



RESEARCH CENTER
Grenoble - Rhône-Alpes

FIELD

Activity Report 2013

Section Dissemination

Edition: 2014-03-19

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ARIC Project-Team

9. Dissemination

9.1. Scientific Animation

- Florent de Dinechin is an associate editor of the journal *IEEE Transactions on Computers*. He was a member of the Program Committees of the conferences CompAs (Grenoble, January 2013), Applied Reconfigurable Computing (Los Angeles, March 2013), Highly Efficient Accelerators and Reconfigurable Technologies (Edinburgh, June 2013), Field-Programmable Logic (Porto, September 2013), Field-Programmable Technology (Kyoto, December 2013), ReConfig 2013 (Cancun, December 2013). He also organized a tutorial half-day on arithmetic core generation using the FloPoCo framework at HiPEAC 2013 (Berlin, January 2013).
- Guillaume Hanrot has been deputy director of the LIP (laboratoire d'informatique du parallélisme) since 01/01/13. He has also been in charge of the computer science master at ENS de Lyon for the academic year 2012-2013. He has been a member of hiring committees for an assistant professor position at Caen IUT, for an assistant professor position at Saint-Étienne IUT, for a professor position at ENSIIE Strasbourg, and of the national committee for "Prime d'excellence scientifique". He is a member of the scientific council of ENSIIE (Évry). He chairs a working group in charge of making recommendations concerning general teaching and training policy at ENS de Lyon.
- Claude-Pierre Jeannerod is a member of the scientific committee of "Journées Nationales de Calcul Formel".
- Fabien Laguillaumie has been member of an hiring committee for an assistant professor position at Université Lyon 1. He was member of ProvSec 2013 program committee. He is responsible for the second year "Ingénierie des Risques" of the Master SAFIR.
- Vincent Lefèvre and Nicolas Louvet were in the scientific committee of the CNRS thematic school *Précision et reproductibilité en calcul numérique* (Fréjus, France, March, 2013).
- Jean-Michel Muller co-chairs the Groupement de Recherche (GDR) *Informatique Mathématique* of CNRS. He is an associate editor of the journal *IEEE Transactions on Computers*. He participated to the evaluation committee of the LIRMM laboratory (Montpellier) in November 2013. He is a member of the scientific councils of CERFACS (Toulouse) and ENS de Lyon. He was a member of the Program Committees of the conferences IEEE ARITH 21 (Austin, Texas, April 2013) and IEEE ASAP'2013 (Washington DC, June 2013).
- Nathalie Revol was in the hiring committee for junior researchers (CR) of Inria Grenoble - Rhône-Alpes. She is a member of the CES (Commission des Emplois Scientifiques), the hiring committee for postdocs at Inria Grenoble - Rhône-Alpes. She was the chair of the organization committee and took charge of the "gender aspects" of the Forum 2013 des Jeunes Mathématicien-ne-s, 13-15 November, Lyon. She is a member of the "comité de diffusion" of the MILyon labex. She belongs to the steering committee for the MMI (Maison des Mathématiques et de l'Informatique). She is a member of the selecting committee of CapMaths.
- 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). He is organizing the working group Computer Algebra of the CNRS GDR IM. This year, he has been in the program committees of ISSAC 2013 (Boston, Mass., June 2013) and Analco 2013 (New Orleans, Louisiana, January 2013).

- Damien Stehlé has been deputy director and Erasmus coordinator of the ENS de Lyon Computer Science department from 01/01/13 until 30/06/13. He has been the director of the Computer Science department since 01/07/13. He is a member of the steering committee of the Cryptography and Coding CNRS working group (GdT C2 du GDR IM). He is a member of the steering committee of the PQCrypto conference series. In 2013, he served in the program committees of the PQCrypto (Limoges, France, June 2013) and Asiacrypt (Bengalore, India, December 2013) conferences.
- Gilles Villard is chair of LIP laboratory and a member of the editorial board of the “Journal of Symbolic Computation.”

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Licence : Nicolas Louvet, *Computer Architecture*, 74h, L2, Univ. Lyon 1.

Licence : Nicolas Louvet, *Algorithms and Data Structures*, 30h, L3, Univ. Lyon 1.

Licence : Nicolas Louvet, *Operating Systems*, 50h, L3, Univ. Lyon 1.

Master: Nicolas Brisebarre and Bruno Salvy, *Approximations: from symbolic to numerical computation, and applications*, 24h, ENS de Lyon.

Master: Guillaume Hanrot and Jean-Michel Muller, *Computer Algebra*, 24h, ENS de Lyon.

Master: Claude-Pierre Jeannerod, Nicolas Louvet, Nathalie Revol, *Numerical Algorithms*, 48h, Univ. Lyon 1.

Master: Fabien Laguillaumie, *Cryptography, Error Correcting Codes*, 150h, Univ. Lyon 1.

Master: Vincent Lefèvre, *Computer Arithmetic*, 14h, Univ. Lyon 1.

Master: Jean-Michel Muller, *Floating-Point Arithmetic and Formal Proof* (8h + coordination of the 24h course), ENS de Lyon.

Master: Bruno Salvy, *Computer Algebra*, 12h, MPRI.

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

Doctorat: Nicolas Brisebarre, *Lattices in computer arithmetic*, 3h, École de Printemps d’Informatique Théorique, Autrans, March 21.

Doctorat: Florent de Dinechin, *Arithmétique flottante*, 1h30, École CNRS *Précision et reproductibilité en calcul numérique*, Fréjus, March 25-29.

Doctorat: Guillaume Hanrot, *Introduction to lattice algorithms*, 3h, École de Printemps d’Informatique Théorique, Autrans, March 18.

Doctorat: Vincent Lefèvre, *Arithmétique flottante en précision arbitraire*, 3h, École CNRS *Précision et reproductibilité en calcul numérique*, Fréjus, March 25-29.

Doctorat: Jean-Michel Muller, *Arithmétique flottante*, 2h, École CNRS *Précision et reproductibilité en calcul numérique*, Fréjus, March 25-29.

Doctorat: Jean-Michel Muller, *Arithmétique flottante*, 2h, École HPC, Lyon, September 3.

Doctorat: Nathalie Revol and Philippe Théveny, *Arithmétique flottante et intervalles*, 3h, École CNRS *Précision et reproductibilité en calcul numérique*, Fréjus, March 25-29.

Doctorat: Nathalie Revol and Philippe Théveny, *Précision et arithmétique flottante : outils, bibliothèques*, 3h30, JDEV : Journées du Développement Logiciel, École Polytechnique, 4-6 September.

Doctorat: Nathalie Revol and Philippe Théveny, *Introduction à l’arithmétique par intervalles*, 3h, professional training entitled “Contrôler et améliorer la qualité numérique d’un code de calcul industriel”, Collège de l’X, Paris, 21-22 November.

Doctorat: Damien Stehlé, *Introduction to lattices*, 3h, École de Printemps d’Informatique Théorique, Autrans, March 18.

9.2.2. Supervision

PhD: Julien Devigne, *Protocoles de re-chiffrement pour le stockage de données*, September 2011 - December 2013 (Orange Labs - Univ. Caen); co-supervised by Fabien Laguillaumie (together with Sébastien Canard and Brigitte Vallée).

PhD in progress: Nicolas Brunie, *Architecture et réalisation d'un accélérateur reconfigurable à couplage fort pour processeurs parallèles*, since September 2010 (CIFRE Kalray from April 2011); co-supervised by Florent de Dinechin (and Renaud Ayrignac).

PhD in progress: Louis Dumont, *Algorithmique efficace pour les diagonales*, since September 2013, co-supervised by Bruno Salvy (together with Alin Bostan).

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: Pierre Lairez, *Algorithmique efficace pour la création télescopique et ses applications*, since September 2011, co-supervised by Bruno Salvy (together with Alin Bostan).

PhD in progress: Adeline Langlois, *Foundations of lattice-based cryptography*, since September 2010, supervised by Damien Stehlé.

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).

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: Philippe Théveny, *Numerical quality and high performance in scientific computing on emerging architectures*, since September 2011, supervised by Nathalie Revol.

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.

9.2.3. Juries

- Nicolas Brisebarre was a member of the PhD committee of Răzvan Bărbulescu (Nancy, December 2013).
- Guillaume Hanrot was an external referee for the PhD of Md Mohammed Haque (Macquarie U., Australia, sept. 2013) and for the PhD of Mariya Georgieva (Caen, 2013-12-09). He was a member of the committee for the PhD of Léo Ducas (ENS Paris, 2013-11-12) and Yuanmi Chen (ENS Paris, 2013-11-13).
- Fabien Laguillaumie was an external referee for the PhD of Léo Ducas (ENS Paris, 2013-11-12) and Viet Cuong Trinh (Univ. Paris 8, 2013-12-19). He was a member of the PhD committees of Mario Stefler (2013-09-26, ENS Paris), Nicolas Estibals (2013-10-30), Mariya Georgieva (Caen, 2013-12-09), and Aurore Guillevic (ENS Paris, 2013-12-20).
- Jean-Michel Muller was a referee for the habilitation of Stef Graillat (U. Paris 6, 2013-12-2).
- Nathalie Revol was the external referee for the PhD of Bingzhou Zheng (U. McMaster, Hamilton, Canada, 2013-12-10).
- Bruno Salvy was a member of the PhD committee of Fabien Monfreda (Toulouse, July 2013).
- Damien Stehlé was an external referee for the PhD of Romar Basillaje Dela Cruz (Nanyang Technological U., Singapore, March 2013) and of Zhenfei Zhang (U. of Wollongong, Australia, October 2013).

9.3. Invited Conferences

- Florent de Dinechin gave invited talks or lectures at the CERN/Intel OpenLab workshop at CERN, at the LIF seminar in Luminy, at the Intel Summer School in Nizhniy Novgorod, and at the Journées Développement Logiciel (JDEV) in Palaiseau.
- Jean-Michel Muller gave an invited talk *Proof of Properties in Floating-Point Arithmetic* at the conference *Continuity, Computability, Constructivity - From Logic to Algorithms* (CCC 2013), Swansea University/Gregynog, UK, June 26–30, 2013.
- Nathalie Revol gave talks about numerical reproducibility, with a focus on interval computations, at PPAM'2013 (Warsaw, Poland, 2013/09/8-11), at RAIM 2013 (Paris, France, 2013/11/18-20), at McMaster University (Hamilton, Ontario, Canada, 2013-12-10), and at University of Toronto (Ontario, Canada, 2013-12-13).
- Bruno Salvy was invited to give a talk *Implicit Species at the basis of Analytic Combinatorics* at the 24th International Meeting on Probabilistic, Combinatorial and Asymptotic Methods for the Analysis of Algorithm (AofA 2013, Menorca, Spain, May 27–31) and on *Newton iteration in computer algebra and combinatorics* at the *Journées d'Informatique Fondamentale de Paris Diderot* (April 22–26).
- Damien Stehlé gave an invited lecture talk at *Journées Nationales du Calcul Formel* (Luminy, France, May 13–17, 2013), invited plenary talks at the conferences *SIAM Conference on Applied Algebraic Geometry (AG13)* (Fort Collins, Colorado, USA, August 1–4, 2013) and *ICISC* (Seoul, Korea, November 25–29, 2013) and at the *Microsoft Research India Workshop on Lattice-Based Cryptography* (Bengalore, India, November 30, 2013).

9.4. Popularization

- Nathalie Revol gave talks for pupils at collèges and lycées, as an incentive to choose scientific careers: lycée Jeanne d'Arc (Cessy, Ain), lycée Rosa Parks (Neuville, Rhône). During the “Week of mathematics”, she gave a 2-hour talk at lycée de la Plaine de l'Ain (Ambérieu-en-Bugey, Ain). She was present, took part in speed-meetings, and gave talks for the “Mondial des Métiers” (Eurexpo Lyon, Chassieu, Rhône) and for “Science au Carré(e)” (Forum des Halles, Paris). For the Science Fair, she gave 8 talks at ENS de Lyon. She was invited to “Interacadémiques” in Lyon, for an audience of inspecteurs d'académie. She supervised the internship of Quentin Chopinet (1e S, one week) and hosted Elsa Courtais (spé TSI, one day).
- Damien Stehlé was interviewed for an article in *La Recherche*, published in September 2013.

COMPSYS Project-Team

9. Dissemination

9.1. Scientific Animation

9.1.1. Program Committees, Editorial Boards, and Reviewing Activities

- Christophe Alias was a member of the steering committee of IMPACT 2013 (International Workshop on Polyhedral Compilation Techniques, Berlin, Germany).
- Christophe Alias, Alain Darte, and Paul Feautrier were members of the program committees of IMPACT 2013 and IMPACT 2014 (Vienna, Austria).
- Christophe Alias was member of the program committee of ODES 2013 (i.e., ODES-10, 10th Workshop on Optimizations for DSP and Embedded Systems, Shenzhen, China).
- Fabrice Rastello was member of the program committees of CGO 2014 (International Symposium on Code Generation and Optimization, Orlando, Florida) and CRI 2013 (Conférence de Recherche en Informatique, Yaoundé, Cameroun).
- Alain Darte was member of the program committees of DATE 2013 (Design, Automation, and Test in Europe, Grenoble, France) and DATE 2014 (Dresden, Germany), IPDPS 2013 (International Parallel and Distributed Processing Symposium, Boston, Massachusetts) and IPDPS 2014 (Phoenix, Arizona).
- Alain Darte was member of the editorial board of IEEE TECS (Transactions on Embedded Computing Systems) until end of 2013.
- Christophe Alias was a reviewer for the journals JPDC (Journal of Parallel and Distributed Computing), MICPRO (Microprocessors and Microsystems), PPL (Parallel Processing Letters), ACM TRETs (Transactions on Reconfigurable Technology and Systems), TSI (Technique et Science Informatique), CDT (IET Computers and Digital Techniques), IPL (Information Processing Letters).
- Paul Feautrier was a reviewer for ACM TECS, IJPP, IEEE TPDS, ACM TOPLAS, DATE14, IMPACT 2014.
- Alain Darte was a reviewer for DATE'14, IPDPS'14, IMPACT'14, Parallel Computing, ACM TACO, and ACM TECS.
- Laure Gonnord was a reviewer for MSR'13, DAC'13 and AMT'13.

9.1.2. Thematic Quarter on Compilation

Compsys is part of the Labex MILYON, which regroups Institut Camille Jordan, and the mathematics and computer science labs of ENS-Lyon. One of its goal is “to strengthen our international relationships, in particular by organizing thematic quarters which will allow world experts of a subject to gather in Lyon and work together in a stimulating environment.” In this context, Alain Darte, helped by Alexandre Isoard and Laetitia Lecot, organized, from April to July 2013, a thematic quarter on compilation techniques (<http://labexcompilation.ens-lyon.fr>), with a special focus on the interactions with languages and architectures for high performance computing. This thematic quarter (with a total budget of 100 Keuros), consisted, in addition to the “french compilation days” organized separately in Annecy by Laure Gonnord and Fabrice Rastello (April 4-7, 2013), in three international scientific events organized in Lyon or the vicinity.

- A **spring school on polyhedral code analysis and optimizations** (<http://labexcompilation.ens-lyon.fr/polyhedral-school>), May 13-17, 2013, in Domaine des Hautannes in St Germain au Mont d’Or, the first international school on the polyhedral model and related optimizations. The school covered scheduling theory, algorithms and modeling with integer sets and relations, abstract interpretation, compilation for distributed platforms, array region analysis, vectorization and SIMD optimizations,

through courses given by S. Rajopadhye (Colorado State Univ.), P. Feautrier (Compsys, ENS-Lyon), L.-N. Pouchet (UCLA), S. Verdoolaege (ENS Paris), A. Miné (ENS Paris), U. Bondhugula (IIS Bangalore), A. Darte (Compsys, CNRS), B. Creusillet (Silkan), P. Sadayappan (Ohio State Univ.), N. Vasilache (Reservoir Labs, New York). The school attracted 56 participants, half from France, but also from Germany, the USA, England, Belgium, Spain, China, India, Ireland, and Italy and, interestingly, also from groups that are not familiar with polyhedral optimizations. Roughly half of the participants were PhD students.

- **A dive in languages for high-performance computing** (<http://labexcompilation.ens-lyon.fr/hpc-languages>), June 29-July 2, 2013 in Résidence Villemanzy in Lyon, organized as a set of long keynotes on CAF (Coarray Fortran), UPC (Unified Parallel C), X10, Chapel, OpenACC & OpenHMPP, Liquid Metal, OmpSs, OpenStream, and some DSL approaches. The keynotes were given by a panel of international experts on compilation for high-performance computing: J. Mellor-Crummey and V. Sarkar (Rice), K. Yelick (Berkeley), R. Schreiber (HP Labs), B. Chamberlain (Cray), D. Grove and R. Rabbah (IBM Watson), A. Cohen (Inria, ENS Paris), R. Badia (UPC Barcelona), F. Bodin (Univ. Rennes, previously Caps Entreprise), Y. Orlarey (Grame), K. Knobe (Intel, Massachusetts), P. Sadayappan (Ohio State Univ.). This event regrouped 71 participants, including speakers, and, as we hoped, also attracted people from industry, and not only computer industry.
- **CPC'13, the 17th international workshop on compilers for parallel computing** (<http://labexcompilation.ens-lyon.fr/cpc2013>), July 3-5, 2013, in Musée Gadagne, in (old) Lyon, a venue that is held every 18 months in Europe since 1989 and that encompasses all areas of parallelism and optimization linked to compilers. The program consisted in 29 talks, from the international community on compilers for HPC (from Japan & Taiwan to the USA, and of course Europe), with 47 participants.

During this compilation thematic quarter, Paul Feautrier and Alain Darte gave the following talks:

- “Array Dataflow Analysis for Polyhedral X10 Programs” (Paul Feautrier) and “Modèles et algorithmes: comprendre de quoi on parle” (Alain Darte) at the French Compiler Community meeting (April 2-4, 2013),
- “The Care and Feeding of Polyhedra” (Paul Feautrier) and “Array Contraction with Lattice-Based Memory Allocation” (Alain Darte) at the Spring School on Polyhedral Code Analysis and Optimizations (May 13-17, 2013),
- “Determinacy Analysis of Polyhedral X10 Programs” (Paul Feautrier), paper with Alain Ketterlin and Eric Violard, at the CPC Workshop (July 3-5, 2013),

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Licence:

- Laure Gonnord, Algorithmique et programmation C (60h), L3, Université de Lille 1, Polytech'Lille.
- Laure Gonnord, Architecture des ordinateurs (25h), L3, Université de Lille 1, Polytech'Lille.
- Laure Gonnord, Algorithmique et programmation fonctionnelle et récursive (42h), L1, Université Lyon 1 Claude Bernard.
- Guillaume Iooss, LIF3: algorithmique et programmation fonctionnelle et récursive (28h), L1, Université Lyon 1 Claude Bernard.
- Guillaume Iooss, Programmation 1 (12h), L3, ENS-Lyon.
- Christophe Alias, Architecture des ordinateurs (21h TP), Université Lyon 1.

- Christophe Alias, Compilation (6h CM, 6h TP), ENSI Bourges.
- Christophe Alias, Correction de copies, concours E3A, épreuve informatique MPSI.
- Alexandre Isoard, LIF12: Système et Réseau (32h TP), L3, Université Lyon 1 Claude Bernard.

Master:

- Laure Gonnord, Compilation (24h), M1, Université Lyon 1 Claude Bernard.
- Laure Gonnord, Introduction aux systèmes et réseaux (52h), M2 Pro, Université Lyon 1.
- Christophe Alias, Compilation (24h CM), M1, ENS-Lyon.
- Christophe Alias, Compilation avancée (8h CM), M2, ENS-Lyon.
- Fabrice Rastello, Compilation avancée (6h CM), M2, ENS-Lyon.
- Fabrice Rastello, SSA-based compiler design (2 days), CRI Cameroun.
- Alexandre Isoard, Compilation (24h TP), M1, ENS-Lyon.
- Guillaume Iooss, Image (24h TP), M1, ENS-Lyon.
- Laure Gonnord also organized, for the Computer Science Department of ENS Lyon, a *research school* for Master students, on synchronous programming. The program can be found at the url: http://laure.gonnord.org/pro/research/sync_research_school.html.

9.2.2. Supervision

- PhD in progress: Guillaume Iooss, “Semantic Tiling”, started on September 2011, advisors: Christophe Alias and Sanjay Rajopadhye (Associate Professor, Colorado State University).
- PhD in progress: François Gindraud, started on January 2013, advisors Fabrice Rastello, Albert Cohen (Parkas Inria team)
- PhD in progress: Duco Van Amstel, started on January 2013, advisors Fabrice Rastello, Benoit Dupont-de-Dinechin (Kalray)
- PhD in progress: Diogo Nunes Sampaio, started on October 2013, advisor Fabrice Rastello
- PhD in progress: Alexandre Isoard, started in September 2012, advisor Alain Darté

9.2.3. Juries

- Laure Gonnord participated to the Jury of Clement Guy’s PhD defense (in Rennes) entitled “Facilités de typage pour l’ingénierie des Langages”. This PhD was supervised by J.M. Jézéquel (Professor, Rennes University), and B. Combemale (Assistant Professor, Rennes University) and S. Derrien (Professor, Rennes university).
- Christophe Alias participated to the Jury of Antoine Morvan’s PhD defense (in Rennes) entitled “Utilisation du modèle polyédrique pour la synthèse d’architectures pipelinées”. This PhD thesis was supervised by S. Derrien (Professor, Rennes University), and P. Quinton (Professor, Rennes University).
- Fabrice Rastello participated to the jury of Alexandre Carbon’s PhD defense, entitled “Accélération matérielle de la compilation à la volée pour les systèmes embarqués”.
- Paul Feautrier was a reviewer for the HDR of Stephane Mancini (Grenoble) and for the PhD of Amira Mensi (Paris).
- Alain Darté was a reviewer for the PhD thesis of Cupertino Miranda (Paris 11), entitled “Erbium: Reconciling languages, runtimes, compilation and optimizations for streaming applications” and supervised by Albert Cohen (DR Inria, Parkas team).

CONVECS Project-Team

9. Dissemination

9.1. Scientific Animation

9.1.1. Software Dissemination and Internet Visibility

The CONVECS project-team distributes several software tools: the CADP toolbox (see § 5.1), the TRAIAN compiler (see § 5.2), the PIC2LNT translator (see § 5.3), and the PMC model checker (see § 5.4). In 2013, the main facts are the following:

- We prepared and distributed 11 successive versions (from 2013-a to 2013-l “Zurich”) of CADP.
- We were requested to grant CADP licenses for 934 different computers in the world.
- We released version 3.0 of the PIC2LNT translator from an applied π -calculus to LNT in May 2013.
- We released version 1.0 of the PMC partial model checker for networks of automata in May 2013.

The CONVECS Web site ¹⁴ was updated with scientific contents, announcements, publications, etc.

By the end of December 2013, the CADP forum ¹⁵, opened in 2007 for discussions regarding the CADP toolbox, had over 270 registered users and over 1400 messages had been exchanged.

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:

- Formal verification of BPMN models with the Alvis modeling language [64], [65], [66]
- The DFTCalc tool for efficient fault tree analysis [29], [28]
- Efficient modeling, generation, and analysis of Markov automata [67]
- Modeling and verification techniques for the incremental development of UML architectures [63]
- Model based design of complex embedded systems [27]
- Model extraction approach to verifying concurrent C programs [40]
- Model checking based approach to automatic test suite generation for Web services and BPEL [73]
- The VIP Design graphical language for the design of image and video processing embedded systems [74], [75]
- Active learning of extended finite state machines [69]
- Incremental construction and interoperability analysis of critical systems [56], [55], [62]
- Modeling robot behavior with CCL [54]
- Behavioural verification of distributed components [52]
- Efficient property preservation checking of model refinements [71]
- Efficient operational semantics for EB3 for verification of temporal properties [70]
- Multilevel contracts for trusted components [59]

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

- Formally reasoning on a reconfigurable component-based system [48]
- Assisting refinement in system-on-chip design [60]
- Formal development of control software in the medical systems domain [61]
- Model-driven approach supporting formal verification for Web service composition protocols [38]
- Scalably verifiable cache coherence [72]
- Improved test case generation from UML statecharts [34], [33]

¹⁴<http://convecs.inria.fr>

¹⁵<http://cadp.inria.fr/forum.html>

9.1.2. Program Committees

In 2013, the members of CONVECS took on the following responsibilities:

- H. Garavel is an editorial board member of STTT (*Springer International Journal on Software Tools for Technology Transfer*).
- F. Lang is an editorial board member of the Scientific World Journal in the Computer Science subject area.
- G. Salaün is an editorial board member of SOCA (*Springer International Journal on Service Oriented Computing and Applications*).
- G. Salaün is a steering committee member of FACS (*International Symposia on Formal Aspects of Component Software*).
- G. Salaün is a steering committee member of FOCLASA (*International workshops on Foundations of Coordination Languages and Self-Adaptive Systems*).
- G. Salaün was a program committee member for MODELSWARD'2013 / MODA'2013 (*1st International Conference on Model-Driven Engineering and Software Development, Special Session on Model-Driven Software Adaptation*), Barcelona, Spain, February 19–21, 2013.
- G. Salaün was a program committee member for SAC'2013 (*28th Annual ACM Symposium on Applied Computing, Track on Service-Oriented Architectures and Programming*), Coimbra, Portugal, March 18–22, 2013.
- G. Salaün and W. Serwe were program committee members for FSEN'2013 (*5th International Conference on Fundamentals of Software Engineering*), Tehran, Iran, April 24–26, 2013.
- G. Salaün was a program committee member for CBSE'2013 (*16th International ACM Sigsoft Symposium on Component-Based Software Engineering*), Vancouver, Canada, June 18–20, 2013.
- G. Salaün was a program committee member for QASBA'2013 (*2nd International Workshop on Quality Assurance for Service-based Applications*), Lugano, Switzerland, July 15, 2013.
- F. Lang was a program committee member for ETR'2013 (*Ecole d'été Temps-réel*), Toulouse, France, August 26–30, 2013.
- F. Lang was a program committee member for ESOC'2013 (*European Conference on Service-Oriented and Cloud Computing*), Málaga, Spain, September 11–13, 2013.
- F. Lang and R. Mateescu were program committee members for FMICS'2013 (*18th International Workshop on Formal Methods for Industrial Critical Systems*), Madrid, Spain, September 23–24, 2013.
- G. Salaün was a program committee member for FACS'2013 (*10th International Symposium on Formal Aspects of Component Software*), Nanchang, China, October 28–30, 2013.

9.1.3. Awards and Distinctions

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

9.1.4. Lectures and Invited Conferences

- H. Garavel attended the Dagstuhl Seminar #13051 on “*Software Certification: Methods and Tools*” (Schloss Dagstuhl, Germany, January 27 – February 1st, 2013). He gave a lecture entitled “*A Naive Look at Software Certification Practices – and Proposals for Enhancement*” on January 30, 2013.
- G. Salaün visited the University of Málaga (Spain) from February 2 to March 8, 2013. He gave a talk entitled “*Formal Methods for Cloud Computing Environments*” on February 6, 2013 and a talk entitled “*Verification of Contract-based Communicating Systems*” on February 13, 2013.
- H. Garavel visited RWTH Aachen (Germany) on February 25–28, 2013. He gave a talk entitled “*CAESAR Nets, NTIF, and FIACRE: Better than Slim, and also Faster?*”.

- G. Salaün gave a keynote lecture entitled “*Verification of Contract-based Communicating Systems*” at GRAPHITE’2013 (Rome, Italy) on March 24, 2013.
- H. Garavel was invited to the seminar “*25 Years of Combining Compositionality and Concurrency*” (Königswinter, Germany, August 7–9, 2013). He gave a lecture entitled “*25 Years of Compositionality Issues in CADP: An Overview*”.
- F. Lang gave a lecture entitled “*CADP: A Toolbox for the Construction and Analysis of Distributed Processes*”, followed by a lab session on CADP at ETR’2013 (Toulouse, France) on August 28, 2013.
- F. Lang gave a keynote lecture entitled “*Langage de nouvelle génération pour la modélisation et vérification formelle de systèmes asynchrones*” at JDEV’2013 (Palaiseau, France) on September 4, 2013.
- H. Garavel gave a lecture entitled “*25 Years of Combining Compositionality and Concurrency*” at Saarland University on December 20, 2013.

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 2013, we carried out the following teaching activities:

- G. Salaün is co-responsible for the ISI (*Ingénierie des Systèmes d’Information*) department of ENSIMAG since September 1, 2011.
- H. Evrard served as a teaching assistant in a course on “*Algorithmique et structures de données*”, given by Frédéric Wagner to the first year computer science engineering students of ENSIMAG (36 hours).
- H. Evrard served as a teaching assistant in a course on “*Introduction aux réseaux de communication*”, given by Roland Groz to the first year computer science engineering students of ENSIMAG (18 hours).
- H. Evrard served as a teaching assistant in a course on “*Systèmes d’exploitation et programmation concurrente*”, given by Yves Denneulin to the second year computer science engineering students of ENSIMAG (18 hours).
- A. Kriouile served as a teaching assistant in a course on “*Conception de circuits et architectures des ordinateurs*”, given by Frédéric Pétrot to the first year computer science engineering students of ENSIMAG (27 hours).
- A. Kriouile served as a teaching assistant in a course on “*Introduction aux réseaux de communication*”, given by Roland Groz to the first year computer science engineering students of ENSIMAG (36 hours).
- A. Kriouile served as a teaching assistant for a student project “*Projet logiciel en C*”, proposed by François Broquedis and Matthieu Chabanas to the first year computer science engineering students of ENSIMAG (20 hours).
- F. Lang and W. Serwe gave a course on “*Spécification et vérification de systèmes concurrents et temps-réel*” to the third year computer science engineering students of ENSIMAG (18 hours).
- G. Salaün gave a course on “*Algorithmique parallèle et orientée-objet*” to the second year computer science engineering students of ENSIMAG (36 hours).
- L. Ye gave a course on “*Théorie des langages*” to the first year computer science engineering students of ENSIMAG (10 hours).

9.2.2. Juries

- R. Mateescu was a panel member for Syed Hussein Syed Alwi's PhD thesis, entitled "*Vérification compositionnelle pour la conception sûre de systèmes embarqués*", defended at Université Pierre et Marie Curie, Paris, France, on July 11, 2013.
- G. Salaün was a panel member for Huu Nghia Nguyen's PhD thesis, entitled "*A Symbolic Approach for the Verification and the Testing of Service Choreographies*", defended at Université Paris Sud, Orsay, France, on October 30, 2013.

9.3. Popularization

H. Garavel participated to the committee in charge of organizing the Aerospace Valley series of industrial conferences on formal methods. The second conference ¹⁶ ¹⁷, devoted to static analysis, held on June 28, 2013 in Toulouse and retransmitted by video-conference in Grenoble, attracted 95 participants from industry and academia.

R. Mateescu was in charge of the scientific organization of the In'Tech seminar entitled "*Formal Validation of Industrial Critical Systems*" held on April 18, 2013 at the Inria Grenoble – Rhône-Alpes research center in Montbonnot. The seminar attracted about 100 participants from academia and industry. F. Lang gave a public demonstration of the CADP tools and R. Mateescu gave a talk entitled "*Formal Modeling and Verification of Concurrent Systems using CADP*".

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 a member of the operational committee of the EMSOC cluster ("Embedded System on Chip") within the "*pôle de compétitivité*" Minalogic.

H. Garavel was a reviewer for various ongoing ANR (*Agence Nationale de la Recherche*) projects evaluated in 2013.

F. Lang is a member of the "*commission du développement technologique*", which is in charge of selecting R&D projects for 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.

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

H. Garavel is "*chargé de mission*" of the LIG laboratory and responsible for the liaison with Minalogic.

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

¹⁶<http://www.inria.fr/centre/grenoble/agenda/forum-methodes-formelles>

¹⁷<http://www.inria.fr/centre/grenoble/actualites/fiabilite-des-logiciels-pas-uniquelement-pour-les-avions>

DICE Team

9. Dissemination

9.1. Scientific Animation

The digital revolution induces rapid changes in our societies, that are often not well prepared to adapt and take full advantage of them. Our objective is to communicate broadly to non specialist communities, through teaching, conferences in other communities, as well as through the media.

S Frénot and/or S Grumbach have been invited speaker or panelist at the following conferences in IT related fields:

- Panel La politique des données personnelles : big data ou contrôle individuel ?, IXXI, ENS de Lyon et Villa Gillet (Festival Mode d'Emploi), Lyon, 21 novembre 2013.
- Chair and organization of Session Managing the flow computing, Fossa, Lille, novembre 2013. Slides and presentation for this session are available at <https://fossa.inria.fr/slides/>
- Tutoriel Les flux de données personnelles, enjeux technologiques, économiques et stratégiques, 29e Journées Bases de Données Avancées, Nantes, 22-25 Octobre 2013.
- Panel: Big Data : c'est aussi un sujet de sécurité, Les assises de la sécurité et des systèmes d'information, Monaco, 2-5 octobre 2013.
- Invited speaker Congrès Big Data, Turning the Data Deluge into Decisions, CNIT, Paris, avril 2013
- La France à la périphérie de la société de l'information? Café techno, Paris, mars 2013
- Panel on Big Data, 6th International Conference on Computers, Privacy and Data Protection, CPDP, Reloading Data Protection, Brussels, january 2013

9.2. Teaching - Supervision - Juries

Teaching

We have been involved in the following courses:

- INSA, Frénot, Grumbach, TweetMyFace: A 38 hours optional course on social network technical architectures, evolutions and designs. The course covers current Web technologies from low-level networking to Facebook and Twitter API. L2 (Since 2012)
- INSA, 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, 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.insa-lyon.fr> M1 (Since 2006)
- INSA, Frénot, Learn Other Languages: The aim of the course is to improve one's skills in current state-of-the-art programming and discover different ways to develop using mainly web-oriented programming languages. M1 (new course)
- INSA, Frénot, Innovation and Transfer for Software: This final year optional course targets a specific activity for engineer profession dedicated to software transfert from research labs to industrials.

Stéphane Grumbach supervised the following thesis:

PhD: Ahmad Ahmad-Kassem, Programming Networks with Intentional Destination, Université de Lyon, november 2013

Stéphane Frénot supervised the following thesis:

- Etienne Brodu started in 2013. Worldline partnership CIFRE Phd. "Flow-base operating systems and programing languages. A new deal for social network architectures"
- François Goichon defense december 2013. French Ministry of research. "Resource access equity for best-effort shared operating systems"
- Zheng Hu defense january 2014. Orange-Labs partnership CIFRE PhD. "Self-configuration, monitoring and control of physical entities via Sensor and Actuator Networks"
- Dan Yufang defense Mid 2014. CSC China. "Secure and healable usage of components in a dynamic service-oriented architecture-based system"
- Manuel Selva defense End 2014. Bull SA partnership. "Monitoring data-flow programs"

Juries

Stéphane Frénot was involved in the following committee as reporting member.

- Roberto Minerva: Will the telco survive to an ever changing world? Technical considerations leading to disruptive scenarios.
- Aurelien Faravelon: A privacy aware conceptual and implementation framework for service oriented architecture based on access control.
- Azzedine Amiar : Trace and log analysis in micro-controllers.

9.3. Popularization

Intervention in other arenas:

- Co-organization of the CARA community, that gather IT professionals around agility design. Meetings occurs once per month from 7PM to 10PM and gather around 50 people to discuss and debate. The complete animation scheme is available at <http://lyon.clubagilerhonealpes.org/>
- La révolution numérique, L'enseignement philosophique et les sciences: nouvelles perspectives, Fondation Simone et Cino del Duca, Paris, 13 novembre 2013
- Panel: Open Data and Civic Participation, Can "Open Data" Improve Democratic Governance?, CITRIS Data & Democracy Initiative and Institute of Governmental Studies, Berkeley, 12 September 2013.
- Big Data: Where Does Europe Stand? a Citizen's Controversy, at the Madariaga – College of Europe Foundation, with Roberto Viola, Deputy Director of DG Communication, Brussels, 12 July 2013.
- La Révolution numérique, un enjeu politique, Conférence au Cercle Pierre Mendes France de Lyon, 25 juin 2013
- Les données, nouveau moteur de l'économie, Congrès France Génétique Elevage, janvier 2013

Intervention in political instances. The Dice team aims at interacting with political representatives at the French Assemblée nationale, the Sénat, as well as instances of the European Union.

- Global perspective on the information society, Invited speaker at the Council of the European Union, Part I Europe at the periphery of the information society? Brussels, April 17, 2013, Part II Information society in China, the Beijing consensus? Brussels, May 14, 2013,
- La dépendance de la France en matière de données et services numériques, Assemblée Nationale, Audition publique du 21 février 2013, "Le risque numérique : en prendre conscience pour mieux le maîtriser ?",

PRIVATICS Team

8. Dissemination

8.1. Scientific Animation

8.1.1. Organization

Claude Castelluccia : WISEC 2014.

Mathieu Cunche : WISEC 2014.

Cédric Lauradoux : Colloque CAPPRIS-AFDIT, 11/09/2013, Lyon, <http://planete.inrialpes.fr/capprisafdit>.

Daniel Le Métayer : Colloque CAPPRIS-AFDIT, 11/09/2013, Lyon, <http://planete.inrialpes.fr/capprisafdit>.

Vincent Roca : SAR-SSI 2014.

8.1.2. Program committee

Claude Castelluccia : PETS 2013, WISEC 2013, POST 2013, SESOC 2013.

Mathieu Cunche : WCNC 2014.

Cédric Lauradoux : ACNS 2013, Cardis 2013, GreHack 2013, WISEC 2014.

Daniel Le Métayer : CPDP 2013, APF 2013, APVP 2013, WOSSIP 2013, SAR-SSI 2013.

Vincent Roca : SPACOMM 2014, SNDS 2014, SSCC 2013.

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

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

Undergraduate course : Vincent Roca, On Network Communications (24h), L1, IUT-2 (UPMF University) Grenoble, France.

Undergraduate course : Marine Minier, Probabilities, 50h, L3, INSA-Lyon, France.

Undergraduate course : Marine Minier, Signal Processing, 50h, L3, INSA-Lyon, France.

Undergraduate course : Marine Minier, Analysis, 50h, L3, INSA-Lyon, France.

Undergraduate course : Marine Minier, Introduction to Cryptography, 30h, L3, INSA-Lyon, France.

Undergraduate course : Marine Minier, Information Theory, 30h, L3, INSA-Lyon, France.

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

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

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

Master : Claude Castelluccia, Wireless Security, 15h, M2, Ensimag/INPG, France.

Master : Marine Minier, Security for wireless networks, 10h, M2, INSA-Lyon, France.

Master : Mathieu Cunche, Wireless Security, 2h, M2, INSA-Lyon, France.

8.2.2. Supervision

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 : Abdelberi Chaabane, Threats against privacy on Internet: evaluation and solutions, September 2010, Mohamed Ali Kaafar and Claude Castelluccia.

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 : Ferdaouss Mattooussi, Design and optimizations of AL-FEC: GLDPC-Staircase Codes, September 2010, Vincent Roca and Claude Castelluccia.

PhD in progress : Lukasz Olejnik, Internet Tracking and Profiling, October 2011, Claude Castelluccia.

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

PhD in progress : Gael Thomas, Algebraic Automata in Symetric Cryptography, November 2011, Marine Minier.

PhD in progress : Minh-Dung Tran, Privacy-Preserving Ad systems, September 2011, Claude Castelluccia and Mohamed Ali Kaafar.

PhD in progress : Dong Wang, titre (provisoire) du mémoire, date du début de la thèse, Mohamed Ali Kaafar.

8.2.3. Juries

HdR : Marc-Olivier Killijian, Towards Resilient and Private Mobiquitous Systems, Toulouse, 20/02/2013, Claude Castelluccia.

PhD : Ahmed Benfarah, Security of a UWB-IR link, INSA-Lyon, 10/07/2013, Cédric Lauradoux.

PhD : Ludovic Jacquin, Efficiency/Security trade-off for High Bandwidth Internet Gateway, Grenoble, 20/11/2013, Vincent Roca and Claude Castelluccia.

PhD : Mohammad Nabil ALAGGAN, Private Peer-to-peer similarity computation in personalized collaborative platforms, Rennes, 16/12/2013, Daniel Le Métayer.

PhD : Sophie Guicherd, Le régime juridique applicable aux dysfonctionnements du logiciel, 05/12/2013, Daniel Le Métayer.

8.3. Popularization

Claude Castelluccia and Daniel Le Métayer, La vie privée, un obstacle à l'économie numérique ?, LeMonde.fr, 03.09.2013, http://www.lemonde.fr/economie/article/2013/08/25/la-vie-privee-un-obstacle-a-l-economie-numerique_3466139_3234.html.

Mathieu Cunche, Smartphone, Wi-Fi et vie privée : comment votre smartphone peut se révéler être votre pire ennemi [35], October 2013, MISCMAG.

Mathieu Cunche, Quand les terminaux mobiles jouent les mouchards de poche, Podcast Interstices, September 2013, https://interstices.info/jcms/ni_74624/quand-les-terminaux-mobiles-jouent-les-mouchards-de-poche.

Cédric Lauradoux and Levent Demir, Guesswork [40], October 2013, MISCMAG.

Mobilitics project, Paris Metro Tracks and Trackers: Why is the RATP App leaking my private data?

Mobilitics project, Voyage au cœur des smartphones et des applications mobiles avec la CNIL et Inria, 09/04/2013, bit.ly/M3cWCi.

SPADES Team

9. Dissemination

9.1. Scientific Animation

- Pascal Fradet served in the program committees of MODULARITY 2014 and of JFLA 2013 and JFLA 2014 (*Journées Francophones des Langages Applicatifs*).
- Alain Girault served in the program committees of the international conferences DAC 2013 and MSR 2013.
- Gregor Goessler served in the program committees of the international conferences Component-Based Software Engineering (CBSE) 2013 and Design, Automation, and Test in Europe (DATE) 2014 and the workshop Hybrid Systems and Biology (HSB) 2013.
- Jean-Bernard Stefani is the current Chair of IFIP Working Group WG6.1, that sponsors the international conference series DAIS, FORTE, ICTSS, and Middleware. He is the current chair of the FORTE Steering Committee and a member of the DISCOTEC joint international conference (hosting Coordination, DAIS and FORTE).

9.2. Teaching - Supervision - Juries

9.2.1. Supervision

PhD: Quentin Sabah, “Simple Isolation for An Abstract Actor Machine”, Grenoble University, 4/12/2013, advised by Jean-Bernard Stefani.

PhD: Gideon Smeding, “Verification of Weakly-Hard Requirements on Quasi-Synchronous Systems”, Grenoble University, 19/12/2013, co-advised by Gregor Goessler and Joseph Sifakis.

PhD in progress: Vagelis Bebelis, “Advanced dataflow programming for embedded systems”, Grenoble University, since 12/2011, co-advised by Pascal Fradet and Alain Girault.

PhD in progress: Dmitry Burlyaev, “Specification and synthesis of fault-tolerant circuits”, Grenoble University, since 12/2011, co-advised by Pascal Fradet and Alain Girault.

PhD in progress: Yoann Geoffroy, “Towards a general causality analysis framework”, Grenoble University, since 10/2013, co-advised by Gregor Goessler and Daniel Le Métayer (Privatics INRIA team).

9.2.2. Juries

- Alain Girault was referee for the PhD thesis of Hervé Yviquel (University of Rennes 1) and for the PhD thesis of Léonard Gérard (University of Orsay).
- Jean-Bernard Stefani was referee for the PhD thesis of Cédric Pasteur (University of Paris VI).

BIPOP Project-Team

9. Dissemination

9.1. Scientific Animation

- B. Brogliato member of IPC of the IFAC Nonlinear Systems Conference NOLCOS 2013, Toulouse, September 2013. Reviewer for IEEE Trans. Automatic Control, SIAM J. Control Optimization, Multibody System Dynamics, European J. of Mechanics A/Solids, Automatica, IMA J. Applied Mathematics, etc.
- F. Bertails-Descoubes was a member of the international technical Program Committee of ACM SIGGRAPH 2013, and a member of the international technical Program Committee of Eurographics 2014. She has been a reviewer in 2013 for ACM Transactions on Graphics and Computer Aided Geometric Design.
- V. Acary is co-animator (with R. Leine ETH Zurich) of the European network for nonsmooth dynamics. Member of the ENOC (EUROMECH Nonlinear Oscillations Conference) committee. Reviewer in 2013 for Math reviews, Computer Methods in Applied Mechanics and Engineering, International Journal for Numerical Methods in Engineering, ASME Journal of Computational and Nonlinear Dynamics, Applied numerical Mathematics, American Control Conference, 52st IEEE Conference on Decision and Control (CDC 2013)

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Master: Bernard Brogliato, Nonsmooth Dynamical Systems, 15 h. TD, M2, universit  de Limoges, France

Master: F. Bertails-Descoubes, Optimisation num rique, 30h equiv. TD, niveau M1, ENSIMAG, Grenoble INP

Master: J. Malick, Optimisation num rique, 60h equiv. TD, niveau M1, ENSIMAG, Grenoble INP

Master: Vincent Acary, Simulation of Nonsmooth Dynamical Systems, 9 h. TD, M2, universit  de Limoges, France

9.2.2. Supervision

PhD : Alexandre Derouet-Jourdan, *Inversion statique de fibres : de la g om trie de courbes 3d   l' quilibre d'une assembl e de tiges m caniques en contact frottant*, Grenoble University, 7 novembre 2013, Florence Bertails-Descoubes et Jo lle Thollot

PhD in progress : Mounia Haddouni, 01 mai 2012, Vincent Acary et Bernard Brogliato

PhD in progress : Olivier Huber, 01 octobre 2011, Vincent Acary et Bernard Brogliato

PhD in progress : Narendra Akahdkar, 01 d cembre 2012, Vincent Acary et Bernard Brogliato

PhD in progress : Sofia Zaourar, 01 octobre 2011, J r me Malick et Bernard Brogliato

PhD in progress : Romain Casati, 01 octobre 2011, Florence Bertails-Descoubes et Bernard Brogliato

PhD in progress : Alejandro Blumentals, 01 octobre 2013, Florence Bertails-Descoubes et Bernard Brogliato

PhD in progress : Gilles Daviet, 01 octobre 2013, Florence Bertails-Descoubes, Bruno Raffin (LIG) et Pierre Saramito (LJK)

PhD in progress : Federico Pierucci, 01 octobre 2012, Jérôme Malick et Zaid Harchaoui et Anatoli Ioudilski

PhD in progress : Saed al Homsy, 01 octobre 2012, Pierre-Brice Wieber et Bernard Brogliato

PhD in progress : Jory Lafaye, 01 octobre 2012, Pierre-Brice Wieber et Bernard Brogliato

PhD in progress : Jose Eduardo Morales Morales, *Travelling pulses in spatially discrete excitable media*, 15 november, 2013, Arnaud Tonnelier and Guillaume James

9.2.3. Juries

- B. Brogliato, jury HdR de J. Bastien, Université Lyon 1, rapporteur
- B. Brogliato, jury de thèse de A. Thorin, LMSX, rapporteur
- B. Brogliato, jury HdR de A. Girard, Grenoble Université, président
- V. Acary, jury de thèse de H. Rammal, Université de Limoges, examinateur

MISTIS Project-Team

8. Dissemination

8.1. Scientific Animation

Editorial activities

- Stéphane Girard is Associate Editor of the *Statistics and Computing* journal since 2012. He has been also an invited editor for a special issue of the *Journal de la Société Française de Statistique* dedicated to extreme-value analysis.

Workshops and summer schools

- Florence Forbes and Stéphane Girard co-organized the summer school “*Méthodes et applications de la régression en astrophysique*”, Annecy, <http://ecastrostat2013.sciencesconf.org/>.
- Florence Forbes and Stéphane Girard co-organized the workshop “*Géométrie Aléatoire et ses Applications*”, Grenoble, <http://gdr-geostoch.math.cnrs.fr/index.html>.
- Stéphane Girard organized the workshop “*Copulas and extremes*”, Grenoble, <http://mistis.inrialpes.fr/workshop-copulas-extremes.html>.
- Marie José Martinez, Jean Baptiste Durand, Florence Forbes in collaboration with Irageael Joly (Grenoble Applied Economics Laboratory) organized the workshop "Statistics, Activities and Transportation" in Grenoble <http://mistis.inrialpes.fr/workshop-statistique-transport.html> as part of the MOTU project (2013-14).

Societies and Networks

- F. Forbes is part of an INRA (French National Institute for Agricultural Research) Network (AIGM, <http://carlit.toulouse.inra.fr/AIGM>) on Algorithmic issues for inference in graphical models.
- F. Forbes and S. Girard were elected as members of the bureau of the “Analyse d’images, quantification, et statistique” group in the Société Française de Statistique (SFdS).

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

Licence (IUT): Marie-José Martinez, *Statistics*, 192 ETD, L1 to L3 levels, université Grenoble 2, France.

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

Licence (IUT) : Gildas Mazo, *Mathematics and C language*, 128h, L1 level, université Grenoble 1, France.

Master: Farida Enikeeva, *Statistics*, 96 ETD, M1 level, Ensimag Grenoble INP, France.

Licence: Christine Bakhous, *Mathematics and Statistics*, 64 ETD, L1 level, université Grenoble 1, France.

Licence: Jonathan El Methni, *Mathematics and Statistics*, 64 ETD, L1 level, université Grenoble 1, France.

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

Master : Florence Forbes, *Mixture models and EM algorithm*, 12h, M2 level, UFR IM2A, université Grenoble 1, France.

M.-J. Martinez is faculty members at Univ. Pierre Mendès France, Grenoble II.

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

F. Enikeeva is on a half-time ATER position at Ensimag, Grenoble INP.

C. Bakhous and J. El Methni were both moniteur at University Joseph Fourier.

8.2.2. Supervision

PhD: Christine Bakhous, "*Modèles d'encodage parcimonieux de l'activité cérébrale mesurée par IRM fonctionnelle*", Université Grenoble 1, defended on December 2013. Supervision : Florence Forbes & Michel Dojat (GIN).

PhD : Jonathan El-methni, "*Différentes contributions à l'estimation de quantiles extrêmes*" Université Grenoble 1, defended on october 2013. Supervision : Stéphane Girard & Laurent Gardes (Université de Strasbourg).

PhD : El-hadji Deme, "*Quelques contributions à la théorie univariée des valeurs extrêmes. Estimation des mesures de risque actuariel pour des pertes à queues lourdes*", Université Gaston Berger, Sénégal, defended on june 2013. Supervision : Stéphane Girard & Gane Samb Lo (Université Gaston Berger, Sénégal)

PhD in progress: Aina Frau-Pascual, "*Statistical Models for the coupling of ASL and BOLD Magnetic Resonance modalities to study brain function and disease*", Université Grenoble 1, started in october 2013. Supervision : Florence Forbes & Philippe Ciuciu (Parietal, NeuroSpin).

PhD in progress : Alessandro Chiancone "*Sequential dimension reduction*", Université Grenoble 1, started in october 2013. Supervision : Stéphane Girard & Jocelyn Chanussot (Gypsa-lab, 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*", Université Gaston Berger, Sénégal, started in october 2012. Supervision : Stéphane Girard & Abdou Ka Diongue (Université Gaston Berger, Sénégal).

PhD in progress : Gildas Mazo, "*Estimation de quantiles extrêmes spatiaux à partir de données environnementales*", Université Grenoble 1, started in october 2011. Supervision : Florence Forbes & Stéphane Girard.

8.2.3. Juries

Stéphane Girard has been involved in the following PhD committees:

- Yousri Henchiri, "*Support Vector Machine (SVM) pour l'analyse de données fonctionnelles*", Université Montpellier 2.
- François Portier "*Réduction de la dimension en régression*", Université Rennes 1.
- Smriti Joshi, "*Consommation statique dans les circuits numériques en CMOS 32nm: Analyse et méthodologie pour une estimation statistique au niveau porte*", Université Grenoble.

Florence Forbes has been involved in the PhD committees of:

- Xavier Alameda-Pineda, Egocentric audio-visual scene analysis: a machine learning and signal processions approach, University Grenoble 1.
- Antoine Deleforge, Acoustic Space Mapping: a machine learning approach to sound source separation and localization, University Grenoble 1
- Mohamad Belouni, Plans d'expérience optimaux en régression appliquée à la pharmacocinétique, University Grenoble 1.
- Solveig Badillo, Etude de la variabilité hémodynamique chez l'enfant et l'adulte sains en IRMf, University Paris Sud
- Virgile Fritsch, High-dimensional statistical methods for inter-subjects studies in neuroimaging, University Paris Sud

Since September 2009, F. Forbes is head of the committee in charge of examining post-doctoral candidates at Inria Grenoble Rhône-Alpes ("Comité des Emplois Scientifiques").

Florence Forbes is a member of the INRA committee (CSS MBIA) in charge of evaluating INRA researchers once a year in the MBIA dept of INRA.

Florence Forbes was a member of:

- the AERES committee in charge of evaluating the AgroParisTech unit.
- the committee for selecting a new professor at University Grenoble 1.
- the LJK committee for attributing the first Jean Kuntzman award.

NANO-D Team

7. Dissemination

7.1. Teaching - Supervision - Juries

7.1.1. Teaching

Licence : Stephane Redon, "Introduction to computer science", INF311, 80h, Ecole Polytechnique, Paris, France

7.1.2. Supervision

PhD in progress : Petr Popov, Computational methods for protein structure prediction, November 2011, Sergei Grudinin

PhD in progress : Krishna Kant Singh, Adaptive parallel algorithms for molecular simulation, Grenoble University, September 2013, Jean-François Méhaut and Stéphane Redon

PhD : Zofia Trstanova, Adaptive Hamiltonians, Grenoble University, May 30, 2012, Stephane Redon

7.2. Participation to conferences, seminars

- S. Grudinin gave a talk "Efficient Boundary Element Method with curved elements" at the workshop "Computational Electrostatics for Biological Applications, CEBA 2013", Jul 1-3, Genova, Italy, 2013.
- S. Grudinin gave a talk "Predicting Multi Protein Assemblies" at the Second workshop on Computational Structural Biology: Integrative Approaches for Modeling Biomolecular Complexes, IAMB 2013, May 29-31, Nice, France, 2013.
- M. PiuZZi participated in ISMB/ECCB in Berlin, 2013.
- M. PiuZZi and S. Grudinin participated in XVIIIe congrès du Groupe de Graphisme et Modélisation Moléculaire, GGMM 2013, May 21-23, St Pierre d'Oléron, France, 2013.
- S. Grudinin and P. Popov participated at the Fifth CAPRI Evaluation Meeting, Apr 17-19, Utrecht, Netherlands, 2013.
- P. Popov gave a talk "Docktrina : Docking Protein Trimers" at the Fifth CAPRI Evaluation Meeting, Apr 17-19, Utrecht, Netherlands, 2013.
- S. Grudinin attended a school on Analysis of Diffraction Data in Real Space, ADD2013, Mar 18-22, Grenoble, France, 2013.

7.3. Popularization

NANO-D presented SAMSON to high school students during the 2103 "Fete de la Science" (Science Fair). The students were using SAMSON to interactively simulate chemical reactions, interact with models of nanotubes, build molecules, etc.

NECS Project-Team

9. Dissemination

9.1. Scientific Animation

- C. Canudas de Wit is President Elect of the European Control Association (EUCA) 2013-2015, and member of the Board of Governors of IEEE Control Systems Society. He is General Chair of the forthcoming European Control Conference, Strasbourg, July 2014 (<http://www.ecc14.eu/>). He is Associate Editor of IEEE Transactions on Control System Technology (since January 2013), Associate Editor of IEEE Transactions on Control of Network Systems (since June 2013), and Editor of the Asian Journal on Control.
- H. Fourati has been a peer-reviewer for international journals (IEEE Sensors Journal, IEEE/ASME Transactions on Mechatronics, Journal of Mechanics Engineering and Automation).
- F. Garin has been a peer-reviewer for international journals (IEEE Trans. Automatic Control, Automatica) and conferences (CDC 2013, ACC 2014, ECC 2014, ICCPS 2014) and for a chapter in a book in Springer LNCS. She is chair for student activities of the forthcoming European Control Conference ECC 2014.
- A. Kibangou has been a peer-reviewer for international journals (Automatica, IEEE Trans. on Control Systems and Technology, IEEE Trans. on Control of Network Systems, Elsevier Signal Processing, IEEE Trans. on Signal Processing, IET Communications, Int. J. of Adaptive Control and Signal Processing, and System & Control Letters) and conferences (CDC 2013, ACC 2014, ECC 2014). Locally, he is the organizer of seminars for the Control Department of GIPSA-LAB.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Licence: H. Fourati, Informatique Industrielle, 100h, L1, IUT 1 (GEII2), University Joseph Fourier, France;

Licence: H. Fourati, Automatique, 24h, L2, IUT 1 (GEII2), University Joseph Fourier, France;

Licence: H. Fourati, Automatismes industriels et réseaux, 90h, L1 et L2, IUT1 (GEII2), University Joseph Fourier, France.

Licence: H. Fourati, Automatique, 45h, L3, UFR physique, University Joseph Fourier, France

Licence: F. Garin, Automatique, 26h, L2, IUT1 (GEII1), University Joseph Fourier, France.

Licence: A. Kibangou, Automatique, 62h, L2, IUT1 (GEII1), University Joseph Fourier, France.

Licence: A. Kibangou, Mathématiques, 14h, L2, IUT1 (GEII1), University Joseph Fourier, France.

9.2.2. Supervision

PhD: Valentina Ciarla, Commande d'un système de puissance électrique pour personne âgée et/ou handicapée, Grenoble University, Oct. 10th, 2013, co-advised by C. Canudas de Wit, F. Quaine, and V. Cahouet.

PhD in progress: Abir Ben Khaled, Distributed real time simulation of numerical models: application to powertrain, Grenoble INP, Jan. 2011 - Apr. 2014, co-advised by D. Simon and M. Ben Gaid (IFPEN).

PhD in progress: Luis R. Leon Ojeda, Modélisation macroscopique, estimation de la demande et prédiction du flux pour les systèmes de transport intelligents, Grenoble University, April 2011-March 2014, Co-advised by C. Canudas de Wit and A. Kibangou.

PhD in progress: Dominik Pisarski, Contrôle d'accès collaboratif : application à la Rocade Sud de Grenoble, Grenoble University, June 2011 - May 2014, Advised by C. Canudas de Wit.

PhD in progress: Ruggero Fabbiano, Distributed source seeking control, Grenoble University, Dec. 2011 - Nov. 2014, co-advised by C. Canudas de Wit and F. Garin.

PhD in progress: Thi-Minh Dung Tran, Consensus en temps fini et ses applications en estimation distribuée pour les systèmes de transport intelligents, Grenoble University, co-advised by A. Kibangou and C. Canudas de Wit, Jan. 2012 - Apr. 2015.

PhD in progress: Giovanni de Nunzio, Control of communicating vehicles in urban environnement, Grenoble University, co-advised by C. Canudas de Wit and P. Moulin (IFPEN), Sep. 2012 - Aug. 2015

PhD in progress: Aida Makni, Estimation multi-capteurs et commande temps-réel tolérante aux fautes d'un drone aérien, Grenoble INP, Oct. 2012 - Sep. 2015, co-advised by H. Fourati, A. Kibangou and C. Canudas de Wit.

9.2.3. Juries

- C. Canudas de Wit was member of the AERES Evaluation committee for the RTRA STAE, May 2013.
- F. Garin was a member of the Ph.D. defense committee of Weiguo Xia, Univ. of Groningen (The Netherlands), June 28th, 2013. Thesis: Distributed algorithms for interacting autonomous agents.

9.3. Popularization

Carlos Canudas has given a plenary talk on 'Forecasting and control of traffic systems: a network perspective' at the International Workshop on Smart City, organized by IEEE Control Systems Society in Hangzhou, China, in August 2013, <http://smartcity.hdu.edu.cn>

OPALE Project-Team

9. Dissemination

9.1. Scientific Animation

- R. Duvigneau is member of the "Conseil National des Universités" (CNU) for the 26th section (applied mathematics and application of mathematics)
- P. Goatin was member of the Organizing Committee of the Workshop "*Traffic Modeling and Management: Trends and Perspectives - TRAM2*", Sophia Antipolis (France). March 2013. <https://team.inria.fr/opale/workshop-tram2/>

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Licence: Introduction to Numerical Analysis, 19.5 hrs, L3 ("Water Resources Engg." Section), Ecole Polytechnique Universitaire (EPU), Nice Sophia Antipolis (J.-A. Désidéri)

Licence: Numerical Methods, 19.5 hrs, L3 ("Applied Mathematics and Modelling" Section), Ecole Polytechnique Universitaire (EPU), Nice Sophia Antipolis (J.-A. Désidéri)

Licence: Partial Differential Equations, 36 hrs, L3, Ecole Polytechnique Universitaire (EPU), Nice Sophia Antipolis (R. Duvigneau).

Master: Advanced Optimization, 40.5 hrs, M2, Ecole Polytechnique Universitaire (EPU), Nice Sophia Antipolis (J.-A. Désidéri, R. Duvigneau).

Master: Multidisciplinary Optimization, 22.5 hrs, joint ISAE ("Complex Systems") and M2 (Mathematics), Toulouse (J.-A. Désidéri, R. Duvigneau).

Licence: Numerical Methods I, 56 hrs tutorials, Ecole Polytechnique Universitaire (EPU), Nice Sophia Antipolis (A. Habbal).

Licence: Summer Project in Mathematical Modeling, 36 hrs, L3, Ecole Polytechnique Universitaire (EPU), Nice Sophia Antipolis (A. Habbal).

Master: Numerical Methods for Partial Differential Equations, 66 hrs, M1, Ecole Polytechnique Universitaire (EPU), Nice Sophia Antipolis (A. Habbal).

Master: Reconstructing lost GPS signals using accelerometrics, 10 hrs, M1, Ecole Polytechnique Universitaire (EPU), Nice Sophia Antipolis (A. Habbal).

9.2.2. Supervision

HdR : Régis Duvigneau, *Conception optimale en mécanique des fluides numérique : approches hiérarchiques, robustes et isogéométriques*, University of Nice Sophia Antipolis, october 2013

PhD : Andrea Minelli, *Aero-acoustic shape optimization of a supersonic business jet*, University of Nice Sophia Antipolis, November 2013, supervisor: Jean-Antoine Désidéri

PhD : Adrien Zerbinati, *Optimisation multidisciplinaire robuste pour application à l'automobile*, University of Nice Sophia Antipolis, April 2013, supervisors: Jean-Antoine Désidéri and Régis Duvigneau.

PhD in progress : Maria Laura Delle Monache, *Traffic flow modeling by conservation laws*, October 2011, supervisor: P. Goatin.

PhD in progress : Maxime Nguyen Dinh (Cifre ONERA/Aibus), *Qualification of numerical simulations by anisotropic mesh adaptation*, October 2011, supervisor : Jean-Antoine Désidéri.

PhD in progress : Sébastien Bourasseau (Cifre ONERA/Snecma), *Goal-oriented hybrid mesh adaptation for turbomachinery*, April 2011, supervisor : Jean-Antoine Désidéri.

PhD in progress : Enric Roca León (Cifre ONERA/Eurocopter), *Helicopter rotor blade multi-objective optimization*, October 2011, supervisor : Jean-Antoine Désidéri.

PhD in progress : Asma Gdhami, *Analyse isogéométrique pour les problèmes hyperboliques*, November 2013, supervisor: Régis Duvigneau.

PhD in progress : Maroua Mokni, *Numerical analysis and computational assessment of variants of the multiple-gradient of descent algorithm*, November 2013, supervisor: Jean-Antoine Désidéri.

PhD in progress : Bouthaina Yahyaoui, *Cell-dynamics modelling : from the Fisher-KPP equations to mechanical-biological-chemical systems*, January 2013, supervisor: Abderrahmane Habbal.

PhD in progress : Jérémie Labroquère, *Optimization of Flow Control Devices*, October 2010, Supervisors: Jean-Antoine Désidéri and Régis Duvigneau.

PhD in progress : Matthias Mimault, *Crowd motion modeling by conservation laws*, October 2012, Supervisor: P. Goatin.

PhD in progress : Aalae Benki, *Méthodes efficaces de capture de front de Pareto en conception mécanique multicritère. Applications industrielles.*, October 2010, supervisor: A. Habbal.

PhD in progress : Fatima Zahra Oujebbour, *Méthodes et applications industrielles en optimisation multicritère de paramètres de processus et de forme en emboutissage*, October 2010, Supervisors: A. Habbal.

PhD in progress : Bouthaina Yahyaoui, *Modélisation de la dynamique des cellules : Des équations de Fisher-KPP aux systèmes mécano-bio-chimiques*, January 2013, Supervisors: A. Habbal and M. Ayadi (Tunis).

PhD in progress : Mohamed Kaicer, *Group lending : analysis of asymmetric information using game theory. Analysis design and implementation of a simulator adapted to micro-finance market*, October 2009, Supervisors: R. Aboulaich (Rabat) and A. Habbal.

9.3. Popularization

Jean-Antoine Désidéri gave the lecture “*Modelling and simulating, when engineering becomes numerical*” to the Valbonne International High School (CIV) on October 11, 2013.

Paola Goatin was interviewed twice :

- TV interview on evening news, France 3 Côte d’Azur, January 30, 2013 <http://www.youtube.com/watch?v=VIW4VgoTjEI&feature=youtu.be>.
- Journal interview : “*Une chercheuse au chevet des embouteillages*”, Nice Matin, January 2013 <http://www-sop.inria.fr/members/Paola.Goatin/NiceMatin.pdf>.

BAMBOO Project-Team

8. Dissemination

8.1. Scientific Animation

- Hubert Charles: He is director of studies of the “Bioinformatique et Modélisation (BIM)” track at the Insa-Lyon, co-director of the Biosciences Department of the Insa-Lyon, and co-director of the Doctoral School E2M2 of the Université Lyon 1.
- Marie-France Sagot: She is, since 2010, member of the Board of Directors of the ACM Special Interest Group on Bioinformatics, Computational Biology, and Biomedical Informatics (SIGBio). She is, since 2011, a member of the Scientific Advisory Board (“Conseil Scientifique (COS)”) for the Inria Grenoble Rhône-Alpes Research Center. She is, since 2012, member of the Scientific Board of the French Society of Computer Science (SIF). She is, since 2012, in the Steering Committee of the Labex Ecofect of the University of Lyon.
- Fabrice Vavre: He was elected in 2012 member of the Section 29 of the CoNRS. He is, since 2012, in the Steering Committee of the Labex Ecofect of the University of Lyon.
- Alain Viari: Since 2011, he is a member of the Scientific Advisory Board (“Conseil Scientifique (COS)”) for the Inria Grenoble Rhône-Alpes Research Center. Since 2012, he is Deputy Scientific Director at Inria responsible for the ICST for Life and Environmental Sciences. He thus represents Inria at several national instances related to Life Sciences and Health and is member of a number of scientific advisory boards (IMMI (Institut de Microbiologie et Maladies Infectieuses / Aviesan); IRT (Institut de Recherche Technologique) BioAster; Genopôle-Evry). Since 2013 he is also the French coordinator of the Bioinformatics working group in the U.S.-France Joint Commission on Science and Technology Cooperation.
- Cristina Vieira: She is director of the GDRE “Comparative genomics” since the GDRE was renewed in 2010.

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

The members of BAMBOO teach both at the Department of Biology of the University of Lyon (in particular within the MIV (Mathematics and Computer Science for the Life Sciences) specialty) and at the department of Bioinformatics of the Insa (National Institute of Applied Sciences). 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 École Normale Supérieure. 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. 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, except in 2012-2013 where he taught 96 hours as he had a partial sabbatical funded by Inria (through the ERC AdG Sisyphé grant) for one semester. He teaches bioinformatics and statistics.

Two PhD students in BAMBOO were able to teach by applying to a monitorat (mentoring program – 64 hours per year). Cecilia Klein taught 64 hours in 2012-2013 at the Department of Biology (L2: Bioinformatics). Two other PhD students taught more occasionally in 2012-2013: Gustavo Sacomoto taught 12 hours of graph algorithms at the Department of Biology (M1: Bioinformatics), and Mariana Ferrarini taught 23 hours at the Department of Biology (L3: Bioinformatics). The postdocs are also involved in teaching. Blerina Sinimeri thus taught 8 hours of graph algorithms, Lilia Brinza 40 hours of bioinformatics at the Insa, and Christian Baudet taught 12 hours of bioinformatics at the University.

All members of the BAMBOO team are affiliated to the doctoral school E2M2 (Ecology-Evolution-Microbiology-Modelling). Hubert Charles is the vice-director of the school.

8.2.2. Supervision

The following is the PhD defended in BAMBOO in 2013.

PhD: Cecilia Klein, University of Lyon 1, November 12, supervisors A. T. Vasconcelos and M.-F. Sagot.

8.2.3. Juries

M.-F. Sagot: Reviewer of the HDR of Andrei Zinovyev (ENS Paris), and of the PhD of Kalle Karhu (University of Helsinki, Finland).

C. Vieira: Reviewer of the PhD of Jonathan Grandaubert (University Paris 11), member of the PhD committee of Eugenia Pessia (University of Lyon), reviewer of the HDR of Karine Alix (AgroParisTech).

BEAGLE Project-Team

8. Dissemination

8.1. Scientific Animation

- Guillaume Beslon is a member of the “Comité National de la Recherche Scientifique” (CoNRS), in 6th section (Computer Science) and in the 51st section (interdisciplinary section in bioinformatics, biomathematics and biophysics).
- Guillaume Beslon is co-director of the Institut Rhône-Alpin des Systèmes Complexes (IXXI) since 2007 (the institute is directed by two persons from different disciplines – G. Beslon and P. Jensen – who exchange their roles between director and vice-director every two years. G. Beslon was vice-director for the 2011-2013 period. He was director for the previous period).
- Guillaume Beslon served as an expert for the AERES evaluation of a laboratory and a master program
- Guillaume Beslon served as an expert for the University of Windsor (Canada)
- Guillaume Beslon is a member of the Institut de Génomique Fonctionnelle de Lyon Scientific Advisory Board since 2011.
- Guillaume Beslon is member of the “Conseil de Laboratoire” of the UMR CNRS 5205 LIRIS.
- Guillaume Beslon is a member of the scientific committee of the 2014 EMBO conference “Experimental Approaches in Ecology and Evolution using Yeast and Other Species”.
- Guillaume Beslon was chairman of the 2013 edition of Evolyon.
- Carole Knibbe and Guillaume Beslon are members of the program committee of the “Alife’14” Conference.
- Hugues Berry is a member of Inria’s Evaluation Committee (CE).
- Hugues Berry was a member of hiring committees for Inria researcher positions, 2013 (Inria Centers of Lille and Sophia-Antipolis).
- Hugues Berry is a member of the steering committee of IXXI, the Rhône-Alpes Institute for Complex Systems.
- Hugues Berry co-organized, with V. Calvez, (EPI Numed) the conference “Mathematical modeling in cell biology” in Lyon, March 25-29, 2013 (<http://mathbio2013.sciencesconf.org/resource/page?id=3>), mainly funded by the “laboratoire d’excellence” MILYON (“Mathématique et Informatique Fondamentale de Lyon”).
- Hugues Berry was a member of the Evaluation committee for the INSERM call for funding on Cancer (“Plan Cancer”), subfield: Systems Biology.
- Hugues Berry was a member of the organization committee of the annual CNRS-INRA thematic school “EIEFB: Ecole interdisciplinaire d’échanges et de formation en biologie”, Berder Island (Morbihan, France), since 2008 (<http://biophysique.mnhn.fr/berder2013/>).
- Hugues Berry is editor for the "Journal of Complex Systems" (<http://www.hindawi.com/journals/jcs/>).
- Hugues Berry was reviewer for the conferences ISBI (IEEE International Symposium on Biomedical Imaging) 2014, UCNC (Unconventional Computation and Natural Computation) 2013 and HPCS (International Conference on High Performance Computing and Simulation) 2013.
- Hugues Berry was a member of the SPECIF committee, that awards each year the Gilles Kahn award, for the best French PhD in Computer Science, 2013.
- Christophe Rigotti is member of the Scientific Council (C.S.) of INSA Lyon.

- Christophe Rigotti co-chaired and co-organized the EGC satellite workshop FOSTA on spatiotemporal data mining, January 2012, Toulouse.
- Christophe Rigotti was a member of the Program Committee of the EGC satellite workshop FST/CERGEO on spatial and temporal data, January 2014, Rennes.
- Eric Tannier co-organized the international conference “RECOMB Comparative Genomics” in October 2013, in Lyon.
- Eric Tannier co-organized the international conference “Models and Algorithms for Genome Evolution” in August 2013 in Montreal, Canada and co-edited a book published in the "Computational biology" series of Springer [37].
- Eric Tannier and Guillaume Beslon are members of the committee of the Semovi Rhône-Alpes regular seminars.
- Eric Tannier was a member of the Program Committee of Recomb satellite workshop on comparative genomics, Lyon 2013.
- Eric Tannier was a member of the Program Committee of SeqBio-13, Paris 2013.
- Eric Tannier was a member of the Program Committee of WABI 2013.
- Eric Tannier was reviewer for the conferences BSB 2013, ICCT 2013 and LATIN 2014.
- In 2013, the members of the team were reviewers for several journals including *Theoretical Computer Science*, *SIAM Journal on Discrete Mathematics*, *Bull Math Biol*, *J Theor Biol*, *Mol Syst Biol*, *BMC Syst Biol*, *Communications in Nonlinear Science and Numerical Simulation*, *ISRN Computational Biology*, *Journal of Bioinformatics and Computational Biology*, *BioSystems*, *Journal of Biodiversity and Conservation*, *Frontiers in Synaptic Neuroscience*, *Data Mining and Knowledge Discovery*, *Knowledge and Information Systems*, *Data and Knowledge Engineering*.

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

Note that due to his sabbatical stay in Berkeley, Hédi Soula had no teaching assignment in 2012-2013.

Licence: Guillaume Beslon, Computer Architecture, 100h, L3, Computer Science Department of INSA-Lyon.

Licence: Guillaume Beslon, Project Management, 20h, L3 and M1, Computer Science Department of INSA-Lyon.

Licence: Guillaume Beslon, Backstage management and organization, 20h, L3, Humanities Department of INSA-Lyon.

Licence: Carole Knibbe ⁵, Procedural Programming, 133h, L2

Licence: Christophe Rigotti, Imperative Programming, 39h L1 and 47h L2, Département 1er cycle of INSA-Lyon.

Licence: Christophe Rigotti, Object-Oriented Programming, 47h, L2, Département 1er cycle of INSA-Lyon.

Licence: Christophe Rigotti, Computer Simulation, 24h, L2, Département 1er cycle of INSA-Lyon.

Master: Guillaume Beslon, Bio-inspired computing, 30h, M2, Computer Science Department of INSA-Lyon and Artificial Intelligence master program of Université Lyon 1.

Master: Guillaume Beslon, Computational Biology, 10h, M2, Bioinformatics and Modeling Department of INSA-Lyon.

Master: Guillaume Beslon, Digital genetics, 2h, M2, Interface Physics-Biology master program at Ecole Normale Supérieure de Lyon (ENS-Lyon).

⁵Carole Knibbe has a “délégation Inria” for the 2013-2014 period. The teaching indicated here is for the 2012-2013 period.

Master: Guillaume Beslon, Introduction to Modeling, 20h, M2, Master of Complex Systems at Ecole Normale Supérieure de Lyon (ENS-Lyon).

Master: Carole Knibbe, Scientific methodology, 24h, M2, Artificial Intelligence master program of Université Lyon 1.

Master: Carole Knibbe, Bio-inspired computing, 14h, M2, Artificial Intelligence master program of Université Lyon 1.

Master: Carole Knibbe, Modeling and simulation in Biology and Medicine, 12h, M2, Complex Systems master program of Ecole Normale Supérieure de Lyon.

Master: Eric Tannier, Computational Biology, 24h, M2, Ecole Normale Supérieure de Lyon.

Master: Eric Tannier, Discrete Mathematics, 8h, M1, Bioinformatics and Modeling Department of INSA-Lyon.

Master: Eric Tannier, Mathématiques et Informatique pour le génome, 26h, M1, Bioinformatics and Modeling Department of INSA-Lyon.

Master: Eric Tannier, Bioinformatique, 24h, M1, ISBM Monastir, Tunisie.

Master: Christophe Rigotti, Data Mining, 25h, M1, Bioinformatics and Modeling Department of INSA-Lyon.

8.2.2. Supervision

PhD: Gaël Kaneko, Analyse et modélisation de la stochasticité de l'expression génique dans des cellules eucaryotes, INSA de Lyon, defended on September 26th, 2013, co-supervised by G. Beslon and O. Gandrillon (CGPhiMC, UMR CNRS 5534, Lyon).

PhD: Stephan Fischer, Modélisation de l'évolution de la taille des génomes et de leur densité en gènes par mutations locales et grands réarrangements chromosomiques, INSA de Lyon, defended on December 2nd, 2013, co-supervised by C. Knibbe, G. Beslon and S. Bernard (Inria Dracula team and Institut Camille Jordan, UMR CNRS 5208, Lyon).

PhD in progress: Bérénice Batut, Study of reductive evolution of bacterial genomes using bioinformatic analyses and in silico evolutionary experiments, INSA de Lyon, started in October 2011, co-supervised by C. Knibbe, G. Beslon and G. Marais (LBBE, UMR CNRS 5558, Lyon).

PhD in progress: Charles Rocabert, Modélisation de l'évolution des microorganismes bactériens par des approches de simulation informatique, INSA de Lyon, started in Novembre 2013, co-supervised by G. Beslon and C. Knibbe.

PhD in progress: Yoram Vadee Le Brun, Evolution expérimentale in silico de réseaux de régulation génétique, INSA de Lyon, started in September 2013, supervisor by G. Beslon.

PhD in progress: Magali Semeria, Biologie évolutive des systèmes, Université Lyon 1, started in September 2012, co-supervised by E. Tannier and L. Gueguen (LBBE, UMR CNRS 5558)

PhD in progress: Jules Lallouette, Transport dans les reseaux complexes : le cas des reseaux mixtes neurones-cellules gliales, INSA de Lyon, started in October 2011, supervised by H. Berry.

PhD in progress: Ilia Prokin, Computational Systems Biology of Signal Transduction in Living Cells: Synaptic Plasticity of Basal Ganglia Neurons, INSA de Lyon, started in October 2013, supervised by H. Berry.

Master internship: Ewy Yang, Détection phylogénétique de co-évolution de gènes, March-August 2013, supervised by E. Tannier

Master internship: Charles Rocabert, Evolution de la stochasticité de l'expression génique, from February 2013 to June 2013, supervised by G. Beslon

Master internship: Sylvain Devaux, Development of a computer game to teach evolution of antibiotic resistance, from October 2013 to February 2014, supervised by G. Beslon

Master internship: Maxence Dolle, Simulation of biochemical reactions in non-homogeneous media, from May 2013 until Aug 2013, co-supervised by G. Beslon and H. Berry

Master internship: Osama Khalil, Computational systems biology of signal transduction in living cells, from Feb 2013 until May 2013, supervised by H. Berry

Master internship: Amanda Lo Van, Modélisation basée sur l'individu de circuits génétiques simples, from Feb 2013 until Jun 2013, supervised by H. Berry

Master internship: Alvaro Mateos Gonzalez, Analysis of a Jump-Renewal Equation for Intracellular Subdiffusion, from Apr 2013 until Aug 2013, supervised by V. Calvez (Inria Numed) 66% and H. Berry 33%

Master internship: Duc Thanh Phan, Clustering of DNA intervals based on descriptors computed from epigenetic profiles, from Feb 2013 until Jul 2013, co-supervised by C. Rigotti and Marion Leleu (Ecole Polytechnique Fédérale de Lausanne).

8.2.3. *Juries*

- Guillaume Beslon reviewed the HDR manuscript and participated to the HDR defense committee of Philippe Lopez, Univ. Paris 6 Pierre et Marie Curie, December 2013.
- Guillaume Beslon participated to the PhD defense committee of Guenola Drillon, Univ. Paris 6 Pierre et Marie Curie, March 2013.
- Guillaume Beslon reviewed the PhD manuscript and participated to the PhD defense committee of Guillaume Chérel, Univ. Paris 6 Pierre et Marie Curie, 2013.
- Guillaume Beslon reviewed the PhD manuscript and participated to the PhD defense committee of Thomas Garcia, Ecole Normale Supérieure de la rue d'Ulm, Paris, December 2013.
- Guillaume Beslon reviewed the PhD manuscript and participated to the PhD defense committee of Jean-Marc Montanier, Univ. Paris Sud, 2013.
- Hugues Berry reviewed the PhD manuscript and participated to the PhD defense committee of G. Detorakis, "Cortical Plasticity, Dynamic neural fields and self-organisation", Nancy, October 2013.
- Hugues Berry reviewed the PhD manuscript and participated to the PhD defense committee of Visou ADY, "Développement et plasticité des connexions des cellules de Purkinje", Paris Descartes University, November 2013.
- Eric Tannier reviewed the PhD manuscript and participated to the PhD defense committee of Thi Hau NGuyen from the University of Montpellier 2, on October 3, 2013.
- Eric Tannier reviewed the PhD manuscript and participated to the PhD defense committee of Guenola Drillon from the University of Paris 6, on March 25, 2013.
- Eric Tannier participated to the HDR defense committee of Nicolas Thierry-Mieg, from University of Grenoble 1, January 25, 2013.
- Christophe Rigotti reviewed the PhD manuscript and participated to the defense committee of Winn Voravuthikunchai, PhD, Univ. Caen Basse Normandie, 2013.
- Christophe Rigotti participated to the HDR defense committee of Nicolas Méger, HDR, Univ. de Savoie, Annecy, 2013.

8.2.4. *Invited talks*

- Guillaume Beslon was an invited speaker at the workshop "Games in evolution", Ecole Normale de la rue d'Ulm, Paris, December 2013.
- Guillaume Beslon was an invited speaker of the Dyliss/Genscales groups, May 2013, Rennes, France.
- Hugues Berry was an invited speaker at the workshop "Complex Network Dynamics", March 25-26, 2013, Montpellier, France.

- Hugues Berry was an invited speaker at the workshop "Control of Self-Organizing Nonlinear Systems", August 28-30, Wittenberg (Berlin), Germany.
- Hugues Berry was an invited speaker at the workshop "BioImage Informatics", 8-9 July 2013, Curie Institute, Paris, France.
- Carole Knibbe was an invited speaker at the Evolyon workshop, November 21st 2013, Lyon.
- Carole Knibbe was an invited speaker at a FINOVI mini-symposium, June 20th 2013, Lyon.
- Christophe Rigotti gave an invited talk on "Spatiotemporal data mining" during "The Meetings of Digital Technologies" organized by ANR at the Cité des Sciences et de l'Industrie, April 2013, Paris. Work in collaboration with N. Meger, C. Pothier, R. Andreoli, F. Lodge, M.-P. Doin, C. Lasserre and R. Jolivet.
- Christophe Rigotti gave an invited talk on "GFS-pattern extraction in satellite image time series: application to the monitoring of Mount Etna", Atelier Mesure de Déformations par Imagerie Spatiale, October 2013, Autrans. Work in collaboration with F. Lodge, N. Meger, L. Gueguen, C. Pothier, R. Andreoli, M.-P. Doin and M. Datcu.
- Hédi Soula was invited an invited speaker in the Seminar Sessions of ETHOS Rennes in December 2013.
- Eric Tannier was a keynote speaker at the IBC (Computational Biology Institute) in Montpellier in 2013.
- Eric Tannier was invited by the "Laboratoire d'Informatique Fondamentale" in Marseille for a talk in March 2013.

8.3. Popularization

- E. Tannier participated to large audience conferences at the Université Populaire de Lyon in February 2013, giving three lectures on scientific revolutions.
- E. Tannier is a co-author of an article to the large audience journal "Pour la science" [32].

DRACULA Project-Team

9. Dissemination

9.1. Scientific Animation

The year 2013 was marked by the following events:

- The edition of 4 volumes of the journal MMNP (Mathematical Modelling of Natural Phenomena) on the following topics: Harmonic analysis; Anomalous diffusion; Front Propagation; Plant growth modelling (see <http://journals.cambridge.org/action/displayJournal?jid=MNP>).
- The co-organization of a monthly seminar (INRIabcd, every last friday), jointly with Inria team BEAGLE, and the organization of a seminar on biomathematics (on thursday, twice a month) (see archives : http://dracula.univ-lyon1.fr/news_old.php).
- The organization of the Semovi seminar (<http://www.biosyl.org/news/semovi>). Two editions (March and October) in 2013, Olivier Gandrillon.
- Thematic program: Mathematical Biology

Our team has been the co-organizer of a thematic program on "Mathematical Biology", in Lyon (France) from March 4th to June 14th (3 months), 2013:

<http://mathbio2013.sciencesconf.org/>

These activities are funded in part by the "Laboratoire d'Excellence", labex MILYON an initiative from the French ministry of research.

The main topics of this program are: Cell biology, population dynamics, quantitative modeling for drug development, systems biology, and evolutionary biology.

The highlights of the program are:

- Systems Biology Approach to Infectious Processes, Lyon (France), May 13-15 (part of the thematic program Mathematical Biology), Fabien Crauste, Olivier Gandrillon.

- ESMTB-EMS Summer school "Multiscale modeling in the life sciences", Lyon (France), May 27-31 (part of the thematic program Mathematical Biology), Thomas Lepoutre, Vitaly Volpert.

- Conference in honour of Michael Mackey's 70th birthday, Lyon (France), June 3-6 (part of the thematic program Mathematical Biology), Samuel Bernard, Fabien Crauste, Laurent Pujou-Menjouet.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Licence : Léon MATAR TINE, Analyse, fonctions de plusieurs variables, Prepa L2, 60h, University Lyon 1.

Licence : Léon MATAR TINE, Analyse numérique, L3, 36h, University Lyon 1.

Licence : Laurent PUJO-MENJOUET, EDP réaction-diffusion, 10.5h, L3, University Lyon 1.

Licence : Laurent PUJO-MENJOUET, EDO-Systèmes dynamiques, 40h, L3, INSA Lyon.

Licence : Laurent PUJO-MENJOUET, Equations différentielles et EDP, 36h, L3, University Lyon 1.

Licence : Laurent PUJO-MENJOUET, Fonctions de plusieurs variables, 36h, L1, University Lyon 1

Licence : Laurent PUJO-MENJOUET, Suite et série de fonctions, 36h, L2, University Lyon 1.

Licence : Laurent PUJO-MENJOUET, Projet Etudiant, 03h, L2, University Lyon 1.

Licence : Philippe MICHEL, Analyse appliquée, 56h, L3, Ecole Centrale de Lyon.
 Licence : Philippe MICHEL, Analyse appliquée, 56h, L3, Ecole Centrale de Lyon.
 Licence : Philippe MICHEL, Probabilités et statistique, 32h, L3, Ecole Centrale de Lyon.
 Licence : Philippe MICHEL, Projet d'études, 10h, L3, Ecole Centrale de Lyon.
 Master : Mostafa ADIMY, Dynamique des populations : application aux populations de cellules, 15h, M2, University Lyon 1.
 Master : Thomas LEPOUTRE, Préparation à l'agrégation, calcul scientifique, 30h, M2, University Lyon 1.
 Master : Thomas LEPOUTRE, Dynamique des protéines, 18h, M2, University Lyon 1.
 Master : Thomas LEPOUTRE, Equations de Hamilton Jacobi, 18h, M2, ENS Lyon.
 Master : Samuel BERNARD: Dynamique des populations : application aux populations de cellules, 15h, M2, University Lyon 1.
 Master : Laurent PUJO-MENJOUET, Modélisation en biologie et médecine, 4h, M2, ENS Lyon.
 Master : Laurent PUJO-MENJOUET, EDP et modélisation, 30h, M1, INSA Lyon.
 Master : Laurent PUJO-MENJOUET, Projets tutorés, 3h, M1, University Lyon 1.
 Master : Laurent PUJO-MENJOUET, Systèmes dynamiques, 27h, M1, University Lyon 1.
 Master : Laurent PUJO-MENJOUET, EDP pour l'hématopoïèse, 18h, M2, University Lyon 1.
 Master : Philippe MICHEL, Algorithmes pour la décision en entreprise, 16h, M2, Ecole Centrale de Lyon.
 Master : Philippe MICHEL, Systèmes embarqués collaboratifs, 14h, M1, Ecole Centrale de Lyon.
 Master : Philippe MICHEL, Projet Application - Recherche, 10h, M1, Ecole Centrale de Lyon.
 Master : Philippe MICHEL, Méthodes variationnelles pour les EDP, 36h, M2, Ecole Centrale de Lyon.

9.2.2. Supervision

PhD in progress: Loic Barbarroux, Ecole Centrale de Lyon, French ministry scholarship, since October 2013, co-supervised by Mostafa Adimy and Philippe Michel.
 PhD in progress: Latifa Bouguerra, University of Alger, Algerian scholarship, since October 2012, co-supervised by Mostafa Adimy and Rachid Boudchich.
 PhD in progress: Abdennasser Chekroun, University Lyon 1, Algerian scholarship, since October 2012, supervised by Mostafa Adimy.
 PhD in progress: Raouf El Cheikh, University Lyon 1, salarié, since October 2011, supervised by Samuel Bernard.
 PhD : Mohamed Helal, Contributions aux équations et inclusions différentielles et applications a des problèmes issus de la biologie cellulaire, University of Sidi Bel Abbes, Algeria, September 2013, co-supervised by Laurent Pujou-Menjouet and Abdelkader Lakmeche.
 PhD in progress: Marine Jacquier, University Lyon 1, since October 2012, co-supervised by Mostafa Adimy and Fabien Crauste.
 PhD in progress: Alen Tosenberger, University Lyon 1, CNRS scholarship, supervised by Vitaly Volpert.

9.2.3. Juries

- Mostafa Adimy was member and reviewer of the following PhD: Dhaou Lassoued (University of Paris 1 (Panthéon-Sorbonne)), December 2013; Souhila BOUDJEMA (University of Paris 1 (Panthéon-Sorbonne)), September 2013; Yuan HE (University of Bordeaux), November 2013; Ousmane SEYDI (University of Bordeaux), November 2013; Mohamed HELAL (University of Sidi Bel Abbes, Algeria), 22 September 2013; Naamat ALI (University of La Rochelle), July 2013.

- Mostafa Adimy was reviewer of the following PhD: William DIMBOUR (University of Antilles et de la Guyane), May 2013.
- Samuel Bernard was member of the following PhD: Anne-Sophie LESART (University of Grenoble), November 2013.
- Samuel Bernard was acting as a co-director for the following PhD: Stephan FISCHER (University of Lyon) December 2013.
- Olivier Gandrillon was acting as a director for the following PhD: Gael Kaneko (University of Lyon), Septembre 2013.
- Olivier Gandrillon was member and reviewer of the following PhD: Benoit Robisson (University of Marseille), November 2013; Lydia Boudarène (ENS Paris), March 2013.
- Olivier Gandrillon was member of the following PhD: Adrien Senecal (ENS Paris), September 2013.

IBIS Project-Team

8. Dissemination

8.1. Editorial, animation, and reviewing activities

Eugenio Cinquemani

| Type | Journal, conference, agency |
|------------------|--|
| Associate Editor | European Control Conference (ECC) 2014 |

Hidde de Jong

| Type | Journal, conference, agency |
|--|--|
| Member Editorial Board Member Editorial Board | Journal of Mathematical Biology ACM/IEEE Transactions on Computational Biology and Bioinformatics |
| Member Editorial Board Member Program Committee Member Scientific Advisory Board Member Review and Selection Committees Member Promotion Committee Member PhD Committee | Biosystems CMSB 13, IEEE BIBM 13, JOBIM 13, HSB 14 Microbiology and Food Chain Department, Inra International Human Frontier Science Program (HFSP) Senior research scientists, Inra Mathieu Trauchessec (CEA/Metabolic Explorer and Université Joseph Fourier) |
| Member PhD Advisory Committee Coordinator (with C. Ambroise and F. Molina) | Caroline Baroukh (Inria/Inra and Université de Montpellier 2) Working group on Transcriptome, protéome, modélisation, inférence et analyse des réseaux biologiques of GDR CNRS 3003 Bioinformatique moléculaire |
| Advisor Project reviews | Grenoble team for iGEM 2013 competition ANR, IDEX Saclay, Institut Pasteur, CNRS, NWO |

Johannes Geiselmann

| Type | Journal, conference, agency |
|--|--|
| Member Scientific Council Member PhD Committee Member PhD Advisory Committee Advisor Project reviews | Department of Biology, Université Joseph Fourier Khady Sall (CEA and Université Joseph Fourier) Xuejiao Jiang (INSA de Lyon) Grenoble team for iGEM 2013 competition ANR, CNRS |

Stéphane Pinhal

| Type | Journal, conference, agency |
|-------------------------|---|
| Advisor Co-organizer | Grenoble team for iGEM 2013 competition Journée des doctorants du LAPM |

Delphine Ropers

| Type | Journal, conference, agency |
|--|--|
| Member Organization Committee Member PhD Committee Advisor | SeMoVi (Séminaire de Modélisation du Vivant) Claire Villiers (Université Joseph Fourier) Grenoble team for iGEM 2013 competition |

8.2. Other administrative activities

Eugenio Cinquemani is member of the Comité des Utilisateurs des Moyens Informatiques (CUMI) and of the Commission des Emplois Scientifiques at Inria Grenoble - Rhône-Alpes.

Hidde de Jong is member of the working group on International Relations of the Conseil d'Orientation Scientifique et Technique (COST) of Inria.

Johannes Geiselmann is head of the Control of Gene Expression group in the Laboratoire Adaptation et Pathogénie des Microorganismes (UMR 5163) and adjunct-director of the laboratory.

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

François Rechenmann is CEO of Genostar. Until 2013, he has been leader of the editorial committee of the Interstices website (<http://interstices.info>). In addition, he has been commissioned by the Director of Inria Grenoble - Rhône-Alpes to help and to coach PhD students, in the research center, who encounter problems of various sorts during their thesis.

Michel Page is coordinator of the master Systèmes d'information et d'organisation at the Institut d'Administration des Entreprises (IAE), Université Pierre Mendès-France, Grenoble. Moreover, he is head of the ICT service center at IAE.

Delphine Ropers represents Inria Grenoble - Rhône-Alpes in the scientific board of IXXI, the Complex Systems Institute in Lyon (<http://www.ixxi.fr>). She is also member of the Commission de Formation Permanente at Inria Grenoble - Rhône-Alpes.

8.3. Seminars, presentations, and PhD thesis defenses

Eugenio Cinquemani

| Title | Event and location | Date |
|--|--|------------|
| On identifiability and identification of metabolic network models | Seminar GIPSA Lab, Grenoble | April 2013 |
| Mixed-effects modelling of biochemical reaction networks: Two applications on two systems | BCM seminar, TIMC-IMAG, Grenoble | May 2013 |
| State estimation for gene networks with intrinsic and extrinsic noise: Models and approaches on a case study | HYCON2-AD3 Workshop on Biological and Medical Systems, Paris | June 2013 |
| Identification of biological systems | Seminar PhD school on Systems Biology, Bertinoro (Italy) | July 2013 |

Hidde de Jong

| Title | Event and location | Date |
|---|---|--------------|
| Shared control of gene expression in bacteria by transcription factors and global physiological state | Invited talk at Network Biology Symposium, Institut Pasteur, Paris (France) | October 2013 |

Johannes Geiselmann

| Title | Event and location | Date |
|---|--|----------------|
| Adaptation of bacteria to their environment: dominance of the global physiological state of the cell and only a minor role for specific transcription factors | Talk at conference of the French Society of Microbiology, Lille | February 2013 |
| Synthetic biology, an emerging technology | Talk at conference Biologie de synthèse : potentiels et défis, Nimes | March 2013 |
| Shared control of gene expression in bacteria by transcription factors and the global physiology of the cell | Talk at ESF Research Conference on Bacterial Networks, Pultusk (Pologne) | March 2013 |
| The global physiological state controls bacterial regulatory networks: a new design paradigm for biotechnology | Talk at World Congress of Industrial Biotechnology, Nanjing (China) | April 2013 |
| Growth rate and gene expression | Talk at ST-FLOW, University of Birmingham, Birmingham (UK) | September 2013 |
| Growth-rate control in Escherichia coli | Talk at SynBio 2013, Heidelberg (Germany) | December 2013 |

Nils Giordano

| Title | Event and location | Date |
|---|---|--------------|
| Dynamic optimisation of resource allocation in microorganisms | Poster presentation at Journée des doctorants du LAPM, Grenoble | October 2013 |

Stéphane Pinhal

| Title | Event and location | Date |
|---|---|--------------|
| Inhibition de la croissance d'E. coli par l'acétate lors d'une croissance sur glucose | Poster presentation at Journée des doctorants du LAPM, Grenoble | October 2013 |

Delphine Ropers

| Title | Event and location | Date |
|---|---|----------------|
| Mathématiques pour la biologie : quand les gènes jouent la montre | Programme 2012-2013 "Informatique au lycée" - Initiation, Villard-de-Lans | April 2013 |
| Mathématiques pour la biologie : quand les gènes jouent la montre | Programme 2012-2013 "Informatique au lycée" - Approfondissement, Montbonnot | May 2013 |
| Global control of gene expression in Escherichia coli | Keynote speaker at International Conference on Predictive Modelling in Food (ICPMF8), Paris | September 2013 |
| Global control of gene expression in Escherichia coli | Invited talk at meeting ANR Stochagène | September 2013 |
| Régulation globale et contrôle de la croissance chez E. coli | BEesy annual meeting, Saint Hugues de Biviers | November 2013 |

Diana Stefan

| Title | Event and location | Date |
|---|---|--------------|
| Structural and parametric identification of bacterial regulatory networks A case study on the gene network regulating motility in E. coli | Poster presentation at Journée des doctorants du LAPM, Grenoble | October 2013 |

Valentin Zulkower

| Title | Event and location | Date |
|--|--|--------------|
| Quantitative comparison of one-step and two-step models of gene expression | Oral presentation at Journées Ouvertes Biologie, Informatique et Mathématiques (JOBIM'13), Toulouse | July 2013 |
| Carbon catabolite repression in <i>E. coli</i> | Poster presentation at EMS Autumn School on Computational Aspects of Gene Regulation, Bedlewo (Poland) | October 2013 |

8.4. Popular science writing

The members of IBIS are actively involved in the dissemination of research results in systems biology and bioinformatics to a wider, non-specialist audience. François Rechenmann has been leader of the editorial committee of the *Interstices* (<http://interstices.info>). *Interstices* offers pedagogic presentations of research themes and activities in the computer science domain, including at its interface with life sciences. François Rechenmann also contributed an article to *Texte et documents dans la classe (TDC)* this year, in the special issue on "Les mathématiques de la terre".

8.5. Teaching

Four members of the IBIS team are either full professor, associate professor or assistant professor at the Université Joseph Fourier or the Université Pierre Mendès-France in Grenoble. 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

| Subject | Year | Location | Hours |
|--|------|---|-------|
| Identification of dynamical models of genetic networks | 5 | INSA de Lyon | 4 |
| Statistics for biologists | 5 | Master Approches Interdisciplinaires du Vivant, Centre de Recherches Interdisciplinaires/Université Paris Descartes | 20 |

Hidde de Jong

| Subject | Year | Location | Hours |
|--|------|--------------|-------|
| Modeling and simulation of genetic regulatory networks | 5 | INSA de Lyon | 20 |
| Modeling and simulation of genetic regulatory networks | 5 | ENS Paris | 8 |

Nils Giordano

| Subject | Year | Location | Hours |
|--|------|---------------------------|-------|
| Modeling and simulation of genetic regulatory networks | 5 | ENS Paris | 8 |
| Génétique Procaryote | 2 | Université Joseph Fourier | 16 |
| Génétique des Populations | 2 | Université Joseph Fourier | 18 |

Stéphane Pinhal

| Subject | Year | Location | Hours |
|-----------------------|------|---------------------------|-------|
| Génétique microbienne | 2 | Université Joseph Fourier | 34 |
| Eau en sciences | 1 | Université Joseph Fourier | 17 |

Delphine Ropers

| Subject | Year | Location | Hours |
|--|------|---------------------------|-------|
| Modeling and simulation of genetic regulatory networks | 4 | Université Joseph Fourier | 7.5 |
| Modeling and simulation of genetic regulatory networks | 5 | INSA de Toulouse | 4 |

Diana Stefan

| Subject | Year | Location | Hours |
|--|------|-------------|-------|
| Project Signal, Image, Communication, Multimédia | 3 | INPG Phelma | 36 |

Valentin Zulkower

| Subject | Year | Location | Hours |
|------------------|------|--------------------|-------|
| Calcul matriciel | 3 | Polytech' Grenoble | 41 |

Hidde de Jong organized with Daniel Kahn a module on the modeling of genetic and metabolic networks at INSA de Lyon. Delphine Ropers is preparing a module on the mathematical modeling of biological systems at PHELMA, INP Grenoble.

[1]

MOISE Project-Team

9. Dissemination

9.1. Scientific Animation

- A. Rousseau is a member of the editorial board of *Discrete and Continuous Dynamical Systems - Series S* (DCDS-S).
- F. Lemarié and A. Rousseau organized a mini-symposium «Domain Decomposition Methods for Environmental Modeling» during the DD22 international conference in Lugano (Switzerland) [47].
- C. Prieur is a member of the editorial board of the section “états de l’art” of Journal of the French Statistical Society (SFdS).
- C. Prieur is in the scientific committee of the SAMO 2013 conference which will be held in Nice in July 2013, jointly with MASCOT NUM annual conference. The SAMO conference has now (since September 2013) a permanent board. C. Prieur is a member of that board.
- C. Prieur, E. Blayo, A. Rousseau have taken part in 2013 to the wide consortium of the Prospective think tank: MATHématiqueS en INteractions pour la TERRE whose purpose is to help the French National Research AgencyNR defining the research-funding program on the theme Mathematics for the Earth.
- C. Prieur was in the scientific committee of the Journées MAS 2013 (SMAI) which were held in Clermont-Ferrand in August 2012.
- C. Prieur and L. Viry organize jointly with H. Monod and R. Faivre (INRA) a school on sensitivity analysis for environmental models (les Houches, 7-12 April, 2013; 4-9 May, 2014).
- C. Prieur is a member of the scientific council of the French Mathematical Society (SMF).
- C. Prieur is member of the board of the group mathematical statistics of the French society of statistics (SFdS) since 2008.
- C. Prieur organized a session on sensitivity analysis in the Journées MAS (SMAI) 2013.
- C. Prieur organized a session on statistical estimation for PDE in the SMAI workshop 2013.
- M. Nodet co-organised with S. Labbé and Ch. Prieur the annual workshop of the GDRE research group in Grenoble, <http://ljk.imag.fr/membres/Maëlle.Nodet/GDRE2013>
- A. Vidard is deputy scientific leader to data assimilation for the NEMO consortium
- F.-X. Le Dimet participates in the organisation of the Sasaki Symposium in the framework of AOGS 2013 (Brisbane, June 2013) and of the Coupling Systems with heterogeneous information ERC (Rennes, January 2014)
- 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 30 teachers of 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.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Licence: M. Nodet: Statistics, 80h, L2, Université de Grenoble, France

Licence: E. Blayo: Statistics, 36h, L2, Université de Grenoble, France

Master: M. Nodet: Inverse Methods, 28h, M2, Université de Grenoble, France
 Licence: E. Blayo, M. Nodet : Mathematics for engineers, 80h, L1, university of Grenoble, France
 Master : E. Blayo: Finite element methods, 45h, M1, university of Grenoble, France
 Master: E. Blayo: Data assimilation in oceanography, 2h, M2, Ecole des ponts Paris Tech, France
 Master : L. Debreu, Numerical ocean modelling, 12H, M2, University of Brest, France
 Doctorat: E. Blayo, A. Vidard, introduction to data assimilation, 20h, Université de Grenoble, France

9.2.2. Supervision

HdR : M. Nodet, Inverse problems for the environment: tools, methods and applications, Université de Grenoble, November 28th 2013, [3]

PhD : B. Bonan, Assimilation de données pour l'initialisation et l'estimation de paramètres d'un modèle d'évolution de calotte polaire, Université de Grenoble, Nov 15th 2013, advisers: M. Nodet and C. Ritz. [1]

PhD : Manel Tayachi, Couplage de modèles de dimensions hétérogènes et application en hydrodynamique, Université Joseph Fourier, 28 octobre 2013, Eric Blayo and Antoine Rousseau, [4]

PhD : Gaëlle Chastaing, Estimation des indices de sensibilité sous conditions de dépendance, Université Joseph Fourier, 2013, C. Prieur and F. Gamboa, [2].

PhD in progress : Pierre-Antoine Bouttier, Variational data assimilation into highly nonlinear ocean models, October 2009, E. Blayo and J. Verron

PhD in progress : Vincent Chabot, Nouvelles distances pour l'assimilation de séquence d'images, start Nov 2010, advisers: A. Vidard and M. Nodet

PhD in progress : N. Feyeux, Transport optimal pour l'assimilation de séquences d'images, start Nov 2013, advisers: A. Vidard and M. Nodet

PhD in progress : Jérémie Demange, Numerical schemes for tracers and momentum advection in ocean models, 15/12/2010, Supervisors : L. Debreu and P. Marchesiello (IRD).

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

PhD in progress: Federico Zertuche, Exploitation des simulateurs multifidelites pour l'analyse de risque, Octobre 2011, C. Prieur and C. Helbert.

PhD in progress : Simon Nanty, Approche stochastique pour la quantification des incertitudes et l'analyse de sensibilité des codes de calcul à entrées temporelles et spatio-temporelles : application aux études de sûreté et de calcul d'impact, October 2012, C. Prieur, C. Helbert

PhD in progress : Laurent Gilquin, October 2013, C. Prieur

PhD in progress : Patricia Tencaliec, Gestion des risques multivariés extrêmes, application à des données de débit sur le bassin versant de la Durance October 2013, C. Prieur

PhD in progress : Thomas Capelle, Recherche sur des methodes d'optimisation pour la mise en place de modeles integres de transport et usage des sols, October 2013, P. Sturm, A. Vidard

9.2.3. PhD and HdR Juries

- E. Blayo was a referee of PhD thesis of Selime Gurol: Solving regularized nonlinear least-squares problem in dual space. Université de Toulouse, June 14, 2013
- E. Blayo was a referee of PhD thesis of Sébastien Beyou: Estimation de la vitesse des courants marins à partir de séquences d'images satellitaires. Université de Rennes, July 12, 2013
- E. Blayo was a member of the jury for the PhD defense of Gaëlle Chastaings: Indices de Sobol généralisés pour variables dépendantes. Université de Grenoble, September 23, 2013.

- E. Blayo was a member of the jury for the PhD defense of Lucile Gaultier: Couplage des observations spatiales dynamiques et biologiques pour la restitution des circulations océaniques: une approche conjointe par assimilation de données altimétriques et de traceurs. Université de Grenoble, October 16, 2013.
- E. Blayo was a member of the jury for the HDR defense of Frédéric Parrenin: Sur l'âge de la glace et des bulles de gaz dans les calottes polaires. Université de Grenoble, October 21, 2013.
- E. Blayo was a member of the jury for the PhD defense of Olivier Vannier: Apport de la modélisation hydrologique régionale à la compréhension des processus de crue en zone méditerranéenne. Université de Grenoble, November 22, 2013
- F.-X. Le Dimet was a member of the jury for the HDR defense of Benjamin Ivorra: Méthodes et techniques de Modélisation, de Simulation et d'Optimisation appliquées à divers problèmes industriels, Université de Montpellier 2, February, 7, 2013.
- C. Prieur was a chair of the PhD jury of Matthias De Lozzo, INSA Toulouse,
- C. Prieur was a chair of the PhD jury of Jonathan El Methni, Université Grenoble 1
- C. Prieur was a chair of the PhD jury of Gérémy Panthou, Université Grenoble 1
- C. Prieur was a member of the PhD jury of Anne Sabourin, Université Lyon 1
- C. Prieur was a member of the PhD jury of Gaëlle Chastaing, Université Grenoble 1
- A. Rousseau was member of the PhD committee of Vincent Visseq (Université Montpellier II)
- A. Rousseau was member of the PhD committee of Nathan Martin (INSA Toulouse)
- A. Vidard was member of the PhD jury of Lucille Gaultier, Université Grenoble I
- A. Vidard was reviewer of the PhD of Alexandre Imperiale, Université Paris VI

9.2.4. Other Juries and Evaluation Committees

- M. Nodet is a member of the national board of Agregation externe de mathématiques 2013
- M. Nodet was a member of the recruiting committee of an assistant professor in applied mathematics in ENSEEIT Toulouse.
- C. Prieur was a member of the jury of the EADS Foundation's Best Thesis Prize reward.
- C. Prieur was a member of the AERES evaluation committee of the LAMA (Univ. Paris Est Marne la Vallée, Univ. Paris Est Créteil), in December, 2013.
- A. Rousseau is a member of Inria Evaluation Committee
- A. Rousseau was member of Inria Bordeaux committee for young graduate scientists
- A. Rousseau was member of Inria Grenoble committee for young graduate scientists
- A. Rousseau was member of the national Inria committee for research positions (both starting and advanced)
- A. Rousseau was member of the national Inria committee for internal competition « Assistant Ingénieur »

9.3. Popularization

- E. Blayo gave several conferences for highschool students on the topics of applied mathematics and applied mathematics for environment.
- A. Rousseau is the Grenoble Rhône-Alpes scientific correspondent for outreach
- A. Rousseau and M. Nodet wrote an outreach article in the APMEP journal about mathematical modelling for the environment [59].

- A. Rousseau, M. Nodet and S. Minjeaud (Nice) developed an impressive outreach effort on the subject of ocean circulation, called "Bottles and Oceanography". They first wrote a paper and designed a numerical experiment, then they proposed a physical experiment as well. This whole package has been presented at UNESCO for the launch of Maths for Planet Earth 2013 <http://mpe2013.org/mpe-day-at-unesco>, and is a part of the IMAGINARY platform for outreach <http://imaginary.org/films/flaschen-und-ozeanographie>. It has also been presented at the Comité International des Jeux mathématiques [57], and has been published in the journal Textes et Documents pour la Classe (resources for highschool teachers) [56].
- A. Rousseau and M. Nodet are members of the editorial committee of Maths for Planet Earth "Un jour une brève » operation <http://mpt2013.fr>, which aimed and succeeded to publish every day a short outreach article in 2013. Moreover, A. Rousseau is also webmaster and member of the executive board (6 people) of the operation.
- A. Rousseau and M. Nodet gave conferences during the Science Fair / Fete de la Science, for high-school students and their teachers, on the topics of mathematical modelling for the environment.
- M. Nodet gave a talk at the JELU workshop, which regroups university teachers and highschool teachers on teaching methods.
- M. Nodet wrote an outreach article about glaciology in the journal of the French society for applied mathematics SMAI, in the special issue MATAPLI number 100 on the occasion of Mathematics for Planet Earth 2013.
- M. Nodet gave a conference at the Mathematics Weeks in Valence for highschool students and their teachers, on the topic of mathematics for the environment and meteorology.
- Ch. Kazantsev begins a collaboration with Morocco, she has presented the IREM and IREM activities to the Ecole Normale de Rabat who wants now to create such an Institute.
- In the context of the program "100 parrains-100 classes", Ch. Kazantsev gives a weekly lectures to pupils of one secondary school in Grenoble.
- Ch.Kazantsev has participated in the "Fête de sciences" and in the "Semaine des maths" presenting the activities of the IREM of Grenoble.
- F. Zertuche and J. Calandreau have participated in the "Fête de sciences" presenting the activities of Moise.

NUMED Project-Team

7. Dissemination

7.1. Scientific Animation

- Vincent Calvez: Organization of a thematic trimester in Lyon "Mathematical Biology 2013" (ENS and Univ. Lyon 1): 3 months, 4 conferences, 1 workshop and 1 summer school, more than 400 participants, focus on interdisciplinary conferences with biologists and theoretical physicists (evolutionary biology, cell biology, drug development, system biology).
- Paul Vigneaux and Vincent Calvez are editors of the **CEMRACS 2009 - Mathematical Modelling in Medicine** Proceedings. ESAIM. Vol. 30, August 2010, 165 pages.
- **Organization of Conferences :**
In 2008/2009, Vincent Calvez and Paul Vigneaux co-organize the **CEMRACS 2009 - Mathematical Modelling in Medicine**, 14th edition of this 6-week international summer school (at the CIRM, Marseille, France, July 20 to August 28, 2009). CEMRACS is supported by the SMAI (French Industrial and Applied Mathematics Society).
In 2010, Paul Vigneaux co-organizes the **8th JERAA**, 25-26 Nov., a two days conference on Partial Differential Equations gathering the community from Rhône-Alpes-Auvergne (France).
- **Seminars :**
Since September 2008, Paul Vigneaux and Vincent Calvez co-organize the "Modelling and Partial Differential Equations" seminar, joint with ENS de Lyon and Institut Camille Jordan (4 talks by month, from September to June).
- **Commissions and Boards :**
 - Paul Vigneaux is member of the Board of **MILYON**, the Laboratory of Excellence (Labex) in Mathematics of Lyon. This Labex aims at federating international research, higher education and society activities.
 - Paul Vigneaux is member of the Hiring Commissions ("Comités de Sélection") at the University of **Clermont-Ferrand 2, Lyon 1, Montpellier 2, Centrale Nantes, INSA Lyon** and **ENS de Lyon** : it consists in the selection of candidates for permanent positions in the Mathematics department.
 - Paul Vigneaux is member of the Boards of the Numerical Modelling Center (**PSMN**) of Lyon, of **UMPA**, the mathematics research lab at ENS de Lyon, of the Board of the Department of Mathematics (teaching) at ENS de Lyon.
 - Emmanuel Grenier created, together with Didier Bresch, the first national network gathering most of the french academic teams working on mathematical models for life sciences (GDR Mabem 2008 – 2011). He is in the scientific board of the GDR Metice, successor of GDR Mabem.

7.2. Teaching - Supervision - Juries

7.2.1. Teaching

- Marie Aimée Dronne teaches 192h per yer, in Lyon 1 University and in INSA de Lyon (Licence and Master, "master of neurosciences", "master of cancerology", "master of drug development"), teaching in mathematics and statistics for medical students and modeling for INSA students (electrophysiological models, epidemiological models, pharmacocinetic models)
- Vincent Calvez teaches 64h per year, L3, M2 (mathematics, complex systems) at ENS de Lyon

- Paul Vigneaux has his Associate Professor's teaching service (192 hours each year in 2010, 2011, 2012) at ENS de LYON. A few hours are done at L3 level and the majority of the service is done at 'Agregation' Training (M2 level): Numerical/Analysis, Partial Differential, Scientific Computing and Modelling. Excellent results are obtained by his students at the National Competition "Agregation de Mathematiques" (Several 20/20 and one first total rank (over 300 competitors) in 2012).
- In 2013, Paul Vigneaux only teaches 64 hours thanks to an Inria "delegation". The same year, he was an invited lecturer at the well established CNRS thematic school on "Computational Fluid Mechanics" (13th edition, each 2 years). This school is intended for Tenure-Track Researchers' as well as PhD students' training. He was also invited to give a 12 hours Doctoral lecture in the framework of the PhD program of the Institute of Mathematics of Seville, Spain (with Excellence Label from the Ministry of Education). He is also teaching at the M2-Recherche level at ENS de Lyon, a core lecture of the Mathematical Doctoral Program training of Lyon.
- Emmanuel Grenier is professor. He teaches 192h per year, at L3, M1, M2, Agrégation level (modeling, pde, analysis, ...). He was responsible of third year students of mathematics at ENS Lyon. He is now responsible for first year master students. He is a former associate professor at Ecole Polytechnique (till 2010).

7.2.2. Supervision

HdR: Benjamin Ribba, Université de Grenoble, 2013.

7.3. Popularization

- Vincent Calvez is responsible for regular actions towards high school students (regular talks in high schools).
- Paul Vigneaux:

Paul Vigneaux has a significant activity in the official dissemination website of CNRS: "Images des Mathematiques". He is a member of its Editorial Board since the beginning in 2009, in particular responsible of the "Billets" section (60% of the total reading flux of the website). Nonetheless, he also edited most of the applied mathematics articles of the site and made several articles contributions. Among others a translated/commented article on Richard Courant and his Institute, as well as a series, with the authorization of the EMS, of 20 articles on "Success Stories of Mathematics in Industry" in 2012-2013. Cf: <http://images.math.cnrs.fr/Vigneaux-Paul.html> In 2013, he was one of the editors of the series of 40 books published by the association of *Le Monde* (top national newspaper), *Institut Henri Poincaré* (Head: Cedric Villani) and *Images des mathematiques*. This series was supported by Cedric Villani and aims at broadcasting mathematics to a general public. Vincent Calvez was also one of the editors of the series. Currently still under publication, it is already an editorial success in terms of selling (20 book issued).

STEPP Team

9. Dissemination

9.1. Scientific Animation

P. Sturm is Associate Editor of the IEEE Transactions on Pattern Analysis and Machine Intelligence, the Journal of Mathematical Imaging and Vision, and the Image and Vision Computing Journal.

P. Sturm co-edited, with S. Garlatti and O. Boissier, a special issue in Revue d'Intelligence Artificielle with the best AI papers of the conference RFIA 2012.

P. Sturm co-edited, with S. Garlatti, a special issue in Traitement du Signal with the best pattern recognition and computer vision papers of the conference RFIA 2012.

P. Sturm is member of the Scientific Council of the foundation Barcelona Media.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

P. Sturm, Informatique visuelle, 37.5h, M2, University of Grenoble, France.

P. Sturm, Computer vision, 13.5h, M2, University of Grenoble, France.

9.2.2. Supervision

PhD in progress:

Julien Alapetite, Pilotage d'une collectivité avec l'empreinte écologique, part-time PhD student who carries out part of his work in STEEP, graduation expected in 2014, advisor D. Dupré (CERAG)

Thomas Capelle, Research on optimization methods for setting up integrated models of transportation and land use, started in October 2013, P. Sturm and A. Vidard (MOISE)

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 2013, P.-Y. Longaretti and D. Dupré (CERAG)

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

Anthony Tschirhard, Calibration and sensitivity analysis of a micro-simulation LUTI model, Oct 2012, E. Prados, E. Arnaud, P. Sturm

9.2.3. Juries

P. Sturm, President of the AFRIF Thesis Award Committee (French Association for Research in Pattern Recognition and Interpretation)

P. Sturm, Member of habilitation committee, Christophe Cudel, Université de Haute-Alsace, Mulhouse

P. Sturm, Reviewer of PhD thesis, Laurent Caraffa, Paris 6

P. Sturm, Reviewer of PhD thesis, Pedro Miraldo, Coimbra University, Portugal

P. Sturm, Reviewer of PhD thesis, Christian Unger, Technische Universität München, Germany

P. Sturm, President of PhD committee, Jordi Sanchez-Riera, Grenoble University

P. Sturm, President of PhD committee, Marion Decrouez, Grenoble University

P. Sturm, President of PhD committee, David Ok, école des Ponts ParisTech

9.3. Popularization

STEPP participated in the 2013 edition of the technological fair "Forum 4i" of the Rhône-Alps region, which was on "Intelligent mobility, usages and innovations". The forum is visited by local and regional politicians and other stakeholders as well as by the general public. We presented the activities of the team and the socio-economic issues that motivate them.

Emmanuel Prados has been invited to give the introductory talk of the conference "Journée des Mathématiques" of Grenoble organized by the "Rectorat de Grenoble" (Grenoble, March 18, 2013; Title of the presentation: "Préserver l'environnement avec l'aide des mathématiques").

AVALON Team

8. Dissemination

8.1. Scientific Animation

- Eddy Caron
 - Co-Organization of Inria Booth in SuperComputing 2013, Denver, USA, November 16-22, 2013
 - Local Arrangements Co-Chairs of ICPP 2013 : 42th International Conference on Parallel Processing, Lyon, October 1-4, 2013
 - Program Committee Member: IPDPS 2013, HCW 2013, CLOSER 2013, CloudCom 2013, The First International Workshop Federative and Interoperable Cloud Infrastructures, (FedICI'2013) and CGCIC'13.
 - Reviews: Journal of Grid Computing, JPDC (Journal of Parallel and Distributed Computing), CPE (Concurrency and Computation: Practice and Experience), TPDS (Transactions on Parallel and Distributed Systems)
- Frédéric Desprez
 - General chair of the VTDC'13 workshop (within HPDC'13), Co-chair of Closer'13, Co-chair of BigDataCloud'2013 (within EuroPAR'13)
 - Program Committee Member: CCGRID'2013, IPDPS'13, CGC2013, NPC2013, Big-Data'13, BDSE'2013
 - Reviews: Journal of Grid Computing, Parallel Processing Letters, Future Generation Computing Systems
 - Project Evaluation: Appel à Projets Recherche 2013 du Conseil régional d'Aquitaine, Région Languedoc-Roussillon, appel à projets "Chercheur(se)s d'avenir" 2013
 - Member of the selection committee for an associate professor at Université Joseph Fourier (Grenoble)
- Gilles Fedak
 - Member of Editorial Board of Springer Cloud Computing Journal, 2013
 - "Special Issue: Combined Special Issue of MapReduce and its Applications & Advanced topics on wireless sensor networks" Concurrency and Computation: Practice and Experience Issue edited by: Gilles Fedak, Keqiu Li, Kai Lin Volume 25, Issue 1 January 2013
 - Program Committee Member: 9th IEEE International Conference on e-Science, (e-Science 2013), 5th IEEE International Conference on Cloud Computing Technology and Science (CloudCom2013), 25th International Symposium on Computer Architecture and High-Performance Computing (SBAC-PAD), The First International Workshop Federative and Interoperable Cloud Infrastructures, (FedICI'2013), IEEE International Conference on Big Data and Distributed Systems (BDDS 2013), 10th IFIP International Conference on Network and Parallel Computing (NPC 2013), 15th IEEE International Conference on High Performance Computing and Communications (HPCC 2013), 22nd ACM International Symposium on High-Performance Parallel and Distributed Computing (HPDC 2013), 13th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing (CCGRID 2013), International Workshop on High Performance Data Intensive Computing (HPDIC2013), 17th Workshop on Job Scheduling Strategies for Parallel Processing (JSSPP 2013).
- Jean-Patrick Gelas

- PC member (Cloud and Distributed Computing), AICCSA 2013 : 10th ACS/IEEE International conference on computer systems and applications, Fes, Morocco, May 27-30, 2013
- PC member, ExtremeGreen: Extreme Green and Energy Efficiency in Large Scale Distributed Systems , Delft, The Netherlands, May 13-16, 2013
- Reviews : ExtremGreen2013, Euro-Par2013, EnA-HPC 2013, CGC2013.
- Olivier Glück
 - Organization: local organization committee of ICPP
 - PC member: ExtremeGreen, International Conference on Cloud and Green Computing
 - Reviews: Cluster Computing, Euro-Par
 - University committee: Member of the CEVU (Conseil des Etudes et de la Vie Universitaire) of University Lyon 1, Member of the UFR Faculte des Sciences et Technologies faculty council of University Lyon 1, Member of the computer science department council of University Lyon 1
- Laurent Lefèvre
 - Co-organizer of the Green Days @ Lille event: "HPC & Clouds : are they green ?", Lille, November 28-29, 2013
 - Co-Organization of Inria Booth in SuperComputing 2013, Denver, USA, November 16-22, 2013
 - Co General chair of ICPP 2013 : 42th International Conference on Parallel Processing, Lyon, October 1-4, 2013
 - Co-Program chair of CGC 2013 : Third International Conference on Cloud and Green Computing ,Karlsruhe, Germany, September 30- October 2, 2013
 - Co-Workshop chair of ExtremeGreen 2013 : Extreme Green & Energy Efficiency in Large Scale Distributed Systems , Delft, The Netherlands, May 2013
 - Co-organizer of the Green Days @ Luxembourg event: "Energy efficiency : what else / what next ?", Luxembourg, January 28-29, 2013
 - Associate editor of IEEE Transactions on Cloud Computing (TCC)
 - Member of the selection committee for an associate professor position at Université Antilles Guyane (Pointe à Pitre)
- Christian Perez
 - Co-organization of the The Ninth Workshop of the Inria-Illinois Joint Laboratory on Petascale Computing, Lyon, France, June 12-14, 2013.
 - Programm committee member of the International Conference on Parallel Computing 2013 (ParCo), the 11th International Conference on Service Oriented Computing (IC-SOC2013).
 - Reviewing for IEEE Transactions on Parallel and Distributed Systems, Future Generation Computer Systems, Parallel Computing, and Technique et Science Informatique.
 - Member of the selection committee for an associate professor position at University Lyon I/LIP.
- Frédéric Suter
 - Organization: 3rd edition of the SIMGRID Users Days.
 - Project Evaluation: Comité d'Evaluation ANR SIMI2, Israel Science Foundation.
 - PC member: CLOSER, VTDC, IPDPS, SYNASC, VECPAR, EuroMPI.
 - Reviews: JPDC, Parallel Computing, TPDS, CCGrid

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

- Licence: Olivier Glück, Initiation Réseaux, 2x9h, niveau L2, Université Lyon 1, France
- Licence: Olivier Glück, Réseaux, 2x70h, niveau L3, Université Lyon 1, France
- Licence: Eddy Caron, Architecture, Système et Réseaux, 36h, niveau L3, Ecole Normale Supérieure de Lyon, France
- Master: Eddy Caron, Systèmes Distribués, 36h, niveau M1, Ecole Normale Supérieure de Lyon, France
- Master: Eddy Caron, Projet Intégré, 36h, niveau M1, Ecole Normale Supérieure de Lyon, France
- Master: Frédéric Desprez, Parallélisme, 30h, niveau M1, Université Lyon 1, France
- Master: Olivier Glück, Services et Protocoles Avancés sur Internet, 40h, niveau M2, Université Lyon 1, France
- Master : Olivier Glück, Administration des Systèmes et des Réseaux, 16h, 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, Nouvelles Technologies, 85h, niveau M2, Université Lyon 1, France
- Master: Jean-Patrick Gelas, Routage et IPv6, 45h, niveau M2, Université Lyon 1, France
- Master: Eddy Caron, Gilles Fedak, Christian Perez and Jonathan Rouzard-Cornabas Grid and Cloud Computing, 36h, niveau M2, Ecole Normale Supérieure de Lyon, France
- Master/Doctorat : Gilles Fedak, MapReduce Environments: Design, Performance, Optimizations, II Escola Regional de Alto Desempenho - Região Nordeste, Salvador de Bahia, Brazil, October 22, 2013
- Master : Laurent Lefèvre is responsible of training periods for Research Master in ENS-Lyon

8.2.2. Supervision

- HdR: Laurent Lefèvre, *Contributions à la flexibilité et à l'efficacité énergétique des systèmes distribués à grande échelle*, Ecole Normale Supérieure de Lyon, 14 Novembre 2013. [2]
- PhD: Mohammed El Mehdi Diouri, *Efficacité énergétique dans le calcul très haute performance : application à la tolérance aux pannes et à la diffusion de données*, ENS LYON, September 27 2013, Isabelle Guerin-Lassous and Laurent Lefèvre and Olivier Glück. [1]
- PhD: Ghislain Landry Tsafack Chetsa, *System Profiling and Green Capabilities for Large Scale and Distributed Infrastructures*, Ecole Normale Supérieure de Lyon, December 3rd, 2013. [3]
- PhD: Rafaël Silva (Creatis, INSA Lyon), *A science-gateway for workflow executions: online and non-clairvoyant self-healing of workflow executions on grids*, Frédéric Desprez (dir), Tristan Glatard (Creatis, CNRS, co-dir), November 13, 2013.
- PhD in progress: George Markomanolis, *Performance evaluation and prediction of parallel applications*, 12/2009, Frédéric Desprez (dir), Frédéric Suter (co-dir).
- PhD in progress: Maurice Djibril Faye, *Déploiement auto-adaptatif d'intergiciel sur plateforme élastique*, Eddy Caron (dir), Ousmane Thiaré (Université Gaston Berger, St Louis, Sénégal, co-dir)
- PhD in progress: Sylvain Gault, *Ordonnancement de tâches avec le modèle MapReduce*, 11/2010, Frédéric Desprez (dir), Frédéric Suter (co-dir)

PhD in progress, Vincent Lanore, *Adaptation et dynamique dans les modèles à composants logiciels pour les applications scientifiques*, C. Pérez.

PhD in progress, Arnaud Lefray, *Mission fonctionnelle et de sécurité dans une informatique en nuage*, Eddy Caron (dir), Christian Toinard (ENSIB, co-dir)

PhD in progress : Anthony Simonet, *Exécution efficace d'applications de traitement intensif de données sur des infrastructures distribuées hybrides*, 10/2011, Gilles Fedak.

PhD in progress: Jonathan Pastor (Nantes), *Conception d'un système de gestion autonome, coopérative et distribué pour les centrales numériques à large échelle*, 11/2012, Frédéric Desprez, Adrien Lèbre (Ascola, Nantes, co-dir).

8.2.3. Juries

- Eddy Caron
 - Ndye Massata NDIAYE, *Technique de gestion des défaillances dans les grilles informatiques tolérantes aux fautes*, PhD, Université Pierre et Marie Curie, France, September 2013, Reviewer
 - Sébastien Fourestier, *Redistribution dynamique parallèle efficace de la charge pour les problèmes numériques de très grandes tailles*, PhD, Université de Bordeaux I, Juin 2013, Reviewer
- Frédéric Desprez
 - Flavien Quesnel, *Vers une gestion coopérative des infrastructures virtualisées à grande échelle : le cas de l'ordonnancement*, PhD, Université de Nantes, February 2013, Reviewer
 - Thierry Coupaye, *Architecture dynamique des systèmes répartis – Expériences avec les composants logiciels*, HDR, Université Joseph Fourier, March 2013, Reviewer
 - Laurent Lefèvre, *Contributions à la flexibilité et à l'efficacité énergétique des systèmes distribués à grande échelle*, HDR, Ecole normale supérieure de Lyon, November 2013, Jury member
 - Ghislain Tsafack Chetsa, *System Profiling and Green Capabilities for Large Scale and Distributed Infrastructures*, PhD, Ecole normale supérieure de Lyon, December 3rd, 2013, Jury member
- Laurent Lefèvre
 - Yacine Kessaci, *Ordonnancement multi-critère sur Clouds*, PhD, Université Lille1, France, November 2013, Jury member
 - Remigiusz Modrzejewski, *Distribution and Storage in Networks*, PhD, Université de Nice, France, October 2013, Jury member
 - Anton Beloglazov, *Energy and Performance Efficient Dynamic Consolidation of Virtual Machines in Cloud Data Centers*, PhD, University of Melbourne, Australia, March 2013, Reviewer
- Christian Perez
 - Chen Wang, *Chemistry-Inspired Middleware for Flexible Service Composition and Adaptation*, PhD, Insa Rennes, May 28th, 2013, Reviewer.
 - Stefania Costache, *Market-based Autonomous Resource and Application Management in the Cloud*, PhD, University of Rennes I, July 3rd, 2013, Reviewer.
 - Joseph Emeras, *Workload Traces Analysis and Replay in Large Scale Distributed Systems*, PhD, University of Grenoble, France, October 1st, 2013, Reviewer.
 - Cyril Bordage, *Ordonnancement dynamique, adapté aux architectures hétérogènes, de la méthode multipôle pour les équations de Maxwell en électromagnétique*, PhD, Université de Bordeaux I, France, December 20th, 2013, Reviewer.

8.3. Popularization

- Laurent Lefèvre
 - Interview extract in Blog "Web developpement durable" : Internet & Data Center : bilan énergétique positif ou négatif , July 17, 2013
 - Interview for La Vie Journal, "Using Internet with less energy", June 13, 2013
 - Interview for Liberation News Paper, "Datacenters : la donnée écolo", April 15, 2013
 - Participant in the Panel on Green Computing, GDR GPL, Nancy, April 2013
 - Co-Editor for the Future Internet Assembly (FIA) Book 2013 : Validated Results and New Horizons, Alex Galis editor, LNCS, Volume 7858, Springer, May 2013
- Jean-Patrick Gelas :
 - Invited speaker to Ecocity 2013, "Greening Clouds and High Performance Computing: Challenges and Initiatives", Nantes, France, September 23, 2013
 - Invited speaker to JDN2013 (Journée sur le décisionnel dans le Nuage), "Energy monitoring framework for high-performance cloud infrastructure", Bron, France, May 16, 2013
 - Invited speaker to JSF2013 (Journée Scientifique) about Energy, "Propositions to improve Data Centers and Clouds Energy Efficiency", Lyon, France, June 26, 2013

DANTE Team

9. Dissemination

9.1. Scientific Animation

- Éric Fleury is President of the expert committee for the ANR INFRA call
- 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.
- Éric Fleury is in the steering committee of the IXXI – Rhône-Alpes Complex Systems Institute.
- Éric Fleury has been an expert for the Fund for Scientific Research - FNRS.
- Éric Fleury was PC member of 4th Workshop on Complex Networks (CompleNet 2013)
- Éric Fleury is Vice-Chairman of the projects committee of Inria Grenoble Rhône-Alpes research center
- Éric Fleury was president of the AERES visiting committee of the PRISM laboratory.
- Paulo Gonçalves is scientific correspondent of the International Relations for Inria Grenoble - Rhône-Alpes
- Paulo Gonçalves is scientific correspondent of the International Relations for the Computer Science Department at ENS Lyon.
- Paulo Gonçalves is officer of the local liaison board of EURASIP
- Paulo Gonçalves was organiser of the 4th Workshop on High Speed Network and Computing Environments (COMPSAC 2013, Kyoto)
- Paulo Gonçalves is PC member of IWCMC - TRAC 2014.
- Thomas Begin is PC member of ACM PE-WASUN 2013.
- Thomas Begin was an expert for ANR on program INFRA.
- Isabelle Guérin Lassous is a member of the editorial board of: Computer Communications (Elsevier), Ad Hoc Networks (Elsevier) and Discrete Mathematics & Theoretical Computer Science.
- Isabelle Guérin Lassous is program co-chair of ACM PE-WASUN 2013.
- Isabelle Guérin Lassous is a member of the following program committees in 2013: IPDPS, MSWiM, ITC, ICC, Globecom, ISCC, IWCMC.
- Isabelle Guérin Lassous is member of the CNRS National Committee for section 06 (Computer Science).
- Christophe Crespelle is in the steering committee of the IXXI – Rhône-Alpes Complex Systems Institute.
- Christophe Crespelle was PC member of AlgoTel 2013
- Christophe Crespelle was an expert for ANR on program JCJC - SIMI 2 Information Science and Applications.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

9.2.1.1. Teaching by Paulo Gonçalves

Master : Responsible for the teaching axis "Models and Optimization for Emergent Infrastructure". M1/M2 of the Department of Computer Sciences at ENS Lyon (*Informatique fondamentale*)

Eng. school : Signal processing, lab classes (4th year), CPE Lyon, France

9.2.1.2. Teaching by Thomas Begin

Thomas Begin is an Assistant Professor at Université Claude Bernard Lyon 1 in the Computer Science since 2009. He mostly lectures at the University, though he has a teaching activity at ENS Lyon as well.

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

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

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

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

9.2.1.3. Teaching by Isabelle Guérin Lassous

Master 2 Computer Science, University Lyon 1: Responsible of the speciality Réseaux.

Professor at the computer science department of University Lyon 1, teaching in Master 1 and Master 2, Networking, Quality of Service, Wireless Networks, Multimedia networking applications.

9.2.1.4. Teaching by Christophe Crespelle

Christophe Crespelle is an Assistant Professor at Université Claude Bernard Lyon 1 (UCBL) in the Computer Science department since 2010. He mostly lectures at UCBL, though he has a teaching activity at ENS Lyon as well.

Master : "Calculability and Complexity" (M1), UCBL, France

Master : "Network Security Architecture" (M2), UCBL, France

Master : "Security" (M2), UCBL, France

Master : "Future Networks" (M2), UCBL, France

Master : "Complex Networks" (M2), ENS Lyon, France

9.2.1.5. Teaching by Eric Fleury

Eric Fleury is a full professor at ENS de Lyon. He was the head of the Computer Science Department until July 2013. ENS de Lyon is one of the four Écoles normales supérieures in France.

Licence : "Introduction to Algorithm" (L3), ENS de Lyon, France

9.2.2. Supervision

PhD in progress : Lucie Martinet, iBird: Individual Based Investigation of Resistance Dissemination, September 2011, Éric Fleury & Christophe Crespelle

PhD in progress : Benjamin Girault, Ondelettes et graphe d'interactions dynamique : échelle temporelle et spatiale, September 2012, Éric Fleury & Paulo Gonçalves

PhD in progress : Thiago Abreu, Integration of Traffic Awareness in Substitution Networks, March 2011, Isabelle Guérin Lassous & Thomas Begin

PhD in progress : Roy Shubhabrata, Measurements in the framework of Virtual Networks Development, October 2010, Paulo Gonçalves & Thomas Begin

PhD in progress: Marina Sokol, Clustering and learning techniques for traffic / users classification, October 2010, Philippe Nain (Inria MAESTRO) and Paulo Gonçalves. M. Sokol has interrupted her PhD and is currently on maternity leave (until October 2013).

PhD in progress: Elie Rotenberg, Complex Network Metrology, September 2010, Matthieu Latapy and Christophe Crespelle

PhD in progress: Anh Tuan GIANG, Modeling and Improving the Capacity of Vehicular Ad hoc network, April 2011, Anthony Busson (registered at University Paris XI).

PhD in progress: Sabrina Naimi, Mobility metrics in wireless mobile networks, September 2010, Véronique Vèque and Anthony Busson (registered at University Paris XI).

PhD in progress : Laurent Reynaud, Optimized mobility strategy in wireless networks for reliability and energy consumption, March 2013, Isabelle Guérin Lassous.

PhD in progress : Yannick Léo, Diffusion Processes and Community Structures in Dynamic Complex Networks, September 2013, Éric Fleury & Christophe Crespelle

9.2.3. Juries

- Paulo Gonçalves was member of the Ph.D. jury of Maude Pasquier (Université de Grenoble, Inria).
- Isabelle Guérin Lassous was a member of the following Ph.D. juries: Frédéric Besse (Université de Toulouse, ISAE, reviewer), Ichrak Amdouni (Université Pierre et Marie Curie, Inria, reviewer), Muhammad Yousaf (University of Engineering and Technology, Taxila, Pakistan, reviewer), Nicolas Gouvy (Université Lille 1, reviewer), Ana Bildea (Université de Grenoble, reviewer), Karen Miranda (Université Lille 1, president).
- Isabelle Guérin Lassous was a member of the following HDR jury: Céline Robardet (Université Lyon 1, INSA de Lyon, member).
- Éric Fleury was member of the following Ph.D. juries : Jury of Tony Ducrocq (Université des Sciences et technologies de Lille, reviewer); Jury of Robin Lamarche-Perrin (Université de Grenoble, Reviewer); Jury of Anh Dung Nguyen (Université de Toulouse, ISAE, reviewer).

MESCAL Project-Team

9. Dissemination

9.1. Scientific Animation

- Yves Denneulin is the director of Grenoble INP ENSIMAG.
- Corinne Touati is the Grenoble INP correspondent for international relations with Japan.
- Yves Denneulin and Jean-Marc Vincent are co-directors of the LICIA (Franco-Brazilian Laboratory).
- Arnaud Legrand is mandated by the LIG for representing the Networking and Parallel and Distributed System teams of the LIG.
- Panayotis Mertikopoulos is mandated by the LIG to supervise PhD students of the laboratory.

9.1.1. Invited Talks

- Bruno Gaujal was a keynote speaker at ICPP'13 and an invited speaker at the Dagstuhl Seminar on Exascale computing.
- Panayotis Mertikopoulos was an invited speaker to
 - the 30 years congress of the Société de Mathématiques Appliquées et Industrielles
 - the Evolutionary Dynamics and Market Behavior workshop, Hausdorff Research
 - the Institute for Mathematics , Bonn, Germany
 - Erice 2013 (Stochastic Methods in Game Theory), Sicile, Italy
 - ADGO 2013 (Algorithms and Dynamics for Games and Optimization), Playa Blanca, Chile
- Arnaud Legrand has given an invited talk at TU Wien (April), at the JLPC at NCSA (November). He was a keynote speaker at ERADS (Porto Alegre, Brazil) in March 2013 and at SimuTools (Nice, Cannes) in March 2013.

9.1.2. Journal, Conference and Workshop Organization

- Arnaud Legrand has organized the *SimGrid user days* in Lyon (June 2013).
- Arnaud Legrand has organized the *BOINC workshop* in Grenoble (September 2013).
- Corinne Touati and Panayotis Mertikopoulos have organized the *Algo-GT workshop* in Grenoble (July 2013).

9.1.3. Program Committees

- Panayotis Mertikopoulos has been Publication chair of WiOpt'13, TPC member of ValueTools'13. He is a regular reviewer for ISIT'13, ITW'13, Games on Economic Behavior, Journal of Economic Theory, Advances on Applied Probability, IEEE Trans. on Information Theory, IEEE Trans. on Wireless Communications, IEEE Trans, on Signal Processing.
- Bruno Gaujal has been a TPC member of Wodes, IPDPS and SigMetrics.
- Olivier Richard has initiated a reproducible research track in Compas entitled Realis. He is a regular reviewer for Parallel Computing, TSI and CLCAR.
- Jean-Marc Vincent has been in the steering committee of AMSTA and a TPC member of IPDPS'13, SimuTools'13, ValueTools'13 and SimulTech'13.
- Arnaud Legrand has been a TPC member of IPDPS'13, ICPP'13, PPAM and is a regular reviewer for IJHPCA, SIMPAT and TPDS.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Several members of MESCAL are university professors and comply with their recurrent teaching duties. We only list here lectures (i.e., not tutorials or practical sessions) at the master level or above.

Master : Florence Perronnin, Probabilities for computer science, 23h Eq. TD, M1, ENSIMAG

Master : Florence Perronnin, Performance Evaluation, 23h Eq. TD, M1, Polytech

Master : Arnaud Legrand and Jean-Marc Vincent, Performance Evaluation, 32h Eq. TD, M2, UJF

Master : Arnaud Legrand, Parallel Systems, 47h Eq. TD, M2, UJF

Master : Bruno Gaujal, Discrete Events, 18 Eq. TD, M2, MPRI/ Paris Diderot.

Master : Bruno Gaujal, Mean field Approximation, 20 Eq. TD, M2, BCAM (Bilbao)

Doctorat : Bruno Gaujal, Mean field Approximation 30 Eq. TD, Toulouse PhD Program.

Master : Panayotis Mertikopoulos, Game theory for the working economist, 55 Eq. TD, M2, University of Athens.

Master : Olivier Richard, Networking, 33 Eq. TD, M1, Polytech

Master : Jean-Marc Vincent, Probabilities and Simulation, 23h Eq. TD, M1, Polytech

- Olivier Richard is also responsible of the organization of the RICM4 (M1 Polytech) and of multi-disciplinary projects.

9.2.2. Supervision

PhD : Joseph Emeras, *Workload Traces Analysis and Replay in Large Scale Distributed Systems*, Université de Grenoble, 01 octobre 2013 [5].

PhD : Robin Lamarche Perrin, *Building Meaningful Macroscopic Descriptions of Large-scale Complex Systems*, 14 octobre 2013 [6].

9.2.3. Juries

- Bruno Gaujal has been president of the junior researcher selection committee in Inria Bordeaux.
- Bruno Gaujal has been member of the professor selection committee in University of Avignon.
- Bruno Gaujal has been member of the PhD thesis committee of Alexandre Salch (G-SCOP laboratory, Grenoble).
- Arnaud Legrand has been member of the PhD thesis committee of Sorina Camarasu Pop (Creatis laboratory, Lyon).
- Arnaud Legrand has been a reviewer of the PhD thesis of Javier Celaya Alastrué (University of Zaragoza, Spain).

9.3. Popularization

9.3.1. Popular Science

- MESCAL actively promotes science to young and non-scientific audience. This year Corinne Touati participated the *Fête de la science* and animated a workshop on game theory. theory [48].
- Jean-Marc Vincent contributed to the national initiative for introducing computer science to high school professors in mathematics. He was responsible of the high school professors training, of the corresponding university diploma and of the online training provided by the rectorat. Jean-Marc also participated to the steering committee of CERVIN (<http://flet.fr/cervin/>) for Inria.
- Olivier Richard is involved in training *Classe Préparatoires* professors to Python. He is also responsible of the Polytech fablab, which he presented at the Toulouse Hacker Space Factory.

MOAIS Project-Team

9. Dissemination

9.1. Scientific Animation

- Chair, Steering board:
 - Thierry Gautier, Chair of ComPAS'2013, Track Parallelism, located in Inria Grenoble, January 2013.
 - Bruno Raffin, Paper co-chair of JVRC 2013 (EGVE - EuroVR Joint Virtual Reality Conference).
 - Bruno Raffin, Member of the Steering Board of EGPGV (Eurographics Symposium on Parallel Rendering and Visualization)
 - Bruno Raffin, Member of the Steering Board of the journée visualisation scientifique.
 - Denis Trystram, Chair of the track Algorithms HiPC (20th Int'l Conf. on High Performance Computing), dec. 16-20, Hyderabad, India
- Program committees:
 - ICCS 2013 (International Conference on Computational Science).
 - GPUCOMP 2013 (third Workshop on GPU Computing).
 - IEEE VR 2013.
 - ISVC 2013 (International Symposium on Visual Computing).
 - SEARIS 2013 (Workshop on Software Engineering and Architectures for Realtime Interactive Systems).
 - COMPASS, january 15-18 2013, Grenoble, France
 - IPDPS 2013 (24th IEEE International Parallel & Distributed Processing Symposium) may 20-24 2013, Boston USA
 - HCW'2013 (22nd IEEE Heterogeneous Computing Workshop) may, 2013, Boston USA
 - ISPD (12th Internat Symposium on Parallel and Distributed Computing) june 27-30, 2013, Bucharest, Romania
 - OPTIM'13 (Workshop on Opt. Issues in Energy Efficient Distributed Systems) july 1-5, 2013, Helsinki, Finland
 - 6th MISTA, august 27-29 2013, Ghent, Belgium
 - 10th PPAM 2013, september 9-12, 2011, Warsaw, Poland
 - ParCo'2013, sept. 10-13, 2013, Munich, Germany
 - IC3 2012 (5th International Conference of Contemporary Computing) august 6-8, 2012, Noida, India
 - EuroMPI (20th internat conference) sept. 15-18, 2013, Madrid, Spain
 - ESA (21st European Symposium on Algorithms) sept. 2-6, 2013, Sophia Antipolia, France
 - 25th SBAC-PAD, october 23-26, 2013, Pernambuco, Brazil

9.2. Teaching - Supervision - Juries

9.2.1. 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).

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 and Dept TELECOM, Grenoble-INP.

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

Master: Bruno Raffin. 22 hours per year. Master at Université d'Orléans and Polytech'Grenoble.

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).

9.2.2. Supervision

PhD in progress : **David Beniamine (since 2013)**. Parallelisation Patterns and Scheduling for Real-Time Physics Simulations. Co-advised Guillaume Huard and Bruno Raffin.

PhD in progress : **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.

PhD in progress : **Gilles Daviet (since 2013)**. Parallel Macroscopic Simulations of Fibrous Materials. Co-advised by Florence Bertails-Descoubes, Pierre Saramito and Bruno Raffin.

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

PhD in progress : **Marwa Sridi (since 2013)**. Parallel Algorithm Composition for Transient Mechanics Simulations. Join Ph.D with CEA, France. Co-advised by Vincent Faucher, Thierry Gautier and Bruno Raffin.

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

PhD in progress : **Mathias Ettinger (since 2011)**. Cache Efficient Parallel Adaptive Algorithms for Scientific Visualization. Co-advised by Bruno Raffin and François Broquedis

PhD in progress : **Stefano Mor (since 2011)**. Analysis of work-stealing and adaptive algorithms. Join Ph.D with UFRGS, Brazil. Co-advised by Jean-Louis Roch, Nicolas Maillard and Bruno Raffin

PhD in progress : **Mathieu Dreher (since 2011)**. In-Situ Visualization for Molecular Dynamics. Advised by Bruno Raffin.

PhD in progress : **Joao Ferreira Lima (since 2010)**. Work Stealing on GPUs. Join Ph.D with UFRGS, Brazil. Co-advised by Vincent Danjean, Thierry Gautier, Nicolas Maillard and Bruno Raffin

ROMA Team

9. Dissemination

9.1. Scientific Animation

Anne Benoit is an associate editor of the *Journal of Parallel and Distributed Computing (JPDC)*. She was the workshops co-chair of ICPP 2013. She was a member of the program committees of the following conferences and workshops: HiPC 2013, ICPE 2013, CCGrid 2013, IPDPS 2013, CLOSER 2013, HCW 2013, IGCC 2013.

Jean-Yves L'Excellent was a member of the program committees of Renpar'13 and ICPP'2013, where he was also local arrangements co-chair. He co-organized the third MUMPS Users days, EDF, Clamart, May 29-30, 2013.

Loris Marchal is or was a member of the program committees of IPDPS'2013, ICPP'2013, and IPDPS'2014.

Yves Robert is an associate editor of *IJHPCA*, *IJGUC* and *JOCS*. He was Program Chair of ICPP 2013 (Int. Conference on Parallel Processing) and of HiPC 2013 (Int. Conference on High Performance Computing). He is or was a member of the program committees of the following conferences and workshops: EduPar 2013, FTXS 2013, ICCS 2013, IGCC 2013, ISC tutorials 2013 ISCIS 2013 and SC 2013.

Bora Uçar was the chair of the applications track of ICPP 2013. He was a member of the program committee for IPDPS 2013, PCO 2013 (a workshop of IPDPS), and PPAM.

Frédéric Vivien is an associate editor of *Parallel Computing*. Frédéric Vivien was program vice-chair, for the algorithms track, of IPDPS 2013, is program vice-chair, for the algorithms track, of HiPC 2014, and is co-responsible of the stream "Algorithmes distribués, multi-agents et calcul parallèle" for ROADEF 2014.

He is or was a member of the program committee of the following conferences and workshops: SC'14, IPDPS 2014, ComPAS'2014, PDP 2014, SC'13, EduPDHPC, ICPP 2013, EduPar-13, PDP 2013, ROADEF 2013, RenPar'21 - ComPAS'2013.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Licence: Anne Benoit, Systèmes et Réseaux, 48h, L3, École normale supérieure de Lyon, France.

Licence: Yves Robert, Algorithmes, 48h, L3, École normale supérieure de Lyon, France.

Master: Frédéric Vivien, Algorithmique et Programmation Parallèles, 36 h, M1, École normale supérieure de Lyon, France.

Master: Frédéric Vivien, Algorithms for High-Performance Computing Platforms, 36 h, M2, École normale supérieure de Lyon, France.

Master: Bora Uçar, Combinatorial Scientific Computing, 36 h, M2, École normale supérieure de Lyon, France.

9.2.2. Supervision

PhD in progress: Guillaume Aupy, Multi-criteria scheduling on volatile platforms, September 1, 2011, Anne Benoit and Yves Robert.

PhD in progress: Dounia Zaidouni, Performance and execution models for exascale applications in failure-prone environments, October 1, 2011, Frédéric Vivien and Yves Robert.

PhD in progress: Wissam M. Sid-Lakhdar, Exploitation of multicore architectures in the resolution of sparse linear systems by multifrontal methods, October 1, 2011, Jean-Yves L'Excellent.

PhD in progress: Julien Herrmann, Numerical algorithms for large-scale platforms, September 1, 2012, Loris Marchal and Yves Robert.

9.2.3. *Juries*

PhD: Anne Benoit was a “rapporteur” and member of the jury for the PhD defense of Przemysław Uznański, Bordeaux, France, October 11, 2013.

PhD: Jean-Yves L'Excellent was a “rapporteur” and member of the jury for the PhD defense of Sethy Montan, University Pierre et Marie Curie, France, October 17, 2013.

PhD: Yves Robert was a “rapporteur” and member of the jury for the PhD defense of Amal Khabou, University Orsay Paris XI, Saclay, France, on February 11, 2013.

PhD: Yves Robert was a member of the jury for the PhD defense of Dimitris Letsios, University of Evry Val d'Essonne, Paris, France, on October 22, 2013.

Habilitation: Yves Robert chaired the jury for the *Habilitation à Diriger des Recherches* of Laurent Lefèvre, ENS Lyon, France, November 22, 2013.

PhD: Frédéric Vivien was a member of the jury for the PhD defense of Javier Celaya, University of Zaragoza, Zaragoza, Spain, September 6, 2013.

PhD: Frédéric Vivien was an “expert” for the PhD defense of Marco Meoni, EPFL, Lausanne, Switzerland, December 11, 2013.

PhD: Bora Uçar was an “evaluator” for the PhD defense of Bastian Onne Fagginger Auer, Department of Mathematics, Utrecht University, the Netherlands, August 26 2013.

SOCRATE Project-Team

9. Dissemination

9.1. Scientific Animation

- Jean-Marie Gorce is an associate editor of *Telecommunications Systems* (Springer) and *Journal of Wireless communications and Networking* (Springer). He was a member of the Program Committees of the conferences : IEEE PIMRC 2013, ICUWB 2013, ICT 2013, VTC 2013 (Las Vegas, USA) IEEE 24th Int. Symposium on Personal, Indoor and Mobile radio Communications (PIMRC2013) 8-11 September 2013, London, UK. IEEE 78th Vehicular Technology Conference (VTC2013-Fall) 2-5 September 2013, Las Vegas, USA. IEEE Int Conference on Ultra-Wideband (ICUWB2013) 15-18 September 2013, Sidney, Australia. 20th International Conference on Telecommunications (ICT 2013) 6-8 Mai 2013, Casablanca, Morocco.
- Florent de Dinechin is an associate editor of the journal *IEEE Transactions on Computers*. He was a member of the Program Committees of the conferences CompAs (Grenoble, Januar 2013), Applied Reconfigurable Computing (Los Angeles, March 2013), Highly Efficient Accelerators and Reconfigurable Technologies (Edimburgh, June 2013), Field-Programmable Logic (Porto, September 2013), Field-Programmable Technology (Kyoto, December 2013), ReConfig 2013 (Cancun, December 2013).
- Tanguy Risset is in the Program Committee of conferences IEEE SIES 2013, ISVLSI 2013.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Tanguy Risset and Jean-Marie Gorce are professors in the Telecommunications department of Insa Lyon.

Florent de Dinechin is professor in the Computer Science department of Insa Lyon.

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

Guillaume Salagnac and Kevin Marquet are associate professors in the Computer Science department of Insa Lyon.

Guillaume Villemaud and Florin Hutu are associate professors in the Electrical Engineering department of Insa Lyon.

Nikolai Lebedev is associate professor in the engineering school in Chemistry, Physics and Electronics, Lyon.

Tanguy Risset has been the vice-head of the Telecommunications department of Insa Lyon until september 2012.

Tanguy Risset is the responsible for the Networking program of the Master Mastria from University of Lyon.

Jean-Marie Gorce is the responsible for the Telecommunications program of the future Master EEAP from University of Lyon.

Guillaume Villemaud is responsible for international relations in the Electrical engineering département of Insa Lyon

9.2.2. Supervision

HdR: **Guillaume Villemaud**, *Les communications multi-* : contribution au développement d'architectures radio flexibles pour les réseaux sans fil hétérogènes*, Insa Lyon, 9 december 2013

PhD: **Laurent Maviel**, *Modélisation et simulation des réseaux sans fil hétérogènes et non-stationnaires. Application aux topologies de petites cellules*, CIFRE grant with SIRADEL, defended 27 may 2013.

PhD: **Meiling Luo**: *Indoor Radio Propagation Modeling For System performance prediction* MENRT grant, 17 july 2013.

PhD: **Cengiz Hasan**, *Optimization of resource allocation for small cells networks*”, Orange labs grant, 29 august 2013.

PhD: **Francois Goichon**, *Equité d'accès aux ressources dans les systèmes partagés best-effort*, 16 december 2013.

PhD: **Paul Ferrand**: *Cooperative communications in BANET*, MENRT, defended 21 june 2013.

PhD in progress: **Mickael Dardailon**, *Virtual machine for the cognitive radio*, Rhône-Alpes grant, since 10/2011.

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

PhD in progress: **Mathieu Lauzier**: “*Design and evaluation of information gathering systems for dense mobile wireless sensor networks*”, CIFRE/Euromedia, since 09/2011.

PhD in progress: **Baher Mawlawi**: CEA grant, since 09/2012.

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

PhD in progress: **Zhaowu Zhan**: “*Full-Duplex Multimode MIMO wireless communications*”, CSC/China grant with , since 9/2012.

9.2.3. Participation in thesis Committees

Claire Goursaud Jury member for the PhD defense of Nicolas BARBOT “*Codage de canal pour les communications optiques sans fils*”, 22 nov. 2013 (U. Limoges)

Tanguy Risset:

- reviewer for the Phd of Muhammad Mahtab ALAM “*Power Aware Adaptive Techniques for Wireless Sensor Networks*”, 27 feb. 2013 (U. Rennes 1)
- reviewer for the Phd Djamel Benferhat “*Conception d’un syst’eme de communication tol’erant la connectivité intermittente pour capteurs mobiles biom’etriques*”, 2 oct. 2013 (U. Bretagne Sud)
- reviewer for the Phd Jair Gonzalez-Pina “*Application modelling and software architectures for the software defined radio*”, 14 may 2013 (Telecom-ParisTech, Nice)
- Jury president for the PhD of Antoine Morvan “*ASIP processor instruction set extension*”, 28 jun. 2013 (U. Rennes 1)
- Jury president for the PhD of Maria Isabel Vergara Gallego “*Smarter Radios for Energy Efficiency in Wireless Sensor Networks*”, 3 oct. 2013 (U. Grenoble)
- Jury president for the PhD of Hervé Yviquel “*From Dataflow-based video Coding Tools to dedicated embedded Multi-core platforms*”, 25 jun. 2013 (U. Rennes 1)
- Jury members of Habilitation à Diriger les recherches of Guillaume Villemaud, 9 dec. 2013 (U Lyon1/Insa-Lyon)

Jean-Marie Gorce has been reviewer of Phd theses:

- reviewer for the HdR of Benoit Escrig: "Communications coopératives"; 5 Juillet 2013 (INP Toulouse);
- Ziaf Khalaf: "Contribution à l'étude de détection des bandes libres dans le contexte de la radio intelligente"; 7 Février 2013 (Supelec Rennes);
- Sébastien Marcille: " Resource Allocation for HARQ based Mobile Ad hoc Networks"; 21 Février 2013 (Telecom Paris Tech);
- Aymen Ayari: "Mécanismes d'ingénieries pour la planification des réseaux de 3ème et 4ème génération"; 29 Mars 2013 (Supcom Tunis);
- Salma Bourbia: "Algorithmes de prise de décision pour la Cognitive Radio et optimisation du mapping de reconfigurabilité de l'architecture de l'implémentation numérique"; 27 Nov. 2013 (Supcom Tunis et Supélec Rennes);

Florent de Dinechin

- reviewer for the PhD of thèse de Mourad Gouicem "Conception et implantation d'algorithmes efficaces pour la résolution du dilemme du fabricant de tables sur architectures parallèles." , 14 oct. 2013 (U. Paris VI)

URBANET Team

9. Dissemination

9.1. Scientific Animation

- Walid Bechkit is/was reviewer for IEEE Transaction on Wireless Communications, Ad-Hoc Networks Journal, Journal of Network and Computer Applications, IEEE ICC 2013, IEEE WCN 2014.
- Walid Bechkit is in charge of seminar organization at the CITI laboratory.
- Khaled Boussetta is/was TPC member for a number of international conferences, including IEEE ICC, IEEE GlobeCom, IEEE MASS, IEEE VTC (fall/Spring), Wireless Days, Med-Hoc-Net, ICCVE, GISS.
- Khaled Boussetta organized two technical sessions at University of Paris 13, one on Optimization for Networks in July 2013 and a second on Cloud Networks in October 2013.
- Marco Fiore was co-chair at IFIP/IEEE Wireless Days'13 for the Track Wireless Models and Simulation.
- Marco Fiore is/was TPC member for a number of international conferences, including IEEE SECON 2013/2014, IEEE WoWMoM 2013/2014, IEEE Globecom 2014, IEEE ICC 2014, IEEE VTC-Fall 2013.
- Hervé Rivano is TPC member of several international conferences, including IEEE IPDPS 2014 and IEEE ICC 2014.
- Hervé Rivano is elected member of the CITI laboratory council.
- Razvan Stanica was Local co-chair of IEEE WiMob 2013.
- Razvan Stanica was Session chair for a Networking track session at IEEE WiMob 2013.
- Razvan Stanica is/was TPC member for a number of international conferences, including IEEE ICC 2014, IEEE PIMRC 2013, IEEE VTC Spring/Fall 2013.
- Razvan Stanica is/was reviewer for IEEE Transaction on Mobile Computing, Ad-Hoc Networks Journal, IEEE Communications Magazine, Springer Wireless Networks, Vehicular Communications Journal.
- Fabrice Valois was General co-chair of IEEE WiMob 2013.
- Fabrice Valois is/was TPC member for several international conferences such as: IEEE AINA, IEEE Globecom, IEEE ICC, IEEE VTC, IEEE WCNC, IARIA SensorComm, IEEE WiMob.
- Fabrice Valois is in charge of the foreign affairs of the CITI laboratory.
- Fabrice Valois is correspondent member of the CITI laboratory for the Labex IMU.
- Fabrice Valois is elected member of the CITI laboratory council.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Licence : Isabelle Augé-Blum, Operating Systems, 70h, L3, Telecom. Dpt. INSA Lyon, France.

Licence : Walid Bechkit, IP Networks, 10h, L3, Telecom. Dpt. INSA Lyon, France.

Licence : Razvan Stanica, Network Programming, 90h, L3, Telecom. Dpt. INSA Lyon, France.

Licence : Razvan Stanica, Advanced Wireless Networks, 20h, L3, IST / Telecom. Dpt. INSA Lyon, France (lectures given in english).

Licence : Fabrice Valois, IP Networks, 100h, L3, Telecom. Dpt. INSA Lyon, France.

Licence : Fabrice Valois, IP Networks, 20h, L3, IST / Telecom. Dpt. INSA Lyon, France (lectures given in english).

Master : Isabelle Augé-Blum, Innovation project, 30h, M1, Telecom. Dpt. INSA Lyon, France.

Master : Isabelle Augé-Blum, Bibliographical study, 30h, M1, Telecom. Dpt. INSA Lyon, France.

Master : Isabelle Augé-Blum, Real-Time Networks, 25h, M2, Telecom. Dpt. INSA Lyon, France.

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, France.

Master : Marco Fiore, Performance evaluation of telecom networks, 60h, M1, Telecom. Dpt. INSA Lyon, France.

Master : Razvan Stanica, Wireless local area networks, 8h, M2, University of Lyon.

Master : Razvan Stanica, Mobile Networks, 10h, M1, Telecom. Dpt. INSA Lyon, France.

Master : Fabrice Valois, Cellular Networks, 40h, M1, Telecom. Dpt. INSA Lyon, France.

Master : Fabrice Valois, Wireless Multihop networks, 10h, M2, University of 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.

Isabelle Augé-Blum is an elected member of the Telecommunications Department Council at INSA Lyon.

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 is an elected member of the Telecommunications Department Council at INSA Lyon.

9.2.2. Supervision

PhD : Ochirkhand Erdene-Ochir, Résilience et application aux protocoles de routage dans les réseaux de capteurs, INSA Lyon, 07/2013, Advisors: Fabrice Valois, Marine Minier (Inria Privatics).

PhD : Alexandre Mouradian, Proposition et vérification formelle de protocoles temps-réel pour les réseaux de capteurs sans fil, INSA Lyon, 11/2013, Advisors: Fabrice Valois, Isabelle Augé-Blum.

PhD : Anis Ouni, Optimisation de la capacité et de la consommation énergétique dans les réseaux maillés sans fil, INSA Lyon, 12/2013, Advisors: Fabrice Valois, Hervé Rivano.

PhD : Sandesh Uppoor, Understanding and exploiting mobility in wireless networks, INSA Lyon, 11/2013, Advisors: Marco Fiore, Fabrice Valois.

PhD in progress : Soukaina Cherkaoui, Energy-saving strategies for backhaul networks, since 11/2013. Advisors: Hervé Rivano, Fabrice Valois.

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: Fabrice Valois, Razvan Stanica, Maurice Tchunte (Univ. Yaounde', Cameroun).

PhD in progress : Guillaume Gaillard, SLA pour réseaux de capteurs multi-services, since 12/2012. Advisor: Fabrice Valois.

PhD in progress : Quentin Lampin, QoS constraints and time constraints in WSN, since 10/2009. Advisors: Isabelle Augé-Blum, Fabrice Valois.

PhD in progress : Trista Lin, Urban mobility measurement and citizen-oriented services cartography, since 10/2012. Advisors: Frédéric Le Mouel (CITI DynaMid), Hervé Rivano, Fabrice Valois.

PhD in progress : Diala Naboulsi, Human mobility - an urban networking perspective, INSA Lyon, since 10/2012. Advisors: Razvan Stanica, Marco Fiore, Fabrice Valois.

9.2.3. Juries

- Khaled Boussetta was external examiner of the following Ph.D. defense:
 - Lionel Bertaux, Architecture Réseau pour Véhicule de transport en commun communiquant, LAAS, Université Toulouse 3 Paul Sabatier, 10/2013.
- Isabelle Augé-Blum was external examiner of the following Ph.D. defense:
 - Muhammad Adnan, Exact Worst-Case Communication Delay Analysis of AFDX Network, INP Toulouse, 11/2013.
- Fabrice Valois was external examiner of the following HDR defenses:
 - Emmanuel Chaput, Architecture et gestion de ressources dans les réseaux satellite et véhiculaires, IRIT, ENSEEIHT, INP Toulouse, 11/2013.
 - Tahiry Razafindralambo, Mouvements Autonomes : vers la Créativité dans les Réseaux sans fil, Université de Lille 1, 12/2013.
 - Rami Langar, Urban Wireless Networks : Mobility, Routing, and Resource Management Concerns, LIP6, UPMC, 12/2013.
- Fabrice Valois was external reviewer of the following PhD defenses:
 - Abbas Antoun Hatoum, Gestion des Ressources et d'Interférences dans les Réseaux FemtoCell OFDMA, LIP6, UPMC, 03/2013.
 - Julien Beaudaux, Auto-configuration et auto-adaptation de réseaux de capteurs sans-fil dans le contexte de la télémédecine, I-CUBE, Université de Strasbourg, 09/2013.
 - Jean-François Malbranque, IP sur UHF, Université de Toulon, 12/2013.
- Fabrice Valois was external examiner of the following PhD defenses:
 - Cédric Chauvenet, Protocoles de support IPv6 pour réseaux de capteurs sur courant porteur en ligne, LIG, Université de Grenoble, 10/2013.
- Fabrice Valois was president of a CoS 27 for a MCF position at INSA Lyon.
- Fabrice Valois was member of a CoS 27 for a Full Professor position at INSA Lyon.

9.3. Popularization

- Khaled Boussetta gave a keynote talk entitled "Cloud gaming: state of the art and open challenges", organized by the International Cloud Computing School (ICCS 2013), Hammamet Tunisia, in Dec 2013.
- Fabrice Valois gave an 8h course on ISN (Informatique et Sciences du Numérique). These lectures are made for the Rectorat of Lyon, the public is high school teachers.
- Trista Lin participated to *Fête de la science 2013*, between Oct 8-11. She was responsible for the animation "Best Route - Intelligent Mobility", at La Mache Highschool.
- Hervé Rivano gave a keynote talk entitled "Column Generation for optimization of wireless mesh networks", in the Optimization days of University of Paris XIII.

E-MOTION Project-Team

8. Dissemination

8.1. Scientific Animation

- C. Laugier is Guest Editor (with A. Zelinsky, A. Broggi and U. Ozgüner) for the chapter “Intelligent Vehicles” of the 2nd edition of the Springer “Handbook of Robotics” to be published in April 2014.
- C. Laugier is Guest Editor (with Ph. Martinet and U. Nunes) for a Special Issue on “Perception and Navigation for Autonomous vehicles” of the IEEE Robotics and Automation Magazine. This issue will be published in March 2014.
- A. Spalanzani co-organised a workshop on Assistance and Service robotics in a human environment during IROS’ 13, Tokyo, Japan.
- A. Spalanzani co-organised a workshop on Wireless Communications and User centered Services in Pervasive Environments 2013, Hanoi, Vietnam, in the scope of Saisons croisées France-Vietnam.
- A. Spalanzani was associate editor of the Ro-Man 2013 conference.
- C. Laugier co-organized (with Ph. Martinet, U. Nunes, and C. Stiller) the 5th Workshop on “Planning, Perception and Navigation for Intelligent Vehicles” at the IEEE/RSJ IROS 2013 conference, Tokyo, November 2013.
- C. Laugier was co-chair (with Prof. Nobuki Murayama) of the workshop on ICT-PAMM, Kumamoto (Japan), Nov. 2013.
- C. Laugier was a member of the International Program Committee of the IEEE/RSJ IROS 2013 conference. He was also an Associate Editor for IROS 2013.
- C. Laugier was an Associate Editor for the IEEE ICRA 2013 conference.
- C. Laugier, A. Spalanzani, P.B. Wieber co-organized (with J. Troccaz from TIM-C and N. Simeon from LAAS) the 9th JNRR (French “Journée Nationale de la Recherche en Robotique”) in Annecy (France), 15-18 October 2013.
- C. Laugier and M. Perrollaz co-organized with Philippe Broun and the Inria In’Tech team in Grenoble, the in’Tech Seminar on “Perception embarquée pour les véhicules de demain”, Inria Grenoble Rhône-Alpes, October 24th 2013.
- C. Laugier was the scientific coordinator for the Inria Robotics Evaluation Seminar, March 2013.
- C. Laugier is co-chair (with Ph. Martinet and C. Stiller) of the IEEE RAS Technical Committee on “Autonomous Ground Vehicles and Intelligent Transportation Systems”.
- C. Laugier is a member of the Advisory / Steering Committee of IEEE/RSJ IROS conference.

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

- International Master 2 MOSIG-INP, Course on “Autonomous Robots” (24 h), C. Laugier (responsible), A. Martinelli, M. Perrollaz, A. Nègre. Grenoble University, France.
- C. Laugier and A. Spalanzani have given a tutorial on “Autonomous Robotics” at the ISIE 2013 Conference, Taipei, May 2013.
- Master CNAM: “Basic technologies for autonomous Robotics”, C. Laugier, CNAM, France.
- Doctorat (école d’été): “autonomous Robotics”, C. Laugier, 6h, SSIR’12, Ensenada, June 2012, Mexico.

- Ecole d'Ingénieur : "Programmation structurée en C", M. Perrollaz, 36h, L3, Phelma, Grenoble-INP, France.

8.2.2. Supervision

PhD in progress: Chiara Troiani, vision and inertial sensor fusion for 3D navigation, 2011, A. Martinelli.

PhD in progress: Arturo Escobedo, Shared Control navigation, 2011, A. Spalanzani.

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: Boris Grechanichenko, Autonomous Driving, 2013, C. Laugier and D. Vasquez, (cooperation Toyota).

PhD in progress: Roxana Bersan, Decision making for Intelligent Vehicles, 2014, C. Laugier and A. Spalanzani (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.

8.2.3. Juries

- C. Laugier was a reviewer and a member of the defense committee of the PhD thesis of Julien Moras, UTC Compiègne, January 17th 2013.
- C. Laugier was a reviewer and a member of the defense committee of the PhD thesis of Ana Cristina Barata Pires Lopez, University of Coimbra, March 20th 2013.
- C. Laugier and M. Perrollaz were members of the jury of the CNAM Thesis of Nicolas Vignard, CNAM / Inria Grenoble Rhône-Alpes, February 21st 2013.

EXMO Project-Team

8. Dissemination

8.1. Scientific Animation

8.1.1. Editorial boards and programme committees

- Jérôme Euzenat is founding member of the "Semantic Web Science Association" (steering committee for the ISWC conference series).
- Editorial board of *Journal of Web Semantics*, *Journal on Data Semantics* and *Semantic web journal* (Jérôme Euzenat).
- Jérôme Euzenat has been programme committee member for the 2013 issues of the conferences International Joint Conference on Artificial Intelligence (IJCAI), International Semantic Web Conference (ISWC) main and evaluation track, Worldwide Web Conference (WWW), National Conference on Artificial Intelligence (AAAI), IA and the web track, ACM conference on Knowledge capture (KCap), International and Interdisciplinary Conference on Modeling and Using Context (Context), European Semantic Web Conference (ESWC), Ingénierie des connaissances (IC), Brazilian Conference on Ontological Research (OntoBras).
- Jérôme David has been programme committee member for the 2013 issues of the ingénierie des connaissances (IC) conference.
- Jérôme David has been programme committee member for the 2013 issues of the Ontology matching workshop (OM) and the Graph Based Structures for Knowledge Representation and Reasoning Workshop (GKR@IJCAI).
- Manuel Atencia has been programme committee member for the 2013 issues of the International Semantic Web Conference (ISWC), the Ontology matching workshop (OM), and the Graph Based Structures for Knowledge Representation and Reasoning Workshop (GKR@IJCAI).
- Jérôme Euzenat has also been programme committee member for the IJCAI workshop on "Acquisition, Representation and Reasoning with Contextualized Knowledge (ARCOE-Logic)".
- Jérôme Euzenat has co-organised (with Pavel Shvaiko, Jérôme Euzenat, Kavitha Srinivas, Ming Mao and Ernesto Jiménez-Ruiz) the 8th "Ontology matching" workshop of the 12th ISWC, Sydney (NSW AU), 2013 [13].
- Jérôme Euzenat has co-organised (with many other colleagues) the Ontology Alignment Evaluation Initiative 2013 at the "Ontology matching" workshop of the 12th ISWC, Sydney (NSW AU), 2013 [7].

8.1.2. Seminars

- Seminar on "Data mediation in SPARQL from alignments", CrEDiBle (fédération de données et de ConnaissancEs Distribuées en Imagerie BiomédicaLE) workshop, Sophia-Antpolis (FR), 4/10/2013 (Jérôme Euzenat)
- Seminar on "The dynamic knowledge medium", Inria/I3S, Sophia-Antpolis (FR), 29/11/2013 (Jérôme Euzenat)
- Seminar on "A Framework for Interlinking RDF Datasets Based on Pseudo-Keys Discovery", Tsinghua university, Beijing (CN), 20/11/2013 (Jérôme David)

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

- Licence: Manuel Atencia, Introduction à la programmation fonctionnelle, 36, L1, UJF, France
- Licence: Jérôme David, Outils Informatique (c2i), 24, L1, UPMF, France
- Licence: Jérôme David, Développement Mobile, 30, L3, UPMF, France
- Master: Jérôme David, Programmation Java 2, 30, M1-M2, UPMF, France
- Master: Jérôme David, JavaEE, 30, M2, UPMF, France
- Master: Jérôme David, Développement Web Mobile, 30, M2, UPMF, France
- Master: Jérôme David, Interface Homme Machine 2, 30, M2, UPMF, France
- Master: Manuel Atencia & Jérôme David, Introduction au Web Sémantique, 30, M2, UPMF, France
- Master: Jérôme Euzenat, Semantic web: from XML to OWL, 22heqTD, M2R, Université Joseph Fourier & INPG, France
- Post-graduate level: Jérôme Euzenat, Ontology matching, 4heqTD, European Summer School on Ontology Engineering and the Semantic Web, Cercedilla, Spain

8.2.2. Supervision

- PhD in progress: Zhengjie Fan, Ontology-based data interlinking, 1/1/2011, supervisors: Jérôme Euzenat and François Scharffe
- PhD in progress: Mustafa Al-Bakri, Modélisation et calcul de la confiance dans les réseaux pair-à-pair de partage de données, 1/1/2011, supervisors: Marie-Christine Rousset and Manuel Atencia
- PhD in progress: Tatiana Lesnikova, Multilingual 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

8.2.3. Juries

- Jérôme Euzenat chaired the HDR committee of Nabil Layaïda, Representation and analyses of web content and processing, Université de Grenoble, 23/4/2013
- Jérôme Euzenat has reviewed the HDR of Noël Conruyt, Gestion des signes: de la représentation des connaissances à leur signification pour les e-services, Université de la Réunion, 25/10/2013
- Jérôme Euzenat has reviewed the PhD dissertation of Luca Costabello, Context-aware access control and presentation of linked data, Université de Nice-Sophia Antipolis, 29/11/2013, Fabien Gandon and Ivan Hermann

8.3. Popularization

- Jérôme Euzenat gave a presentation on *Les données liées ouvertes (linked open data): publier des données réutilisables* at the open data days of the FREMIT Federation, IMT/IRIT, Toulouse (FR), 5/11/2013.
- Jérôme Euzenat coordinated the CNRS development days (JDEV) sessions on *web programming*, 4 presentations, 6 tutorials, 5 workshops, 80 participants, Palaiseau, 4-6/9/2013.

IMAGINE Project-Team

8. Dissemination

8.1. Scientific Animation

8.1.1. Organization of conferences and editorial boards

- Marie-Paule Cani has been associate editor of ACM Transaction on Graphics since July 2013. She served on the programm committees of Shape Modeling International (SMI 2013), of Expressive'2013 (the ACM-EG symposium on Sketch-based Interfaces and Modeling - SBIM, Non-photorealistic Animation and Rendering - NPAR, and Computational Aesthetics - CAe), and of the EG Symposium on Geometry Processing (SGP'2013).
- Stefanie Hahmann
 - General co-Chair with Konrad Polthier of the SIAM GD/SPM 2013 conference in Denver
 - Member of the IPC for Eurographics in Girona 2013 and for CAD/Graphics in Hongkong 2013
 - Member of Program committee for the International Conference on Shape Modeling and Applications in Bournemouth 2013 and Computer Graphics International (CGI) Hannover, 2013
- Rémi Ronfard was a Program Committee members for 6 international conferences
 - International Conference on Motion in Games (MIG).
 - International Conference on Interactive Storytelling (ICIDS).
 - ACM conference on Computational Aesthetics (CAE).
 - Workshop on Intelligent Cinematography and Editing (WICED).
 - Workshop on Intelligent Narrative Technologies (INT).
 - International Conference on 3D Imaging (IC3D).
- Jean-Claude Léon was Member of the scientific board of SBIM 2014.
- François Faure was chairing the Eurographics working group on *Animation and Simulation*.
- Damien Rohmer
 - Member of the Technical Brief & Posters committee for SIGGRAPH Asia 2013.
 - Member of the Short Paper committee for Eurographics 2014.

8.1.2. Management and administration of scientific organisations

- Marie-Paule Cani has been vice chair of the Eurographics association since January 2013. She has been chairing the steering committee of the Eurographics conference since May 2013. She is a member of the ACM Publication Board. She is also member of the steering committees of the SMI and Expressive international conferences.
In France, Marie-Paule Cani is a member of the executive board of the GRD IG-RV (Informatique Graphique - Réalité Virtuelle) of CNRS, and an EC member of the french chapter of Eurographics.
- François Faure is a member of the Conseil du Laboratoire at LJK.
- Stefanie Hahmann
 - Member of the SMA Executive Committee (Shape Modeling Association)
 - President of GTMG (Groupe de Travail en Modélisation Géométrique) part of GDR IM and GDR IG.
 - International expert for the Italian Research and University Evaluation Agency (ANVUR)

- Member of the Conseil du Laboratoire at LJK.
- Responsible of Maths-Info department of the Grenoble doctoral school MSTII.
- Olivier Palombi is a member of the scientific board of ECCAMI (Excellence center for computer assisted medical interventions).
- Rémi Ronfard is the Director of the Geometry and Image Department, Laboratoire Jean Kuntzman, Université de Grenoble.

8.1.3. Public dissemination

- Damien Rohmer is involved in the Hévéa project working on the mathematical model of the flat torus. This flat torus has been highlighted in various medias during the year 2013 (fig. 13).
 - The flat torus and its visualization has been published in several diffusion journal
 - * Pour la Science, n. 425, mars 2013. *Les fractales lisses, un nouvel objet mathématique*
 - * La Recherche, n. 471, janvier 2013. The flat torus is cited as the 5th most important discovery of 2012.
 - * Science & Vie, decembre 2012. *Le tore plat n'a plus de secrets.*
 - * Cover of the magazine *CNRS Rhone-Auvergne*
 - * Images des Maths, decembre 2012, *Rothorn un tore plat!*
 - * Images des Maths, decembre 2012, *Gnash! un tore plat!*
 - 14 posters were created for the *Fête de la science* in Lyon to explain the model of the flat torus in October 2013.
 - From October to December 2013, the flat torus was highlighted in the art exhibition *Formes élémentaires* in Gyuancourt.
 - In 2014, a large image of the flat torus is exposed in the subway of Paris at the Montparnasse station.
- Rémi Ronfard gave an invited talk at the International Federation for Theatre Research where he presented his ongoing projects Scenoptique and Spectaclenligne(s) for recording, analyzing and editing theatre performances and rehearsals. He co-chaired a national meeting on the analysis and understanding of emotions, as part of the working group on "action and gesture", CNRS GDR ISIS, and the ARC6 region network, in Lyon in October 2013. Remi Ronfard organized an INTECH workshop on the convergence between digital cinéma and interactive games, which attracted 100 participants from research and industry to Inria Rhone Alpes (<http://www.inria.fr/centre/grenoble/actualites/cinema-et-jeu-video-la-convergence-passe-par-inria>).

8.2. Teaching - Supervision

8.2.1. Responsibilities of academic programs

- 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) department at University ENSIMAG/Grenoble INP.



Figure 13. Various diffusions foccusing on the flat torus project.

- 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 planed to use the same e-learning framework (SIDES) to manage evaluations (examen) and to create a large shared database of questions.
- François Faure was responsible of the GVR-(Graphics, Vision and Robotic) programm in the MOSIG Master.
- Damien Rohmer is coordinator of the Math-Info-Image program in the school CPE Lyon.
- Rémi Ronfard served as president of the jury for Master 2 students at the University of Grenoble, Mathématiques et Informatique, option Graphique, Vision et Robotique (GVR).

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.

8.2.2. Educational activities

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 delegation.

LEAR Project-Team

9. Dissemination

9.1. Scientific Animation

- Conference, workshop, and summer school organization:
 - Z. Harchaoui has co-organized the workshop “Optimization and Statistical Learning” at Les Houches, January 2013.
 - Z. Harchaoui and F. Pierucci: Co-organizer of the NIPS 2013 workshop on Greedy Algorithms, Frank-Wolfe and Friends - A modern perspective. December 2013.
 - C. Schmid and Z. Harchaoui: Co-organizers of the Inria Visual Recognition and Machine Learning Summer School, Paris, July 2013. Attracted a total of 177 participants from 34 countries (49 participants from France, 57 from Europe and 71 from America, Asia, and Africa).
- Editor-in-chief:
 - C. Schmid: International Journal of Computer Vision, since 2013.
- Editorial boards:
 - K. Alahari: Guest editor for the Special Issue on “Higher Order Graphical Models in Computer Vision: Modelling, Inference and Learning” to be published in IEEE Transactions on Pattern Analysis and Machine Intelligence.
 - J. Mairal: Guest editor for the Special Issue on Sparse Coding to be published in the International Journal of Computer Vision.
 - C. Schmid: Foundations and Trends in Computer Graphics and Vision, since 2005.
 - J. Verbeek: Image and Vision Computing Journal, since 2011.
- General chair:
 - C. Schmid: CVPR '15.
- Area chair:
 - C. Schmid: CVPR 2013, ICCV 2013.
 - J. Verbeek: BMVC 2013.
- Program committees (reviewers):
 - CVPR 2013: J. Verbeek, J. Mairal, K. Alahari, H. Wang, A. Gordo, Z. Harchaoui.
 - ICCV 2013: J. Verbeek, K. Alahari, H. Wang, A. Gordo.
 - NIPS 2013: J. Verbeek, J. Mairal, K. Alahari, Z. Harchaoui.
 - ICML 2013: J. Mairal, Z. Harchaoui.
 - IJCAI 2013: J. Verbeek.
 - BMVC 2013: K. Alahari, A. Gordo.
 - AISTATS 2013: Z. Harchaoui.
- Prizes:
 - Z. Harchaoui was awarded a Fellowship from the Isaac Newton Institute for Mathematical Sciences (Cambridge University) to participate to the “Inference for Change-Point and Related Processes” program in January 2014.
 - J. Mairal received the Cor Baayen prize, which is awarded annually by ERCIM to a promising young researcher in the field of Informatics and Applied Mathematics.

- T. Mensink (former PhD student of LEAR) received the best PhD prize from AFRIF.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Doctorat: Z. Harchaoui co-organized a tutorial on “Large-Scale Visual Recognition” at CVPR, June 2013.

Doctorat: Z. Harchaoui, Tutorial on large-scale learning, 1h, Inria Visual Recognition and Machine Learning Summer School 2013, Paris, France.

Doctorat: J. Mairal, Tutorial for the IMA Short Course “Applied Statistics and Machine Learning”, 3H, Minneapolis, June 2013.

Doctorat: C. Schmid, Tutorial on image search and classification, 3h, Inria Visual Recognition and Machine Learning Summer School 2013, Paris, France.

Master: M. Douze, K. Alahari, Bases de donnees multimedia, M2, ENSIMAG, France..

Master: Z. Harchaoui, Kernel-based methods for statistical machine learning, 18H, M2, Université Joseph Fourier (Grenoble University);

Master: J. Mairal and Z. Harchaoui. Statistical Learning and Applications. 16H, M2, Ecole Normale Supérieure de Lyon, France.

Master: C. Schmid, Object recognition and computer vision, 10h, M2, ENS ULM, France.

Master: C. Schmid and J. Verbeek, Machine Learning & Category Representation, 18h, M2, ENSIMAG, France.

Master: P. Weinzaepfel, “Réseaux IP”, 18H TD, M1, University Joseph Fourier.

Licence: F. Pierucci, “Calculus”, 75H TD, L1, University Joseph Fourier.

Licence: P. Weinzaepfel, “Introduction à UNIX et à la programmation en langage C”, 33.5H TD, L1, DLST Grenoble.

Licence: P. Weinzaepfel, “Communications numériques”, 12H TD, L1, Polytech Grenoble.

9.2.2. Supervision

PhD: Z. Akata, Contributions to Large-Scale Learning for Image Classification, Université de Grenoble, 06/01/2014, advisors: C. Schmid and F. Perronnin.

9.2.3. Juries

- J. Mairal, reviewer and jury member for the PhD thesis of Roberto Rigamonti, EPFL, Lausanne, December 18th, 2013.
- C. Schmid, présidente du jury concours CR2 Inria Grenoble, May 2013.
- C. Schmid, jury member of PhD committee for Nicolas Ballas, Ecole Nationale Supérieure des Mines de Paris, November 2013.
- C. Schmid, jury member of PhD committee for Wafa Bel Haj Ali, Université Nice-Sophia Antipolis, October 2013.
- C. Schmid, jury member of HDR committee for Ivan Laptev, Ecole Normale Supérieure, July 2013.
- C. Schmid, jury member of PhD committee for Sandra Avila, Université Pierre et Marie Curie, June 2013.
- J. Verbeek, reviewer and jury member of PhD committee for K. Simonyan, University of Oxford, November 6 2013.

9.3. Invited presentations

- K. Alahari: Invited speaker at the Brookes Anniversary Workshop, University of Oxford, Oxford, UK, October 2013.
- K. Alahari: Invited speaker at the Maori Workshop, Ecole Polytechnique, Palaiseau, France, November 2013:
- K. Alahari: Seminar at IIIT Hyderabad, India, December 2013.
- Z. Harchaoui: Seminar at GDR Isis, Paris, October 2013.
- Z. Harchaoui: talk at ICCOPT 2013, Portugal, July 2013.
- Z. Harchaoui: Seminar at CREST-ENSAE, Paris, June 2013.
- Z. Harchaoui: invited speaker at SMAI Conference, Seignosse, May 2013.
- Z. Harchaoui: invited speaker at Optimization and big data workshop, Edinburgh, May 2013.
- Z. Harchaoui: invited speaker at IHES, Orsay, March 2013.
- J. Mairal: Invited speaker at the Maori Workshop, Ecole Polytechnique, Palaiseau, France, November 2013.
- J. Mairal: Cor Baayen award presentation at ERCIM meeting, Athens, October 2013.
- J. Mairal: Seminar at Gipsa-Lab, Grenoble, June 2013.
- J. Mairal: Seminar FREMIT, Toulouse, April 2013.
- J. Mairal: Seminar at Xerox Research Center Europe (XRCE), Grenoble, March 2013.
- F. Perucci: talk at ICCOPT 2013, Portugal, July 2013.
- C. Schmid: Seminar at MPI, Tübingen, January 2013.
- C. Schmid: CVPR area chair meeting workshop, USC, February 2013.
- C. Schmid: Seminar at UCF, Orlando, May 2013.
- C. Schmid: Seminar at WILLOW retreat, Bandol, June 2013.
- C. Schmid: Invited speaker at Second international workshop on visual analysis and geo-localization of large-scale imagery in conjunction with CVPR'13, June 2013.
- C. Schmid: Keynote speaker at 14th International Workshop on Image and Audio Analysis for Multimedia Interactive Services (WIAMIS), Paris, July 2013.
- C. Schmid: ICCV area chair meeting workshop, Oxford University, August 2013.
- C. Schmid: Keynote talk at The First International Workshop on Action Recognition with a Large Number of Classes, in conjunction with ICCV '13, Sydney, Australia, December 2013.
- J. Verbeek: Invited speaker at DGA workshop on Multimedia Information Processing (TIM 2013), Paris, France, July 2013.
- J. Verbeek: Seminar at Media Integration and Communication Center, University of Florence, Italy, September 2013.
- J. Verbeek: Seminar at Intelligent Systems Lab Amsterdam, University of Amsterdam, The Netherlands, October 2013.

9.4. Popularization

- C. Schmid presented the research area of visual recognition to a group of high-school teachers, Inria Grenoble, March 2013.
- A. Gaidon, Z. Harchaoui and C. Schmid published an article about activity recognition in videos in ERCIM-news 95 (October 2013).

MAVERICK Project-Team

8. Dissemination

8.1. Scientific Animation

- Romain Vergne is member of the jury for the best paper at AFIG 2013.
- Romain Vergne is member of the "Commission d'auto-évaluation" of the LJK.
- Romain Vergne is member of EGSR 2013 program committee.
- Cyril Soler is member of Eurographics 2013 program committee.
- Cyril Soler is member of Pacific Graphics 2013 program committee.
- Cyril Soler is member of the Eurographics Symposium on Rendering 2013 program committee.
- Joëlle Thollot is member of Expressive 2013 program committee.
- Nicolas Holzschuch was co-chair of the Eurographics Symposium on Rendering 2013, with Symon Rusinkiewicz from Princeton University.
- Nicolas Holzschuch was co-chair of the Tutorials track of Eurographics 2014, with Karol Myszkowski from the MPI Informatik.
- Nicolas Holzschuch is a member of Inria "Evaluation Committee", since 2008.
- Nicolas Holzschuch is a member of the ACM Symposium on Interactive 3D Graphics 2014 program committee.
- Georges-Pierre Bonneau is industrial co-chair of Eurographics 2014, with Xin Tong from Microsoft Research Asia
- Georges-Pierre Bonneau is member of the international program committee of Solid and Physical Modelling 2013
- Georges-Pierre Bonneau is member of the international program committee of EnvirVis'2013 and 2014

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

Joëlle Thollot and Georges-Pierre Bonneau are both full Professor of Computer Science. Romain Vergne is an associate professor in Computer Science. They teach general computer science topics at basic and intermediate levels, and advanced courses in computer graphics and visualization at the master levels. Nicolas Holzschuch teaches advanced courses in computer graphics at the Master level.

8.2.2. Supervision

PhD: Alexandre Derouet-Jourdan, Courbes dynamiques : de la capture de formes géométriques à l'animation, UJF, November 7 2013, Florence Bertails-Descoubes, Joëlle Thollot.

PhD in progress : Eric Heitz, Représentations alternatives pour le traitement haute qualité efficace des scènes complexes, October 2010, Fabrice Neyret.

PhD in progress : Léo Allemand-Giorgis, Visualisation de champs scalaires guidée par la topologie, October 2012, Georges-Pierre Bonneau, Stefanie Hahmann.

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 EdR R&D.

PhD in progress : Benoît Zupancic, acquisition of reflectance properties using compressive sensing, October 2012, Nicolas Holzschuch, Cyril Soler.

PhD in progress : Hugo Loi, Automatisation de la génération de textures vectorielles et application à la cartographie, October 2012, Joëlle Thollot, Thomas Hurtut.

PhD in progress : Benoit Arbelot, Etudes statistiques de forme, de matériaux et d'environnement pour la manipulation de l'apparence, October 2013, Joëlle Thollot, Romain Vergne.

8.2.3. Juries

- Georges-Pierre Bonneau has been reviewer and member of the jury for the "Habilitation à Diriger des Recherches" of Guillaume Lavoué at the University of Lyon (04/04/13) and Frédéric Cordier at the University of "Haute-Alsace" (29/11/13).
- Georges-Pierre Bonneau has been member of the jury for the PhD of Adrien Bernhardt (Grenoble, 03/07/13), Jeremy Espinas (Lyon, 24/10/13), Lionel Untereiner (Strasbourg, 08/11/13) and Cédric Cordier (Grenoble, 06/12/13).
- Nicolas Holzschuch has been a member of the jury of the "Habilitation à Diriger des Recherches" of Lilian Aveneau at the University of Poitiers (12/12/2013).

MORPHEO Team

9. Dissemination

9.1. Scientific Animation

- Edmond Boyer was co-organizer of the ICCV 2013 workshop 4DMOD on 4D Modeling.
- Edmond Boyer was an area chair for BMVC 2013.
- Edmond Boyer was a member of the program committees of: CVPR2013, ICCV2013, 3DV2013, CVMP2013, HAU3D2013 (CVRP Workshop), ORASIS2013.
- Edmond Boyer has reviewed for the journals: IEEE PAMI, springer IJCV and Elsevier CVIU.
- Edmond Boyer gave invited talks at Kyoto University and Dagstuhl seminar.
- Jean-Sébastien Franco has reviewed for the following conferences: CVPR 2013, ICCV 2013, 3DV 2013.
- Jean-Sébastien Franco has reviewed for the following journal: Robotics and Autonomous Systems.
- Franck Hétroy has reviewed for the journal: ReFIG.
- Franck Hétroy has reviewed for the conferences: ACM SIGGRAPH 2013 and Joint Virtual Reality Conference 2013.
- Lionel Reveret has reviewed for the journals: ACM Transactions on Graphics, Computer Graphics Forum.
- Lionel Reveret has reviewed for the conferences in 2013: ACM SIGGRAPH, Eurographics, BMVC, Pacific Graphics (committee member), Motion in Games (committee member).

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Licence: J.S. Franco, Algorithmics, 70h, Grenoble INP - Ensimag, France.

License: J.S. Franco, C Project, 58h, Grenoble INP - Ensimag, France.

Licence: J.S. Franco, Introduction to Computer Vision, 27h, Grenoble INP - Ensimag, France.

Licence: Franck Hétroy, algorithmique et structures de données, 45h, Grenoble INP - Ensimag, France.

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.S. Franco, End of study project (PFE) Project Tutoring, 9h, Grenoble INP - Ensimag, France.

Master: J.S. Franco, Projet de Spécialité - Project Tutoring, 9h, Grenoble INP - Ensimag, France.

Master: J.S. Franco, 3D Graphics, 50h, Grenoble INP - Ensimag, France.

Master: J.S. Franco, Modélisation et programmation C++, 9h, Ensimag 2nd year, Grenoble INP

Master: Franck Hétroy, modélisation et programmation C++, 18h, Grenoble INP - Ensimag, France.

Master: Franck Hétroy, géométrie algorithmique, 9h, Grenoble INP - Ensimag, France.

Master: Franck Hétroy, introduction a la recherche en laboratoire, 6h, Grenoble INP - Ensimag, France.

Master: Franck Hétroy, projets de spécialité image, 45h, Grenoble INP - Ensimag, France.

Master: Franck Hétroy, responsable for Grenoble INP - Ensimag 2nd year, France.

Master: Lionel Reveret, Synthèse d'Image Avancée, 22h, Grenoble INP - Ensimag, France.

Master: Lionel Reveret, Ingénierie de l'Animation 3D, 18h, Grenoble INP - Ensimag, France.

Master: Lionel Reveret, Anatomie Numérique, 4h, Ecole de Médecine, La Tronche, France.

9.2.2. Supervision

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: Benjamin Aupetit, *Raffinement de forme avec photo-consistance spatio-temporelle*, Université de Grenoble, started 01/10/2011, supervised by Edmond Boyer and Franck Hétroy.

PhD in progress: Adnane Boukhayma, *4D model synthesis*, Université de Grenoble, started 01/10/2013, supervised by Edmond Boyer.

PhD in progress: Simon Courtemanche, *Analyse et modélisation des gestes d'escalade*, Université de Grenoble, started 01/10/2010, supervised by Edmond Boyer and Lionel Reveret.

PhD in progress : Abdelaziz Djelouah, *Gesture Interfaces*, Technicolor-Université de Grenoble, started 01/04/2011, supervised by J.S. Franco, E. Boyer, F. Leclerc et P. Perez.

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.

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.

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.

9.2.3. Juries

- Edmond Boyer was reviewer of one PhD thesis (Youssef Alj - Université de Rennes) and was examiner of one PhD thesis (Mathieu Barnachon - Université de Lyon 1).
- Franck Hétroy was examiner of one PhD thesis (Thibaut Le Naour - Université de Bretagne Sud).

PERCEPTION Team

8. Dissemination

8.1. Scientific Animation

Radu Horaud is a member of the following editorial boards:

- advisory board member of the *International Journal of Robotics Research*,
- associate editor of the *International Journal of Computer Vision*, and
- area editor of *Computer Vision and Image Understanding*.

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

Doctorat (EEATS) : Radu Horaud, **Manifold Learning for Signal and Image Analysis**, 18 hours, Université de Grenoble, France.

Doctorat (MSTII) : Radu Horaud, **Three-Dimensional Sensors**, 12 hours, Université de Grenoble, France.

8.2.2. Supervision

PhD: Jordi Sanchez-Rieira, 3D Human-Robot Interaction with NAO, November 2009 – June 2013, Radu Horaud

PhD: Antoine Deleforge, Sound-Source Separation and Localization, October 2010 – December 2013, Radu Horaud

PhD: Xavi Alameda-Pineda, Audio-Visual Fusion for HRI, October 2010 – November 2013, Radu Horaud

PhD in progress: Kaustubh Kulkarni, Continuous Action Recognition, November 2009, Radu Horaud

PhD in progress: Maxime Janvier, Sound Recognition for Humanoids, November 2012, Radu Horaud

PhD in progress: Israel Dejene-Gebreu, Multimodal human-robot dialog based on audio and visual features, October 2013, Radu Horaud

Prima Project-Team

8. Dissemination

8.1. Scientific Animation

8.1.1. Sabine Coquillart

8.1.1.1. Animation of the Scientific Community

- Sabine Coquillart has served as a member of the Conference Committee of IEEE VR 2013 - IEEE Virtual Reality, Orlando, FL, USA, March 2013.
- Sabine Coquillart has co-chaired the Dagstuhl seminar on "Virtual realities", June 2013.
- Sabine Coquillart is elected member of the EUROGRAPHICS Executive Committee.
- Sabine Coquillart is member of the EUROGRAPHICS Working Group and Workshop board.

8.1.1.2. Participation on Conference Program Committees

- Sabine Coquillart has served as International Program Committee co-chair for IEEE VR 2013 - IEEE Virtual Reality, Orlando, FL, USA, March 2013.
- Sabine Coquillart has served as Program co-chair for GRAPP - the International Conference on Computer Graphics Theory and Applications, Barcelona, Spain, Feb. 2013.
- Sabine Coquillart has served as area co-chair (Virtual reality) for ISVC 2013 - the 9th International Symposium on Visual Computing, Rethymnon, Crete, Greece, July 2013.

Sabine Coquillart has served as a member of the program committee for the following conferences:

- GRAPP'2013 - International Conference on Computer Graphics Theory and Applications - Barcelona Spain, Feb. 2013.
- CASA 2013 - International Conference on Computer Animation and Social Agents - Istanbul, Turkey, May 2013.
- CGI 2013 - Computer Graphics International ,Hannover, Germany, June 2013.
- CGVCVIP 2013 - IADIS Computer Graphics, Visualization, Computer Vision and Image Processing - Prague, Czech Republic, July 2013.
- CVRB 2013 - International Conference on Virtual Reality and Broadcasting, Dusseldorf, Germany, 2013.
- DigitalHeritage 2013, Marseille, France, Oct-Nov 2013.
- GRAPHICON'2013 - International Conference on Computer Graphics and Vision - Vladivostok, Russia, October 2013.
- ICAT 2013, the 23rd International Conference on Artificial Reality and Telexistence, Tokyo, Japan, Dec 2013.
- ICVRV 2013 - International Conference on Virtual Reality and Visualization 2013, Xi'an, China, September 2013.
- IEEE 3DUI 2013 - IEEE 3D User Interfaces - Orlando, FL, USA, March 2013.
- ISMAR 2012 - IEEE International Symposium on Mixed and Augmented Reality - Adelaide, Australia, Oct. 2013 (reviewer).
- JVRC 2013 - Joint Virtual Reality Conference on Virtual Reality of EGVE - EuroVR, Orsay, France, Dec. 2013.
- VRIC 2013 - Virtual Reality International Conference, Laval, 2013.
- SUI 2013 - ACM Symposium on Spatial User Interaction, Los Angeles, CA, USA, Jul. 2013.
- SVR 2013 - Symposium on Virtual and Augmented Reality - Brazil , May 2013.
- VisGra 2013 - International Workshop on Computer Vision and Computer Graphics - Sevilla Spain, Jan. - Feb. 2013.
- VRST 2013 - 19th ACM Symposium on Virtual Reality Software and Technology, Nanyang, Singapore, Oct. 2013.
- WSCG 2013 - International Conferences in Central Europe on Computer Graphics, Visualization and Computer Vision - Prague, Czech Republic, 2013.

8.1.1.3. Participation on Advisory panels

- Sabine Coquillart is serving as member of the steering committee for the ICAT conference - International Conference on Artificial Reality and Telexistence.
- Sabine Coquillart is chairing the steering committee for the EGVE Working Group - EUROGRAPHICS Working group on Virtual Environments.
- Sabine Coquillart was a member of the FET pool of experts for European Commission funding under the framework of FET Open.
- Sabine Coquillart has reviewed proposal for ANR - the "Agence National de la Recherche".

8.1.1.4. Participation on Journal Editorial Boards

- S. Coquillart, J.J. LaViola Jr., Z. Pan, D. Schmalstieg (Guest Editors), IEEE Transactions on Visualization and Computer Graphics, vol. 19 n. 4, 2013.
- Sabine Coquillart is a member of the Editorial Board of the Journal of Virtual Reality and Broadcasting.
- Sabine Coquillart is co-Guest Editor for some papers of an issue of Presence: Teleoperators & Virtual Environments Journal, 2013.
- Sabine Coquillart is a member of the Editorial board (computer Sciences) of the Scientific World Journal.
- Sabine Coquillart is a member of the Editorial Board of the Advances in Human-Computer Interaction Journal.

8.1.1.5. Invited Presentations by Sabine Coquillart

- "Réalité Virtuelle et Réalité Augmentée, une introduction centrée utilisateur", ENS Cachan, Paris, Sept. 2013.

8.1.2. James L. Crowley

James L. Crowley has served as a Program Chair for PETS 2013. He was a member of the technical program committee for Ubicomp 2013. He has reviewed papers for CVPR, ICCV, ICRA, ICMI, ICVS, and IE. He has served as member of the selection committee for the Institut Universitaire de France (IUF) Junior. He served as expert for the European Commission ICT program. He has served as member of EDF competition on Smart energy.

8.1.3. Thierry Fraichard

Thierry Fraichard has served as an Associated Editor for IEEE/RSJ Int. Conf/ on Intelligent Robots and Systems 2013 (IROS) and IEEE Int. Conf. on Robotics and Automation (ICRA). He has served as a Program Committee member for the European Conf. on Mobile Robots 2013 (ECMR). He has reviewed papers for different conferences and journal in his domain (IV, JFR, RAS, IEEE TRO, IJRR, EuroGraphics) and has reviewed projects in the European FET Xtrack program.

8.1.4. Patrick Reignier

Patrick Reignier has served as a Program Committee member for the following conferences:

- INTERACT 2013, 2 - 6 September 2013, Cape Town, South Africa
- IUI 2013, poster session, March 2013, Santa Monica, USA
- Smart Object Workshop of IUI 2013, March 2013, Santa Monica, USA

He also reviewed papers for the main track of IUI 2013. He has been re-elected for 3 years at the board of the Association Française pour l'Intelligence Artificielle (AFIA). He has co-organized the joint scientific day between the HMI and the Artificial Intelligence Associations.

8.1.5. Dominique Vaufreydaz

Dominique Vaufreydaz has served as reviewer and Program Committee member for the following conferences:

- the Eighth IEEE International Workshop on Multimedia Technologies for E-Learning (MTEL) in conjunction with the IEEE International Symposium on Multimedia 2013 (ISM2013), December 2013, Anaheim, CA, USA.
- the 2nd Workshop on Assistance and Service robotics in a human environment at IEEE International Conference on Intelligent Robots and Systems (IROS2013), November 2013, Tokyo, Japan.
- the Seventh International Conference on Mobile Ubiquitous Computing, Systems, Services and Technologies (UBICOMM 2013), October 2013, Porto, Portugal.
- the International Workshop on Wireless Communications and User-centered Services in Pervasive Environments (WUSPE2013), September 2013, Hanoi, Vietnam.
- the 1st Workshop on Affective Social Speech Signals (WASSS) in conjunction with Interspeech 2013, August 2013, Grenoble/Lyon, France.

He has reviewed articles for:

- the IEEE Robot and Human Interaction Communication (Ro-Man 2013), August 2013, Gyeonggy, South Korea.
- the IEEE International Conference on Robotics and Automation (ICRA 2013), May 2013, Karlsruhe, Germany.

He was in the Organization Committee of the 1st Workshop on Affective Social Speech Signals (WASSS) (in conjunction with Interspeech 2013), in August 2013, Grenoble/Lyon, France. He co-organized the Keynotes Speeches of the LIG Laboratory <http://www.liglab.fr/spip.php?article884>. He served as expert for the TecSan 2013 call for project from ANR. He was elected as representative of the researchers at the Inria Grenoble Research Center Committee.

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

8.2.1.1. James Crowley

- Computer Vision, Course 24h EqTD, M2 year, Master of Science in Informatics at Grenoble,
- Intelligent SysteMS, Cours 54h EqTD, ENSIMAG

James Crowley is Director of the Master of Science in Informatics at Grenoble.

8.2.1.2. Sabine Coquillart

- Sabine Coquillart teaches a course on “Virtual Reality and 3D User Interfaces” for the GVR Master 2R, 2013-2014.
- 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.

8.2.1.3. Thierry Fraichard

Licence: Thierry Fraichard, Introduction à la robotique, 19h eqTD, L3 INFO, Univ. of Grenoble, France.

Licence: Thierry Fraichard, Algorithmique, 36h eqTD, M1, ENSIMAG/Grenoble INP, France.

Master: Thierry Fraichard, Introduction to Perception and Robotics, 23h eqTD, M1 MOSIG, Univ. of Grenoble, France.

Master: Thierry Fraichard, Advanced Motion Planning (invited course), 9 heqTD, Centre de Développement des Technologies Avancées, Algiers (DZ), Jan. 2013.

8.2.1.4. Patrick Reignier

Master: Patrick Reignier, Projet Génie Logiciel, 55h eqTD, M1, ENSIMAG/Grenoble INP, France.

Master : Patrick Reignier, Développement d'applications communicantes, 18h eqTD, M2, ENSIMAG/Grenoble - INP, France

Master : Patrick Reignier, Introduction aux applications réparties, 18h eqTD, M2, ENSIMAG/Grenoble - INP, France

Master: Patrick Reignier, Programmation Internet, 18h eqTD, M1, ENSIMAG/Grenoble INP, France

Licence: Patrick Reignier, Algorithmique, 70h eq TD, L3, ENSIMAG/Grenoble INP, France

Licence: Patrick Reignier, Projet C, 20h eqTD, L3, ENSIMAG/Grenoble INP, France.

Patrick Reignier is supervising the industrial part of the “formation en apprentissage” of the ENSIMAG engineering school.

8.2.2. Supervision

8.2.2.1. PhD defended in 2013

Antoine Méler, BetaSAC et OABSAC, Deux Nouveaux Echantillonnages Conditionnels pour RANSAC, Thesis defended January 2013, Thesis Director James Crowley.

Marion Décrouez, Modélisation et Localisation Visuelle dans les Environnement Dynamiques, Thesis defended May 2013, Thesis Directed by Frédéric Devernay and James Crowley.

8.2.2.2. PhD in progress

Evanthia Mavridou, Visual Invariants for Detection and Recognition, Université de Grenoble, expected fall 2014, James Crowley (Professor)

Varun Jain, Perception of Human Emotions, Université de Grenoble, expected fall 2014, James Crowley (Professor)

Sergi Pujades-Rocamora, Modèles de caméras et algorithmes pour la création de contenu video 3D, expected fall 2015, Rémi Ronfard (HDR) et Frédéric Devernay

Julian Quiroga, Visual Perception of Gestures, Université de Grenoble, expected fall 2014, James Crowley (Professor) and Frédéric Devernay

Dimitri Masson, Modèles et outils pour favoriser la créativité dans les premières phases de conception d'IHM, Université de Grenoble, expected fall 2014, Gaëlle Calvary (Professor) and Alexandre Demeure

Étienne Balit, Multimodalité et interaction sociale, Université de Grenoble, expected Fall 2016, Patrick Reignier (Professor), Dominique Vaufreydaz.

Viet Cuong Ta, Multiple Users localization in public large-scale space, Université de Grenoble, expected Fall 2016, Eric Castelli (HDR, Mica laboratory Hanoi, Vietnam), Dominique Vaufreydaz.

Rémi Paulin, Human-Robot Motion, Univ. of Grenoble, expected Fall 2016, Thierry Fraichard (HDR).

8.2.3. Juries

- Sabine Coquillart (examiner), HDR, Mehdi Ammi, Univ Paris-Sud - LIMSI, Nov. 2013
- Sabine Coquillart (reviewer), PhD, Florimond Guéniat, Univ Paris-Sud - LIMSI, Dec. 2013
- James Crowley (reviewer), HDR, Jean-Pierre Nikolovski, Univ Paris - UPMC, Dec. 2013
- James Crowley (reviewer), PhD, Alberto Calatroni, ETH Zurich, Sept. 2013
- James Crowley (jury president), PhD, Alfonso Garcia-Frey, Université de Grenoble, July 2013
- James Crowley (jury president), PhD, Jorgé Rios Martinez, Université de Grenoble, Jan. 2013
- Thierry Fraichard (reviewer), PhD, Adam Houenou, Univ. Tech. de Compiègne, Dec. 2013.
- Thierry Fraichard (jury president), PhD, Asma Azim, LIG, December 2013.

- Patrick Reignier (examiner), PhD, Pedro Chahuara, LIG, March 2013.
- Patrick Reignier (examiner), PhD, Benoit Vettier, LIG, Sep. 2013.
- Patrick Reignier (examiner), PhD, Benjamin Cogrel, Université Paris Est, Nov. 2013.
- Patrick Reignier (examiner), HDR, Julie Dugdale, LIG, Dec. 2013.
- Patrick Reignier (reviewer), DRI (Diplome de Recherche et d'Innovation), Safietou Thior, LIG, May 2013.

8.3. Invited Presentations

8.3.1. James Crowley

- James Crowley, Socially Intelligent Human Computer Interaction, Journée Interaction Homme-Machine et Intelligence Artificielle, Paris, 28 March 2013.
- James Crowley, Table ronde “Robotique intelligente et compétitivité des PME”, InnoRobot, Lyon, 19 Mars 2013.

8.3.2. Thierry Fraichard

- Will the driver seat ever be empty?, Technion, Haifa (IL), April 2013.
- Will the driver seat ever be empty?, Tel Aviv University (IL), June 2013.
- Will the driver seat ever be empty?, Ariel University (IL), June 2013.
- Will the driver seat ever be empty?, Bar Ilan University, Ramat Gan (IL), Oct. 2013.

8.3.3. Dominique Vaufreydaz

- Multimodal perception, activity recognition and companion robots, MICA laboratory, Hanoi (Vietnam), June 2013.
- Invited speaker at “L’Homme 2.0 et son environnement – Entre rejet et fascination”, an inter-professional meeting (entrepreneurs, researchers, artists, associative and institutional actors), Université de Lyon, December 2013.

8.4. Popularization

- Thierry Fraichard gave three lectures on Robotics to highschool students and teachers in the scope of the “Informatique au lycée” initiative, April and May 2013.
- Dominique Vaufreydaz gave two lectures on perception and companion robot to highschool students and teachers in the scope of the “Informatique au lycée” initiative, April and May 2013.
- Dominique Vaufreydaz gave seminars entitled “Perception, reconnaissance d’activités et robots compagnons.”, Fêtes de la Science, at Inria Grenoble, Monbonnot, October 2013.
- The first version of the AppsGate integration platform was demonstrated to the public as part of the Experimenta Fair ⁴ in Grenoble, from 10 to 13 of October 2013.

⁴<http://www.echosciences-grenoble.fr/sites/experimenta>

TYREX Team

8. Dissemination

8.1. Scientific Animation

C. Roisin is a member of the steering committee of the [ACM Symposium on Document Engineering](#).

C. Roisin is a member of Inria Grenoble-Rhône-Alpes Committee for selecting PhD students by CORDI-S grants.

C. Roisin is a member of LIG Committee for selecting Grenoble INP and UJF AGIR projects.

C. Roisin is a member of OpenClassrooms Pedagogical Committee.

N. Layaïda is a member of Inria Grenoble-Rhône-Alpes Committee for Employment of Scientists: Inria hiring of Post-docs, Delegates and Secondments.

N. Layaïda is a member of Scientific committee of Persyval-Lab (Labex), Advanced Data Mining.

N. Layaïda is a member of the Evaluation committee of Minalogic cluster (Pôle de compétitivité mondial Grenoble Rhône-Alpes - Micro nanotechnologies et Logiciel).

J. Lemordant is a member of the steering committee of the [European FP7 VENTURI project](#).

P. Genevès and N. Layaïda are program committee members for the 13th ACM Symposium on Document Engineering (DocEng'13).

P. Genevès is a permanent member of Inria Grenoble-Rhône-Alpes Committee for Technological Development: Inria hiring of Research Engineers.

N. Gesbert is a member of COST Action IC1201, « Behavioural Types for Reliable Large-Scale Software Systems ». He attended a meeting in Rome where he gave a talk about session types in a java-like language. He also participated in writing a state-of-the-art report about behavioural types.

P. Genevès has been a member of the COST Action IC0901, entitled “Rich-Model Toolkit - An Infrastructure for Reliable Computer Systems”. In particular he has been invited to the SVARM 2013 workshop co-located with POPL 2013, and nominated for representing France in decisions taken concerning this COST Action.

P. Genevès gave an invited talk about “A Tree Logic and an Application for the Analysis of Cascading Stylesheets” at the Laboratoire de Recherche en Informatique in Orsay in February 2013.

P. Genevès gave an invited talk about “Static Analysis for Data-Centric Web Programming” at the Qatar Computing Research Institute (QCRI), in Doha, Qatar, in November 2013.

In 2013, P. Genevès has been a referee for the following international journals: ACM Transactions on Database Systems and Theoretical Computer Science; and for the ACM symposium on User interface software and technology (UIST) 2013.

In 2013, N. Gesbert has been a referee for the following international journals: Theoretical Computer Science, and Mathematical Structures in Computer Science; as well as for the European Symposium on Programming (ESOP) 2013.

In 2013, C. Roisin has been a referee for the following international conferences: ACM Document Engineering, and Springer Multimedia Systems.

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

Licence: Computer Networks, 100h/year, L2, University of Grenoble – C. Roisin
 Licence: Logic, 67h30/year, L3, University of Grenoble – N. Gesbert
 Licence: Algorithmics, 60h/year, L3, University of Grenoble – N. Gesbert
 Licence: Academic-side tutoring of an apprentice, 10h/year, University of Grenoble – N. Gesbert
 Master: Logic, 22h30/year, M1, University of Grenoble – N. Gesbert
 Master: Web development, 22h30/year, M1, University of Grenoble – N. Gesbert
 Master: Software analysis, conception and validation, 45h/year, M1, University of Grenoble – N. Gesbert
 Master: Foundations for XML: logics and automata, 18h/year, M2 (Mosig), University of Grenoble – P. Genevès
 Master: Fundamentals of Mobile Frameworks and Applications, 50h/year, M1, Polytech, University Joseph Fourier of Grenoble – J. Lemordant
 Master: Fundamentals of Mobile Frameworks and Applications, 50h/year, M2, University Scientific and technologic of Hanoi – J. Lemordant
 Master: Fundamentals of Mobile Frameworks and Applications, 36h/year, M1, MIAGE, University Joseph Fourier of Grenoble – J. Lemordant
 Master: Fundamentals of Mobile Frameworks and Applications, 36h/year, M2, University Pierre Mendes-France of Grenoble – J. Lemordant

8.2.2. Supervision

HdR: N. Layaïda, Representation and analyses of web content and processing, Université de Grenoble, 23 April 2013.
 PhD in progress: D. Graux, Large scale evaluation of semantic web queries, since November 2013, N. Layaïda and P. Genevès
 PhD in progress: N. Guido, Satisfiability for Expressive μ -calculi, since October 2012, C. Roisin and P. Genevès
 PhD in progress: M. Junedi, Query-Update Independence Analysis under Constraints, since October 2012, C. Roisin and N. Layaïda

8.3. Popularization

J. Lemordant has participated in several events to popularize recent results in the areas of accessible pedestrian navigation, namely conferences at the Osaka City University.
 J. Lemordant has participated in several events to popularize recent results in the areas of pedestrian navigation and mixed reality, namely the 6th European eAccessibility Forum and the State Of The Map 2013 conference.
 P. Genevès has contributed to the creation of a video for disseminating the obtained research results. This video was displayed during the ceremony when he received the CNRS Bronze Medal. Intended for a very wide audience, it presents the societal challenges addressed, introduces the obtained research results and their applications.
 J. Lemordant, T. Michel and M. Razafimahazo showcased indoor and outdoor navigation to Indian journalists (Education Times, Economic Times, Hindustan Times, The Hindu, NDTV) and have been interviewed by Monideepa Banerjee (NDTV). Grenoble, October 2013.
 J. Lemordant, T. Michel and M. Razafimahazo have participated to **Experimenta 2013** to present their results on the 3D audio integrated in the first year VENTURI demonstrator. Grenoble, October 2013.
 M. Razafimahazo has participated to **Museomix** and developed in 12 hours an iOS application called **Museomix#Gre** based on TYREX technologies for the Dauphinois Museum. It consists of an interactive map of the museum and visitors were able to understand the concept of virtual reality by being immersed in 5 different panoramas taken during the event. Grenoble, November 2013.