise en oeuvre de politiques de développement durable*”, Montbonnot, 5th of Oct, 2015.

9.1.5. Scientific expertise

Peter Sturm is member of the scientific council of the Barcelona Media foundation.

Emmanuel Prados is member the GICN (“*Groupe Interdisciplinaire sur les Contributions Nationales*”), the group of scientific experts mandated by french ministry of Sustainable Development to prepare the **climate change conference COP21** in December 2015.

9.1.6. Research administration

Since mid-2015, Peter Sturm is one of the five Deputy Scientific Directors of Inria. Until mid-2015, he was a member of the Scientific Committee of Inria Grenoble Rhône-Alpes.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

License : E. Arnaud, Mathematics for engineer, 50h, L1, University of Grenoble, France.

License : E. Arnaud, Mathematics upgrade, 14h, L1, University of Grenoble, France.

Master : E. Arnaud, Advising students on apprenticeship, 28h, M2, University of Grenoble, France.

Master : E. Arnaud, Programming project in image processing, 20h, M1, University of Grenoble, France.

Master : E. Arnaud, Image processing, 18h, M2, University of Grenoble, France.

GRETSI Summer school : E. Prados, “*Les véritables enjeux environnementaux, modélisations et outils quantitatifs*”, 3-hour course, France, 21-27th of June, 2015. <http://www.gretsi.fr/peyresq15/>

Pedagogical resources : Elise Arnaud, Mathematics for engineer, L1, University of Grenoble, France. (video <http://tinyurl.com/youtube-mat126>, all documents for problem-based learning)

9.2.2. Supervision

PhD in progress: Thomas Capelle, “LUTI Calibration as Optimization Problem and Algorithms for Solving them”, 2013, Peter Sturm and Arthur Vidard (AIRSEA).

PhD in progress: Luciano Gervasoni, “Data mining for integrated land use and transportation models”, 2015, Peter Sturm and Serge Fenet (LIRIS, Lyon).

PhD in progress: Laurent Gilquin, “Sensitivity analysis of a macroeconomic LUTI model”, started in October 2013, E. Arnaud and C. Prieur (MOISE).

PhD in progress: Jean-Yves Courtonne, “Analyse d’impacts environnementaux et aide à la décision sur des territoires locaux, du bassin d’emploi à la région”, started in Spring 2014. Denis Dupré (CERAG/UGA and STEEP/Inria) and Pierre-Yves Longaretti (IPAG/UGA and STEEP/Inria), PhD advisors.

PhD in progress: Coline Byczek, “Analyse de réseaux de services écosystémiques dans le bassin d’emploi grenoblois”, started in 2012. Sandra Lavorel (LECA/UGA) and Pierre-Yves Longaretti (IPAG/UGA and STEEP/Inria), PhD advisors.

PhD in progress: Rémy Lasseur, “Modélisation et cartographie multi-échelles des faisceaux de services écosystémiques”, started in Fall 2014. Sandra Lavorel (LECA/UGA) and Pierre-Yves Longaretti (IPAG/UGA and STEEP/Inria), PhD advisors.

Internship: Bérangère Deforche work objective was to characterize the potential of organic farming in the Grenoble area. The motivation of this work was to evaluate if the growing demand on this front could be supplied locally, and more generally assess the extent of potential autonomy of the Grenoble area in terms of basic staple supply. The internship included a component on the potential of urban agricultural production, which eventually became the most important part of the work due to lack of time. The results obtained in this work are disappointing, due to a lack of mastery of GIS tools on the part of the student, and her slow learning curve.

Internship: Bappa Muktar worked on the development of software Wassily for environmental-extended input-output analysis. In particular, he documented the existing code and the installation process of the various modules needed on both PC and Mac platforms. He then worked on the database and matrix computation modules and tested them with real datasets (e.g. French Input-Output table coupled with CO2 emissions by economic sector).

Internship: Solange developed animations for explaining 3D computer vision algorithms, a work related to the previous research domain of Peter Sturm who supervised this internship.

Internship: Patricio developed the QGIS_Transus_Reports software, see above.

9.2.3. Juries

Peter Sturm was reviewer for the following PhD theses:

- Danda Pani Paudel, Université de Bourgogne.
- Dongming Chen, Ecole Centrale de Lyon.
- Sebastian Haner, Lund University, Sweden.

9.3. Popularization

Peter Sturm coordinated, together with Antoine Rousseau (LEMON) and the Direction for Communication, Inria's involvement in the general audience fair dedicated to public research institutions, associated with the COP21 Climate Summit held in December 2015 in Paris. Denis Dupré gave a talk at this event and he and Peter Sturm were part of Inria's delegation at the French research institution's booth, presenting the work of STEEP and Inria to the public.

Emmanuel Prados gave a conference-debat at "Marie Reynoard" High school on "Sustainable development, territorial governance and democracy" (Villard-Bonnot, France, 21th of December, 2015).

In the context of the GICN ("*Groupe Interdisciplinaire sur les Contributions Nationales*") and the climate change conference COP21, Emmanuel Prados have participated in the writing of various newspaper articles [17], [18], [15], [16].

AVALON Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

10.1.1.1. General chair, scientific chair

L. Lefevre: Co-Workshop chair of ExtremeGreen 2015 : Extreme Green & Energy Efficiency in Large Scale Distributed Systems , Shenzen, China, May 2015

L. Lefevre: Co-organizer of the Green Days Toulouse event: "From energetic to thermic, GreenIT really green ?", Toulouse, March 16-17, 2015

10.1.1.2. Member of the organizing committees

C. Pérez: Program committee member of SUCCES'2015 (*Rencontres Scientifiques des Utilisateurs de Calcul intensif, de Cloud Et de Stockage*)

10.1.2. Scientific events selection

10.1.2.1. Chair of conference program committees

- G. Fedak: Program chair of COMPAS'15 (Conférence en Parallélisme, Architecture et Systèmes), Lille, France.
- G. Fedak: co-tracke chair, GECON, Conference on the Economics of Grids, Clouds, Systems, and Services, Track "Economically Efficient Resource Allocation and Service Level Agreements", Cluj-Napoca, Romania.

10.1.2.2. Member of the conference program committees

E. Caron: CNRIA 2015, SETCAC'15, HCW'2015, CLOSER 2015, CLOUDTECH 2015, Compas'15

C. Pérez: CCGRID 2015, ParCo 2015

F. Suter: CloudCom'15, EuroMPI'15, EuroPar'15, FICloud'15, VTDC'15

G. Fedak: CCGRID'15, CloudCom'15, HPDC'15

O. Glück: PDP 2015, ExtremeGreen 2015

10.1.3. Journal

10.1.3.1. Member of the editorial boards

- G. Fedak: Co-editor of Elsevier Journal of Cluster Computing

10.1.3.2. Reviewer - Reviewing activities

E. Caron: IEEE Transactions on Services Computing (TSC), Cluster Computing

F. Suter: Concurrency and Computation: Practice and Experience, The Computer Journal, Journal of Parallel and Distributed Computing

10.1.4. Invited talks

- G. Fedak, Big Data, Beyond the Data Center, Hunan University of Sciences and Technology, September 2015, Changsha, China, Department Seminary.
- G. Fedak, Active Data, Managing Big Data Lifecycle, Computer Network Information Center, Chinese Academy of Sciences, August 2015, Beijing, China, Seminary

- G. Fedak, Big Data, Beyond the Data Center, Séminaire LIG, 11 Juin 2015, Grenoble, France, Seminary.
- A. Simonet, G. Fedak, M. Ripeanu, S. Al-Kiswany, K. Chard, I. Foster, Active Data: Data Life Cycle Management Across Heterogeneous Systems and Infrastructures. Hot Topics in High-Performance Distributed Computing Workshop, IBM Almaden Research Center, San Jose, California, March 12, 2015, Invited Speaker
- O. Glück, Efficacité énergétique dans les réseaux et centres de calcul haute performance, Journées Scientifiques Inria 2015, 18 Juin 2015, Nancy, France.
- T. Gautier, Le runtime XKA-API, Ecole Thématique "Signal Images : Architecture et Programmation des GPUs", 17 décembre 2015, Grenoble, France.

10.1.5. Scientific expertise

- G. Fedak: Mission of expertise in Big Data for the French Embassy in China

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Licence: Eddy Caron, ASR1, 48h, niveau L3, Ecole Normale Supérieure de Lyon, France.

Licence: Eddy Caron, Projet 1, 48h, niveau L3, Ecole Normale Supérieure de Lyon, France.

Master: Eddy Caron, Systèmes Distribués, 30h, niveau M1, Ecole Normale Supérieure de Lyon, France.

Master: Eddy Caron, Projet Intégré, 42h, niveau M1, Ecole Normale Supérieure de Lyon, France.

Master: Eddy Caron, Gilles Fedak, Laurent Lefèvre, and Christian Perez, Distributed Computing: Models and Challenges, 36h, niveau M2, Ecole Normale Supérieure de Lyon, France.

Licence: Olivier Glück, Initiation Réseaux, 2x9h, niveau L2, Université Lyon 1, France

Licence: Olivier Glück, Réseaux, 2x70h, niveau L3, Université Lyon 1, France

Licence: Olivier Glück, Réseaux, 45h, niveau L3, Université des Sciences de Ho Chi Minh Ville, Vietnam

Master: Olivier Glück, Réseaux par la pratique, 20h, niveau M1, Université Lyon 1, France

Master: Olivier Glück, Services et Protocoles Applicatifs sur Internet, 40h, niveau M2, Université Lyon 1, France

Master: Olivier Glück, Services et Protocoles Applicatifs sur Internet, 24h, niveau M2, IGA Casablanca, Maroc

Master : Olivier Glück, Administration des Systèmes et des Réseaux, 16h, niveau M2, Université Lyon 1, France

Master Informatique: Laurent Lefevre, "Parallelism", Université Claude Bernard, France (18h), M1

Master Systèmes Informatique et Réseaux: Laurent Lefevre, "Advanced Networks", IGA Casablanca, Maroc (20h), M2

Master: Jean-Patrick Gelas, Analyse de performance, 6h, niveau M2, Université Lyon 1, France

Master: Jean-Patrick Gelas, Réseaux, 48h, niveau M2 (CCI), Université Lyon 1, France

Master: Jean-Patrick Gelas, Système d'exploitation, 30h, niveau M2 (CCI), Université Lyon 1, France

Master: Jean-Patrick Gelas, Architecture des routeurs, 6h, niveau M2, Université Lyon 1, France

Master: Jean-Patrick Gelas, Systèmes embarqués (GNU/Linux, Android), 85h, niveau M2, Université Lyon 1, France

Master: Jean-Patrick Gelas, Routage et IPv6, 45h, niveau M2, Université Lyon 1, France

Master: Jean-Patrick Gelas, Introduction aux IaaS (Cloud), 5h, niveau M2, Université Lyon 1, France

E-learning

MooC : Jean-Patrick Gelas, MooC Cloud, 7 semaines, Claroline Connect, Université Lyon 1 (<http://claco.univ-lyon1.fr/workspaces/7816/open/tool/home>)

MooC : Jean-Patrick Gelas, MooC Capps (Conception et valorisation d'applications mobiles), 6 semaines, Claroline Connect, Université Lyon 1 (<http://claco.univ-lyon1.fr/workspaces/7812/open/tool/home>)

MooC : Jean-Patrick Gelas, Vet4Apps (Conception et valorisation d'applications mobiles), 7 semaines, versal, Nebula European project (<https://versal.com/c/jq29wt>)

10.2.2. Supervision

PhD in progress: Daniel Balouek-Thomert, *Ordonnancement et éco-efficacité dans les environnements virtualisés*, 09/2013, Eddy Caron (dir), Laurent Lefevre (co-dir), Gilles Cieza (NewGen society, co-dir)

PhD in progress: Radu Carpa, *Efficacité énergétique des échanges de données dans une fédération d'infrastructures distribuées à grande échelle*, 10/2014, Laurent Lefèvre (dir), Olivier Glück (co-dir).

PhD in progress: Hadrien Croubois, *Étude et conception d'un système de gestion de workflow autonome conçu pour l'animation 3D*, 10/2015, Eddy Caron.

PhD defended: Maurice Djibril Faye, *Déploiement auto-adaptatif d'intergiciel sur plateforme élastique*, ??/2015, Eddy Caron (dir), Ousmane Thiaré (Université Gaston Berger, St Louis, Sénégal, co-dir)

PhD defended: Sylvain Gault, *Improving MapReduce Performance on Clusters*, Mar 2015, Frédéric Despez (dir), Christian Pérez (co-advisor)

PhD defended: Vincent Lanore, *On Scalable Reconfigurable Component Models for High-Performance Computing*, Dec 2015, Christian Pérez (dir)

PhD defended: Arnaud Lefray, *Mission fonctionnelle et de sécurité dans une informatique en nuage*, Nov. 2015, Eddy Caron (dir), Christian Toinard (ENSIB, co-dir)

PhD canceled nov 2015: Semen Marchuk, *Contribution pour la conception d'algorithmes d'ordonnancement de tâches de calcul dans le domaine de l'animation 3D*, 10/2014, Eddy Caron (dir), Pierre Biecher (CapRézo society, co-dir) and Rodolphe De Carini (CapRézo society, co-dir)

PhD in progress: Pedro Silva, *Application model and co-scheduling algorithm for dynamic and evolutive data-intensive application*, 10/2014, Christian Perez (dir), Frédéric Desprez (co-dir).

PhD defended: Anthony Simonet, *Active Data - Enabling Smart Data Life Cycle Management for Large Distributed Scientific Data Sets*, Jul. 2015, Gilles Fedak (dir)

PhD in progress: Issam Rais, *Multi criteria scheduling for exascale infrastructures*, 10/2014, Laurent Lefevre (dir), Anne Benoit (Roma Team, LIP, ENS Lyon, co-dir) and Anne-Cécile Orgerie (CNRS, Myriads team, Irista Rennes, co-dir)

PhD in progress: Jérôme Richard, *Conception of a software component model with task scheduling for many-core based parallel architecture, application to the Gysela5D code*, 11/2014, Christian Perez (dir), Julien Bigot (CEA, co-dir).

PhD in progress: Violaine Villebonnet, *Proportionnalité énergétique dans les systèmes distribués à grande échelle*, 9/2013, Laurent Lefevre (dir), Jean-Marc Pierson (IRIT, Toulouse, co-dir)

PhD in progress: Hayri Acar, *Towards a green and sustainable software*, 09/2014, Parisa Ghodous (dir), Gulferm Alptekin (co-dir), Jean-Patrick Gelas (co-dir)

10.2.3. Juries

Eddy Caron has been member of the following PhD Juries:

- Aleila Abidi. "Revisiter les Grilles de PCs avec des technologies du Web et le Cloud Computing ?". Université Paris 13, March 2015, Reviewer.
- Karine Pirez. "Distribution et Transcodage des Systemes a Grande Echelle de Flux en Direct". Université Pierre et Marie Curie, March 2015, Reviewer
- Etienne Michon. "Allocation dynamique sur cloud IaaS. Allocation dynamique d'infrastructure de SI sur plateforme de Cloud avec maîtrise du compromis coûts/performances". Université de Strasbourg, June 2015, Reviewer.

Thierry Gautier has been member of the following PhD Jury:

- Farouk Mansouri : "Modèle de programmation des applications de traitement du signal et de l'image sur cluster parallèle et hétérogène", Université de Grenoble, October 2015, Examineur

Laurent Lefevre has been member of the following PhD Juries:

- Davide Morelli : "Theory of benchmarking", University of Pisa, Italy, September 2015, Rapporteur
- Richard Ewelle Ewelle : "Adapting Communications in Cloud Games", University of Montpellier, August 2015, Examineur

Christian Pérez has been member of the following PhD Juries:

- Emmanuel Cieren: "Molecular Dynamics for Exascale Supercomputers", University of Bordeaux, France, Oct 2015, Reviewer
- Quang The Bui: "Criblage virtuel sur grille de composés isolés au Vietnam", University of Blaise Pascal Clermont-Ferrand II, France, Jun 2015, Reviewer
- Matthieu Dreher: "Méthodes In-Situ et In-Transit: vers un continuum entre les applications interactives et offines à grande échelle", University of Grenoble, France, Feb 2015, jury member
- François Tessier: "Placement d'applications parallèles en fonction de l'affinité et de la topologie", University of Bordeaux, France, Jan 2015, Reviewer

10.3. Popularization

Eddy Caron has participated to the following interview:

- Interview for NSmag N°9, Editeur: Imaginove. «Pipeline de production: Optimisation des temps de calcul et parallélisme». January 2015.

Laurent Lefevre has participated to the following interviews and publications :

- Interview for Sciences pour tous, "Le numérique écologique, c'est possible ?", "A digital ecological world, is it possible ?", September 2015.
- Interview : "Internet au bord de la saturation ?", Le MAG de la Science, Science et Vie TV, 26 Septembre 2015
- Interview : "Comment Internet pollue (vraiment) la planète", BFM Business, May 29, 2015
- Interview Industrie et Technologies : "Un blackout d'Internet en 2023 ? 5 raisons de ne pas y croire", May 13, 2015
- Interview in "Le Monde" NewsPaper : "Internet congestionné d'ici à 2023 ? Pas si vite !", May 12, 2015
- Interview in "#2020 program", "Internet Crunch" : "La mort du web est pour 2023", Mouv' Radio, May 12, 2015
- Combined Short papers in "Liberation NewsPaper" and "CNRS Le Journal" : "Le Big Data est il polluant ?", Laurent Lefevre, Jean-Marc Pierson, April 3, 2015
- Interview in Sciences et Avenir Journal : "Coup de chaud sur les data centers", Number 816, February 2015

Olivier Glück has participated to the following interview:

- Interview for Radio France Mouv in LE 20#20 radio broadcasting on "La mort du web & Naruto", 12 mai 2015 20h30. Podcast <http://www.mouv.fr/player/reecouter?play=198336>

CTRL-A Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

10.1.1.1. General chair, scientific chair

Bogdan Robu, Stéphane Mocanu and Eric Rутten organized the 3rd Grenoble Workshop on Autonomic Computing and Control Wednesday October 7th, 2015, GIPSA-lab, Seminary room (2nd floor B208 - Grenoble campus)

<https://team.inria.fr/ctrl-a/members/eric-rутten/autoctrl/>

Eric Rутten organized the DCDS 2015 Special Session on Dependable Discrete control for adaptive and reconfigurable computing systems <http://www.gdl.cinvestav.mx/dcds2015/> may 2015

proposed the WODES 2016 Special Session on Discrete Control for Adaptive and Reconfigurable Computing Systems, with H. Marchand <http://wodes2016.diee.unica.it/home1-6-7.html>

organized the Seminar (Grenoble and Rhône-Alpes region, Lyon, Valence, Annecy) on Supervisory control Techniques for Autonomic, Adaptive and Reconfigurable computing Systems <https://team.inria.fr/ctrl-a/members/eric-rутten/labex/staars-labex.html>

10.1.1.2. Member of the organizing committees

Eric Rутten was workshops co-chair for the 12th IEEE International Conference on Autonomic Computing. ICAC'2015, July 7-10, 2015 in Grenoble, France. <http://icac2015.imag.fr>

10.1.2. Scientific events selection

10.1.2.1. Chair of conference program committees

Eric Rутten was program co-chair of the IEEE International Conference on Cloud and Autonomic Computing, CAC 2015, MIT, USA, September 2015 [19] (<http://autonomic-conference.org>), Part of FAS* - Foundation and Applications of Self* Computing Conferences, Collocated with: the IEEE Self-Adaptive and Self-Organizing System Conference, the IEEE Peer-to-Peer Computing Conference.

10.1.2.2. Member of the conference program committees

Eric Rутten is PC member for:

- 13th IEEE International Conference on Autonomic Computing (ICAC 2016) Wuerzburg, Germany, July 19-22, 2016 (<http://icac2016.uni-wuerzburg.de/>) ;
- 13th International Workshop on Discrete Event Systems (WODES 2016), Xi'an, China on May 30 - June 1, 2016 (<http://wodes2016.diee.unica.it>) ;
- SEfSAS Book 3 (Software Engineering for Self-Adaptive Systems: Assurances) Volume 3 to be published by Springer ;
- CTSE2015 (First International Workshop on Control Theory for Software Engineering), in conjunction with 10th Joint Meeting of the European Software Engineering Conference and the ACM SIGSOFT Symposium on the Foundations of Software Engineering BERGAMO, ITALY, August 31 – September 4 (<http://www.softwarecontrol.org/>) ;
- MSR 2015, 10ème Colloque Francophone sur la Modélisation des Systèmes Réactifs, Nancy, du 18 au 20 Novembre 2015 (<http://msr2015.loria.fr/>) ;
- 2nd International Workshop on Adaptive Discrete Event Control Systems (ADECS 2015) that will be held June 22, 2014 at Brussels (<http://adecs2015.cnam.fr/>) A satellite event of PETRI NETS 2015 and ACSO 2015, Brussels, Belgium, Monday June 22, 2015 ;

- 3rd INTERNATIONAL WORKSHOP ON SELF-AWARE INTERNET OF THINGS 2015, in conjunction with ICAC 2015, The 12th IEEE International Conference on Autonomic Computing, July 7-10 2015, Grenoble, France (<http://clout-project.eu/international-workshop-on-self-aware-internet-of-things-2015/>) ;
- 5th IFAC Conference on Analysis and Design of Hybrid Systems (ADHS) October 14-16, 2015, Georgia Tech, Atlanta, Georgia, USA (<http://adhs15.gatech.edu>) ;
- 12th IEEE International Conference on Autonomic Computing. ICAC 2015, July 7-10, 2015 in Grenoble, France (<http://icac2015.imag.fr>) ;
- 5th IFAC international workshop on Dependable Control of Discrete Systems , DCDS, Cancun, Mexico, may 27-29, 2015 (<http://www.gdl.cinvestav.mx/dcds2015>) ;
- The 2015 Electronic System Level Synthesis Conference, ESLsyn 2015, co-located with the Design Automation Conference (DAC), San Francisco (CA), USA, June 10-11th, 2015. (<http://www.ecsi.org/eslsyn>)

10.1.3. Journal

10.1.3.1. Reviewer - Reviewing activities

Eric Rutten is reviewer for Journal of Systems and Software ; j. Microprocessors and Microsystems ; and guest co-editor with P. Shenoy for a ICCAC 2015 Best Papers special issue of the Cluster Computing journal (The Journal of Networks, Software Tools and Applications, Springer <http://link.springer.com/journal/10586>)

10.1.4. Invited talks

Eric Rutten was invited to give talks at : 11th International Conference on Distributed Computing and Internet Technology (ICDCIT-2015) <http://www.icdcit.ac.in/>, Bhubaneswar, India, February 5–8, 2015 ; College of Information and Computer Sciences (CICS), University of Massachusetts Amherst, USA, 28 sept.2015 <https://www.cics.umass.edu/event/discrete-control-based-design-adaptive-and-autonomic-computing-systems>

10.1.5. Scientific expertise

Eric Rutten was in the hiring commission for Inria CR2 research positions at Inria Grenoble-Rhône-Alpes and evaluated pre-proposals of projects submitted to the ANR generic call 2016. ; the CRI PILSI board of directors <http://cri-grenoble.com> and in charge of the development of scientific relationships between CEA and Inria in Grenoble on the topics of software and computer science ; PCS (Pervasive Computing Systems) committee of the Labex Persyval-lab.

10.2. Teaching - Supervision - Juries

10.2.1. Supervision

- PhD in progress : Adja Ndeye SYLLA ; Generation of coordination rules from an automaton, in the context of the redeployment of distributed contra; applications ; feb. 2015 ; E. Rutten, F. Pacull and M. Louvel (CEA)
- PhD in progress : Naweiluo Zhou ; Application-aware policies and control for transactional memory systems ; oct. 2013 ; E. Rutten, G. Delaval, J.F. Mehaut (LIG)

10.2.2. Juries

Eric Rutten was on the PhD defense committees for : Cédric Eichler, LAAS Toulouse, 9 june 2015 ; Mathilde Machin, LAAS Toulouse, 12 nov 2015.

DANTE Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

10.1.1.1. Member of the organizing committees

- Paulo Gonçalves was president of the organising committee of the 25th conference GRETSI 2015 on Signal and Image Processing. The conference was held at ENS de Lyon on Sept. 8-11, 2015 and gathered 550 participants.
- Paulo Gonçalves was co-organiser of the special session on *Methodologies for Signal Processing on Graphs* at Eusipco 2015.

10.1.2. Scientific events selection

10.1.2.1. Chair of conference program committees

- Paulo Gonçalves is officer of the local liaison board of EURASIP

10.1.2.2. Member of the conference program committees

- Thomas Begin is PC member of IEEE LCN 2015
- Christophe Crespelle is PC member of MARAMI 2015
- Christophe Crespelle is PC member of IEEE NetSciCom 2015
- Isabelle Guérin Lassous is PC member, in 2015, of ACM MSWiM, IEEE ICDCS, IEEE ICC, IEEE Globecom, IEEE ISCC, ACM PE-WASUN and MedHocNet
- Anthony Busson is PC member of FNC 2015, ISNCC 2015.

10.1.3. Journal

10.1.3.1. Member of the editorial boards

- Isabelle Guérin Lassous is member of the editorial boards of Computer Communications (Elsevier), Ad Hoc Networks (Elsevier) and Discrete Mathematics & Computer Science.
- Anthony Busson is member of the editorial boards of Computer Communications (Elsevier).

10.1.4. Invited talks

- Eric Fleury gave a keynote lecture at the 4th International Conference on Sensor Networks (Sensor-net in cooperation with ACM) and a panel on smart cities.
- Eric Fleury gave a keynote at the 11th Asian Internet Engineering Conference (AINTEC in cooperation with ACM) and a tutorial to the 26th Asian School.
- Eric Fleury gave a invited talk at the inaugural workshop EPFL/Inria
- Eric Fleury gave a seminar talk for the LIG Keynote Speech
- Anthony Busson gave a seminar talk at the Institute of Mathematics (Hanoi)

10.1.5. Leadership within the scientific community

- Isabelle Guérin Lassous is member of the CNRS National Committee for section 06 (Computer Science).
- Éric Fleury is member of the Inria Evaluation Committee.
- Éric Fleury is Co-chair of the Networking group ResCom of the CNRS GDR ASR. He is also a member of the scientific committee of the GDR ASR.

10.1.6. Scientific expertise

- Christophe Crespelle is expert for NAFOSTED (Vietnamese national agency for funding research)
- Isabelle Gu erin Lassous is a member of the research committee of the Milyon labex.
- Isabelle Gu erin Lassous was a member of the selection committee of ENS Cachan
-  ric Fleury is member of the Inria senior research position (DR2) jury
-  ric Fleury is member of the Starting Research Position and Advanced Research position jury
-  ric Fleury has been an expert for the Fund for Scientific Research - FNRS.
-  ric Fleury has been a member of evaluation panels as part of the French National Research Agency's (ANR) for ANR.

10.1.7. Research administration

- Paulo Gonalves is scientific liaison officer for international relations in Inria Research Centre of Rh ne-Alpes.
- Paulo Gonalves is scientific correspondent of the International Relations for the Computer Science Department at ENS Lyon.
- Paulo Gonalves is a member of the executive committee of the Milyon labex.
- Christophe Crespelle is member of the steering committee of the IXXI - Rh ne-Alpes Complex Systems Institute.
- Isabelle Gu erin Lassous is vice-chair of the LIP laboratory.
-  ric Fleury is Deputy Scientific Delegate for Inria Grenoble Rh ne Alpes
-  ric Fleury is in the in the Executive Committee of the IXXI – Rh ne-Alpes Complex Systems Institute.
-  ric Fleury is member of the Council of the LIP laboratory.
-  ric Fleury is a member of the executive committee of the Milyon labex.
- Anthony Busson is the vice president of the thesis committee of the LIP laboratory.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

10.2.1.1. Teaching by  ric Fleury

 ric Fleury is Professor at the Computer Science department of ENS de Lyon and holds a Inria chair.

Master : CR15 - Complex Networks, 18H, M2, ENS de Lyon, France

Licence/Master : Alter-disciplinary course, Complexe network: an interdisciplinary approche 6H, L3, M1, M2, ENS de Lyon, France

10.2.1.2. Teaching by Thomas Begin

Licence : "Networks", 18h, Bachelor (L3), University Lyon 1, France

Master : "Networking", 63h, Master (M1), University Lyon 1, France

Master : "Advanced Networks", 50h, Master (M2), University Lyon 1, France

Master : "Computer Networks", 12h, Master (M1), ENS de Lyon, France

10.2.1.3. Teaching by Paulo Gonalves

Engineering school (year 3-5) : Statistical Signal Processing (80 hours/yr)

10.2.1.4. Teaching by Christophe Crespelle

Master : C. Crespelle, "Chordal graphs: structure and algorithms", 10h, SEAMS Internatioanl School on Combinatorics, Hanoi, Vietnam

10.2.1.5. Teaching by Isabelle Gu erin Lassous

Professor at Universit  Claude Bernard Lyon 1 in the Computer Science department since 2006. She lectures at the University.

Master : "Networking", 20h, Master (M1), University Lyon 1, France

Master : "QoS and Multimedia Networks", 30h, Master (M2), University Lyon 1, France

Master : "Wireless Networks", 15h, Master (M2), University Lyon 1, France

Master : "Introduction to Networking", 30h, Master (M2), University Lyon 1, France

10.2.1.6. Teaching by Anthony Busson

Professor at the IUT (Institut Universitaire de Technologie) of Université Claude Bernard Lyon 1 in the computer science department since 2012.

Master : "MPLS", 6h, Master (M2), University Lyon 1, France

Master : "Réseaux spontanés avancés", 17h, Master (M2), University Lyon 1 - Université Nationale du Vietnam, France-Vietnam

Master : "Palm Calculus and networking applications", 18h, Master (M1) - Institute of Mathematics - Hanoi

10.2.2. Supervision

- PhD defense: Benjamin Girault, Signal processing on graph: Contributions to an emerging field. ENS de Lyon, Dec. 1 2015. E. Fleury and P. Gonçalves
- PhD defense: Lucie Martinet, Dynamic complex networks: characterisation and diffusion properties in hospital context. ENS de Lyon, Sep. 18th 2015, E. Fleury and C. Crespelle
- PhD defense: Elie Rotenberg, An approach for a reliable estimation of the properties of the Internet topology. University Pierre et Marie Curie, Jan 8th 2015, M. Latapy and C. Crespelle
- PhD defense: Thiago Wanderley Matos de Abreu, Modeling and analysis of IEEE 802.11-based chains performance. University Lyon 1, March 5th 2015, T. Begin and I. Guérin Lassous
- PhD defense: Sabrina Naimi, "Gestion de la mobilité dans les réseaux Ad Hoc par anticipation des métriques de routage". University Paris 11, July 22th 2015, Véronique Vèque and Anthony Busson.
- PhD defense: Peng GUAN, Stochastic Geometry Analysis of LTE-A Networks. University Paris 11, Dec. 2015, Marco Di Renzo and Anthony Busson.
- PhD defense: Wei LU, Stochastic Geometry Analysis of relay-aided LTE-A cellular networks. University Paris 11, Dec. 2015, Marco Di Renzo and Anthony Busson.
- PhD in progress : Sarra Ben Alaya, Multi-scale classification and analysis of data on networks. Nov. 2015, P. Gonçalves (P. Borgnat, co-advisor)
- PhD in progress: Yannick Leo, Diffusion process and community structure in complex networks, Oct. 2013, E. Fleury, C. Crespelle, and M. Karsai
- PhD in progress: Laurent Reynaud, Optimized mobility strategies for wireless networks. March 2013, I. Guérin Lassous
- PhD in progress: Huu-Nghi Nguyen, Admission control in SDN networks. April 2014, T. Begin and A. Busson and I. Guérin Lassous
- PhD in progress: Mohammed Amer, WiFi network management: a SDN approach. January 2015, A. Busson and I. Guérin Lassous
- PhD in progress: Matteo Morini, New tools for understanding the dynamics of social networks, Oct 2013, E. Fleury, P. Jensen and M. Karsai

10.2.3. Juries

- Paulo Gonçalves was member of the PhD examination board of: Nadia Khalfa-Cheick;
- Paulo Gonçalves was reviewer and member of the PhD examination board of: Hadrien Hours.
- Christophe Crespelle was member of the PhD examination board of Pham Van Trung, Vietnam Academy of Science and Technology.
- Isabelle Guérin Lassous was reviewer of the PhD examination boards of: Guillaume Artero Gallardo, University of Toulouse ; Nicolas Boillot, University of Franche-Comté ; Georgios Z. Papadopoulos, University of Strasbourg ; Andrés Marcelo Vázquez Rodas, Universitat Politècnica de Catalunya, Spain;

- Isabelle Guérin Lassous was chair of the PhD examination boards of: Liviu-Octavian Varga, University of Grenoble ; Moussa Traore, University of Toulouse;
- Isabelle Guérin Lassous was member of the PhD examination boards of: Baher Mawlawi, INSA de Lyon ; Denis Carvin, University of Toulouse.
- Eric Fleury was chair of the PhD examination board of: Diala Naboulsi, INSA de Lyon;
- Eric Fleury was member of the HdR examination board of Michaël Hauspie, Université Lille 1.
HDR MrHauspie

MESCAL Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events organisation

Bruno Gaujal organized the Game Theory In'Tech seminar on June 2015.

9.1.2. Scientific events selection

9.1.2.1. Member of the conference program committees

Arnaud Legrand was in the PC of HiPC and co-organized the RepPar workshop (Workshop on Reproducibility in Parallel Computing).

The members of the team regularly review numerous papers for international conferences.

9.1.3. Journal

9.1.3.1. Reviewer - Reviewing activities

The members of the MESCAL team regularly review articles for JPDC, DAM, IEEE Transactions on Networking/Automatic Control/Cloud Computing/Parallel and Distributed Computing/..., FGCS, ParCo, ...

9.1.4. Invited talks

Bruno Gaujal was invited to the Bacceli seminar in Paris⁰. Bruno Gaujal was invited to give a keynote at the Congrès of the "Société des Mathématiques Appliquées et Industrielles". Bruno Gaujal and Jean-Marc Vincent were invited to participate and present their work to the Symposium honoring Erol Gelenbe.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Master/PhD: Panayotis Mertikopoulos, "Game Theory for the Working Economist", 35 Eq. TD, University of Athens, Department of Economic Sciences PhD program (UADPhilEcon), Athens, Greece.

Master : Bruno Gaujal, Discrete Event Systems, 18 h, (M2R), MPRI, Paris.

Master : Bruno Gaujal, Advanced Performance evaluation, 9 h, (M2), Ensimag, Grenoble.

Master: Arnaud Legrand, Parallel Systems, 21 h, (M2R), Mosig.

Master: Arnaud Legrand and Jean-Marc Vincent, Performance Evaluation, 15 h, (M2R), Mosig.

Master: Arnaud Legrand and Jean-Marc Vincent, Probability and simulation, performance evaluation 72 h, (M1), RICM, Polytech Grenoble.

Master: Jean-Marc Vincent, Mathematics for computer science, 18 h, (M1) Mosig.

Master: Jean-Marc Vincent, workshop on the methodology in computer science research, 15 h, (M2R) Mosig.

Master : Olivier Richard, Networking, 40 Eq. TD, (M1), RICM, Polytech Grenoble

Master : Olivier Richard, Physical Computing Eq. 60 TD, L1 and M1, Joseph Fourier University and Polytech Grenoble

DU: Jean-Marc Vincent, Informatique et sciences du numérique, 20 h, (Professeurs de lycée).

⁰<http://www.di.ens.fr/~blaszczy/FB60/>

E-learning

SPOC: Jean-Marc Vincent, Informatique et sciences du numérique, 6 mois, plate-forme pairformnce, rectorat de Grenoble, Professeurs de lycée, formation continue, environ 50 inscrits.

9.2.2. Supervision

PhD : Luka Stanasic, *A Reproducible Research Methodology for Designing and Conducting Faithful Simulations of Dynamic Task-based Scientific Applications* Defended Oct. 30, 2014[6], supervised by Arnaud Legrand and Jean-François Méhaut.

HdR : Arnaud Legrand, *Scheduling for Large Scale Distributed Computing Systems: Approaches and Performance Evaluation Issues*, Université Grenoble Alpes, Defended Nov. 2[5], 2015.

9.2.3. Juries

- Bruno Gaujal was a reviewer for the PhD of Josu Doncel, on “Efficiency of Distributed Queueing Games and of Path Discovery Algorithms“ at University of Toulouse, on March 30th 2015
- Bruno Gaujal was a reviewer for the HDR of Nidhi Hegde.

9.3. Popularization

- fête de la science: atelier sciences manuelles du numérique.
- MathC2+: sciences manuelles du numérique.
- Interventions dans des classes de seconde sur la simulation simcity.
- Participation à l’IREM de Grenoble, groupe algorithmique.

MOAIS Project-Team

8. Dissemination

8.1. Promoting Scientific Activities

Moais has an intensive reviewing activity for a large variety of Conferences and Journals we do not detail here.

8.1.1. Scientific events organisation

8.1.1.1. Member of the organizing committee

- IEEE VR 2015 (IEEE Conference on Virtual Reality): Workshop Chair
- HCW'2015 (24th IEEE Heterogeneous Computing Workshop) may 23, Hyderabad, India: Program Chair

8.1.2. Scientific events selection

8.1.2.1. Member of the conference program committee

- LDAH 2015 (IEEE Symposium on Large-Scale Data Analysis and Visualization)
- SEARIS 2015 (Workshop on Software Engineering and Architectures for Realtime Interactive Systems)
- EGVE 2015 (Eurographics Symposium on Virtual Environments)
- EGPGV 2015 (Eurographics Symposium on Parallel Rendering and Visualization)
- SVR 2015 ((Symposium on Virtual and Augmented Reality - Brazil)
- HPSC (6th IEEE Internat. conf on High performance Scientific Computing) march 16-20, 2015, Hanoi, Vietnam
- CCgrid (14th IEEE/ACM internat symposium on Cluster, Cloud and Grid Computing), may 4-7, Shenzhen, China
- IPDPS 2015 (26th IEEE International Parallel & Distributed Processing Symposium) may 24-28, Hyderabad, India
- HICOMB'2015 (14th IEEE Internat Workshop on High Performance Computational Biology) may 23, Hyderabad, India
- COMPAS, june 22-july 25, 2015, Lille, France
- ISPDC (14th Internat Symposium on Parallel and Distributed Computing) june 29-july 01, 2015, Limassol, Cyprus
- MISTA (7th conference multidisciplinary internat. Scheduling conference), august 25-28, 2015, Prague, Czech Republic
- Topic chair Euro-Par (Scheduling and load balancing) august 26-28, 2015, Vienna, Austria
- ParCo2015 (International Conference on Parallel Computing) sept. 1-4, Edinburgh, Scotland
- PPAM'15 (11th internat. conf on parallel processing and applied Maths) sept. 6-9, 2015, Krakow, Poland
- EuroMPI, sept. 21-25, 2015, Bordeaux, France
- 27th SBAC-PAD, october 18-21, 2015, Santa catarina, Brazil
- Edu-HPC (Workshop on Education for High-Performance Computing), nov 16, 2015, Austin, USA

8.1.3. Journal

8.1.3.1. Member of the editorial board

- Associate Editor of the Parallel Computing journal PARCO, D. Trystram.
- Member of the Editorial Board of JPDC, D. Trystram.
- Member of the Editorial Board of Computational Methods in Science and Technology, D. Trystram.
- Member of the Editorial Board of ARIMA (revue africaine de recherche en informatique et maths appliquées), D. Trystram
- Member of the Editorial Board of IEEE Trans. Parallel and Distributed Systems TPDS, D. Trystram.

8.1.4. Invited talks

- Jean-Louis Roch: Invited speaker at 7th International Workshop on Parallel Symbolic Computation (PASCO 2015), Bath, UK, July 10-11. Title of the talk "Interactive computations and outsourcing"

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

Master: J-L. Roch co-director (Grenoble-INP) with P Elbaz-Vincent (Université Joseph Fourier, Math. Dept) of the Master "SCCI Security, Cryptology and Coding of Information Systems" (M2) joined between UJF and INP Grenoble Universities. This Master, started in 2001, is taught in English from sept 2007 (international Master). It has been refunded in 2015 to build a new Master 2 program "Cybersecurit" that will open in Q3 2016.

Master: C. Pernet and Denis Trystram are responsible of the first year (M1) of the international Master of Science in Informatics at Grenoble (MOSIG-M1).

Master: V Danjean: course "Parallel Programming" (M2), Grenoble University,.

Master: J-L. Roch, "Security models" 24h (M2), Grenoble University

Master: D. Trystram, P.-F. Dutot, J.-L. Roch, "Complexity, approximation theory and randomization" master course (M2) at Grenoble University

Master: François Broquedis. 192 hours per year. 192 hours per year. Engineering school Grenoble-INP/Ensimag, 1st year/L3 and Master (M1/2nd year and M2/3rd year).

Master: Vincent Danjean. 242 hours per year. Licence (third year) and Master (first and second year) at Joseph Fourier University. First to third year of engineering school at Polytech' Grenoble.

Master: Pierre-François Dutot. 226 hours per year. Licence (first and second year) at IUT2/UPMF (Institut Universitaire Technologique de l'Université Pierre Mendès-France) and 9 hours Master M2R-ISC Informatique-Systèmes-Communication at Joseph Fourier University.

Master: Guillaume Huard. 242 hours per year. Licence (first and third year) and Master (first year) at Joseph Fourier University.

Master: Grégory Mounié. 242 hours per year. Master (first year) and Computer Science for Non Computer Scientist Post-Master at Engineering school ENSIMAG, Grenoble-INP.

Master: Clement Pernet. 210 hours per year. University J. Fourier. Master (first year and second year) and Licence (3rd year).

Licence: Bruno Raffin. 38 hours per year. Engineering school ENSIMAG.

Master: Jean-Louis Roch. 242 hours per year. Engineering school Grenoble-INP/Ensimag and Master (M1/2nd year and M2/3rd year)

Master: Denis Trystram. 200 hours per year in average, mainly at first level of Engineering School.

Master: Frédéric Wagner. 220 hours per year. Engineering school ENSIMAG, Grenoble-INP (M1/2nd year and M2/3rd year) (190h), Master DESS/M2-P SCCI Security (30h).

8.2.2. Supervision

David Beniamine (since 2013). Parallelisation Patterns and Scheduling for Real-Time Physics Simulations. Co-advised by Guillaume Huard and Bruno Raffin.

Amrit Kumar (since 2013). Analysis of work-stealing and adaptive algorithms. Labex-Persyval co-advised PhD by Pascal Lafourcade (Verimag lab), Cedric Lauradoux (Inria Privatics team) and Jean-Louis Roch.

Gilles Daviet (since 2013). Parallel Macroscopic Simulations of Fibrous Materials. Co-advised by Florence Bertails-Descoubes and Bruno Raffin.

Julio Toss (since 2013). Parallel Algorithms and Data Structures for Physically Based Simulation of Deformable Objects. Joint Ph.D with UFRGS, Brazil. Co-advised by Joao Comba and Bruno Raffin.

Adrien Roussel. Multi-CPU/Multi-GPU parallelization of numerical solvers. Co-advised by Jean-Marc Gratiot (IFPEN) and Thierry Gautier.

Philippe Virouleau. Scalability of OpenMP runtime. Co-advised by Bruno Raffin, François Broquedis, Raymond Namyst and Thierry Gautier.

Marwa Sridi (since 2013). Parallel Algorithm Composition for Transient Mechanic Simulations. Joint Ph.D with CEA, France. Co-advised by Vincent Faucher, Thierry Gautier and Bruno Raffin.

Ziad Sultan (since 2012). High-performance algebraic computations. Co-advised Ph.D by Jean-Guillaume Dumas (LJK Lab) and Clément Pernet.

Stefano Mor (2011-2015). Analysis of work-stealing and adaptive algorithms. Joint Ph.D with UFRGS, Brazil. Co-advised by Jean-Louis Roch, Nicolas Maillard and Bruno Raffin

Mathieu Dreher (2011-2015). In-Situ Visualization for Molecular Dynamics. Advised by Bruno Raffin.

David Glesser. Energy Aware Resource Management for HPC. Co-advised by Yianis Georgiou (BULL) and Denis Trystram.

Raphaël Bleuse. Affinity Scheduling. Co-advised by Gregory Mounié and Denis Trystram.

Millian Poquet. Enhanced Data Movements for HPC. Co-advised by Pierre-François Dutot and Denis Trystram.

Abhinav Srivastav. Persyval. Multi-objective Scheduling. Co-advised by Oded Maler (VERIMAG) and Denis Trystram.

Fernando Machado Mendonca. Locality Aware Scheduling. Co-advised by Frederic Wagner and Denis Trystram.

Alessandro Kraemer. Scheduling in the Cloud. Joint Ph.D with UFPR, Brazil. Co-advised by Olivier Richard, and Denis Trystram.

8.2.3. *Juries*

- B Raffin: Reviewer of the PhD. of Julien Duchateau, 9th of December 2015, Université du Littoral Côte d'Opale. "Parallélisation de simulations physiques utilisant un modèle de Boltzmann multi-phases et multi-composants en vue d'un épandage de GNL sur sol."
- JL Roch: PhD of Marcelo Alejandro Forets Irurtia, 10th of December 2015, Université de Grenoble : "Marches quantiques et mécanique quantique relativiste".
- JL Roch: PhD of Bastien Violla, 14th of December 2015, Université de Montpellier : "Contributions à l'Algèbre Linéaire Exacte sur Corps Finis et au Chiffrement Homomorphe"
- Denis Trystram reviewer of the PhD of Samia Kouki (14 février 2015)
- Denis Trystram jury member of the HDR of Cécile Murat (12 mai 2015)
- Denis Trystram president of the PhD jury of Nathalie Herr (19 novembre 2015)
- Denis Trystram reviewer of the PhD of Julien Herman (25 novembre 2015)

ROMA Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

10.1.1.1. General chair, scientific chair

Laure Gonnord is co-chair of the “Compilation French community”, with Florian Brandner (ENSTA) and Fabrice Rastello (Inria Corse).

10.1.2. Scientific events selection

10.1.2.1. Steering committees

Yves Robert is a member of the steering committee of HCW, Heteropar and IPDPS. He is the chair of the steering committee of Euro-EduPar.

10.1.2.2. Chair of conference program committees

Anne Benoit was program vice-chair for the Applications and Algorithms track of SBAC-PAD’2015, program vice-chair for the Algorithms track of HiPC’2015, and workshops co-chair of ICPP’2015.

Bora Uçar was IPDPS 2015 Workshops vice-chair, and was a co-chair of PCO2015 (a workshop of IPDPS).

10.1.2.3. Member of the conference program committees

Christophe Alias was a member of the program committee of IMPACT’16.

Anne Benoit was a member of the program committee of SC, CCGrid, HCW, Ena-HPC, and FEEDBACK.

Jean-Yves L’Excellent was a member of the program committee of Compas.

Loris Marchal was a member of the program committee of IPDPS. and HiPeR.

Yves Robert was a member of the program committee of FTXS, ICCS, IPDPS, and SC.

Bora Uçar was in the PC of IPDPS, HiPC, PPAM, ICCS, HPC4BD, and IEEE CSE.

Frédéric Vivien was a member of the program committee of IPDPS, SC, HiPC, PDP, ComPAS, EduHPC, EduPar, ROADEF, and WAPCO.

10.1.2.4. Reviewer

Christophe Alias reviewed papers for DATE’15.

Laure Gonnord reviewed papers for VMCAI’15, CGO’15.

Bora Uçar reviewed papers for SC15 and MFCS 2015.

Jean-Yves L’Excellent reviewed papers for Compas’15 and Europar 2015.

10.1.3. Journal

10.1.3.1. Member of the editorial boards

Anne Benoit is Associate Editor of TPDS (IEEE Transactions on Parallel and Distributed Systems) since October 2015, and also of JPDC (Elsevier Journal of Parallel and Distributed Computing) and SUSCOM (Elsevier Journal of Sustainable Computing).

Yves Robert is Associate Editor of JPDC (Elsevier Journal of Parallel and Distributed Computing), IJHPCA (Sage International Journal of High Performance Computing Applications), and JOCS (Elsevier Journal of Computational Science).

Anne Benoit is Associate Editor of Parallel Computing (Elsevier) and of JPDC (Elsevier Journal of Parallel and Distributed Computing).

10.1.3.2. Reviewer - Reviewing activities

Anne Benoit reviewed papers for TOPC and TCS.

Christophe Alias reviewed papers for PARCO and IEEE TVLSI.

Laure Gonnord reviewed papers for PARCO.

Bora Uçar reviewed papers for SIAM SISC, ACM ToPC, IEEE TPDS, JPDC, and NLAA.

Loris Marchal reviewed papers for IEEE TPDS, SIAM TOPC, JPDC and ADHOC.

Jean-Yves L'Excellent reviewed a paper for ACM TOMS.

Frédéric Vivien reviewed papers for Journal of Grid Computing, Cluster Computing, and the Journal of Supercomputing.

10.1.4. Invited talks

In June 2015, Laure Gonnord was invited at Google, Mountain View and SRI, to give talks about her research about static analyses for compilers.

10.1.5. Leadership within the scientific community

Laure Gonnord, together with Fabrice Rastello (CORSE) and Florian Brandner (Telecom Paris Tech) animate since 2010 the French Compilation Community (<http://compilfr.ens-lyon.fr>).

Yves Robert participated to the following selection committees:

- IEEE Fellows: vice-president and attended the physical selection meeting in Los Alamitos in May 2015.
- IEEE TCSC Award for Excellence in Scalable Computing: member
- IEEE TCSC Mid-Career Award: member

10.1.6. Scientific expertise

In 2015, Maroua Maalej has produced 7 Research Tax Credit documents for Accenture group France as a scientific consultant. The goal is to expertise research done by Accenture project-teams and suggest further ideas by evaluating the state of the art.

10.1.7. Research administration

Anne Benoit is a member of the executive committee of the Labex MI-LYON.

Bora Uçar served as the Secretary of the SIAM activity group on Supercomputing, (1 January 2014–12 December 2015).

Loris Marchal is a member of the scientific council of the “Ecole Nationale Supérieure de Mécanique et des Microtechniques” (ENSMM, Besançon).

Jean-Yves L'Excellent evaluated a CIFRE PhD proposal for ANRT. He is a member of the direction board of the LIP laboratory (since November 2015).

Frédéric Vivien is a member of the scientific council of the École normale supérieure de Lyon and of the academic council of the University of Lyon.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Licence:

- Anne Benoit : Algorithmique avancée (CM 32h), L3, Ecole Normale Supérieure de Lyon.
- Laure Gonnord : Architecture des ordinateurs (TD+TP=40h), L2, Université Lyon 1 Claude Bernard : Spring 2015.
- Maroua Maalej : Algorithmique et Programmation Fonctionnelle et Récursive (TP=28h), L1, Université Lyon 1 Claude Bernard : Autumn 2015.
- Christophe Alias : Introduction à la compilation (CM+TD=24h), L3, INSA Centre-Val-de-Loire : Spring 2015.
- Christophe Alias : Concours E3A – épreuve informatique MPSI (correcteur) : Spring 2015.
- Yves Robert : Algorithmique (CM 32h), L3, Ecole Normale Supérieure de Lyon

Master:

- Anne Benoit, Resilient and energy-aware scheduling algorithms (CM 24h), M2, Ecole Normale Supérieure de Lyon.
- Laure Gonnord, Program Analysis and Verification (CM 24h), M2, Ecole Normale Supérieure de Lyon. With David Monniaux
- Laure Gonnord, Compilation (TP 28h), M1, Ecole Normale Supérieure de Lyon.
- Laure Gonnord, Introduction aux systèmes et réseaux (CM/TP 52h), M2 Pro, Université Lyon 1.
- Laure Gonnord, Compilation (TD/TP 24h), M1, Université Lyon 1 Claude Bernard.
- Laure Gonnord, Complexité (TD 15h), M1, Université Lyon 1 Claude Bernard.
- Laure Gonnord, Temps Réel (TP 24h), M1, Université Lyon 1 Claude Bernard.
- Laure Gonnord organised (Jan. 2015) a research school entitled “Static analyses in the state-of-the-art compilers” (invited speaker : Fernando Pereira).
- Christophe Alias, Optimisation d’applications embarquées (CM+TD=18h), M1, INSA Centre-Val-de-Loire.
- Christophe Alias, Advanced Compilers: Loop Transformations and High-Level Synthesis (CM 8h), M2, Ecole Normale Supérieure de Lyon.
- Christophe Alias, Compilation (CM 16h), M1, Ecole Normale Supérieure de Lyon.
- Frédéric Vivien, Algorithmique et Programmation Parallèles et Distribuées (CM 36 h), M1, École normale supérieure de Lyon, France.

10.2.2. Supervision

PhD in progress: Aurélien Cavelan, "Resilient and energy-aware scheduling algorithms for large-scale distributed systems", started in September 2014, advisors: Anne Benoit and Yves Robert.

PhD in progress: Guillaume Iooss, “Semantic tiling”, started in September 2011, joint PhD ENS-Lyon/Colorado State University, advisors: Christophe Alias and Alain Darté (ENS-Lyon) / Sanjay Rajopadhye (Colorado State University).

PhD in progress: Oguz Kaya, “High performance parallel tensor computations”, started in September 2014, funding: Inria, advisors: Bora Uçar and Yves Robert.

PhD in progress: Maroua Maalej, “Low cost static analyses for compilers”, started in October 2014, advisors : Laure Gonnord and Frédéric Vivien.

PhD in progress: Gilles Moreau, "High-performance multifrontal solution of sparse linear systems with multiple right-hand sides, application to the MUMPS solver", started in December 2015, funding: MUMPS consortium and Labex MILYON, advisor: Jean-Yves L'Excellent.

PhD in progress: Loic Pottier, "Scheduling concurrent applications in the presence of failures", started in September 2015, advisors: Anne Benoit and Yves Robert.

PhD in progress: Issam Rais, "Multi-criteria scheduling for high-performance computing", started in November 2015, advisors: Anne Benoit, Laurent Lefèvre (LIP, ENS Lyon, Avalon team), and Anne-Cécile Orgerie (IRISA, Myriads team).

PhD in progress: Bertrand Simon, "Task-graph scheduling and memory optimization", started in September 2015, funding: ENS Lyon, advisors: Loris Marchal and Frédéric Vivien.

PhD defended on November 25: Julien Herrmann, "Memory-aware algorithms and scheduling techniques for matrix computations", started in September 2012, funding: ENS Lyon, advisors: Loris Marchal and Yves Robert.

10.2.3. *Juries*

Laure Gonnord was a member of the doctoral committee for the evaluation of the first year of Phd of F. Maurica, Université de la Réunion, December 2015.

Jean-Yves L'Excellent was a reviewer for the PhD thesis of Corentin Rossignon, University of Bordeaux, 2015.

Yves Robert chaired the HDR defense committee of Arnaud Legrand (University of Grenoble) in November 2015. He was a member of the PhD defense committee of Mathias Coqblin (University of Bsançon) in January 2015. He was a reviewer for the PhD defense committee of Pooja Aggarwal (Indian Institute of Technology Delhi) in October 2015.

Frédéric Vivien was a member of the PhD defense committee of Mawussi Zounon (University of Bordeaux).

10.3. Popularization

Loris Marchal led a "Math en Jeans" workshop at "Lycée Lacassagne" in Lyon.

Frédéric Vivien gave two lectures about "Scheduling" at the CIRM "Algorithmique et programmation" workshop for Maths teachers in *Classes préparatoires aux grandes écoles*. The two lectures were recorded and are available online (<http://library.cirm-math.fr/Record.htm?Record=19278406157910966889>).

SOCRATE Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific Event Organisation

9.1.1.1. General Chair, Scientific Chair

- Samir Perlaza was one of the general chairs of the Inria – GDR-ISIS Meeting: Recent Advances in Information Theory and Coding Theory, held in the campus of Université de Lyon, Bibliothèque Marie Curie de l'INSA de Lyon, Lyon, November 29, 2015, France.
- Samir Perlaza was one of the scientific chairs of the Inria – Intech: La théorie des jeux à l'œuvre dans la société, l'économie et l'industrie, held in Inria Grenoble - Rhône-Alpes, Montbonnot, Juin 30, 2015, France.

9.1.1.2. Member of Organizing Committees

- Florent de Dinechin was a member of the following organizing committee:
 - 22nd IEEE Symposium on Computer Arithmetic
- Jean-Marie Gorce was a member of the following organizing committees:
 - colloque Objets Connectés, Entretiens Jacques Cartier (Dec 2015).
 - GretsI 2015, September 2015, Lyon.
- Samir Perlaza was a member of the following organizing committee:
 - GDR Isis : symposium on New Advances in Information Theory.

9.1.2. Member of Conference Program Committees

- Florent de Dinechin was a member of the following program committees:
 - IEEE International Conference on Application-specific Systems, Architectures and Processors (ASAP)
 - IEEE International Conference on Field Programmable Logic and Applications (FPL)
 - IEEE International Conference on Field Programmable Technologies (FPT)
 - IEEE International Conference on Reconfigurable Computing and FPGAs (ReConFig)
 - International Symposium on Highly Efficient Reconfigurable Accelerator Technologies (HEART)
 - 22nd IEEE Symposium on Computer Arithmetic (Arith)
 - Conférence d'informatique en Parallélisme, Architecture et Système (CompAS)
- Jean-Marie Gorce was a member of the following program committees:
 - GretsI 2015, September 2015, Lyon.
 - IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC) 2015
 - IEEE International Conference on Ultra-Wideband (ICUWB) 2015
 - IEEE ICC Workshop on Cognitive Radio Networks (CRN) 2015.
 - European Conference on Antennas and Propagation (Eucap) 2015
- Tanguy Risset was a member of the following program committees:
 - IEEE Computer Society Annual Symposium on VLSI (ISVLSI) 2015.
 - Design Automation and Test in Europe (DATE) 2015.

- Samir Perlaza was a member of the following program committees:
 - IEEE ICC 2015 Workshop on Next Generation Backhaul/Fronthaul Networks (BackNets). June 8, 2015, London, UK
 - IEEE ICC 2015 Workshop on Wireless Physical Layer Security (WPLS) June 8, 2015, London, UK
 - IEEE ICC 2015 Workshop on Small Cell and 5G Networks (SmallNets). June 8, 2015, London, UK
- Guillaume Villemaud was a member of the following program committees:
 - IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC) 2015
 - International Telecommunications Symposium (ITS) 2015
 - IEEE Vehicular technology Conference (VTC) Fall 2015
- Yasser Fadlallah was a member of the following program committees:
 - IEEE Symposium on Signal Processing and Information Technology 2015.
 - International Conference on Signal Processing & Data Mining 2015.

9.1.3. Member of Editorial Boards

- Florent de Dinechin is an associate editor of IEEE Transactions on Computers
- Jean-Marie Gorce is an associate editor of Telecommunications Systems (Springer) and Journal of Wireless communications and Networking (Springer).
- Guillaume Villemaud is an associate editor of Annals of Telecommunications (Springer).

9.1.4. Tutorials at International Conferences

Samir Perlaza delivered the tutorial “Output Feedback in Wireless Communications” at the IEEE International Conference on Communications (ICC), London, UK, June, 2015. Joint work with H. Vincent Poor (Princeton University, NJ) and Ravi Tandon (Virginia Tech, VA).

9.1.5. Invited Talks

- Samir Perlaza delivered the invited talk “On the Impact of Network-State Knowledge on the Feasibility of Secrecy” at the London Probability Seminar, advances in information theory, Imperial College London, June 10, 2015, London, UK.
- Samir Perlaza delivered the invited talk “On the Impact of Network-State Knowledge on the Feasibility of Secrecy” at the MESCAL Seminar, Inria, Rhône-Alpes Research Centre, Mai 21, 2015, Montbonnot, France.
- Selma Belhadj Amor delivered the invited talk “Simultaneous energy and information transmission in Gaussian multiple access channels” at the Inria – GDR-ISIS Seminar on Recent Advances in Information Theory and Coding Theory, Nov 29, 2015, Lyon, France.
- Selma Belhadj Amor delivered the invited talk “Simultaneous energy and information transmission in Gaussian multiple access channels” at the SOCRATE Seminar, Inria, Rhône-Alpes, CITI Lab, Mai 21, 2015, Lyon, France.
- Victor Quintero delivered the invited talk “Noisy Channel-Output Feedback Capacity of the Linear Deterministic Interference Channel” at the SOCRATE Seminar, Inria, Rhône-Alpes, CITI Lab, Mai 21, 2015, Lyon, France.
- Victor Quintero delivered the invited talk “Noisy Channel-Output Feedback Capacity of the Linear Deterministic Interference Channel” at the Inria – GDR-ISIS Seminar on Recent Advances in Information Theory and Coding Theory, Nov 29, 2015, Lyon, France.

- Jean-Marie Gorce: energy efficiency - spectral efficiency tradeoff with distributed interference alignment strategies in 4G networks and beyond. In special session on Smart and Efficient wireless networks and technologies at First URSI Atlantic Radio Science Conference (URSI AT-RASC), May, 20th, 2015.
- Leonardo Sampaio Cardoso deliver the invited talk “Building and using the CorteXlab platform” at Rutgers University, at Winlab research meeting June 10, 2015, New Jersey, USA.
- Florin Hutu: Energy optimization of radio transmission using wake-up radio. In First URSI Atlantic Radio Science Conference (URSI AT-RASC), May, 2015.

Tanguy Risset is expert in the European Technology Platform for communications networks and services (NetWorld2020 <http://networld2020.eu/>)

9.1.6. Research Administration

Jean-Marie Gorce was a member of the Comité National des Universities (CNU) in section 61 signal processing (2011-2015).

Jean-Marie Gorce is a member of the Scientific Committee of the Inria-ALU Bell Labs common lab.

Jean-Marie Gorce is a member of the jury prix de thèse 2016 Signal Image et Vision, soutenu par l’association GRETSI, le GDR ISIS et le club EEA.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Jean-Marie Gorce is the head of the Telecommunications department of Insa Lyon.

Tanguy Risset and Jean-Marie Gorce and are professors at the Telecommunications Department of Insa Lyon.

Florent de Dinechin is a professor at the Computer Science Department of Insa Lyon.

Claire Goursaud is an associate professor at the Telecommunications department of Insa Lyon.

Leonardo Sampaio Cardoso is an associate professor at Insa Lyon (Premier Cycle).

Guillaume Salagnac and Kevin Marquet are associate professors at the Computer Science Department of Insa Lyon.

Guillaume Villemaud and Florin Hutu are associate professor at the Electrical Engineering Department of Insa Lyon.

Nikolai Lebedev is an associate professor at CPE Lyon engineering school, Lyon.

9.2.2. Supervision

PhD in progress **Yuqi Mo** *Scaling of Iot Communication issuers*, Insa-Lyon, since 09/2015.

PhD in progress **David Kibloff** *New strategy for Physical Layer Security in wireless networks: self-jamming using Full-Duplex Transceivers*, Inria-DGA grant, since 10/2015.

PhD in progress **Coralie Saysset** *Compilation de programme data-flow pour architecture multi-coeur*, nom de l’Université, MENRT, since 09/2014.

PhD in progress **Victor Quintero** *Fundamental Limits of Decentralized Cognitive Radio Networks*, Ecole Doctoral EEA de Lyon, funded by Colciencias since 02/2014.

PhD in progress : **Arturo Jimenez Guizar**: *Cooperative communications in Body Area Networks*, ANR Cormoran grant, since 09/2012.

PhD in progress : **Matei Istoan**: *High-performance coarse operators for FPGA-based computing*, ANR Metalibm grant, since 01/2014.

PhD in progress : **Matthieu Vallerian**: “*Radio Logicielle pour réseau de capteurs*”, CIFRE/Orange, since 09/2012.

PhD: **Matthieu Lauzier**: “*Design and evaluation of information gathering systems for dense mobile wireless sensor networks*”, CIFRE/Euromedia, 03/04/2015.

PhD: **Baher Mawlawi**: “*Random access for dense networks: Design and Analysis of Multiband CSMA/CACEA grant*, 26/11/ 2015.

PhD: **Minh Tien Do**: “*Ultra-narrowband wireless sensor networks modeling and optimization* CIFRE grant with Sigfox, 21/07/ 2015.

9.2.3. Juries

Florent de Dinechin

PhD Fernando Endo *Génération dynamique de code pour l’optimisation énergétique* (U. Grenoble, Sep. 2015), (as a reviewer).

PhD Martin Kumm *Multiple Constant Multiplication Optimizations for Field Programmable Gate Arrays* (U. Kassel, Germany, Oct. 2015), (as a reviewer).

PhD Dmitry Burlyaev *Design, Optimization, and Formal Verification of Circuit Fault-Tolerance Techniques* (U. Grenoble, Nov. 2015).

PhD Olga Kupriianova *Toward a Modern Floating-Point Environment* (U. Pierre et Marie Curie Paris 6, Dec. 2015).

PhD Ashraf El-Antably *Etude de la migration de tâches dans une architecture multi-tuile. Génération automatique d’une solution basée sur des agents* (U. Grenoble, Dec. 2015).

Tanguy Risset

PhD Vagelis Bebelis *Boolean Parametric Data Flow (Modeling, Analyses, Implementation)* (U. Grenoble, Fev. 2015), (as a reviewer).

PhD Farouk Mansouri *Modèle de programmation des applications de traitement du signal et de l’image sur cluster parallèle et hétérogène* (U. Grenoble, Oct. 2015), (as jury president).

PhD Andrea Enrici *Model Driven Engineering of Parallel and Distributed Embedded Systems: the Ψ -chart Approach* (Telecom-ParisTech, Dec. 2015), (as a reviewer).

Jean-Marie Gorce

- HdR Eric Simon *Estimation de canal et Synchronisation pour les systèmes OFDM en présence de mobilité* (U. Lille, June 2015), (as a reviewer).
- PhD Thi-Minh-Dung Tran *Methods for finite-time average consensus protocols design, network robustness assessment and network topology reconstruction* (U.Grenoble March 2015), (as a reviewer).
- PhD Selma Belhadj Amor *Gains en capacité dans les canaux à accès multiple et à diffusion par l’exploitation de la voie de retour* (Telecom Paris Tech, March 2015), (as the jury president).
- PhD Matthieu De Mari *Allocations de ressources dans les réseaux sans fils* (CentraleSup-elec, July 2015), (as a reviewer).
- PhD Raouia Masmoudi *Télécommunications domotiques efficaces en termes de consommation d’énergie* (U. Cergy Pontoise and U. Sfax, Nov 2015), (as the jury president).
- PhD Yangyang Chen *performance analysis of mobile relays for LTE ; Telecoms Bretagne* (U.Rennes Dec 2015), (as a reviewer).

Guillaume Villemaud

PhD Nicolas Chevalier *Performances de l’optique sans fil pour les réseaux de capteurs corporels* (U. Limoges, dec. 2015), (as a reviewer).

URBANET Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

10.1.1.1. General chair, scientific chair

- Hervé Rivano was general co-chair of the ResCom Summer School "Smart Cities", held in Lyon in June 2015.

10.1.1.2. Member of the organizing committees

- Razvan Stanica was in the organizing committee of the ResCom Summer School "Smart Cities", held in Lyon in June 2015.

10.1.2. Scientific events selection

10.1.2.1. Member of the conference program committees

- Walid Bechkit was TPC member for the following conferences: IEEE ICC, IEEE CCNC, ACS/IEEE AICCSA, IWCMC and ISPS.
- Marco Fiore was TPC member for IEEE INFOCOM, IEEE WoWMoM, IEEE ICC, IEEE VNC, IEEE VTC, IEEE/IFIP WONS, IEEE WF-IoT, MobiArch, ExtremeCom, IEEE/IFIP Wireless Days, IEEE UIC, IEEE WiMob, and a number of international workshops.
- Razvan Stanica was in the TPC of the following conferences: IEEE ICC, IEEE GlobeCom, IEEE VTC Fall, IEEE CCNC, ISNCC, WSC, ICCVE, GIIS, IOV, MobiArch, MobiApps, WF-IoT, INT-GAST, AlgoTel.
- Fabrice Valois was in the TPC of the following conferences: IEEE ICC, IEEE AINA, IEEE Globecom, IWCMC, IEEE VTC Spring, IEEE WCNC.

10.1.3. Journal

10.1.3.1. Member of the editorial boards

- Marco Fiore is Technical Committee member for Elsevier Computer Communications.
- Marco Fiore and Razvan Stanica were Guest Editors for the Elsevier Computer Communication special issue on Mobile Traffic Analytics.

10.1.3.2. Reviewer - Reviewing activities

- Walid Bechkit was a reviewer for the following journals: Elsevier Ad-Hoc Networks, Telecommunication Systems and Journal of Network and Computer Applications.
- Marco Fiore served as a reviewer for a number of international journals, including IEEE Transactions on Mobile Computing, IEEE Journal on Selected Areas in Communications, IEEE Transactions on Vehicular Technology, IEEE Transactions on Wireless Communications, IEEE Transactions on Communications, IEEE Transactions on Industrial Informatics, IEEE Communications Magazine, IEEE Vehicular Technology Magazine, Elsevier Ad-hoc Networks, Elsevier Computer Communications, Elsevier Vehicular Communications.
- Razvan Stanica was a reviewer for the following journals: IEEE Communications Magazine, Elsevier Ad-Hoc Networks, Elsevier Computer Communications, Elsevier Vehicular Communications, Springer Annals of Telecommunications, IEEE Sensors Journal, Sensors, Procedia Engineering, Journal of Advanced Transportation, Frontiers of Information Technology & Electronic Engineering.

10.1.4. Invited talks

- Marco Fiore gave an invited talk "Mobile Traffic Data Analytics for 5G Cognitive Networking" at the 1st GdR MaDICS Workshop on Big Data for the 5G RAN, Paris, November 2015.
- Marco Fiore gave an invited lecture on "Mining cellular traffic collected at mobile operator network probes" at the Networks and Data Mining Summer School, Luchon, June 2015.
- Marco Fiore gave an invited talk "Road traffic modeling with an eye to networking applications" at Telecom Sud Paris, Paris, June 2015.
- Hervé Rivano gave an invited talk and a demo entitled "Capteurs pour la route intelligente" at the inauguration conference of the Sense City EquipEx, Marne la Vallée, March 2015.
- Hervé Rivano gave an invited talk entitled "Issues of urban capillary networks" in the Japan-France workshop on Cyber security, French Embassy, Tokyo, April 2015.
- Hervé Rivano gave an invited talk entitled "Urban networks for Smarter Cities" in the Aristote association workshop on Smart Cities, Ecole Polytechnique, April 2015.
- Hervé Rivano gave an invited talk entitled "Networking for Smarter Cities" in the Berkeley-Inria-Stanford workshop of Inria@SiliconValley, Berkeley, May 2015.
- Hervé Rivano gave an invited talk and a demo entitled "Sensors for smart roads" in the Global Metropolitan Lab of the World Bank, Marne la Vallée, June 2015.
- Hervé Rivano gave an invited talk entitled "Including citizens in the design of Smart Cities – Needs, results and challenges of interdisciplinarity" in the CNRS Lamsade/NSF-Dimacs Citizens Science workshop, Paris, December 2015.
- Razvan Stanica gave an invited talk entitled "Véhicules connectés : Pourquoi nos voitures apprennent à parler?" in the Connected Objects workshop organized in the context of the 28th Jacques Cartier Meetings, Lyon, December 2015.
- Fabrice Valois gave an invited talk entitled "Capillary networks for Smart Cities" in the Ecole d'été ResCom, GDR CNRS, Lyon, June 2015.

10.1.5. Leadership within the scientific community

- Hervé Rivano has been named in the working group of Rhone Alpes region and Caisse des Dépôts et Consignations on "Territoires Augmentés", Lyon, November 2015.
- Fabrice Valois has been named as a member of the Scientific Council of the LIMOS-UMR6158 laboratory, Clermont Ferrand, in January 2015.

10.1.6. Scientific expertise

- Marco Fiore was a reviewer for the following calls: MiSe FCS (Italy), MiSe DA (Italy), ANR appel générique (France).
- Hervé Rivano has done a scientific expertise for the Aquitaine Province, April 2015.
- Hervé Rivano is involved in the "Villes et territoires innovants" working group of the Conseil National de l'Information Géographique.

10.1.7. Research administration

- Walid Bechkit is responsible for seminar organization and scientific animation within the CITI laboratory.
- Hervé Rivano is responsible with the Economic and Strategic Intelligence affairs of the CITI research laboratory, in charge with setting up ZRRs within the lab.
- Hervé Rivano is member of the Administration Council of the EquipEx Sense City as representative of Inria.
- Hervé Rivano is member of the Steering Committee of the ResCom axis of the ASR CNRS GdR.

- Hervé Rivano and Razvan Stanica are members in the CITI laboratory council.
- Razvan Stanica is the CITI laboratory correspondent with the Labex IMU.
- Fabrice Valois is director of the CITI research laboratory of INSA Lyon.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Licence : Isabelle Augé-Blum, Operating Systems, 70h, L3, Telecom. Dpt. INSA Lyon.

Licence : Walid Bechkit, IP Networks, 40h, L3, Telecom. Dpt. INSA Lyon.

Licence : Hervé Rivano, IP Networks, 20h, L3, Telecom. Dpt. INSA Lyon.

Licence : Razvan Stanica, Network Programming, 90h, L3, Telecom. Dpt. INSA Lyon.

Licence : Razvan Stanica, Advanced Wireless Networks, 20h, L3, IST / Telecom. Dpt. INSA Lyon (lectures given in english).

Licence : Fabrice Valois, IP Networks, 100h, L3, Telecom. Dpt. INSA Lyon.

Licence : Fabrice Valois, IP Networks, 20h, L3, IST / Telecom. Dpt. INSA Lyon (lectures given in english).

Master : Isabelle Augé-Blum, Innovation project, 30h, M1, Telecom. Dpt. INSA Lyon.

Master : Isabelle Augé-Blum, Bibliographical study, 30h, M1, Telecom. Dpt. INSA Lyon.

Master : Isabelle Augé-Blum, Real-Time Networks, 25h, M2, Telecom. Dpt. INSA Lyon.

Master : Isabelle Augé-Blum, Networks of the Future, 10h, M2, University of Lyon.

Master : Walid Bechkit, Network architectures, protocols and services, 12h, M1, Telecom. Dpt. INSA Lyon.

Master : Walid Bechkit, Performance evaluation of telecom networks, 100h, M1, Telecom. Dpt. INSA Lyon.

Master : Walid Bechkit, Wireless multihop networks, 10h, M2, University of Lyon.

Master : Walid Bechkit, Wireless networks: architecture and security, 18h, M2, INSA Lyon.

Master: Hervé Rivano, Wireless multihop networks, 10h, M2, University of Lyon.

Master: Hervé Rivano, Smart Cities, 4h, M2, Polytech Perpignan.

Master : Razvan Stanica, Mobile Networks, 30h, M1, Telecom. Dpt. INSA Lyon.

Master : Fabrice Valois, Mobile Networks, 30h, M1, Telecom. Dpt. INSA Lyon.

Master : Fabrice Valois, Wireless Sensor Networks, 6h, M2, University of Grenoble.

Isabelle Augé-Blum is in charge of the foreign affairs of the Telecommunications department at INSA Lyon, coordinating all incoming and outgoing student exchange programs.

Razvan Stanica is responsible for the administrative part related to all Master projects prepared by INSA Lyon Telecommunications department students.

Fabrice Valois is responsible of the networking teaching team in the Telecommunications department at INSA Lyon, coordinating all the courses in the networking domain.

Since 2006, Fabrice Valois is the head of an international teaching program focused on Internet of Things, established between INSA Lyon and Shanghai Jiao Tong University.

Fabrice Valois and Walid Bechkit are elected members of the Telecommunications Department Council at INSA Lyon.

E-learning

MOOC : Hervé Rivano, Villes intelligentes et technologies numériques, with the Inria Project Lab « Smart Cities », FUN platform.

10.2.2. Supervision

PhD : Diala Naboulsi, Analysis and exploitation of mobile traffic datasets, INSA Lyon, 09/2015. Advisors: Marco Fiore, Razvan Stanica, Fabrice Valois.

PhD : Trista Lin, Smart parking: network, infrastructure and urban service, INSA Lyon, 12/2015. Advisors: Frédéric Le Mouel (CITI DynaMid), Hervé Rivano.

PhD in progress : Yosra Bahri Zguira, DTN for IoT, since 05/2015. Advisors: Aref Meddeb (Univ. Sousse, Tunisia), Hervé Rivano.

PhD in progress: Ahmed Boubrima, Optimal deployment of wireless sensor networks for air pollution monitoring, since 10/2015. Advisors: Walid Bechkit, Hervé Rivano.

PhD in progress : Soukaina Cherkaoui, Energy-saving strategies for backhaul networks, since 11/2013. Advisor: Hervé Rivano.

PhD in progress : Jin Cui, Aggregation: From data dynamics to network dynamics, since 11/2012. Advisor: Fabrice Valois.

PhD in progress : Rodrigue Domga Komguem, Autonomous WSN architectures for road traffic applications, since 11/2012. Advisors: Razvan Stanica, Maurice Tchente (Univ. Yaoundé, Cameroun), Fabrice Valois.

PhD in progress : Alexis Duque, Use of visible light communication in a smart city context, since 10/2015. Advisors: Hervé Rivano, Razvan Stanica.

PhD in progress : Guillaume Gaillard, SLA pour réseaux de capteurs multi-services, since 12/2012. Advisor: Fabrice Valois.

PhD in progress : Leo Le Taro, Recalibration of wireless sensors for pollution monitoring, since 11/2015. Advisor: Hervé Rivano.

PhD in progress: Jad Oueis, Systèmes PMR très haut débit fédérateurs, since 10/2015. Advisors: Razvan Stanica, Fabrice Valois.

PhD in progress: Mihai Popescu, Mobilité au sein de flottes de robots sous contrainte de maintien de la connectivité, since 11/2015. Advisors: Olivier Simonin (Inria CHROMA), Anne Spalanzani (Inria CHROMA), Fabrice Valois.

MS thesis: S. Bouchareb, INSA Lyon, Capacity Limits in Cloud RAN, 09/2015. Advisors: Samir Perlaza (Inria Socrate), Razvan Stanica.

MS thesis: A. Merabtene, Univ. Lyon 1, Usage-Mobility Correlation in Mobile Phone Data, 07/2015. Advisor: Razvan Stanica.

MS thesis: J. Oueis, INSA Lyon, Energy Harvesting in Wireless Sensor Networks, 07/2015. Advisors: Razvan Stanica, Fabrice Valois.

MS thesis: B. Saves, INSA Lyon, Mobile data collection in wireless sensor networks for air pollution monitoring, 09/2015. Advisors: Walid Bechkit, Hervé Rivano.

MS thesis: J. Wang, INSA Lyon, Wi-Fi based Localization in Urban Spaces, 09/2015. Advisors: Patrice Raveneau, Razvan Stanica.

10.2.3. Juries

- Marco Fiore was external reviewer in the following PhD defense committees:
 - E. Mucelli, From Human Routine to more Efficient Mobile Networks, École Polytechnique, Paris, 03/2015.
 - F. Mezghani, Dissemination de contenus dans les reseaux vehiculaires, INP Toulouse, 10/2015.
- Hervé Rivano was external reviewer in the following PhD defense committees:
 - H. Xiang, Quasi-Optimal Mobile Crowdsensing : Cadre de conception et algorithmes, Télécom SudParis, Université Pierre et Marie Curie, 01/2015.

- G. Artero Gallardo, Qualité de service dans de environnements réseaux mobiles, hétérogènes et contraints, IRIT, INP Toulouse, 03/2015.
- R. Dagher, Sur la radionavigation dans les villes intelligentes du futur. Le cas des réseaux de capteurs sans fils, Inria, Université de Lille 1, 10/2015.
- Hervé Rivano was member in the following PhD defense committees:
 - F. Zahra Moataz, Vers des Réseaux Optiques Efficaces et Tolérants aux Pannes : Complexité et Algorithmes, I3S, Université de Nice-Sophia Antipolis, 10/2015.
- Fabrice Valois was external reviewer in the following PhD defense committees:
 - G. Romaniello, Energy Efficient Protocols for Harvested Wireless Sensor Networks, LIG, Université de Grenoble, 03/2015.
 - D. Carvin, Mécanismes de supervision distribués pour la gestion des réseaux dynamiques, LAAS, INSA Toulouse, 07/2015.
 - C. Cobarzan, Internet of Highly Mobile Things, I-Cube, Université de Strasbourg, 09/2015.
 - N. Guzzo, Facing the real challenges in wireless sensor network-based applications : an adaptative cross-layer self- organization WSN protocol, Inria, Université de Lille 1, 12/2015.
- Fabrice Valois was member in the following PhD defense committees:
 - T. Antignac, Méthodes formelles pour le respect de la vie privée par construction, CITI, INSA Lyon, 02/2015.
 - Y. Chen, Routing Algorithm Dedicated to Environmental Data Collection: Precision Agriculture, LIMOS, Université Blaise Pascal, Clermont-Ferrand, 04/2015.
 - M. Vucinic, Architectures and Protocols for Secure and Energy-Efficient Integration of Wireless Sensor Networks with the Internet of Things, LIG, Université de Grenoble, 11/2015.
 - T. Lin, Smart Parking : Network, Infrastructure and Urban Service, CITI, INSA Lyon, 12/2015.

10.3. Popularization

- Hervé Rivano gave a popularization talk entitled "Réseaux de capteurs urbains" in the Tuba X-pert session of February 2015.
- Hervé Rivano participated to a TV Show on "IoT and Smart Cities", Tele Grenoble, April 2015.
- Razvan Stanica gave a popularization talk entitled "Teaching Our Cars How to Speak: Communications for Intelligent Transportation Systems" in the internal meeting of the Transportation Group of the Spie company.

Chroma Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

10.1.1.1. General chair, scientific chair

- C. Laugier was General Chair (with Ph. Bidaud as co-Chair) of the IEEE ARSO conference "The 2015 IEEE International Workshop on Advanced Robotics and its Social Impacts".
- C. Laugier is a member of the Advisory / Steering Committee of IEEE/RSJ IROS conference.
- C. Laugier was co-organizer of the workshop "7th Workshop on Planning, Perception and Navigation for Intelligent Vehicles", IROS 2015, Hamburg, September 2015 (160 attendees).
- O. Simonin was co-organizer of the Workshop DEMUR "On-line decision-making in multi-robot coordination", IROS 2015, Hamburg, October 2015.
- O. Simonin was co-Chair of CAR 2015 "The 10th National Conference Control Architectures of Robots", Lyon, July 2015.

10.1.1.2. Member of the organizing committees

- C. Laugier is a member of the Advisory / Steering Committee of IEEE/RSJ IROS conference.
- C. Laugier is a member of the Editorial Board of the JSME Robomech Journal.
- O. Simonin was Local arrangement chair of the IEEE ARSO conference.
- O. Simonin was Chair (with J. Ponge) of the organization committee of CAR 2015.
- O. Simonin and J. Saraydaryan were members of the organization committee of the Colloque Jacques Cartier "Robotique, Services et Santé", 31.10-1.11, 2015.

10.1.2. Scientific events selection

10.1.2.1. Member of the conference program committees

- C. Laugier was Associate Editor for the IEEE/RSJ IROS 2015 and 2016 conferences.
- C. Laugier was Associate Editor for the IEEE ICRA 2015 and 2016 conferences.
- Jilles S. Dibangoye was Program Committee member of the following conferences:
 - International Joint Conference on Artificial Intelligence (IJCAI)
 - AAAI Conference on Artificial Intelligence (AAAI)
 - Autonomous Agent and Multi-agent Systems International Conference (AAMAS)
- O. Simonin was Program Committee member for IFAC/ACM ICINCO (International Conference on Informatics in Control, Automation and Robotics)
- O. Simonin is Program Committee member of the JFSMA conference since 2008 (Journées Francophones sur les Systèmes Multi-Agents).

10.1.2.2. Reviewer

- A. Martinelli served, in quality of reviewer, at the following international conferences: ICRA 2015, IROS 2015, ICUAS 2015, ACC 2015
- O. Simonin served, in quality of reviewer, at the following international conferences : IROS 2015, ICRA 2015.

10.1.3. Journal

10.1.3.1. Member of the editorial boards

- C. Laugier is a member of the Editorial Board of the JSME Robomech Journal.
- C. Laugier is a member of the Editorial Board of the new IEEE Journal "Transaction of Intelligent Vehicles". He is member of the Steering Committee of the Journal and Senior Editor.
- O. Simonin was member of the editorial board of Robotics and Autonomous Systems Journal, for the Volume 75 Part A "Assistance and Service Robotics in a Human Environment", Jan. 2016.

10.1.3.2. Reviewer - Reviewing activities

- A. Martinelli served, in quality of reviewer, for the following journals: Foundation and Trend in Robotics, Transaction on Automation Science and Engineering
- Jilles S. Dibangoye served as a reviewer for the following journals: Journal on Artificial Intelligence Research (JAIR), Artificial Intelligence Journal (AIJ), IEEE Transactions on Robotics (TRO).
- O. Simonin serves, in quality of reviewer, for the RIA revue (Revue d'Intelligence Artificielle).

10.1.4. Invited talks

- C. Laugier was invited to give a talk at IET Workshop on "Autonomous Vehicles: from the theory to full scale applications", Novotel Paris Les Halles, Paris, June 18th 2015.
Talk title: Risk Assessment and Decision-making for Safe Vehicle Navigation under Uncertainty.
- C. Laugier was invited to give a talk at RII "Smart Cities & Mobility Innovations", San Francisco, May 11th 2015.
Talk title: Bayesian Perception and Decision for Intelligent Mobility.
- C. Laugier was invited to give a talk at Google Self-Driving Cars, Mountain View, May 12th 2015.
Talk title: Bayesian Perception and Decision for next Cars Generation.
- C. Laugier was invited to give a Keynote talk at PPNIV-7 workshop, IEEE/RSJ IROS 2015, Hamburg, September 28th 2015.
Talk title: Embedded Bayesian Perception and Risk Assessment for ADAS and Autonomous Cars.
- O. Simonin was invited to give a talk at JNRR 2015, Journées Nationales de la Recherche en Robotique, October 21-23, Cap Hornu.
- A. Spalanzani was invited to give a talk at the Colloque Jacques Cartier "Robotique, Services et Santé", 30th-1st of november/december, Lyon.

10.1.5. Leadership within the scientific community

- C. Laugier has been invited as co-author (with Alberto Broggi, Alex Zelinsky and Umit Ozguner) for the Chapter 62 on "Intelligent Vehicles" of the 2nd edition of the Handbook of Robotics (to appear on March 2016).

10.1.6. Scientific expertise

- C. Laugier is Scientific Consultant for the Probayes company.

10.1.7. Research administration

- C. Laugier is a member of several Ministerial and Regional French Committees on Robotics and Autonomous Cars.
- O. Simonin is member of the Rhone-Alpes Robotics cluster (Coboteam), for Inria and INSA de Lyon entities.
- A. Martinelli carried out the activity of leader for the ANR project VIMAD
- A. Martinelli carried out the activity of leader for the CARNOT project SEDIA

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

M2R Informatique option RTS : O. Simonin, Robotique distribuée, 8h, M2, Université de Lyon, France.

INSA Lyon 5th year : O. Simonin, Robots mobiles communicants, 60h, M2, INSA de Lyon, France.

INSA Lyon 3rd year : O. Simonin, Algorithmique et programmation, 20h, L3, Dept. Telecom INSA de Lyon, France.

M2R MoSIG: A. Martinelli, Autonomous Robotics, 12h, ENSIMAG Grenoble

E-learning

Mooc "Mobile Robots and Autonomous Vehicles" (eMotion / Chroma): C. Laugier, A. Martinelli and D. Vasquez, 5 weeks on Inria-uTOP site, Videos in English including quiz, International diffusion on Inria-uTOP site, course for Engineers, Master and PhD students.

10.2.2. Supervision

PhD in progress: Tiana Rakotovao Andriamahefa, Embedded Bayesian Perception on a Multi-core Architecture, 2013, C. Laugier and D. Ruspini (CEA LETI).

PhD in progress: David Sierra Gonzalez, Autonomous Driving, 2014, E. Mazer (Inria Prima), J. Dibangoye, C. Laugier (cooperation Toyota).

PhD in progress: Mathieu Barbier, Decision making for Intelligent Vehicles, 2015, O. E. Mazer (Inria Prima), O. Simonin, C. Laugier (cooperation Renault)

PhD in progress: Vishnu K. Narayanan, semi-autonomous navigation of a electric wheelchair using visual servoing and user intention analysis, 2013, M. Babel (Lagadic Team) and A. Spalanzani.

PhD in progress: Stefan Chitic, Middleware for multi-robot systems, 2013, O. Simonin, J. Ponge (CITI-Dynamid), Ministry funding.

Starting PhD: Mihai Popescu, Robot fleet mobility under communication constraints, O. Simonin, A. Spalanzani, Regional funding.

10.2.3. Juries

- O. Simonin was a member of the defense committee of the HDR of Cedric Pradalier, INP Toulouse, June 5th, 2015.
- O. Simonin was a reviewer and a member of the defense committee of the HDR of Anne Spalanzani, Université Pierre-Mendès-France, June 22th, 2015.
- C. Laugier was a member of the defense committee of the HDR of Anne Spalanzani, Université Pierre-Mendès-France, June 22th, 2015.
- O. Simonin was a reviewer and a member of the defense committee of the PhD thesis of Bassem Hichri, Université Blaise Pascal, October, 2015.
- O. Simonin was a reviewer and a member of the defense committee of the PhD thesis of Zoubida Afoutni, Université de la Réunion, Montpellier September 25th, 2015.
- O. Simonin was a reviewer and a member of the defense committee of the PhD thesis of Cyril Robin, Université de Toulouse, June 4th, 2015.
- O. Simonin was a member of the selection committee (COS) for an Associate Professor position at Université de Grenoble, IUT de Valence.
- A. Spalanzani was a reviewer and a member of the defense committee of the PhD thesis of Mihai Andries, Université de Lorraine, December 15th, 2015.
- C. Laugier was a reviewer and a member of the defense committee of the PhD thesis of Thibaut Kruse, Technical University of Munich, January 14th, 2015.
- C. Laugier was President of the Jury of the French PhD Theses Award 2015 of the GDR Robotique (Theses defended in 2014), Presented at the JNRR 2015, 21-23 October 2015, Cap Hornu.

EXMO Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

10.1.1.1. General chair, scientific chair

- Jérôme Euzenat was organiser of the 10th Ontology matching workshop of the 14th ISWC, Bethlehem (US), 2015 (with Pavel Shvaiko, Ernesto Jiménez Ruiz, Okie Hassanzadeh and Michele Cheatham),

10.1.1.2. Member of the organizing committees

- Jérôme David has been member of the organisation committee of the “Web of data summer school”, Saint-Étienne (FR).
- Jérôme Euzenat was part of the Ontology alignment evaluation initiative (OAEI) organising team.

10.1.2. Scientific events selection

10.1.2.1. Member of conference program committees

- Manuel Atencia and Jérôme Euzenat were programme committee members of the “International Joint Conference on Artificial Intelligence (IJCAI)”, 2015.
- Jérôme Euzenat was programme committee member of the 14th “International semantic web conference (ISWC)” 2015.
- Manuel Atencia, Jérôme David and Jérôme Euzenat have been programme committee members for the 12th “European Semantic Web Conference (ESWC)”, 2015.
- Jérôme Euzenat was programme committee member of the “International and Interdisciplinary Conference on Modeling and Using Context (Context)” 2015.
- Jérôme Euzenat was programme committee member of the “Pacific-rim conference on multi-agent systems (PRIMA)”, 2015
- Jérôme Euzenat was programme committee member of the “Brazilian conference on ontological research (OntoBras)”, 2015.
- Jérôme David was programme committee member of the "Semantic Publishing Challenge" (colocated with ESWC 2015) 2015.
- Jérôme David and Jérôme Euzenat were programme committee members of the “knowledge engineering (ingénierie des connaissances)” conference 2015.
- Jérôme David was programme committee member of the 10th “Ontology matching workshop (OM)”, 2015.

10.1.2.2. Reviewer

- Jérôme David and Adam Sanchez-Ayte have been reviewers for the “International Joint Conference on Artificial Intelligence (IJCAI)”, 2015.
- Jérôme David has been a reviewer for the 4th “International semantic web conference (ISWC)” 2015.
- Tatiana Lesnikova has been a reviewer for the 12th “European Semantic Web Conference (ESWC)”, 2015.
- Tatiana Lesnikova and Jérôme Euzenat have been reviewers for the 10th “Language Resources and Evaluation Conference (LREC)”, 2016.

10.1.3. Journal

10.1.3.1. Member of editorial boards

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

10.1.3.2. Reviewer - Reviewing activities

- Jérôme David has been reviewer for the *Semantic web journal*.
- Jérôme Euzenat has been reviewer for *Applied ontologies*.
- Jérôme Euzenat has been reviewer for the *ACM transactions on the Web*.

10.1.4. Scientific expertise

- Jérôme Euzenat has been evaluator for European projects (FP7, H5: Smart cities and sustainability communication networks, content and technology), 2015

10.1.5. Research administration

Jérôme Euzenat has been scientific coordinator of the evaluation seminar for the “Data and knowledge representation and processing” theme of Inria, 2015.

10.1.6. Seminars

- Jérôme Euzenat, Data interlinking with link keys, Seminar Tsinghua university, Beijing (CN), 08/04/2015 (oral presentation)
- Jérôme David and Jérôme Euzenat, A link key approach to data interlinking, Seminar Xerox Europe Research centre, Meylan (FR), 23/04/2015 (oral presentation)

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

10.2.1.1. Responsibilities

- Jérôme David has been coordinator, with Benoît Lemaire, of option “Web, Informatique et Connaissance” of Master “Ingénierie de la Cognition, de la Création, et des Apprentissages” (UPMF, UJF & INPG);
- Manuel Atencia and Jérôme David are coordinators of option “Web, Informatique et Connaissance” of Master “Ingénierie de la Cognition, de la Création, et des Apprentissages” (UPMF, UJF & INPG);
- Jérôme Euzenat is, with Éric Gaussier, coordinator of the “AI and the web” option of the M2R in computer science and applied mathematics (UJF & INPG).

10.2.1.2. Courses

Licence: Jérôme David, Algorithmique et programmation par objets, 90h, L2 MASS, UPMF, France

Licence: Manuel Atencia, Introduction aux technologies du Web, 60h, L3 MASS, UPMF, France

Licence: Jérôme David, JavaEE, 25h, Licence Pro. SIL, UPMF, France

Licence: Jérôme David, Introduction à Python, Licence ESSIG, 24h, UPMF, France

Master: Jérôme David, Programmation Java 2, 30h, M1 IC2A, UPMF, France

Master: Jérôme David, Documents XML, 30h, M1 IC2A, UPMF, France

Master: Manuel Atencia, Langages et technologies du Web 1, 30h, M1 IC2A, UPMF, France

Master: Manuel Atencia, Langages et technologies du Web 2, 30h, M1 IC2A, UPMF, France

Master: Jérôme David, JavaEE, 30h, M2 IC2A, UPMF, France

Master: Jérôme David, Développement Web Mobile, 30h, M2 IC2A, UPMF, France

Master: Manuel Atencia, Web Sémantique, 30h, M2 IC2A, UPMF, France

Master: Jérôme Euzenat, Semantic web: from XML to OWL, 22heqTD, M2R, Université Joseph Fourier & INPG, France

Post-graduate level: Jérôme Euzenat, “Data interlinking”, 3h+3h, Tutorial+Practical, “linked data for smart cities” summer school, Cercedilla (ES), 2015

Post-graduate level: Jérôme Euzenat, “Data interlinking”, 1h, Tutorial, Web intelligence summer school, Saint-Étienne (FR), 2015

Post-graduate level: Jérôme Euzenat, “Dynamic interoperability: from ontology matching to cultural knowledge evolution”, 3h, Tutorial, ESSENCE summer school, Edinburgh (UK), 2015

Post-graduate level: Manuel Atencia, Jérôme David, Philippe Genoud, “What is this thing called linked data?”, 6h, Tutorial, ACM Document engineering symposium, Lausanne (CH), 2015

10.2.2. Supervision

- PhD in progress: Tatiana Lesnikova, Cross-lingual RDF data interlinking, 1/10/2012, supervisors: Jérôme Euzenat and Jérôme David
- PhD in progress: Armen Inants, Ontology alignment algebra, 1/12/2012, supervisor: Jérôme Euzenat
- PhD in progress: Adam Sanchez Ayte, Ontology alignment and data interlinking evolution on the web of data, 1/12/2013, supervisor: Jérôme Euzenat and Jérôme David

10.2.3. Juries

- Jérôme Euzenat has reviewed the PhD dissertation of Amélie Gyrard, Designing cross-domain semantic web of things applications, Telecom ParisTech, 24/04/2015, supervisors: Christian Bonnet and Karima Boudaoud
- Jérôme Euzenat has been external examiner of the PhD dissertation of Mathew Joseph, Query answering over contextualized RDF/OWL knowledge with expressive bridge rules: decidable classes, Università degli studi di Trento, 29/04/2015, supervisor: Luciano Serafini
- Jérôme Euzenat has been external examiner of the PhD dissertation of Esther Lozano Hontecillas, A semantic approach to problem-based learning with conceptual models, Universidad Politécnica de Madrid, 30/06/2015, supervisors: Asunción Gómez-Pérez and Jorge Gracia
- Jérôme Euzenat has reviewed the PhD dissertation of Benoit Christophe, Semantic-based middleware to support nomadic users in IoT-enabled smart environments, Université Pierre et Marie Curie, 07/09/2015, through VAE
- Jérôme Euzenat has been external examiner of the PhD dissertation of José Angel Ramos Gargantilla, Descubrimiento de mappings en recursos geoespaciales, Universidad Politécnica de Madrid, 22/09/2015, supervisors: Asunción Gómez-Pérez and Mariano Fernandez Lopez
- Jérôme Euzenat has reviewed the HDR dissertation of Freddy Lécué, Semantics for scalable machine reasoning in the web of data, Université de Nice-Sophia Antipolis, 06/11/2015

10.3. Popularization

- Jérôme Euzenat gave a talk to the Grilog networking business meeting “Big data” on “Publication et exploitation des données avec les technologies sémantiques (Publishing and exploiting data with semantic technologies)”, Meylan (FR), 2015-04-28.

IMAGINE Project-Team

8. Dissemination

8.1. Promoting Scientific Activities

8.1.1. Scientific events organisation

8.1.1.1. General chair, scientific chair

- Rémi Ronfard was co-chair of the second Eurographics workshop on « Intelligent Cinematography and Editing » (WICED), Lisbon, Portugal, May 2016 (with Marc Christie, Inria/MIMETIC and Quentin Galvane, Technicolor).
See <https://wiced.inria.fr/>.
- Co-chair of Computational Model of Narrative (CMN 2016) conference, Crakow, Poland, July 2016, with Mark Finlayson (Florida International University), Antonio Lieto (University of Torino) and Ben Miller (Georgia State University).
See <http://narrative.csail.mit.edu/cmnl6/>.

8.1.1.2. Member of the organizing committees

- Damien Rohmer was member of the organization committee for the Journées Informatiques et Géométrie (JIG) in November in Paris.
- Rémi Ronfard was member of the organization committee for the Workshop on Intelligent Narrative Technologies (INT), and International Conference on 3D Imaging (IC3D).

8.1.2. Scientific events selection

8.1.2.1. Chair of conference program committees

- Stefanie Hahmann is the program co-chair of the next SPM 2016 conference in Berlin.

8.1.2.2. Member of the conference program committees

- Marie-Paule Cani was in the International Program Committee for SMI 2015, Expressive 2015, MIG 2015, and is preparing for EUROGRAPHICS 2016.
- Stefanie Hahmann served in the International Program Committee for GD/SPM'15 SIAM Conf. on Geometric and Physical Modeling, Salt Lake City, CGI'15 Computer Graphics International, Strasbourg and EUROGRAPHICS 2016.
- Damien Rohmer was in the International Program Committee for EUROGRAPHICS Short paper, ACM SIGGRAPH Asia Technical Briefs and Posters. He was also member of the jury of the best paper for AFIG-EGFR.

8.1.2.3. Reviewer

- Damien Rohmer was reviewer for ACM SIGGRAPH and EUROGRAPHICS.
- Rémi Ronfard was reviewer for CVPR, CHI, and SIGGRAPH.

8.1.3. Journal

8.1.3.1. Member of the editorial boards

- Stefanie Hahmann is associate Editor of the Journal Computers and Graphics (Elsevier) since 2015 and co-editor of a special edition[36] of the journal Computer-Aided Design (CAD) on Geometric Modeling.

8.1.3.2. Reviewer - Reviewing activities

- Damien Rohmer was reviewer for ACM Transactions on Graphics, Computer Graphics Forum, and REFIG.

8.1.4. Invited talks

- In addition to holding the chair *Informatics and Computational sciences* at College de France, and giving 9 lectures there, Marie-Paule Cani gave the following invited talks :
- Stefanie Hahmann gave an invited talk at Universität Linz, Autriche, June 2015
 - ENS Lyon (Avril 2015),
 - Seminar *Jeudis de l'Imaginaire*, Télécom Paris-Tech (Avril 2015),
 - Seminar of the ICUBE laboratory, Strasbourg (Octobre 2015)
 - Seminar of the DI, ENS Paris, (October 2015)
 - Two invited conferences organized by the French Embassy in Tunisia, one open to the general public, and a specialized one for student and faculty members.
- Rémi Ronfard gave the following invited talk
 - Variations sur La Ronde with Adéla Barbuлесcu, Gérard Bailly, Georges Gagneré. Biennale Arts-Sciences, EXPERIMENTA, Grenoble, October 2015.
 - Mettre en scène les mondes virtuels, Séminaire Création et digital dans le spectacle vivant, Relais Culture Europe, Festival International de Théâtre, Avignon, July 2015.
 - Mettre en scène les mondes virtuels, Journées scientifiques Inria, June 2015.

8.1.5. Leadership within the scientific community

Marie-Paule Cani was

- At international level
 - Vice chair of the Eurographics association.
 - Chair of the steering committee of the Eurographics conference
 - Member of the awards committee of Eurographics
 - Member of the steering committees of the Expressive symposium and of the SMI conference
- And in France
 - Member of the scientifique council of the institute INSII of CNRS
 - Member of the scientifique council of the ESIEE engineering school Member of the executive board of the GDR IGVR of CNRS
 - Elected member of the executive board of EG-France

Stefanie Hahmann was

- Head of the french working group GT Modelisation Geometrique part of the GDR IGRV and GDR IM of CNRS.
- Member of the executive board of the GDR IGVR of CNRS.
- Member of the steering committee of annual international SPM conferences.
- Elected member of the international Executive Committee of the SMA – Solid Modeling Association since 2013.

Rémi Ronfard is

- Elected to the board of the French Chapter of Eurographics in 2015.
- Elected to the board of the French association for Computer Graphics (AFIG) in 2015.
- Part of the InriaRT open network of Inria researchers and teams working with IRCAM on Art/science projects, which also includes Arshia Cont (HYBRID), Laurent Grisoni (MINT), Pierre-Yves Oudeyer (FLOWERS) and Martin Hachet (POTIOC). The goal of the InriaRT network is to extend IRCAM's expertise in art & science beyond music, and to showcase Inria research work in art projects featured by IRCAM. A coordinated project for an interactive opera is currently being planned for production in 2017-2018.

8.1.6. Scientific expertise

- Marie-Paule Cani was reviewer of an ERC project.
- Stefanie Hahmann is member of the Advisory Board for the European Marie-Curie Training Network ARCADES, 2014-2018.
- Rémi Ronfard is a scientific expert for the European Commission, and was a reviewer for the final review of EC funded project IMP-ART (December 2015).

8.1.7. Research administration

- Marie-Paule Cani is at the head of the Imagine project-team.
- Rémi Ronfard is
 - Director of the « Geometry and Image » department of Laboratoire Jean Kuntzman, UMR CNRS 5224 , Grenoble University.
 - Project leader at Inria for ANR funded project SPECTACLENLIGNES (2013-2015) : The project ended in December 2014 and the main results were presented publicly at Centre Pompidou, Paris in February 2015 (see <http://spectacleenlignes.fr/>).
 - Project leader at Inria for national « investing in the future » project ACTION 3DS (2011-2014) : The project ended in September 2015 and the final review took place in October 2015 See <http://www.action3ds.com/fr/>.
 - Project leader at Inria for ANR-funded project CHROME (2012-2015) : The project ended in October 2015.
- Damien Rohmer was elected as a member of the Conseil d'Administration of the Association Française d'Informatique Graphique (AFIG).

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

- Marie-Paule Cani is responsible for two courses at Ensimag/Grenoble-INP: 3D Graphics (a course that attracts about 80 master 1 students per year) and IRL (Introduction à la recherche en laboratoire), a course enabling engineering students to work on a personal project in a research lab during one semester, to get an idea of what academic research is.
- Stefanie Hahmann is co-responsible of the MMIS (Images and Applied Maths) (<http://ensimag.grenoble-inp.fr/cursus-ingenieur/modelisation-mathematique-images-simulation-124674.kjsp>) department at University ENSIMAG/Grenoble INP. Stefanie Hahmann is responsible of 3 courses at Ensimag/Grenoble INP: Numerical Methods (240 students, 3rd year Bachelor level), Geometric Modeling (60 students, Master 1st year) and Surface Modeling (30 students, Master 2nd year).
- Olivier Palombi is responsible of the French **Campus numérique** of anatomy. Olivier Palombi is responsible and national leader of the project SIDES (<http://side-sante.org/>). All the French medical schools (43) have planned to use the same e-learning framework (SIDES) to manage evaluations (exams) and to create a large shared database of questions.
- François Faure was responsible of the GVR-(Graphics, Vision and Robotic) program in the MOSIG Master.
- Damien Rohmer is coordinator of the Math, Signal, Image program at the engineering school CPE Lyon in supervising the scientific and technical content of the program. He is also co-responsible of the *Image, Modeling & Computing* specialization program attracting 35 students per year. He gives, and is responsible, for of one Computer Science class (130 student, 3rd year Bachelor level), an introductory Computer Graphics class (110 students, Master 1st year), and 5 specialization classes on C++ programming, OpenGL programming, 3D modeling, animation and rendering (35 students, Master 1st and 2nd year). Damien Rohmer also gave an invited course in Collegium Da Vinci, Poznan University on Computer Graphics (15 M1 students in Computer Game Programm) and a formation on the Python language to high school teachers starting the *Informatique et Sciences du Numérique* program.

- Rémi Ronfard taught courses in Advanced 3D animation, M2R MOSIG, University of Grenoble (12 hours) on advanced concepts in 3D character animation; Game Engine Programming, M2R IMAGINA, University of Montpellier (36 hours); Computer Vision Analysis of Actors and Actions in the I2S Doctoral School of Montpellier (3h). Rémi Ronfard also created a new introductory course in narratology for doctoral students in computer science: *Computational modeling of narrative texts, movies and games*, Grenoble University.

Note that MOSIG is joint master program between University Joseph Fourier (UJF) and Institut Polytechnique de Grenoble (INPG) taught in English since it hosts a number of internal students. It belongs to the doctoral school MSTII.

Most of the members of our team are Professor or Assistant Professor in University where the common teaching load is about 200h per year. Rémi Ronfard who is only researcher usually perform some teaching in vacations.

8.2.2. Supervision

PhD : Quentin Galvane, Automatic Cinematography and Editing in Virtual Environments, Grenoble Université, October 2015, Rémi Ronfard, Marc Christie (IRISA/Inria).

PhD : Adela Barbulescu, Directing virtual actors by interaction and mutual imitation, Grenoble Université, November 2015, Rémi Ronfard, Gérard Bailly (Gipsa-Lab).

PhD : Rémi Brouet, Multi-touch gesture interactions and deformable geometry for 3D edition on touch screen, Grenoble Université, March 2015, Marie-Paule Cani, Renaud Blanch (LIG).

PhD : Sergi Pujades Rocamora, Camera models and algorithms for creating stereoscopic 3-D video, Grenoble Université, March 2015, Rémi Ronfard, Frédéric Devernay (PRIMA).

PhD : Martin Guay, Sketching 3D Character Animation, Grenoble University, June 2015, Marie-Paule Cani, Rémi Ronfard.

PhD : Kevin Jordao, Crowd Sculpting, Rennes University, December 2015, Marie-Paule Cani, Julien Pettré (Inria Rennes).

PhD : Léo Allemand-Giorgis, Grenoble University, Reconstruction de surfaces à partir de complexes de Morse-Smale, S. Hahmann, GP. Bonneau

PhD : Richard Malgat, Computational modeling of internal mechanical properties of plant cells, Grenoble University, September 2015, Francois Faure, Arezki Boudaoud (RDP).

PhD in progress : Armelle Bauer, the Living Book of Anatomy, UJF, Francois Faure, Olivier Palombi.

PhD in progress : Guillaume Cordonnier, Design of Mountains, Grenoble University, Marie-Paule Cani, Eric Galin (LIRIS).

PhD in progress : Pablo Coves, From Point Cloud Data to Functional CAD Model, INP Grenoble, Jean-Claude Léon, Damien Rohmer, Raphaëlle Chaine (LIRIS).

PhD in progress : Even Entem, Animal sketching, INP Grenoble, Marie-Paule Cani,

PhD in progress : Geoffrey Guingo, Animated Textures, INP Grenoble, Marie-Paule Cani, Jean-Michel Dischler (ICUBE).

PhD in progress : Pierre-Luc Manteaux, Frame Based Simulation, Grenoble University, Francois Faure, Marie-Paule Cani.

PhD in progress : Aarohi Singh Johal, CAD construction graph generation from B-Rep model, Grenoble University and EDF, Jean-Claude Léon, Raphel Marc (EDF).

PhD in progress : Camille Schreck, Modélisation et déformation de formes actives, Grenoble University, Stefanie Hahmann, Damien Rohmer.

PhD in progress : Robin Roussel, Function-preserving editing, Grenoble University, Marie-Paule Cani, Jean-Claude Léon, Niloy Mitra.

PhD in progress : Tibor Stanko, Modélisation de surfaces lisses maillées à partir de capteurs inertiels, Grenoble University and CEA, Stefanie Hahmann, Georges-Pierre Bonneau (LJK/Inria-Morpheo), collaboration with Nathalie Seguin (CEA-Leti).

PhD in progress : Ulysse Vimont, Complex scene sculpture, Grenoble University, Marie-Paule Cani, Damien Rohmer.

8.3. Popularization

- The images of the flat torus rendered by Damien Rohmer within the collaboration with the HEVEA team were presented during the mathematical Abel Price ceremony in favor of John Nash.

8.4. Service to University

Stefanie Hahmann is responsible of *specialité Maths-Info* at the Grenoble Graduate School of Computer Science and Mathematics MSTII (with about 400 PhD students registered)

LEAR Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

10.1.1.1. General chair, scientific chair

- C. Schmid was general chair for IEEE Conference on Computer Vision and Pattern Recognition, 2015.

10.1.1.2. Member of the organizing committees

- C. Schmid and K. Alahari organized the ALLEGRO Workshop on weakly supervised learning and video recognition, Grenoble, 2015.
- J. Verbeek: Co-organizer Physionomie workshop at European Academy of Forensic Science conference, Prague, Czech Republic, September 9
- Z. Harchaoui: Co-organizer of the Optimization and Statistical Learning workshop, Les Houches, France, January 2015.
- Z. Harchaoui and J. Mairal: Co-organizers of the Large-scale Learning summer school, Grenoble, France, Spring 2015.
- Z. Harchaoui: Co-organizer of the Future of Artificial Intelligence Symposium, New York University, January 2016.
- G. Rodez: co-organizer of the IEEE CVPR Workshop on Observing and Understanding hands in action (HANDS 2015)

10.1.2. Scientific events selection

10.1.2.1. Member of the conference program committees

- C. Schmid: area chair for ICCV'15.
- J. Mairal: area chair for ICML'15, ICCV'15, CVPR'16, ICLR'16, NIPS'16.
- Z. Harchaoui: area chair for ICML'15, ICML'16, NIPS'16.
- J. Verbeek: area chair for CVPR'15. tutorial chair for ECCV'16.

10.1.2.2. Reviewer

The permanent members of the team reviewed numerous papers for numerous international conferences in computer vision and machine learning: CVPR, ECCV, NIPS, ICML, AISTATS.

10.1.3. Journal

10.1.3.1. Member of the editorial boards

- C. Schmid: Editor in Chief of the International Journal of Computer Vision, since 2013.
- C. Schmid: Associate editor for Foundations and Trends in Computer Graphics and Vision, since 2005.
- J. Verbeek: Associate editor for Image and Vision Computing Journal, since 2011.
- J. Verbeek: Associate editor for the International Journal on Computer Vision, since 2014.
- J. Mairal: Associate editor of the International Journal of Computer Vision (IJCV), since 2015.
- J. Mairal: Senior associate editor for IEEE Signal Processing Letters, since August 2014 (senior editor since Feb. 2015).

- J. Mairal: Associate editor of Journal on Mathematical Imaging and Vision (JMIV), since 2015.
- J. Mairal: Guest editor for the Special Issue on Sparse Coding of the International Journal of Computer Vision. 2015.
- K. Alahari. Guest editor for the Special Issue on “Higher Order Graphical Models in Computer Vision: Modelling, Inference & Learning” IEEE Transactions on Pattern Analysis and Machine Intelligence, Volume 37, Issue 7, July 2015

10.1.3.2. Reviewer - Reviewing activities

The permanent members of the team reviewed numerous papers for numerous international journals in computer vision (IJCV, PAMI,CVIU), machine learning (JMLR, Machine Learning). Some of them are also reviewing for journals in optimization (SIAM Journal on Optimization), image processing (SIAM Imaging Science), information theory (IEEE Transactions on Information Theory), statistics (Bernoulli, Annals of Statistics, Journal of American Statistical Association).

10.1.4. Invited talks

- C. Schmid: Speaker at the Scenes from Video Workshop, Santa Cruz, Chile, December 2015.
- C. Schmid: Invited speaker at the Google Deep Video Workshop, Santa Cruz, USA, November 2015.
- C. Schmid: Invited speaker at the Human Robot Interaction Workshop at UC Berkeley, November 2015.
- C. Schmid: Invited speaker at workshop on pose recovery, action recognition, and cultural event recognition, in conjunction with CVPR'15, June 2015.
- C. Schmid: Seminar at Berkeley University, November 2015.
- C. Schmid: Seminar at Stanford University, June 2015.
- C. Schmid: Seminar at Google, Mountain View, June 2015.
- C. Schmid: Seminar at Facebook AI Research lab, New York, May 2015.
- C. Schmid: Seminar at CMU, Pittsburgh, May 2015.
- C. Schmid: Seminar at Oxford University, March 2015.
- C. Schmid: Seminar at Gatsby Computational Neuroscience Unit, London, March 2015.
- C. Schmid: Seminar at MPI, Tübingen, February 2015.
- K. Alahari: Keynote talk at 5th Workshop on Algorithmic issues for Inference in Graphical Models (AIGM), Paris, France, September 2015
- K. Alahari: Invited talk at Universidad de Cordoba, Cordoba, Spain, May 2015
- K. Alahari: Invited talk at 36th Pattern Recognition and Computer Vision Colloquium, CTU, Prague, Czech Republic, April 2015
- Z. Harchaoui: Seminar at New-York university, March 2015.
- Z. Harchaoui: Invited talk at the Inria at Silicon valley workshop, May 2015.
- Z. Harchaoui: Invited talk at the workshop on “large-scale kernel learning”, ICML, Lille, July 2015.
- J. Verbeek: DGA workshop on Big Data in Multimedia Information Processing, invited speaker, Paris, France, October 22.
- J. Verbeek: Physionomie workshop at European Academy of Forensic Science conference, speaker, Prague, Czech Republic, September 9.
- J. Verbeek: StatLearn workshop, invited speaker, April 13, 2015, Grenoble, France.
- J. Verbeek: Société Française de Statistique, Institut Henri Poincaré, Paris, France, October 23.
- J. Verbeek: Center for Machine Perception, Czech Technical University, Prague, Czech Republic, September 8.

- J. Verbeek: Dept. of Information Engineering and Computer Science, University of Trento, Italy, March 16.
- J. Verbeek: Computer Vision Center, Barcelona, Spain, February 13.
- J. Mairal: Invited talk at the BASP frontiers workshop, February 2015.
- J. Mairal: StatLab Seminar at Cambridge University, March 2015.
- J. Mairal: Invited talk at the CIMI workshop, Toulouse, October 2015.
- H. Lin: workshop TITAN, Grenoble, November 2015.

10.1.5. Scientific expertise

- C. Schmid is member of the PAMI-TC awards committee, and the PAMI-TC executive committee.
- K. Alahari: Reviewer for the National Sciences and Engineering Research Council of Canada (NSERC).
- J. Mairal: reviewer for grant proposals from ANR and COFECUB.

10.1.6. Research administration

- C. Schmid is member of the “comité d’orientations scientifiques”. Inria Grenoble, 2015.
- J. Mairal participated to the prospecting group from the PROSPER network in 2015.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Doctorat: C. Schmid, Course on action recognition at Computational Vision Summer School, Freudenstadt, Germany, July 2015.

Doctorat: Z. Harchaoui, “Machine Learning for Computer Vision,” MLSS, Kyoto, Japan.

Doctorat: J. Mairal, “Dictionary Learning”, 6H, CIMI summer school, Toulouse, France.

Doctorat: J. Mairal, “Introduction to sparse estimation”, 4H, BigOptim summer school, Grenoble, France.

Master : C. Schmid, “Object recognition and computer vision”, 10H, M2, ENS Cachan, France.

Master: Z. Harchaoui, “Computational Machine Learning”, New York University.

Master : J. Verbeek and C. Schmid. “Machine Learning & Category Representation”, 27H eqTD, M2, Univ. Grenoble.

Master : J. Verbeek and J. Mairal, “Kernel Methods for Statistical Learning”, 27H eqTD, M2, ENSIMAG, Grenoble.

Master: J. Mairal, “Introduction to sparse estimation”, 4H, M2, PSL-ITI, France.

Master: M. Douze, K. Alahari, “Bases de données multimedia”, Grenoble INP - ENSIMAG, January 2015.

Licence: H. Lin, Apprentissage du raisonnement, algèbre linéaire et analyse élémentaire.” 38H, L1, Grenoble univ., France.

Licence: P. Weinzaepfel, “Introduction à UNIX et à la programmation en langage C”, 67.5H TD, L1, DLST Grenoble.

10.2.2. Supervision

PhD: D. Oneata, “Robust and efficient models for action recognition and localization”, Grenoble Univ, July 2015, advisors: C. Schmid and J. Verbeek.

PhD: D. Potapov, Supervised Learning Approaches for Automatic Structuring of Videos, July 2015. Advisors: Z. Harchaoui and C. Schmid.

10.2.3. Juries

C. Schmid: Vincent Lepetit, decembre 2015, HDR examinateur, univ. Grenoble

C. Schmid: Nicolas Thome, juillet 2015, HDR examinateur, univ. Pierre et Marie Curie, Paris

C. Schmid: Vincent Delaitre, avril 2015, these, examinateur, ENS Ulm

MAVERICK Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events selection

9.1.1.1. Chair of conference program committees

- Eurographics 2015 Tutorials: Cyril Soler (co-chair)

9.1.1.2. Member of the conference program committees

- Eurographics 2015: Nicolas Holzschuch
- Eurographics Symposium on Rendering 2015: Nicolas Holzschuch, Cyril Soler
- Interactive 3D Graphics 2015: Nicolas Holzschuch
- Interactive 3D Graphics 2016: Nicolas Holzschuch
- Expressive 2015: Joëlle Thollot
- Solid and Physical Modeling 2015: Georges-Pierre Bonneau
- Eurographics VisSym Short Papers: Georges-Pierre Bonneau
- Environmental Visualization: Georges-Pierre Bonneau
- Topology in Visualization (workshop): Georges-Pierre Bonneau
- Jury du meilleur papier à l'AFIG: Romain Vergne

9.1.2. Research administration

- Nicolas Holzschuch is an elected member of Inria *Evaluation Committee*, a reserve member of Inria *Scientific Board* and of Inria *Comité Technique*.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Licence : Enseignant, titre du cours, nombre d'heures en équivalent TD, niveau (L1, L2, L3), université, pays

Licence: Joëlle Thollot, Théorie des langages, 27h, L3, ENSIMAG, France

Licence: Georges-Pierre Bonneau, Algorithmique, Polytech'Grenoble, France

Licence: Romain Vergne, Introduction à l'Algorithmique, 66.5, L1, Université de Grenoble, France

Licence: Romain Vergne, WebGL, 29, L3, IUT2 - Université de Grenoble, France

Master: Romain Vergne, Synthèse d'images, 32h, M1, Université de Grenoble, France

Master: Romain Vergne, Synthèse d'images avancée, 13.5h, M2, Université de Grenoble, France

Master: Romain Vergne, Reconstruction et géométrie algorithmique, 36h, M2, Université de Grenoble, France

Master: Georges-Pierre Bonneau, Synthèse d'Images, Polytech'Grenoble, France

Master: Georges-Pierre Bonneau, Visualisation Scientifique, Polytech'Grenoble, France

Master: Georges-Pierre Bonneau, Visualisation d'information, G-INP, France

Master: Georges-Pierre Bonneau, Scientific Visualization, G-INP, France

Master: Georges-Pierre Bonneau, Géométrie numérique, Université de Grenoble, France

Master: Georges-Pierre Bonneau et Nicolas Holzschuch, Computer Graphics II, 36 h, M2, Université de Grenoble, France

Master : Nicolas Holzschuch, Synthèse d'Images et Animation, 60 h, M2, ENSIMAG, France

Master: Joëlle Thollot, Responsable du cursus en alternance, 48h, M1-M2, ENSIMAG, France

Master: Joëlle Thollot, Tutorat d'apprentis, 70h, M1-M2, ENSIMAG, France

Master: Joëlle Thollot, Tutorat d'apprentis, 70h, M1-M2, ENSIMAG, France

Master: Romain Vergne, Responsable de stages, 27h, M1-M2, Polytech'Grenoble, France

Master: Romain Vergne, Tutorat, 16h; M1-M2, Polytech'Grenoble, France

9.2.2. Supervision

PhD: Hugo Loi, Synthèse programmable de textures vectorielles et application à la cartographie, Université de Grenoble, December 16, 2015, Joëlle Thollot, Romain Vergne, Thomas Hurtut.

PhD in progress: Leo Allemand-Giorgis, Visualisation de champs scalaires guidée par la topologie, October 1, 2012, Georges-Pierre Bonneau, Stefanie Hahmann.

PhD in progress: Benoit Arbelot, Statistical studies of shape, material, and environment for appearance manipulation, October 1, 2013, Joëlle Thollot, Romain Vergne.

PhD in progress: Alexandre Bleron, Stylization of animated 3D scenes in a painterly style, October 1, 2015, Joëlle Thollot, Romain Vergne.

PhD in progress: Alban Fichet, Efficient representation for measured reflectance, October 1, 2015, Nicolas Holzschuch.

PhD in progress: AaroHi Johal, Algorithmes de génération automatique d'arbres de construction à partir de modèles géométriques CAO B-Rep, September 2013, Jean-Claude Léon, Georges-Pierre Bonneau, thèse CIFRE EdF R&D.

PhD in progress: Guillaume Loubet, Représentations efficaces de l'apparence sous-pixel, October 1, 2014, Fabrice Neyret.

PhD in progress: Jeremy Wambecke, Data Visualization for non-experts, October 1, 2014, Renaud Blanch, Georges-Pierre Bonneau, Romain Vergne.

PhD in progress: Benoit Zupancic, Acquisition of reflectance properties, October 1, 2014, Cyril Soler.

9.2.3. Juries

- Nicolas Holzschuch has been a member of the jury for the PhD of Jonathan Dupuy (Lyon, Dec 2015), Adrien Pilleboue (Lyon, Nov 2015) and Gurprit Singh (Lyon, Sep 2015).
- Joëlle Thollot has been a member of the jury for the PhD of Martin Guay (Grenoble, Dec 2015).

9.3. Popularization

Every year, "MobiNet" (see section 5.7) classes are conducted with high school pupils of the large Grenoble area to practice initiation and intuition on Computer Science, Maths and Physics. Depending on the year, we have 2 to 4 groups in the scope of INP-Grenoble "Engineering weeks", and 0 to 2 groups in the scope of Math-C2+ operations.

MORPHEO Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

10.1.1.1. General chair, scientific chair

- Edmond Boyer was general chair for 3DV 2015.

10.1.1.2. Member of the organizing committees

- Franck Hétroy-Wheeler was publication chair for 3DV 2015.
- Jean-Sébastien Franco was tutorial chair for 3DV 2015.

10.1.2. Scientific events selection

10.1.2.1. Chair of conference program committees

- Edmond Boyer was area chair for BMVC 2015.
- Jean-Sébastien Franco was area chair for 3DV 2015.

10.1.2.2. Member of the conference program committees

- Stefanie Wuhler was on the program committee for: Eurographics Short Papers 2015, Eurographics Workshop 3DOR 2015, SOCG Multimedia Exposition 2015.
- Lionel Reveret was on the program committee for: Symposium on Computer Animation 2015.

10.1.2.3. Reviewer

- Edmond Boyer has reviewed for: CVPR 2015, ICCV 2015, CVMP 2015, SIGGRAPH 2015, ORASIS 2015.
- Jean-Sébastien Franco has reviewed for: CVPR 2015, ICCV 2015.
- Franck Hétroy-Wheeler has reviewed for: 3DV 2015.
- Lionel Reveret has reviewed for: SIGGRAPH 2015, SIGGRAPH Asia 2015, Symposium on Computer Animation 2015, Motion in Game 2015, EUROGRAPHICS 2016.
- Stefanie Wuhler has reviewed for: ICCV 2015, SIGGRAPH Asia 2015.
- Julien Pansiot has reviewed for: MobiHealth 2015, ICCV 2015.

10.1.3. Journal

10.1.3.1. Member of the editorial boards

- Edmond Boyer is associate editor of IJCV.

10.1.3.2. Reviewer - Reviewing activities

- Edmond Boyer has reviewed for: IJCV, IEEE Transactions on PAMI.
- Lionel Reveret has reviewed for: TOG, Computer and Graphics.
- Stefanie Wuhler has reviewed for: Graphical Models, IEEE Transactions on Visualization and Computer Graphics, The Visual Computer.
- Julien Pansiot has reviewed for: Journal of 3D Research.

10.1.4. Scientific expertise

- Edmond Boyer was on the evaluation committees of: European Research Council (evaluation of consolidator ERC proposals), HCERES (evaluation of the LP2N lab at Bordeaux) and ANR (French academic projects).
- Edmond Boyer was on the recruitment committees for CR2 positions at the Inria Grenoble Rhône-Alpes.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Licence: J.S. Franco, Algorithmics, 60h, Ensimag 1st year, Grenoble INP

Licence: J.S. Franco, C Project, 30h, Ensimag 1st year, Grenoble INP

Master: J.S. Franco, End of study project (PFE) Project Tutoring, 18h, Ensimag 2nd year, Grenoble INP

Master: J.S. Franco, 3D Graphics, 50h, Ensimag 2nd year, Grenoble INP

Master: J.S. Franco, Modelisation et programmation C++, 9h, Ensimag 2nd year, Grenoble INP

Master: J.S. Franco, Introduction to Computer Vision, 27h, Ensimag 1st year, Grenoble INP

Master: J.S. Franco, co-responsability of the Graphics, Vision, Robotics specialty of the Mosig Masters program, Second year Masters, Grenoble INP, Université Joseph Fourier

Licence: F. Hétroy-Wheeler, Algorithmics and programming, 45h, Ensimag dual education through apprenticeship 1st year, Grenoble INP

Master: F. Hétroy-Wheeler, Algorithmics and Discrete Optimisation, 18h, Ensimag 2nd year, Grenoble INP

Master: Edmond Boyer, 3D Modeling, 9h, M2R GVR, Université Joseph Fourier Grenoble, France.

Master: Edmond Boyer, projet de programmation, 30h, M1 informatique - M1 MoSig, Université Joseph Fourier Grenoble, France.

Master: Edmond Boyer, Introduction to Image Analysis, 15h, M1 MoSig, Université Joseph Fourier Grenoble, France.

Master: J. Pansiot, Introduction to Computational Anatomy, 2h, Grenoble University Hospital.

Master: J. Pansiot, Introduction to Computer Vision, 27h, Ensimag 3rd year, Grenoble INP.

10.2.2. Supervision

HdR: Franck Hétroy-Wheeler, Segmentation and skeleton methods for digital shape understanding, Université Grenoble Alpes, 20/11/2015.

PhD in progress : Benjamin Allain, Geometry and Appearance Analysis of Deformable 3D shapes, Université de Grenoble, started 01/10/2012, supervised by J.S. Franco and E. Boyer.

PhD in progress: Adnane Boukhayma, 4D model synthesis, Université de Grenoble, started 01/10/2013, supervised by Edmond Boyer.

PhD in progress: Georges Nader, Evaluation de la qualité perceptuelle de maillages dynamiques et ses applications, Université Claude Bernard - Lyon 1, started 01/10/2013, supervised by Florent Dupont, Kai Wang and Franck Hétroy-Wheeler.

PhD in progress: Romain Rombourg, Digital tree: from the acquisition to a high-level geometric model, Université Grenoble Alpes, started 01/10/2015, supervised by Franck Hétroy-Wheeler and Eric Casella.

PhD in progress : Vagia Tsiminaki, Appearance Modelling and Time Refinement in 3D Videos, Université de Grenoble, started 01/10/2012, supervised by J.S. Franco and E. Boyer.

PhD in progress: Li Wang, Transport optimal pour l'analyse de formes en mouvement, Université de Grenoble, started 01/10/2013, supervised by Edmond Boyer and Franck Hétroy-Wheeler.

PhD in progress: Timo Bolkart, Statistical analysis of 3D human faces in motion, Saarland University, started 01/01/2012, supervised by Stefanie Wuhrer.

PhD in progress: Aurela Shehu, Geometric processing of near-isometrically deforming surfaces, Saarland University, started 01/04/2012, supervised by Stefanie Wuhrer.

PhD in progress : Jinlong Yang, Learning shape spaces of dressed 3D human models in motion, Université de Grenoble, started 01/10/2015, supervised by Franck Hétroy-Wheeler and Stefanie Wuhrer.

10.2.3. Juries

- Edmond Boyer was president of the Habilitation committee of Vincent Lepetit at Grenoble University.
- Jean-Sébastien Franco was examiner of the PhD thesis of Kun Liu (Université de Lorraine, Inria Nancy)
- Franck Hétroy-Wheeler is a member of the PhD monitoring committee of Van Tho Nguyen (University of Lorraine, INRA Nancy and Office National des Forêts).

10.3. Popularization

- Edmond Boyer gave invited talks at the ENS Cachan and at the Inria Paris, and the inaugural talk at the Kinovis platform inauguration.
- Franck Hétroy-Wheeler gave two talks on digital geometry to secondary school pupils and their families.
- Interactive Kinovis platform demonstration over 2 days for the "Fête de la Science" (within Morpheo: M. Heudre and J. Pansiot).

PERCEPTION Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events selection

9.1.1.1. Chair of conference program committees

Radu Horaud was program co-chair of ACM ICMI'15, November 2015, Seattle WA, USA.

9.1.2. Journal

9.1.2.1. Member of the editorial boards

Radu Horaud is a member of the following editorial boards:

- advisory board member of the *International Journal of Robotics Research*, Sage,
- associate editor of the *International Journal of Computer Vision*, Kluwer, and
- area editor of *Computer Vision and Image Understanding*, Elsevier.

9.1.3. Invited talks

Radu Horaud gave an invited talk at the IEEE ICCV Worskhop on 3D Reconstruction and Understanding with Video and Sound, Santiago de Chile, Chile, 17 December 2015.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

E-learning: MOOC on *Binaural Hearing for Robots*, May-June 2015, 5 hours over five weeks. Teacher: Radu Horaud.

Tutorial: *Embodied Audition for Robots* at the European Signal Processing Conference (EUSIPCO), Nice, France, 31 August 2015, 3 hours. Teachers: Radu Horaud, Heinrich Loellmann (Friedrich Alexander Universitat Erlangen) and Christine Evers (Imperial College London).

9.2.2. Supervision

- PhD in progress: Israel Dejene Gebru, October 2013, Radu Horaud and Sileye Ba.
- PhD in progress: Dionyssos Kounades-Bastian, October 2013, Radu Horaud and Laurent Girin.
- PhD in progress: Vincent Drouard, October 2014, Radu Horaud and Sileye Ba.
- PhD in progress: Benoit Massé, October 2014, Radu Horaud and Sileye Ba.
- PhD in progress: Stéphane Lathuilière, October 2014, Radu Horaud.
- PhD in progress: Yutong Ban, October 2015, Radu Horaud.

PRIMA Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. General chair, scientific chair

- Sabine Coquillart has served as general co-chair for IEEE VR 2015, Arles, France
- Sabine Coquillart will be general co-chair for IEEE VR 2016, Greenville, USA
- Sabine Coquillart chairs the steering committee for the EGVE Working Group EUROGRAPHICS Working group on Virtual Environments.

9.1.2. Member of the organizing committees

- Sabine Coquillart serves as member of the steering committee for the ICAT conference ñ International Conference on Artificial Reality and Telexistence.
- Sabine Coquillart has served as member of the steering committee for the 3DCVE Workshop on 3D Collaborative Virtual Environments in Arles, France, March 2015.
- Anne Spalanzani served on the organizing committee as Financial chair for IEEE ARSO 2015, Lyon, France

9.1.3. Chair of conference program committees

- James L. Crowley chaired the Best Paper award committee for ACM ICMI 2015

9.1.4. Member of the conference program committees

- Sabine Coquillart has served as a member of the program committee for GRAPP'2015 - International Conference on Computer Graphics Theory and Applications ñ Berlin, Germany, March 2015.
- Sabine Coquillart has served as a member of the program committee for VRST 2015 - 21st ACM Symposium on Virtual Reality Software and Technology, Beijing, China, Nov. 2015.
- Sabine Coquillart has served as a member of the program committee for ICAT-EGVE 2015 - 25th International Conference on Artificial Reality and Telexistence (ICAT 2015) and the 20th Eurographics Symposium on Virtual Environments (EGVE 2015) - Kyoto, Japan, 2015.
- James L. Crowley will serve on the program committee for Ubicomp 2016
- Dominique Vaufreydaz served on the program committee of the 10th IEEE International Workshop on Multimedia Technologies for E-Learning (MTEL2015).
- Dominique Vaufreydaz served on the program committee for the 7th international on Knowledge and Systems Engineering (KSE 2015)
- Dominique Vaufreydaz served on the program committee for UBICOMM2015

9.1.5. Reviewer for conferences

- James L. Crowley served as review for IEEE CVPR 2015
- James L. Crowley served as review for ICCV 2015
- James L. Crowley served as review for ACM ICMI 2015
- James L. Crowley served as review for IEEE ICRA 2015
- James L. Crowley served as review for AMI 2015
- James L. Crowley served as review for Interact 2015

- Dominique Vaufreydaz served as reviewer for International Journal On Advances in Internet Technology, v 8 n 3-4 2015
- Dominique Vaufreydaz served as reviewer pour IROS 2015
- Anne Spalanzani served as reviewer for IROS 2015,
- Anne Spalanzani served as reviewer for Social Robotics

9.1.6. Member of the editorial board of Journals

- Sabine Coquillart is a member of the Editorial Board of the Advances in Human-Computer Interaction
- Sabine Coquillart is a member of the Scientific Committee of the Journal of Virtual Reality and Broadcasting.
- Sabine Coquillart is a member of the Advisory/Editorial Board for the International Journal of Computer Graphics SERSC.
- Sabine Coquillart is a Member of the Editorial Board of Peer Computer Science open access Journal in Computer Science.
- Sabine Coquillart is a member of the Editorial board (computer Sciences) of the Scientific World Journal.
- Sabine Coquillart is Review Editor for the iFrontiers in Virtual Environments journal.
- Anne Spalanzani is a member of the editor for a special issue on Assistive and Rehabilitation Robotics of the Journal of Autonomous Robots

9.1.7. Reviewing activities for Journals

- James L. Crowley has reviewed papers for IEEE Pervasive
- Dominique Vaufreydaz served as reviewer for the journal Autonomous Robots
- Dominique Vaufreydaz served as reviewer for the journal Robotics and Autonomous Systems

9.1.8. Invited talks

- James L. Crowley, An Ecological Approach to Smart Home Systems, Joint CNRS-ALSTOM International Workshop: From Industry 4.0 to Smart cities, CNRS 1 rue Michel Ange, 26-27 Nov 2015.
- James L. Crowley, Context Aware Mobile Assistant, Smart City and Mobility Innovations, Organised by Inria in San Francisco, 11 May 2015

9.1.9. Leadership within the scientific community

- Sabine Coquillart is elected member of the EUROGRAPHICS Executive Committee.
- Sabine Coquillart is member of the EUROGRAPHICS Working Group and Workshop board.

9.1.10. Scientific expertise

- James L. Crowley served on the selection committee for Institut Université de France (IUF)
- James L. Crowley reviewed proposals for H2020 FET program and other H2020 PHC program
- Dominique Vaufreydaz served as evaluator pour l'ANR

9.1.11. Research administration

- James L. Crowley has been elected member of the Conseil d'Administration of the COMUE Université Grenoble Alpes
- James L. Crowley has been elected member of the Conseil du Laboratoire of the Laboratoire Informatique de Grenoble.

- James L. Crowley serves on the Administrative Office (Bureau) for the Laboratoire Informatique de Grenoble.
- James L. Crowley Serves on the Commission d’Habilitation de Dirigé la Recherche (HDR) for the Pole Informatics and Mathematics of the University Grenoble Alpes.
- James L. Crowley Serves on the Comité Scientifc (COS) d’Inrial Grenoble Rhone-Alpes Research Center
- James L. Crowley Serves on Steering Committee of the Inovallée TARMAC technology Incubator.
- James L. Crowley is director of the Amiqua4Home Equipment of Excellence (EquipEx).

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

9.2.1.1. James Crowley

James Crowley is Director of the Master of Science in Informatics at Grenoble.

Master : Computer Vision, Course 24h EqTD, M2 year, Master of Science in Informatics at Grenoble,

Master : Intelligent Systems, Cours 54h EqTD, ENSIMAG.

9.2.1.2. Sabine Coquillart

- Master : Sabine Coquillart teaches a course on Virtual Reality and 3D User Interfaces for the GVR Master 2R, 2013-2014.
- Master : Sabine Coquillart teaches a one day course on 3D User Interfaces and Augmented Reality for the Numerical Modeling and Virtual Reality Master 2 in Laval, 2013-2014.

9.2.1.3. Thierry Fraichard

Master: Thierry Fraichard, Introduction to Perception and Robotics, 23h eqTD, M1 MOSIG, Univ. of Grenoble, France.

Master: Thierry Fraichard, Motion in Dynamic Workspaces, 2h eqTD, Computer Science Master, Bar Ilan Univ., Israel.

Co-responsibility of the Graphic, Vision and Robotics track of the international MOSIG Master programme.

9.2.1.4. Patrick Reignier

- Patrick Reignier has been elected member of the Conseil Academic du Pole Math-Stic of the Université Grenoble Alpes
- Patrick Reignier Supervises the industrial part of the “formation en apprentissage” of the ENSIMAG engineering school.
- Master: Patrick Reignier, Projet Genie Logiciel, 55h eqTD, M1, ENSIMAG/Grenoble INP, France.
- Master : Patrick Reignier, Developpement d’applications communicantes, 18h eqTD, M2, ENSIMAG/Grenoble - INP, France
- Master : Patrick Reignier, Introduction aux applications reparties, 18h eqTD, M2, ENSIMAG/Grenoble - INP, France
- Master: Patrick Reignier, Programmation Internet, 18h eqTD, M1, ENSIMAG/Grenoble INP, France
- Master : Patrick Reignier, Algorithmique, 50h eq TD, M1, ENSIMAG/Grenoble INP, France
- Licence: Patrick Reignier, Projet C, 20h eqTD, L3, ENSIMAG/Grenoble INP, France.

9.2.2. Supervision

9.2.2.1. PhD defended in 2015

- Varun Jain, Visual Perception of Emotions, Doctoral Thesis of the Université Grenoble-Alpes, defended 30 March 2015. Thesis director James L. Crowley
- Sergi Pujades-Rocamora, Modeles de cameras et algorithmes pour la creation de contenu video 3D, Doctoral Thesis of the Université Grenoble-Alpes, defended 14 October 2015. Thesis director Remi Ronfard (HDR) and Frederic Devernay
- Anne Spalanzani defended her HDR "Contribution à la navigation autonome en environnement dynamique et humain" in June 2015

9.2.2.2. *Current Doctoral Students*

- Etienne Balit, Multimodalite et interaction sociale, Doctoral student of University of Grenoble-Alpes, Started October 2013, Patrick Reignier (Professor), Dominique Vaufreydaz.
- Viet Cuong Ta, Multiple Users localization in public large-scale space, Doctoral student of University of Grenoble-Alpes, Started October 2013, Eric Castelli (HDR, Mica laboratory Hanoi, Vietnam), Dominique Vaufreydaz.
- Remi Paulin, Human-Robot Motion, University of Grenoble-Alpes, started in October 2013, Thierry Fraichard (HDR).
- Chen Jingtao, "Pseudo-haptic feedback without active haptic feedback devices", University of Grenoble-Alpes, Started in October 2014, co-directed by S. Coquillart
- Grégoire Nieto, « Lightfield Remote Vision », University of Grenoble-Alpes, Started in January 2015, co-directed by F. Devernay and J. L. Crowley
- Romain Bregier, « 3D Bin Picking », University of Grenoble-Alpes, CIFRE doctoral student with Siléane, Started in October 2014, Co-directed by F. Devernay and J.L. Crowley
- Alberto Quintero Delgado, University of Grenoble-Alpes, Started in October 2014, , directed by F. Devernay
- Julien Cumin, « Fouille de données de l’habitat connecté », University of Grenoble-Alpes, CIFRE doctoral student with Orange Labs, Started in October 2015, Directed by James L. Crowley.
- Sandra Nabil, « Video Panoramic 3D », University of Grenoble-Alpes, Started in October 2015, Co-directed by F. Devernay and J.L. Crowley

9.2.3. *Juries*

- James L Crowley served on the 2015 Selection committee for the IUF Senior awards.
- Dominique Vaufreydaz served on the recruiting juries for ATER and M&C for the Université de Grenoble Alpes.
- James L. Crowley served on the Doctoral Jury of Arsène FANSI TCHANGO, Doctoral thesis of the Univ of Nancy, defended 4 Dec 2015.
- Dominique Vaufreydaz served as examinateur on the thesis jury of Wafa Johal "Du Style pour des Robots Compagnons : Vers la Plasticité en Interaction Homme-Robot", on 30 Oct 2015

TYREX Project-Team

8. Dissemination

8.1. Promoting Scientific Activities

8.1.1. Scientific events organisation

8.1.1.1. Member of the organizing committees

C. Roisin is a member of the steering committee of the [ACM Symposium on Document Engineering](#).

8.1.2. Scientific events selection

8.1.2.1. Chair of conference program committees

P. Genevès is the PC Chair of the [ACM Symposium on Document Engineering 2015](#).

8.1.2.2. Member of the conference program committees

P. Genevès is member of the external review committee for the 42nd ACM Symposium on Principles of Programming Languages (POPL'15).

C. Roisin and N. Layaïda are program committee members for the 15th ACM Symposium on Document Engineering (DocEng'15).

8.1.2.3. Reviewer - Reviewing activities

P. Genevès has been a referee for the ACM Transactions on Database Systems (TODS).

P. Genevès has been a referee for the International Colloquium on Automata, Languages and Programming (ICALP).

P. Genevès has been a referee for the International Conference for Human-Computer Interaction (CHI).

P. Genevès has been a referee for the International Conference on Relational and Algebraic Methods in Computer Science (RAMiCS).

N. Gesbert has been a referee for Logical Methods in Computer Science (LMCS).

8.1.3. Research administration

C. Roisin is a board member of the University Pierre Mendes-France, University of Grenoble, in charge of IT systems and TICE.

C. Roisin is president of the disciplinary commission of the University Pierre Mendes-France, University of Grenoble.

N. Layaïda is a permanent member of the pool of experts (project selection committee) of the Minalogic competitive cluster.

N. Layaïda is “réfèrent budget” member of the budget commission of the Inria Grenoble – Rhône-Alpes research center. The role of this commission is to allocate yearly budget (“dotation”) to Inria project teams and services. On a yearly basis, we meet with team and service leaders individually, collect their financial needs and set their budget.

P. Genevès is a permanent member of the committee in charge of hiring research engineers at Inria Grenoble - Rhône-Alpes research center, since 2007.

P. Genevès is co-responsible of the doctoral school of Grenoble University for Computer Science (around 400 PhD students), since July 2015.

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

P. Genevès: 18h (foundations for XML: logics, tree automata and grammars) in the Master of Science in Informatics at Grenoble (Université Joseph Fourier); 3h (tree automata and grammars) in the Master at Ecole Polytechnique Fédérale de Lausanne; 3h (XML Essentials) in the Master at Ecole Nationale Supérieure d'Informatique et de Mathématiques appliquées de Grenoble.

N. Layaïda: 9h of Master lectures on SMIL and Multimedia Principles at Grenoble Universities (Master of Science in Informatics at Grenoble, M2R SIGAL: UE IST, final year).

C. Roisin: 192h at License level on computer network and web technologies; responsible of a L3 degree in web technologies with 50 students per year involved in a dual education system.

C. Roisin is the contact person of the Grenoble Inria Centre for the doctoral schools of University of Grenoble (mainly the MSTII Doctoral School), until June 2015.

N. Gesbert: 223h at License and Master levels in an engineering school (Ensimag), including: 60h on algorithmics and 45h on logic at license level, and 45h on software analysis, conception and validation, 45h on logic and 22h30 on Web application development at master level, plus a few hours of tutoring.

8.2.2. Supervision

PhD defence: N. Guido, On the Static Analysis for SPARQL Queries using Modal Logic, 3rd October 2015, C. Roisin and P. Genevès

PhD in progress: D. Graux, Large scale evaluation of semantic web queries, since November 2013, N. Layaïda and P. Genevès

PhD in progress: A. Abbas, Web query rewriting for heterogeneous data sources, since October 2014, N. Layaïda and P. Genevès

PhD in progress: T. Michel, Mobile Augmented Reality Applications for Smart Cities, since October 2014, P. Genevès, N. Layaïda and H. Fourati

PhD in progress: L. Jachiet, Reasoning with NoSQL Data Flows in Massively Parallel Systems, since October 2014, N. Layaïda and P. Genevès

P. Genevès is co-responsible of a master-level university course entitled “Semantic Web: from XML to OWL”, given each year in the second year of the Master of Science in Informatics at Grenoble.

N. Layaïda is a permanent member of the jury in charge of evaluation harmonisation of the Master of Science in Informatics at Grenoble.

P. Genevès is co-responsible of the doctoral school of Grenoble University for Computer Science (around 400 PhD students), since July 2015.

N. Layaïda is member of the Scientific Board of Advanced Data-mining of the Parsyval Labex.

N. Layaïda is member of the experts pool (selection committee) of the minalogic competitive cluster.

8.3. Popularization

M. Razafimahazo developed a mobile application for the pupils of the école de la paix, Grenoble. The application uses Augmented Reality for a cultural heritage tour of Grenoble City with content produced by the pupils.

M. Razafimahazo animated a brainstorming during CitizenTIC around OpenStreetMap crowd-sourcing: “Les cartes changent la donne autour des parcours accessibles dans l’agglomération Grenobloise”.

N. Layaïda animated several workshops on Open Linked Data for Grenoble City and Grenoble Agglomeration (La métro).

TyReX received two pupils from secondary school, Jeremy Andreoletti and Hugo Kersaudy, for a one week initiation to research. We also hosted several pupils from primary school for one day for a presentation and demos.