



RESEARCH CENTER
Grenoble - Rhône-Alpes

FIELD

Activity Report 2014

Section Dissemination

Edition: 2015-03-24

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ARIC Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific animation

- Guillaume Hanrot is director of the LIP laboratory (Laboratoire de l'Informatique du Parallélisme) since April 1, 2014. He was deputy director of the LIP before;
- Jean-Michel Muller is co-director of the Groupement de Recherche (GDR) *Informatique Mathématique* of CNRS;
- Gilles Villard has been director of the LIP laboratory until April 1, 2014.

9.1.2. Scientific events organisation

9.1.2.1. general chair, scientific chair

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

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

9.1.2.2. member of the organizing committee

Bruno Salvy was one of the organizers of a workshop “Challenges in 21st Century Experimental Mathematical Computation”, at ICERM, Providence, Rhode Island.

Nicolas Brisebarre and Jean-Michel Muller organized a one week workshop “Formal Proof, Symbolic Computation and Computer Arithmetic” which took place from February 3 to February 7 (50 participants), in the framework of a whole month devoted to “Mathematical Structures of Computation” in Lyon.

9.1.3. Scientific events selection

9.1.3.1. member of the conference program committee

Jean-Michel Muller was a member of the program committees of ASAP'2014 and ARITH'2015.

Damien Stehlé was a member of the program committees of LATINCRYPT'14, PQCrypto'14, and ACISP'14.

Bruno Salvy was a member of the program committee of AofA'2014.

Fabien Laguillaumie was a member of the program committee of Africacrypt'14.

Benoît Libert was a member of the program committee of ACM-CCS'14.

9.1.4. Journal

9.1.4.1. member of the editorial board

- Jean-Michel Muller is a member of the editorial board of the *IEEE Transactions on Computers*. He is a member of the board of foundation editors of the *Journal for Universal Computer Science*. He was co-guest editor of a special issue of the journal *Science of Computer Programming* [32].
- Bruno Salvy is a member of the editorial boards of the *Journal of Symbolic Computation*, of the *Journal of Algebra* (section Computational Algebra) and of the collections *Texts and Monographs in Symbolic Computation* (Springer) and *Mathématiques et Applications* (SMAI-Springer).
- Gilles Villard is a member of the editorial board of the *Journal of Symbolic Computation*.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

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

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

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

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

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

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

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

Master: Benoît Libert, *Advances cryptographic protocols*, 24h, ENS de Lyon.

Research school: Adeline Langlois, Fabien Laguillaumie, Damien Stehlé, *Chiffrement avancé à partir du problème Learning With Errors* (4h30), École de printemps Codes et Crypto, Université de Grenoble.

Research school: Adeline Langlois, Fabien Laguillaumie, Damien Stehlé, *Chiffrement avancé à partir du problème Learning With Errors* (4h30), École Jeunes Chercheurs en Informatique Mathématique, Université de Caen.

Research school: Damien Stehlé, *Cryptographie reposant sur les réseaux euclidiens* (3h), Colloque Jeunes Chercheurs en Théorie des Nombres.

9.2.2. Supervision

PhD : Nicolas Brunie, *Contribution à l'arithmétique des ordinateurs et applications aux systèmes embarqués*, ENS Lyon, May 2014, co-supervised by Florent de Dinechin (and Renaud Ayrignac).

PhD : Adeline Langlois, *Lattice - Based Cryptography - Security Foundations and Constructions*, ENS Lyon, October 2014, supervised by Damien Stehlé.

PhD : Philippe Théveny, *Numerical quality and high performance in interval linear algebra on multi-core Processors*, ENS Lyon, October 2014, supervised by Nathalie Revol.

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: Vincent Neiger, *Multivariate interpolation in computer algebra: efficient algorithms and applications*, since September 2013, co-supervised by Claude-Pierre Jeannerod and Gilles Villard (together with Éric Schost (Western University, London, Canada)).

PhD in progress: Marie Paindavoine, *Méthodes de calculs sur des données chiffrées*, since October 2013 (Orange Labs - UCBL), co-supervised by Fabien Laguillaumie (together with Sébastien Canard).

PhD in progress : Antoine Plet, *Contribution à l'analyse d'algorithmes en arithmétique virgule flottante*, since September 2014, co-supervised by Nicolas Louvet and Jean-Michel Muller.

PhD in progress : Valentina Popescu, *Vers des bibliothèques multi-précision certifiées et performantes*, since September 2014, co-supervised by Mioara Joldes (LAAS) and Jean-Michel Muller.

PhD in progress : Serge Torres, *Some tools for the design of efficient and reliable function evaluation libraries*, since September 2010, co-supervised by Nicolas Brisebarre and Jean-Michel Muller.

PhD in progress: Louis Dumont, *Algorithmique efficace pour les diagonales, applications en combinatoire, physique et théorie des nombres*, co-supervised by Alin Bostan (SpecFun team) and Bruno Salvy.

PhD in progress: Sébastien Maulat, *Évaluation efficace et certifiée de fonctions différentiellement finies en précision modérée*, since september 2014, supervised by Bruno Salvy.

PhD in progress: Stephen Melczer, *Effective analytic combinatorics in one and several variables*, co-supervised by George Labahn (U. Waterloo, Canada) and Bruno Salvy.

9.2.3. Juries

In 2014, Jean-Michel Muller was vice-chair of the “Comité d’évaluation scientifique mathématiques–informatique théorique” of the ANR (the French national research agency). He participated to the PhD committees for the defenses of Laurent Thévenoux (Univ. Perpignan) and Karim Bigou (Univ. Rennes 1). He participated to the Habilitation committees for the defenses of Christophe Denis (Univ. Perpignan), Sylvie Boldo (Paris Sud Univ.) and David Defour (Univ. Perpignan). He was a member of the Scientific Council of ENS de Lyon until june 2014, and he is a member of the Scientific Council of CERFACS (Toulouse).

Bruno Salvy was a member of the PhD committees of Julien Courtien (Bordeaux), Jules Svartz (UPMC), and Pierre Lairez (École polytechnique).

Nathalie Revol was a member of the PhD committee of Olivier Mullier (École polytechnique). Nathalie Revol was in the hiring committee for junior researchers (CR) of Inria Grenoble - Rhône-Alpes and in the hiring committee for an assistant professor position at Université Paris Sud.

Damien Stehlé was reviewer of the PhD theses of Robert Fitzpatrick (Royal Holloway, UK), Tancred Lepoint (ENS Paris, Univ. du Luxembourg and CryptoExperts) and Nicola di Pietro (Univ. Bordeaux).

Fabien Laguillaumie was reviewer for the PhD thesis of Alain Patey (Telecom ParisTech). He was part of the HDR committee of Damien Vergnaud (ENS).

Nicolas Louvet was a member of a hiring committee for an associate professor position at the university Montpellier 2.

9.3. Invited Conferences

- Damien Stehlé gave an invited talk *Secure lattice codes for the gaussian wiretap channel*, at the Algebra, Codes and Networks symposium, Bordeaux, France, in June 2014;
- Damien Stehlé gave an invited talk *The Learning with Errors problem*, at the Oberwolfach workshop on combinatorial optimization, Oberwolfach, Germany, in November 2014;
- Jean-Michel Muller gave two invited talks, *On the maximum relative error when computing x^n in floating-point arithmetic* (in Tokyo) and *On complex multiplication and division with an FMA* (in Kyoto), for the conference INVA 2014, Japan, in March 2014;
- Jean-Michel Muller gave an invited talk *Getting tight error bounds in floating-point arithmetic: illustration with complex functions, and the real x^n function*, at the workshop NSV’2014: Numerical Software Verification, Vienna, in July 2014.
- Bruno Salvy gave an invited talk *Algorithmic variations on linear differential equations* at the MBM2014 day organized in Bordeaux in October when Mireille Bousquet-Mélou received the silver medal of the CNRS. He was also invited to give a talk in Oberwolfach, for their meeting on Enumerative Combinatorics in March, where he talked about *Multiple Binomial Sums*, of which he had given a previous version in February at the “Holonomy days” where he had been invited in Grenoble.

- Nathalie Revol gave invited talks at the workshop “Challenges in 21st Century Experimental Mathematical Computation” at ICERM, Providence, Rhode Island, and at French seminars: CEA-LIST, Inria comité des projets, Aristote.
- Fabien Laguillaumie gave an invited scientific committee talk *Anonymity-oriented Signatures based on Lattices* at the YACC’14 conference, Porquerolles, France, in June 2014.

9.4. Popularization

- Sylvie Boldo (Proval project) and Jean-Michel Muller wrote a popular science paper *Des ordinateurs capables de calculer plus juste* in the journal *La Recherche* [36].
- Nicolas Brisebarre co-organizes scientific conferences, called «Éclats de sciences», at Maison du Livre, de l’Image et du Son in Villeurbanne. Around three conferences take place per year.
- Nathalie Revol gave talks for pupils at collèges and lycées, as an incentive to choose scientific careers: lycée Camille Vernet (Valence, Drôme), lycée Jérémie de la Ville (Charlieu, Loire), lycée Gabriel Fauré (Annecy, Haute-Savoie), collège Jean Renoir (Neuville-sur-Saône, Rhône). During the “Week of mathematics”, she gave a 2-hour talk at lycée de la Côtière (La Boisse, Ain). She gave the inaugural conference of the congress “Math en Jean’s” in Lyon and the conference for the scientific camp “Math C2+” in Montbonnot. She was present for the “Mondial des Métiers” (Eurexpo Lyon, Chassieu, Rhône). For the Science Fair, she gave 2 talks at MMI, ENS de Lyon. In 2014, she met over 1000 pupils.

COMPSYS Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events organization

9.1.1.1. general chair, scientific chair

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

9.1.1.2. member of the organizing committee

Alain Darte was part of the organization (mainly by Lionel Morel, from Insa-Lyon) of the thematic day on the “compilation and execution of streaming programs” in April 2014, see Section 8.1.2 .

9.1.2. Scientific events selection

9.1.2.1. responsible of the conference program committee

Alain Darte was program chair of the topic E2 “compilers for Embedded Systems” of the international conference DATE’15 (see <http://www.date-conference.com/group/tpc/members#E>), with Rodric Rabbah (IBM), and program chair of the international workshop IMPACT’15 (see <http://impact.gforge.inria.fr/impact2015/>), with Alexandra Jimborean (Uppsala Univ.).

9.1.2.2. member of the conference program committee

Paul Feautrier was a member of the program committees of the conferences and workshops PECCS’15, PARCO’15, IMPACT’14, and IMPACT’15. Laure Gonnord was a member of the program committee of the WST’14 workshop. Tomofumi Yuki was a member of the program committee of the IMPACT’15 workshop. Alain Darte was member of the program committees of the conferences and workshops IPDPS’14, DATE’14, DATE’15, IMPACT’14, and IMPACT’15.

9.1.2.3. reviewer

In 2014, Christophe Alias has reviewed papers for DATE’15 and MEMOCODE’14. Laure Gonnord has reviewed papers for WST’14, TASE’14, VMCAI’15, and MEMOCODE’14. Tomofumi Yuki has reviewed papers for IMPACT’15. Alain Darte has reviewed papers for MICRO-47 (2014), DATE’15, and IMPACT’15.

9.1.3. Journal

9.1.3.1. member of the editorial board

Paul Feautrier is a member of the editorial board of the journals “International Journal of Parallel Programming” and “Parallel Computing”.

9.1.3.2. reviewer

In 2014, Christophe Alias has reviewed papers for ACM TACO (Transactions on Architecture and Code Optimization) and Elsevier IPL (Information Processing Letters). Paul Feautrier has reviewed papers for ACM TOPLAS (Transactions on Programming Languages and Systems) and ACM TODAES (Transactions on Design Automation of Electronic Systems). Tomofumi Yuki has reviewed papers for ACM TOPLAS and ACM TACO. Alain Darte has reviewed papers for ACM TACO and IEEE Transactions on Computers.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Licence:

- Christophe Alias: Introduction à la compilation, L3, INSA Centre-Val-de-Loire: Spring 2014 (CM+TD=18h).
- Christophe Alias: Architecture des ordinateurs, L2, Université Lyon 1 Claude Bernard: Spring 2014 (TP=15h).
- Christophe Alias: Concours E3A, épreuve informatique MPSI (shepherding/exams): Spring 2014.
- Laure Gonnord: Architecture des ordinateurs, L2, Université Lyon 1 Claude Bernard: Spring 2014 (TD+TP=40h), and Autumn 2014 (Course+TD 40h).

Master:

- Christophe Alias, Compilation avancée (CM 10h), M2, Ecole Normale Supérieure de Lyon.
- Christophe Alias, Compilation (CM 24h), M1, Ecole Normale Supérieure de Lyon.
- Laure Gonnord, Introduction aux systèmes et réseaux (CM/TP 52h), M2 Pro, Université Lyon 1.
- Laure Gonnord, Compilation (TD/TP 24h), M1, Université Lyon 1 Claude Bernard.
- Laure Gonnord, Complexité (TD 15h), M1, Université Lyon 1 Claude Bernard.
- Laure Gonnord, Temps réel (TP 24h), M1, Université Lyon 1 Claude Bernard.
- Laure Gonnord also organized two research schools (24h each) for the M1-ENS students. In 2014, the topic was “Programming embedded systems with synchronous languages” (invited speakers: Julien Forget, Abdoulaye Gamatié, Alain Girault, Nicolas Halbwachs). In 2015, the topic will be “Static analyses in the state-of-the-art compilers” (invited speaker: Fernando Pereira).

E-learning:

- Paul Feautrier has recorded a lecture on the polyhedral model, to be part of a course on auto-parallelization sponsored by the IEEE Computer Society (University of Illinois at Urbana-Champaign, Sept. 5-7) and organized by Hironori Kasahara and David Padua.
- Following the 2013 Spring School on Polyhedral Code Analysis and Optimization organized by Alain Darté, the videos of most courses have been collected and made available in 2014 (see <http://labexcompilation.ens-lyon.fr/polyhedral-school/videos/>). See also Section 8.4.1.2 .

9.2.2. Supervision

- PhD in progress: Guillaume Iooss, “Semantic tiling”, started in September 2011, joint PhD ENS-Lyon/Colorado State University, advisors: Christophe Alias and Alain Darté (ENS-Lyon) / Sanjay Rajopadhye (Colorado State University).
- PhD in progress: Alexandre Isoard, “Streaming-related code optimizations”, started in September 2012, advisor: Alain Darté.
- PhD in progress: Maroua Maleej, “Low cost static analyses for compilers”, started in October 2014, advisors: Laure Gonnord and Alain Darté.

9.2.3. Juries

Paul Feautrier was a member of the PhD defense committees of Michael Kruse (Orsay, Sept. 26, 2014), entitled “Lattice QCD Optimization and Polytopic Representations of Distributed Memory”, and of Luc Michel (Grenoble, Dec. 18, 2014), entitled “Contributions à la traduction binaire dynamique: support du parallélisme d’instructions et génération de traducteurs optimisés”.

Laure Gonnord was a reviewer for the PhD thesis of Chan N’Go (Rennes, Jul. 2014), entitled “Formal Verification of a Synchronous Data-flow Compiler: From Signal to C”.

Alain Darté was member of the PhD defense committee of Romain Brillu (Nantes, Nov. 12, 2014), entitled “Efficient Design and Programming of MPSoC (Multiple Processors System on Chip) Architectures”.

9.3. Popularization

- Alain Darté was invited to give a long keynote (1h30), as an introduction to polyhedral techniques (“Polyhedral optimizations? Not even scared!” [2]), to the spanish Conference Jornadas Sarteco, the equivalent of the french COMPAS conference, see <http://www.jornadassarteco.org/transparencias-de-las-charlas-invitas/>.
- In Sep. 2014, together with ten other specialists in automatic parallelization, Paul Feautrier recorded a lecture on the “polyhedral model” for a video course on automatic parallelization to be published by the IEEE.
- Paul Feautrier’s 1988 “Array Expansion” seminal paper has been selected for the 25th Anniversary Volume of the ACM International Conference on Supercomputing, with 34 other papers, among 1800 papers published from 1987 to 2011. A short “reminescence” paper [13] has been written for the occasion. <http://dl.acm.org/citation.cfm?doid=2591635.2591641>.
- Alain Darté participated to the “Refresh” Inria Rhône-Alpes initiative, for improving the scientific life of the Inria regional center, as well as to the working group on “team management”.

CONVECS Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events organisation

9.1.1.1. General chair, scientific chair

- G. Salaün was general chair for SEFM'2014 (*12th International Conference on Software Engineering and Formal Methods*), Grenoble, France, September 1–5, 2014.

9.1.1.2. Member of the organizing committee

- L. Ye was publicity chair for SEFM'2014. R. Abid and H. Evrard were members of the organizing committee for SEFM'2014.
- W. Serwe was publicity chair for FMICS'2014 (*19th International Workshop on Formal Methods for Industrial Critical Systems*), Florence, Italy, September 11–12, 2014.

9.1.2. Scientific events selection

9.1.2.1. Chair of conference program committee

- G. Salaün was programme committee chair for SEFM'2014.
- F. Lang was programme committee chair for FMICS'2014.

9.1.2.2. Member of the conference program committee

- G. Salaün was programme committee member for GRAPHITE'2014 (*3rd Workshop on Graph Inspection and Traversal Engineering*), Grenoble, France, April 5, 2014.
- G. Salaün was programme committee member for ORCHOR'2014 (*International Workshop on Service Orchestration and Choreography for the Future Internet*), Anchorage, Alaska, June 30, 2014.
- G. Salaün was programme committee member for WWV'2014 (*International Workshop on Automated Specification and Verification of Web Systems*), Vienna, Austria, July 18, 2014.
- H. Garavel was programme committee member for SEFM'2014.
- G. Salaün was programme committee member for FOCLASA'2014 (*13th International Workshop on Foundations of Coordination Languages and Self-Adaptive Systems*), Rome, Italy, September 6, 2014.
- G. Salaün was programme committee member for FACS'2014 (*11th International Symposium on Formal Aspects of Component Software*), Bertinoro, Italy, September 10–12, 2014.
- R. Mateescu and W. Serwe were programme committee members for FMICS'2014.
- W. Serwe was a program committee member for the track on “Prototyping, Validation, Verification, Modeling and Simulation” of VLSI-SOC'2014 (*22nd IFIP/IEEE International Conference on Very Large Scale Integration*), Playa del Carmen, Mexico, October 6–8, 2014.

9.1.2.3. Reviewer

- H. Evrard reviewed articles submitted to FOCLASA'2014 and TACAS'2015 (*21th International Conference on Tools and Algorithms for the Construction and Analysis of Systems*).
- F. Jebali reviewed articles submitted to AVOCs'2014 (*14th International Workshop on Automated Verification of Critical Systems*).
- A. Kriouile reviewed articles submitted to SAC-SVT'2015 (*30th ACM/SIGAPP Symposium on Applied Computing — Software Verification Track*).

- F. Lang reviewed articles submitted to TACAS'2015.
- R. Mateescu reviewed articles submitted to AVOCS'2014, SEFM'2014, and TACAS'2015.
- G. Salaün reviewed articles submitted to WETICE-PASCS'2014 (*23rd IEEE International Conference on Enabling Technologies: Infrastructure for Collaborative Enterprises — Track on Privacy and Accountability for Software and Cloud Services*).
- W. Serwe reviewed articles submitted to AVOCS'2014, DATE'2014 (*Design, Automation & Test in Europe*), and TACAS'2015.
- L. Ye reviewed articles submitted to SEFM'2014, VALID'2014 (*6th International Conference on Advances in System Testing and Validation Lifecycle*), SAC-SVT'2015, and FSEN'2015 (*6th IPM International Conference on Fundamentals of Software Engineering*).

9.1.3. Journal

9.1.3.1. Member of the editorial board

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

9.1.3.2. Reviewer

- R. Mateescu was reviewer for ACM TECS (*Transactions on Embedded Computing Systems*) and STTT.
- J. I. Requeno was reviewer for IEEE TC (*Transactions on Computers*).
- G. Salaün was reviewer for JLAMP (*Journal of Logical and Algebraic Methods in Programming*), JISA (*Journal of Internet Services and Applications*), IEEE TSE (*Transactions on Software Engineering*), and IJWET (*International Journal of Web Engineering and Technology*).

9.1.4. Software Dissemination and Internet Visibility

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

In 2014, the main facts are the following:

- We prepared and distributed twelve successive versions (2014-a to 2014-l) of CADP.
- We were requested to grant CADP licenses for 425 different computers in the world.

The CONVECS Web site ⁰ was updated with scientific contents, announcements, publications, etc.

By the end of December 2014, the CADP forum ⁰, opened in 2007 for discussions regarding the CADP toolbox, had over 320 registered users and over 1570 messages had been exchanged.

Also, five large Petri nets derived from our LNT models were provided as benchmark examples for the 2014 edition of the Model Checking Contest.

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

- The IMCReo tool to reason about QoS in Stochastic Reo connectors [58], [59]
- The Alvis virtual machine to execute formal models in the Alvis language [57]
- The Tomte tool for active learning of Mealy machines [30]
- The Vercors platform for verifying the correct composition of distributed components [52]
- The TLM.open tool connecting SystemC/TLM models to CADP [50]
- The REFINER tool for formal Verification of Model Transformations [65], [66]
- The ELOTON development environment for LOTOS specifications [68]

⁰<http://convecs.inria.fr>

⁰<http://cadp.inria.fr/forum.html>

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

- Model-based specification, implementation and testing of a software bus [61]
- Protocol conformance testing using active learning of Mealy machines [31]
- High-performance fractal coherence [64], [63]
- Verification of models reverse engineered from smart-card readers [34]

9.1.5. Awards and Distinctions

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

9.1.6. Lectures and Invited Conferences

- H. Garavel gave an invited talk entitled “*Trois décennies de réussite en méthodes formelles*” at the Journées MFDL/MTV2 (*Méthodes Formelles pour le Développement de Logiciels/Méthodes de Test pour la Vérification et la Validation*) held on January 14, 2014 in Grenoble, France.
- H. Garavel and R. Mateescu gave a talk entitled “*Analyse de traces par model checking / Trace Analysis using Model Checking*” at the PIMLIG seminar “*Traces dans tous leurs états*” held on January 22, 2014 in Grenoble, France.
- G. Salaün gave a talk entitled “*On the Verification of Asynchronously Communicating Systems*” on February 18, 2014 in Málaga, Spain.
- G. Salaün gave a talk entitled “*Verification of Asynchronously Communicating Systems*” on October 2nd, 2014 in Clermont-Ferrand, France.
- R. Mateescu gave an invited talk entitled “*Walking Back and Forth in Labelled Transition Systems*” at the GRAPHITE’2014 workshop held on April 5, 2014, in Grenoble, France.
- H. Garavel gave a talk entitled “*Benchmarks and Benchmarking: The Model Checking Contest*” at the 20 years of TACAS workshop and celebration held on April 8, 2014 in Grenoble, France.
- H. Garavel gave a talk entitled “*Real Time without Clocks*” on June 6, 2014 at Saarland University, Saarbrücken, Germany.
- H. Garavel gave a talk entitled “*Reconciling Concurrency Theory with Other Branches of Computer Science*” at the *IFIP WG 1.8 Research Seminar on Open Problems in Concurrency Theory* held on June 18–21, 2014 in Bertinoro (Forlì), Italy.
- R. Mateescu gave an invited talk entitled “*Mu-Calculus Property-Dependent Reductions for Divergence-Sensitive Branching Bisimilarity*” at the WS-FMDS’2014 workshop held on September 2, 2014 in Grenoble, France.
- R. Mateescu gave a talk entitled “*Two Decades of Formal Methods for Industrial Critical Systems*” at the ERCIM 25th anniversary held on October 23–24, 2014, in Pisa, Italy.
- F. Jebali gave a talk entitled “*A Step Towards Reconciling GALS Industrial Design with Formal Verification*” on September 11, 2014 at the 11th LASER Summer School on Software Engineering held on September 7–13, 2014 in Elba Island, Italy.
- F. Lang gave a talk entitled “*Partial Model Checking Using Labelled Transition Systems and Boolean Equation Systems*” to a panel of 1st year students of Ecole Normale Supérieure de Cachan during their visit to the LIG laboratory on December 9, 2014.

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 2014, we carried out the following teaching activities:

- G. Salaün is co-responsible of the ISI (*Ingénierie des Systèmes d'Information*) department of ENSIMAG since September 1, 2011.
- F. Lang 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 “*Programmation orientée-objet*” to the second year computer science engineering students of ENSIMAG (18 hours).
- G. Salaün gave a course on “*Théorie des langages*” to the first year computer science engineering students of ENSIMAG (18 hours).
- R. Oliveira served as a teaching assistant in a course on “*Bases de Données*”, given by Aurélien Faravelon to the first year computer science engineering students of IUT2 (25 hours).
- R. Oliveira served as a teaching assistant in a course on “*Algorithmique et programmation*”, given by Vanda Luengo to the first year computer science engineering students of IUT (40 hours).

9.2.2. Juries

- G. Salaün was external reviewer for José Antonio Mateo Cortés’s PhD thesis, entitled “*Verification and Validation of Web Service Compositions using Formal Methods*”, defended at Universidad de Castilla La Mancha, Spain, on July 1st, 2014.
- G. Salaün was external reviewer for Diana Allam’s PhD thesis, entitled “*Enforcing Loose Coupling and Substitution Principles in an Object-Oriented Framework for Web Services*”, defended at Ecole des Mines, Nantes, France, on July 10, 2014.
- R. Mateescu was external reviewer for Ala Eddine Ben Salem’s PhD thesis, entitled “*Improving the Model Checking of Stutter-Invariant LTL Properties*”, defended at Université Pierre et Marie Curie, Paris, France, on September 25, 2014.
- G. Salaün was external reviewer for Lakhdar Akroun’s PhD thesis, entitled “*Décidabilité et complexité de la relation de simulation des services Web orientés données*”, defended at Université Blaise Pascal, Clermont-Ferrand, France, on December 8, 2014.
- G. Salaün was external reviewer for Dimitris Vekris’s PhD thesis, entitled “*Vérification de spécifications EB3 à l’aide de techniques de model checking*”, defended at Université Paris-Est Créteil, France, on December 10, 2014.

9.3. Popularization

H. Garavel participates to the committee in charge of organizing the Aerospace Valley series of industrial conferences on formal methods. The third conference ⁰, devoted to theorem proving, held on February 4 in Toulouse and retransmitted by video-conference in Grenoble, attracted over 100 participants from industry and academia.

The fourth conference ⁰, devoted to model checking, held on October 16 in Toulouse and retransmitted by video-conference in Grenoble and Saclay, attracted over 120 participants from industry and academia. H. Garavel gave a talk entitled “*Présentation de l’outil CADP*”. A. Kriouile gave a talk entitled “*Application de CADP à la vérification de matériel*”. R. Mateescu gave a talk entitled “*Introduction au model checking*”.

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.

⁰<http://www.inria.fr/centre/grenoble/agenda/forum-methodes-formelles2>

⁰<http://projects.laas.fr/IFSE/FMF/J4/index.html>

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 Minalogic “*pôle de compétitivité mondial*”.

H. Garavel was a reviewer for various ongoing ANR (*Agence Nationale de la Recherche*) pre-propositions and projects evaluated in 2014.

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*).

G. Salaün is a member of the MSTIC council of Grenoble-Alpes University (*Conseil de pôle MSTIC*).

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

F. Lang is (together with Laurent Lefèvre from the AVALON Inria project-team) correspondent in charge of the Inria Activity Report at Inria Grenoble - Rhône-Alpes.

DICE Team

8. Dissemination

8.1. Promoting Scientific Activities

8.1.1. Scientific events selection

Stéphane Grumbach is a member of a Scientific Committee on journalism and public welfare in the digital age at the College des Bernardins in Paris.

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

Licence : Stéphane Frénot, Stéphane Grumbach: Twitter, Facebook et le Web2.0, Module INSA Lyon, automne 2014

Master : Stéphane Grumbach, L'intermédiation et l'économie des ressources, cours dans le cadre du Master Biosciences, UE Sciences et Société, ENS Lyon, décembre 2014

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

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

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

Stéphane Grumbach, L'Economie des données, Webinaire, as part of the lecture Economie du Web, ENS Lyon, Université de Montréal, Enssib, Nov 2014

8.2.2. Supervision

Robert Riemann, decentralized voting, Sept 2014

Etienne Brodu, DataFlow compilation from JavaScript, Jan 2013

Manuel Selva, Dynamic dataflow for embedded system, Nov 2011, with Lionel Morel (Socrate Inria team)

Marie-Ange Lebre, Service oriented computing in cars, Jan 2011, with Frederic Le Mouel (Dynamid CITI team)

Rocha Goya, Smart OS for smart ambient devices, Sept 2011, with Frederic Le Mouel (Dynamid CITI team)

8.2.3. Juries

Hu Zeng, Auto-configuration, Supervision et Contrôle d'Entités Physiques par l'intermédiaire de Réseaux de Capteurs et Actionneurs, Advisor, Jan 2014

Dan Yufang, Security and self-healability enforcement of dynamic components in a service-oriented system, Advisor, may 2014

Nicolas Haderer, APISENSE : une plate-forme répartie pour la conception, le déploiement et l'exécution de campagnes de collecte de données sur des terminaux intelligents, examiner, 5 nov 2015

Jigar Solanki, Approche génerative conjointe logicielle-matérielle au développement du support protocolaire d'applications réseaux, reviewer, 27 Nov 2014

8.3. Popularization

- Stéphane Frénot and Stéphane Grumbach have been invited speakers to the BlendWebMix conference in Lyon end of October. This event of two days unites actors from different fields in the web domain, i.e. programmers, entrepreneurs, designers and scientists. Two contributions have been programmed for DICE to speak about digital and geographical territories, and about big data and intermediation platforms.
- The annual German-speaking conference DNP14 in Vienna (Austria) is a two-day event to discuss topics related to data, networks and politics and has taken place this year in September. Robert Riemann was giving a talk to introduce the concept of the C3PO project and illustrate its possibilities of application.
- Metroscope aims at being a leading Internet Observatory. It holds an annual workshop. Aurélien Faravelon presented DICE's works on intermediation at the 2014 edition.
- Séminaire Pint Of Science, Lyon, Google, Twitter, BitTorrent et BitCoin : les données, objets de toutes les convoitises <http://www.pintofscience.fr/#!lyon/ci18>, 21 Mai 2014
- Rencontres CNRS Journées citoyen CNRS, poitiers, invitation to a seminar at school about Big Data, 17-19 Oct 2014, <http://www.cnrs.fr/sciencesetcitoyens/>
- Panel Big Data, Open Data : enjeux démocratiques, colloque Le monde après Snowden, Assemblée nationale, Paris, 13-14 mars 2014
- La France dans le paysage mondial de l'intermédiation, Audition publique au Sénat, Mission commune d'information "Nouveau rôle et nouvelle stratégie pour l'Union européenne dans la gouvernance mondiale de l'Internet", Paris, 11 Febr 2014
- Les enjeux du numérique présentés aux députés, avec la délégation Inria, et le groupe d'études Internet et société numérique de l'Assemblée nationale, Paris, 21 janvier 2014

8.4. Invited talks

- Introduction aux algorithmes, Séminaire Journalisme et bien commun à l'heure des algorithmes, Collège des Bernardins, Paris, 16 Dec 2014
- Les données et la sécurité, Panel Les villes intelligentes, Universités de la sécurité, AN2V, Lyon, 4-5 Dec 2014
- L'intermédiation et l'économie des ressources, cours dans le cadre du Master Biosciences, UE Sciences et Société, ENS Lyon, Dec 2014
- Data is power, Panel The power of data and the internet of things, Global Forum, Geneva, 17-18 Nov 2014
- L'Economie des données, Webinaire, dans le cours Economie du Web, ENS Lyon, Université de Montréal, Enssib, Nov 2014
- "Big Data as a Resource – Political And Geopolitical Issues At Stake", Conference on Smart Data for Government, London, 23-24 Sept, 2014
- Les enjeux de l'information, Congrès de l'Union Française des Métiers de l'Événement, UNIMEV, Lille 2-4 Jul 2014
- Panel "Data Centers, Open Data, Big Data", 5th European Summit on the Future Internet, Luxembourg, 12-13 June 2014
- "The Power of Intermediation and the Geopolitical Challenge", The Diplomacy and Diversity Fellowship, a Humanity in Action program, Paris, 11 Jun 2014
- L'économie de l'intermédiation, Les grandes conférences du LIG, Grenoble, 15 May 2014

- Les données, nerf de la guerre, Journée IXXI sur la révolution numérique et la gouvernance, Lyon, 4 Apr 2014
- Les grandes plateformes de données, enjeux politiques et géopolitiques ? Institut des sciences de la communication, ISCC, Paris, 25 Mar 2014
- Panel on Big Data, Swiss STS meeting, Collecting, Organizing, Trading Big Data, University of Lausanne, 20-22 Febr 2014

GCG Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events organisation

9.1.1.1. Member of the organizing committee

- Fabrice Rastello: Publication chair ACM/IEEE CGO 2015
- Fabrice Rastello: Steering committee Journées française de la compilation

9.1.2. Scientific events selection

9.1.2.1. Member of the conference program committee

- Fabrice Rastello: ACM/IEEE CGO 2014, ACM/IEEE CGO 2015

9.1.2.2. Reviewer

- Fabrice Rastello: Springer CC 2014

9.1.3. Journal

9.1.3.1. Reviewer

- Fabrice Rastello: ACM TACO, Elsevier ParCo

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Master : Fabrice Rastello (external intervention), Programming Languages and Compiler Design, 4.5 hours, M1 of international MoSIG, UJF, Grenoble, France

Master : Fabrice Rastello (with Christophe Alias and Florent de Dinechin), Advanced Compilation, 15 hours, M1/M2, ENS Lyon, France

Post-doctoral : Fabrice Rastello, SSA based compiler design, 6 hours, CRI, Yaounde Cameroun

9.2.2. Supervision

- PhD in progress: Duco van Amstel, Scheduling and optimization for memory locality of dataflow programs on many-core processors, April 1st 2013, advised by Fabrice Rastello and Benoit Dupont-de-Dinechin
- PhD in progress: Diogo Sampaio, Profiling Guided Hybrid Compilation, October 8 2013, advised by Fabrice Rastello
- PhD in progress: François Gindraud, Semantics and compilation for a data-flow model with a global address space and software cache coherency, January 1st 2013, advised by Fabrice Rastello and Albert Cohen.
- PhD in progress: Venmugil Elango, Dynamic Analysis for Characterization of Data Locality Potential, September 2010, advised by Fabrice Rastello and P. Sadayappan.

9.2.3. Juries

- Feng Li, Reviewer, 20th of Mai, Compiling for a multithreaded dataflow architecture: algorithms, tools, and experience, Doctorat de l'UPMC EDITE
- Kevin Pouget, Jury, 3rd of February, Programming-Model Centric Debugging for Multicore Embedded Systems, MSTII, Grenoble

PRIVATICS Project-Team

8. Dissemination

8.1. Promoting Scientific Activities

8.1.1. Scientific events organisation

8.1.1.1. Member of the organizing and program committee

Claude Castelluccia : PETs' 14, WISEC 2014, AFP 2014.

Mathieu Cunche : WISEC 2014 (publicity chair).

Cédric Lauradoux : Journées C2.

Daniel Lemetayer: CPDP 2014, AFP 2014.

Marine Minier : SAR-SSI 2014

Vincent Roca : SAR-SSI 2014.

8.1.2. Scientific events selection

8.1.2.1. Chair of conference program committee

Claude Castelluccia : WISEC 2014.

Marine Minier : CIS 2014.

8.1.2.2. Member of the conference program committee

Mathieu Cunche : WCNC 2014, APVP 2014, ICISSP 2015.

Cédric Lauradoux : Wisec 2014, SDTA 2014, CCSW 2014, Wisec 2015, Journées C2.

Vincent Roca : SPACOMM 2014, SNDS 2014

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, 80h, L3, INSA-Lyon, France.

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

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

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

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

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

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

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

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

Master : Cédric Lauradoux, Introduction to Cryptology, 30h, M2, University of Grenoble, France.

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

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

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

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

8.2.2. Supervision

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

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

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

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

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

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

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

Intern (M2): Célestin Matte, Identification and Analysis of Privacy issues in the Wi-Fi technology (01/2014 - 07/2014)

Intern (M2): Pierre Brunisholz, OFDM decoding on a Virtex (02/2014- 09/2014)

Intern (M2): Emmanuel Poirier, Privacy preserving Wi-Fi tracking (02/2014-08/2014)

Intern (M1): Julia Reboul, Solving a Symmetric Key Cryptographic Problem with Constraint Programming (03/2014 - 08/2014)

Intern (M1): Pierre Rouverol, Study of Radio-Frequency tracking Technologies" (03/2014 - 08/2014)

8.2.3. Juries

HdR : Vincent Roca, Codes AL-FEC et protocoles de diffusion robuste de contenus : composants pour des services performants et passant à l'échelle, Toulouse, 19/06/2014, Claude Castelluccia.

HdR : Sebastien Gams, Respect de la vie privée dans la société de l'information, Rennes, 23/06/2014, Daniel Le Métayer.

PhD : Minh-Dung Tran, Privacy challenges in Online Targeted Advertising, Université de Grenoble, 13/11/2014, Claude Castelluccia.

PhD : Gwenaelle DEJULYS, Analysis of entropy accumulators for cryptographic RNGs, Université de Grenoble, 18/12/2014, Cédric Lauradoux.

PhD : Lukasz Olejnik, Internet Tracking and Profiling, Université de Grenoble, 30/12/2015, Claude Castelluccia.

PhD : Abdelberi Chaabane, Threats against privacy on Internet: evaluation and solutions, Université de Grenoble, 22/05/2014, Claude Castelluccia.

PhD : Ferdaouss Mattoussi, Design and optimization of AL-FEC codes: the GLDPC-Staircase codes, Université de Grenoble, 13/02/2014, Vincent Roca and Claude Castelluccia.

PhD : Guillaume Smith, Enabling Private Real-Time Applications by Exploiting the Links Between Erasure Coding and Secret Sharing Mechanisms, Université de Toulouse, 04/12/2014, Vincent Roca.

PhD : Amira Bradai, Secured trust and reputation system : analysis of malicious behaviors and optimization, Université Pierre et Marie Curie, Paris 6, 29/09/2014, Vincent Roca.

PhD : Raphaël Jamet, Protocols and Models for the Security of Wireless Ad-Hoc Networks , Université de Grenoble, 03/11/2014, Marine Minier.

8.3. Popularization

Interview of Mathieu Cunche on Radio Canada in the chronicle of Janic Tremblay, 3rd February 2014.

Interview of Mathieu Cunche on Radio France Inter in “Journal de 18h”, February 28th 2014.

Seminar of Mathieu Cunche “ Je sais tout sur vous grâce au Wi-Fi! ” Séminaire sur la Confiance Numérique at Clermont Ferrand, March 6th, 2014.

Interview of Mathieu Cunche on Radio France Info in “Tout comprendre” chronicle, March 18th, 2014.

Interview of Mathieu Cunche in Ouest-France news-paper, May 10th, 2014.

Participation of Mathieu Cunche to the TV show "Le Monde en Face" on France 5, June 17th, 2014.

Participation of Mathieu Cunche to the round table “ Numériquement vôtre ” at Futur en Seine, June 14h, 2014.

Seminar of Mathieu Cunche “ Internet: Vie privée, Surveillance et Censure ” at St-Génis Les Ollières, December 20th, 2014.

Seminar of Cédric Lauradoux “ Identifiants et guesswork ” Séminaire sur la Confiance Numérique at Clermont Ferrand, January 9th, 2014.

Seminar of Cédric Lauradoux “ Identifiants et guesswork ” Séminaire sur la Confiance Numérique at Clermont Ferrand, January 9th, 2014.

Seminar of Cédric Lauradoux “ Déni de Service Algorithmique ”, Journées Sécurité des Systèmes d’informations at Rouen, November 13th, 2014.

Seminar of Cédric Lauradoux “ L’Internet des Objets et l’Internet des identifiants ”, Colloque Sécurité de l’Internet des Objets (chaire de cyberdéfense et cybersécurité Saint-Cyr – Sogeti – Thalès) at Rouen, September 19th, 2014

Interview of Vincent Roca and Mathieu Cunche, “ Comment brouiller sa trace dans les réseaux ? ” Sciences et Avenir, issue 809, July 2014.

Interview of Vincent Roca, “ Spécial Grenoble : portrait de trois chercheurs ”, Le Point édition régionale, issue 2195, October 9th, 2014.

Editorial of Claude Castelluccia and Vincent Roca, “ Mobilitics Saison 2: les smartphones et leurs apps sous le microscope de la CNIL et d’Inria ”, La lettre Innovation et Prospective de la CNIL, issue 8, December 2014.

Seminar of Vincent Roca, “ Vie privée et Smartphone : le projet Mobilitics Inria/CNIL ”, DAFP-RAF Inria meeting, Paris, October 16th, 2014.

Seminar of Vincent Roca, “ Vie privée et Smartphone : le projet Mobilitics Inria/CNIL ”, organized by the Guilde des Utilisateurs d’Informatique Libre du Dauphiné (GUILDE), Grenoble, November 4th, 2014.

Short TV subject with Vincent Roca, “ Applications mobiles : de vrais espions ? ”, ARTE X:enius magazine, September 1st, 2014. http://www.arte.tv/guide/fr/051090-010/x-enius?vid=051090-010_PLUS7-F

Press conference, organized by CNIL in association with Inria, “ Vie privée et smartphones : les nouveaux résultats du projet Mobilitics Inria-CNIL ”, December 15th, 2014.

Seminar of Daniel Le Métayer, at the Cybersecurity Forum (ETH Zurich), 2014.

Participation of Daniel Le Métayer to a panel on privacy by design at the Annual Privacy Forum (APF 2014, Athens).

Participation of Daniel Le Métayer to Panel on at Computers Privacy and Data Protection (CPDP 2014 – Brussels).

Nomination of Daniel Le Métayer at the Commission of the French Parliament “Commission de réflexion et de propositions ad hoc sur le droit et les libertés à l’âge du numérique.”

Organization of a seminar on privacy for the COERLE (Inria) by Claude Castelluccia and Daniel Le Métayer, November 2014.

SPADES Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events organisation

9.1.1.1. general chair, scientific chair

- Sophie Quinton was PC co-chair and organizing committee member of the *First Workshop on Formal Methods for Timing Verification* (FMTV'14).
- Alain Girault was PC co-chair and co-organizer of the *Second Workshop on Reconciling Performance with Predictability* (RePP'14), which took place on March 5th 2014, in Grenoble, France.
- Alain Girault was co-chair and co-organizer of the *Workshop on Synchronous Programming* (SYNCHRON'14), which took place in December 2014 in Aussois, France.

9.1.2. Scientific events selection

9.1.2.1. Participation in conference steering committees

- Jean-Bernard Stefani is the current chair of the Steering Committee of the *IFIP FORTE* conference series, and a member of the Steering Committee of the *DisCoTec* federated conference series.

9.1.2.2. Participation in conference program committees

- Pascal Fradet served in the program committees of the *13th International Conference on Modularity* (MODULARITY'14) and of *Journées Francophones des Langages Applicatifs* (JFLA'14).
- Gregor Goessler served in the program committees of the *17th International Symposium on Component-Based Software Engineering* (CBSE'14) and *Design, Automation, and Test in Europe* (DATE'14).
- Sophie Quinton served in the program committees of the *26th Euromicro Conference on Real-Time Systems* (ECRTS'14), *34th IFIP International Conference on Formal Techniques for Distributed Objects, Components and Systems* (FORTE'14) and *12th IEEE International Symposium on Parallel and Distributed Processing with Applications* (ISPA'14) conferences as well as the *First International Workshop on Multi-Objective Many-Core Design* (MOMAC'14) and *2nd International Workshop on Mixed Criticality Systems* (WMC'14) workshops and the Work-in-Progress session of ECRTS'14.
- Alain Girault served on the program committees of the *International Conference on Design and Test in Europe* (DATE'14), the *Design Automation Conference* (DAC'14), the *International Symposium on Industrial Embedded Systems* (SIES'14), and the *International Conference on Pervasive and Embedded Computing and Communication Systems* (PECCS'14).

9.1.2.3. Reviewer

- Gregor Goessler reviewed articles for CDC'14, POST'14, and TACAS'14.
- Sophie Quinton reviewed an article for the *51th Design Automation Conference* (DAC'14).

9.1.3. Journal

9.1.3.1. Member of the editorial board

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

9.1.3.2. Reviewer

- Jean-Bernard Stefani reviewed articles for *Theoretical Computer Science*.

- Gregor Goessler reviewed articles for *Science of Computer Programming* and *ACM Transactions on Embedded Computing Systems*.
- Sophie Quinton reviewed articles for *ACM Transactions on Embedded Computing*, *ACM Transactions on Design Automation of Electronic Systems* and *Real-Time Systems*.
- Alain Girault reviewed articles for *IEEE Trans. on Parallel and Distributed Systems* and *ACM Trans. on Design Automation of Electronic Systems*

9.2. Teaching - Supervision - Juries

9.2.1. Supervision

PhD in progress: Vagelis Bebelis, “Boolean Parametric Data Flow. Modeling - Analyses - Implementation”, 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, advised by Gregor Goessler.

9.2.2. Juries

- Alain Girault was president of the PhD defense jury of Pranav Tendulkar (University Grenoble Alpes).
- Alain Girault was president of the PhD defense jury of Christian von Essen (University Grenoble Alpes).
- Alain Girault was referee for the computer science PhD thesis of Guillaume Aupy (ENS-Lyon).
- Jean-Bernard Stefani was president of the jury for Bertrand Jeannet’s HDR defense (University Grenoble Alpes).
- Jean-Bernard Stefani was rapporteur for Helene Martorell’s PhD defense (Toulouse University)

BIPOP Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events selection

9.1.1.1. member of the conference program committee

- Florence Bertails-Descoubes: Siggraph 2014 IPC and Eurographics 2014 IPC.
- Pierre-Brice Wieber: 2014 IEEE-RAS International Conference on Humanoid Robots

9.1.1.2. reviewer

- Bernard Brogliato: IEEE Conference on Decision and Control 2014, Euromech ENOC 2014.
- Pierre-Brice Wieber: IEEE International Conference on Robotics and Automation, IEEE/RSJ International Conference on Intelligent Robots and Systems, IEEE-RAS International Conference on Humanoid Robots

9.1.2. Journal

9.1.2.1. member of the editorial board

- Pierre-Brice Wieber: associate editor IEEE Transactions on Robotics.
- Jérôme Malick: associate editor Journal of Global Optimization.

9.1.2.2. reviewer

- Bernard Brogliato: Automatica, Systems and Control Letters, IEEE Transactions on Automatic Control, SIAM J. Control Optimization, Multibody System Dynamics, ASME J. Applied Mechanics, Nonlinear Dynamics.
- Florence Bertails-Descoubes: Siggraph, Siggraph Asia, TOG, Eurographics.
- Pierre-Brice Wieber: International Journal of Robotics Research, Autonomous Robots, Automatica, IEEE Transactions on Control Systems Technology
- Vincent Acary: Automatica, Systems and Control Letters, IEEE Transactions on Automatic Control, Journal Sound and Vibrations, International Journal for Numerical Methods in Engineering, Nonlinear Analysis: Hybrid systems and project calls Fondecyt and NSERC

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Licence :

Master : Bernard Brogliato, Hybrid Dynamical Systems, 30 h., M2, Grenoble INP.

Master : Pierre-Brice Wieber, Autonomous Robotics, 9 h., M2, Grenoble INP.

Master : Florence Bertails-Descoubes, Numerical Optimization, 10.5 h., M1, ENSIMAG (Grenoble INP)

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

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

Master : Vincent Acary, Nonsmooth Dynamical Systems, 9 h., M2, Université de Limoges

9.2.2. Supervision

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

- PhD in progress : Olivier Huber, 01 octobre 2011, Vincent Acary and Bernard Brogliato
- PhD in progress : Narendra Akahdkar, 01 décembre 2012, Vincent Acary and Bernard Brogliato
- PhD : Sofia Zaourar, 04 November 2014, Jérôme Malick and Bernard Brogliato
- PhD in progress : Romain Casati, 01 octobre 2011, Florence Bertails-Descoubes and Bernard Brogliato
- PhD in progress : Alejandro Blumentals, 01 octobre 2013, Florence Bertails-Descoubes and Bernard Brogliato
- PhD in progress : Gilles Daviet, 01 octobre 2013, Florence Bertails-Descoubes and Bruno Raffin (LIG)
- PhD in progress : Federico Pierucci, 01 octobre 2012, Jérôme Malick and Zaid Harchaoui and Anatoli Ioudilski
- PhD in progress : Saed al Homsy, 01 octobre 2012, Pierre-Brice Wieber and Bernard Brogliato
- PhD in progress : Jory Lafaye, 01 octobre 2012, Pierre-Brice Wieber and Bernard Brogliato
- PhD in progress : Alexander Sherikov, 01 décembre 2012, Pierre-Brice Wieber and Bernard Brogliato
- PhD in progress : Nicolas Cazy, 01 octobre 2013, Pierre-Brice Wieber and François Chaumette
- 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

- Bernard Brogliato: Saed Aoues (04 décembre 2014), Laboratoire Ampère, INSA de Lyon (directeur de thèse D. Eberard). *Schémas d'intégration dédiés à l'étude, l'analyse et la synthèse dans le formalisme hamiltonien à ports*, Jury: D. Eberard, B. Maschke, T. Helie, E. Busvelle, A. Seuret, W. Marquis-Favre, B. Brogliato (Rapporteur).

MISTIS Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events organisation

9.1.1.1. general chair, scientific chair

- F. Forbes co-organized the workshop *Statistical Challenges in Neuroscience* in Warwick, UK in Sept. 2014, <http://www2.warwick.ac.uk/fac/sci/statistics/crism/workshops/neuroscience/>.
- F. Forbes co-organized the workshop on *Probabilistic graphical models and structured data on graphs* in Grenoble, in July 2014.
- Stéphane Girard co-organized the workshop "Extreme Value Theory, Spatial and Temporal Aspects", Besançon, <https://trimestres-lmb.univ-fcomte.fr/Workshop-on-Extreme-Value-Theory>
- Stéphane Girard co-organized the "Rencontres d'Astrostatistique", Grenoble, <http://astrostat2014.sciencesconf.org>
- "Extremes and Copulas", Grenoble, <http://mistis.inrialpes.fr/workshop-copulas-extremes>.
- 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 Iragael 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).

9.1.1.2. member of the organizing committee

- F. Forbes is a member of the committee for the 2nd SFRMBM (Société Française de Résonance Magnétique en Biologie et Médecine) conference in Grenoble in 2015, <http://sfrmbm2015.sciencesconf.org/>

9.1.1.3. member of the conference program committee

- Stéphane Girard organized an invited session "Regression extremes" at the *7th international conference ERCIM*, Pisa, Italy, december 2014.

9.1.1.4. member of the editorial board

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

9.1.1.5. reviewer

- In 2014, Florence Forbes has been a reviewer for the *NIPS* and *ICASSP* conferences and for the *Statistics and Computing* journal.
- In 2014, Stéphane Girard has been a reviewer for *Annals of Statistics*, *Journal of Statistical Software*, *Metrika*, *Lecture Notes in Statistics*, *RevStat*, *ESAIM Probability & Statistics*, *Journal de la Société Française de Statistique*.

9.1.2. Societies and Networks

- F. Forbes and J.-B. Durand are 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).
- F. Forbes and M.-J. Martinez are members of the ERCIM working group on Mixture models.

9.2. Teaching - Supervision - Juries

9.2.1. 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.

Master : Stéphane Girard, *Statistique Inférentielle Avancée*, 45 ETD, M1 level, Ensimag Grenoble-INP, France and *Introduction à la statistique des valeurs extrêmes*, 12 ETD, M2 level, université Grenoble 2, 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 was on a half-time ATER position at Ensimag, Grenoble INP.

9.2.2. Supervision

- PhD : Pierre Fernique, *"A statistical modeling framework for analyzing tree-indexed data"*, Montpellier 2 University. 10 Dec. 2014, Y. Guédon, J.-B. Durand.
- PhD : Gildas Mazo, *"Construction et estimation de copules en grande dimension"*, Université Grenoble 1, 17 nov 2014, S. Girard, F. Forbes.

9.2.3. Juries

Stéphane Girard has been involved in the following PhD committees:

- Blandine Fillon "Développement d’un outil statistique pour évaluer les charges maximales subies par l’isolation d’une cuve de méthanier au cours de sa période d’exploitation", Univ. Poitiers, December 2014.
- Tom Rohmer "Deux tests de détection de rupture dans la copule d’observations multivariées", Univ. Pau et des Pays de l’Adour, October 2014.
- Anthony Zullo "Functional analysis of high dimensional remote sensing images : application to the characterization of semi-natural objects in landscape ecology", Univ. Toulouse, July 2014.

Florence Forbes has been involved in the PhD committees of:

- Haithem Boussaid, "Efficient Inference and learning in Graphical models for multi-organ shape segmentation", Ecole Centrale Paris, January 8, 2015 (President).
- Zacharie Irace, "Modélisation statistique et segmentation d’images TEP. Application à l’hétérogénéité et au suivi de tumeurs", INP Toulouse, Oct 8, 2014 (Reviewer).
- Vincent Brault, "Estimation et sélection de modèle pour le modèle des blocs latents", Paris-Sud University, Sept 9, 2014 (Reviewer).

Florence Forbes has been reviewer for the HDR committee of:

- Stéphane Chrétien, "Contribution à l'analyse et à l'amélioration de certaines méthodes pour l'inférence statistique par vraisemblance pénalisée", from Univeristy of Besancon, in Dec. 2014.

From Sept. 2009 to Sept. 2014, F. Forbes was 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 committee for research scientist candidate (CR) selection at Inria Lille and at Inria Grenoble in 2014.

NANO-D Project-Team

7. Dissemination

7.1. Promoting Scientific Activities

7.1.1. Scientific events selection

7.1.1.1. Reviewer

- Leonard Jaillet was reviewer for the International Conference on Intelligent Robots and Systems (IROS).
- Leonard Jaillet was reviewer for the International Conference on Robotics and Automation (ICRA).
- Stephane Redon was reviewer for the Workshop on Virtual Reality Interaction and Physical Simulation (VRIPHYS).

7.1.2. Journal

7.1.2.1. Reviewer

- Sergei Grudinin was reviewer for the FEBS Journal.
- Sergei Grudinin was reviewer for Proteins: Structure, Function, and Bioinformatics.
- Sergei Grudinin was reviewer for the Journal of Bioinformatics (JBI).
- Leonard Jaillet was reviewer for Transaction on Robotics (T-RO).
- Stephane Redon was reviewer for the Journal of Computational Chemistry (JCC).

7.2. Teaching - Supervision - Juries

7.2.1. Teaching

Licence : Stephane Redon, "Introduction to C++ Programming", INF585, 36h, Ecole Polytechnique, Paris, France

Licence : Stephane Redon, "Algorithms and Programming", INF431, 40h, Ecole Polytechnique, Paris, France

E-learning

Stephane Redon was involved in the creation of a video explaining adaptively restrained particle simulations for Inria's Mooc Lab (direction Jean-Marc Hasenfratz): <https://www.youtube.com/watch?v=RYFSdWy3DcE>.

7.2.2. Supervision

- PhD : Georgy Derevyanko, Algorithmes appliqués aux structures pour l'étude des interactions protéines-protéines, defended on October 15, 2014, advised by Valentin Gordeliy and Sergei Grudinin
- PhD : Ivan Gushchin, Etudes structurales des rhodopsines microbiennes et des autres protéines membranaires au moyen de la cristallographie aux rayons X et de la modélisation informatique, defended on September 5, 2014, advised by Valentin Gordeliy and Sergei Grudinin
- PhD in progress : Sémého Edoth, advised by Stephane Redon
- PhD in progress : Alexandre Hoffmann, advised by Valérie Perrier and Sergei Grudinin
- PhD in progress : Khoa Minh Nguyen, advised by Leonard Jaillet and Stephane Redon
- PhD in progress : Petr Popov, advised by Sergei Grudinin, Anatoli Juditsky and Stephane Redon

- PhD in progress : François Rouse, advised by Stephane Redon
- PhD in progress : Krishna Kant Singh, advised by Jean-François Méhaut, Benjamin Bouvier and Stephane Redon
- PhD in progress : Zlatomir Todorov, advised by Michel Vivaudou, Christophe Moreau and Sergei Grudin
- PhD in progress : Zofia Trstanova, advised by Gabriel Stoltz and Stephane Redon

7.2.3. Juries

- Stephane Redon was in the PhD committee of Didier Devaurs (LAAS)
- Stephane Redon was in the PhD committee of Aude Giard (Montpellier University)

NECS Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. International activities

C. Canudas de Wit, leader of the team, is member of the Board of Governors (BoG) of the IEEE Control System Society (CSS), and president of the European Control Association EUCA. He is IEEE CSS distinguished lecturer (2013-2015).

9.1.2. Scientific events organisation

9.1.2.1. general chair, scientific chair

C. Canudas de Wit serves as General Chair for the European Control Conference (ECC'14), Strasbourg, France, July 2014 (<http://www.ecc14.eu/>).

9.1.2.2. member of the organizing committee

F. Garin was a student activities chair at the European Control Conference (ECC'14). A. Kibangou is the co-animator of the research action PCS (Pervasive Computing Systems) of the Labex Persyval-Lab (<https://persyval-lab.org/research/action/pcs>) and the organizer of seminars for the Control Department of Gipsa-Lab.

9.1.3. Scientific events selection

9.1.3.1. member of the conference program committee

H. Fourati serves as international advisory member for the international conference on Sciences and Techniques of Automatic control and computer engineering STA'14 (<http://www.sta-tn.com/STA.htm>) and the international Conference on Systems and Control ICSC'15 (<http://lias.labo.univ-poitiers.fr/icsc/icsc2015/index.php>).

9.1.3.2. reviewer

All the members of the permanent staff serve as peer-reviewers for the main conferences in 2014 and 2015 (CDC, ECC, ACC, ICRA, IROS, STA, IFAC World Congress, EUSIPCO, ICASSP, MTNS).

9.1.4. Journal

9.1.4.1. member of the editorial board

C. Canudas de Wit serves as Associate Editor of IEEE Transactions on Control System Technology (since January 2013) and of IEEE Transactions on Control of Network Systems (since June 2013), and Editor of the Asian Journal of Control (since 2010).

9.1.4.2. reviewer

All the members of the permanent staff serve as peer-reviewers for the main international journals of the community (IEEE Trans. on Automatic Control, Automatica, System and Control Letters, IEEE Trans. on Control Systems and Technology, IEEE Trans. on Signal Processing, Signal Processing (Elsevier), IET Signal Processing, IET Communications, Int. J. of Adaptive control and Signal Processing, Journal of the Franklin Institute, Control Engineering Practice, IEEE Trans. on Industrial Electronics, IEEE Trans. in Industrial Informatics, Discrete Event Dynamic Systems, European Journal of Control, IEEE Sensors Journal, IEEE Trans. on Instrumentation and Measurement, IEEE/ASME Trans. on Mechatronics, Micromachines, Sensors).

9.1.5. Book

H. Fourati started the process of editing a book on "Multisensor data fusion: from algorithm and architecture design to applications" in collaboration with Kris Iniewski (Redlen Technologies, Canada). The book will be published by CRC Press, Taylor & Francis by Jun. 2015.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Licence: H. Fourati, Informatique Industrielle, 105h, L1, IUT 1 (GEII2), University Joseph Fourier, France;

Licence: H. Fourati, Réseaux locaux industriels, 62h, L1 et L2, IUT1 (GEII2), University Joseph Fourier, France.

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

Master: F. Garin, Distributed Algorithms and Network Systems, 19.5h, M2, University Joseph Fourier, France.

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

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

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

E-learning

Pedagogical resources (Victory, Pedagogice) : H. Fourati, Systèmes d'Informations Numériques, video, L1, http://chamilo1.grenet.fr/ujf/courses/IUT1GEIIM1102/?id_session=0.

9.2.2. Supervision

PhD: Abir Ben Khaled, Distributed real time simulation of numerical models: application to powertrain, Grenoble INP, May. 27th, 2014, co-advised by D. Simon and M. Ben Gaid (IFPEN).

PhD: Luis R. Leon Ojeda, Short-term multi-step ahead traffic forecasting, Grenoble University, Jul. 3th, 2014, Co-advised by C. Canudas de Wit and A. Kibangou.

PhD: Dominik Pisarski, Collaborative Ramp Metering Control: Application to Grenoble South Ring, Grenoble University, Sep. 16, 2014, Advised by C. Canudas de Wit.

PhD: Zarina Samigulina, Development of an intelligent complex objects management system, KazNTU University, May. 30, 2014, Advised by O. Shiryayeva and H. Fourati.

PhD in progress: Ruggero Fabbiano, Distributed source seeking control, Grenoble University, Dec. 2011 - in progress, 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, Jan. 2012 - Mar. 2015, co-advised by A. Kibangou and C. Canudas de Wit.

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

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.

PhD in progress: Pietro Grandinetti, Control of large-scale traffic networks, CNRS, Apr. 2014 - Mar. 2017, co-advised by C. Canudas de Wit and F. Garin.

PhD in progress: Andrés Alberto Ladino Lopez, Robust estimation and prediction in large scale traffic networks, CNRS, Oct. 2014 - Sep. 2017, co-advised by C. Canudas de Wit, A. Kibangou and H. Fourati.

PhD in progress: Simon Gerwig, Collaborative, reconfigurable and resilient control for hydro-electric power-plants, Alstom, Oct. 2014 - Sep. 2017, co-advised by C. Canudas de Wit, F. Garin and B. Sari (Alstom).

PhD in progress: Thibaud Michel, Mobile Augmented Reality Applications for Smart Cities, Perysval, Nov. 2014 - Oct. 2017, co-advised by N. Layaida, H. Fourati and P. Geneves.

9.2.3. Juries

H. Fourati participated in the jury of recruitment of students within the department of Electrical Engineering, IUT Grenoble, France.

9.3. Popularization

- The team published a flyer entitled "City Labs for Intelligent Road Transportation Systems" in the report "Impact of Control Technology", <http://ieeecss.org/sites/ieeecss.org/files/CSSIoCT2Update/IoCT2-RC-CanudasdeWit-1.pdf>.
- The team has organized the Hycon2 Show day in May 2014 with technical presentations and posters on traffic modeling, estimation and control. We got more than 40 registered peoples from different universities and compagnies, <http://www.inria.fr/en/centre/grenoble/calendar/hycon2-show-day-traffic-modeling-estimation-and-control>.
- The team has organized the 1st technical SPEEDD meeting in May 2014 with a specific visit organized to the traffic center (DIR-CE, Grenoble).

OPALE Project-Team

8. Dissemination

8.1. Promoting Scientific Activities

8.1.1. Scientific events organisation

8.1.1.1. Member of the organizing committee

- P. Goatin was member of the Scientific Committee of “CANUM 2014 - 42e Congrès National d'Analyse Numérique”, Carry-le-Rouet (France). April 2014. <http://smai.emath.fr/canum2014/>
- P. Goatin was member of the Scientific Committee of “PED2014 - Conference on Pedestrian and Evacuation Dynamics”, Delft (The Netherlands). October 2014. <http://www.ped2014.nl/>

8.1.2. Scientific events selection

8.1.2.1. Member of the conference program committee

- T. Nguyen is member of the Advisory Board and of the Program Committee of the 9th Intl. Conf. on Networking and Services (ICNS2014). Chamonix (Fr), April 2014. <http://www.iaria.org/conferences2014/ICNS14.html>
- T. Nguyen is member of the Program Committee of the 2nd Intl. Conf. on Smart Grids and Green IT Systems (SMARTGREENS2014). Lisbon (Portugal), May 2014. <http://www.smartgreens.org/>
- T. Nguyen is member of the Program Committee of the 12th Intl. Conf. on Cooperative Design, Visualization and Engineering (CDVE2014), Seattle (USA), September 2014. <http://www.cdve.org/cdve2014/pc.html>
- T. Nguyen is member of the Technical Program Committee and Advisory Chair on Virtualization for the 4th Intl. Conf. on Cloud Computing, GRIDs and Virtualization, Venice (Italy), May 2014. <http://www.iaria.org/conferences2014/CLOUDCOMPUTING14.html>
- T. Nguyen is member of the Program Committee of BDCloud2014, Sydney (Australia), December 2014. <http://www.swinflow.org/confs/bdcloud2014/pc.htm>

8.1.3. Journal

8.1.3.1. Reviewer

- R. Duvigneau is reviewers for the following international journals : Comp. & Fluids, Int. J. Num. Fluids, Comp. Meth. Appl. Mech. Eng., Comp. Aided Geom. Design, Appl. Math. & Mech., Eng. Opt.
- P. Goatin is reviewers for the following international journals: Acta Applicandæ Mathematicæ ; African Journal of Mathematics and Computer Science Research; Algorithms; Annales de l'Institut Henri Poincaré (C) Analyse Non Linéaire; Applied Mathematics and Computation; Computer-aided Civil and Infrastructure Engineering; Discrete and Continuous Dynamical Systems; European Journal of Operational Research; IEEE Transactions on Automatic Control; IEEE Transactions on Intelligent Transportation Systems; International Journal of Dynamical Systems and Differential Equations; Journal of Computational Physics; Journal of Flow, Turbulence and Combustion; Mathematical Models and Methods in Applied Sciences; Mathematics of Computation; Networks and Heterogeneous Media; New Journal of Physics; Nonlinear Analysis Ser. B: Real World Applications; SIAM Journal of Mathematical Analysis; SIAM Journal of Applied Mathematics; SIAM Journal of Numerical Analysis; SIAM Journal on Scientific Computing.
- A. Habbal is reviewer for the following international journals: Applied Mathematics (AM), Scientific Research Publishing Structural and Multidisciplinary Optimization

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

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

Master: Conservation laws and finite volume scheme, 30 hrs, M2, Ecole Polytechnique Universitaire (EPU), Nice Sophia Antipolis (P. Goatin).

Master: Multidisciplinary Optimization, 22.5 hrs, joint *Institut Supérieur de l'Aéronautique et de l'Espace* (ISAE Supaéro, "Complex Systems") and M2 (Mathematics), Toulouse (J.-A. Désidéri, R. Duvigneau).

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

Licence: Numerical Methods I, 76hrs, 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: Concurrent design in building structures, M2 Students Project, Ecole Polytechnique Universitaire (EPU), Nice Sophia Antipolis (A. Habbal).

8.2.2. Supervision

PhD : Maria Laura Delle Monache, *Traffic flow modeling by conservation laws*, University of Nice Sophia Antipolis, September 2014. Supervisor: P. Goatin.

PhD : Jérémie Labroquère, *Optimization of active devices for turbulent separated flow control*, University of Nice Sophia Antipolis, November 2014. Supervisors: Régis Duvigneau and Jean-Antoine Désidéri.

PhD : Maxime Nguyen Dinh, *Qualification of numerical simulations by anisotropic mesh adaptation*, University of Nice Sophia Antipolis, March 2014. Supervisors: Jean-Antoine Désidéri and Jacques Peter (ONERA).

PhD : Enric Roca León, *Aero-mechanical simulations for rotor blade optimization of helicopter in forward motion*, University of Nice Sophia Antipolis, October 2014. Supervisors: Jean-Antoine Désidéri and Arnaud Le Pape (ONERA).

PhD : Aalae Benki, *Méthodes efficaces de capture de front de Pareto en conception mécanique multicritère. Applications industrielles.*, Jan 2014, Supervisor: A. Habbal.

PhD : Fatima Zahra Oujebbour, *Méthodes et applications industrielles en optimisation multicritère de paramètres de processus et de forme en emboutissage*, March 2014, Supervisor : A. Habbal.

PhD : Mohamed Kaicer, *Group lending : analysis of asymmetric information using game theory. Analysis design and implementation of a simulator adapted to micro-finance market*, July 2014, Supervisors: R. Aboulaich (Rabat) and A. Habbal.

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

PhD in progress : Sébastien Bourasseau, *Méthode de raffinement de maillages non structurés basées sur le vecteur adjoint pour le calcul de coefficients aérodynamiques*, October 2010. Supervisors: J.-A. Désidéri and J. Peter (ONERA).

PhD in progress : Cédric Durantin, *Métamodélisation et optimisation pour les dispositifs nanophotoniques*, October 2014. Supervisors: J.-A. Désidéri and A. Glière (CEA LETI, Grenoble).

PhD in progress : Boutheina 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 : Maroua Mokni, *Développement, analyse et évaluation numérique d'un algorithme à multiples gradients (MGDA) pour l'optimisation multicritère*, April 2014. Supervisors: J.-A. Désidéri and M. Ayadi (Tunis).

PhD in progress : Asma Gdhami, *Isogeometric methods for hyperbolic systems*, April 2014. Supervisors: R. Duvigneau and M. Moakher (ENIT).

PhD in progress : Matthieu Sacher, *Performance Optimization of Racing Yacht Sails*, October 2014. Supervisors: O. Lemaitre (CNRS LIMSI), R. Duvigneau and F. Hauville (Ecole Navale, Brest).

8.2.3. *Juries*

P. Goatin was member of the selection (Inria Sophia Antipolis) and admission (national) committees for the competitive selection of young graduate scientists (CR2).

8.3. Popularization

P. Goatin authored a short contribution to the book "*Brèves de Maths - Mathématiques de la planète Terre*", Nouveau Monde ed., 2014.

J.-A. Désidéri is a consultant at ONERA (*The French Aerospace Lab*) and participates in the scientific activities of DSNA (Department of Numerical Simulation and Aeroacoustics, Châtillon) and DAAP (Department of Applied Aerodynamics, Meudon).

BAMBOO Project-Team

8. Dissemination

8.1. Promoting Scientific Activities

8.1.1. Scientific events organisation

8.1.1.1. General chair, scientific chair

Cristina Vieira is director of the GDRE “Comparative genomics” since the GDRE was renewed in 2010. Marie-France Sagot co-organised the Colloquium *EMOTIONS 2014* (<http://emotions2014.sciencesconf.org/>) as well as the International School *ADDICTION 2014* (<http://team.inria.fr/bamboo/en/events/school-addiction/>). She is also since 2010 member and since 2014 Chair of the Steering Committee of the International Conference *LATIN* (<http://www.latintcs.org/>). She is since member of the Steering Committee of the *European Conference on Computational Biology (ECCB)*.

8.1.2. Scientific events selection

8.1.2.1. Member of the conference program committee

Marie-France Sagot was a member of the program committee for the following international conferences in 2014: 22nd Annual International Conference on Intelligent Systems in Molecular Biology (ISMB), Prague Stringology Conference 2014 (PSC), 18th Annual International Conference on Research in Computational Molecular Biology (RECOMB), 12th RECOMB Comparative Genomics 2014 (RECOMB-CG), RECOMB Satellite Workshop On Massively Parallel Sequencing (RECOMB-SEQ), 14th Workshop on Algorithms in Bioinformatics (WABI).

8.1.2.2. Reviewer

Besides the above, various other members of BAMBOO have been reviewer for conferences. These include Christian Baudet, Laurent Bulteau, Vincent Lacroix, Arnaud Mary, Gustavo Sacomoto, and Blerina Sinimeri.

8.1.3. Journal

8.1.3.1. Member of the editorial board

Marie-France Sagot is member of the editorial board of *Lecture Notes in Bioinformatics* (subseries of *Lectures Notes in Computer Science*), *Journal of Discrete Algorithms*, *BMC Bioinformatics*, and *BMC Algorithms for Molecular Biology*.

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

8.1.3.2. Reviewer for Journals

Susan Higashi was reviewer for *Algorithms for Molecular Biology*, and *Evolutionary Bioinformatics*. Vincent Lacroix was reviewer for *BMC Genomics*, *PLoS Computational Biology*, and *Methods*. Gustavo Sacomoto was reviewer for *Bioinformatics*, and *BMC Bioinformatics*. Fabrice Vavre was reviewer for *PLoS Biology*, *Genome Biology and Evolution*, *Applied and Environmental Microbiology*, *Journal of Applied Entomology*, *Symbiosis*, *Microbiology*, *Bulletin of Entomological Research*.

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 2013-2014 where he taught 120 hours as he had a partial sabbatical funded by Inria (through the ERC AdG Sisyphé grant). He teaches bioinformatics and statistics. Arnaud Mary who was recruited in October as an Associate Professor taught (and will teach) 150 hours in 2014-2015 (L1: mathematics; L2: bioinformatics; M1: data analysis; M1: computer science) as he has a one-year partial sabbatical as a recently recruited personnel of the University of Lyon. Fabrice Vavre taught approximately 20 hours in different Master 2 courses in Lyon, Poitiers and Amiens.

Alice Julien-Laferrrière taught 114 hours of Applied Mathematics and Bioinformatics at the Department of Biology (undergraduate students), Hélène Lopez-Maestre and Laura Urbini taught each 32 hours of Mathematics and Statistics at the Department of Biology (undergraduate students). Two other PhD students taught more occasionally in 2012-2013: Gustavo Sacomoto taught 16 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. Cecilia Klein taught 7 hours in 2014 at the IUT / University of Lyon 1, Blerina Sinaimeri taught 17 hours of graph algorithms at the University of Lyon 1 and INSA (M2), and Christian Baudet taught 24 hours of computer science at the University of Lyon 1 (L3) and the INSA (L1).

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

8.2.2. Supervision

The following are the PhDs defended in BAMBOO in 2014.

Gustavo Sacomoto, University of Lyon 1, March 6, supervisors: P. Crescenzi (Univ. of Florence, Italy), V. Lacroix, and M.-F. Sagot.

Beatrice Donati, University of Lyon 1 and of Florence (Italy), November 12, supervisors: P. Crescenzi (Univ. of Florence, Italy) and M.-F. Sagot.

Pierre-Antoine Rollat-Farnier, University of Lyon 1, November 22, supervisors: L. Mouton, M.-F. Sagot, and F. Vavre.

Susan Higashi, University of Lyon 1, November 24, supervisors: S. Colella, C. Gautier, and M.-F. Sagot.

8.2.3. Juries

- H. Charles: Reviewer of the PhDs of Diana Stefan, University Joseph Fourier, France, and member of the jury for Nicolas Parisot (University Blaise Pascal, Clermont-Ferrand, France) and Sylvain Prigent (Inria/Irisa Rennes).
- M.-F. Sagot: Reviewer of the PhDs of Kimon Froussios, King's College, London, UK, and of Caroline Baroukh, University of Perpignan, Narbonne, France.
- F. Vavre: Member of the jury for the PhDs of: Myriam Badaoui, Université de Poitiers, France; Wen-Juan Ma, University of Groningen, The Netherlands. He was reviewer for the HDR of Olivier Duron, Université de Montpellier 2, France.

- C. Vieira: Member of the jury for the PhDs of: Maialen Sistiaga, Université du Pays Basque, Bilbao; Pierre-Antoine Rollat-Farnier, Université Lyon 1; Laetitia Delabaere, Université Lyon 1; Guillaume Minard, Université Lyon1; Yann Leseque, Université Lyon1; Antoine Bridier-Nahmias, Paris VI; Abdelhakim Negoua, Université de Marrakech, Marrakech, Maroc. Reviewer of the PhDs of Frank Touret, EPHE, Lyon, and of Domitile Chaloppin, ENS Lyon. Member of the HDR jury of Abderrahman Khila, ENS Lyon.

BEAGLE Project-Team

7. Dissemination

7.1. Promoting Scientific Activities

7.1.1. Scientific events organisation

7.1.1.1. general chair, scientific chair

- Guillaume Beslon is a member of the Comité National de la Recherche Scientifique (CoNRS), section 6 (computer science) and CID 51 (interdisciplinary commission, Bioinformatics, Biophysics, Biomathematics)
- Guillaume Beslon is a member of the direction committee of the Rhône-Alpes Institute of Complex Systems (IXXI)
- Hugues Berry is the President of the hiring committee for “young researchers” (CR2), Inria Grenoble Research Center, 2014.
- Hugues Berry is a Member of Inria’s Evaluation Committee (Commission d’Evaluation)
- Hugues Berry is a Member of the Inria’s Administrative Committee (Commission Administrative Paritaire)
- Eric Tannier is an elected member of the administration council of Inria.
- Hugues Berry is a Member of the Science Steering Committee of the Rhône-Alpes Complex Systems Institute (IXXI)
- Hugues Berry is Co-organizer (with M. De Pittà, BEAGLE) of the workshop “Computational Methods and Modeling of Astrocyte Physiology and Neuron-Glia Interactions”, held as part of the conference OCNS (Organization for Computational Neuroscience) 2014 in Quebec, Canada, July 26-31, 2014.

7.1.2. Scientific events selection

7.1.2.1. member of the conference program committee

- Eric Tannier: Recomb Comparative Genomics 2014
- Christophe Rigotti: International Conference on Data Mining
- Christophe Rigotti: Workshop on Spatial Data Mining at the national conference EGC 2014
- Guillaume Beslon and Carole Knibbe: scientific committee of Alife’14 (New-York, July 2014)
- Carole Knibbe: ECCB 2014 (European Conference on Computational Biology)

7.1.2.2. reviewer

- Eric Tannier: LATIN 2014

7.1.3. Journal

7.1.3.1. member of the editorial board

- Hugues Berry: AIMS Biophysics (<http://aimspress.com/aimsbpoa/ch/index.aspx/>)
- Hugues Berry: the Journal of Complex Systems (www.hindawi.com/journals/jcs/)

7.1.3.2. reviewer

- Eric Tannier: BMC Bioinformatics, BMC Genomics, Theoretical Computer Science, Journal of Bioinformatics and Computational Biology.
- H. Soula: Biophysical Journal, Biosystems, Journal of theoretical Biology
- Carole Knibbe: Journal of Theoretical Biology

7.2. Teaching - Supervision - Juries

7.2.1. Teaching

Master : Eric Tannier, Computational Molecular Biology, 30heqTD, M2 ENS Lyon (responsabilité du module)

Master : Eric Tannier, Mathématiques et Informatique pour le Génome, 24heqTD, M1 INSA Lyon

Master : Eric Tannier, Mathématiques Discrètes, 8heqTD, M1 INSA Lyon

Doctorat : Eric Tannier, Comparative Genomics, 4heqTD, Ecole de Printemps d'Informatique Théorique, Oléron

Licence: Jonathan Rouzaud-Cornabas, Programmation Orienté Objet - C++, 48.5h, L3, INSA de Lyon, France

Master: Jonathan Rouzaud-Cornabas, Interface Homme-Machine, 42.75h, M1, INSA de Lyon, France

Master: Jonathan Rouzaud-Cornabas, Systèmes d'Exploitation Avancés, 59.87h, M1, INSA de Lyon, France

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

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

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

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

Licence : Guillaume Beslon, architecture des ordinateurs, 150heqTD, INSA-Lyon

Master : Guillaume Beslon, informatique bioinspirée, 30heqTD, M2 INSA Lyon et M2 Lyon 1

Master : Guillaume Beslon, biologie computationnelle, 9heqTD, M2 INSA Lyon

Licence H. Soula Software Development L3 90h INSA LYON

Licence H. Soula Linear Algebra L3 45h INSA LYON

Licence H. Soula Biology Modelling L3 45h INSA LYON

Master H. Soula Numerical Optimization M1 12h

Master H. Soula Computational Biology M2 30h

7.2.2. Supervision

PhD: Jules Lallouette, Modélisation des réponses calciques de réseaux d'astrocytes: relation entre topologie et dynamiques, INSA Lyon, dec 4th 2014, H. Berry

PhD in progress: Alexandre Foncelle, Modeling the signaling pathway implicated in STDP: the role of endocannabinoid and dopamine signaling, 2014, H. Berry

PhD in progress: Sergio Peignier, Conception d'algorithmes de fouille de données exploitant des mécanismes inspirés de l'évolution, INSA de Lyon, started in September 2014, Christophe Rigotti and Guillaume Beslon.

PhD in progress: Alvaro Mateos Gonzalez, Anomalous subdiffusion equations as diffusion limits to integro PDEs with age structure. 2014. co-supervised by H. Berry (30%) with Vincent Calvez (EPI Numed) and Thomas Lepoutre (EPI Dracula).

PhD in progress: Ilya Prokin, Modeling and simulation of signal transduction in living cells: synaptic plasticity of basal ganglia neurons, 2013, H. Berry

PhD in progress : Magali Semeria, Modèles d'évolution de relations entre les gènes, 2012, Eric Tannier, Laurent Gueguen

PhD in progress : Wandrille Duchemin, Phylogénie des dépendances, dépendances des phylogénies, 2014, Eric Tannier, Vincent Daubin

PhD in progress : Yoann Anselmetti, Evolution de la structure des génomes même mal assemblés, 2014, Eric Tannier, Sèverine Bérard

PhD in progress : Priscila Biller, Phylogenies of artificial lineages, 2012, Joao Meidanis (1 year internship supervised by Eric Tannier)

PhD in progress: Arnaud Lefray, Information Flow Protection on Cloud Infrastructure, 2012, INSA CVL et ENS Lyon, Eddy Caron, Jonathan Rouzaud-Cornabas, Christian Toinard

PhD in progress : Charles Rocabert, modélisation de l'évolution de l'évolution, 2013, Guillaume Beslon, Carole Knibbe

PhD in progress : Yoram Vadée-le-Brun, évolution des réseaux de régulation, 2013, Guillaume Beslon, Jonathan Rouzaud-Cornabas

PhD : Bérénice Batut, Étude de l'évolution réductive des génomes bactériens par expériences d'évolution in silico et analyses bioinformatiques, soutenue le 21 novembre 2014, Guillaume Beslon, Carole Knibbe, Gabriel Marais, Vincent Daubin.

HdR : Hédi Soula, Signalisation en biologie computationnelle : de la membrane à l'individu, soutenue le 26 mai 2014.

PhD in progress M. Jacquier 'mathematical model of food intake and leptin resistance' 2012-2015 H. Soula and F. Crauste (Dracula)

7.2.3. Juries

- Guillaume Beslon reviewed the manuscript and participated to the defence committee of the HdR of Philippe Lopez, UPMC.
- Guillaume Beslon reviewed the manuscript and participated to the defence committee of the PhD of Colin Raeside, Université de Grenoble
- Eric Tannier reviewed the manuscript and participated to the defense committee of the Ph-D of Antoine Thomas, Inria Lille.
- H. Berry served in the PhD examination committee of Z. Chaker, "Rôle de la signalisation IGF dans la régulation de l'homéostasie tissulaire durant le vieillissement ", Univ. Paris Descartes, December 2014 (examiner)
- H. Soula was in the examination committee of J. Lalouette Modélisation des réponses calciques de réseaux d'astrocytes: relation entre topologie et dynamiques, INSA Lyon, dec 4th 2014
- Cacole Knibbe was a member of the recruiting committee of an assistant professor at INSA.

7.3. Popularization

- Guillaume Beslon published an interview on modeling in "la revue du progres".

DRACULA Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events organisation

9.1.1.1. Member of the organizing committee

- Conference "LyonSysBio" (Lyon Systems Biology), Lyon (France), 19 - 21 November 2014 (<http://lyonsysbio.sciencesconf.org/?lang=fr>). Co-organizers : Fabien Crauste and Olivier Grandrillon.
- 12ème Colloque Franco-Roumain de Mathématiques Appliquées, Lyon (France), 25 - 30 August 2014 (<http://cfr2014.univ-lyon1.fr/>). Co-organizer : Fabien Crauste.
- 10th AIMS Conference on Dynamical Systems, Differential Equations and Applications, Madrid (Spain), 7 - 11 July 2014 (<http://www.aims sciences.org/conferences/2014/>). Co-organizers of the session "Deterministic and stochastic models in biology and medicine" : Mostafa Adimy, Fabien Crauste and Laurent Pujo-Menjouet.
- Regular Semovi seminar series (<http://www.biosyl.org/news/semovi>), 5 seminars organized in 2014. Co-organizer : Olivier Grandrillon. BioSyL (<http://www.biosyl.org>) workshops organization. Co-organizer : Olivier Grandrillon.

9.1.2. Journal

9.1.2.1. Member of the editorial board

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

9.1.2.2. Reviewer

- Fabien Crauste : Abstract and Applied Analysis, Computational and Applied Mathematics, Journal of Mathematical Biology, Journal of Theoretica Biology, Mathematical Biosciences and Engineering, Mathematical Methods in the Applied Sciences, Mathematical Biosciences.
- Laurent Pujo-Menjouet : ISRN Biomathematics, Mathematical Biosciences, Mathematical Biosciences and Engineering, Mathematics and Computers in Simulation, Mathematical Methods in the Applied Sciences, Zeitschrift fuer Angewandte Mathematik und Physik (ZAMP).
- Olivier Grandrillon : Gene, Journal of the Royal Society Interface, PLOS Computational Biology, BMC research notes.
- Phillipe Michel : Nonlinear Analysis, PLOS One
- Samuel Bernard : PLOS Computational Biology, Biophysical Journal, Journal of Theoretical Biology, PLOS One, BMC Systems Biology, Mathematics and Computers in Simulations.
- Thomas Lepoutre : Siam Journal of Mathematical Analysis, Numerical Methods in PDE, Journal of Mathematical Biology.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

- Licence : Phillipe Michel, Analyse appliquée, 56h, L3, Ecole Centrale de Lyon.

- Licence : Phillipe Michel, Probabilités et statistique, 30h, L3, Ecole Centrale de Lyon.
- Licence: Samuel Bernard, Algèbre linéaire et matricielle, 45h, L3, INSA Lyon.
- Licence : Laurent Pujo-Menjouet, les réels et les fonctions, 36h, L1, Université Lyon 1.
- Licence : Laurent Pujo-Menjouet, suites et séries de fonctions, 36h, L1, Université Lyon 1.
- Licence : Laurent Pujo-Menjouet, Equations Différentielles, 18h, L2, Université Lyon 1.
- Licence : Laurent Pujo-Menjouet, Projet de l'étudiant de Licence, 14h, L2, Université Lyon 1.
- Licence : Laurent Pujo-Menjouet, Biomathématiques et modélisation, 10h, L3, Université Lyon 1.
- Licence : Laurent Pujo-Menjouet, Equations différentielles et aux dérivées partielles, 36h, L3, Université Lyon 1.
- Licence: Léon Matar Tine, Techniques mathématiques de base (TMB), 42h, L1, Université Lyon 1.
- Licence: Léon Matar Tine, Maths PMI-Analyse, 42h, L2, Université Lyon 1.
- Licence: Léon Matar Tine, Analyse Numérique, 36h, L3, Université Lyon 1.
- Master : Phillipe Michel, Algorithmes pour la décision en entreprise, 15h, M2, Ecole Centrale de Lyon.
- Master : Phillipe Michel, Méthodes variationnelles pour les EDP, 35h, M2, ECL, Ecole Centrale de Lyon.
- Master : Phillipe Michel, Systèmes embarqués collaboratifs, 14h, M1, Ecole Centrale de Lyon.
- Master: Mostafa Adimy, Dynamique des populations cellulaires, 20h, M2, Université Lyon 1.
- Master: Samuel Bernard, Dynamique des populations cellulaires, 20h, M2, Université Lyon 1.
- Master : Laurent Pujo-Menjouet, Modélisation en biologie et médecine, 8h, M2, Université Lyon 1.
- Master : Laurent Pujo-Menjouet, Gestion de projet en ingénierie mathématique, 3h, M1, Université Lyon 1.
- Master : Laurent Pujo-Menjouet, Systèmes dynamiques, 66h, M1, Université Lyon 1.
- Master : Laurent Pujo-Menjouet, Projet tutoré en Mathématiques, 3h, M2, Université Lyon 1.
- Master: Léon Matar Tine, Dynamique des protéine, 18h, M2, Université Lyon 1.
- Master: Thomas Lepoutre, Dynamique des protéine, 18h, M2, Université Lyon 1.

9.2.2. Supervision

- HdR : Fabien Crauste, Équations à retard et modèles de dynamiques de populations cellulaires, Université Lyon 1, December 2014.
- PhD in progress : Marine Jacquier, Contribution à l'étude de modèles à retards modélisant l'impact physiologique du comportement de prise alimentaire, Université Lyon 1, October 2012, Mostafa Adimy and Fabien Crauste.
- PhD in progress : Abdennasser Chekroun, Équations différentielles et aux différences à retard pour des modèles de dynamique des cellules souches hématopoïétiques, Université Lyon 1, October 2012, Mostafa Adimy.
- PhD in progress : Barbaroux Loic, modélisation mathématique de la réponse immunitaire chez un individu en vue d'optimiser des stratégies de vaccination, Université de Lyon 1, October 2013, Mostafa Adimy and Phillipe Michel.
- PhD in progress : Raouf El Cheikh, Multiscale modelling of the interaction between the cell cycle and the circadian clock, Université Lyon 1, October 2011, Samuel Bernard and Vitaly Volpert.
- PhD in progress : Apollos Besse, The role of tumor-immune interaction in combined treatments for chronic myeloid leukemia, Université Lyon 1, October 2014, Samuel Bernard and Thomas Lepoutre.

- PhD in progress : Flavien Duparc, Etude d'un modèle mathématiques de régulation de l'hémoglobine chez les patients dialysés, Université Lyon 1, October 2014, Mostafa Adimy and Laurent Pujou-Menjouet.
- PhD in progress : Loïs Boullu, Modélisation de la mégacaryopoïèse et applications aux maladies liées à la production des plaquettes, Université Lyon 1, October 2014, Laurent Pujou-Menjouet and Jacques Bélair (co-tutelle avec l'Université de Montréal).

9.2.3. Juries

- Mostafa Adimy was member and reviewer of the following PhD : Modou Lo (University of Saint-Louis, Senegal), February 2014; Jose Luis Avila Alonso (University of Paris-Sud XI), July 2014; Benjamin Aymard (University of Paris 6), October 2014; Mathieu Leroy-Lereêtre (University of Toulouse), October 2014.
- Mostafa Adimy was reviewer of the PhD of Ahmed Fadili (University of Agadir, Morocco), December 2014.
- Mostafa Adimy was reviewer of the HDR of Samir Fatajou (University of Marrakech, Morocco), November 2014.
- Mostafa Adimy was member of the juries : Fabien Crauste, HDR (University of Lyon), December 2014; Nathalie Eymard, PhD (University of Lyon), December 2014.

9.3. Popularization

- Fabien Crauste : Cycle "Mathématiques et médecine" de l'Université Ouverte "Grippe saisonnière, épidémie, pandémie : quel apport des mathématiques ?", 25 March 2014.
- Olivier Grandrillon : Participation in the café des sciences "La recherche en génétique, entre prouesses et promesses", in Lyon (Samedi 11 octobre)
- Samuel Bernard : Participation in Conférence à l'Université Ouverte "Garder le rythme, c'est garder la santé" and "L'âge de nos cellules par test nucléaire", in Lyon.
- Thomas Lepoutre : Cycle "Mathématiques et médecine" de l'Université Ouverte.
- Thomas Lepoutre is one of the organizer of Mathalyon (Mathematical exhibitions in highschool with 4 researchers, 20 days of intervention every year).
- Thomas Lepoutre : Intervention at Cité Scolaire Internationale (Highschool in Lyon) to explain what is a researcher's job.
- Laurent Pujou-Menjouet : Cycle "Mathématiques et médecine" de l'Université Ouverte "Le bonheur est dans le pré, les vaches folles aussi", 16 September, 2014.
- Laurent Pujou-Menjouet : supervising junior high school students for the "MathenJeans" program <http://www.mathenjeans.fr> (academic year 2014-2015).

IBIS Project-Team

8. Dissemination

8.1. Editorial, animation, and reviewing activities

Eugenio Cinquemani

Type	Journal, conference, agency
Associate editor	European Control Conference (ECC) 2015
Member PhD committee	Marianna Rapsomaniki (School of Medicine, University of Patras, Greece)
Member PhD advisory committee	Artemis Llamosi (Université Paris Descartes)

Hidde de Jong

Type	Journal, conference, agency
Member editorial board	Journal of Mathematical Biology
Member editorial board	ACM/IEEE Transactions on Computational Biology and Bioinformatics
Member editorial board	Biosystems
Member program committee	CMSB 15, MEMICS 14, HSB 14, ISMB/ECCB 14
Member scientific advisory board	Microbiology and Food Chain Department, Inra
Member review and selection committees	International Human Frontier Science Program (HFSP)
Member evaluation committee	AERES evaluation of MIAj and MIG laboratories, INRA, Jouy-en-Josas, 2014
Member recruitment committee	Junior research scientists, INRA
Member recruitment committee	Assistant professor, INSA de Lyon
Member HDR committee	Grégory Batt (Université Paris Descartes)
Member PhD committee	Kyrill Batmanov (Université de Lille I)
Member organization committee	BEEsy Conference on Perspectives in Environmental and Systems Biology (Grenoble, 2015)
Project reviews	BBSRC

Johannes Geiselmann

Type	Journal, conference, agency
Member recruitment committee	Assistant professor, INSA de Lyon
Member PhD committee	Thomas Esquerré (Université de Toulouse, INSA), Peng Liu, (Institut Pasteur, Paris), Elisa Brambilla (ENS Cachan)
Member PhD advisory committee	Xuejiao Jiang (INSA de Lyon)
Member scientific committee	ARC1, Rhône-Alpes region
Member organization committee	BEEsy Conference on Perspectives in Environmental and Systems Biology (Grenoble, 2015)
Project reviews	ANR

Stephan Lacour

Type	Journal, conference, agency
Member PhD advisory committee	Alexandre Duprey (Université de Lyon)

Delphine Ropers

Type	Journal, conference, agency
Member organization committee	SeMoVi (Séminaire de Modélisation du Vivant)
Member recruitment committee	Assistant professor, INSA de Lyon (twice)
Member PhD committee	Anna Zhukova (Université de Bordeaux)
Member PhD advisory committee	Alice Julien-Laferrrière (Université de Lyon), Martin Wannagat (Université de Lyon)

8.2. 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 Geiselman is member of the scientific council of the Department of Biology at Université Joseph Fourier.

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

François Rechenmann is CEO of Genostar. 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.

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 and Référente Chercheurs at Inria Grenoble - Rhône-Alpes.

8.3. Seminars, presentations, and PhD thesis defenses**Eugenio Cinquemani**

Title	Event and location	Date
Modeling and analysis of population systems with applications to molecular biology	Tutorial at HYCON2 workshop at European Control Conference (ECC 14), with G. Ferrari-Trecate and J. Lygeros, Strasbourg	June 2014
Modelling cellular heterogeneity of gene expression in yeast : The mixed-effects approach	CWI-Inria workshop, Paris	September 2014
Modelling dynamics and regulation of gene expression from fluorescent reporter data: Two challenges in two biological scenarios	Seminar at School of Medicine, University of Patras (Greece)	November 2014
Towards real-time control of gene expression at the single cell level: a stochastic control approach	Presentation at 12th international conference on Computational Methods for Systems Biology (CMSB 2014), Manchester (UK)	November 2014

Hidde de Jong

Title	Event and location	Date
Genetic Network Analyzer: modélisation et simulation qualitative de réseaux de régulation	Demo at Rencontre Inria-Industrie Bio-informatique et outils numériques pour les produits de santé, Lyon	February 2014
Analysis and identification of bacterial regulatory networks using real-time gene expression data	Invited presentation at Journée régionale Bioinformatique, Toulouse	June 2014
The analysis of global regulatory networks in bacteria using models and experiments	Invited presentation at International Workshop on Hybrid Systems Biology (HSB 2014), Vienna (Austria)	July 2014
Dynamic optimisation of resource allocation in microorganisms	Presentation at International Symposium on Mathematical Theory of Networks and Systems (MTNS 2014), Groningen (the Netherlands)	July 2014
Analysis and identification of bacterial regulatory networks using real-time gene expression data	Invited presentation at Colloque Biologie Synthétique & Systémique (BioSynSys), Toulouse	July 2014
Numerical simulation of piecewise-linear models of gene regulatory networks using complementarity systems	Presentation at International Symposium on Mathematical Theory of Networks and Systems (MTNS 2014), Groningen (the Netherlands)	July 2014

Johannes Geiselmann

Title	Event and location	Date
Global regulation and the control of growth rate in <i>Escherichia coli</i>	Invited seminar SeMoVi, Lyon	January 2014
Regulation of gene expression in <i>E. coli</i> : global effects and specific regulations	Seminar at Centre de Biologie Intégrative, Toulouse	March 2014
Systems biology of <i>E. coli</i>	University of Trondheim (Norway)	May 2014
Control of gene expression in <i>E. coli</i>	Journée Recherche, UJF	October 2014

François Rechenmann

Title	Event and location	Date
Genostar	Demo at Rencontre Inria-Industrie Bio-informatique et outils numériques pour les produits de santé, Lyon	February 2014

Delphine Ropers

Title	Event and location	Date
Global control of gene expression in <i>Escherichia coli</i>	Seminar at MAP laboratory, Lyon	March 2014
Complex regulatory networks in bacteria	Seminar at Institute of Food Research, University of Norwich (UK)	December 2014
Complex regulatory networks in bacteria: How bacteria face the unexpected	Invited presentation at the winter school Multi-scale modelling of biological systems, INSA, Toulouse	

Diana Stefan

Title	Event and location	Date
Identification structurelle et paramétrique des réseaux de régulation bactériens	PhD thesis defense, Université Joseph Fourier, Grenoble	June 2014

Valentin Zulkower

Title	Event and location	Date
A quantitative study of the regulation of cAMP-dependent promoters in <i>E. coli</i>	Presentation at workshop PTS50, Göttingen (Germany)	September 2014

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. In the context of the **Math C2+ initiative** for high-school students, François Rechenmann has given the presentation "Algorithmes et génomes : analyse informatique de l'information génétique".

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	4	Master Approches Interdisciplinaires du Vivant, Centre de Recherches Interdisciplinaires/Université Paris Descartes	20
Modelling and identification of metabolic networks	4	Master PHELMA, INP Grenoble	4

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
Microbiologie	2	Université Joseph Fourier	32
Génétique des Populations	2	Université Joseph Fourier	30
Microbiologie	2	Université Joseph Fourier	32
Introduction à la bioinformatique	2	Université Joseph Fourier	12

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
Modeling in systems biology	4	Master PHELMA, INP Grenoble	16

François Rechenmann is preparing a MOOC on the subject "Algorithmes et génome", which is due to appear in 2015. Hidde de Jong organized with Daniel Kahn a module on the modeling of genetic and metabolic networks at INSA de Lyon. Delphine Ropers organizes a module on the mathematical modeling of biological systems at PHELMA, INP Grenoble.

KALIFFE Project-Team

8. Dissemination

8.1. Promoting Scientific Activities

8.1.1. Scientific events organisation

8.1.1.1. general chair, scientific chair

F. Filbet was in the scientific committee of “12e Colloque Franco-Roumain en Mathématiques Appliquées” which was organized in Lyon in august 2014.

8.1.1.2. member of the organizing committee

D. Le Roux was in the organizing committee of “12e Colloque Franco-Roumain en Mathématiques Appliquées” which was organized in Lyon in august 2014.

F. Filbet was in the organizing committee of “Journées Modélisation Mathématiques et Calcul Scientifique” at Vapré (Ecully) from 18-19 dec. 2014.

8.1.2. Journal

8.1.2.1. member of the editorial board

F. Filbet is a member of the editorial board of the journals *Confluences Mathematicae* and *ESAIM-Proceedings*.

8.1.2.2. reviewer

- F. Filbet served as a referee for *J. Comp. Phys.*, *SIAM*, *J. Sci. Comput.*, *SIAM J. Num. Anal.*, *Comm. Comput. Phys.*, *J. Sci. Comput.*, *Comp. Applied. Math.s*, *AMS Math. Comp.*
- L.M. Rodrigues served as a referee for *Arch. Ration. Mech. Anal.*, *Comm. Math. Phys.*, *Phys. D.*
- D. Le Roux served as a referee for *AGU Book Series*, *Communications in Numerical Methods in Engineering*, *Computer Methods in Applied Mechanics and Engineering*, *Computers and Fluids*, *International Journal for Numerical Methods in Fluids*, *Journal of Computational Physics*, *SIAM Journal on Scientific Computing*, *Mathematics and Computers in Simulation*.

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

Our group is strongly involved on teaching activities at Polytech Lyon and at the Department of Mathematics (UCB Lyon).

Licence : M. Bergot (Numerical Analysis, Calculus, 192 h), S. Delcourte (Numerical Analysis, Calculus, 192 h), F. Filbet (Calculus, 52h), S. Delcourte and E. Fouassier (PDE, Analysis, Calculus, 192 h), L. M. Rodrigues (Numerical Analysis, Calculus, 192 h)

Master : F. Filbet (Kinetic Theory, PDE and numerical analysis, 36h), D. Le Roux (Fluid mechanics, PDE and numerical analysis, 36h).

F. Filbet is co-director of the PhD program in Computer Sciences and Mathematics of Lyon (ENS, INSA, ECL, UCBL, UFL, UJML).

8.2.2. Juries

- F. Filbet was referee of 5 PhD for Univ. Paris Dauphine - Paris IX, Univ. P. & M. Curie - Paris VI, Univ. Paris Sud- Paris XI, Univ. Bordeaux, Univ. Kaiserslautern (Germany).
- D. Le Roux was in the « jury » of F. Marche (Université de Montpellier), E. Ngom, J. Demange (Université de Grenoble), M.M. Tuhon, K.T. Kouakou (Université Nangui Abrogoua, Abidjan, Côte d'Ivoire)

MOISE Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events organisation

9.1.1.1. general chair, scientific chair

- C. Prieur and L. Viry co-organized a research school on uncertainty quantification at Ecole de Physique des Houches (ASPEN 2013, 2014).

9.1.1.2. member of the organizing committee

- M. Nodet and E. Blayo (with S. Ricci, G. Desroziers and M. Bocquet) co-organised the Data Assimilation National Conference in Toulouse.

9.1.2. Scientific events selection

- C. Prieur was a member of the jury for the PhD prize Jacques Neveu.

9.1.2.1. member of the conference program committee

- M. Nodet and E. Blayo (with S. Ricci, G. Desroziers and M. Bocquet) co-organised (with others, see above) the program of the Data Assimilation National Conference in Toulouse.

9.1.2.2. reviewer

- M. Nodet is a reviewer for the international conference "Emerging Trends in Applied Mathematics : Dedicated to the Memory of Sir Asutosh Mookerjee", Calcutta February 12-14, 2014, proceedings of the conference from Springer.

9.1.3. Journal

9.1.3.1. reviewer

- E. Blayo: reviewer for Ocean Modelling, Monthly Weather Review, Nonlinear Processes in Geophysics.
- L. Debreu: reviewer for Ocean Modelling, Applied Mathematical Modelling.
- A. Vidard: reviewer for Ocean Modelling, Tellus A, Inverse problems, Monthly Weather Review
- M. Nodet: reviewer for the journals Esaim COCV and Non Linear Processes in Geophysics.
- E. Kazantsev: reviewer for the Journal of Comp. Phys., World Journal of Modelling and Simulation.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

- Licence : C. Prieur, Statistics for biologists, 113.5, niveau L2, Grenoble, FRANCE
- Licence : C. Prieur, Statistics, 52, niveau L1, Ensimag (Grenoble), FRANCE
- Licence : M. Nodet, Mathématiques pour l'ingénieur, 80h, L1, UJF Grenoble
- Licence : M. Nodet, Statistiques pour la biologie, 80h, L2, UJF Valence
- Master : M. Nodet, Inverse methods and data assimilation, 30h, M2, UJF Grenoble
- Master : C. Prieur, Stochastic approaches for uncertainty quantification, 27, niveau M2, Grenoble, France Laurent Debreu, Modélisation numérique de l'océan, 8h eq TP, M2, Université de Brest, FRANCE

- Doctorat : Laurent Debreu, Formation doctorale nationale Modélisation numérique de l'océan et de l'atmosphère, 24-28 novembre 2014, Grenoble, France. With T. Dubos (LMD/Ecole Polytechnique, Paris), G. Rouillet (Brest University), F. Hourdin (LMD/CNRS, Paris)
- Doctorat : Eric Blayo, Arthur Vidard, Introduction to Data Assimilation, 20h, University of Grenoble, France

9.2.2. Supervision

- PhD : Pierre-Antoine Bouttier, Assimilation variationnelle de données altimétriques dans le modèle océanique NEMO : Exploration de l'effet des non-linéarités dans une configuration simplifiée à haute résolution , University of Grenoble, 2014, [1].
- PhD : Jérémie Demange, Schémas numériques d'advection et de propagation d'ondes de gravité dans les modèles de circulation océaniques, University of Grenoble, 21 octobre 2014, L. Debreu, P. Marchesiello.
- PhD : V. Chabot, Étude de représentations parcimonieuses des statistiques d'erreur d'observation pour différentes métriques. Application à l'assimilation d'images. UJF Grenoble, A. Vidard et M. Nodet [2]
- PhD in progress : Nelson Feyeux, Application du transport optimal pour l'assimilation de données images, novembre 2013, Arthur Vidard, Maëlle Nodet
- PhD in progress : Thomas Capelle, Calibration of LUTI models, octobre 2013, Peter Sturm, Arthur Vidard
- 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 : Rémy Pellerej, Assimilation de données pour les modèles couplés, octobre 2014, Arthur Vidard, Florian Lemarié
- PhD in progress : L. Gilquin, Uncertainty quantification for LUTI models, Oct. 2013, C. Prieur and E. Arnaud (STEEP)
- PhD in progress : P. Tencaliec, Oct. 2013, multivariate risk for Durance streamflow data, C. Prieur and A.-C. Favre (LTHE, hydrology lab in Grenoble)
- PhD in progress : S. Nanty, Uncertainty quantification for functional and dependent inputs, Oct. 2012, C. Prieur and C. Helbert (Centrale Lyon).
- PhD in progress : C. Pelletier, Etude mathématique et numérique de la formulation des modèles de climat global, Décembre 2014, E. Blayo, F. Lemarié, P. Braconnot

9.2.3. Juries

- E. Blayo
 - 21 janvier 2014 - PhD thesis of Mélanie Rochoux, Ecole Centrale de Paris (reporter)
 - 23 janvier 2014 - PhD thesis of Natacha Djath, University of Grenoble (president)
 - 2 jun 2014 - HDR thesis of Jean-Michel Brankart, University of Grenoble (president)
 - 2 octobre 2014 - PhD thesis of Pierre Jolivet, University of Grenoble (president)
 - 13 octobre 2014 - PhD thesis of Laurent Berenguer, University of Lyon 1 (examiner)
 - 28 nov 2014 - PhD thesis of Gildas Mainsant, University of Grenoble (president)
 - 8 dec 2014 - PhD thesis of Abdoulaye Samake, University of Grenoble (president)
- C. Prieur
 - 11 déc. 2014 — PhD thesis of Jeremy Chardon, Université Grenoble Alpes (president)
 - 26 nov. 2014 — PhD thesis of Stéphane Veys, Université Grenoble 1 (examiner)
 - 13 nov. 2014 — PhD thesis of Prashant Rai, Ecole Centrale de Nantes (president)

- 28 nov. 2014 — PhD thesis of Henri Sohier, ONERA Toulouse (external reporter)
- 13 oct. 2014 — PhD thesis of Philomène Favier, Irstea Grenoble (examiner)
- 16 avr. 2014 — PhD thesis of Julie Oger, University François Rabelais, Tours (reporter)
- A. Vidard
 - 4 fev. 2014 — PhD thesis of Pierre-Antoine Bouttier, University of Grenoble (examinateur)
 - 16 dec. 2014 — PhD thesis of Yin Yang, University of Rennes (reporter)

9.3. Popularization

- 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. As a director and as an animator of IREM, Ch. Kazantsev has participated at
 - the week of Mathematics, the 17 and 21 March 2014,
 - the festival "Remue-Méninges", Echirolles, 22-25 April 2014,
 - the internship MATHC2+ in June and in October 2014,
 - the "Journées Nationales de l'APMEP": presentation of two workshops with M. Gandit "Sky: between historical and simulated data",
 - the "Fête de la science" with workshops "28 nuances de sciences" and "Récréation mathématique pour tous".
- M. Nodet gave talks and made posters to explain how the "problem-based learning" (a special case of "active learning") approach was introduced in mathematics for Grenoble university undergraduates, see e.g. [75] and [61].
- M. Nodet (in collaboration with A. Rousseau and S. Minjeaud) wrote a chapter of an outreach book "Brèves de maths" [59].
- M. Nodet gave outreach talks about "mathematics for environmental modelling" in various occasions: for the Grenoble maths Olympiades awards, twice for the "Science Fair 2014" (one for undergraduate students, one for secondary school pupils), for a daily visit of highschool students at Valence university.
- M. Nodet supervises a maths club "Math en Jeans" for secondary school pupils at two schools around Grenoble, which consists in proposing open research subjects to the students and supervising them over the year, in collaboration with the teachers.
- E. Blayo gave several outreach talks, in particular for the inauguration of the Fédération Rhône-Alpes-Auvergne de Mathématiques (Lyon, February 28), for the ceremony of the Christian Le Provost prize of the French Academy of Science (Saint Briec, April 18), and for MathC2+ internships.

NUMED Project-Team

8. Dissemination

8.1. Promoting Scientific Activities

8.1.1. Scientific events organisation

P. Vigneaux: ANR's ARP workshop Simulation of avalanches : modelling and numerics, in Seville (March 11-14) 2014. <http://arpavalanche14.sciencesconf.org/>

P. Vigneaux: 12th French-Romanian Conference on Applied Mathematics (August 25-30, 2014. Lyon) CFR2014: invited to organize the Special Session on Numerical Analysis.

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

E. Grenier is professor at ENSL and teaches in L3 and agregation (PDE, Topology, Modeling).

P. Vigneaux is assistant professor at ENSL and teaches in M2 and agregation (Modeling, PDE).

V. Calvez teaches in M2 (modeling and PDE).

8.2.2. Supervision

- E. Bouin defended its thesis in novembre 2014 under the supervision of V. Calvez.

8.3. Popularization

V. Calvez is responsible of "Math à Lyon", a serie of conferences in high school.

E. Grenier gave a public conference in Nancy in november 2014 on "mathematics and drugs".

P. Vigneaux took part of a general book "Brèves de Maths - Mathématiques pour la planète Terre. Nouveau Monde" éditions. ISBN 9782365838962. Octobre 2014. 255p. Patronage de l'INSMI-CNRS, Inria, SMAI, SMF, SFdS

P. Vigneaux is a member of the board of "Images des Maths", a pedagogic website.

STEPP Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events selection

9.1.1.1. member of the conference program committee

Peter Sturm was Associate Editor for the IEEE/RSJ International Conference on Intelligent Robots and Systems and member of the Program Committee of the German Conference on Pattern Recognition.

9.1.2. Journal

9.1.2.1. member of the editorial board

Peter 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.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

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

E. Arnaud, Statistics for biologist, 39h, L1, University of Grenoble, France.

E. Arnaud, Advising students on apprenticeship, 15h, M2, University of Grenoble, France.

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

9.2.2. Supervision

PhD in progress:

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 xxx, 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

E. Prados, Reviewer of PhD thesis, Bruno Belin, University of Nantes angers Le Mans (title: "Conception interactive d'environnements urbains durables à base de résolution de contraintes").

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

P. Sturm, Reviewer of habilitation thesis, Xavier Savatier, Université de Rouen

P. Sturm, Reviewer of PhD thesis, Behrooz Nasihatkon, The Australian National University

P. Sturm, President of PhD thesis, Julian Quiroga, Grenoble University

P. Sturm, President of PhD thesis, Lilian Calvet, Université de Toulouse

AVALON Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events organisation

9.1.1.1. general chair, scientific chair

Laurent Lefevre and Frédéric Desprez were general chairs of the Grid 5000 Spring School 2014, Lyon, June 17-19, 2014.

F. Desprez: BigDataCloud (workshop within EuroPAR)

L. Lefevre :

- Co-Workshop organizer of TASUS 2014: Techniques and Applications for Sustainable Ultrascale Computing Systems, held during EUROPAR 2014, Porto, Portugal, August 25-26, 2014
- Co-organizer of the Green Days @ Rennes event: "Avalanche of data, virtual machines and connected objects : energy efficiency is mandatory - Impact on architectures, systems and networks", Rennes, July 1-2, 2014
- Co-Workshop chair of ExtremeGreen 2014 : Extreme Green & Energy Efficiency in Large Scale Distributed Systems , Chicago, IL, USA, May 2014

9.1.1.2. member of the organizing committee

G. Fedak: Publicity Chair for SBAC-PAD'14

Eddy Caron and Laurent Lefevre: co-organizer for the Inria booth at SC'14.

9.1.2. Scientific events selection

9.1.2.1. member of the conference program committee

E. Caron: HCW 2014, IPDPS 2014, CCA-2014

F. Desprez: Closer, IPDPS, CCGRID, VECPAR, Supercomputing, ComPAS, HotCloud, BigData, Cluster.

G. Fedak: AINA, EuroPar, CloudCom, HPDC

JP. Gelas: ExtremeGreen.

O. Glück: ExtremeGreen, PDP.

L. Lefevre : IEEE CCGrid15, AusPDC15, CLOUDNET14, EuroMPI/ASIA 2014, IEEE HPCC14, Greencom14, ICA3PP14, ENA-HPC14, Globecom14 SAC Green Communication Systems and Networks. ICCCN14 (DCBC), ICT4S14

C. Perez: Cloud Control Workshop, CCGRID'15, Cluster, EuroPar, VECPAR.

F. Suter: EuroPar, EuroMPI/Asia, VECPAR, VDTC.

9.1.2.2. reviewer

E. Caron: Hotcloud'14

JP. Gelas: ExtremeGreen.

O. Glück: EuroPar, Cluster.

F. Suter: CCGrid, Cluster.

9.1.3. Journal

9.1.3.1. member of the editorial board

- F. Desprez: Scalable Computing: Practice and Experience
- G. Fedak: Journal of Cluster Computing
- L. Lefevre : Associate editor of IEEE Transactions on Cloud Computing (TCC)

9.1.3.2. reviewer

E. Caron: JPDC, TPDS, Cluster Computing, Engineering Applications of Artificial Intelligence
 F. Desprez: Parallel Computing
 G. Fedak: Computer
 C. Perez: Parallel Computing.
 F. Suter: Parallel Computing, CCPE, JPDC, FGCS, GPAA.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Licence: Olivier Glück, Initiation Réseaux, 2x9h, niveau L2, Université Lyon 1, France
 Licence: Olivier Glück, Réseaux, 2x70h, niveau L3, Université Lyon 1, France
 Master: Olivier Glück, Services et Protocoles Applicatifs sur Internet, 40h, niveau M2, Université Lyon 1, France
 Master: Olivier Glück, Services et Protocoles Applicatifs sur Internet, 24h, niveau M2, IGA Casablanca, Maroc
 Master : Olivier Glück, Administration des Systèmes et des Réseaux, 16h, niveau M2, Université Lyon 1, France
 Master: Jean-Patrick Gelas, Analyse de performance, 6h, niveau M2, Université Lyon 1, France
 Master: Jean-Patrick Gelas, Réseaux, 48h, niveau M2 (CCI), Université Lyon 1, France
 Master: Jean-Patrick Gelas, Système d'exploitation, 30h, niveau M2 (CCI), Université Lyon 1, France
 Master: Jean-Patrick Gelas, Architecture des routeurs, 6h, niveau M2, Université Lyon 1, France
 Master: Jean-Patrick Gelas, Systèmes embarqués (Linux, Android), 85h, niveau M2, Université Lyon 1, France
 Master: Jean-Patrick Gelas, Routage et IPv6, 45h, niveau M2, Université Lyon 1, France
 Master: Jean-Patrick Gelas, Routage et IPv6, 45h, niveau M2, Université Lyon 1, France
 Master: Frédéric Desprez, Parallélisme, 30h, niveau M1, Université Lyon 1, France
 Master: Eddy Caron, Gilles Fedak, Laurent Lefèvre, and Christian Perez, Grid and Cloud Computing, 36h, niveau M2, Ecole Normale Supérieure de Lyon, France
 PhD.: G. Fedak, MapReduce Programming Model, Formation doctorale, 7h, Université Paris XIII, Villetaneuse, France
 Master: G. Fedak, MapReduce and Big Data, Master, 9h, University of Babes-Bolyai, Romania

9.2.2. Supervision

HdR : Frédéric Suter, Bridging a gap between research and production, contributions to scheduling and simulation, École Normale Supérieure de Lyon, December 10, 2014.
 PhD in progress: Semen Marchuk, *Contribution pour la conception d'algorithmes d'ordonnancement de taches de calcul dans le domaine de l'animation 3D*, 10/2014, Eddy Caron (dir), Pierre Biecher (CapRézo society, co-dir) and Rodolphe De Carini (CapRézo society, co-dir)

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

PhD in progress: Sylvain Gault, *Improving MapReduce Performance on Clusters*, 11/2010, Frédéric Desprez (dir), Christian Pérez (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, 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).

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

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

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

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

9.2.3. Juries

Eddy Caron has been member of the following PhD Juries:

- Gautier Berthou. "Vers des communications anonymes et efficaces", Grenoble, January 2014, examinateur.
- Mandicou Ba. " Vers une structuration auto-stabilisante des réseaux ad hoc: cas des réseaux de capteurs sans fil.", Université de Reims, May 2014, examinateur.
- Vianney Kengne Tchendji. "Solutions parallèles efficaces sur le modèle CGM d'une classe de problèmes issus de la programmation dynamique", Université de Picardie Jules Verne en cotutelle avec l'Université de Yaoundé, June 2014, exminateur.

Frédéric Desprez has been member of the following PhD Juries:

- Amit Sangroya, "Towards Dependability and Performance Benchmarking for Cloud Computing Services", Grenoble, April 2014, rapporteur.
- Shubhabrata Roy, "A Complete Framework for Modelling Workload Volatility of VoD System-a Perspective to Probabilistic Management", Lyon, June 2014, examinateur.
- Loic Letondeur, "Planification pour la gestion autonome de l'élasticité d'applications dans le cloud", Lyon, October 2014, examinateur.
- Rachid Habel, "", Mines Paris, October 2014, président.
- Radu Tudoran, "High Performance Big Data Management Across Cloud Data Centers", Rennes, December 2014, rapporteur.

- Andra Hugo, "Composability of parallel codes on heterogenous architectures", Bordeaux, December 14, rapporteur.
- Damien Genet, "Design of Generic Modular solution for PDE solvers for modern architectures", Bordeaux, December 2014, examinateur.
- Lionel Boillot, "Contributions à la modélisation mathématique et à l'algorithmique parallèle pour l'optimisation d'un propagateur d'ondes élastiques en milieu anisotrope", Pau, December 2014, rapporteur.

Laurent Lefevre has been member of the following PhD Juries:

- Truong Khoa Phan: "Design and Management of Networks with Low Power Consumption", University of Nice, France, September 2014, Rapporteur.
- Frédéric Pinel: "Energy - Performance optimization for the Cloud", University of Luxembourg, July 2014, Examineur
- Thiam Chekhou : "Anti Load Balancing for Energy-Aware Distributed Scheduling of Virtual Machines", University of Toulouse, France, July 2014, Rapporteur
- Felipe Diaz: "Cloud brokering : new value added services and pricing models", Telecom ParisTech, France, February 2014, Rapporteur

Christian Perez has been member of the following PhD Jury:

- Damien Gros: "Protection obligatoire répartie Usage pour le calcul intensif et les postes de travail", University of Orléans, France, June 2014, Rapporteur.
- Hélène Coullon: "Modélisation et implémentation de parallélisme implicite pour les simulations scientifiques basées sur des maillages", University of Orléans, France, September 2014.
- Clément Quinton: "Cloud Environments Selection and Configuration: A Software Product Lines-Based Approach", University of Lille, France, October 2014.

Frédéric Suter has been member of the following PhD Jury:

- Vinicius Pinheiro: "The management of multiple submissions in parallel systems: the fair scheduling approach", University of Sao Paulo, Brasil, February 2014, rapporteur.

9.3. Popularization

Eddy Caron has been interview by New Screens Magazine (N°9) edited by Imaginove. "Pipeline de production pour l'animation: Optimisation des temps de calcul et parallélisme", June 2014.

Gilles Fedak is a member of the Maison des Mathématiques et de l'Informatique steering committee.

Laurent Lefevre has been interviewed by Atlantico Web News Magazine on "Gadget ou véritable promesse ? Comment Amazon compte se chauffer grâce à l'énergie dégagée par les datas centers", September 21, 2014

CTRL-A Exploratory Action

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events organisation

9.1.1.1. member of the organizing committee

Eric Rutten is

- Workshops chair for the 12th IEEE International Conference on Autonomic Computing, ICAC, July 7-10, 2015 in Grenoble, France <http://icac2015.imag.fr> ;
- proposing the DCDS 2015 Special Session on Dependable Discrete control for adaptive and reconfigurable computing systems <http://www.gdl.cinvestav.mx/dcds2015/submission.html> may 2015 ;
- organizer of the two editions of the Grenoble Workshop on Autonomic Computing and Control, 27 may and 4 november 2014 <https://persyval-lab.org/en/exploratory-project/staars> ;
- organizer, with Thierry Monteil and Khalil Drira (LAAS), of the workshop autonome, 16 - 17 oct. 2014 au LAAS, Toulouse (invited keynote speaker : Xiaoyun Zhu, VMware) <http://projects.laas.fr/autonome> ;
- organizer of the WODES 2014 Special Session on Discrete control for adaptative and reconfigurable computing systems, 14 may 2014 <http://wodes2014.lurpa.ens-cachan.fr/special-sessions/> ;
- organizer, with J. Buisson (IRISA), of the Atelier Informatique Autonome, satellite of the colloque COMPAS 2014, 22 avril 2014, Neuchatel <http://compas2014.unine.ch/atelier2> ;
- organizer of the Seminar (Grenoble and Rhône-Alpes region, Lyon, Valence, Annecy) on Supervisory control Techniques for Autonomic, Adaptive and Reconfigurable computing Systems <https://team.inria.fr/ctrl-a/members/eric-rutten/labex/staars-seminars-html/>

9.1.2. Scientific events selection

9.1.2.1. responsible of the conference program committee

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

9.1.2.2. member of the conference program committee

Eric Rutten is PC member for: 5th IFAC Conference on Analysis and Design of Hybrid Systems (ADHS) October 14-16, 2015, Georgia Tech, Atlanta, Georgia, USA (<http://adhs15.gatech.edu> ; 12th IEEE International Conference on Autonomic Computing, ICAC 2015, July 7-10, 2015 in Grenoble, France (<http://icac2015.imag.fr>) ; 5th IFAC international workshop on Dependable Control of Discrete Systems , DCDS, Cancun, Mexico, may 27-29, 2015 (<http://www.gdl.cinvestav.mx/dcds2015>) ; 6th Workshop on Adaptive and Reconfigurable Embedded Systems (APRES 2014) April 14, 2014, Berlin, Germany ; Collocated with the CPSWeek (<http://www.mrtc.mdh.se/apres2014>) ; ESLsyn 2014 The 2014 Electronic System Level Synthesis Conference, May 31 - June 1, 2014, San Francisco, CA, USA,co-located with DAC (<http://www.ecsi.org/eslsyn>)

Nicolas Marchand is PC member for Feedback Computing 2015 10th International Workshop on Feedback Computing Co-located with CPSWeek 2015 April 13th, Seattle, WA, USA (<http://cpslab.cs.mcgill.ca/feedbackcomputing15/>)

9.1.2.3. reviewer

Eric Rutten, Nicolas Marchand, Bogdan Robu are reviewers for the IFAC World congress 2014.

9.1.3. Journal

9.1.3.1. reviewer

Eric Rutten is reviewer for ACM Transactions on Autonomous and Adaptive Systems ; Science of Computer Programming ; Journal of Systems and Software.

9.1.4. Invited Conferences

- Eric Rutten was invited to give talks at :
 - groupe de travail COSMAL (<http://gdr-gpl.cnrs.fr/Groupes/COSMAL>), journées du GDR GPL, CNAM Paris du 10 au 13 juin
 - Journée Architectures Logicielles pour la Robotique Autonome, les Systèmes Cyber-Physiques et les Systèmes Auto-Adaptables, 1er décembre 2014, LIP6 Paris (<http://www.lirmm.fr/gtcar/index.php/autres-workshop/workshop-cps-gdr-gpl-robotique>)
 - 11th International Conference on Distributed Computing and Internet Technology (ICDCIT-2015). (<http://www.icdcit.ac.in/>), Bhubaneswar, India, February 5–8, 2015.
- Nicolas Marchand, Bogdan Robu were invited to give talks at the Workshop in Cloud Control, May 7 to May 9, 2014, Lund, Sweden (<http://www.lccc.lth.se/index.php?page=may-2014-2>)

9.2. Teaching - Supervision - Juries

9.2.1. Supervision

- PhD : Soguy Geye ; Coordination Modulaire de Gestionnaires Autonomes par Contrôle Discret ; Université de Grenoble, 3 dec. 2014 ; E. Rutten, N. de Palma (LIG)
- PhD in progress : Adja Ndeye SYLLA ; Generation of coordination rules from an automaton, in the context of the redeployment of distributed contra; applications ; fall 2014 ; E. Rutten, F. Pacull and M. Louvel (CEA)
- PhD in progress : Naweiluo Zhou ; Application-aware policies and control for transactional memory systems ; oct. 2013 ; E. Rutten, G. Delaval, J.F. Mehaut (LIG)
- PhD in progress : Mengxuan Zhao ; Discrete Control in the Internet of things and Smart Environments through a Shared Infrastructure ; nov. 2011 ; E. Rutten, H. Alla (Gipsa-lab), G. Privat (Orange labs)

DANTE Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events organisation

9.1.1.1. General chair, scientific chair

- Márton Karsai was organiser of the Computational Social Science, ECCS 2014 satellite.

9.1.2. Scientific events selection

9.1.2.1. Chair of conference program committee

- Paulo Gonçalves is officer of the local liaison board of EURASIP
- Anthony Busson was TPC (Technical Program Chair) of ISNCC 2014
- Isabelle Guérin Lassous was Program co-Chair of ACM International Symposium on Performance Evaluation of Wireless Ad Hoc, Sensor, and Ubiquitous Networks (PE-WASUN 2014)

9.1.2.2. Member of the conference program committee

- Paulo Gonçalves is PC member of IWCMC - TRAC 2014.
- Christophe Crespelle is PC member of AlgoTel 2014
- Éric Fleury is PC member of Networking 2014
- Éric Fleury is PC member of NetSciCom 2014
- Isabelle Guérin Lassous is PC member of MSWiM 2014, IPDPS 2014, ICC 2014, Globecom 2014 and MedHocNet 2014.
- Márton Karsai is PC member of CSS ECCS'14

9.1.2.3. Invited talks

- Márton Karsai was invited lecturer at RESCOM Summer School - (May 2014, Furiani, Corsica, France)
- Márton Karsai was invited speaker at TNetSphys'14 - NetSci'14 Symposium (June 2014, University of California, Berkeley, CA, USA)
- Márton Karsai was invited speaker at Complex Networks and Dynamics - ICCSA'14 Satellite meeting (June 2014, Le Havre, France)
- Márton Karsai was invited speaker at Institute of Research and Development (October 2014, Bondy, Paris, France)
- Paulo Gonçalves was invited keynote speaker at the international conference CLOSER 2014.

9.1.3. Journal

9.1.3.1. Member of the editorial board

- Isabelle Guérin Lassous is a member of the editorial board of: Computer Communications (Elsevier), Ad Hoc Networks (Elsevier) and Discrete Mathematics & Theoretical Computer Science.

9.1.3.2. Reviewer

- Márton Karsai was acting as reviewer in Physical Review X, EPJ Data Science, New Journal of Physics, PLoS ONE, Transactions on Network Science and Engineering, Nature Scientific Reports, Physica Scripta, Network Science, Europhysics Letters
- P. Gonçalves was reviewer for *IEEE Signal Processing* (transactions on, letters), *EURASIP J. on Advances in Signal Processing*.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

9.2.1.1. Teaching by *Éric Fleury*

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

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

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

9.2.1.2. Teaching by *Thomas Begin*

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

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

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

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

9.2.1.3. Teaching by *Christophe Crespelle*

Master : "Introduction to Graph Algorithms", 21h, Master (1st year), Institute of Mathematics Hanoi, Vietnam

Licence : "Combinatorial Optimization", 12h, Bachelor (4th year), Vietnam National University of Hanoi, Vietnam

Master : "Introduction to Graph Algorithms", 30h, Master (1st year), Institute of Mathematics Hanoi, Vietnam

9.2.1.4. Teaching by *Isabelle Guérin Lassous*

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

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

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

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

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

9.2.1.5. Teaching by *Márton Karsai*

Márton Karsai is an Assistant Professor at ENS Lyon in the Computer Science Department since 2013 and holds a Inria Chair. He is the co-responsible for the Complex Networks Master 2 program. His lectures in 2014:

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

Master : Dynamical Processes on Networks, 4H, M2, ENS de Lyon, France

Master : Modelling Social Systems, 6H, M2, ENS de Lyon, France

Licence/Master : Alter-disciplinary course, Complexe network: an interdisciplinary approach 4H, L3, M1, M2, ENS de Lyon,

9.2.1.6. Teaching by Paulo Gonçalves

Postgraduate level: Course (theory and practice) on Signal Processing (80 hours Eq. TD), CPE Lyon, France.

9.2.2. Supervision

9.2.2.1. Defended

Shubhabrata Roy, A Complete Framework for Modelling Workload Volatility of a VoD System: a Perspective to Probabilistic Management, Université de Lyon, June 2014, P. Gonçalves and T. Begin

9.2.2.2. In Progress

- Thiago Abreu, Modeling and performance analysis of IEEE 802.11-based chain networks, Université de Lyon, defense scheduled on Mars 2015, I. Guérin-Lassous and T. Begin
- Lucie Martinet, Dynamic contact networks and diffusion process, Oct 2011, E. Fleury and C. Crespelle
- Benjamin Girault, Signal processing on graph, Oct 2012, E. Fleury and P. Gonçalves
- Matteo Morini, New tools for understanding the dynamics of social networks, Oct 2013, E. Fleury, P. Jensen and M. Karsai
- Yannick Leo, Diffusion process and community structure in complex networks, Oct 2013, E. Fleury, C. Crespelle, and M. Karsai
- Huu Nghi Nguyen, Admission control and controllers allocation for SDN networks, Sept 2014, I. Guérin Lassous, A. Busson and T. Begin
- Mohammed Amer, Optimisation and planning of Wi-Fi based networks: SDN paradigm, Nov 2014, I. Guérin Lassous, A. Busson
- Elie Rotenberg, An approach for a reliable estimation of the properties of the Internet topology, September 2010, Matthieu Latapy and Christophe Crespelle
- Laurent Reynaud, Optimized mobility strategies for interference tolerance and energie saving in wireless networks, Oct 2013, . Guérin Lassous

9.2.3. Juries

Eric Fleury was member of the PhD examination board of: Nicolas Tremblay, Daniel Bernades.

Eric Fleury was member of the HdR examination board of: Michael Hauspie, Pierre Borgnat.

Anthony Busson was reviewer and member of the PhD examination board of: Sebastien Faye, Salim Allal.

Christophe Crespelle was member of the PhD examination board of Pham Van Trung, Vietnam Academy of Science and Technology.

Isabelle Guérin Lassous was member of the PhD examination board of: Jordan Augé (reviewer)

Isabelle Guérin Lassous was member of the HdR examination board of: Nadjib Achir (reviewer), Hervé Rivano, Tara Ali Yahya (reviewer), Marco Fiore.

Paulo Gonçalves was reviewer and member of the PhD examination board of Sergey Kirgizov.

9.3. Popularization

- Interview of E. Fleury for X:ENIUS on arte TV: *Big data : opportunity or curse ?* (<http://www.arte.tv/guide/fr/051094-020/x-enius>)
- Interview of M. Karsai for Campus Channel TV: *Master 2 program of Complex Networks* (<https://www.youtube.com/watch?v=k7I1m1NCbTU>)

9.4. Institutional commitment

- Éric Fleury is Vice-Chairman of the Inria Grenoble Rhône Alpes projects committee
- Éric Fleury is member of the Inria Evaluation Committee and member of the board.
- Éric Fleury is member of the junior research position (CR2) jury at Inria Sophia
- Éric Fleury is member of the research (CR1) jury at Inria Sophia
- Éric Fleury is member of the Starting Research Position and Advanced Research position jury
- Paulo Gonçalves is scientific correspondent of the International Relations for Inria Grenoble - Rhône-Alpes
- Paulo Gonçalves is member of the *Comité de Développement Technologique* of Inria Grenoble - Rhône-Alpes
- Isabelle Guérin Lassous is member of the researcher support commission of the Inria Grenoble Rhône Alpes

9.5. Collective Responsibilities outside Inria

- 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 in the Executive Committee of the IXXI – Rhône-Alpes Complex Systems Institute.
- Éric Fleury has been an expert for the Fund for Scientific Research - FNRS.
- Paulo Gonçalves is scientific correspondent of the International Relations for the Computer Science Department at ENS Lyon.
- Isabelle Guérin Lassous is member of the CNRS National Committee for section 06 (Computer Science).
- Isabelle Guérin Lassous was the chair of the AERES expert committee of CALMIP.
- Christophe Crespelle is member of the Council of the LIP laboratory.
- Christophe Crespelle is member of the steering committee of the IXXI – Rhône-Alpes Complex Systems Institute.
- Christophe Crespelle was expert for Nafosted (National funding agency for research in Vietnam) in Computer Science in 2014.
- Thomas Begin is an elected member of the Council of the LIP laboratory.
- Thomas Begin is an elected member of the Advisory Committee for the department Computer Science for University Lyon 1.
- Márton Karsai is the co-responsible of the Complex Networks Master 2 program at ENS Lyon.

MESCAL Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events organisation

9.1.1.1. general chair, scientific chair

- Panayotis Mertikopoulos was technical program co-chair of WiOpt '14: the 12-th International Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks.
- Bruno Gaujal was the technical program chair of EAP 2014, Sophia-Antipolis.
- Bruno Gaujal, Florence Perronnin and Jean-Marc Vincent organized a Marmote workshop, July 9-10, 2014.
- Nicolas Gast organized a Quanticol workshop, April 14, 2014.
- Arnaud Legrand organized the Summer School on Performance Metrics, Modeling and Simulation of Large HPC Systems, Sophia-Antopolis, June 2014.
- Jean-Marc Vincent organized the Licia Workshop in Grenoble, Oct. 2014.

9.1.1.2. member of the organizing committee

- Arnaud Legrand was a workshop organizer of the 1st workshop on reproducibility in parallel computing.
- Olivier Richard was an organizer of the 2st event “Realis 2014 : Reproductibilité expérimentale pour l’informatique en parallélisme, architecture et système” during Compas 14.

9.1.2. Scientific events selection

9.1.2.1. member of the conference program committee

- Panayotis Mertikopoulos was member of the program committee of Valuetools 2014 and NetGCoop 2014.
- Bruno Gaujal was member of the program committee of of Sigmetrics 2014, Wodes 2014 and Performance 2014.
- Nicolas Gast was member of the program comittee of E-Energy 2014 and ValueTools 2014.
- Arnaud Legrand served on the committee of Compas 2014, ICPP and HiPC.
- Jean-Marc Vincent served in the committee of ASMTA 2014, SimulTech 2014, Epew 2014.
- Olivier Richard served on the committe of Compas 2014, CARLA 2014/First HPCLATAM, Grid'5000 School, Euro-Par2014WS, HPCS-14.

9.1.3. Journal

9.1.3.1. reviewer

- Team members served as reviewers for: IEEE Transactions on Information Theory, IEEE Transactions on Automatic Control, IEEE Transactions on Signal Processing, IEEE Journal on Selected Areas in Communications, Advances in Applied Probability, Games and Economic Behavior, Journal of Economic Theory, Theoretical Economics, Journal of Optimization Theory and Applications, Mathematics of Operations Research, SIAM Journal on Control and Optimization, Automatica, CCPE, IEEE Transactions on Communication, Journal of Grid Computing.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

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

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

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

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

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

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

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

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

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

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

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

E-learning

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

9.2.2. Supervision

PhD : Christian Ruiz, *Méthodes et outils pour des expériences difficiles sur Grid 5000: un cas d'utilisation sur une simulation hybride en électromagnétisme* Defended Dec. 15, 2014.

9.2.3. Juries

- Panayotis was a member of the jury eximanor for the Ph.D. thesis of Tatiana Seregina: "Applications of Game Theory to Distributed Routing and Delay Tolerant Networking", University of Toulouse, November 2014.
- Bruno Gaujal served as a reviewer in the PhD thesis defense of William Mangoua Sofack (Onera), Stefano Iellamo (Telecom Paris tech) and Simon Stuker (University of Toulouse).
- Olivier Ricahrd was a member of the jury eximanor for the Ph.D. thesis of George Markomanolis : "Performance evaluation of parallel applications and performance prediction through simulation", Inria/École Normale Supérieure de Lyon, January 2014.

9.3. Popularization

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

MOAIS Project-Team

8. Dissemination

8.1. Promoting Scientific Activities

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

8.1.1. Scientific events organisation

8.1.1.1. General chair, scientific chair

- 11th bi-annual Workshop on new challenges in scheduling theory 2014. Chair: D. Trystram.

8.1.1.2. Member of the organizing committee

- EGPGV (Eurographics Symposium on Parallel Rendering and Visualization), Member of the steering committee of : B. Raffin.
- French Day of Visualization (visu2014.imag.fr). Member of the steering committee of : B. Raffin.

8.1.2. Scientific events selection

8.1.2.1. Member of the conference program committee

- LDAH 2014 (IEEE Symposium on Large-Scale Data Analysis and Visualization), B. Raffin.
- ICCS 2014 (International Conference on Computational Science), B. Raffin.
- SEARIS 2014 (Workshop on Software Engineering and Architectures for Realtime Interactive Systems), B. Raffin.
- JVRC 2014 (International Joint Virtual Reality Conference), B. Raffin
- COMPAS, april 22-25, 2013, Neuchatel, Switzerland, D. Trystram
- IPDPS 2014 (25th IEEE International Parallel & Distributed Processing Symposium) may 20-22, Phoenix, USA, D. Trystram.
- HCW'2014 (23th IEEE Heterogeneous Computing Workshop) may 19, 2014, Phoenix, USA, D. Trystram.
- HICOMB'2014 (13th IEEE Internat Workshop on High Performance Computational Biology) may 19, Phoenix, USA, D. Trystram.
- HICOMB'2014 (13th IEEE Internat Workshop on High Performance Computational Biology) may 19, Phoenix, USA. D. Trystram.
- ISPDC (13th Internat Symposium on Parallel and Distributed Computing) june 24-27, Porquerolles Island, France, D. Trystram.
- PMAA'14 (8th internat. workshop on Parallel Matrix Algorithms and Applications) july 2-4, Lugano, Switzerland, D. Trystram.
- OPTIM'14 (Workshop on Opt. Issues in Energy Efficient Distributed Systems) july 21-25, 2014, Bologna, Italy, D. Trystram.
- EuroMPI/ASIA sept. 9-12, 2014, Kyoto, Japan, D. Trystram.
- 26th SBAC-PAD, october 22-24, 2014, Paris, France, D. Trystram.
- CARI (12th conf on research in computer science and applied Maths), oct. 23-26, 2014, Saint Louis, Senegal, D. Trystram.

8.1.3. Journal

8.1.3.1. Member of the editorial board

- Associate Editor of the Parallel Computing journal PARCO, D. Trystram.

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

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

Master: J-L. Roch co-director (Grenoble-INP) with P Elbaz-Vincent (Université Joseph Fourier, Math. Dept) of the Master "SCCI Security, Cryptology and Coding of Information Systems" (M2) joined between UJF and INP Grenoble Universities. This Master, started in 2001, is taught in English from sept 2007 (international Master).

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).

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

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

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

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

8.2.2. Supervision

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

8.2.3. *Juries*

- Vincent Faucher, HDR, INSA Lyon, June 2014.
- Laurent Gourvés, HDR, December 2014
- Florian Jamain, PhD, June 2014
- Rohit Babbar, PhD, October 2014
- Abdelkader Kersani, PhD, October 2014
- Florence Monna, PhD, November 2014
- Dounia Zaidouni, PhD, Decembre 2014
- Georgos Zois, PhD, December 2014)
- Marc Labadens, PhD, Ecole Polytechnique, December 2014.
- Fabien Coubard, PhD, Université Paris-Est, October 2014.

ROMA Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific council

Yves Robert is a member of the Scientific Council of Maison de la Simulation, Saclay.

9.1.2. Scientific events organisation

9.1.2.1. General chair, scientific chair

Yves Robert is a member of the Steering Committee of IPDPS, of HCW of HeteroPar, and of Edu-EuroPar.

9.1.2.2. Member of the organizing committee

Yves Robert and Frédéric Vivien organized the *Scheduling for large-scale platforms* in Lyon, July 1-4, 2014. There were 55 participants.

Bora Uçar organized the CSC14 workshop, the *Sixth SIAM Workshop on Combinatorial Scientific Computing* in Lyon, July 21-23, 2014. There were 54 participants.

9.1.3. Scientific events selection

9.1.3.1. Responsibility in conference program committees

Anne Benoit was vice-program chair, for the track *Algorithms*, of IPDPS 2014, and workshops co-chair of ICPP 2014.

Yves Robert was program vice-chair for the track *Algorithms* of SC'14.

Frédéric Vivien was program vice-chair, for the algorithms track, of HiPC 2014, and was co-responsible of the stream "Algorithms distribués, multi-agents et calcul parallèle" for ROADEF 2014.

9.1.3.2. Member of conference program committees

Anne Benoit was a member of the program committees of the following conferences and workshops: HCW 2014, PDP 2014, Ena-HPC 2014 and CCGrid 2014.

Jean-Yves L'Excellent was a member of the program committees of CompAS 2014, Vecpar 2014, CSC 2014.

Loris Marchal was a member of the program committee of IPDPS'2014 and HeteroPar'2014.

Yves Robert was a member of the program committee of the following conferences and workshops: ISCS'14, EduPar'14, ICCS'14, and FTXS'14.

Bora Uçar was a member of the program committee for MPP2014 (a workshop of SBAC-PAD2014), HiPC14, IPDPS 2014, PMAA14, and PCO 2014 (a workshop of IPDPS).

Frédéric Vivien was a member of the program committee of the following conferences and workshops: SC'14, posters of SC'14, IPDPS 2014, CompAS'2014, PDP 2014, and EduHPC'14.

9.1.4. Roles in international organizations

Bora Uçar was elected as the Secretary of the SIAM activity group on Supercomputing. (1 January 2014–12 December 2015). He was also appointed as the member of the steering committee of Combinatorial Scientific Computing.

9.1.5. Journal

9.1.5.1. Member of the editorial board

Anne Benoit is an associate editor of the *Journal of Parallel and Distributed Computing (JPDC)* and of the *Journal of Sustainable Computing: Informatics and Systems (SUSCOM)*.

Yves Robert is an associate editor of *International Journal of High Performance Computing Applications (IJHPCA)*, *International Journal of Grid and Utility Computing (IJGUC)*, and *Journal of Computational Science (JOCS)*.

Frédéric Vivien is an associate editor of *Parallel Computing*.

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: Guillaume Aupy, Resilient and energy-efficient scheduling algorithms at scale, École normale supérieure de Lyon, September 16, 2014, Anne Benoit and Yves Robert.

PhD: Dounia Zaidouni, Combining checkpointing and other resilience mechanisms for exascale systems, December 10, 2014, École normale supérieure de Lyon, Frédéric Vivien and Yves Robert.

PhD: Wissam M. Sid-Lakhdar, Scaling the solution of large sparse linear systems using multi-frontal methods on hybrid shared-distributed memory architectures, December 1 2014, Jean-Yves L'Excellent.

PhD in progress: Aurélien Cavelan, Algorithms for detecting and correcting silent errors, September 1, 2014, Anne Benoit and Yves Robert.

PhD in progress: Oguz Kaya, Parallel and Distributed Sparse Tensor Computations, September 1, 2014, Yves Robert and Bora Uçar.

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

9.2.3. Juries

Bora Uçar was a member of the PhD defense committee of Clément Vuchener as a “rapporteur”, Université de Bordeaux, École doctorale de mathématiques et d'Informatique.

Yves Robert was a member of the HdR defense committee of Frédéric Suter, ENS Lyon.

SOCRATE Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events organisation

The inauguration of the experimentation room of FIT/CortexLab took place in October 2014, see Figure 5⁰, with the noticeable venue of Prof. H. Vincent Poor, Dean of School of Engineering and Applied Science of Princeton University.

9.1.1.1. general chair, scientific chair

- Samir Perlaza was a co-chair the Eight IEEE Sensor Array and Multichannel Signal Processing (SAM 2014). Special Session on Estimation in Cyber-Physical Energy Systems. June 22-25, 2014, La Coruna, Spain.

9.1.1.2. member of the conference program committee

- Florent de Dinechin was a member of the following program committees:
 - IEEE International Conference on Application-specific Systems, Architectures and Processors (ASAP)
 - IEEE International Conference on Field Programmable Logic and Applications (FPL)
 - IEEE International Conference on Field Programmable Technologies (FPT)
 - IEEE International Conference on Reconfigurable Computing and FPGAs (ReConFig)
 - International Symposium on Highly Efficient Reconfigurable Accelerator Technologies (HEART)
 - Conférence d’informatique en Parallélisme, Architecture et Système (CompAS)
- Jean-Marie Gorce was a member of the following program committees:
 - IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC) 2014
 - IEEE International Conference on Ultra-Wideband (ICUWB) 2014
- Tanguy Risset was a member of the following program committees:
 - IEEE Computer Society Annual Symposium on VLSI (ISVLSI) 2014.
 - Design Automation and Test in Europe (DATE) 2014.
- Samir Perlaza was a member of the following program committees:
 - IEEE Global Conference on Signal and Information Processing (GLOBALSIP) 2014.
 - Conference on Decision and Game Theory for Security (GameSec) 2014.
 - International Workshop on Wireless Networks: Communication, Cooperation and Competition (WNC3) 2014.
 - IEEE INFOCOM Workshop on Communications and Control for Smart Energy Systems (CCSES) 2014.
 - IEEE ICC Workshop on Small Cell and 5G Networks (SmallNets) 2014.
 - International WDN Workshop on Cooperative and Heterogeneous Cellular Networks (WDN-CN) 2014.
- Guillaume Villemaud was a member of the following program committees:

⁰<http://www.inria.fr/centre/grenoble/actualites/inauguration-reussie-de-la-plateforme-cortexlab-equipex-fit>

- IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC) 2014
- International Telecommunications Symposium (ITS) 2014

9.1.1.3. member of the editorial board

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

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.

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

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

Guillaume Villemaud and Florin Hutu are associate professor 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

Phd: **Nicolas Brunie**: *Contributions to computer arithmetic and applications to embedded systems*, École Normale Supérieure de Lyon, Kalray CIFRE grant, 16 May 2014.

Phd: **Mickael Dardaillon**: *Compilation d'applications flot de données paramétriques pour MPSoC dédiés à la radio logicielle*, nom de l'Université, Rhones-Alpes Grant, 19 Nov. 2014.

PhD in progress **Coralie Saisset**: *Compilation de programme data-flow pour architecture multi-cœur*, nom de l'Université, MENRT, since 09/2014.

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

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

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

PhD in progress : **Matthieu 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.

PhD in progress **Aissa Khoumeri**: “*Study and Development of Wake-Up Radio Receivers*”, FUI ECONHOME since 11/2011.

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

9.2.3. *Juries*

Florent de Dinechin

PhD: **Manish Kumar Jaiswal**, *Configurable Architectures for Mixed High Precision Floating Point Arithmetic*, City University, Hong Kong (as a reviewer).

PhD: **Nicolas Brunie**, *Contributions to computer arithmetic and applications to embedded systems*, École Normale Supérieure de Lyon.

PhD: **Mohamed Amine Najahi**, *Synthesis of certified programs in fixed-point arithmetic, and its application to linear algebra basic blocks*, Université de Perpignan Via Domitia (as a reviewer).

PhD: **Benoît Lopez**, *Implémentation optimale de filtre linéaire en arithmétique virgule fixe*, Université Pierre et Marie Curie, Paris.

Jean-Marie Gorce

HDR: **Jean-Yves Baudais**, *Systèmes à porteuses multiples précodés*, IETR, INSA Rennes.

HDR: **Marceau Coupechoux**, *Ingénierie des réseaux radio*, Telecom Paris Tech, Paris.

PhD: **Ramona Rosini**, *From radio channel modeling to a system level perspective in body-centric communications*, Univ. of Bologna, Italy.

PhD:, INSA Toulouse

PhD:, IETR, INSA Rennes

PhD:, Gipsa-lab Université Joseph Fourier, Grenoble

PhD: Zhaowu Zhan, INSA Lyon.

Tanguy Risset

PhD: **Mickael Dardaillon**, *Compilation d'applications flot de données paramétriques pour MPSoC dédiés à la radio logicielle*, Insa-Lyon.

PhD: **Ganda Stéphane Ouedraogo**, *Automatic Synthesis of Hardware Accelerators from High-Level Specifications of Physical Layers for Flexible*

TYREX Project-Team

8. Dissemination

8.1. Promoting Scientific Activities

8.1.1. Scientific events organisation

8.1.1.1. Member of the organizing committee

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

8.1.2. Scientific events selection

8.1.2.1. Chair of conference program committee

P. Genevès is the PC Chair of the [ACM Symposium on Document Engineering 2015](#).

8.1.2.2. Member of the conference program committee

P. Genevès is member of the external review committee for the 42nd ACM Symposium on Principles of Programming Languages (POPL'15).

P. Genevès and N. Layaïda are program committee members for the 14th ACM Symposium on Document Engineering (DocEng'14).

8.1.2.3. Reviewer

P. Genevès has been referee for International Colloquium on Automata, Languages and Programming (ICALP)

P. Genevès has been referee for International Conference on Relational and Algebraic Methods in Computer Science (RAMiCS).

8.1.3. Journal

8.1.3.1. Reviewer

N. Layaïda has been a referee for the Communications of the ACM.

P. Genevès has been a referee for Engineering Science and Technology (Elsevier).

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

Licence: C. Roisin, Computer Networks, 100h/year, L2, University of Grenoble, France

Licence: C. Roisin, Pedagogical manager of the Professional Licence "MESSI" and Academic-side tutoring of several apprentices of this licence, University of Grenoble, France

Licence: N. Gesbert, Logic, 45h/year, L3, University of Grenoble, France

Licence: N. Gesbert, Algorithmics, 60h/year, L3, University of Grenoble, France

Licence: N. Gesbert, Academic-side tutoring of an apprentice, 10h/year, University of Grenoble, France

Master: N. Gesbert, Logic, 45h/year, M1, University of Grenoble, France

Master: N. Gesbert, Web development, 22h30/year, M1, University of Grenoble, France

Master: N. Gesbert, Software analysis, conception and validation, 45h/year, M1, University of Grenoble, France

Master: P. Genevès, Foundations for XML: logics and automata, 18h/year, M2 (Mosig), University of Grenoble, France

8.2.2. Supervision

HdR: P. Genevès, Static Analysis for Data-Centric Web Programming, Université de Grenoble Alpes, 21 November 2014.

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, Semantic Query-Update Independence Analysis under Constraints, since October 2012, C. Roisin and P. Genevès

PhD in progress: A. Abbas, Web query rewriting for heterogeneous data sources, since October 2014, N. Layaïda and P. Genevès

PhD in progress: T. Michel, Mobile Augmented Reality Applications for Smart Cities, since October 2014, P. Genevès, N. Layaïda and H. Fourati

PhD in progress: L. Jachiet, Reasoning with NoSQL Data Flows in Massively Parallel Systems, since October 2014, N. Layaïda and P. Genevès

8.2.3. Juries

N. Layaïda has been reviewer for the PhD thesis of Houari Mahfoud, Efficient Access Control to XML Data: Querying and Updating Problems, Université de Lorraine, supervisors: Abdessamad Imine and Michael Rusinowitch. 18 February 2014.

N. Layaïda has been committee member of the HdR of P. Genevès, Static Analysis for Data-Centric Web Programming, Université de Grenoble Alpes, 21 November 2014.

C. Roisin has been reviewer for midterm PhD thesis of Mira Sarkis, Supervised by Jean-Claude Dufourd and Cyril Concolato, Télécom Paristech, Paris, 2014.

8.3. Popularization

M. Razafimahazo developed a mobile application for the pupils of the école de la paix, Grenoble. The application uses Augmented Reality for cultural heritage tour of Grenoble City with content produced by pupils.

M. Razafimahazo Animated a brainstorming during CitizenTIC around OpenStreetMap crowd-sourcing: “Les cartes changent la donne autour des parcours accessibles dans l’agglomération Grenobloise”.

N. Layaïda animated several workshops on Open Linked Data for Grenoble City and Grenoble Agglomeration (La métro).

We received two pupils from secondary school, Jeremy Andreoletti and Hugo Kersaudy, for a one week initiation to research. We hosted several pupils from the primary school for a one day for a presentation and demos.

8.3.1. Institutional commitment:

C. Roisin Board member of the University Pierre Mendes-France, University of Grenoble, in charge of IT systems and TICE.

C. Roisin is President of the disciplinary commission of the University Pierre Mendes-France, University of Grenoble.

N. Layaïda is member of the Scientific Board of Advanced Data-mining of the Parsyval Labex.

N. Layaïda is member of the experts pool (selection committee) of the minalogic competitive cluster.

URBANET Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Administrative responsibilities

- Fabrice Valois was elected (02/2014) and nominated (09/2014) as director of the CITI research laboratory of INSA Lyon.
- Hervé Rivano is responsible with the Economic and Strategic Intelligence affairs of the CITI research laboratory, in charge with setting up ZRRs withing the lab.
- Hervé Rivano and Razvan Stanica are members in the CITI laboratory council.

9.1.2. Scientific events organization

9.1.2.1. Session chair

- Marco Fiore was a panelist at the *Complex Network Science: the next big thing* Panel at IEEE NetSciCom, May 2014.
- Marco Fiore was Session chair for two sessions at IEEE SECON 2014.
- Hervé Rivano was an invited panelist at the Labex IMU Workshop.
- Razvan Stanica was Session chair for the "Sensing, Vising and Perception VII" session at IEEE ITSC 2014.

9.1.3. Scientific events selection

9.1.3.1. Member of the conference program committee

- The Urbanet team members are/were members of the technical program committee for a number of international conferences, including IEEE SECON 2014, IEEE WoWMoM 2014/2015, IEEE Globecom 2014, IEEE ICC 2014/2015, IEEE VTC-Spring 2014, IEEE WCNC 2014, IEEE VNC 2014, WD 2014, ICCVE 2014, IEEE AINA 2014, IWCMC 2014.

9.1.4. Journal

9.1.4.1. Member of the editorial board

- Marco Fiore is member of the Technical Committee of Elsevier Computer Communications.

9.1.4.2. Reviewer

- The Urbanet team members are/were reviewers for a number of international journals, including IEEE Transactions on Mobile Computing, IEEE Communications Magazine, IEEE Transactions on Vehicular Technology, IEEE Wireless Communication Letters, Ad Hoc Networks Journal, Vehicular Communications Journal, Transportation Research Part C.

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 : Hervé Rivano, IP Networks, 20h, 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 : Walid Bechkit, Performance evaluation of telecom networks, 60h, M1, Telecom. Dpt. INSA Lyon, France.

Master : Walid Bechkit, Wireless Multihop networks, 10h, M2, University of Lyon.

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 Sensor Networks, 6h, M2, University of Grenoble.

Isabelle Augé-Blum is in charge of the foreign affairs of the Telecommunications department at INSA Lyon, coordinating all incoming and outgoing student exchange programs.

Razvan Stanica is responsible for the administrative part related to all Master projects prepared by INSA Lyon Telecommunications department students.

Fabrice Valois is responsible of the networking teaching team in the Telecommunications department at INSA Lyon, coordinating all the courses in the networking domain.

Since 2006, Fabrice Valois is the head of an international teaching program focused on Internet of Things, established between INSA Lyon and Shanghai Jiao Tong University.

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

9.2.2. Supervision

HdR : Hervé Rivano, Modélisation et optimisation du partage de ressources dans les réseaux radio multi-sauts, INSA Lyon, 06/2014.

HdR : Marco Fiore, Vehicular networking: from fundamental properties to network solutions, INSA Lyon, 07/2014.

PhD : Quentin Lampin, Réseaux urbains de capteurs sans fil: Applications, caractérisation et protocoles, INSA Lyon, 01/2014. Advisors: Isabelle Augé-Blum, 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. Yaoundé, Cameroun).

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

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

MS thesis: P. Brunisholz, INSA Lyon, The Gain of Network Coding in Wireless Sensor Networking. Advisors: Fabrice Valois, Marine Minier (Inria Privatics).

MS thesis: A. Caballero, INSA Lyon, Collection and Analysis of Mobile Phone Data. Advisors: Razvan Stanica, Hervé Rivano.

MS thesis: R. Chaabouni, INSA Lyon, Capacity of a Bike Mobile Sensor Network. Advisor: Hervé Rivano.

MS thesis: S. Feng, INSA Lyon, GPS Data Collection using Android Smartphones. Advisors: Razvan Stanica, Hervé Rivano.

MS thesis: F. Hou, INSA Lyon, Resource Allocation in Cloud Radio Access Networks. Advisor: Razvan Stanica.

MS thesis: H. Kahoul, INSA Lyon, Autonomous RPL An IPV6 Routing Protocol For Wireless Sensor Networks. Advisor: Fabrice Valois.

MS thesis: C. Lamé, INSA Lyon, Analytical Models of IEEE 802.11 Networks. Advisor: Razvan Stanica.

MS thesis: F. Matigot, INSA Lyon, Deployment of Wireless Sensor Networks for Urban Pollution Monitoring. Advisors: Walid Bechkit, Hervé Rivano.

MS thesis: S. Mokhtari, INSA Lyon, Performance Evaluation of Line Wireless Sensor Networks. Advisors: Walid Bechkit, Hervé Rivano.

MS thesis: A. Tessilimi, INSA Lyon, Human Mobility Analysis from Call Detail Records. Advisors: Razvan Stanica, Marco Fiore.

MS thesis: M. Yu, INSA Lyon: Characterization of WSN For Traffic Flow Control. Advisor: Fabrice Valois.

9.2.3. Juries

- Marco Fiore was external reviewer of the following Ph.D. defense:
 - S. Faye, Contrôle et gestion du trafic routier urbain par un réseau de capteurs sans fil, Telecom ParisTech, 10/2014.
- Marco Fiore was external examiner of the following Ph.D. defense:
 - N. Haddadou, Réseaux ad hoc véhiculaires : vers une dissémination de données efficace, coopérative et fiable, Université Paris-Est, 06/2014.
- Marco Fiore was external examiner of the following mid-term Ph.D. defense:
 - L. Gallo, Next Generation Mobile Vehicular Networking for Public Transportation Systems, EURECOM, 10/2014.
- Hervé Rivano was external reviewer of the following Ph.D. defense:
 - A. Kodjo, Design and Optimization of Wireless Backhaul Networks, I3S, Université de Nice Sophia Antipolis, 12/2014.
- Razvan Stanica was a member of one CoS (selection committee) for an associate professor position at INSA Lyon.
- Fabrice Valois was external reviewer of the following Ph.D. defenses:
 - K. El Gholami, La Gestion de la Qualité de Service Temps-Réel dans les Réseaux de Capteurs Sans Fil, LIMOS, Université Blaise Pascal, Clermont-Ferrand (France) and STIC, Université Chouaib Doukkali, El Jadida (Maroc), 12/2014.
 - D. D. Khanh, Performance Analysis of Wireless Technologies for New Generation Avionics Embedded Systems, ISAE, Université de Toulouse, 12/2014.

- Fabrice Valois was member in the following HdR defense committee:
 - F. Theoleyre, *Medium Access and Efficient Use of Multihop Wireless Networks (HDR)*, ICube, Université de Strasbourg, 06/2014.
- Fabrice Valois was a member of two CoS (selection committee) for associate professor positions at Telecom ParisTech and INSA Lyon.

9.3. Popularization

- Hervé Rivano gave a popularization talk for ISN teachers on smart cities and wireless networking issues in June 2014.
- Razvan Stanica gave an invited talk, titled *Data Collection and Analysis using Mobile Phone Sensors*, in the wireless sensor network training organized for industrial partners at the Ecole Polytechnique de Yaoundé in June 2014.
- Fabrice Valois gave an invited talk, titled *Introduction to Wireless Sensor Networks*, in the wireless sensor network training organized for industrial partners at the Ecole Polytechnique de Yaoundé in June 2014.

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 March 2015.
- 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. March 2014. Editorial: <https://hal.inria.fr/hal-00932719>.
- A. Spalanzani co-organised a workshop on Assistance and Service robotics in a human environment during IROS 14, Chicago, US, September 2014.
- C. Laugier co-organized (with Ph. Martinet, U. Nunes, and C. Stiller) the 6th Workshop on “Planning, Perception and Navigation for Intelligent Vehicles” at the IEEE/RSJ IROS 2014 conference, Chicago, US, September 2014.
- C. Laugier was an Associate Editor for the IEEE ICRA 2014 conference.
- 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.
- C. Laugier is a member of the Editorial Board of the JSME Robomech Journal.

8.1.1. Keynote talks

- C. Laugier. Keynote talk “Bayesian Perception and Decision: from theory to real world applications”. IEEE/RSJ IROS 2014, Chicago, Sept. 2014.
- C. Laugier. Invited Talk “Nex cars generation”. Invited by Tokyo University and Japanese companies. Tokyo, October 2014.
- C. Laugier. Plenary Talk “Key Technologies for addressing the challenge of Autonomous Vehicles”. Int. Conf. on “Innovations for next generation automobile”. Sendai, Japan, October 2014.
- C. Laugier. Invited Talk “Technologies for next cars generation”. IEEE ICARCV 2014, plenary session on the future of robotics, Singapore, December 2014.
- M. Perrollaz and C. Laugier. Invited Talk (given by M. Perrollaz) “Relever les défis des véhicules autonomes”. EMM 2014, 12^{ème} rencontre Européenne de Mécatronique. Annecy, June 2014.

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.
- **E-learning**
 - Mooc “Mobile Robots and Autonomous Vehicles” - 6 weeks, C. Laugier, D. Vasquez, A. Martinelli - under finalization, publication spring 2015.

8.2.2. Supervision

PhD defended in 2014: Chiara Troiani, vision and inertial sensor fusion for 3D navigation, 2011, A. Martinelli.

PhD defended in 2014: 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).

Starting PhD: Mathieu Barbier, Decision making for Intelligent Vehicles, 2014, E. Mazer and D. Vasquez (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 Thibault Kruse, University of Munich, January 14th 2015 (Report July 2014).

C. Laugier was a member of the defense committee of the PhD thesis of Chiara Troiani and of Arturo Escobedo.

EXMO Project-Team

8. Dissemination

8.1. Promoting Scientific Activities

8.1.1. Scientific events organisation

8.1.1.1. general chair, scientific chair

- Jérôme Euzenat was organiser of the Ontology matching workshop of the 13th ISWC, Riva del Garda (IT), 2014 (with Pavel Shvaiko, Ming Mao, Ernesto Jiménez-Ruiz, Juanzi Li and Axel Cyrille Ngonga-Ngomo),
- Jérôme Euzenat was co-chair with Maria Keet of the “ontologies” area of the programme committee of the “European Semantic Web Conference (ESWC)”, 2014

8.1.1.2. member of the organizing committee

- Jérôme Euzenat is founding member of the “Semantic Web Science Association” (steering committee for the ISWC conference series).
- Jérôme David has been member of the organisation committee of the “Web of data summer school”, Saint-Étienne (FR).

8.1.2. Scientific events selection

8.1.2.1. member of the conference program committee

- Manuel Atencia and Jérôme Euzenat were programme committee members of the 21st “European conference on artificial intelligence (ECAI)” 2014.
- Jérôme Euzenat was programme committee member of the “International conference on Knowledge Representation and Reasoning (KR)” 2014.
- Manuel Atencia and Jérôme Euzenat were programme committee members of the 13th “International semantic web conference (ISWC)” 2014.
- Jérôme Euzenat was programme committee member of the “International Conference on Formal Ontologies for Information Systems (FOIS)” 2014.
- Jérôme Euzenat was programme committee member of the “International Conference on Conceptual Structures (ICES)” 2014.
- Jérôme Euzenat was programme committee member of the conference «Reconnaissance des Formes et Intelligence Artificielle (RFIA)» 2014.
- Manuel Atencia, Jérôme David and Jérôme Euzenat were programme committee members of the “knowledge engineering (ingénierie des connaissances)” conference 2014.
- Jérôme Euzenat was programme committee member of the conference “French fundamental artificial intelligence days” (JIAF) 2014.
- Jérôme David and Tatiana Lesnikova have been programme committee members of the 9th “Ontology matching workshop (OM)”, 2014.
- Jérôme David has been programme committee member of the IC workshop “Des sources ouvertes au web des données (SoWeDo)”, 2014.

8.1.2.2. reviewer

- Manuel Atencia has been reviewer for the 17th “International Conference on Database Theory” (ICDT) 2014.

- Jérôme David has been reviewer for the 21st “European conference on artificial intelligence (ECAI)” 2014.
- Jérôme David has been reviewer for the 11th “European Semantic Web Conference (ESWC)”, 2014.
- Jérôme David has been reviewer for the 21st International Conference on Conceptual Structures (ICES), 2014.

8.1.3. Journal

8.1.3.1. member of the editorial board

- Jérôme Euzenat is editorial board member of *Journal of Web Semantics*, *Journal on Data Semantics* and *Semantic web journal*.

8.1.3.2. reviewer

- Jérôme Euzenat has been reviewer for the Journal of Artificial Intelligence Research.
- Jérôme Euzenat has been reviewer for the Semantic web journal.
- Jérôme Euzenat has been reviewer for the Journal of the Association for Information Science and Technology.

8.1.4. Seminars

- Seminar on “Data integration with ontologies through alignments”, Semanco VoCamp, Barcelona (ES), 13/02/2014 (Jérôme Euzenat).
- Invited talk on “Foundations for revising networks of ontologies”, WoDOOM workshop, Hersounis-sos (GR), 26/05/2014 (Jérôme Euzenat).
- Invited talk on “Raisonnement avec des réseaux d’ontologies”, Journées d’intelligence artificielle fondamentale, Angers (FR), 12/06/2014 (Jérôme Euzenat).
- Invited talk on “Représenter, communiquer, échouer”, Journée ARIA de promotion de l’intelligence artificielle, Paris (FR), 2/10/2014 (Jérôme Euzenat).

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

- Licence: Jérôme David, Inff3 Algorithmique et programmation par objets, 70, L2 MASS, UPMF, France
- Licence: Manuel Atencia, Introduction aux technologies du Web, L3 MASS, UPMF, France
- Master: Jérôme David, Documents XML, 30, M1, UPMF, France
- Master: Manuel Atencia, Langages et technologies du Web 1, M1 IC2A, UPMF, France
- Master: Manuel Atencia, Langages et technologies du Web 2, M1 IC2A, UPMF, France
- Master: Jérôme David, Développement Web Mobile, 30, M2, UPMF, France
- Master: Manuel Atencia, Web Sémantique, M2 IC2A, UPMF, France
- Master: Jérôme Euzenat, Semantic web: from XML to OWL, 22heqTD, M2R, Université Joseph Fourier & INPG, France
- Post-graduate level: Jérôme Euzenat and Pavel Shvaiko, Ontology matching, 3h, Tutorial ISWC, Riva del Garda, Italy

8.2.2. Supervision

- PhD: Zhengjie Fan, Concise Pattern Learning for RDF Data Sets Interlinking, Université de Grenoble, 4/4/2014, supervisors: Jérôme Euzenat and François Scharffe
- 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 has reviewed the PhD dissertation of Sébastien Harispe, Knowledge-based semantic measures: from theory to application, Université de Montpellier 2, 25/04/2014, supervisors: Jacky Montmain and Sylvie Ranwez
- Jérôme Euzenat was member of the HDR committee of Fabian Suchanek, Contribution à l'avancement des grandes bases de connaissances, Université Pierre et Marie Curie, 10/09/2014
- Jérôme Euzenat chaired the PhD committee of Mustafa Al-Bakri, Uncertainty-sensitive reasoning over the web of data, Université de Grenoble, 15/12/2014, supervisors: Marie-Christine Rousset and Manuel Atencia

8.3. Popularization

- Jérôme Euzenat gave a talk to the Canopé network conference cycle on “Communication et adaptation: la fabrique de la communication flexible (communication and adaptation: the making of flexible communication), CROP, Grenoble (FR), 2/04/2014.
- Jérôme Euzenat gave a talk to the 7es journées de l'interopérabilité des applications d'entreprise (JIAE) on “Aligner les ontologies pour communiquer (matching ontologies to communicate)”, Saint-Étienne (FR), 16/05/2014.
- Jérôme David participates to the working group “Créer et maintenir une interconnexion sémantique des grands référentiels culturels: le "Graphe Culture"” of the ministry of Culture. <http://cblog.culture.fr/projet/2013/11/07/groupe-de-travail-metadonnees-culturelles/>

IMAGINE Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events organisation

9.1.1.1. general chair, scientific chair

- Rémi Ronfard was chair for the 3rd AAAI workshop on Cinematography and Film Editing (WICED'2014), which took place on July 30, 2014 in Quebec City, Canada. He was also co-chair for the 4th Eurographics workshop on Cinematography and Film Editing (WICED'2015), which will take place on May 4, 2015, in Zurich, Switzerland.
- Stefanie Hahmann was co-organizer of the 9th international colloque *Dagstuhl Seminar on Geometric Modeling* et the Leibniz-Zentrum für Informatik en Allemgane. 45 invited researchers participated to scientific talks, discussions and perspective working groups.

9.1.1.2. member of the organizing committee

- Marie-Paule Cani was a steering committee member of SMI (Shape Modelling International) and Expressive (SBIM, NPAR, CAe) Chair of the Steering committee of Eurographics.
- Rémi Ronfard was member of the following events
 - International Conference on Interactive Digital Storytelling (ICDS 2014).
 - Computational Modeling of Narrative (CMN 2014).
 - Interactive Narrative Technologies (INT 2014).
 - SIGGRAPH workshop on Motion in Games (MIG 2014).
 - International Conference on 3D imaging (IC3D 2014).
 - International Conference on Intelligent Human Computer Interaction (IHCI 2014).

9.1.2. Scientific events selection

9.1.2.1. member of the conference program committee

- Marie-Paule Cani was member of the conference program committee for Graphics Interface 2014 and Expressive 2014 (joint ACM-EG symposium on SBIM, NPAR, CAe).
- Stefanie Hahmann was member of the international program committee for Eurographics 2014, SMI'14 Shape Modeling International, Computer Graphics International (CGI'14), and SPM 2014 Symposium on Solid and Physical Modeling.
- Damien Rohmer was member of the Technical Briefs & Poster for ACM SIGGRAPH Asia 2014.

9.1.2.2. reviewer

- Marie-Paule Cani was reviewer for SIGGRAPH 2014.
- Stefanie Hahmann was reviewer for Eurographics 2014, SMI'14, CGI'14 and SPM'14.
- Jean-Claude Léon was reviewer for CAD 2014 Intl conference.
- Damien Rohmer was reviewer for SIGGRAPH Asia 2014 and Eurographics 2014.

9.1.3. Journal

9.1.3.1. member of the editorial board

- Marie-Paule Cani was member of the editorial board of ACM Transactions on Graphics (TOG).
- Stefanie Hahmann was reviewer for Computer Aided Design (Elsevier) and Graphical Models (Elsevier).

- Jean-Claude Léon was member of the editorial board of Computer Aided Design.

9.1.3.2. reviewer

- Jean-Claude Léon was reviewer for Computer Aided Design.
- Olivier Palombi was reviewer for Surgical and Radiologic Anatomy.
- Rémi Ronfard was reviewer for The Visual Computer, and Computer Vision and Image Understanding.
- Damien Rohmer was reviewer for the popularization journal Quadrature.

9.1.4. Others

Marie-Paule Cani was

- Vice chair of the European scientific organization Eurographics
- Elected member of EG-France executive committee (french chapter of Eurographics)
- Member of the ACM publication board until June 2014.
- Member of the scientific council of ESIEE Paris.

Stefanie Hahmann was

- Member of the SMA Executive Committee (Shape Modeling Association).
- President of GTMG (Groupe de Travail en Modélisation Géométrique) part of GDR IM and GDR IGRV.
- Member of the Conseil du Laboratoire at LJK.
- Responsible of Maths-Info department of the Grenoble doctoral school MSTII.

Rémi Ronfard

- gave invited talks on "Directing virtual worlds" at Utrecht University; at Laboratoire d'Informatique Fondamentale in Marseille; at LIRIS in Lyon; at IRCAM in Paris.
- is a co-organizer of the GDR ISIS action on "Face, gesture, action and behavior", which held its national meeting on December 11, at Telecom Paris Tech.
- is a member of the new GDR Esars : *Esthétique, Art et Science*.

9.2. Teaching - Supervision - Juries

9.2.1. 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) (<http://ensimag.grenoble-inp.fr/cursus-ingenieur/modelisation-mathematique-images-simulation-124674.kjsp>) department at University ENSIMAG/Grenoble INP. Stefanie Hahmann is responsible of 3 courses at Ensimag/Grenoble INP: Numerical Methods (240 students, 3rd year Bachelor level), Geometric Modeling (60 students, Master 1st year) and Surface Modeling (30 students, Master 2nd year).
- Olivier Palombi is responsible of the French **Campus numérique** of anatomy. Olivier Palombi is responsible and national leader of the project SIDES (<http://side-sante.org/>). All the French medical schools (43) have 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-Signal-Image program in the school CPE Lyon.
- Rémi Ronfard taught courses in Advanced 3D animation, M2R MOSIG, University of Grenoble (12 hours); and Game Engine Programming, M2R IMAGINA, University of Montpellier (20 hours).

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.

9.2.2. 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.

9.3. Popularization

Damien Rohmer published an article on volume preserving deformation in Quadrature Journal [41]. This journal is accessible for University students and teachers.

LEAR Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events organisation

9.1.1.1. General chair, scientific chair

- C. Schmid is general chair for IEEE Conference on Computer Vision and Pattern Recognition, 2015.

9.1.1.2. Member of the organizing committee

- C. Schmid and K. Alahari organized the ALLEGRO Workshop on weakly supervised learning and video recognition, Grenoble, 2014.
- Z. Harchaoui organized the “Tutorial on Frank-Wolfe and Greedy Optimization for Learning with Big Data” at ICML 2014, June 2014.
- Z. Harchaoui has organized a summer-school “Khronos Days”, focused on “High-Dimensional Learning and Optimization”, as part of the “Khronos” project (LabEx Persyval-Lab) and the “Gargantua” project (CNRS-Mastodons). <http://lear.inrialpes.fr/people/harchaoui/projects/khronos/>.
- Z. Harchaoui organized one international workshop. “Optimization and Statistical Learning workshop”, Les Houches, France, January 2015. <http://lear.inrialpes.fr/workshop/osl2015/>.
- Z. Harchaoui co-organized one national GDR-ISIS workshop on “Learning representations and signal processing”.
- Z. Harchaoui co-organized NIPS’14 "Optimization for Machine Learning" Workshop in Montreal (Canada).
- J. Mairal organized the session “Optimization and statistics” at “Journées MAS”, Toulouse, France.
- F. Pierucci co-organized the Grenoble Optimization Day workshop.

9.1.2. Scientific events selection

9.1.2.1. Member of the conference program committee

- J. Verbeek: area chair for BMVC ’14, ECCV ’14, CVPR ’15.
- Z. Harchaoui: area chair for ICML ’15.
- J. Mairal: area chair for ICML ’15.

9.1.2.2. Reviewer

The permanent members of the team reviewed numerous papers for numerous international conferences in computer vision and machine learning: CVPR, ECCV, NIPS, ICML, AISTATS.

9.1.3. Journal

9.1.3.1. Member of the editorial board

- C. Schmid: Editor in Chief of the International Journal of Computer Vision, since 2013.
- C. Schmid: Associate editor for Foundations and Trends in Computer Graphics and Vision, since 2005.
- J. Verbeek: Associate editor for Image and Vision Computing Journal, since 2011.
- J. Verbeek: Associate editor for the International Journal on Computer Vision, since 2014.
- J. Mairal: Guest editor for the Special Issue on Sparse Coding of the International Journal of Computer Vision.
- J. Mairal: Associate editor for IEEE Signal Processing Letters, since August 2014.
- K. Alahari: Co-guest editor: Special Issue on "Higher Order Graphical Models in Computer Vision: Modelling, Inference & Learning", IEEE Transactions on Pattern Analysis and Machine Intelligence, 2015 (in press)

9.1.3.2. Reviewer

The permanent members of the team reviewed numerous papers for numerous international journals in computer vision (IJCV, PAMI,CVIU), machine learning (JMLR, Machine Learning). Some of them are also reviewing for journals in optimization (SIAM Journal on Optimization), image processing (SIAM Imaging Science), information theory (IEEE Transactions on Information Theory), statistics (Bernoulli, Annals of Statistics, Journal of American Statistical Association).

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Doctorat: Z. Harchaoui, Lecture *Large-scale machine learning*, in “Tutorial on Large-Scale Visual Recognition” at CVPR 2014.

Doctorat: K. Alahari, Half-day Tutorial on MAP Estimation and Structured Prediction at ICPR, Stockholm, August 2014.

Doctorat: J. Mairal, course “Sparse estimation for image and vision processing”, 9H eqTD, DENIS summer school at Tampere university, Finland;

Doctorat: J. Mairal, course “Sparse estimation for image and vision processing”, 4.5H eqTD, given at PSL research university, Paris, France.

Master : M. Douze and K. Alahari. Multimedia databases, 3rd year ENSIMAG, Grenoble, France.

Master : J. Verbeek and J. Mairal, “Kernel Methods for Statistical Learning, 27H eqTD, M2, ENSIMAG, Grenoble.

Master: J. Mairal. “Statistical Learning and Applications”. 13.5H eqTD, M2, Ecole Normale Supérieure de Lyon, France.

Master : C. Schmid, “Object recognition and computer vision”, 10H, M2, ENS Cachan, France.

Master : J. Verbeek and C. Schmid. “Machine Learning & Category Representation”, 27H eqTD, M2, Univ. Grenoble.

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

Master: P. Weinzaepfel, “Introduction aux Réseaux”, 15H TD, M1, University Joseph Fourier, Grenoble, France.

Licence : F. Pierucci, “Apprentissage du raisonnement, algèbre linéaire et analyse élémentaire.”. 38H, L1, Grenoble univ., France.

Licence : H. Lin, “Apprentissage du raisonnement, algèbre linéaire et analyse élémentaire.”. 38H, L1, Grenoble univ., France.

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

9.2.2. Supervision

PhD: G. Cinbis, “Fisher kernel based models for image classification and object localization”, Grenoble Univ, July 2014, advisors: C. Schmid and J. Verbeek.

PhD: Z. Akata, “Contributions to Large-Scale Learning for Image Classification”, Grenoble Univ, Januray 2014, advisors: C. Schmid and F. Perronnin.

9.2.3. Juries

- C. Schmid, PhD committe for Mihir Jain, Inria Rennes, April 2014.
- C. Schmid, PhD committe for Mingyuan JIU, INSA Lyon, April 2014.
- C. Schmid, examiner for HdR Josef Sivic, ENS, Feburary 2014.
- J. Mairal, PhD committee for Nicolas Duforet-Frebourg, Grenoble University, October 2014.
- K. Alahari: President of the PhD committee for Jon Almazan, Computer Vision Center, Barcelona, Spain, October 2014.
- K. Alahari: PhD committee for Heydar Maboudi, KTH Royal Institute of Technology, Stockholm, Sweden, May 2014.

9.3. Other responsibilities

- C. Schmid was member of the evaluation panel for ERC starting grants, 2014.
- C. Schmid is member of the PAMI-TC awards committee, and the PAMI-TC executive committee.
- J. Verbeek: reviewer for grant proposals for the Indo French Centre for the Promotion of Advanced Research (CEFIPRA).
- Z. Harchaoui is in the scientific board of area “Machine Learning” of GDR ISIS (Groupe de Recherche “Information, Signal, Image et ViSion”).
- J. Mairal: reviewer for grant proposals from ANR and ERC.

9.4. Invited presentations

9.4.1. Keynote talks

- C. Schmid: Keynote speaker at Annual Workshop of the Austrian Association for Pattern Recognition, IST Austria, May 2014.
- C. Schmid: Keynote speaker at Netherlands Conference on Computer Vision, April 2014.

9.4.2. Invited talks

- Z. Harchaoui: Seminar, Microsoft Research, New York, April 2014.
- Z. Harchaoui: Seminar, Newton Institute, Cambridge, January 2014.
- Z. Harchaoui: Seminar, CBLL, NYU, April 2014.
- C. Schmid: Invited speaker at First French-German Mathematical Image Analysis Conference, Paris, January 2014.
- C. Schmid: Seminar at Univ. Edinburgh, July 2014.
- C. Schmid: Seminar at MPI, Tübingen, April 2014.
- J. Verbeek: Invited speaker at the Croatian Computer Vision Workshop, Zagreb, 2014.
- J. Mairal: invited speaker in mini-symposium at SIAM conference on Optimization, San Diego, 2014.
- J. Mairal: invited speaker at Journées BIG Data, Toulouse, 2014.

- J. Mairal: invited speaker at Journées MAS, Toulouse, 2014.
- K. Alahari: Seminar, Computer Vision Center (CVC), Barcelona, Spain, October 2014.
- K. Alahari: Seminar, University of California, Berkeley, USA, July 2014.
- K. Alahari: Invited speaker, Tutorial on Learning and Inference in Discrete Graphical Models, CVPR, Columbus, USA, June 2014.
- K. Alahari: Seminar, KTH Royal Institute of Technology, Stockholm, Sweden, May 2014.
- A. Cherian: Seminar at Yahoo Labs, Bangalore, India, April 2014.
- A. Cherian: Seminar at Siemens Corporate Research, Princeton, NJ, USA, June 2014.
- P. Weinzapfel: Seminar at UC Berkeley, December, 2014.

9.5. Popularization

- Zaid Harchaoui and Martin Jaggi published in the Mathematical Optimization Society newsletter “Optima” an interview of Marguerite Frank, co-inventor of the Frank-Wolfe algorithm for constrained optimization, with a companion historical survey.
- Julien Mairal, Francis Bach, and Jean Ponce have published a monograph [24] “Sparse Modeling for Image and Vision Processing”, to appear in Foundations and Trends in Computer Graphics and Vision.
- Together with other students in LJK, Mattis Paulin did an interview of Emmanuel Candes for his award of the Prix Jean Kuntzmann in June 2014. The interview will soon be published in Journal du CNRS.

MAVERICK Project-Team

7. Dissemination

7.1. Promoting Scientific Activities

7.1.1. Scientific events organisation

7.1.1.1. member of the organizing committee

- Georges-Pierre Bonneau: co-chair of the Industrial track of *Eurographics* 2014,
- Nicolas Holzschuch: co-chair of the Tutorial track of *Eurographics* 2014

7.1.2. Scientific events selection

7.1.2.1. member of the conference program committee

- Georges-Pierre Bonneau:
 - Workshop on *Visualization in Environmental Sciences* (EnvirVis) 2014.
- Nicolas Holzschuch:
 - *ACM SIGGRAPH Symposium on Interactive 3D Graphics and Games* 2014 and 2015,
 - *Eurographics* 2015 ,
- Cyril Soler:
 - *Eurographics Symposium on Rendering* 2014,
 - *Eurographics* 2014,
 - *Pacific Graphics* 2014.
- Joëlle Thollot:
 - *Expressive* conference (merging of NPAR, Computational Aesthetics and SBIM) 2014.

7.1.2.2. reviewer

All the faculties and some of the PhD students are collectively reviewing for all the major journals and conferences and the domain, and beyond this perimeter.

7.1.3. Journal

7.1.3.1. reviewer

All the faculties and some of the PhD students are collectively reviewing for all the major journals and conferences and the domain, and beyond this perimeter.

7.2. Teaching - Supervision - Juries

7.2.1. 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. In addition, Romain Vergne taught an advanced course on "perception & graphics" at the spring school of ôkhra (Roussillon).

7.2.2. Supervision

- PhD: Eric Heitz, *Représentations alternatives pour le traitement haute qualité efficace des scènes complexes*, Université de Grenoble, October 2014, Fabrice Neyret
- PhD in progress: Guillaume Loubet, *Représentations efficaces de l'apparence sous-pixel*, Université de Grenoble, 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.

7.2.3. Juries

- Joëlle Thollot has been member of the jury for the PhD of Arnaud Emilien (Grenoble, 10/12/14)

7.3. Popularization

Every year, “MobiNet” (see section 4.5) classes are conducted with high school pupils of the large Grenoble area to practice initiation and intuition on Computer Science, Maths and Physics. Depending on the year, we have 2 to 4 groups in the scope of INP-Grenoble “Engineering weeks”, and 0 to 2 groups in the scope of Math-C2+ operations.

MORPHEO Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events selection

9.1.1.1. Member of the conference program committee

- Edmond Boyer was area chair for BMVC, ICPR and RFIA.

9.1.1.2. Reviewer

- Edmond Boyer has reviewed for: CVPR, ECCV, 3DV, ACCV, CVMP, ORASIS
- Jean-Sébastien Franco has reviewed for: CVPR 2014, ECCV 2014, 3DV 2014.
- Franck Hétroy-Wheeler has reviewed for SIGGRAPH Asia (course).
- Lionel Reveret has reviewed for: ACM SIGGRAPH, Eurographics, BMVC, Pacific Graphics (committee member), Motion in Games (committee member).

9.1.2. Journal

9.1.2.1. Member of the editorial board

- Edmond Boyer is associate editor of IJCV.

9.1.2.2. Reviewer

- Edmond Boyer has reviewed for: Eurographics, IEEE PAMI.
- Jean-Sébastien Franco has reviewed for: PAMI, Refig.
- Franck Hétroy-Wheeler has reviewed for: IJCV, Graphical Models, ReFIG.
- Lionel Reveret has reviewed for: ACM Transactions on Graphics, Computer Graphics Forum.

9.1.3. Invited talks

- Edmond Boyer gave invited talks at: MPI Tubingen, AC3D'14 conference, Gratz University, Reims Image conference.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Licence: J.S. Franco, Algorithmics, 60h, Ensimag 1st year, Grenoble INP

License: J.S. Franco, C Project, 30h, Ensimag 1st year, Grenoble INP

Master: J.S. Franco, End of study project (PFE) Project Tutoring, 18h, Ensimag 2nd year, Grenoble INP

Master: J.S. Franco, Projet de Spécialité - Project Tutoring, 14h, Ensimag 2nd year, Grenoble INP

Master: J.S. Franco, 3D Graphics, 50h, Ensimag 2nd year, Grenoble INP

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

Master: J.S. Franco, Introduction to Computer Vision, 27h, Ensimag 1st year, Grenoble INP

Master: J.S. Franco, co-responsability of the Graphics, Vision, Robotics specialty of the Mosig Masters program, Second year Masters, Grenoble INP, Université Joseph Fourier

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.

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

PhD in progress: Georges Nader, Evaluation de la qualité perceptuelle de maillages dynamiques et ses applications, Université Claude Bernard - Lyon 1, started 01/10/2013, supervised by Florent Dupont, Kai Wang and Franck Hétroy-Wheeler.

PhD in progress: Li Wang, Transport optimal pour l'analyse de formes en mouvement, Université de Grenoble, started 01/10/2013, supervised by Edmond Boyer and Franck Hétroy-Wheeler.

PhD in progress : 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 two PhD thesis (Rim Slama, Lille University, Christian Reinbacher Graz University) and president of one PhD committee (Eva Mavridou, Grenoble University).

9.3. Popularization

- Franck Hétroy-Wheeler gave a talk to high school math teachers entitled: "Digital geometry: from real to virtual worlds". This talk has then been adapted and given to a 11th grade class.

PERCEPTION Project-Team

7. Dissemination

7.1. Promoting Scientific Activities

7.1.1. Journals

Radu Horaud is a member of the following editorial boards:

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

PRIMA Project-Team

8. Dissemination

8.1. Promoting Scientific Activities

8.1.1. Scientific events organisation

8.1.1.1. Member of the organizing committee

- Sabine Coquillart is member of the organizing committee and co-chair of the Program Committee for GRAPP 2014 Lisbon, Portugal.
- Sabine Coquillart is member of the organizing committee for IEEE VR 2015, Arles, France

8.1.1.2. Member of the conference program committee

- James Crowley: Ubicomp 2014.
- Sabine Coquillart: 3DCVE 2014, GRAPP 2014, IEEE 3DUI 2014, IEEE VR 2014, ISVC 2014, SVR 2014-13-12-11-10, VRST 2014-13, WSCG 2014.
- Thierry Fraichard: Associate Editor for ICRA 2014 and IROS 2014.

8.1.1.3. Reviewer

- James Crowley: Ubicomp 2014, ICPR 2014, CVPR 2014, IE 2014, ICRA 2014.
- Sabine Coquillart: 3DCVE 2014, GRAPP 2014, IEEE 3DUI 2014, IEEE VR 2014, ISVC 2014, SVR 2014-13-12-11-10, VRST 2014-13, WSCG 2014.
- Thierry Fraichard: IROS 2014.
- Patrick Reignier: IUI 2014, ROMAN 2014, UCAMl 2014,
- Dominique Vaufreydaz: MTEL 2014, UBICOMM 2014, ROMAN 2014], Workshop on Assistance and Service Robotics in a Human Environment at IROS 2014, WUSPE2013

8.1.2. Journal

8.1.2.1. Member of the editorial board

- Dominique Vaufreydaz: International Journal On Advances in Internet Technology 2014, Journal of Robotics and Autonomous Systems, special issue: Assistive Robotics

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 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

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

Master: Thierry Fraichard, Motion in Dynamic Workspaces, 2h eqTD, Computer Science Master, Bar Ilan Univ., Israel.

Co-responsibility of the Graphic, Vision and Robotics track of the international MOSIG Master programme.

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 réseaux, 18h eqTD, M2, ENSIMAG/Grenoble - INP, France

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

Master : Patrick Reignier, Algorithmique, 50h eq TD, M1, ENSIMAG/Grenoble INP, France

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

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 2014

- Julian Quiroga, "Scene Flow from RGBD Images", Thèse doctorale de l'Université de Grenoble, 7 November 2014, Directed by Frederic Devernay and James L. Crowley
- Evanthia Mavridou, "Robust Image Description Using the Laplacian Profile and Radial Fourier Transform", Thèse doctorale de l'Université de Grenoble, 25 November 2014, directed by James L. Crowley and Augustin Lux.
- Dimitri Mason, "Inspirez ! Explorez ! Soutien à la créativité en conception d'interfaces homme-machine", Thèse doctorale de l'Université de Grenoble, 25 Sept 2014, Directed by Alexandre Demeure and Gaelle Calvary.

8.2.2.2. Current Doctoral Students

- Varun Jain, Perception of Human Emotions, University of Grenoble, expected March 2015, James Crowley
- Sergi Pujades-Rocamora, Modeles de cameras et algorithmes pour la creation de contenu video 3D, expected fall 2015, Remi Ronfard (HDR) et Frederic Devernay
- Etienne Balit, Multimodalite et interaction sociale, University of Grenoble, expected Fall 2016, Patrick Reignier (Professor), Dominique Vaufreydaz.
- Viet Cuong Ta, Multiple Users localization in public large-scale space, University of Grenoble, expected Fall 2016, Eric Castelli (HDR, Mica laboratory Hanoi, Vietnam), Dominique Vaufreydaz.

- Remi Paulin, Human-Robot Motion, University of Grenoble, expected Fall 2016, Thierry Fraichard (HDR).
- Chen Jingtao, Doctoral student of University of Grenoble, expected 2017, directed by S. Coquillard
- Grégoire Nieto, Doctoral student of University of Grenoble, expected 2017, directed by F. Devernay
- Romain Bréquier, Doctoral student of University of Grenoble, expected 2017, directed by F. Devernay
- J. L. Crowley Alberto Quintero Delgado, Doctoral student of University of Grenoble, expected 2017, directed by F. Devernay

8.2.3. *Juries*

Thierry Fraichard served as an jury member for the PhD of Jean Gregoire from Ecole Nationale Supérieure des Mines de Paris, "Priority-Based Coordination of Mobile Robots", and for the PhD of Helene Vorobieva from Université d'Evry, "Conception et methode de validation des lois de controle pour des systemes de conduite automatisee du vehicule".

James L. Crowley served on the following doctoral and Habilitation Juries:

- Président, Thesis Jury of Arturo ESCOBEDO, Thèse Doctorale Université de Grenoble, Oct 2014
- Président, Thesis Jury of Simon COURTEMANCHE, Thèse Doctorale Université de Grenoble, Oct 2014
- Président, Thesis Jury of Yann LAURILLAU, Habilitation, Université de Grenoble, Nov 2014
- Président, Thesis Jury of Vineet GANDHI, Thèse Doctorale Université de Grenoble, Dec 2014

Patrick Reignier served on the following doctoral Juries:

- Member doctoral jury of Aysha Kashif, Thèse Doctorale Université de Grenoble, Jan 2014
- Reporter doctoral jury of Olfa Mabrouk University Paris Est Créteil, Nov 2014

Sabine Coquillard served on the following doctoral juries:

- Member doctoral jury of Thi Thong Huyen NGUYEN, INSA Rennes. Nov. 2014
- Member doctoral jury of Reporter doctoral jury of Jérôme Ardouin, INSA Rennes, Dec. 2014

8.3. Popularization

- James Crowley participated in the Radio emission Science Publique presented by Michel Alberganti on Radio France Culture on Friday 21 February from 14h00 to 15h00. Theme of the program: "Should we fear intelligent robots?"
- Patrick Reignier was interviewed by a journalist of Science et Vie for a paper on Artificial Intelligence