informatics / mathematics

Inria

RESEARCH CENTER
Rennes - Bretagne-Atlantique

FIELD

Activity Report 2013

Section Dissemination

Edition: 2014-03-19

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ACES Project-Team

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8. Dissemination

8.1. Scientific Animation

8.1.1. Program committees

- PC member for SCW 2013: Spatial Computing Workshop, 2013, M. Banâtre.
- PC member for SCW 2014: Spatial Computing Workshop, 2014, M. Banâtre.
- PC member for ruSMART 2013: The 5th conference on Smart Spaces, M. Banâtre.

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

L2/L3: network computing (lectures, tutorials, labs), 250 hours, F. Weis, University Rennes 1 / IUT Saint-Malo

Master : Ambient Computing and Mobile Communications, F. Weis, 6 hours, M2, university of Rennes, France

Master : Wireless LANs, F. Weis, 8 hours, M2, Telecom Bretagne, France

Master : Mobile communications and ambient computing, M. Banâtre, 4 hours, M1, Ecole Centrale de Paris, France

8.2.2. Supervision

PhD: M. Dominici, Context Management in Smart Homes, 01/11/09, M. Banâtre and F. Weis, defended in June 2013

PhD: B. Pietropaoli, Proximate interactions and data fusion in Smart Homes, 01/10/10, M. Banâtre and F. Weis, defended in December 2013

PhD: Minh Ho, Indoor localization mechanisms for ambient computing systems, 01/11/08, M. Banâtre and F. Weis, defended in December 2013

PhD in progress: Arnab Sinha, Pervasive control systems for smart waste management solutions, 14/12/10, M. Banâtre and P. Couderc, to be defended in April 2014

PhD in progress: Francisco Javier Acosta Padilla, Auto-adaptation for IoT, 31/01/13, Frédéric Weis and Johann Bourcier

8.2.3. Juries

Michel Banâtre was in the following PhD examination committees:

B. Pietropaoli, Proximate interactions and data fusion in Smart Homes, University Rennes 1, (director)

Minh Ho, Indoor localization mechanisms for ambient computing systems, University Rennes 1, (director)

Frédéric Weis was in the following PhD examination committees:

M. Dominici, Context Management in Smart Homes, University Rennes 1, (co-director)

B. Pietropaoli, Proximate interactions and data fusion in Smart Homes, University Rennes 1, (co-director)

Minh Ho, Indoor localization mechanisms for ambient computing systems, University Rennes 1, (co-director)

Paul couderc was in the following PhD examination committees:

PhD, Tony Ducrocq, Auto-organisation des rseaux sans-fil multi-sauts dans les villes intelligentes, University of Lille 1, (examiner)

ALF Project-Team

9. Dissemination

9.1. Scientific Animation

9.1.1. Service to the research community

- Erven Rohou was a member of the program committees of DITAM-PARMA 2014, CC 2014, WPEA 2013.

- Erven Rohou served as an expert for "Région Aquitaine"

- Isabelle Puaut is a member of the program committees of ECRTS 2013, RTNS 2013, RTCSA 2013, RTAS 2014, SIES 2014.

- Isabelle Puaut is member of the Executive Committee (EC) of the IEEE Technical Committee on Real-Time Systems (TCRTS). She is in the steering committee of the ECRTS, RTNS conferences and the WCET workshop.

- Isabelle Puaut is in the management committee of the COST Action TACLe - Timing Analysis on Code-Level (http://www.tacle.eu). She is responsible of Short Term Scientific Missions (STSM) within TACLe. Damien Hardy and Isabelle Puaut participate to TACLe.

- Damien Hardy is a member of the committees of RTNS 2014 and WCET 2014. He was a member of the program committee of WCET 2013, SIES 2013 WIP session and PACT 2013 where he was also the submission chair.

- Pierre Michaud was a member of the program committee of the HPCC 2013 conference.

- André Seznec is a member of the MICRO 2014 top picks committee and a member of SAMOS 2014 program committee.

- André Seznec is a member of the editorial board of the IEEE Micro.

- André Seznec was the Program co-chair of HiPEAC 2013, January 2013

- André Seznec and François Bodin were Program co-chairs of PACT 2013, September 2013.

- François Bodin was a member of ASPLOS 2014, CC 2013, SC 2013 tutorials program committees.

- François Bodin is a member of "Comité de Prospective Scientifique" of the ANR.

- François Bodin is a member of "Conseil Scientifique d'Orap".

9.1.2. Dissemination

- Erven Rohou presented the ANR project W-SEPT at the bi-annual meeting of the "Communauté Française de Compilation".

- Emmanuel Riou and Nabil Hallou presented the Padrone tool at the HiPEAC Computing Systems Week.

- I. Puaut has presented a seminar on "WCET estimation for multi-core architectures" at LIP6, Paris, in September 2013.

- Damien Hardy, has presented a lesson on "Estimation de pires temps d'exècution (WCET - Worst-Case Execution Times)" at the "école d'été temps-réel" Toulouse, August 2013

- André Seznec presented a keynote entitled "Faster unicores are still needed" at SAMOS XIII in Samos, Greece, July 2013.

- André Seznec presented an invited presentation at Intel Braunschweig in January 2013.

- François Bodin presented invited presentations at the EPOPPEA workshop associated with the HIPEAC 2013 conference, to the CSCI (Comité Stratégique pour le Calcul Intensif), at the HTPC workshop at University of Delaware and at Forum ORAP.

- François Bodin presented a keynote at the HPC languages workshop in Lyon, July 2013
- François presented a lesson at EU ComplexHPC Spring School in Uppsala, June 2013.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Master research : A. Seznec, E.Rohou, I. Puaut, F. Bodin, Performance et Microarchitecture, 30 hours, M2, Université de Rennes I, France

Master: A. Seznec, P. Michaud, A. Perais, Architecture des processeurs, 36 hours, M1, Ecole Supérieure d'Ingénieurs de Rennes, France

Master: A. Seznec, P. Michaud, A. Perais, Architecture avancée, 36 hours, M2, Ecole Supérieure d'Ingénieurs de Rennes, France

Master research: I. Puaut, E. Rohou, Rédaction d'articles scientifiques, 28 hours, M2, Université de Rennes I, France

Master research: I. Puaut, Analyse et test formel, 6 hours, M2, Université de Bretagne Occidentale, France

Master: I. Puaut, D. Hardy, Operating systems - process management, 130 hours, M1, Université de Rennes I, France

Master: I. Puaut, Système d'exploitation gestion mémoire, 39 hours, M1, Université de Rennes I, France

Master: I. Puaut, D. Hardy, Systèmes temps-réel, 69 hours, M1, Université de Rennes I, France

Master: F. Bodin, Parallel programming and code optimization, 50 hours, M1, Ecole Supérieure d'Ingénieurs de Rennes, France

Master: F. Bodin, Innovation and technology, 20 hours, M1, Ecole Supérieure d'Ingénieurs de Rennes, France

Master: F. Bodin, Innovation and technology, 40 hours, M1, Université de Rennes I, France

Master: D. Hardy, Systèmes d'exploitation, 44 hours, M1, Université de Rennes I, France

Licence: D. Hardy, Informatique temps-réel, 40 hours, L3, Université de Rennes I, France

9.2.2. Supervision

PhD : J. Lai, Modèle analytique de performance orienté débit d'évaluation de performance des accélérateurs programmables, Université de Rennes I, February 2013. Advisor A. Seznec

PhD : R. Velasquez, Behavioral Application-dependent Superscalar Core Modeling, Université Rennes 1, April 2013. Co-advisors A. Seznec and P. Michaud

PhD : B. Lesage, Architecture multi-coeurs et temps d'exécution au pire cas, Université Rennes 1, May 2013. Co-advisors I. Puaut and A. Seznec

PhD : N. Prémillieu, Améliorer la performance séquentielle à l'ère des processeurs massivement multicoeurs, Université Rennes 1, December 2013. Advisor A. Seznec

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

PhD in progress: Sajith Kalathingal, Université Rennes 1, Dec 2012, co-advisors S. Collange and A. Seznec

PhD in progress: Surya Khizakanchery Natarajan, Université Rennes 1, Jan 2012, advisor A. Seznec

PhD in progress: Hanbing Li, Université Rennes 1, Oct 2012, co-advisors E. Rohou and I. Puaut

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

PhD in progress: Bharath Narasimha Swamy, Université Rennes 1, Sept 2011, advisor A. Seznec

PhD in progress: Arthur Perais, Université Rennes 1, Sept 2012, advisor A. Seznec

PhD in progress: Aswinkumar Sridharan, Université Rennes 1, Oct 2013, advisor A. Seznec

PhD in progress: Arjun Suresh , Université Rennes 1, Dec 2012, co-advisors E. Rohou and A. Seznec

9.3. Popularization

- Erven Rohou gave a talk at the SFGP (Société Française du Génie des Procédés): "Stratégies d'augmentation des performances de calcul des logiciels"
- Isabelle Puaut and Erven Rohou gave a lecture at Lycée Descartes: "Les mathématiques au service de la performance des ordinateurs".

9.4. Miscelleanous

- Erven Rohou co-advised a MSc. student at the Egypt-Japan University of Science and Technology.
- Erven Rohou was a member of the working group GTInria2020 whose mission was to produce the next "Plan Stratégique".
- Erven Rohou is a member of the Inria CDT (Commission du Développement Technologique)
- As "correspondant scientifique des relations internationales" for Inria Rennes Bretagne Atlantique, Erven Rohou is a member of the Inria COST GTRI (Groupe de Travail "Relations Internationales" du Comité d'Orientation Scientifique et Technologique).
- Erven Rohou served as an expert for "Région Aquitaine"
- A. Seznec is an elected member of the scientific committee of Inria.
- A. Seznec has been nominated by ACM for 3 years 2011-2013 on the selection committee for the ACM-IEEE Eckert-Mauchly award.
- F. Bodin has participated to the Allistene committee on "Préparation de la Stratégie Nationale de Recherche pour le Numérique".
- F. Bodin is a member of the Advisory board of the LPGPU European Project.

<div align="center" style="color:red">ASAP Project-Team</div>

9. Dissemination

9.1. Scientific animation

- Antoine Boutet was a member of the shadow program committee of *ACM Eurosys'13*, Prague, Chech Republic, Apr. 2013.
- Davide Frey was a program co-chair of the *International Conference on Distributed Computing and Networking (ICDCN), Distributed Computing Track*, Mumbai, India, Jan. 2013.
- Davide Frey was a program committee member of the conferences:
    - *IEEE International Parallel & Distributed Processing Symposium (IPDPS)*, Boston, Massachusetts USA, May 2013.
    - *IEEE International Conference on Peer-to-Peer Computing (P2P)*, Trento, Italy, Sep. 2013.
    - *ACM/IFIP/USENIX International Conference on Middleware (Middleware)*, Beijing, China, Dec. 2013.
    - *IFIP International Conference on Distributed Applications and Interoperable Systems (DAIS)*, Florence, Italy, June 2013.
- George Giakkoupis was a program committee member of the *International Workshop on Foundations of Mobile Computing (FOMC)*, Jerusalem, Israel, Oct. 2013.
- Anne-Marie Kermarrec is a member of the *Academia Europea* since 2013.
- Anne-Marie Kermarrec is a member of the scientific committee of the *Société Informatique de France*.
- Anne-Marie Kermarrec is a member of the *Inria scientific board (Bureau du comité des projets)* in Rennes.
- Anne-Marie Kermarrec was a member of *ASF 2013*.
- Anne-Marie Kermarrec is the chair of the *ACM Software System Award Committee* in 2014.
- Anne-Marie Kermarrec is a member of the *ACM Software System Award Committee* since 2009.
- Anne-Marie Kermarrec is a member of the *ERC panel for Consolidator Grants* since 2013.
- Anne-Marie Kermarrec was the chair of the hiring committee for the position of *Assistant Professor at ENS Lyon (Chaire Inria/ENS)*.
- Anne-Marie Kermarrec was a member of the 2013 hiring committees of: Inria CR, Max Planck Institute for Software Systems, University of Lugano.
- Anne-Marie Kermarrec is a member of the *IEEE Internet Computing Editorial Board*.
- Anne-Marie Kermarrec is the vice-chair of *ACM Eurosys* since Apr. 2013.
- Anne-Marie Kermarrec is/was a program committee member of the conferences:
    - *ACM/IFIP/USENIX International Conference on Middleware (Middleware)*, China, Dec. 2013.
    - *International Conference on Very Large Data Bases (VLDB)*, Trento, Italy, Aug. 2013.
    - *International Conference on Networked Systems (NETYS)*, Marrakech, May 2013.
    - *ACM International Conference on Data Management (SIGMOD)*, NYC, USA, June 2013.
    - *International Conference on Distributed Computing Systems (ICDCS)*, Philadelphia, USA, July 2013.

- *International Conference on Peer-to-peer systems (P2P)*, Trento, Italy, Sep. 2013.
- *International Conference on Distributed Computing Systems (ICDCS)*, Madrid, July 2014.
- *International Conference on Extending Database Technology (EDBT)*, Athens, Greece, Mar. 2014.
- *ACM Eurosys*, Amsterdam, Apr. 2014.
- *ACM International Systems and Storage Conference (SYSTOR)*, Haifa, Israel, June 2014.
- *International Conference on Networked Systems (NETYS)*, Marrakech, May 2014.

- Anne-Marie Kermarrec is a member of the steering committees of *ACM Eurosys*, *Middleware*, and the *Winter School on Hot Topics in Distributed Systems*.

- Anne-Marie Kermarrec is a member of the technical committee of the *ACM Conference on Online Social Networks*.

- Anne-Marie Kermarrec co-organized the *Workshop Inria/Technicolor on Distributed Storage Systems*, Rennes, Nov. 2013.

- Michel Raynal was in the editorial board of the journals: *IEEE Transactions on Computers*, *Journal of Parallel and Distributed Computing*, *Journal of Computer Systems Science and Engineering*, *Foundations of Computing and Decision Sciences*.

- Michel Raynal was a program co-chair of the *International Conference on Distributed Computing and Networking (ICDCN), Distributed Computing Track*, Mumbai, India, Jan. 2013.

- Michel Raynal was a steering committee member of the conferences:
  - *IEEE International Conference on Distributed Computing Systems (ICDCS)*, Philadelphia, USA, July 2013.
  - *International Conference on Distributed Computing and Networking (ICDCN)*, Mumbai, India, Jan. 2013.

- Michel Raynal was a program committee member of the conferences:
  - *ACM Symposium on Principles of Distributed Computing (PODC)*, Montreal, QC, Canada, July 2013.
  - *International Symposium on Distributed Computing (DISC)*, Jerusalem, Israel, Oct. 2013.

- Michel Raynal was an *Adjunct Professor* of the Polytechnic University (PolyU), Hong-Kong.

- Michel Raynal was a *European Representative in the IEEE Technical Committee on Distributed Computing*.

- Michel Raynal was an international liaison co-chair of *ICDCS 2013*.

- François Taïani was as program committee co-chair of the *IFIP International Conference on Distributed Applications and Interoperable Systems (DAIS)*, Florence, Italy, June 2013.

- François Taïani was a program committee member of the conferences:
  - *International Conference on Distributed Computing Systems (ICDCS)*, Philadelphia, USA, July 2013.
  - *Latin-American Symposium on Dependable Computing (LADC)*, Rio de Janeiro, Brazil, Apr. 2013
  - *Dependable and Adaptive Distributed Systems (DADS) Track of the ACM Symposium on Applied Computing*, Coimbra, Portugal, Mar. 2013

- Juan Manuel Tirado was a Program Committee Member of the *Workshop on Middleware for Next Generation Internet Computing (MW4NG)*, Beijing, China, Dec. 2013.

9.2. Invited talks

- George Giakkoupis. *Rumor spreading on dynamic graphs.* CS Theory Seminar, University of Calgary, Canada, Nov. 29 2013.

- George Giakkoupis. *Gossip protocols for information dissemination and other tasks.* Workshop on Storage and Cloud Computing (WOS3), Rennes, France, Nov. 22 2013.

- George Giakkoupis. *Tight bounds for rumor spreading with graph expansion.* PODC Social Network Workshop, Montreal, Canada, Jul. 21 2013.

- George Giakkoupis. *Randomized loose renaming in $O(\log \log n)$ time.* ASAP Workshop on Distributed Computing, Rennes, France, Jun. 28 2013.

- George Giakkoupis. *Rumor spreading and graph expansion.* 3rd Pacific Northwest Theory Days Workshop, University of Victoria, Canada, May 5 2013.

- George Giakkoupis. *Rumor spreading and vertex expansion.* Workshop on Epidemic Algorithms and Processes: From Theory to Applications, Dagstuhl, Germany, Jan. 21 2013.

- Mathieu Goessens. *P2P technologies for the Web: Challenges and perspectives.* Mozilla Summit 2013, Brussels, Belgium, Oct. 5 2013.

- Anne-Marie Kermarrec. Tutorial: *Systems support for news recommendation: From P2P to hybrid architectures.* Transform Summer School on Research Directions in Distributed Computing. Heraklion, Crete. June 10-14, 2013.

- Anne-Marie Kermarrec. *Privacy-aware micro-blogging.* University of Sydney and NICTA, Australia, Jan. 2014.

- Michel Raynal. Tutorial: *Checkpointing and debugging in distributed computing.* Latin-American Conference on Dependable Computing (LADC), Rio de Janeiro, Brazil, Apr. 2013.

- Michel Raynal. *Concurrency-related distributed recursion.* International Symposium on Stabilization, Safety, and Security of Distributed Systems (SSS), Osaka, Japan, Nov. 2013.

- Michel Raynal. *Hybrid concurrent objects.* DISC workshop on Software Transactional memory, Jerusalem, Israel, Oct. 2013.

- François Taïani. *Deconstructing complex distributed platforms: A report from the trenches.* International Workshop on Automated Specification and Verification of Web Systems (WWV), Florence, Italy, June 2013.

- François Taïani. Workshop La politique des données personnelles: Big data ou contrôle individuel? Institut Rhône-Alpin des Systèmes Complexes (IXXI) and ENS Lyon, Lyon, Nov. 2013.

9.3. Teaching, supervision, and juries

9.3.1. Teaching

- Licence (bachelor) courses:
  - François Taïani, Introduction to Operating Systems, 16h, L3, ESIR / Université of Rennes I, France.
  - Davide Frey, Invited lectures at ENS Cachan, Paris, and ENS Cachan Antenne de Bretagne.
- Master courses:
  - Davide Frey, Scalable Distributed Systems, 10h, M2, Université de Rennes I, France.
  - François Taïani, Synchronization and Parallel Programming, 62h, M1, ESIR / Université de Rennes I, France.
  - François Taïani, Distributed Systems, 48h, M2, ESIR / Université de Rennes I, France.
  - François Taïani, Programming Technologies for the Cloud, 32h, M2, Université de Rennes I, France.
- Doctoral courses:

> – Anne-Marie Kermarrec, Large-scale Systems and Applications, EPFL, Switzerland.

9.3.2. Supervision

- PhD: Mohammad Alaggan. *Private Peer-to-peer similarity computation in personalized collaborative platforms.* Dec 2013. Supervised by Anne-Marie Kermarrec (and Sébastien Gambs).
- PhD: Antoine Boutet. *Décentralisation des systèmes de personnalisation.* Mar 2013. Supervised by Anne-Marie Kermarrec.
- PhD: Tyler Crain. *Faciliter l'utilisation des mémoires transactionnelles logicielles.* Mar 2013. Supervised by Michel Raynal.
- PhD: Konstantinos Kloudas. *Leveraging Content Properties to Optimize Distributed Storage Systems.* Mar 2013. Supervised by Anne-Marie Kermarrec.
- PhD: Alexandre Van Kempen. *Optimiser l'utilisation de la bande passante dans les systèmes de stockage distribué.* Mar 2013. Supervised by Anne-Marie Kermarrec.
- PhD in progress: Fabien André. *Calcul incrémental sur des plates-formes à large échelle.* Started Nov 2013. Supervised by Anne-Marie Kermarrec.
- PhD in progress: Resmi Ariyattu Chandrasekharannair. *Towards Decentralized Federations for Plug-based Decentralized Social Networks.* Started Dec 2013. Supervised by François Taïani.
- PhD in progress: Stéphane Delbruel. *Towards a Decentralized Embryomorphic Storage System.* Started Oct 2013. Supervised by François Taïani.
- PhD in progress: Ali Gouta. *Caching et distribution adaptatifs dans les réseaux de contenus de grande échelle.* Started Dec 2011. Supervised by Anne-Marie Kermarrec.
- PhD in progress: Arnaud Jégou. *Explicit and implicit social networks, harnessing their power through decentralisation.* Started Oct 2010. Supervised by Anne-Marie Kermarrec and Davide Frey. S
- PhD in progress: Nupur Mitall. *Infrastructure et algorithmes pour la recommandation de contenus cross application.* Started Dec 2013. Supervised by George Giakkoupis and Anne-Marie Kermarrec.
- PhD in progress: Javier Olivares. *Web-Alter Ego Platform : A Peer-sourcing infrastructure for personalized privacy-aware event processing.* Started Oct 2013. Supervised by Anne-Marie Kermarrec.
- PhD in progress: Julien Stainer. *Calculabilité distribuée.* Started Oct 2011. Supervised by Michel Raynal.
- PhD in progress: Antoine Rault. *Privacy Through Decentralization.* Started Oct 2012. Supervised by Anne-Marie Kermarrec and Davide Frey.

9.3.3. Juries

- Davide Frey was a member of the PhD jury for Konstantinos Kloudas. *Leveraging Content Properties to Optimize Distributed Storage Systems.* Université de Rennes I, March 6, 2013. (examinateur)
- François Taïani was a member of the following PhD juries:
  - Konstantinos Kloudas *Leveraging Content Properties to Optimize Distributed Storage Systems.* Université de Rennes I / Inria Rennes, March 6, 2013. (examinateur)
  - François Fouquet. *Kevoree : Model@Runtime pour le développement continu de systèmes adaptatifs distribués hétérogènes.* Université de Rennes I / Inria Rennes, March 6, 2013. (examinateur)
  - Jimmy Lauret. *Prévention et détection des interférences inter-aspects : méthode et application à l'aspectisation de la tolérance aux fautes.* Institut National Polytechnique de Toulouse (INP Toulouse) / LAAS-CNRS, May 15, 2013. (rapporteur)
  - Yousri Kouki. *Approche dirigée par les contrats de niveaux de service pour la gestion de l'élasticité du "nuage".* École nationale supérieure des mines de Nantes, LINA, Dec. 12, 2013. (rapporteur)

ASCOLA Project-Team

9. Dissemination

9.1. Scientific Animation

9.1.1. Event organization, animation of scientific community

9.1.1.1. International

Board memberships

- **AITO:** P. Cointe is a member of this international organization that manages the ECOOP conference series.

- **AOSD-Europe:** M. Südholt is a member of the governing board of AOSD-Europe, the European Network of Excellence in AOSD, which provides financial support and organizes scientific events on Modularity.

- **Aspect-oriented Software Association (AOSA):** M. Südholt is a member of this international organization (headquarted in California) that manages the international conference on Modularity and provides support for scientific and industrial events on modularity in a large sens. He has been its chair for two years until April 2013.

- **COST Action:** J.-M. Menaud has been a management committee member of the European COST Action IC0804: Energy efficiency in large scale distributed systems from 2009 to 2013.

- **OW2:** Jean-Marc Menaud has been a member of the OW2 board committee since 2010.

- **Transactions of AOSD.** M. Südholt is a member of the editorial board of this Springer journal.

Events

- **REM 2013:** M. Südholt has been a general co-chair of the International Workshop on Reactivity, Events and Modularity, collocated with the ACM SPLASH conference in Indianapolis. http://soft.vub.ac.be/REM13

- **VTDC 2013:** A. Lèbre has been the general chair of the 7th edition of the International Workshop on Virtualization Technologies in Distributed Computing, collocated with the ACM HPDC conference in New York http://www.grid-appliance.org/wiki/index.php/VTDC13.

9.1.1.2. National

Board memberships

- **CominLabs laboratory of excellence:** P. Cointe is a member of its management board. J.-M. Menaud has been the co-coordinator of the focus on Energy and resource efficiency in ICT since 2011 of this regional excellence cluster in research. M. Südholt has been co-coordinating its security focus since 2011.

- **Green Lab Center:** T. Ledoux and J.-M. Menaud are members of the board of the Green Lab Center association. This association promotes and disseminates Green IT practices and research prototypes to the world of education, research and companies http://www.greenlabcenter.fr.

- **Innovation cluster Images & Réseaux:**: P. Cointe is a member of the mangagement board of this cluster. M. Südholt serves on its board for the selection and validation of industrial and academic projects.

Events

- **Eco-conception of software.** J.-M. Menaud has co-organized two events on GreenIT, *HPC & Cloud : Are they green ?* in Lille and *What else / what next ?* in Luxembourg.
- **Regional Doctoral School STIM:** T. Ledoux has co-organized JDOC, an event promoting contact between PhD students of the Doctoral School (Apr. 11, 2013).
- **Workshop on SLA Management in Cloud computing:** T. Ledoux has been the main coordinator of first workshop on SLA management in the Cloud organized with both industrial and research speakers http://compas2013.inrialpes.fr/evenements-satellites/ateliers/slacloud.
- **Workshop on Software Quality.** The Ascola team has co-organized a workshop on Software Quality in June 2013, which has been attended by 60 participants. http://www.lina.sciences.univ-nantes.fr/apcb/JSQ2013

9.1.2. Committee participations, reviewing activities, collective duties, etc.

- **P. Cointe:** He is the head of the LINA computer science laboratory (UMR 6241) http://www.lina.univ-nantes.fr/.

  He was a member of the ECOOP 2013 program committee. He served the French programming language community as member of the GDR GPL "Phd Thesis" prize committee

  This year he was a member of the AERES visiting evaluation committee for the LTCI laboratory and a member of the PES national committee for computer sciences (CNRS section 27).

  He is a member of the board of the Doctoral School MATISSE in Rennes. He is also the chair of the STIC-MATHS committee working for the Pays de la Loire Council (CCRRDT) and the PRES L'UNAM.

- **A. Lèbre** has been the general chair of the 7th international workshop on "Virtualization Technologies in Distributed Computing" (VTDC 2013) co-located with HPDC 2013 in New York, USA. He also was a member of the program committee of the ACM/IEEE International Conference on Cluster, Cloud and Grid Computing (CCGRID 2013), the International ACM SuperComputing Conference (SC 2013), the IEEE International Conference on Cloud and Green Computing (CGC 2013), the IEEE International Conference on Big Data (BigData 2013), the Euro-Par Conference (Euro-Par 2013), and the International Conference on P2P, Parallel, Grid, Cloud and Internet Computing (3PG-CIC 2013). He served as Publicity Chair for the International Conference on Network and Parallel Computing (NPC 2013). He also served as external reviewers for the Austrian Starting Grant Program and the European FP7 Program. He represented Inria during the Post Consultation Workshop on Cloud Computing and Services for H2020 at Brussels.

  He is a member of the architect board of the G5K consortium and also acts the local contact point for the Nantes site. He is also member of the directory board of the CNRS/GDR ASR System group since 2012. He leads the Discovery Initiative, an open-source collaborative action, which aims at providing a fully distributed IaaS Cloudkit http://beyondtheclouds.github.io. He presented this initiative at the Summer School of Cloud Computing at Telecom SudParis, Evry France and at the Inria Alumni Jam Session on Cloud Computing.

- **T. Ledoux** has been a member of the program committees of the following conferences: the 4th International Workshop on Green and Cloud Computing Management (GCM'13), the 12th Workshop on Adaptive and Reflective Middleware (ARM'13), the 1st International Workshop on Green In Software Engineering - Green By Software Engineering (GIBSE'13) the 28th Symposium On Applied Computing (SAC'13) - track Software Engineering Aspects of Green Computing.

- **J.-M. Menaud** has served on the program committee of the 9th French Conference on Operating Systems (CFSE-9), the 8th Workshop on Virtualization in High-Performance Cloud Computing (VHPC'13) the ninth Advanced International Conference on Telecommunications (AICT 2013), the second Workshop on Collaborative and Autonomic Green computing (CAGing 2013), the third Green Communications and IT Energy-aware Technologies (ENERGY 2013), the IEEE/ACM Inter.

Conference on Green Computing and Communications (GreenCom2013), the 1st Conference on Energy Efficiency on Large Scale Distributed Systems (EE-LSDS 2013), the third IEEE International Conference on Cloud and Green Computing (GCG 2013), the 6th International Conference on Contemporary Computing (IC3 2013), the International Workshop on Cloud Computing Systems, Networks, and Applications (Globecom 2013), and the second International Conference on Smart Grids and Green IT Systems (SMARTGREENS 2013).

J.-M. Menaud is a management committee member of the european COST Action IC0804 : Energy efficiency in large scale distributed systems since 2009, the co-animator of the focus Energy and resource efficiency in ICT, in the Labex COMIN Labs since June 2011, the animator of the CNRS/GDR ASR System group since June 2009, member of the OW2 board committee from 2010 and a member of the (RenPar/CFSE/Sympa) steering committee since 2008.

- **J. Noyé** has been a program committee member of the International Conference on Software Composition (Budapest Hungary, June 2013). He is a program committee member of the 13 International Conference on Modularity (Modularity'14), which will take place in Lugano, Switzerland, in April 2014.

- **J.-C. Royer:** He has been a member of the program committees of CAL 2013, CIEL 2013, WETICE 2013, SNPD 2013, ICIS 2013, MULTIPLE 2013, and SERA 2013 and did a review for the TSI journal. He participated in the evaluation of a project for Israel Science Foundation.

- **M. Südholt** has been a member of the management board of the *Aspect-Oriented Software Association* since 2006 and management board of **AOSD-Europe** since 2008.

  He has been a member of the the steering committees of the internal conference on Modularity since 2006 and has chaired it for two years until 2013. He has been a member of the steering committee of the international conference on Software Composition since 2008.

  In 2013, he was a member of the program committes of the international conferences CloudCom'13 and Modularity:aosd'13 as well as of 1 international and 1 national workshop.

  He is a coordinator of the security domain within the CominLabs laboratory of excellence.

  He is a member of the council of the *Laboratoire Informatique de Nantes Atlantique* (LINA, UMR 6241). He also serves on the selection and evaluation committee of the competitiveness cluster Images & Réseaux. Finally, he has served on the evaluation committee for startup proposals of Atlanpole, a regional innovation body.

- **N. Tabareau** was a member of the program committees of the Journées Francophones des Langages applicatifs (JFLA'13) and Foundations of Aspect Languages (FOAL'13).

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

The team is involved in the following undergraduate and graduate-level programs at EMN (the institution all of eaching staff belongs to):

- The team is a main contributor to the **engineering program of EMN**.

- Within this engineering program, the team is steering, chairing and the main contributor to a final-year **graduate-level informatics specialization**.

- Since 2009 our team has defined and set up a new three-year **engineering program on software engineering**

The team has also been involved involved in the following three MSc programs that have been carried out with partners from French and foreign universities:

- The team participates in the **MSc program "Alma"** on software architecture and distributed systems, a joint program steered by colleagues from University of Nantes. In this context, we are responsible for a 48-hour module on advanced software composition and take part in the program's governing board.

- Members of the team have taught different **courses at different study levels in Rennes** mainly organized by University of Rennes and the research institutes IRISA and Inria.

m members have taught each for about 195 hours on average in 2013 (hours of presence in front of students). Hereby, we have taken into account that researchers and some professors have not taught at times. In addition, a significant part of the program is taught by temporary staff, whose participation is managed by ASCOLA members.

9.2.2. *Supervision*

The team has been supervising 16 PhD thesis in 2013, of which four have been co-supervised with external partners (three with foreign partners from U. Chile; TU Darmstadt, Germany; Lancaster U., U.K.) and one with the French TASC team from Mines Nantes.

Several PhD have been defended this year: In Feb., Flavien Quesnel defended his thesis on "Toward Cooperative Management of Large-scale Virtualized Infrastructures: the Case of Scheduling". In April, Frederico Alvares defended his thesis on "Multi Autonomic Management for Optimizing Energy Consumption in Cloud Infrastructures". In Sep., Akram Ajouli defended his thesis on views and program transformations for software modularity. In Dec., Yousri Kouki defended his thesis on "SLA-driven Cloud Elasticity Management approach".

Two members of the team have been preparing an HDR in 2013 for a defense in 2014.

9.2.3. *Juries*

- **A. Lèbre** was a member of a selection committee for an Associate Professor position in the Telecom school in Nancy.

- **T. Ledoux** was member of the PhD committee of Erwan Daubert at Université Rennes 1.

- **J.-M. Menaud** was member of the PhD committees of Damien Borgetto at University of Toulouse, Rémi Druilhe at University of Lille, and Flavien Quesnel in Nantes.

- **J.-C. Royer** was member of the PhD committes of Akram Ajouli and Valerio Cosentino at Mines de Nantes.

- **M. Südholt** was part of a selection committee for a position of Associate Professor at University of Rennes. He was also a member of the PhD evaluation committees of Eline Philips at Vrije Universiteit Brussel and Zhoulai Fu at University of Rennes.

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

8. Dissemination

8.1. Scientific animation

François Le Gland is a member of the organizing committee of the *46èmes Journées de Statistique*, to be held in Rennes in June 2014.

Florent Malrieu has coordinated the spring semester of the Labex Henri Lebesgue on perspectives in analysis and probability, from April to September 2013, and he has co–organized the workshop on piecewise deterministic Markov processes in May 2013. He is also the coordinator of the ANR project PIECE (programme Jeunes Chercheuses et Jeunes Chercheurs), see 7.1.1 . He is the coordinator, with Tony Lelièvre (CERMICS, ENPC, Marne–la–Vallée and EPI MICMAC, Inria Paris—Rocquencourt), of the SMAI meeting series *EDP / Probabilités*. He his a member of the scientific and organizing committee of the conference in honour of the 60th birthday of Dominique Bakry, to be held in Toulouse in December 2014.

Valérie Monbet has co–organized with Pierre Ailliot (université de Bretagne occidentale, Brest) two workshops *Space–Time Data Analysis in Oceanography and Meteorology I* held in Berder in May 2013 and *Space–Time Data Analysis in Oceanography and Meteorology II* held in Landéda in November 2013.

François Le Gland is a member of the "conseil d'UFR" of the department of mathematics of université de Rennes 1.

Valérie Monbet is a member of the "comité de direction" and of the "conseil" of IRMAR (institut de recherche mathématiques de Rennes, UMR 6625). She is also a member of the "conseil scientifique" of the department of mathematics of université de Rennes 1.

8.2. Teaching, supervision, thesis committees

8.2.1. Teaching

Arnaud Guyader is a member of the committee of "oraux blancs d'agrégation de mathématiques" for ENS Cachan at Ker Lann.

François Le Gland gives a course on Kalman filtering and hidden Markov models, at université de Rennes 1, within the SISEA (signal, image, systèmes embarqués, automatique, école doctorale MATISSE) track of the master in electronical engineering and telecommunications, a 3rd year course on Bayesian filtering and particle approximation, at ENSTA (école nationale supérieure de techniques avancées), Paris, within the systems and control module, a 3rd year course on linear and nonlinear filtering, at ENSAI (école nationale de la statistique et de l'analyse de l'information), Ker Lann, within the statistical engineering track, and a 3rd year course on hidden Markov models, at Télécom Bretagne, Brest.

Florent Malrieu has given a doctoral course on piecewise deterministic Markov processes (PDMP) proposed as a complementary scientific training to PhD students of école doctorale MATISSE. He has also contributed to a pedagogical article in the *Revue de Mathématiques Spéciales*.

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

8.2.2. Supervision

François Le Gland has been supervising one PhD student

- Paul Bui Quang, title: *Particle approximation and the Laplace method for Bayesian filtering*, université de Rennes 1, defense in July 2013, funding: ONERA grant, co–direction: Christian Musso (ONERA, Palaiseau).

and he is currently supervising two PhD students

- Alexandre Lepoutre, provisional title: *Detection issues in track–before–detect*, université de Rennes 1, started in October 2010, expected defense in 2014, funding: ONERA grant, co–direction: Olivier Rabaste (ONERA, Palaiseau).
- Damien–Barthélémy Jacquemart, provisional title: *Rare event methods for the estimation of collision risk*, université de Rennes 1, started in October 2011, expected defense in 2014, funding: DGA / ONERA grant, co–direction: Jérôme Morio (ONERA, Palaiseau).

Florent Malrieu is currently supervising one PhD student

- Florent Bouguet, provisional title: *Coupling methods for PDMP*, université de Rennes 1, started in October 2013, co–direction : Jean–Christophe Breton (université de Rennes 1),

Valérie Monbet is currently supervising one PhD student

- Julie Bessac, provisional title: *Space time modelling of wind fields*, université de Rennes 1, started in October 2011, co–direction : Pierre Ailliot (université de Bretagne Occidentale),

and she is a member of the PhD thesis advisory committee of

- Jérôme Weiss, provisional title: *Modelling of extreme storm surge series*, funding : CIFRE grant with EDF R&D, direction : Michel Benoît (Laboratoire d'Hydraulique Saint-Venant).

8.2.3. *Thesis committees*

François Le Gland has been a member of the committees for the PhD thesis of Mathieu Chouchane (université de la Méditerrannée, advisors: Mustapha Ouladsine and Sébastien Paris) and for the habilitation thesis of Jérôme Morio (université de Rennes 1) and he as been a reviewer for the PhD thesis of Mélanie Bocquel (University of Twente, advisors: Arunabha Bagchi and Hans Driessen).

Florent Malrieu has been a member of the committees for the PhD theses of Bertrand Cloez (université Paris–Est Marne–la–Vallée, advisor: Djalil Chafaï) and Alexandre Genadot (université Pierre et Marie Curie, advisor: Michèle Thieullen) and he as been a reviewer for the PhD thesis of David Godinho Pereira (université Paris–Est Créteil, advisor: Nicolas Fournier).

Valérie Monbet has been a member of the committees for the PhD theses of Paul Bui Quang (université de Rennes 1, advisors: François Le Gland and Christian Musso) and Sébastien Béyou (université de Rennes 1, advisor: Étienne Mémin).

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

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

Arnaud Guyader has been invited to give a talk on simulation and estimation of rare events and extreme quantiles, at the ESSEC working group on *Risk*, in October 2013 and at the université Pierre et Marie Curie working group on *Extreme Value Theory*, in December 2013. He has also given a talk on estimation of mutual nearest neighbors, at the *45èmes Journées de Statistique*, held in Toulouse in May 2013.

François Le Gland has been invited to give a talk on the ensemble Kalman filter, at the department of applied mathematics of the University of Twente, in October 2013.

Valérie Monbet has given a talk on dynamical partitioning of directional ocean wave spectra, at the workshop on *Space–Time Data Analysis in Oceanography and Meteorology I*, held in Berder in May 2013 and a talk on stochastic weather generators with non–homogeneous hidden Markov switching, at the workshop on *Space–Time Data Analysis in Oceanography and Meteorology II*, held in Landéda in November 2013. She has given a talk on stochastic weather generators, at the MODNAT workshop on *Modelling of Natural Events*, held at ONERA Palaiseau in October 2013, and at the *5ème École Interdisciplinaire de Rennes sur les Systèmes Complexes — Stochasticité dans les Systèmes Complexes : Désordre, Hasard, Incertitudes*, held in October 2013, and a talk on stochastic weather generators and switching auto–regressive models, and application to temperature series, at the PEPER workshop on *Extreme Value Theory and Risk Assessment in Climate Sciences*, held in Aussois in December 2013.

ATLANMOD Project-Team

9. Dissemination

9.1. Scientific Animation

9.1.1. Organization

In 2013, the AtlanMod team has coorganized the following events:

- J. Cabot has coorganized the OCL and Textual Modeling Workshop (OCL'13) [8] co-located with the MoDELS conference.
- J. Cabot was tutorials co-chair for the MoDELS conference.

9.1.2. Editorial Boards

Participation to editorial boards of scientific journals:

- Jordi Cabot: Journal of Object Technology, International Journal of Information System Modeling and Design, Software and Systems Modeling

9.1.3. Reviewing of International Journals

AtlanMod members have collaborated in the reviewing process for the following journals this year

- Hugo Bruneliere: Elsevier Advances in Engineering Software (ADES)
- Jordi Cabot: IEEE Software, IEEE Transactions on Software Engineering Journal, Journal of Systems and Software, Information and Software Technology Journal, Software and Systems Modeling Journal, Data and Knowledge Engineering Journal, Science of Computer Programming journal, Journal of Web Engineering journal
- Javier Canovas: Software and Systems Modeling Journal, Journal of Object Technology.
- Massimo Tisi: IEEE Software, Science of Computer Programming journal, Journal of Software: Practice and Experience, Information and Software Technology Journal, Software and Systems Modeling Journal, Journal of Object Technology.
- Gerson Sunyé: IBM Journal of Research and Development, Journal of System and Software, Distributed Computing Journal, Software: Practice and Experience Journal

9.1.4. Program Committee members

Participation to conference program committees:

- Jordi Cabot:
    - International: World Wide Web Conference, International Conference on Model-Driven Engineering Language and Systems, Software Language Engineering conference, European Conference on modeling foundations and applications, International Conference on Web Engineering, Transformation Tool Contest, International Conference on Conceptual Modeling, International Conference on Advanced Information Systems Engineering, Model Driven Web Engineering Workshop.
    - National: French national conference on MDE, Spanish national conference on MDE.
- Javier Canovas:

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[8]http://ocl2013.inf.mit.bme.hu/

- International: International Conference on Cyber, Physical and Social Computing, ACM European Computing Research Congress, International Conference on Web Engineering, Model-Driven Web Engineering workshop, International Conference on Model Driven Engineering Languages and Systems, Workshop on Modeling Social Media, International Conference on Knowledge Management and Knowledge Technologies.

- Massimo Tisi:
    - International: International Conference on Engineering of Complex Computer Systems, International Conference on Current Trends in Theory and Practice of Computer Science, International Conference on Software Engineering and Advanced Applications, International Conference on Web Information Systems and Technologies, International Conference on Model Transformation, Transformation Tool Contest, Workshop on Domain-Specific Modeling, Extreme Modeling Workshop, Academics Modelling with Eclipse Workshop.

- Gerson Sunye:
    - International: 25th International Conference on Software Engineering and Knowledge Engineering (SEKE 2013), 2nd International Workshop on Large-Scale Testing (LT 2013), 1st International Workshop onTesting The Cloud (TTC 2013).

9.1.5. Research Evaluation Committees

- Jordi Cabot:Reviewer for Spanish CICYT Research Projects Call

9.1.6. Steering Committees

Participation in Steering Committees of Research Conferences:

- Jordi Cabot: International Conference on Model Transformation

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

License: M. Tisi, Projet IPIPIP, 8h, L2, Ecole des Mines de Nantes

License: M. Tisi, Projet Integrateur PRIME, 12h, L3, Ecole des Mines de Nantes

License: M. Tisi, Programmation, 40h, L2, Ecole des Mines de Nantes

License: M. Tisi, Bases de Données, 33h, L3, Ecole des Mines de Nantes

License: M. Tisi, Interaction Homme-Machine, 14h, L3, Ecole des Mines de Nantes

License: S. Martínez, Bases de Données, 33h, L3, Ecole des Mines de Nantes

License: S. Martínez, Interaction Homme-Machine, 14h, L3, Ecole des Mines de Nantes

License: J. Cabot, Projet IPIPIP, 8h, L2, Ecole des Mines de Nantes

License: J. Cabot, Model-driven Engineering, 45h, L1, Ecole des Mines de Nantes

Master: J. Cabot, Master MIAGE - Object Constraint Language, 4h, M1, Université de Nantes

Master : G. Sunyé, Genie logiciel, 90h, M1, Université de Nantes

Master : G. Sunyé, Verification et tests, 56h, M1, Université de Nantes

Master : G. Sunyé, Nouveaux usages de l'informatique pour l'entreprise, 23h, M1, Université de Nantes

Master : G. Sunyé, Developpement du logiciel, 44h, M1, Université de Nantes

Master: J. Canovas, Master MIAGE - Domain Specific Languages, 6h, Université de Nantes.

License: J. Canovas, Projet IPIPIP, 8h, L2, Ecole des Mines de Nantes

9.2.2. Supervision

PhD : Valerio Cosentino, Extraction and refactoring of Business Logic from Legacy Applications, December 19th, 2013, Jordi Cabot, Patrick Albert

PhD : Tam Le Nham, Model-Driven Software Engineering for Virtual Machine Images Provisioning in Cloud Computing, Université de Rennes 1, December 10th 2013, Jean-Marc Jézéquel, Gerson Sunyé

PhD in progress : Carlos A. González, Pragmatic Model Verification, Jordi Cabot

PhD in progress : Salvador Martínez Pérez, Automatic reconstruction and analysis of semantic network security policies from deployed security components, Jordi cabot and Frédéric Cuppens

PhD in progress : Olivier Finot, Oracles du test de transformation de modeles, Université de Nantes, Septembre 2010, Christian Attiogbé (Directeur), Jean-Marie Mottu, Gerson Sunyé

9.2.3. Juries

Jordi Cabot was a member of the jury of the thesis of Thang Quyet Pham (Telecom Bretagne), Jad MATAR (Ecole Centrale Nantes) and Aymeric Hervieu (Inria/IRISA)

9.3. Popularization

In June 2013, the team participated to the organization of the seminar "Logiciels de qualité : modélisation et vérification" at "Journées scientifiques de l'Université de Nantes". The seminar had more than 50 participants, from industry and academia.

Moreover, since several years, the AtlandMod team is already very involved in the open source community, notably via its constant activity within the context of the Eclipse Foundation. This activity actually takes different forms: creation and leading/development of Eclipse projects (under *Eclipse.org* or *Eclipse Labs*), participation to the major worldwide community events (i.e.; EclipseCon North America and EclipseCon Europe), organization of events targeting the local community (i.e. Eclipse DemoCamps), etc.

This year again, the team has been active and visible in terms of concrete contributions to the community. The main remarkable items are the following ones:

- Leading of the MDT MoDisco project (Hugo Bruneliere), the Eclipse reference project concerning model-driven reverse engineering;
- Commitment to other projects directly under *Eclipse.org*: MMT ATL and EMFT EMF Facet (Hugo Bruneliere);
- Commitment to other projects under *EclipseLabs*: EMFToCSP (Jordi Cabot, Carlos Gonzalez) and Virtual EMF (Caue Clasen, Jordi Cabot);
- Creation and development of a new incubation project under *Eclipse Labs*: Collaboro (Javier Canovas);
- Organization of an official Eclipse DemoCamp in Nantes, on the 28th of June 2012, for locally promoting the Eclipse Juno release including the MoDisco, ATL and EMF Facet team's projects (Hugo Bruneliere, in collaboration with the Obeo company);
- Publication of a paper on MoDisco in the European ERCIM NEWS Journal 88, dedicated to Software Evolution (Hugo Bruneliere and Jordi Cabot, in collaboration with the Mia-Software company);
- Presentation of talks during the two main Eclipse events (Hugo Bruneliere): at EclipseCon North America 2012 about EMF Facet, at EclipseCon Europe 2012 about Collaboro.

Generally, the team visible presence under Eclipse is also an efficient way to continue active collaborations with industrial partners, such as Mia-Software (Sodifrance) on MoDisco - EMF Facet, and Obeo on ATL.

CAIRN Project-Team

8. Dissemination

8.1. Scientific Animation

O. Berder was General Chair of the 3rd Workshop on Ultra Low Power Systems (WUPS), Prague, Czech Republic, February 2013.

D. Chillet was member of the technical program committee of HiPEAC RAPIDO, HiPEAC WRC, DCIS, and DASIP.

M. Gautier was a member of the technical program committe of IEEE WCNC 2013, IEEE PIMRC 2013, IEEE Percom 2013 (Workshop on Cognitive Computing and Communications), IEEE ICCVE 2013 and IARIA COCORA 2013.

A. Tisserand was a member of technical program committee of the following conferences: IEEE ARITH'21, IEEE Reconfig 2013, DASIP 2013, IEEE NEWCAS 2013. He is a member of the editorial board of the International Journal of High Performance Systems Architecture, Inderscience.

C. Wolinski was a member of the technical program committee of IEEE ASAP and DSD.

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

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

A. Tisserand co-organized the ARCHI 2013 école thématique CNRS Architectures des systèmes matériels enfouis et méthodes de conception associées, March 25-29 Col-de-Porte. Details on http://tima-sls.imag.fr/archi13

A. Tisserand was Editor of a special issue in Journal TSI (Technique et Science Informatique) [81].

O. Sentieys was a member of technical program committee of the following conferences: IEEE/ACM DATE, IEEE FPL, ACM/IEEE MEMOCODE IEEE VTC, IEEE DDECS, ACM SBCCI, FTFC. He was Track Chair at IEEE NEWCAS. He is on the editorial board of Journal of Low Power Electronics, American Scientific Publishers, and of ISRN Sensor Networks.

O. Sentieys is a member of the steering committee of the GDR SOC-SIP. He is the chair of the IEEE Circuits and Systems (CAS) French Chapter. In 2013, he was an expert for some scientific organizations (ANR, AERES).

O. Berder is an elected member of IRISA Lab Council. He is the moderator of the Embedded Systems area in the Scientists Interest Group on Intelligent Transportation Systems.

E. Casseau was an expert for the ANR INS program (Agence Nationale de la Recherche).

8.2. Seminars and Invitations

A. Tisserand gave an invited lecture at the CNRS ARCHI 2013 spring school on FPGA circuits.

A. Tisserand gave an invited lecture at the ARIC team of LIP Laboratory, ENS Lyon, on Arithmetic Level Countermeasures for ECC Cryptoprocessors Against Side Channel Attacks.

8.3. Teaching - Supervision - Juries

8.3.1. *Teaching Responsibilities*

There is a strong teaching activity in the CAIRN team since most of the permanent members are Professors or Associate Professors.

C. Wolinski is the Director of ESIR.

P. Quinton is the director of Ecole Normale Supérieure de Rennes.

D. Chillet is the Director of Academic Studies of ENSSAT.

P. Scalart is the Head of the Electronics Engineering department of ENSSAT.

S. Derrien is the responsible of the first year of the master of computer science at ISTIC since Sep. 2012.

O. Sentieys is responsible of the "Embedded Systems" branch of the SISEA Master of Research (M2R).

D. Chillet is the co-repsonsible of the Embedded System speciality of the ICT Master of University of Science and Technology of Hanoi.

ENSSAT stands for *"École Nationale Supérieure des Sciences Appliquées et de Technologie"* and is an *"École d'Ingénieurs"* of the University of Rennes 1, located in Lannion.

ISTIC is the Electrical Engineering and Computer Science Department of the University of Rennes 1.

ESIR stands for *"École supérieure d'ingénieur de Rennes"* and is an *"École d'Ingénieurs"* of the University of Rennes 1, located in Rennes.

M2R stands for Master by Research, second year.

D. Chillet is member of the French National University Council since 2009 in signal processing and electronics (Conseil National des Universités en 61e section).

D. Chillet is member of the Permanent Committee of the French National University Council since november 2011 in signal processing and electronics (Commission Permanente du Conseil National des Universités en 61e section).

A. Tisserand is member of the French National University Council since 2011 in computer science (Conseil National des Universités en 27e section).

8.3.2. *Teaching*

O. Berder: introduction to signal processing, 38h, ENSSAT (L3)

O. Berder: microprocessors and digital systems, 30h, ENSSAT (L3)

O. Berder: wireless communications, 23h, ENSSAT (M2)

O. Berder: ad hoc networks, 58h, ENSSAT (M1-M2)

O. Berder: signal processing, 12h, IUT Lannion (L2)

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

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

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

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

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

E. Casseau: reconfigurable architectures, 25h, USTH (M2)

S. Derrien: component and system synthesis, 16h, Research Master (MRI ISTIC) (M2)

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

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

F. Charot: specification of applications with the signal synchronous language, 24h, ESIR (M1)

F. Charot: virtual prototyping of multiprocessor system-on-chip, 24h, ESIR (M1)

F. Charot: design of embedded systems, 28h, ESIR (M1)

A.Courtay: Processor Architecture, 24h, ENSSAT (L3)

A.Courtay: Digital Electronics, 32h, ENSSAT (L3)

A.Courtay: Digital System Design, 12h, ENSSAT (L3)

A.Courtay: Digital Electronics Communication Interfaces, 68h, ENSSAT (M1)

A.Courtay: Processor Architecture, 25h, USTH (M1)

D.Chillet: Basic processor architecture, 20h, ENSSAT (L1)

D.Chillet: Design methodology of real-time systems, 32h, ENSSAT (L2)

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

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

D.Chillet: Multi-processor systems, 20h, ENSSAT (M2)

D. Chillet: advanced processors architectures, 24h, Master by Research and ENSSAT (M2)

D. Chillet: low-power digital CMOS circuits, 6h, Telecom Bretagne and University of Occidental Brittany (UBO) (M2)

D. Chillet: Digital system design, 25h, University of Science and Technology of Hanoi (M1)

D. Chillet: Advanced Multiprocessor system , 25h, University of Science and Technology of Hanoi (M2)

M.Gautier, electronics, 42h, IUT Lannion (L1)

M.Gautier, telecommunications, 114h, IUT Lannion (L1)

M.Gautier, digital communications, 28h, IUT Lannion (L2)

C. Killian, digital electronics, 74h, IUT Lannion (L1)

C. Killian, digital electronics, 28h, IUT Lannion (L2)

C. Killian, electricity, 60h, IUT Lannion (L1)

C. Killian, signal processing, 40h, IUT Lannion (L2)

R. Rocher: electricity, 16h, IUT Lannion (L1)

R. Rocher: electronics, 44h, IUT Lannion (L1)

R. Rocher: telecommunications, 82h, IUT Lannion (L1)

R. Rocher: signal processing, 12h, IUT Lannion (L2)

R. Rocher: digital communications, 48h, IUT Lannion (L2)

P. Scalart: non-linear optimisation, 18h, Master by Research and ENSSAT (M2)

P. Scalart: Parametric modelisation, optimal and adaptive Filters, 24h, Master by Research and ENSSAT (M2)

P. Scalart: source coding, 14h, Master by Research and ENSSAT (M2)

P. Scalart: cellular networks, 24h, ENSSAT (M2)

P. Scalart: digital communication systems, 32h, ENSSAT (M1)

P. Scalart: random signals and systems, 12h, ENSSAT (M1)

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

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

A. Tisserand: multiprocessor architectures and programming, 20h, ENSSAT and Master by Research, Univ. Rennes 1(M2)

A. Tisserand: hardware computer arithmetic operators, 6h, Master by Research, Univ. Rennes 1 (M2)

C. Wolinski: architecture 1, 64h, ESIR (L3)

C. Wolinski: architecture 2, 28h, ESIR (L3)

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

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

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

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

8.3.3. Supervision

PhD: Mahtab Alam, Power Aware Adaptive Techniques for Wireless Sensor Networks, Univ. Rennes 1, Jan. 2013, O. Sentieys, O. Berder, D. Menard.

PhD: Robin Bonamy, Power Consumption Modelling and Optimisation for Heterogeneous Reconfigurable Platform, Univ. Rennes 1, Jul. 2013, D. Chillet.

PhD: Thomas Chabrier, Arithmetic recodings for ECC cryptoprocessors with protections against side-channel attacks, Univ. Rennes 1, Jun. 2013, A. Tisserand, E. Casseau.

PhD: Hervé Yviquel, From dataflow-based video coding tools to dedicated embedded multi-core platforms, Univ. Rennes 1, Oct. 2013, E. Casseau.

PhD: Antoine Morvan, Polyhedral Model for High-Level Synthesis of Pipelined Architectures, Univ. Rennes 1, Jun. 2013, P. Quinton, S. Derrien.

PhD: Vivek D. Tovinakere, Ultra-Low Power Reconfigurable Controllers for Wireless Sensor Networks, Univ. Rennes 1, Feb. 2013, O. Sentieys.

PhD in progress: Florent Berthier, Study and Design of an Ultra Low Power Asynchronous Core for Sensor Networks, Oct. 2013, O. Sentieys, P. Vivet, E. Beigne.

PhD in progress: Karim Bigou, RNS Hardware Units for ECC, Oct. 2011, A. Tisserand.

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

PhD in progress: Aymen Chakhari, Analytical approach for decision errors in fixed-point digital communication systems, Oct. 2010, R. Rocher, P. Scalart.

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

PhD in progress: Amine Didioui, Reconfigurable Radio Front-End for Energy-Harvesting Wireless Sensor Networks, Nov. 2010, O. Sentieys, C. Bernier.

PhD in progress: Ali Hassan El-Moussawi, Performance/Accuracy Trade-Off in Automatic Parallelization for Embedded Many-Core Platforms, Nov. 2012, S. Derrien.

PhD in progress: Christophe Huriaux, Embedded reconfigurable hardware accelerators with efficient dynamic reconfiguration management, Oct. 2012, O. Sentieys, A. Courtay.

PhD in progress: Quang-Hai Khuat, Real-Time Spatio-Temporal Task Scheduling on 3D Architectures, Oct. 2011, D. Chillet.

PhD in progress: Trong-Nhan Le, Global power management system for self-powered autonomous wireless sensor nodes, Jan. 2011, O. Sentieys, O. Berder.

PhD in progress: Quang-Hoa Le, Virtualized dynamic reconfiguration for 3D SoC, Oct. 2012, E. Casseau, A. Courtay.

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

PhD in progress: Jérémie Métairie, Reconfigurable Arithmetic Units for Secure Cryptoprocessors, Oct. 2012, A. Tisserand, E. Casseau.

PhD in progress: Van Thiep Nguyen, Energy-efficient MAC protocols for cooperative strategies in Wireless Sensor Networks, Oct. 2013, O. Berder, M. Gautier.

PhD in progress: Viet-Hoa Nguyen, Energy-efficient cooperative techniques for Wireless Body Area Sensor Networks, Nov. 2012, O. Berder, jointly with C. Langlais from Telecom Bretagne.

Ganda-Stéphane Ouedraogo, Automatic synthesis of hardware accalerator from high-level specifications in flexible radios, Oct. 2011, M. Gautier, O. Sentieys.

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

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

PhD in progress: Pramod P. Udupa, Sampling, synchronising, digital processing and FPGA implementation of 100Gbps optical OFDM signals, Jan. 2011, O. Sentieys.

PhD in progress: Zhongwei Zheng, Short-range geolocation algorithms based on distributed multi-sensor processing, Nov. 2012, P. Scalart, jointly with C. Roland from Lab-STICC.

8.4. Popularization

A popularisation paper on energy efficiency has been published in [80]
15 members of the team participated in the national science festival (Fête de la Science) in Plemeur-Bodou in October (demonstrations on wireless sensor networks, cryptology and digital integrated circuits).

A letter was published in Inria Emergences on "improving energy efficiency of embedded processors": http://emergences.inria.fr/lettres2013/newsletter-n28/L28_GECOS

CELTIQUE Project-Team

8. Dissemination

8.1. Scientific Animation

Sandrine Blazy and David Pichardie co-chaired and organized in Rennes the international conference ITP 2013 and its 2 related workshops. Sandrine Blazy is a member of the steering committee of the ITP conference. Sandrine Blazy served on the organizing committee of the international conferences VMCAI 2013 and LPAR 2013. Sandrine Blazy was scientific director of the "Languages and software engineering department" of IRISA until September 2013. Sandrine Blazy gave an invited talk at the VSTTE 2013 conference in Menlo Park, USA. David Pichardie served on the external reviewing committee of the international conference PLDI 2013 and the organizing committee of the international workshops BYTECODE 2013, PxTP 2013 and Coq Workshop 2013. David Pichardie is chair of the department of Computer Science at ENS Rennes. Alan Schmitt co-chaired and organized the International Symposium on Database Programming Languages, co-located with VLDB, in Trento, Italy (http://dbpl2013.inria.fr/). He also participated in the organization of the Programming Languages Mentoring Workshop, co-located with POPL, in Roma, Italy (http://www.doc.ic.ac.uk/~gds/PLMW/index.html). Alan Schmitt is a member of the steering committee of the Journées Francophones des Langages Applicatifs. Thomas Jensen and Alan Schmitt organized the École Jeunes Chercheurs en Programmation (EJCP 2013).

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

> Master : Frédéric Besson, Compilation, 68h, level M1, Insa Rennes, France

> Licence : Sandrine Blazy, Programmation fonctionnelle, 30h, L3, Rennes 1, France

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

> Master : Sandrine Blazy, Software vulnerabilities, 26h, M2, Rennes 1

> Master : Sandrine Blazy, Mechanised semantics, 15h, M2, Rennes 1, France

> Licence : David Cachera, Formal Languages and Computability, 24h, L3, ENS Rennes

> Licence : David Cachera, Logics, 24h, L3, ENS Rennes

> Licence : David Cachera, Algorithmics, 12h, L3, ENS Rennes

> Master : David Cachera, Programming Language Semantics, 24h, M1, Rennes 1

> Licence : Delphine Demange, Algorithmique et Programmation Fonctionnelle, 80h, level L1, Université de Rennes 1 / Istic, France

> Master : Delphine Demange, Sémantique, 8h, level M1, Université de Rennes 1 / Istic / ENS Cachan Antenne Bretagne, France

> Licence : Thomas Genet, Programmation fonctionnelle, 32h, niveau L3, Université de Rennes 1 / Istic, France

> Master : Thomas Genet, Conception et vérification formelle, 90h, niveau M1, Université de Rennes 1 / Istic, France

> Master : Thomas Genet, Protocoles cryptographiques, 24h, niveau M2, Université de Rennes 1 / Istic, France

> Master : Thomas Jensen, Program analysis, 14h, M2, Rennes

> Master : Thomas Jensen, Software security, 20h, M2, Rennes

Licence : David Pichardie, Algorithms, 60h, L3, ENS Rennes

Master : David Pichardie, Mechanised semantics, 15h, M2, Rennes 1, France

Master : David Pichardie, Program analysis, 6h, M2, Rennes

Licence : Alan Schmitt, Programmation Fonctionnelle, 37h, niveau L3, Insa Rennes, France

8.2.2. *Supervision*

PhD : Pierre-Emmanuel Cornilleau, Certification of static analysis in many-sorted first-order logic, ENS Cachan - antenne de bretagne, 25 march 2013, Thomas Jensen and Frédéric Besson

PhD in progress : Pierre Wilke, Retro-engineering of auto-modifying code by static analysis, 1st august 2013, Sandrine Blazy and Frédéric Besson

PhD in progress : Valérie Murat, Automatic Verification of infinite state systems by tree automata completion, 1st august 2011, Thomas Genet

PhD in progress : Yann Salmon, Reachability for Term Rewriting Systems under Strategies, 1st august 2012, Thomas Genet

PhD in progress: Andre Oliveira Maroneze, Compilation vérifiée et calcul de temps d'exécution au pire cas, septembre 2010, Sandrine Blazy, David Pichardie and Isabelle Puaut

PhD in progress: Stéphanie Riaud, Transformations de programmes pertinentes pour la sécurité du logiciel, septembre 2011, Sandrine Blazy

PhD in progress: Vincent Laporte, Formal verification of static analyses for low level langages, septembre 2012, Sandrine Blazy and David Pichardie

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

PhD in progress : Martin Bodin, Certified Analyses of JavaScript, 1st september 2012, Thomas Jensen and Alan Schmitt

PhD in progress : Oana Andreescu, Proof reusability in the formal modeling of secure operating systems, 1st September 2013, Thomas Jensen and Stephane Lescuyer (Prove & Run)

PhD in progress : Pauline Bolignano, Formal methods for minimizing a trusted computing base in an operating system, 1st October 2013, Thomas Jensen and Vincent Siles (Prove & Run)

8.2.3. *Juries*

Frédéric Besson, jury member for the PhD defense of Mohamed Iguernelala, July 10th 2013

Sandrine Blazy, jury member (reviewer) for the PhD defense of Cédric Auger, February 2013, University Paris Sud

Sandrine Blazy, jury member (reviewer) for the PhD defense of Suman Saha, March 2013, University Paris 6

Sandrine Blazy, jury member (president) for the PhD defense of Benjamin Lesage, May 2013, University Rennes 1

Sandrine Blazy, jury member (reviewer) for the PhD defense of Xiaomu Shi, July 2013, Grenoble University

Sandrine Blazy, jury member for the PhD defense of Pierre Néron, October 2013, École Polytechnique

Sandrine Blazy, jury member (reviewer) for the PhD defense of Jean Fortin, October 2013, University Paris East

Thomas Jensen, jury member (examiner) for the PhD defense of Andreas lundblad, March 2013, Royal Technological University, Stockholm, Sweden.

Thomas Jensen, jury member (reviewer) for the PhD defense of Michal Terepeta, October 2013, Technical University, Denmark.

Thomas Jensen, jury member (president) for the PhD defense of Yassamine Seladji, November 2013, Ecole Polytechnique.

Thomas Jensen, jury member (reviewer,president) for the PhD defense of Quentin Sabah, December 2013, University of Grenoble.

David Pichardie, jury member (president) for the PhD defense of Sebastien Chédor, December 2013, University Rennes 1

8.3. Popularization

Frédéric Besson and Nataliia Bielova have presented their approach for quantifying web-fingerprinting in the "Du côté de la recherche" section of the November issue of Ouest Inria.

David Pichardie organised the third edition of the french Castor Informatique contest. This contest promotes Computer Science in secondary schools and high schools. It is organised by Inria, ENS Cachan and the France IOI association and supported by CNRS, Pascaline, the SIF and API associations. In 2013, there was about 170.000 participants.

CIDRE Project-Team

9. Dissemination

9.1. Scientific Animation

Frédéric Tronel and Nicolas Prigent are members of the organization and program committees of the French symposium SSTIC about security of information and communications technologies (Symposium sur la Sécurité des Technologies de l'Information et de la Communication). This symposium is held each year in Rennes and gathers more than 400 people coming from academic, industrial and governmental sectors.

Emmanuelle Anceaume served as a reviewer for the following conferences:

- IEEE/ACM International Conference on Ubiqutious Computing and Communications (IUCC). 2013 (Australia).
- International Symposium on Security and Multimodality in Pervavise Environments (SMPE). 2013 (Spain).
- International Conference on Secure and Trust Computing, data management, and Applications (STA). 2013 (Japan).
- International Conference on Pervasive and Embedded Computing and Communication Systems (PECCS), 2013 (Spain).

Christophe Bidan is a member of the Selection and Validation Committee (CSV - Comité de Sélection et de Validation) of the Images & Réseaux cluster, of the advisory board the security activities of the DGA-MI (Direction Générale de l'Armement - Maîtrise de l'Information). Christophe Bidan served as a reviewer for the following conferences:

- SecureComm - International Conference on Security and Privacy in Communication Networks 2013.
- SETOP - International Workshop on Autonomous and Spontaneous Security 2013.
- IIT - International Conference on Innovations in Information Technology 2013.

Sébastien Gambs acts as:

- member of the editorial board of International Journal of Data Mining, Modelling and Management (http://www.inderscience.com/browse/index.php?journalID=342#board).
- member of the editorial board of International Journal of Privacy and Health Information Management (http://www.igi-global.com/journal/international-journal-privacy-health-information/41027).
- member of the program committee of the « 5th International Workshop on SEcurity and SOCial Networking (SESOC 20123) » held in March 2013 in San Diego, USA.
- member of the program committee of the « Workshop on Privacy and Anonymity for the Digital Economy (PADE 2013) » held in June 2013 in Sydney, Australia (http://pade-lcn2013.conference.nicta.com.au/?page_id=14).
- member of the program committee of the « 11th International Conference on Privacy, Security and Trust (PST 2013) » held in July 2013 in Tarragona, Spain (http://unescoprivacychair.urv.cat/pst2013/).
- member of the program committee of the « 14th Conference on Communications and Multimedia Security (CMS 2013) » held in September 2013 in Magdeburg, Germany (http://www.cms2013.de/).
- member of the program committee of the « 8th International Workshop on Data Privacy Management (DPM 2013) » held in September 2013 in Egham, UK (http://research.icbnet.ntua.gr/DPM2013/).

- member of the program committee of the « 6th Symposium on Foundations and Practice of Security (FPS 2013) » held in October 2013 in La Rochelle, France (http://conferences.telecom-bretagne.eu/fps/2013/).
- member of the program committee of the « 8th International Conference on Risks and Security of Internet and Systems (CRiSIS 2013) » held in October 2013 in La Rochelle, France (http://secinfo.msi.unilim.fr/crisis2013/).
- member of the program committee of the « 4th International Conference on Emerging Ubiquitous Systems and Pervasive Networks (EUSPN 2013) » held in October 2013 in Niagara Falls, Canada (http://cs-conferences.acadiau.ca/euspn-13/).
- external reviewer for PETS 2013 (13th Privacy Enhancing Technologies Symposium), Transactions on Mobile Computing, IEEE Transactions on Parallel and Distributed Systems, Journal of Parallel and Distributed Computing, Journal of Systems and Software and Information Systems.

Gilles Guette is member of the program committee of the symposium SSTIC. He also served as a reviewer for the following conferences:

- National conference SARSSI 2013.
- National conference SSTIC 2013.

Ludovic Mé is a member of the steering committee of RAID (International Symposium on Research in Attacks, Intrusions and Defenses, ex-Recent Advances in Intrusion Detection), of the French conference SAR-SSI, and of the conference C&ESAR organized by the DGA. He served from 2011 to 2013 the scientific board of the CSFRS ("High Council for Strategic Education and Research"). He served this year as a reviewer for the ANRT organization, and for a few journals.

Guillaume Piolle served as a reviewer for the Internal Journal of Information Security. He is a member of CERNA, the ethics committee of Allistene, serving as a common reference point for French institutions undertaking research in information technologies. He also served as a reviewer for the following conferences:

- IIT - International Conference on Innovations in Information Technology 2013;
- SARSSI - National conference on Security of Information Systems and Network Architectures 2013.

Nicolas Prigent served as a reviewer for the SSTIC 2013 conference. He also was the PC chair of SAR-SSI 2013.

Frédéric Tronel served as a reviewer for the following conferences:

- International conference Principles of Distributed Computing (PODC 2013) (as an external reviewer).
- National conference SSTIC 2013.

Valérie Viet Triem Tong served as a reviewer for the following conferences:

- International journal Science of Computer Programming.
- International conference ICC 2014.

Guillaume Hiet served as a reviewer for the following organizations :

- Fonds de recherche du Québec – Nature et technologies
- ANRT
- ANR (INS)

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Christophe Bidan is Professor at Supélec :

> Licence : "Models and programming languages", lab work (8h), L3 - first year of the engineer degree, Supélec, France
>
> Licence : "Foundations of computer science, data structures and algorithms.", lectures (18h), tutorial (6h) and lab work (12h), L3 - first year of the engineer degree, Supélec, France
>
> Licence: "Software engineering", tutorial (6h) and lab work (12h), L3 - first year of the engineer degree, Supélec.
>
> Licence: "Information System", tutorial (6h), M1 - second year of the engineer degree, Supélec.
>
> Master : "Introduction to security", lab work (4h30), M2 - third year of the engineer degree, Supélec, France
>
> Master : "Applied / Advanced Cryptography", lectures (12h) and lab work (24h), M2 - third year of the engineer degree, Supélec, France.
>
> Master : "Supervision of student project", 4 projects, M1 - second year of the engineer degree, Supélec, France
>
> Master : "Supervision of student project", 1 project, M2 research degree of University of Rennes I.

Sébastien Gambs is Associate Professor at Université de Rennes I:

> Master: "Protection of Privacy", 32 hours including 16 hours of lectures, M2 - Master Pro SSI, Université de Rennes I, France.
>
> Master: "Topics on Authentication", 16 hours of lectures, M2 - Master Pro SSI, Université de Rennes I, France.

Gilles Guette is Associate Professor at University of Rennes I :

> Master : "Network Architecture and Security", 48 hours including 16 hours of lecture, M1 - second year of the engineer degree, ESIR, France
>
> Master : "Network Administration", 42 hours including 14 hours of lecture, M1 - second year of the engineer degree, ESIR, France
>
> Master : "Network and System Tools", 24 hours including 4 hours of lecture, M1 - second year of the engineer degree, ESIR, France
>
> Master : "Access Network", 6 hours including 2 hours of lecture, M1 - second year of the engineer degree, ESIR, France
>
> Master : "Network and System Security", 18 hours including 6 hours of lecture, M2 - third year of the engineer degree, ESIR, France
>
> Master : "Network Security", 12 hours including 12 hours of lecture, M2 - third year of the engineer degree, ESIR, France
>
> Master : "Infrastructure Network", 20 hours including 4 hours of lecture, M2 - third year of the engineer degree, ESIR, France
>
> Master : "Supervision of student project", 1 projects, M1 - Master in Computer Science, ISTIC, France
>
> Master : "Supervision of student project", 1 projects, M1 - second year of the engineer degree, ESIR, France
>
> Master : "Supervision of student project", 1 project, M2 - third year of the engineer degree, ESIR, France

Ludovic Mé is Professor at Supélec:

    Licence: "Software Engineering", 15h, L3 - first year of the engineer degree, Supélec, France

    Master: "Introduction to Computer Security and Privacy", 6.75 hours, M1 - second year of the engineer degree, Supélec, France

    Master: "Information systems", 6 hours, M1 - second year of the engineer degree, Supélec, France

    Master: "Supervision of student project", 1 project, M1 - second year of the engineer degree, Supélec, France

    Master: "Supervision of student project", 1 project, M2 - third year of the engineer degree, Supélec, France

    Master: Ludovic Mé is responsible for the module "Secured information systems", M2 - third year of the engineer degree, Supélec, France

    Doctorat: "Introduction to Information Systems Security", 18 hours, Université de Rennes I, France

Guillaume Hiet is Assistant-Professor at Supélec:

    Licence: "Models and programming languages", 11 hours, L3 - first year of the engineer degree, Supélec, France

    Licence: "Foundations of computer science, data structures and algorithms", 15 hours, L3 - first year of the engineer degree, Supélec, France

    Master: "Computer security and privacy for the engineer", 10 hours including 4,5 hours of lecture, M1 - second year of the engineer degree, Supélec, France

    Master: "Buffer overflow vulnerabilities", lab work (16h), M2 - third year of the engineer degree, Supélec.

    Master: "Pentest", lab work (9h00), M2 - third year of the engineer degree, Supélec, France

    Master: "Introduction to Linux", lab work (3h), M2 - master CS (Cyber Security), Supélec, France

    Master: "Java Security", lecture (3h), M2 - master CS (Cyber Security), Supélec, France

    Master: "Linux Security", lab work (6h), M2 - master CS (Cyber Security), Supélec, France

    Master: "Linux Security", lecture (3h) and lab work (3h), third year of the engineer degree, Supélec, France

    Master: "Intrusion Detection", lecture (6h) and lab work (6h), M2 - master CS (Cyber Security), Supélec, France

    Master: "Intrusion Detection", lecture (3h) and lab work (6h), M2 - third year of the engineer degree, M2 research degree of University of Rennes I, Supélec

    Master: "Intrusion Detection", lecture (8h) and lab work (12h), M2 - master 2 degree, University of Rennes I, France

    Master: "Intrusion Detection", lecture (4h) and lab work (6h), M2 - third year of the engineer degree, ESIR, France

    Master: "Intrusion Detection", 6 hours of lecture, M2, Université de Limoges, France

    Master: "Firewall", lecture (4h), M2 - master 2 degree, University of Rennes I, France

    Master: "Supervision of student project", 4 projects, M1 - second year of the engineer degree, Supélec, France

    Master: "Supervision of student project", 1 project, M2 - third year of the engineer degree, Supélec, France

Guillaume Piolle is Assistant Professor at Supélec:

> Licence: "Programming models and languages", 14 hours, L3 - first year of the engineer degree, Supélec, France
>
> Licence: "Foundations of computing, data structures and algorithms", 15 hours, L3 - first year of the engineer degree, Supélec, France
>
> Licence: "Logical systems and electronics", 16 hours, L3 - first year of the engineer degree, Supélec, France
>
> Licence: "Software engineering", 22 hours, L3 - first year of the engineer degree, Supélec, France
>
> Master: "Modelling, algorithms and programming", 17 hours including 9 hours of lecture, M1 - second year of the engineer degree, Supélec, France
>
> Master: "Computer security and privacy for the engineer", 10,5 hours including 7,5 hours of lecture, M1 - second year of the engineer degree, Supélec, France
>
> Master: "Security policies", 3 hours of lecture, M2 - third year of the engineer degree, Supélec, France
>
> Master: "Network access protection", 6 hours, M2 - third year of the engineer degree, Supélec, France
>
> Master: "Network supervision in Java", 3 hours, M2 - third year of the engineer degree, Supélec, France
>
> Master: "Symbolic artificial intelligence", 3 hours of lecture, M2 - third year of the engineer degree, Supélec, France
>
> Master: "C++/Qt", 15 hours, M2 - third year of the engineer degree, Supélec, France
>
> Master: "Privacy protection", 3 hours of lecture, M2 - third year of the engineer degree, Supélec, France
>
> Master: "Introduction to privacy protection", 4 hours of lecture, M2, joint degree between University of Saint-Étienne, École Nationale Supérieure des Mines de Saint-Étienne, France, and University of Alicante, Spain
>
> Master: "Legal aspects of computing", 1 hour of lecture, course for computing high school teachers, Académie de Rennes, France
>
> Master: "Law and computing", 4 hours of lecture, M2, master in Cybersecurity, joint degree between Supélec and École Nationale Supérieure des Télécommunications de Bretagne, France

Nicolas Prigent is Assistant Professor at Supélec:

> Master: "Operating systems", lectures (10h30), M2 - third year of the engineer degree, Supélec.
>
> Master: "Automatic reasoning", lectures (3h00) and lab work (1h30), M2 - third year of the engineer degree, Supélec.
>
> Master: "Python for security", lectures (3h00) and lab work (3h00), M2 - third year of the engineer degree, Supélec.
>
> Master: "Advanced Java", lectures (3h00) and lab work (3h00), M2 - third year of the engineer degree, Supélec.
>
> Master: "Pentest", lab work (9h00), M2 - third year of the engineer degree, Supélec.
>
> Master: "MS-Windows", lectures (6h00) and lab work (6h00), M2 - third year of the engineer degree, Supélec.
>
> Master: "Preparation to iCTF, operational security", lab work (20h00), M2 - third year of the engineer degree, Supélec.
>
> Licence: "Programming models and languages", 14 hours, L3 - first year of the engineer degree, Supélec.
>
> Master: "Supervision of student project", 4 projects, M1 - second year of the engineer degree, Supélec, France.
>
> Master: "Supervision of student project", 3 projects, M3 - third year of the engineer degree, Supélec, France.

Eric Totel is Professor at Supélec :

>Licence : "Models and programming languages", 19.5 hours including 10.5 hours of lecture, L3 - first year of the engineer degree, Supélec, France

>Licence : "Foundations of computer science, data structures and algorithms", 6 hours, L3 - first year of the engineer degree, Supélec, France

>Master : "Computer systems' architecture", 30 hours, M1 - second year of the engineer degree, Supélec, France

>Master : "C language", 24 hours including 6 hours of lecture, M2 - master CS (Cyber Security), Supélec, France

>Master : "C language and C++ language", 12 hours including 6 hours of lecture, M2 - third year of the engineer degree, Supélec, France

>Master : "Dependability", 9 hours including 7.5 hours of lecture, M2 - third year of the engineer degree and master research, Supélec, France

>Master : "Dependability", 3 hours of lecture, M2 - third year of the engineer degree (ingénierie des systèmes automatisés), Supélec, France

>Master : "Dependability", 4.5 hours of lecture, M2 - post-graduate training (master Architecture des Réseaux de Communication), Supélec, France

>Master : "Intrusion Detection", 6 hours of lecture, M2 - M2 - master CS (Cyber Security), Supélec, France

>Master : "Intrusion Detection", 8 hours of lecture, M2 - master 2 degree, University of Rennes I, France

>Master : "Intrusion Detection", 4 hours of lecture, M2 - master 2 degree, University of Rennes I, France

>Master : "Supervision of student project", 4 projects, M1 - second year of the engineer degree, Supélec, France

>Master : "Supervision of student project", 1 project, M2 - third year of the engineer degree, Supélec, France

Frédéric Tronel is Associate Professor at Supélec:

>Licence: "Software engineering", lectures (15h), tutorial (6h) and lab work (12h), L3 - first year of the engineer degree, Supélec.

>Master: "Operating systems", lectures (10h30), M2 - third year of the engineer degree, Supélec .

>Master: "Compilers", lectures (9h), lab work (12h), M2 - third year of the engineer degree, Supélec.

>Master: "Automatic reasoning", lectures (4h30) and lab work (1h30), M2 - third year of the engineer degree, Supélec.

>Master: "Buffer overflow vulnerabilities (theory and practice)", lecture (3h) and lab work (12h), M2 - third year of the engineer degree, Supélec.

>Master: "Buffer overflow vulnerabilities (theory and practice)", lectures (3h) and lab work (3h), M2 - third year of the engineer degree, Telecom Bretagne.

>Master: "Firewall", tutorial (3h), lab work (3h), M2 - third year of the engineer degree, Supélec.

>Master: "Calculability in distributed systems", lecture (6h), M2 research degree jointly with University of Rennes I and Supélec.

Valérie Viet Triem Tong is associate Professor at Supélec :

Licence : "Models and programming languages", Lab work (10h), L3 - first year of the engineer degree, Supélec, France

Licence : "Foundations of computer science, data structures and algorithms.", tutorial (3h) and lab work (6h), L3 - first year of the engineer degree, Supélec, France

Licence : "Programming with Java", Lectures and lab work (12h), M1- International student in second year of the engineer degree (NplusI program), Supélec, France

Master: "Game Theory", Lectures and lab work (20h), M1 - second year of the engineer degree, Supélec.

Master: "Projects in computer science ", coordination of the projects for all students second year of the engineer degree (60 students at Rennes), Supélec.

Master: "Supervision of student project", 4 projects, M1 - second year of the engineer degree, Supélec, France

Master : "Applied / Advanced Cryptography", lectures (3h) and lab work (3h), M2 - third year of the engineer degree, Supélec, France.

Master: "Intrusion Detection", Lectures (3h), M2 - third year of the engineer degree, M2 research degree of University of Rennes I, Supélec.

Master: "Automatic reasoning", lectures (4h30), M2 - third year of the engineer degree, Supélec.

Master: "Security of program using proof assistants", Lectures and lab work (10h30), M2 - third year of the engineer degree, Supélec.

9.2.2. Supervision

PhD: Christophe Hauser, "Détection d'intrusions dans les systèmes distribués par propagation de teinte au niveau noyau – A basis for intrusion detection in distributed systems using kernel-level data tainting", Université de Rennes I (France) and Queensland University of Technology (Brisbane, Australia) joint PhD, June 2013, 19th, supervised by Ludovic Mé (20%) and Frédéric Tronel (80%).

PhD in progress: Radoniaina Andriatsimandefitra, "Protection de l'information dans l'environnement Android", started in October 2011, supervised by Ludovic Mé (20%) and Valérie Viet Triem Tong (80%).

PhD in progress: Mounir Assaf, "Vérification de propriétés de sécurité par analyse statique sur des programmes C de grande taille", started in November 2011, supervised by Ludovic Mé (20%), Eric Totel (40%), and Frédéric Tronel (40%).

PhD in progress: Simon Boche, "Réputation et respect de la vie privée dans les réseaux auto-organisé", started in October 2012, supervised by Christophe Bidan(30%), Gilles Guette (35%) and Nicolas Prigent (35%).

PhD in progress: Georges Bossert, "Méthodologie d'évaluation des systèmes de détection d'intrusions", started in October 2010, supervised by Ludovic Mé (20%) and Guillaume Hiet (80%).

PhD in progress: Thomas Demongeot, "Protection des données utilisateur dans les web services", Telecom Bretagne, started in September 2008, supervised by Eric Totel (50%) and Valérie Viet Triem Tong (50%). The Phd was defended with success on the 19th of December 2013.

PhD in progress: Stéphane Geller, "Administration de politiques de sécurité reposant sur le contrôle des flux d'information", started in October 2009, supervised by Ludovic Mé (20%) and Valérie Viet Triem Tong (80%).

PhD in progress: Erwan Godefroy, "Corrélation d'alertes dirigée par la connaissance de l'environnement", started in November 2012, supervised by Michel Hurfin (20%), Ludovic Mé (30%) and Eric Totel (50%).

PhD in progress: Geoffroy Guéguen, "Métamorphisme viral et grammaires formelles", université de Rennes I, started in March 2011, supervised by Sébastien Josse (50% - DGA-MI) and Ludovic Mé (50%).

PhD in progress: Antoine Guellier, "Utilisation de la cryptographie homomorphique pour garantir le respect de la vie privée", started in October 2013, supervised by Christophe Bidan (50%) and Nicolas Prigent (50%).

PhD in progress: Mouna Hkimi ", Détection d'intrusion dans les systèmes distribués: Application au cloud computing", started in October 2013, supervised by Eric Totel (50%) and Michel Hurfin (50%).

PhD in progress: Christopher Humphries, "Visualisation d'évènements de sécurité", started in December 2011, supervised by Christophe Bidan (20%) and Nicolas Prigent (80%).

PhD in progress: Paul Lajoie-Mazenc, "Privacy preserving reputation system in large scale and self organizing systems", started in october 2012, supervised by Emmanuelle Anceaume (50%) and Valérie Viet Triem Tong (50%).

PhD in progress: Julien Lolive, "Entwining identification and privacy mechanisms", Télécom-Bretagne, started in December 2012, supervised by Caroline Fontaine (50% - Télécom-Bretagne) and Sébastien Gambs (50%).

PhD in progress: Regina Marin, "Privacy protection in distributed social networks (Protection de la vie privé dans les réseaux sociaux distribués", started in November 2011, supervised by Christophe Bidan (20%) and Guillaume Piolle (80%).

PhD in progress: Pierre Obame, "Dependability issues in large scale systems", started in February 2012, supervised by Emmanuelle Anceaume (50%) and Frédéric Tronel (50%).

PhD in progress: Deepak Subramanian, "Multi-level Information Flow Monitoring", started in January 2013, supervised by Christophe Bidan (20%) and Guillaume Hiet (80%).

Some members of the team also participate to the supervision of external PhD students. Sébastien Gambs is co-supervising Raghavendran Balu (PhD student for Texmex, Inria Rennes), Mohammad Nabil Al-Aggan (PhD student from ASAP, Inria Rennes, who defended his thesis on December 2013), Miguel Nunez del Prado Cortez (PhD student from LAAS-CNRS, Toulouse, who defended his thesis on December 2013), and Moussa Traore (PhD student from LAAS-CNRS, Toulouse). Emmanuelle Anceaume is co-supervising Romaric Ludinard (PhD student from the Inria project Dionysos, Rennes). Valérie Viet Triem Tong participates to the "supervision committee" of Quentin Jerome Phd Student from the University of Luxembourg. Christophe Bidan is supervising Kun He (PhD student from the IRT B-Com).

9.2.3. *Juries*

- Ludovic Mé was a member of the mid-term PhD committees for a PhD student at Ecole des Mines de Nantes (Florent de Kerchove). Ecole des Mines de Nantes, June 2013.

- Ludovic Mé was a member of the PhD committee (reviewer) for the PhD of Gabriel Serme entitled "Modularisation de la sécurité informatique dans les systèmes distribués", Télécom Paris Tech, November 2013.

- Ludovic Mé was a member of the PhD committee (president of the jury) for the PhD of Mohammad Alaggan entitled "Private peer-to-peer similarity computation in personalized collaborative platforms", Université de Rennes I, December 2013.

- Ludovic Mé was a member of the PhD committee (examinateur) for the PhD of Gustavo Gonzalez Granadillo entitled "Optimization of Cost-based Threat Response for Security Information and Event Management Systems", Télécom SudParis et Université Pierre et Marie Curie, December 2013.

- Christophe Bidan was a member of the PhD committee (president of the jury) for the PhD of Aude Plateaux entitled "Solutions opérationnelles d'une transaction électronique sécurisée et respectueuse de la vie privée", Université de Caen Basse-Normandie, November 2013.

- Christophe Bidan was a member of the PhD committee (examiner) for the PhD of Ludovic Jacquin entitled "Compromis performance/sécurité des passerelles très haut débit pour Internet", Université de Grenoble, November 2013.
- Christophe Bidan was a member of the PhD committee (reviewer) for the PhD of Mohamed Amine Riahla entitled "Contributions au routage et l'anonymat des échanges dans les réseaux dynamiques", Université de Limoges, March 2013.

9.3. Popularization

[17] represents an effort to communicate to the community of engineers and company officials the reflexions and evolutions taking place in academia in the domain of personal data protection, in the fields of both computer science and law. The adopted perspective is to shed some light on the evolutions of the requirements, procedures and policies applying to public or private organizations, putting them in correspondence with the evolution of technical and legal risks, societal motivations and computing tools.

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

9. Dissemination

9.1. Scientific Animation

9.1.1. International memberships

- R. Marie and G. Rubino are members of the IFIP WG 7.3 (Working Group in Computer Performance Modeling and Analysis).
- Gerardo Rubino is a member of the Technical Committee on Multimedia Communications of IEEE.
- Adlen Ksentini is a member of the Technical Committee on Multimedia Communications and Wireless of IEEE.
- Adlen Ksentini is vice-chair of the Interest Group on QoE of the Technical Committee on Multimedia (IEEE Communication Society).

9.1.2. Seminar presentations

- B. Tuffin (with P. Maillé). Title: An analysis of ISP Inter-Relations: Traffic Exchange, Revenue Sharing, and Disconnection Threat. Colloquium Rennais des Sciences du Numérique, 4 Juillet 2013.
- A. Ksentini. Title: QoE-based in-network adaptation of SVC video streams. FP7 Envision project workshop, Orange labs Lannion, Sept. 2013.
- Y. Hadjadj-Aoul. Title: Streaming Vidéo sur Internet: Architectures, Protocoles et Services. University of Oran's Winter School, Oran, Algeria, Dec. 2013.
- C. Viho. Title: QoE (Quality of Experience): a new paradigm for multimedia networking. Institute of Computer Science, University of Goettingen (Germany), Jan 23, 2013.
- C. Viho. Title: Passive interoperability testing is the way to go for Internet of Things. BUPT, Beijnig, China, Oct 15, 2013.
- C. Viho. Title: Internet of Things: Internet of challenges. IC-BNMT, Guilin, China, Nov 19, 2013.
- G. Rubino. Title: Context Delivery Networks in Dionysos. At the in Kick-off DTC ICT Labs, Rennes, France, March 22, 2013.
- G. Rubino. ITCE Distinguished Lecture, Postech, Pohang, Korea. Title: Automatic measuring of perceptual quality on the Internet. May 14, 2013.
- G. Rubino. Title: Transient queueing analysis. AMMA workshop, UDELAR, Montevideo, Uruguay, Sep 4, 2013.
- G. Rubino. Title: On fluid models in performance and dependability analysis. At the Design and Analysis of Communication Systems (DACS) group, University of Twente, Netherlands, Dec 6, 2013.

9.1.3. Editorial activity

- Bruno Tuffin is associate Editor for INFORMS Journal on Computing.
- Bruno Tuffin is associate Editor for Mathematical Methods of Operations Research.
- Bruno Tuffin is associate Editor for ACM Transactions on Modeling and Computer Simulation.
- Bruno Tuffin was the co-chair of the 8th International Workshop on Advanced Internet Charging and QoS technologies (ICQT'13), Zurich, Switzerland, 2013.
- Bruno Sericola is associate editor for The Open Operational Research Journal.
- Bruno Sericola is associate editor for International Journal of Stochastic Analysis.

- Bruno Sericola is associate editor for ISRN Probability and Statistics.
- Adlen Ksentini is guest editor in IEEE Wireless Communication Magazine for the special issue "Research & Standards: Leading the Evolution of Telecom Network Architectures", June 2014.
- Adlen Ksentini is Associate Editor of Hindawei International Journal of Digital Multimedia Broadcasting
- Yassine Hadjadj-Aoul is a member of the editorial board of the International Journal of Computer Networks (IJCN)

9.1.4. Program committees

Bruno Tuffin served as TPC member for

- 9th International Workshop on Resource Allocation, Cooperation and Competition in Wireless Networks (RAWNET/WNC3), Tsukbua Science City, Japan, May 13-17, 2013.
- 7th workshop on Simulation, Rimini, Italy, May 21-25, 2013.
- IFIP Networking 2013 Conference, Brooklyn, New York, USA, May 22-24, 2013.
- 27th ACM/IEEE/SCS Workshop on Principles of Advanced and Distributed Simulation (SIGSIM/PADS), 2013.
- Joint Workshop on Pricing and Incentives in Networks and Systems (W-PIN + NETECON 2013), in conjunction with ACM SIGMETRICS 2013 , Pittsburg, USA, June 21, 2013.
- 3rd International Conference on Simulation and Modeling Methodologies, Technologies and Applications (SIMULTECH), Reikjavik, Iceland, 29-31 July 2013.
- 9th IMACS Seminar on Monte Carlo Methods, Annecy, France, July 15-19, 2013.
- 10th International Workshop on Economics of Grids, Clouds, Systems and Services (GECON'2013), Zaragoza, Spain September 18-20, 2013.
- 4th International Symposium on Information and Communication Technology (SoICT), Danang city, Vietnam, December 5-6, 2013.

Bruno Sericola served in the Program Committee of the following conferences:

- ASMTA 2013, 20th International Conference on Analytical and Stochastic Modelling Techniques and Applications, Ghent, Belgium, 8–10 July 2013.
- ACCESS 2013, 4th International Conference on Access Networks, Nice, France, 21-26 July 2013.

Adlen Ksentini served as TPC member for

- IEEE Global Communication Conference, GLOBECOM 2013 Wireless Network Symposium, December 2013, Atlanta, USA
- IEEE International Conference on Communication, ICC 2013 Wireless Network Symposium, June 2013, Budapest, Hungary
- IEEE Wireless Communication and Networking Conference, April 2013, Paris, France
- IEEE International Conference on Multimedia and Expo ICME 2013,

Yassine Hadjadj-Aoul served as TPC member for

- IEEE Global Communication Conference, GLOBECOM 2013, Wireless Network and communications QoS symposiums, December 2013, Atlanta, USA
- IEEE International Conference on Communication, ICC 2012 Wireless Network and communication software symposiums, June 2013, Budapest, Hungary
- IEEE Wireless Communication and Networking Conference, April 2013, Paris, France

Cesar Viho served as TPC member for

- The 25th IFIP International Conference on Testing Software and Systems (ICTSS 2013), Nov 13-15, 2013, Istanbul, Turkey. C. Viho was Tutorials Chair.
- IEEE International Conference on Broadband Network & Multimedia Technology (IC-BNMT 2013), Nov 17-19, Guilin, China. C. Viho was general co-chair.

Gerardo Rubino served or serves as TPC member of

- e-Health'13: International workshop of e-Health Pervasive Wireless Applications and Services, Lyon, France, Oct 2013.
- MAM8: 8th International Conference on Matrix Analytic Methods in Stochastic Models, Calicut, India, Jan 6-10,
- Networking 2014: IFIP Networking 2014 Conference, Trondheim, Norway, Jun 2–4
- Resim 2014: 10th International Workshop on Rare Event Simulation, Amsterdam, Netherlands, Aug 27–29, 2014.
- QEST 2014: 11th International Conference on Quantitative Evaluation of SysTems, Florence, Italy, Sep 8–12, 2014.
- CLEI 2014, XL Conferencia Latinoamericana de Informática (Latin-American Informatics Conference), Montevideo, Uruguay, Sep 15–19, 2014.

9.1.5. Managing research activities

- B. Tuffin is a member of the Steering Committee of the International Workshop on Rare Event Simulation (RESIM).
- B. Tuffin was a member of Inria Rennes' PhD thesis selection committee, 2013.
- Bruno Sericola is responsible for the Inria Rennes - Bretagne Atlantique budget.
- Bruno Sericola is a member of the Inria Evaluation Committee which role is to assess the calibre of research conducted at Inria and to guarantee the quality of its hiring and internal promotions.
- Bruno Sericola is the leader of the research group MAPI (Math Appli Pour l'Info) the goal of which is to improve the collaboration between computer scientists and mathematicians.
- B. Sericola was a member of the juries for the recruitment of young graduate scientists and senior researchers at Inria.
- Cesar Viho was responsible of the Network, Telecommunication and Services department and member of the scientifc concil of IRISA till June 2013.
- Cesar Viho is deputy director of the MATISSE (Mathematics, Electronics and Computer Sciences) doctoral school in charge of managing the recruitment of PhD students and their activities during their doctorate, in all the concerned areas of the school.
- G. Rubino was a member for years of the Steering Committee of the international conference QEST (Quantitative Evaluation of SysTems). This membership ended mid-2013.
- G. Rubino is a member of the Steering Committee of the International Workshop on Rare Event Simulation (RESIM).
- G. Rubino has been appointed as the Inria representative at the Scientific Committee of the IFCAM (Indo-French Center for Applied Mathematics), a joint international unit between Indian Ministry of Science and Technology and several French institutions including CNRS, Inria, École Polytechnique, École Normale Supéieure, Inria, Nice Sophia Antipolis University and University of Toulouse III.
- Gerardo Rubino is a member of the Research Commission of TELECOM Bretagne (advisory board for the research activities of the institution).
- Gerardo Rubino is a member of the CSV (Selection and Validation Committee) of the "Images et Réseaux" (Images and networks) cluster in the French Brittany Region. The cluster includes most companies and academic institutions working in networking and in image-based applications in Western France.
- Gerardo Rubino served as international evaluator of NWO projects for the Netherlands Organisation for Scientific Research, for the 2013 Program.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Licence L3: Introduction to networks, 20 hours, Istic/University of Rennes 1, France

Master M1: Introduction to networks, 24 hours, Esir/University of Rennes 1, France

Master M1: Wireless networking, 46 hours, Esir/University of Rennes 1, France

Master M1: Networks and protocols, 24 hours, Istic/University of Rennes 1, France

Master M1: Computer networks, 24 hours, Esir/University of Rennes 1, France

Master M1: Algorithms and graphs, 48 hours, Esir/University of Rennes 1, France

Master M1: Performance and dependability evaluation of computer systems, 54 hours, Istic/University of Rennes 1, France

Master M1: Introduction to graph theory, 14 hours, Esir/University of Rennes 1, France

Master M1: Introduction to networks, 20 hours, Esir/University of Rennes 1, France

Master M1: Wireless Networks, 48 hours, Esir/University of Rennes 1, France

Master M2: Multimedia transmission, 48 hours, Esir/University of Rennes 1, France

Master M2: Introduction to C language, 12 hours, Istic/University of Rennes 1, France

Master M2: Validation and tests, 6 hours, Istic/University of Rennes 1, France

Master M2: Quality of service and multimedia, 6 hours, Istic/University of Rennes 1, France

Master M2: Multimedia transmission, 18 hours, Istic/University of Rennes 1, France

Master M2: Performance evaluation, 26 hours, Istic/University of Rennes 1, France

Master M2: Network security, 14 hours, Istic/University of Rennes 1, France

Master M2: Dependability analysis, 15 hours, Supelec, Rennes, France

Master M2: Simulation, 5 hours, Telecom Bretagne, Rennes, France

Master M2: Multimedia streaming over IP (MMR), 50 hours, Esir/University of Rennes 1, France

Master M2: Multimedia services in IP networks (RSM), 29 hours, Esir/University of Rennes 1, France

Master M2: Logistic and performance, 8 hours, Faculté de Sciences économiques/University of Rennes 1, France.

PhD class: Introduction to Monte Carlo simulation, 12 hours, Matisse PhD school, France

PhD class: Network economics, 6 hours, Matisse PhD school, France

9.2.2. Supervision

HdR : Adlen Ksentini; title: "Building the bridges between QoS and QoE for network control mechanisms"; University Rennes 1; date: July 3, 2013.

PhDs defended in Dionysos, in 2013:

- Wael Cherif; title: "Adaptation de contexte basée sur la qualité d'expérience dans les réseaux Internet du Futur"; advisors: A. Ksentini and G. Rubino; University Rennes 1; date: June 19, 2013.

- Nanxing Chen; title: "On passive approach for interoperability testing"; advisor: C. Viho, University of Rennes 1; date: June 24, 2013.

- Samira Saggadi; title: "Rare event simulation with applications in telecommunications"; advisor: B. Tuffin; University Rennes 1; date: July 8, 2013.

- Pablo Sartor del Giudice; title: "Propriétés et méthodes de calcul de la fiabilité diamètre-bornée des réseaux"; advisor: G. Rubino; University Rennes 1; date: Dec 18, 2013.

PhDs defended out of Dionysos, in 2013, with participation of team's members as co-advisors:

- Selim Ellouze; title "Mécanismes de collaboration entre réseaux et services applicatifs pour l'optimisation des ressources et des services"; co-advisor: G. Rubino; University Rennes 1; July 2, 2013.
- Isabel Amigo; title "Métrologie et Ingénierie du Trafic pour la QoS de bout-en-bout dans un réseau multi-domaine"; co-advisor: G. Rubino; Telecom Bretagne, Brest, July 12, 2013.

PhDs in progress in the team:

- Romaric Ludinard; title: "Data aggregation for large-scale distributed networks"; PhD started on April 2011; advisors: B. Sericola from Inria/Dionysos and E. Anceaume from Inria/Cidre; University Rennes 1.
- Damien Le Queré; Cifre Grant, Orange Labs; title: "Conception et étude des performances d'une solution auto-configurable pour les réseaux de transport du futur"; PhD started on January 2012; advisors: B. Sericola and A. Ksentini; University Rennes 1.
- Btissam Errahmadi; Cifre Grant, Orange Labs; title: "Coopération et auto-* dans un réseau de small cells network"; PhD started on January 2013; advisors: C. Viho and A. Ksentini; University Rennes 1.
- Leila Ghazzai; title: "Replication and caching strategies for adaptive video streaming in future information centric networks"; PhD started on October 2012; advisors: G. Rubino, Y. Hadjadj-Aoul; University Rennes 1.
- Osam Arouk; title:"Cellular-based M2M communication: congestion control"; PhD started on December 2012; advisors: C. Viho and A. Ksentini; University Rennes 1.
- Quang Tran Anh Pham; title: "Dynamic QoE based resource management in heterogeneous networks"; PhD started on October 2013; advisors: C. Viho; University Rennes 1.
- Laura Aspirot; title: "Fluid limits of some Markovian models used in performance and dependability analysis"; PhD started in Dec 2010; advisors: E. Mordecki and G. Rubino; University of the Republic, Uruguay. Expected defense in Sep 2014.
- Leslie Murray; title: "New Monte Carlo variance reduction techniques with applications in dependability"; PhD started in Dec 2010; advisors: H. Cancela and G. Rubino; University of the Republic, Uruguay. Defense in May 2014.

9.2.3. Juries (PhD and HDR)

- B. Sericola was a reviewer of the PhD thesis of Alessio Angius, from the university of Torino, Italy; title: "Handling large state spaces in transient analysis of Markovian processes" date: May 7, 2013.
- B. Tuffin was the president of the PhD jury of Isabel Amigo; title "Métrologie et ingénierie du trafic pour la QoS de bout-en-bout dans un réseau multi-domaine"; Telecom Bretagne, Brest, July 12, 2013.
- B. Tuffin was a member (as advisor) of the PhD jury of Samira Saggadi (advisor); title: "Rare event simulation with applications in telecommunications"; Université Rennes 1; July 8, 2013.
- B. Tuffin was a member of the PhD jury of Pablo Sartor del Giudice; title: "Propriétés et méthodes de calcul de la fiabilité diamètre-bornée"; Université de la République, Montevideo, Uruguay, and Université Rennes 1 (defense at Montevideo, Uruguay), December 18, 2013.
- C. Viho was Member of the Jury of HDR of Adlen Ksentini; title: "Building the bridges between QoS and QoE for network control mechanisms"; University Rennes 1; date: July 3, 2013.
- C. Viho was member/reviewer of the PhD of Thomas Ring, from University of Goettingen (Germany); title: "Assessing and Improving Interoperability of Distributed Systems"; date: January 23, 2013.
- C. Viho was the president of the PhD Jury of Wael Cherif; title: "Adaptation de contexte basée sur la Qualité d'Expérience dans les réseaux Internet du Futur"; date: June 19, 2013.

- C. Viho was the president of the PhD Jury of Lucien Loiseau, from Telecom Bretagne; title: "Exploitation des réceptions opportunistes dans les mécanismes de relayage pour les réseaux sans-fils"; date: December 6, 2013.

- C. Viho was the president of the Jury of PhD of Luis Alberto Suárez Rivera, from Telecom Bretagne; title: "Optimisation des techinques et déploiements radio pour les réseaux efficaces en énergie"; date: December 13, 2013.

- G. Rubino was a member of the Jury of HDR of Adlen Ksentini; title: "Building the bridges between QoS and QoE for network control mechanisms"; University Rennes 1; July 3, 2013.

- G. Rubino was the president of the PhD jury of Samira Saggadi; title: "Rare event simulation with applications in telecommunications"; University Rennes 1; July 8, 2013.

- G. Rubino was the president of the Jury of HDR of Daniel Negru; title: "A Networked Media Ecosystem based on *-Awareness for Future Media Internet"; University of Bordeaux 1; December 5, 2013.

- G. Rubino was member/reviewer of the PhD of Daniël Reijsbergen, at the University of Twente, Netherlands; title: "Assessing and Improving Interoperability of Distributed Systems"; December 6, 2013.

- G. Rubino was a member (as advisor) of the PhD jury of Pablo Sartor del Giudice; title: "Propriétés et méthodes de calcul de la fiabilité diamètre-bornée". Université de la République, Montevideo, Uruguay, and Université Rennes 1 (defense at Montevideo, Uruguay), December 18, 2013.

9.3. Popularization

- G. Rubino makes regular presentations to high school students about the research work in general, and specific technical topics in particular. Titles of 2013:
  - Using randomness for solving deterministic problems
  - Internet as a research problem
  - Great challenges in maths: Riemann Hypothesis
  - Great challenges in math/computer science: the "P versus NP" problem

9.4. Standardization activities

Participants: Anthony Baire, César Viho, Nanxing Chen.

The Dionysos team continues to dedicate a significant effort towards standardization and certification in the telecommunications area. We participate in several working groups of the main telecommunication standardization institutes like the IETF (Internet Engineering Task Force), ETSI (European Telecommunication Standardization Institute), etc. We are also active in the main mailing-lists treating new generation networks and protocols. Several proposals of drafts and contributions to the definition of standards and RFCs (Request For Comments) have been published. This year we continued focusing mainly on Internet of Things and related protocols such as 6LowPAN (IPv6 for Low Power Area Networks) and CoAP (Constrained Application Protocol).

9.4.1. IPv6 Ready Logo Program

Participants: Anthony Baire, César Viho.

Dionysos team has also a major role in the world-wide certification process for IPv6 products launched by the IPv6 Forum, the "IPv6 Ready Logo Program". For details, see http://www.ipv6ready.org. This project aims to provide the means needed to test existing IPv6 products to be deployed in the market. Dionysos contributes to the technical part of this Program by defining the certification process itself, specifying required tests, and developing some of the interoperability tests needed. This work is done together with the IPv6 Forum, the ETSI in Europe, the WIDE-project in Japan, the TTA (Telecommunications Technology Association) in Korea and BII in China.

This year, in collaboration with the IPSO alliance and ETSI, we addressed the usage of IPv6 on smart objects based on the IEEE 802.15.4 link layer (for instance, sensor networks). These networks have special constraints (limited power, packet loss, ...) and new protocols are designed at IETF (6LowPAN, CoAP) to allow using IPv6 with these constraints. We participated in the preparation of two Interoperability events for these protocols in June in Berlin (Germany) and in November in Las Vegas (USA).

DREAM Project-Team

9. Dissemination

9.1. Scientific Animation

9.1.1. Journal editorial board
- *AAI: Applied Artificial Intelligence* (M.-O. Cordier).
- *Interstices webzine* (M.-O. Cordier).
- *Revue d'Intelligence Artificielle*: Invited editors of the special issue on "Intelligence Artificial and Agronomy": T. Guyet, F. Le Ber, M. Teisseire [25]

9.1.2. Conference program committees and organizations
- Program committee members of FOSTA workshop at EGC 2013 (T. Guyet, R. Quiniou).
- Organization committee member of CIDN workshop at EGC 2013 (T. Guyet).
- Local chair of EGC 2014 in Rennes (R. Quiniou).
- Organization committee member of EGC 2014 in Rennes (T. Guyet).
- Organization chairs and Program committee members of FST-CERGEO workshop at EGC 2014 (T. Guyet, R. Quiniou).
- Steering Committee of RFIA'2014 (T. Guyet).
- Session chair of ICBBIO 2014 (S. Benabderrahmane)

9.1.3. Scientific and administrative boards
- ECCAI fellow + Honorific member of AFIA (Association Française d'Intelligence Artificielle): M. -O. Cordier
- Member of "Agrocampus-Ouest" scientific board: M.-O. Cordier.
- Member of "Conseil d'administration de l'ISTIC": M.-O. Cordier.
- Head of IRISA department "Data and Knowledge Management" and member of the IRISA scientific management committee: M.-O. Cordier
- Member of the "Prix de thèse AFIA 2013" award committee (selects the best French PhD thesis in the Artificial Intelligence domain): M.-O. Cordier.
- Chair of the INRA CSS-MBIA (Commission scientifique spécialisée "Mathématiques, Biologie et Intelligence Artificielle"): M.-O. Cordier.
- Member of the CoNRS (Comité national recherche scientifique (since october 2012) : M.-O. Cordier
- Member of the AFIA board (since october 2011): T. Guyet.
- Member of the COREGE (Research Committee-COmité de la REcherche du Grand Etablissement) of Agrocampus-Ouest: T. Guyet.
- Evaluator for the "Fonds de recherche du Québec – Nature et technologies": T. Guyet.
- Member of the Payote-Network board: T. Guyet.

9.1.4. Misc
- Invited talk at the "Pattern Mining Days" workshop, Grenoble, July 2013 (T. Guyet).

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Many members of the EPI DREAM are also faculty members and are actively involved in computer science teaching programs in ISTIC, INSA and Agrocampus-Ouest. Besides these usual teachings DREAM is involved in the following programs:

Master: *Module DSS: Apprentissage sur des données séquentielles symboliques*, 10 h, M2, ISTIC University of Rennes (R. Quiniou).

Master: *C++ Programming*, M1, ENSAI, Rennes (T. Guyet and S. Benabderrahmane),

Master: *Géoinformation*, M2, Agrocampus Ouest Rennes (L. Bonneau, T. Guyet, S. Malinowski)

9.2.2. Supervision

PhD: Tassadit Bouadi, "Analyse interactive de résultats de simulation et découverte de connaissances. Application à l'aide à la décision dans le domaine agroécologique pour l'amélioration de la qualité des eaux des bassins versants", november 28th 2013, co-supervisors Marie-Odile Cordier, René Quiniou and Chantal Gascuel, ANR project Acassya grant

PhDs: Yulong Zhao, "Modélisation d'agroécosystèmes dans un formalisme de type systèmes à événements discrets et simulation de scénarios utilisant des outils de model-checking. Application à l'étude des impacts des changements climatiques et des pratiques agricoles sur les flux de nutriments vers les eaux de surface.", january 13th 2014, supervisor Marie-Odile Cordier and Chantal Gascuel

PhD in progress: Philippe Rannou, "Modèle rationnel pour humanoïdes virtuels", october 1st 2010, co-supervisors Marie-Odile Cordier and Fabrice Lamarche

9.2.3. Juries

- Commitee member and reviewer of Nicolas Méger's HDR defence (Univ. Savoie): M.-O. Cordier
- Commitee member of Alexandre Termier's HDR defence (Univ. Grenoble): M.-O. Cordier
- Committee member of Tassadit Bouadi's PhD defence (Université de Rennes 1): M.-O. Cordier , R. Quiniou.
- Thesis committee of Pierre Clément, Oniris Nantes, "Valeur informative du budget-temps de la vache laitière pour la détection précoce des troubles de santé". R. Quiniou.
- Bachelor: A. Fratila (Cluj-Napoca University, Romania), "Evaluating similarity measures between time series symbolic sequences", September 2013, supervisors: Sidahmed Benabderrahmane and René Quiniou.

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

8. Dissemination

8.1. Scientific Animation

8.1.1. Administrative functions: scientific committees, journal boards

- Scientific Advisory Board of GDR BIM " Molecular Bioinformatics"[J. Nicolas].
- Member of the IRISA laboratory council [F. Coste]
- Member of the Inria Rennes center council [A. Siegel]
- Scientific Advisory Board of Biogenouest [J. Bourdon, J. Nicolas, A. Siegel].
- Expertise for AERES (LIFL, LRI) [J. Nicolas, A. Siegel] & ANR (programme blanc) [A. Siegel]
- Academic editor: Plos One [J. Bourdon]
- Ecole Normale recruitment jury [A. Siegel]
- Recruitment committees: junior researcher (Inra) [J. Nicolas], assistant professor (Univ. Rennes) [A. Siegel], assistant professor (Univ. Montpellier) [O. Dameron].
- Reviewer: Advances in Mathematics [A. Siegel], Algorithms for Molecular Biology [F. Coste], American Medical Informatics Association conference [O. Dameron], Bioinformatics [O. Dameron], BMC Bioinformatics [O. Dameron, A. Siegel], Briefings in Bioinformatics [O. Dameron], Bulletin of the Belgium Math. Society [A. Siegel], Computers in Biology and Medicine [F. Coste], Journal of Biomedical Semantics [O. Dameron], Machine Learning [F. Coste], Semantic Web Applications and Tools for Life Sciences workshop [O. Dameron].
- Member of SCAS (Service Commun d'Action Sociale) of Univ. Rennes 1 [C. Belleannée]

8.1.2. Meetings

- **Workshop on Integrative-Omics** A workshop was organized in Pucon, south Chile, in December 2013. The workshop gathered about 40 scientists from Chile, France and Germany. Nine invited lectures were given about the modeling of biological systems and data with various computational approaches (MILP, ASP, graph complexity, probabilistic and stochastic approaches). 15 young scientist talks were also given in complement to the lectures [website].
- **Seminar** A weekly seminar of bioinformatics is organized within the laboratory. Attendees are member of the symbiose team, biologists from Brittany and computer scientists from the laboratory. [website].

8.1.3. Conference program committees

- JOBIM [F. Coste]
- CIBB Computational Intelligence Methods for Bioinformatics and Biostatistics & PRIB International Conference on Pattern Recognition in Bioinformatics [A. Siegel]
- Program committee of Semantic Web Applications and Tools for Life Sciences (SWAT4LS 2013) [O. Dameron].

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

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

Licence: C. Belleannée, Architecture des ordinateurs, 50h, L3 informatique, Rennes1 France.

Licence: C. Belleannée, Bases de données, 21h, L3 Miage par alternance, Rennes1 France .

Licence: G. Andrieux, TIC : Technologies de l'information et de la communication, 32h, L1, Univ. Rennes 1, France.

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

Licence: O. Dameron, C2i niveau 2, 2.5h, Univ. Rennes 1, France.

Licence: V. Picard, Scheme 14h, L1, INSA Rennes, France

Licence: V. Picard, Architecture et systèmes, 24h, L3, ENS Rennes/Univ. Rennes 1, France

Licence: V. Picard, Initiation Unix, 2h, L3, ENS Rennes, France

Licence: S. Prigent, learning PHP/SQL, 12h, L3 (3ème année ingénieur), Ensai, Rennes, France

Licence: S. Prigent, Database, 42h, L1, Ensai, Rennes, France

Licence: S. Prigent, An introduction to R, 9h, L1, Ensai, Rennes, France

Licence: V. Wucher, Introduction aux biostatistiques, 8h, L3 biologie, Rennes 1, France

Master: C. Belleannée, Préférences Logique et contraintes, 32h, M1 informatique, Rennes1 France

Master: C. Belleannée, Architecture matérielle et interface au système, 28h, M2 informatique, Rennes1 France

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

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

Master: O. Dameron, gestion de projets en informatique, 49h, M1 bioinformatique et génomique, Univ. Rennes 1, France.

Master: O. Dameron, principes de programmation et d'algorithmique, 64h, M1 bioinformatique et génomique, Univ. Rennes 1, France.

Master: O. Dameron, initiation systèmes et réseaux, 4h, M1 bioinformatique et génomique, Univ. Rennes 1, France.

Master: O. Dameron, modélisation des connaissances et bio-ontologies, 36h, M2 bioinformatique et génomique, Univ. Rennes 1, France.

Master: O. Dameron, Bases de mathématiques, probabilités et statistiques, 65h, M1 santé publique, Univ. Rennes 1, France.

Master: O. Dameron, E-santé et réseaux hospitaliers, 7h, ESIR3, Univ. Rennes 1, France.

Master: C. Galiez, Compilation, 32h, M1 informatique, Rennes1 France

Master: G. Collet, Langage C, 8h, M1 Informatique, Univ. Rennes 1, France

Master: G. Collet, Analyse et Conception Objet, 14h, M1 MIAGE, Univ. Rennes 1, France

Master: V. Picard, Préparation à l'agrégation de mathématiques option D: épreuve de modélisation, 20h, L2, ENS Rennes/Univ. Rennes 1, France

Master: V. Picard, Aspects probabilistes en biologie des systèmes, 4h, M2, ENS Rennes/Univ. Rennes 1, France

Doctorat: A. Siegel, Programmation par ensemble-réponse (ASP) et application à la reconstruction et la correction de réseaux biologiques, 3h, Ecole thématique CNRS, Modélisation Formelle de Réseaux de Régulation Biologique, France

Doctorat: S. Videla, Answer Set Programming for Systems Biology, 10h, graduate course, Universidad de Chile, Chile.

8.2.2. Seminars

- A. Siegel. *Modeling the quantitative behaviors of biological systems*. IBISC laboratory. Evry (Jan. 2013).

- A. Siegel. *Extracting robust information from the confrontation of knowledge and observations on a biological system*. EBI, UK (Feb. 2013).

- S. Videla, *Learning Logic Models of Protein Signaling Networks with Answer Set Programming*. Brunel Univ (Feb. 2013).

- S. Videla. *(Boolean) Logic Models of Signal transduction Networks with Answer Set Programming*. Universidad de Chile (Apr. 2013).

- A. Siegel. *Extracting robust information from knowledge and observations on a biological system: a formal system framework.*. CIBB Computational Intelligence Methods for Bioinformatics and Biostatistics & PRIB International Conference on Pattern Recognition in Bioinformatics, keynote lecture. (Jun. 2013).

8.2.2.1. Internships

- Internship, from Jun. until Sep. 2013. Co-supervised by J. Nicolas, G. Garet. Student :Liantsoa Rasata Manantena. Subject: Characterization of enzyme family sequences : sulfatases

- Internship, from Jan. until Jun. 2013. Supervised by C. Belleannée. Student: Aymeric Antoine Lorquin. Subject: Identification in silico du site de fixation de la protéine CELF1, au moyen de pattern matching spécialisé.

- Internship, from Ap. until Jun. 2013. Supervised by O. Dameron. Student: Ayite Kougbeadjo. Subject: Analyse de réactions candidates pour la reconstruction de bases métaboliques basée sur les connaissances symboliques chez Ectocarpus Siliculosus

- Internship, from Apr. until Jun. 2013. Supervised by J. Nicolas and V. Wucher. Student: Lucas Le Lann. Subject: Analyse exploratoire d'un réseau d'interactions par extraction de composants analogues appliqué au puceron du pois..

- Internship, from Apr. until Jun. 2013. Supervised by G. Andrieux. Student: Jean Coquet. Subject: Modélisation du réseau d'activation du TGF-β

8.2.3. Supervision

PhD : Oumarou Abdou-Arbi *Etude de la variabilité des contributions de nutriments à un réseau métabolique : modélisation, optimisation et application en nutrition*, 30 Sept. 2013, supervised by A. Siegel and T. Tabsoba (Burkina-Faso) [11].

PhD : Geoffroy Andrieux, *Discrete approach modeling of biological signaling pathway*, 18 Jul. 2013, supervised by N. Théret (Inserm) and M. Le Borgne [12]

PhD : Andres Aravena, *Probabilistic and constraint based modelling to determine regulation events from heterogeneous biological data*, 13 Dec. 2013, supervised by A. Maass (CMM, University of Chile) and A. Siegel [13].

PhD : Charles Bettembourg, *Modélisation Méthodes sémantiques pour la comparaison inter-espèces de voies métaboliques : application au métabolisme des lipides chez l'humain, la souris et la poule*, 16 Dec. 2013, supervised by O. Dameron and C. Diot (Inra) [14].

PhD in progress : Aymeric Antoine-Lorquin, *Modèles grammaticaux au service de l'identification de marqueurs de régulation génétique dans les séquences biologiques*, started in Oct. 2013, supervised by C. Belleannée

PhD in progress : Gaëlle Garet, *Discovery of enzymatic functions in the framework of formal languages*, started in Oct. 2011, supervised by J. Nicolas and F. Coste.

PhD in progress : Clovis Galiez, *Syntactic modelling of protein structure.*, started in Oct. 2012, supervised by F. Coste.

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

PhD in progress : Vincent Picard, *Analyse dynamique d'algorithmes et dynamique symbolique pour l'étude de modèles semi-quantitatifs en biologie des systèmes*, started in Sept. 2012, supervised by A. Siegel and J. Bourdon.

PhD in progress : Sylvain Prigent, *Modélisation par contraintes pour le contrôle génomique et physiologique de l'adaptation des algues brunes à la salinité de l'eau*, started in Oct. 2011, supervised by A. Siegel and T. Tonon (UMR 7150, station biologique de Roscoff)

PhD in progress : Santiago Videla, *Applying logic programming to the construction of robust predictive and multi-scale models of bioleaching bacteria*, started in Nov. 2011, supervised by A. Siegel and T. Schaub (Potsdam univ).

PhD in progress : Valentin Wucher, *Modélisation d'un réseau de régulation d'ARN pour prédire des fonctions de gènes impliqués dans le mode de reproduction du puceron du pois*, started in Nov. 2011, supervised by J. Nicolas and D. Tagu (Inra)

8.2.4. Juries

- *Member of Ph-D thesis jury*. F. Nguema Ndong, univ. Poitiers [A. Siegel, présidente]. T. Jolivet, Univ. Paris Diderot [A. Siegel].

8.3. Popularization

- *Bioinfo-fr.net* Bioinfo-fr.net is a french web site where researchers, engineers and students talks about bioinformatics. We have written 6 articles for this web site on diverse subjects: metabolic networks, genome assembly, phylogenetics. [G. Collet, S. Prigent]. [more info].

- *Participation at Rennes* Village des Sciences *for French National Science day (*Fête de la Science*)*. Title : *Crazy random walks*. Description : Popularization Festival where researchers present scientific themes. [V. Picard]

- *Fête de la science (LINA, Nantes)* During the 24th of october, 250 students discovered bioinformatics, genome assembly and algorithmic by practicing games and tutorials made by our team with the help of Julien Gras and Marko Budinich (LINA) [J. Bourdon, D. Eveillard, G. Collet].

- *Organization of Sciences en Cour[t]s*. Popularization Festival where PhD students explain their thesis via short films. [S. Prigent, C. Bettembourg, G. Garet] [more info].

ESPRESSO Project-Team

8. Dissemination

8.1. Scientific Animation

- Jean-Pierre Talpin is Associate Editor with the ACM Transactions for Embedded Computing Systems (TECS); he is also Associate Editor with the Springer journal on Frontiers of Computer Science (FCS) and Associate Editor with EURASIP journal of embedded systems.
  Jean-Pierre Talpin co-chaired the program committee of the 12th International Symposium on Methods and Models for System Design (MEMOCODE'13).
  He served as program committee member of the International Conference on Embedded Systems (EMSOFT'13).

- Thierry Gautier served as program commitee member for the 2013 Electronic System Level Synthesis Conference, ESLsyn 2013 (http://www.ecsi.org/eslsyn2013).

- Loïc Besnard participated to the Inria stand at the EclipseCon France (Toulouse, June 2013).

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

- Jean-Pierre Talpin taught two conference-lectures to Graduate students at the Arlington campus of Virginia Tech in April and October.

- Jean-Pierre Talpin taught a series of fifteen MooC lectures to Master students at Beihang University, in November and December.

- Adnan Bouakaz taught three courses (Operating systems organization, Java programming, functional programming) to undergraduate students at University of Rennes 1 from September to November.

8.2.2. Juries

- Thierry Gautier served on an Associate Professor selection committee of Université de Rennes 1 in May 2013.

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

9. Dissemination

9.1. Scientific Animation

Christophe Collewet

- Technical program committees of ORASIS 2013 (journées francophones des jeunes chercheurs en vision par ordinateur)
- Reviewer for ICRA'13 (IEEE International conference on robotics and automation)

Dominique Heitz

- Member of IRSTEA "Comité directeur des Systèmes d'Information"
- Member of IRSTEA "Comité Technique Spécial"
- Responsible of the IRSTEA ACTA Team
- Reviewer for IEEE trans. Im. Proc, Exp in Fluid

Cédric Herzet

- Technical program committees of ICASSP 2013/2014 and SPARS 2013
- Project reviewer for the "Fond National de la Recherche Scientifique" (FNRS), Belgique
- Invited speaker at the CIMI Workshop, Toulouse, June 2013.
- Invited speaker at a local seminar at ParisTech, Paris, January 2013.
- Organizer of a monthly local seminar dedicated to sparse representations.

Etienne Mémin

- Invited speaker special session "Signaux & Images en Océanographie" Gretsi de traitement du signal et des images, Assimilation d'images satellites océaniques: filtrage stochastique et définition de dynamiques adaptées Brest sep. 2013.
- invited speaker 51st AIAA Aerospace Sciences Meeting, jan. 2013. Fluid flow velocity measurements from image sequences, 51st AIAA Aerospace Sciences Meeting, jan. 2013.
- Invited speaker workshop "2D to3D Ocean Dynamics from Space", Ifremer, Brest December 2013.
- invited speaker CIMI (Centre International de Mathématiques et d'Informatique - Trimestre EDP & Probabilités - Weather Forecast, jan. 2014
- Associate editor of the Journal of Computer Vision (IJCV)
- Associate editor of the journal of Image and Vision Computing (IVC)
- Reviewing for Tellus-A, IEEE Im. Proc., IEEE trans. Pat. Anal. Mach. Intel. , , m. Vis. Comp., Exp in Fluids, ICCV'13, Nonlinear Proc. in Geophysics.
- Responsible of the "Commission Développement Technologique" Inria-IRISA Rennes
- member of the "Commission Personnel" Inria-IRISA Rennes

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

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

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

Master : Cédric Herzet, Analyse de données, Mastere de Statistiques et Econométrie, 10h, niveau M1, Université de Rennes I

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

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

9.2.2. Supervision

PhD & HdR :

PhD: Sébastien Béyou, Estimation de la vitesse des courants marins à partir de séquences d'images satellitaires. Université de Rennes I, 12/07/2011, Etienne Mémin [11].

PhD in progress : Ioana Barbu, Estimation volumique de mouvement fluides /'a partir de séquence d'images, 01/11/2010, Cédric Herzet et Etienne Mémin

PhD in progress : Qui Dao, Commande des écoulements fluides par asservissement visuel, 01/10/2010, Christophe Collewet

PhD in progress : Valentin Resseguier, Image based assimilation of geophysical flows models under uncertainty, Bertrand Chapron (IFREMER) and Etienne Mémin

PhD in progress : Cordelia Robinson, Assimilation de données images dans un modèle LES : application à la reconstruction d'écoulements turbulents tridimensionnels , 01/11/2011, Dominique Heitz et Etienne Mémin

PhD in progress : Yin Yang , Assimilation d'images par techniques variationnelle ensembliste , 01/11/2011, Etienne Mémin

9.2.3. Juries

Etienne Mémin

- Rapporteur de la thèse de Vincent Chabot, Université J. Fourier, Grenoble, 15 Novembre 2013.
- Président du Jury de thèse de Karim Driffi, Université de Bretagne Sud, Juillet 2013.
- Examinateur Jury HDR d'Arthur Vidard, Université J. Fourier, decembre 2012.

9.3. Popularization

Etienne Mémin

- E. Mémin. Ou vont les nuages ?, Un jour, une brève, Mathématiques de la planète terre, (Brève)
- Invited paper in the journal "Revue francaise de photogrammetry et de Télédétection", Outils méthodologiques d'analyse d'images MSG : estimation du mouvement, suivi de masses nuageuses et détection de fronts, with T. Corpetti, V. Dubreuil, E. Mémin, O. Planchon, C. Thomas.
- Invited paper in the journal de la Socieété Francaise de Statistique, Image data assimilation with filtering methods, with Anne Cuzol.

GENSCALE Project-Team

9. Dissemination

9.1. Scientific Animation

9.1.1. Meeting organization and scientific animation

- **Seminar** A weekly seminar of bioinformatics is organized within the laboratory. Attendees are member of the ex-symbiose team (now teams Genscale, Dyliss and Genouest), biologists from Brittany and computer scientists from the laboratory. [web site: http://symbiose.irisa.fr/symbioseNextSeminars]
- **Conference** P. Peterlongo and D. Lavenier were organisation members of the Environmental Genomic Colloque, Rennes, 4,5,6 Nov. 2013. [web site:https://colloque.inra.fr/ge_rennes2013]

9.1.2. Conference program committees

- FPL'2013: 23nd International Conference on Field Programmable Logic and Applications [D. Lavenier]
- ICPADS'2013: 19th IEEE International Conference on Parallel and Distributed Systems [D. Lavenier]
- PBC'2013: Workshop on Parallel Computational Biology [D. Lavenier]
- Reconfig'2013: International Conference on ReConFigurable Computing [D. Lavenier]
- JOBIM'2013: French Colloqium in Biology, Mathematic anf Informatic [D. Lavenier, C. Lemaitre, P. Peterlongo]
- SeqBio 2013: Workshop on string algorithms [C. Lemaitre]
- DGA 2013: Workshop on Distance Geometry and Applications [R. Andonov, A. Mucherino]
- WCO 2013: 6th Workshop on Computational Optimization [R. Andonov, A. Mucherino]

9.1.3. Administrative functions: scientific committees, journal boards

- Member of the administrative council of ISTIC [R. Andonov]
- External evaluator for COST Action IC0805 on "Open European Network for High Performance Computing on Complex Environments" [R. Andonov]
- Member of evaluation committee AERES for LIGM [R. Andonov]
- Recruitment committees: 1 assistant professor [D. Lavenier], 1 professor [D. Lavenier]
- Member for PEPS-BMI program comittee (CNRS) [P. Peterlongo]
- Permanent expert for the MEI (International Expertise Mission), French Research Ministry [D. Lavenier]
- Member of the local Inria Rennes CDT (Technologic Transfer Commission) [D. Lavenier]
- Member of the scientific council of the INRA BIPAA Platform (BioInformatics Platform for Agroecosystems Arthropods) [D. Lavenier]
- Member of the scientific council of The GenOuest Platform (Bioinformatics Platform of BioGenOuest) [D. Lavenier]
- Member of the local Inria CORDIS comittee for PhD grants [C. Lemaitre]
- Representative of the environnemental axis of UMR IRISA [C. Lemaitre]
- Inria center referee of Scientific mediation [P. Peterlongo]
- Member of the redaction committee Ouest Inria [P. Peterlongo]

- publication reviewing for Bioinformatics, BMC Bioinformatics, BMC Research Notes, Briefings in Bioinformatics, Plos One, Journal of Computational Chemistry, Optimization Methods and Software [D. Lavenier, R. Andonov]

9.1.4. Invited talks

- A. Mucherino gave an invited talk at DGA13, Manaus, Amazonas, Brazil, June 24–27, 2013
- D. Lavenier gave an invited talk at Inria-INRA days, Sophia Antipolis, September 11-12 2013
- D. Lavenier gave an invited talk at ORAP Meeting, Scalay, October 10 2013
- D. Lavenier gave an invited talk at X-meeting, Recife, Brazil, November 3-7 2013
- P. Peterlongo gave an invited talk at Colloque "Détection, Gestion et Analyse du Polymorphisme des Génomes Végétaux" of INRA EPGV, Lusignan, April 8-10 2013.
- P. Peterlongo gave an invited talk at Workshop "Storage, Search and Annotation of Multiple Similar Genomes", Bielefeld, December 9-10 2013.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Licence : A. Mucherino, R. Andonov, Graph algorithms, 90h, L3, Univ. Rennes 1, Rennes France.

Licence : C. Lemaitre, Statistics for biology, 10h, L3, Univ. Rennes 1, France

Licence: D. Lavenier, Architecture and System, 36h, MIT1, ENS Rennes

Licence : M. Le Boudic-Jamin, Preparation to C2I level 1 , 44h, L1, Univ. Rennes 1, France

Master : D. Lavenier, Intensive Computation of Genomic Data, 18h, ESEO, M1, Angers

Master : C. Lemaitre, P. Peterlongo, Text algorithmics for Bioinformatics, 46 h, M1, Univ. Rennes 1, France.

Master : C. Lemaitre, Dynamical systems for biological networks, 22h, M2, Univ. Rennes 1, France

Master : R. Andonov, A. Mucherino, Operations research, 95h, M1, Univ. Rennes 1, France.

Master : R. Andonov, Advanced algorithms, 15h, M1, Univ. Rennes 1, France.

Master : A. Mucherino, Initiation to systems and networks, 39h, M2, Univ. Rennes 1, France

Master : A. Mucherino, R. Andonov, P. Peterlongo, Sequence and structure algorithms, 36h, M2, Univ. Rennes 1, France

9.2.2. Supervision

PhD defense : Nicolas Maillet, *Comparaison de novo de données de séquençage issues de très grands échantillons métagénomiques»*[11], Univ. Rennes 1, defended on December 19th 2013, supervised by D. Lavenier and P. Peterlongo [online manuscript: http://tel.archives-ouvertes.fr/tel-00941922]

PhD defense : Guillaume Chapuis, *Exploiting parallel features of modern computer architectures in bioinformatics : Applications to genetics, structure comparison and large graph analyses*[10], Univ. Rennes 1, defended on December 18th 2013, supervised by D. Lavenier and R. Andonov [online manuscript: http://tel.archives-ouvertes.fr/tel-00912553]

PhD in progress : Mathilde Le Boudic-Jamin, *Structure et comparaison d'objets 3D: applications aux structures protéiques*, Univ. Rennes 1, started in October 2011, supervised by R. Andonov

PhD in progress : Erwan Scaon, *Modèles et algorithmes pour l'assemblage de novo de génomes à forte redondance*, Univ. Rennes 1, started in October 2012, supervised by D. Lavenier and C. Lemaitre

PhD in progress : François Moreews, *Environnement intégré de conception et d'exécution de workflows en bioinformatique: du prototypage au calcul intensif. Applications à la recherche de motifs de régulation dans les génomes*, Univ. Rennes 1, started in November 2012, supervised by D. Lavenier and S. Lagarigue

9.2.3. Juries

- *President of Ph-D thesis jury*. J. Lai, University of Rennes [D. Lavenier], O. Abdou-Arbi, University of Rennes 1 [R. Andonov]

- *Member of Ph-D thesis juries*. V. Silva Da Costa, Federal University of Rio de Janeiro (Brazil) [A. Mucherino]; R. Santos Alves, UNICAMP (Brazil) [A. Mucherino]; G. Chapuis, University of Rennes [D. Lavenier, R. Andonov]; Nicolas Maillet, University of Rennes [D. Lavenier, P. Peterlongo]; C. Yupeng, Nanyang Technological University, Singapor [D. Lavenier].

- *Member of Ph-D thesis comitees*. J. Boutte, University of Rennes [D. Lavenier]; A. Jeannin, University of Brest [D. Lavenier]; P. Nouhaud, University of Rennes [C. Lemaitre]; C. Mercier, University of Grenoble [C. Lemaitre]; S. Guizard, University of Tours [C. Lemaitre], A. Radulescu, university of Nantes [P. Peterlongo].

9.3. Popularization

- Participation to the event "A la découverte de la recherche" (presentation of the research activity to high school students) [C. Lemaitre, P. Peterlongo]

- Participation to the event "Professional Meeting" (talk: discovering bioinformatics), IUT Lannion [D. Lavenier]

- Production of a short movie of PhD subject popularization. [M. Le Boudic-Jamin] https://doctoriales2013.ueb.eu/content/posters

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

9. Dissemination

9.1. Scientific Animation

9.1.1. Editorial boards of journals

- Anatole Lécuyer is associate editor of ACM Transactions on Applied Perception (ACM TAP), and International Journal on Human-Computer Studies (IJHCS) .

- Maud Marchal is associate editor of Computer Graphics Forum (CGF).

9.1.2. Technical program committees of conferences

- Anatole Lécuyer was program and conference chair of IEEE 3DUI'13. He was also in international program committees of: IEEE VR'13, Eurographics'13, ACM Siggraph Asia'13.

- Bruno Arnaldi was program chair of AFRV'13 and member of the international program committee of IEEE VR'13.

- Thierry Duval was in international program committees of: IEEE 3DUI'13, GRAPP'13, JVRC'13, IHM'13 (Demo co-chair), IEEE CogInfoCom'13, ACM VRST'13, VRIC'13.

- Valérie Gouranton was in international program committee and Chair of Symposium "VR-Serious Game and Interactive Storytelling" at VRIC'13.

- Maud Marchal was in international program committees of: IEEE 3DUI'13, Eurographics Short Papers'13, GRAPP'13.

- Ferran Argelaguet was in international program committees of: IEEE 3DUI'13, ACM VRST'13, ICAT'13 (Demo co-chair), ACM SUI'13.

9.1.3. Selection committees

- Anatole Lécuyer was in the selection committee for an Associate Professor position at "Université de Bordeaux 1".

- Bruno Arnaldi was in the selection committee for a Professor position at "Ecole Normale Supérieure de Cachan Antenne de Bretagne" and for a Professor Position at "INSA de Rennes".

- Thierry Duval was in the selection committee for an Associate Professor position at "École Nationale d'Ingénieurs de Brest".

9.1.4. Participation in seminars, invitations

- Anatole Lécuyer has been invited to give a keynote talk at AFIHM'13 (Bordeaux), and other talks at: SOFMER'13 (Reims), Chimie et TIC'13 (Paris). He has participated in "Dagstuhl Seminar 13241" on "Virtual Realities" at Schloss Dagstuhl (9–14 June 2013, Germany).

9.1.5. Animation at the international level

- Anatole Lécuyer was co-organizer of a Course on "Walking in Virtual environments" at ACM CHI'13 (with F. Steinicke, Y. Visell and J. Campos), a Tutorial on "BCI and Haptics" at World-Haptics'13 (with M. Ziat), a Workshop on "BCI Feedback" at the BCI Meeting'13 (with F. Lotte, and R. Scherer), a Workshop on "BCI and EEG" at Rennes Hospital (with I. Bonan, and G.TEC Company). He was also reviewer for conferences: JVRC'13, VRIC'13.

- Bruno Arnaldi was reviewer for conference IEEE VR'13 and reviewer for an ERC Advanced Grant Proposal.

- Thierry Duval was reviewer for international journal IEEE THMS, and for conferences: VRIC'13, IEEE 3DUI'13, IHM'13, JVRC'13, ACM VRST'13, IEEE VR'13, GRAPP'13. He also served as an expert for evaluation of the European FP7 project "Beaming".
- Valérie Gouranton was reviewer for international journal "Journal on Computing and Cultural Heritage", and for conference VRIC'13.
- Maud Marchal was reviewer for international journals: IEEE TVCG, IEEE ToH, and for conferences: IEEE VR'13, IEEE 3DUI'13, Eurographics'13, Siggraph'13, MICCAI'13, IEEE EMBS'13.
- Ferran Argelaguet was a reviewer for international journals: IEEE Computer Graphics and Applications, ACM Journal on Computing and Cultural Heritage, and for conference JVRC'13.

9.1.6. Animation at the national level

- Anatole Lécuyer was member of executive committee of the French Association for Virtual Reality (AFRV) until October 2013.
- Bruno Arnaldi was vice-president and member of the executive committee of AFRV.
- Thierry Duval was a member of AFRV and AFIHM. He served as an expert for selection of french ANR projects.
- Valérie Gouranton was member of executive committee of AFRV since October 2013.

9.1.7. Animation at the regional and local level

- Bruno Arnaldi was vice-president of the scientific committee of "INSA de Rennes" and was in the CSV (selection committee) of Competitivity Cluster "Images et Réseaux".
- Valérie Gouranton was co-head of a Master 2 in Computer Science (joint to University of Rennes 1, INSA Rennes, ENS CACHAN Antenne Bretagne, Supelec, UBO, ENIB, ENSTA Bretagne, Télécom Bretagne, UBS). She was also member of the scientific committee of INSA Rennes and member of the laboratory committee of IRISA.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Anatole Lécuyer:

> Master MNRV: "Haptic Interaction", 9h, M2, ENSAM, Laval, FR
>
> Master SIBM: "Haptic and Brain-Computer Interfaces", 4,5h, M2, University of Rennes 1, FR

Bruno Arnaldi:

> Master INSA Rennes: "VAR: Virtual and Augmented Reality", 12h, M2, INSA Rennes, FR
>
> Master INSA Rennes: "Virtual Reality", 6h, M2, INSA Rennes, FR
>
> Master INSA Rennes: Projects on "Virtual Reality", 20h, M1, INSA Rennes, FR

Thierry Duval:

> Master STS Informatique: "HCI", 54h, M1, ISTIC, University of Rennes 1, FR
>
> Master STS Informatique: "Introduction to Virtual Reality", 24h, M1, ISTIC, University of Rennes 1, FR
>
> Master STS Informatique: "Software engineering for HCI", 15h, M1, ESIR, University of Rennes 1, FR
>
> Master STS Informatique GL and MITIC: "Software engineering for HCI", 37h, M2, ISTIC, University of Rennes 1, FR
>
> Master STS Informatique GL and MITIC: "Collaborative Virtual Environments", 38h, M2, ISTIC, University of Rennes 1, FR

Valérie Gouranton:

> Licence: "Introduction to Virtual Reality", 12h, L2 and responsible of this lecture, INSA Rennes, FR

> Licence: Project on "Virtual Reality", 13h, L3 and responsible of this lecture, INSA Rennes, FR

> Master INSA Rennes: "Virtual Reality", 12h, M2, INSA Rennes, FR

> Master INSA Rennes: Projects on "Virtual Reality", 20h, M1, INSA Rennes, FR

Maud Marchal:

> Master INSA Rennes: "Modeling and Engineering for Biology and Health Applications", 48h, M2 and responsible of this lecture, INSA Rennes, FR

> Master SIBM: "Biomedical simulation", 3h, M2, University of Rennes 1, FR

9.2.2. Supervision

> PhD in progress: Jérémy Lacoche, "Plasticity for user interfaces in mixed reality", Started in September 2013 at B<>COM Research Institute, Supervised by T. Duval, B. Arnaldi, É. Maisel and J. Royan

> PhD in progress: Morgan Le Chénéchal, "Activity and perception for distant collaboration in virtual environments", Started in September 2013 at B<>COM Research Institute, Supervised by B. Arnaldi, T. Duval, V. Gouranton and J. Royan

> PhD in progress: Lucas Royer, "Visualization tools for needle insertion in interventional radiology", Started in September 2013 at B<>COM Research Institute, Supervised by A. Krupa, M. Marchal and G. Dardenne

> PhD in progress: Andéol Evain, "BCI-based Interaction", Started in September 2013, Supervised by N. Roussel, G. Casiez, F. Argelaguet and A. Lécuyer

> PhD in progress: Guillaume Claude, "Synthesis and Simulation of Process Models ", Started in September 2013, Supervised by V. Gouranton and B. Arnaldi

> PhD in progress: François Lehericey, "Collision Detection HPC", Started in October 2013, Supervised by V. Gouranton and B. Arnaldi

> PhD in progress: Merwan Achibet, "Dexterous manipulation in virtual environments", Started in November 2012, Supervised by A. Lécuyer and M. Marchal.

> PhD in progress: Jonathan Mercier-Ganady, "Hybrid Brain-Computer Interfaces", Started in October 2012, Supervised by M. Marchal and A. Lécuyer

> PhD in progress: A. Talvas, "Bimanual haptic manipulation", Started in October 2011, Supervised by A. Lécuyer and M. Marchal.

> PhD in progress: Thi Thuong Huyen Nguyen, "New 3D techniques for collaborative interaction and navigation that preserve users' immersion", Started in October 2011, Supervised by T. Duval

> PhD in progress: Jérôme Ardouin, "Display of wide field-of-views in real and virtual environments", Started in January 2011, Supervised by M. Marchal, E. Marchand and A. Lécuyer

> PhD in progress: Fabien Danieau, "Haptic Movies", Started in October 2010, Supervised by M. Christie, P. Guillotel, J. Fleureau and A. Lécuyer

9.2.3. Juries

- Anatole Lécuyer: Mehdi Ammi (HDR, Examiner, University of Paris XI-Orsay), Jérémy Laviole (PhD, Referee, University of Bordeaux 1), Yuan Yang (PhD, Examiner, ENSTA-Télécom Paris Tech, Paris).

- Bruno Arnaldi: Jean-Marc Cieutat (HDR, Estia Biarritz), Nicolas Courty (HDR, UBS Vannes), Jonathan Wonner (PhD, University of Strasbourg), Jonathan Perrinet (PhD, University of Rennes 1).

9.3. Popularization

- Massive media coverage of the results of OpenViBE2 project (section 8.2.5) : following a press conference and press release organized in January 2013. This ended up with numerous appearances in the media (TV, Press, Radio).

- "Journées Nationales d'Archéologie" 2013 : organization and numerous demos of immersive and VR results of our team in Immersia room, Rennes, June 2013 [33].

- "Festival de la Science" 2013 : booth and demo of the FLyVIZ system, in Betton, October 2013.

- "Nuit de la Science" 2013 : demos of FLyVIZ system and Corvette project, Rennes, October 2013.

- "Colloque Chimie et TIC 2013" : presentation "Interagir par la pensée avec les Interfaces Cerveau-Ordinateur" (A. Lécuyer), Maison de la Chimie, Paris, October 2013.

- "Journées Science et Musique" 2013 : organization of this event, and presentation of several demos of the team in Immersia room, Rennes, October 2013.

Hycomes Team

7. Dissemination

7.1. Scientific Animation

Benoît Caillaud has served in the steering and program committees of the International Conference on Application of Concurrency to System Design (ACSD'13) and of the Applications of Regions Theory (ART'13) satellite workshop. He is serving on the Evaluation Committee of INRIA.

7.2. Teaching - Supervision - Juries

7.2.1. Teaching

Benoît Caillaud has contributed to the training programme for the computer-science option of the *agrégation* in mathematics, at ENS Cachan-Ker Lann.

7.2.2. Supervision

PhD in progress Ayman Aljarbooh, *Scalable Simulation of Hybrid Systems: Language Design and Compilation*, started December 2013, supervised by Benoît Caillaud

7.2.3. Juries

Benoît Caillaud has participated to the jury for the defense of Florent Avellaneda's PhD thesis, *Verification of stateful Petri-nets under a partial order semantics*, December 10th 2013, Aix-Marseille University. He has also served on the junior researcher hiring committee of Inria Sophia Antipolis - Méditerranée

<h1 style="text-align:center; color:red">I4S Project-Team</h1>

8. Dissemination

8.1. Scientific Animation

L. Mevel is part of the IOMAC organisation committee. He is also reviewer for numerous journals and conference boards. He is associate editor of Journal of Modelling and Simulation in Engineering. He is co-head of the local organizing committee of EWSHM 2014.

V. LeCam is head of the local organizing committee of EWSHM 2014 (http://www.ewshm2014.com).

8.2. Teaching - Supervision - Juries

8.2.1. Supervision

PhD : Luciano Gallegos, Algorithms for monitoring and localization of damage. Luciano Gallegos, Université de Rennes 1, 08/10/13, L. Mevel and D. Bernal.

PhD in progress : Ambient diagnosis and early instability monitoring for helicopter rotor : Ahmed Jhinaoui, since June 2010, L.Mevel and J. Morlier (ISAE)

PhD in progress : Aeroelastic instability early detection methods in frequency domain : Philippe Mellinger, since June 2011, L. Mevel and C. Meyer (Dassault Aviation)

8.2.2. Juries

Laurent Mevel was examinator in the jury of Jérémy Vayssettes at University of Poitiers in November 2013.

IPSO Project-Team

7. Dissemination

7.1. Scientific Animation

7.1.1. Editorial activities

- P. Chartier is member of the editorial board of "M2AN"
- P. Chartier is member of the editorial board of "ESAIM Proceedings"
- P. Chartier is member of the editorial board of "Mathematical Analysis"
- N. Crouseilles is member of the editorial board of "International Journal of Analysis" http://www.hindawi.com/journals/analysis/
- A. Debussche is editor in Chief of "Stochastic Partial Differential Equations: analysis and computations".
- A. Debussche is member of the editorial board of "Potential Analysis", Differential and Integral Equations.
- A. Debussche is member of the editorial board of "Differential and Integral Equations".
- A. Debussche is member of the editorial board of "ESAIM: Proceedings".
- A. Debussche is member of the editorial board of the collection: "Mathématiques & Applications", SMAI, Springer.
- M. Lemou is associate editor of "Annales de la faculté de Toulouse"

7.1.2. Conference and workshop organization

- P. Chartier was a member of the scientific committees of SciCADE 2013 and ENUMATH 2013.
- A. Debussche was the main organizer of the thematic semester *Perspectives in Analysis and Probability* organized by the Lebesgue Center in Nantes and Rennes from april to september (see: http://www.lebesgue.fr/content/sem2013-perspectives-analysis-and-probability).
- A. Debussche was in the scientific committee of the conference *Probability and PDEs*, Centro de Giorgi, Pisa, may 20-24, 2013.
- E. Faou organized with J. Erhel (Rennes) and T. Lelièvre (CERMICS) the conference NASDPE13, *Numerical analysis of stochastic Partial Differential equations*, September 10-11, Rennes, France.
- N. Crouseilles co-organized the workshop on AP scheme (with C. Negulescu, F. Deluzet, C. Besse), Porquerolles, France (9-15 june, 2013).
- P. Chartier and M. Lemou organized a minisymposium on "Numerical schemes for highly oscillatory problems". ENUMATH, Lausanne, 25-30 august.
- M. Lemou organized a minisymposium on "Asymptotic preserving schemes for kinetic and related models". Hong-Kong, 07-11 January 2013.
- M. Lemou and F. Méhats were scientific advisors in the IHP semester *Gravasco* "N-body gravitational dynamical systems from N=2 to infinity" and were co-organizers of the workshop "Dynamics & Kinetic theory of self-gravitating systems" in this semester.
- F. Méhats was co-organizer of the workshop "Confined Quantum Systems: Modeling, Analysis and Computation" in Vienna.

7.1.3. Administrative activities

- P. Chartier is member of the bureau of the Comité des Projets at Inria-Rennes.
- A. Debussche leads the Lebesgue Center with San Vu Ngoc (coordinator) and L. Guillopé.

- A. Debussche is a member of the administrative board of the ENS Cachan.
- M. Lemou is partly in charge of the Master 2
- M. Lemou is member of the scientific committee of the Lebesgue Center (Labex)
- F. Méhats is member of the CNU, Section 26.
- F. Méhats is the head of the numerical analysis department of IRMAR.
- G. Vilmart was partly in charge of the weekly numerical analysis seminar at ENS Rennes "Groupe de travail: application des mathématiques".
- N. Crouseilles was partly in charge of the weekly numerical analysis seminar at ENS Rennes "Groupe de travail : application des mathématiques".

7.1.4. Talks in seminars and conferences, mini-courses

- E. Faou was invited at the Séminaire de Mathématiques Appliquées du Collège de France.
- A. Debussche gave a mini-course on *Stochastic equations and control theory*, in the conference *Mathematical Control in Trieste*, SISSA, Trieste, Dec. 2nd-6th, 2013.
- A. Debussche gave a mini-course on *Introduction aux EDPS* in the school *École Interdisciplinaire à Rennes*, Rennes, oct. 8-10, 2013.
- A. Debussche was gave a plenary talk in the conference Theory and Applications of Stochastic PDEs, IMA, Minneapolis, Jan. 14-18, 2013.
- F. Méhats and M. Lemou were invited to give a course on stability problems in gravitational models in the IHP Gravasco semester.
- G. Vilmart was keynote speaker in NASPDE workshop (Numerical Analysis of Stochastic PDEs), Rennes, 10-11 Sept., 2013.
- G. Vilmart was keynote speaker in the workshop on Multiscale methods and Asymptotic-Preserving schemes, Porquerolles island, June 09-15, 2013.

7.2. Teaching - Supervision - Juries

7.2.1. Teaching

Licence 3: P. Chartier, "Equations différentielles", 36, L3, ENS Cachan-Bruz

Master 2 : P. Chartier, "Intégration numérique géométrique" , 12H, M2, University of Rennes 1

Master 2: N. Crouseilles, "Numerical methods for kinetic equations", 18H, M2, University of Rennes 1

Master 2: E. Faou, "Modélisation et analyse numérique des EDPs", ENS Paris, in collaboration with D. Lannes

Master 2: M. Lemou, "Equations hyperboliques et lois de conservation", and "Méthodes numériques pour les modèles cinétiques".

Master 1: M. Lemou, "Theory of distributions" and "Equations elliptiques".

7.2.2. Supervision

- N. Crouseilles: co-advising (with M. Mehrenberger) of Christophe Steiner PhD (second year in Strasbourg University), ministry grant.
- N. Crouseilles: co-advising (with S. Genaud) of Matthieu Kuhn PhD (second year in Strasbourg University), ANR "E2T2" grant.
- N. Crouseilles: co-advising (with M. Mehrenberger) of Pierre Glanc PhD (third year in Strasbourg University), Inria-Cordi grant.
- N. Crouseilles: co-advising (with M. Lemou) of H. Hivert PhD (first year in Rennes university), ENS grant.

- N. Crouseilles: co-advising (with R. Raghurama and M. Lemou) of A. Ruhi PhD (second year in IISc), Indian grant.
- F. Méhats is co-supervisor of the PhD thesis of G. Leboucher (with P. Chartier).
- F. Méhats is co-supervisor of the PhD thesis of M. Tusseau (with A. Debussche).
- A. Debussche supervizes the Phd theses of: M. Hofmanova (defended in july 2013), M. Kopec (defense scheduled on june 2014), S. De Moor (defense scheduled on june 2014).

7.2.3. *Juries*

- P. Chartier was referee of the thesis of C. Zbinden (Geneva, supervised by E. Hairer), november.
- P. Chartier was referee of the thesis of H. Xue (Bergen, Supervised by A. Zanna), november.
- P. Chartier was member of the HDR jury of G. Vilmart, july.
- N. Crouseilles: member of the PHD jury of C. Caldini-Queiros, 15 november 2013.
- F. Méhats was referee of the thesis of M. Lutz (Strasbourg, supervised by E. Frenod and E. Sonnendrücker).
- F. Méhats was referee of the thesis of J. Sabin (Cergy, supervised by M. Lewin).
- M. Lemou was referee of the PhD thesis of F. Doisneau: Ecole Centrale de Paris, april 2013.
- M. Lemou was member of the Jury for the PhD thesis of E. Franck: Univesity Paris 6, october 2013.

7.3. Popularization

- Web interview of E. Faou: A l'occasion de la remise de la médaille Blaise Pascal (2013), Inria website.
- In http://interstices.info/planetes (2013), popularization article on the field of geometric numerical integration, published in "Interstices". Theme "Mathématiques de la planète Terre 2013" and Theme 2012-2013 "Invariants et similitudes" of TIPE in preparatory classes.
- Interview (June 2012) of M. Lemou for the journal "Science de l'Ouest" on the stability of galactic models. and publication of a popularized article: "Les mathématiciens déchiffrent l'univers" in the the journal "Espace des sciences", Nov 2012.
- M. Lemou and F. Méhats wrote a popularized scientific text in a CNRS letter "Lettre de l'INSMI", june 25th, 2012.

KERDATA Project-Team

9. Dissemination

9.1. Scientific Animation

9.1.1. Gabriel Antoniu

- Program Co-Chair of the ScienceCloud 2013 International workshop held in conjunction with the ACM HPDC 2013 conference, New York, June 2013.

- Program Committee member (selection): ACM HPDC 2013 and 2014, ACM/IEEE SC 2013, IEEE/ACM CCGRID 2013, IEEE Big Data 2013, IEEE HPCC 2013, BDMC 2013 (workshop organized in conjunction with Euro-Par 2013).

- Coordinator for the MapReduce ANR project (see Section 8.1).

- G. Antoniu and B. Thirion (PARIETAL Project-Team, INRIA SACLAY – ÎLE-DE-FRANCE) co-led the A-Brain Microsoft-Inria Project (2010-2013).

- G. Antoniu and P. Valduriez (Zenith Project-Team, INRIA SOPHIA-ANTIPOLIS – MÉDITERRANÉE) co-lead the Z-CloudFlow Microsoft-Inria Project (2013-2016).

- Coordinator for the Data@Exascale Associate Team in collaboration with Argonne National Lab and the University of Illinois at Urbana - Champaign (2013-2015).

- Local coordinator for Inria Rennes – Bretagne Atlantique Research Center in the SCALUS Project of the Marie-Curie Initial Training Networks Programme (ITN), call FP7-PEOPLE-ITN-2008 (2009-2013).

9.1.2. Luc Bougé

- Vice-Chair of the Euro-Par conference steering committee (http://www.europar.org/). Workshop co-chair for the 2013 issue of the conference held in Aachen, Germany.

- PhD Forum Co-Chair for the 2013 IPDPS conference (http://www.ipdps.org/) held in Boston, MA, USA.

9.1.3. Shadi Ibrahim

- Program Committee member: ICPP 2013, ICA3PP 2013, CloudCom 2013, NPC 2013, CCGrid 2013 Doctoral Symposium, CLOUD COMPUTING 2013, BigData Book 2013

- Reviewer: IEEE Transactions on Cloud Computing, Future Generation Computer Systems, IEEE Systems Journal, Computing, Cluster Computing, Multimedia Tools and Applications Journal

- Subreviewer: SC 2013, HPDC 2013, CCGrid 2013, Cluster 2013, Euro-par 2013, HPCC 2013, ICPADS 2013, BigDataCloud 2013.

9.1.4. Alexandru Costan

- Organizer of the 2nd Workshop on Big Data Management in Clouds BigDataCloud in conjunction with EuroPar 2013, see http://www.irisa.fr/kerdata/bigdatacloud/

- Program Committee member: CloudCom 2013, ISPDC 2013, CCGrid Doctoral Symposium 2013, BigData Book 2013

- Reviewer: Transactions on Parallel and Distributed Systems, J. of Parallel and Distributed Computing, IEEE Internet Computing, Concurrency and Computation: Practice and Experience, Intl. J. of Grid and Utility Computing, Intl. J. of Systems and Software, Intl. J. of Intelligent Systems Technologies and Application

- Subreviewer: HPDC 2013, CCGrid 2013, ICPADS 2013, HPCC 2013, Cluster 2013

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

9.2.1.1. Gabriel Antoniu

Master (Engineering Degree, 5th year): Big Data, 24 hours (lectures), M2 level, ENSAI (*École Nationale Supérieure de la Statistique et de l'Analyse de l'Information*), Bruz, France.

Master: Grid, P2P and cloud data management, 18 hours (lectures), M2 level, ALMA Master, Distributed Architectures module, University of Nantes, France.

Master: Peer-to-Peer Applications and Systems, 10 hours (lectures), M2 level, PAP Module, M2RI Master Program, ENS Cachan/Rennes, France.

9.2.1.2. Luc Bougé

Licence: Introduction to programming concepts, 24 hours (lectures), L3 level, Informatics program, ENS Cachan/Rennes, France.

Master: Introduction to object-oriented high-performance programming, 24 hours (lectures), M1 level, Mathematics program, ENS Cachan/Rennes, France.

9.2.1.3. Shadi Ibrahim

Master : Cloud1 — Map/Reduce, 10 hours (lectures, lab sessions), M2 Level, École des Mines de Nantes, Nantes, France.

9.2.1.4. Alexandru Costan

License: Object-oriented programming, 18 hours, L3, ENS Cachan/Rennes

License: Databases, 28 hours, L2, INSA Rennes, France

License: Practical case studies, 16 hours, L3, INSA Rennes

Master: Object-oriented design, 28 hours, M1, INSA Rennes

9.2.1.5. Matthieu Dorier

Licence: Java programming 35 hours (lectures, lab sessions), L1 level, INSA de Rennes.

Licence: Ruby Programming, 15 hours (lectures, lab sessions), L3 level, ENS Cachan/Rennes.

Licence: Computer Architectures, 24 hours (lab sessions), L3 level, ENS Cachan/Rennes.

9.2.2. Supervision

PhD: Viet-Trung Tran, "Scalable data-management systems for Big Data", thesis started in October 2009 co-advised by Gabriel Antoniu and Luc Bougé. Date of defense: 21 January 2013.

PhD: Houssem Chihoub, "Managing consistency for Big Data Applications: Tradeoffs and Self-Adaptiveness", thesis started in October 2010 co-advised by Maria Pérez (UPM, Madrid) and Gabriel Antoniu. Date of defense: 10 December 2013.

PhD in progress : Matthieu Dorier, "Scalable I/O for postpetascale HPC systems", thesis started in October 2011 co-advised by Gabriel Antoniu and Luc Bougé.

PhD in progress : Radu Tudoran, "Scalable data sharing for Azure clouds", thesis started in October 2011 co-advised by Gabriel Antoniu and Luc Bougé.

PhD in progress : Álvaro García Recuero, "Scalable, Power-efficient Big Data Analysis on Geographically Distributed Clouds", thesis started in October 2013 co-advised by Shadi Ibrahim and Gabriel Antoniu.

PhD in progress : Lokman Rahmani "Big Data Management for Next-Generation High-Performance Computing Systems", thesis started in October 2013 co-advised by Gabriel Antoniu and Luc Bougé.

9.2.3. Juries

Gabriel Antoniu served as a Referee for a PhD Jury at the University Pierre et Marie Curie, Paris; as a Member in a PhD Jury at Telecom Bretagne, Cesson-Sévigné.

Luc Bougé served as a jury member for several PhD and HDR defenses, in many cases as the jury chairman.

9.3. Miscellaneous

- Gabriel Antoniu serves as a member of Inria's Evaluation Committee.

- Luc Bougé served as Head of the Computer Science Department of ENS Cachan/Rennes until September 2013.

- Luc Bougé is serving as a scientific co-ordinator for the IT Department (STIC) of the French *National Research Agency* (ANR), for 40 % of his working time. He is in charge of the logistic and the scientific management of the ANR call for proposals and of the various scientific ANR exhibitions and prizes in the IT domain.

- Luc Bougé is a member of the *National Academic Board* (CNU, *Conseil national des universités*) in the Informatics Committee (Section 27).

9.3.1. Popularization

9.3.1.1. Radu Tudoran's talks

Microsoft TechDays 2013, Paris, France.   Invited Speaker together with Gabriel Antoniu to give a presentation about *Azure Brain: 4th paradigm, scientific discovery and (really) big data*.

Microsoft TechDays 2013, Paris, France.   Invited Speaker to give a short talk about using the Azure cloud for science within Session *Introducing 10 Windows Azure projects in one hour*.

Microsoft ATLE, Munich, Germany.   Internal Presentation about *Streaming and processing events across cloud data-centers*.

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LAGADIC Project-Team

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9. Dissemination

9.1. Scientific Animation

- *Editorial boards of journals*
  - Eric Marchand and Paolo Robuffo Giordano are Associate Editors of the IEEE Trans. on Robotics.
  - Eric Marchand is a Guest Editor (with Peter Corke and Jana Kosecka) of a Special Issue of the Int. Journal of Robotics Research on Robot Vision.
  - François Chaumette is in the Editorial Board of the Int. Journal of Robotics Research.

- *Technical program committees of conferences*
  - François Chaumette: WRV'13, ICRA'13, RSS'13, ICRA'14
  - Eric Marchand: ICRA'13, IROS'13, ISMAR'13 (area chair), RSS'13, ORASIS'13, ICRA'14, RFIA'14 (area chair)
  - Patrick Rives: RFIA'14
  - Paolo Robuffo Giordano: ICRA'13, RSS'13, IJCAI'13, ICRA'14
  - Alexandre Krupa: Orasis'13
  - Marie Babel: ACIVS'13

- *Selection committees*
  - Patrick Rives participated to the selection committees of research scientists (CR2) at Inria Nancy-Grand Est, Inria senior researchers (DR2), and Inria Starting and Advanced Research positions. .
  - François Chaumette was in the selection committee for an Assistant Professor position at the "Université Blaise Pascal" in Clermont-Ferrand. He also served in the jury for the selection of research scientists (CR2) at Inria Rhône-Alpes.
  - Eric Marchand was in the selection committee for an Assistant Professor position at INSA Rennes.
  - Alexandre Krupa was in the selection committee for an Assistant Professor position at the "Université de Montpellier 2".

- *Participation in seminars, invitation*
  - Alexandre Krupa was invited by Nassir Navab to give a talk at the Chair for Computer Aided Medical Procedures (CAMP) from the Technische Universität Münchenin in May 2013.
  - François Chaumette was invited to give a seminar at the University of Zagreb during a one-weel visit in July 2013 in the sccope of the FP7 Across Regpot project (see Section 8.3.1.2). He also gave a talk at DGA-MI in Bruz during a workshop about visual localization.
  - Paolo Robuffo Giordano was invited to give talks at I3S in Sophia-Antipolis, Inria Grenoble, Isir in Paris, Ensam in Paris in the scope of the "GdR Robotique", and University of Rome "La Sapienza". He also presented an invited talk at the IEEE/RSJ IROS Workshop on Vision-based Closed-Loop Control and Navigation of Micro Helicopters in GPS-denied Environments [28].
  - Fabien Spindler was invited to present the ViSP software at the "Journées techologiques Robotex" in Toulouse in June 2013.

- *Animation at the international level*
    - François Chaumette served as a panel member of the ERC Consolidator Grants (PE7). He also served in the 2013 IEEE RAS Fellow Nomination Committee.
    - Paolo Robuffo Giordano served as external reviewer for evaluating research proposals of the Swiss National Science Foundation (SNSF).
    - Paolo Robuffo Giordano co-organized the ICRA'13 workshop "Towards Fully Decentralized Multi-Robot Systems: Hardware, Software and Integratio", Karlsruhe, Germany and the "Sixth Workshop on Human-Friendly Robotics" at the University of Rome "La Sapienza", Italy.
- *Animation at the national level*
    - François Chaumette and Patrick Rives are members of the scientific council of the "GdR Robotique" and JNRR.
    - Eric Marchand was a member of the AERES evalation panel for U2IS lab at ENSTA Paristech.
    - Patrick Rives is a member of the Inria evaluation committee.
    - Alexandre Krupa is a member of the Inria Cost-GTAI in charge of the evaluation of the ADTs ("Actions de développments technologiques").
- *Animation at the regional and local levels*
    - Eric Marchand is in the board of the "Images et réseaux" competitivity cluster.
    - Alexandre Krupa is a member of the GestChir project at the IRT B-Com in Rennes.
    - Eric Marchand is a member of the scientific council of the "École supérieure d'ingénieurs de Rennes" (ESIR).
    - François Chaumette is the president of the committee in charge of all the temporary recruitments ("Commission Personnel") at Inria Rennes-Bretagne Atlantique and Irisa. He is also a member of the Head team of Inria Rennes-Bretagne Atlantique.
    - Eric Marchand is a member of the committee in charge of all the temporary recruitments ("Commission Personnel") at Inria Rennes-Bretagne Atlantique and Irisa. He is particularly in charge of Irisa Ph.D. students.
    - Marie Babel is a member of the "Comité de centre" of Inria Rennes-Bretagne Atlantique.
    - Fabien Spindler is a member of the "Commission développement durable" of Inria Rennes-Bretagne Atlantique.
    - Alexandre Krupa is a member of the CUMIR ("Commission des Utilisateurs des Moyens Informatiques") of Inria Rennes-Bretagne Atlantique.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Marie Babel:

Master INSA3: "Statistical Signal Processing", 24 hours, M2, INSA Rennes

Master INSA1: "Assembler", 30 hours, L3, INSA Rennes

Master INSA2: "Computer science project", 30 hours, M1, INSA Rennes

Master INSA2: "Image analysis", 18 hours, M1, INSA Rennes

Master INSA1: "Remedial math courses", 24 hours, L3, INSA Rennes

Master INSA1: "Risk Management for Information Systems", 8 hours, L3, INSA Rennes

François Chaumette:

> Master ESIR3: "Visual servoing", 10 hours, M2, Ecole supérieure d'ingénieurs de Rennes

Alexandre Krupa:

> Master SIBM (Signals and Images in Biology and Medicine): "Medical robotics guided from images", 4.5 hours, M2, Université de Rennes 1, Brest and Angers

> Master FIP TIC-Santé: "Ultrasound visual servoing", 6 hours, M2, Télécom Physique Strasbourg

Eric Marchand:

> Master ESIR2: "Colorimetry", 24 hours, M1, ESIR Rennes

> Master ESIR2: "Computer vision: geometry", 24 hours, M1, ESIR Rennes

> Master ESIR3: "Special effects", 24 hours, M2, ESIR Rennes

> Master ESIR3: "Computer vision: tracking and recognition", 24 hours, M2,ESIR Rennes

> Master MRI: "Computer vision", 24 hours, M2, Université de Rennes 1

Paolo Robuffo Giordano

> P. Robuffo Giordano: Master in Robotics: "Analysis and Control of Multi-Robot Systems", 16 hours, M2, Department of Computer and System Sciences, University of Rome "La Sapienza"

9.2.2. Supervision

9.2.2.1. Ph.D.

> Ph.D.: Tao Li, "Commande d'un robot de télé-échographie par asservissement visuel échographique", Université de Rennes 1, defense in February 2013, supervised by Alexandre Krupa [10]

> Ph.D.: Antoine Petit, "3D model-based tracking of complex objects in a spatial context", Université de Rennes 1, defense in December 2013, supervised by Eric Marchand [11]

> Ph.D. in progress: Rafik Sekkal, "Features extraction and robust tracking of objects for video representation", started in October 2010, supervised by Marie Babel

> Ph.D. in progress: Manikandan Bakthavatchalam, "Utilisation des moments photométriques en asservissement visuel", started in October 2011, supervised by François Chaumette

> Ph.D. in progress: Bertrand Delabarre, "An information theoretic approach for navigation in robotics", started in October 2011, supervised by Eric Marchand

> Ph.D. in progress: Tawsif Gokhool, "Représentations valides à long terme pour la navigation et l'apprentissage des modèles 3D", started in February 2012, supervised by Patrick Rives

> Ph.D. in progress: Romain Drouilly, "Représentation hybride métrique, topologique et sémantique d'environnement 3D pour la localisation temps réel", started in May 2012, supervised by Patrick Rives

> Ph.D. in progress: Le Cui, "Nano-manipulation par asservissement visuel", started in October 2012, supervised by Eric Marchand

> Ph.D. in progress: Riccardo Spica, "Autonomous vision-based two-hand manipulation strategies for humanoid robots", started in December 2012, supervised by Paolo Robuffo Giordano and François Chaumette

> Ph.D. in progress: Lucas Royer, "Visual tool for percutaneous procedures in interventional radiology", started in September 2013, supervised by Alexandre Krupa, Maud Marchal (Hybrid group at Inria Rennes-Bretagne Atlantique and Irisa) and Guillaume Dardenne (IRT B-Com)

> Ph.D. in progress: Pierre Chatelain, "Multi-modal visual servoing for intra-operative imaging", started in September 2013, supervised by Alexandre Krupa and Nassir Navab (Technische Universität München)

Ph.D. in progress: Vishnu Narayanan, "Semi-autonomous navigation of a wheelchair by visual servoing and user intention analysis", started in September 2013, supervised by Marie Babel and Anne Spalanzani (e-Motion group at Inria Rhône-Alpes)

Ph.D. in progress: Suman Bista, "Visual navigation of a humanoid robot", started in October 2013, supervised by Paolo Robuffo Giordano and François Chaumette

Ph.D. in progress: Nicolas Cazy, "Model predictive visual servoing of a humanoid robot", started in October 2013, supervised by Paolo Robuffo Giordano, François Chaumette and Pierre-Brice Wieber (Bipop group at Inria Rhône-Alpes)

Ph.D. in progress: Renato José Martins, "Robust navigation and control of an autonomous vehicle", started in November 2013, supervised by Patrick Rives and Samuel Siqueira Bueno (CTI)

Ph.D. in progress: Aly Magassouba, "Audio-based control", started in December 2013, supervised by François Chaumette and Nancy Bertin (Panama group at Inria Rennes-Bretagne Atlantique and Irisa)

9.2.2.2. Internships

- Antoine Berlon, Master in computer science, Univ. de Rennes 1
- Grégoire Boizante, Master at INSA Rennes
- Baptiste Brun, Master in computer science, Univ. de Rennes 1
- Sylvain Devie, Graduate student, ENS Cachan Bretagne
- Corentin Hardy, Graduate student, ENS Cachan Bretagne
- Lucas Royer, Master at INSA Rennes

9.2.3. Juries

- François Chaumette: Hugues Sert (Ph.D., reviewer, Inria Lille), Sounkalo Dembele (HdR, reviewer, Femto, Besançon), Olivier Stasse (HdR, Laas, Toulouse), Nicolas Mansard (HdR, Laas, Toulouse), Fabien Expert (Ph.D, ISM, Marseille)
- Patrick Rives: Hugues Sert (Ph.D., Inria Lille), Benjamin Lefaudeux (Ph.D., Inria Rocquencourt)
- Eric Marchand: Cyril Roussillon (Ph.D., reviewer, LAAS, Toulouse), Joao Paulo Silva do Monte Lima (Ph.D., reviewer, Federal University of Penambuco, Recife, Brazil), Tomy Tikkaälä (Ph.D., reviewer, I3S, Sophia-Antipolis), Jeff Delaune (Ph.D., reviewer, Onera, Toulouse), Mohamed Tamaazousti (Ph.D., reviewer, CEA, Fontenay-aux-Roses), Glauco Garcia Scandaroli (Ph.D., ISIR, Paris), Ricardo Marquès (Ph.D, president, Rennes), Pascal Lino (Ph.D, president, Rennes).
- Alexandre Krupa: Naresh Marturi (Ph.D., reviewer, Femto, Besançon)

9.3. Popularization

- Due to the visibility of our experimental platforms, the team is often asked to present its research activities to students, researchers or industry. Our panel of demonstrations allows us to highlight recent results concerning the positioning of an ultrasound probe by visual servoing, the construction of a tower by combining 3D model-based visual tracking and visual servoing techniques to pick up cubes that are assembled, the navigation of a mobile robot in urban environments, vision-based detection and tracking for space navigation in a rendezvous context, the semi-autonomous navigation of a wheelchair, and augmented reality applications.

- Fabien Spindler is a member of the editorial board of "Ouest Inria", the internal journal at Inria Rennes-Bretagne Atlantique.

- Alexandre Krupa co-authored an article titled "Au coeur des hommes" in the journal DocSciences that is intended for general public. This article is about medical robotics guided from images [27]. An article entitled "L'asservissement visuel au service de la robotique médicale" has also been published in May 2013 in the "Emergences" general-public magazine of Inria Rennes-Bretagne Atlantique http://emergences.inria.fr/lettres2013/newslettern26/l26asservissementvisuel.

- Paolo Robuffo Giordano participated to the "Café des sciences Drones" at the "Espace des sciences" in Rennes in November 2013 to illustrate his activities on quadrotor UAVs to the general public.

- Marie Babel and François Chaumette participated to the "Science Festival" in October 2013 with a debate after the projection of the film "Vivre avec des robots" in Brécé near Rennes.

- Marie Babel and François Pasteau gave a 1-hour lecture on "Assistance to the mobility: the place of the robotics" on December 13th, during the "Conf'Lunch" monthly seminar organised by Inria in Rennes. Furthermore, two articles related to wheelchair navigation have been published in general-public magazines, namely "Des yeux pour les fauteuils roulants" in "Emergences" in July 2013(http://emergences.inria.fr/lettres2013/newsletter_n27/L27-FAUTEUIL) and "Un fauteuil qui a les yeux en face des roues" in "Sciences Ouest" (the magazine of the "Espace des sciences" in Rennes) in November 2013 (http://www.espace-sciences.org/sciences-ouest/314/actualite/un-fauteuil-qui-a-les-yeux-en-face-des-roues).

<p align="center">**MIMETIC Project-Team**</p>

9. Dissemination

9.1. Scientific Animation

- F. Multon: **Reviewer** for Journal of Biomechanics, IEEE Transaction of Affective Computing, PlosOne, Computer Methods in Biomedical Engineering journal, Computer & Graphics journal, IEEE TVCG journal, Computer Animation and Virtual Worlds journal **Program Committee member** of ACM SIGGRAPH Asia (Sketches and posters), Motion in Games Conference MIG2013, CASA 2013, **Scientific expert** for "Pole Productique de Bretagne", and Auteo association, in ergonomics, **Session chairman** of in Motion in Games 2013, **Associate Editor** of the Presence journal MIT Press since 2012, **Steering committee member** of Motion in Games Conference, **reviewer** for national ANR projects in computer sciences and health domains, for the Belgium FNRS foundation, and for the HongKong Baptist University for internal promotions.

- M. Christie: **Reviewer** for IEEE Transactions on Visualization and Computer Graphics, ACM Transactions on Graphics, The Visual Computer, Computer Graphics Forum, Computers and Graphics, Journal on Computing and Cultural Heritage, Foundations on Digital Games, Pervasive Computing, Eurographics, Computer And Graphics, Grapp, Motion in Games, Computer Animation and Social Agents **Senior Program Committee member** of Foundations on Digital Games, **Program Committee member** of Grapp, Smartgraphics, **Steering Committee** of Smartgraphics, **External scientific expert** for Natural Sciences and Engineering Research Council of Canada (Discovery Grants)

- R. Kulpa: **Reviewer** for Eurographics, Computer Graphics Forum, GRAPP, Journal of Graphics Tools, Journal of Sport Science, Pacific Graphics, PlosOne, Siggraph Asia, Transaction on Visualization and Computer Graphics, IEEE VR; **Associate Editor** of the Presence journal MIT Press since 2012; **Leader** of a European Intensive Program called "Routine & Cutting-edge Technologies in Physical Activity: Implication for Health & Sport Performance" with the Queen's University of Belfast and the Universitat de Valencia.

- F. Lamarche: **Reviewer** for Computer Animation and Virtual Worlds

- C. Pontonnier: **Reviewer** for IEEE Transactions on Visualization and Computer Graphics, International Journal of Virtual Reality, **Scientific expert** for ANR.

- J. Pettré: **Reviewer** for ACM Transactions on Graphics, Siggraph, Siggraph Asia, Eurographics, Pacific Graphics, Computer Animation and Social Agents, ACM/Eurographics Symposium on Computer Animation, IEEE Transactions on Visualization and Computer Graphics, Computer Animation and Virtual Worlds, ICRA, VR, Journal of Computational Science, Computer Graphics Forum, Autonomous Robots, Motion in Game Conference, **Program Committee member** of Pacific Graphics, Symposium on Computer Animation, International Conference on Computer Graphics Theory and Applications **Scientific expert** for ANR.

- A. Crétual: **Reviewer** for Medical & Biological Engineering & Computing, Journal of Electromyography and Kinesiology, Journal of Musculoskeletal & Neuronal Interactions, Computer Methods in Biomechanics & Biomedical Engineering, **Editorial Board** of Journal of Electromyography and Kinesiology, **Scientific expert** for ANR TecSan program, PCCA (Romanian equivalent of French ANR).

- G. Dumont: **Head** of Media and Interaction department of IRISA (UMR 6074), **Member** of the Selection Committee (CSV) of the Competitiveness Cluster "Media and Networks" (http://www.images-et-reseaux.com/), **Member** of Executive Board of international Journal IJIDeM. **Reviewer** for ASME-IMECE2013, ASME-DETC2013, IEEE Transactions on Visualization and Computer Graphics.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

- Georges Dumont

  First year of Mechatronics : Design project, 24h, École Normale Supérieure de Rennes, France

  Master2, Mechatronics : Mechanical simulation in Virtual reality, 36h, level M2, Rennes 1 University and École Normale Supérieure de Rennes, France

  Master2, formation des enseignants du supérieur : Mechanics of deformable systems, 40h, level M2, École Normale Supérieure de Rennes, France

  Master2, formation des enseignants du supérieur : oral preparation to agregation competitive exam, 20h, level M2, École Normale Supérieure de Rennes, France

  Master2, formation des enseignants du supérieur : Vibrations in Mechanics, 10h, level M2, École Normale Supérieure de Rennes, France

  Master2, formation des enseignants du supérieur : Multibody Dynamics, 9h, level M2, École Normale Supérieure de Rennes, France

  Master2, formation des enseignants du supérieur : Finite Element method, 12h, level M2, École Normale Supérieure de Rennes, France

  Master2, Mechatronics : Responsible of the second year of the master, Rennes 1 University and École Normale Supérieure de Rennes, France

- Charles Pontonnier

  ESM2 majeure mécanique (Master 1 level) : Numerical techniques, 40h, École Spéciale Militaire de Saint-Cyr Coëtquidan, France

  ESM2 majeure mécanique (Master 1 level) : Numerical simulation of mechanical sytems, 28h, École Spéciale Militaire de Saint-Cyr Coëtquidan, France

  ESM2 majeure mécanique (Master 1 level) : Vibrations in Mechanics, 24h, École Spéciale Militaire de Saint-Cyr Coëtquidan, France

  ESM2 majeure électronique (Master 1 level) : Modelisation and control of manipulators and mobile robots, 40h, École Spéciale Militaire de Saint-Cyr Coëtquidan, France

  EMIA 1 majeure électronique (Bachelor level) : numerical control, 40h, École Inter-Armes de Saint-Cyr Coëtquidan, France

  Master2, formation des enseignants du supérieur : Numerical tools for reasearch, 10h, level M2, École Normale Supérieure de Rennes, France

  Master2, formation des enseignants du supérieur : Design, simulation and control of mechanical systems, 16h, level M2, École Normale Supérieure de Rennes, France

  Master2, formation des enseignants du supérieur : Practicals: identification and control of mechanical systems, 24h, level M2, École Normale Supérieure de Rennes, France

- Franck Multon

  "Image et Mouvement - IMO" (Master 2 Level): leader of the module, Master M2RI Research in Computer Sciences, INSA Rennes, France

  "Santé et performance au travail : études de cas" (Master 1 Level): leader of the module, Master M2S Sports Sciences, University Rennes2, France

  "Analyse biomécanique de la performance motrice" (Master 1 Level): leader of the module, Master M2S Sports Sciences, University Rennes2, France

  "Modélisation et simulation du mouvement" (Master 2 Level): Leader of the module, Master M2S, Sports Sciences, University Rennes2, France

"Ergonomie du poste de travail" (Licence 2-3 levels): Licence STAPS, Ergonomics and sports sciences, University Rennes2, France

"Facteurs psycho sociaux et ergonomie" (Master 2 Level): Mastère Excellence opérationnelle, INSA Rennes, France

- Richard Kulpa

    Co-leader of the Master M2S, Sports Sciences and Health, University Rennes2, France

    "Outils informatiques d'analyse des données" (Master 2 Level): Leader of the module, Master M2S, Sports Sciences and Health, University Rennes2, France

    DIU "Sciences du Mouvement Humain": leader of the module "Nouvelles technologies", University Rennes2, France

    "Biomécanique" (Licence 2-3 levels): Licence STAPS, Ergonomics and sports sciences, University Rennes2, France

    "Méthodes numériques d'analyse du mouvement" (Licence 2-3 levels): Licence STAPS, Ergonomics and sports sciences, University Rennes2, France

    "De la capture de mouvements à l'animation d'humain virtuel" (Engineering school): Ecole Centrale de Nantes, France

    "L'animation d'humain virtuel": IUT Bordeaux 1, France

- Armel Crétual

    Responsible for Master 1 Level of Master "Mouvement, Sport, Santé" (M2S), University Rennes 2

    "Méthodologie", leader of the module, Master M2S, University Rennes2, France

    "Biostatstiques", leader of the module, Master M2S, University Rennes2, France

    "Analyse cinématique du mouvement", Licence 1, University Rennes 2, France

- Marc Christie

    "Multimedia Mobile" (Master 2 Level): leader of the module, Computer Science, University of Rennes 1, France

    "Système d'information Tactiques" (Master 2 Level): Computer Science, University of Rennes 1, France

    "Programmation Impérative 1" (Licence 1 level): leader of the module, University of Rennes 1, France

9.2.2. Supervision

- Christope Lino

    PhD "Dynamic Spatial Partitions for Virtual Camera Control", University of Rennes1, defended in October 2013

    Co-supervised by Marc Christie and Kadi Bouatouch

- Pierre Plantard

    PhD "Maitriser les Troubles MusculoSquelettiques sur les postes de travail: apport de la simulation d'humains virtuels", University Rennes2, Cifre contract with Faurecia (2013-2015).

    Supervised by Franck Multon

- Steve Tonneau

    PhD "Synthèse et planification de mouvements pour des humains virtuels autonomes dans des environnements contraints", INSA Rennes (2011-2014)

    Co-supervised by Julien Pettré and Franck Multon

- Philippe Rannou

    PhD "Modèle rationnel pour les humains virtuels autonomes", University of Rennes 1 (2010-2014)

    Co-supervised by Fabrice Lamarche and Marie Odile Cordier

- Carl-Johan Jorgensen

    PhD "Peuplement automatisé d'environnements urbains pour l'étude et la validation d'aménagements.", University of Rennes 1 (2011-2014)

    Co-supervised by Fabrice Lamarche and Kadi Bouatouch

- Antoine Marin

    PhD "Génération de trajectoires de marche par fonction de tâche", University of Rennes 2,(2010-2014)

    Supervised by Armel Cretual

- Camille Pouliquen

    PhD "Optimisation de modèles musculo-squelettiques au cours du geste sportif. Application au cyclisme et au handball", (2013-2016)

    Co-supervised by Nicolas Bideau and Paul Delamarche

- Ana-Lucia Cruz-Ruiz

    PhD "Design and evluation of a modular and multiscale musculoskeletal model as a support to motion analysis-synthesis in computer animation and robotics", (2013-2016)

    Co-supervised by Charles Pontonnier and Georges Dumont

- Jonathan Perrinet

    PhD "Effet des emotions sur les interactions physique durant la marche", University Rennes1, funded by FP7 TANGO project (2010-2013).

    Co-supervised by Julien Pettré and Stéphane Donikian

- David Wolinski

    PhD "Modèles de simulation foules microscopiques réalistes", University Rennes1, funded by MRT (2012-2015).

    Co-supervised by Julien Pettré and Stéphane Donikian

- Kevin Jordao

    PhD"Peuplement massif de maquettes numériques immenses", University Rennes1, funded by the ANR-CHROME contract (2012-2015).

    Supervised by Julien Pettré

- Julien Bruneau

    PhD"Foules immersives", University Rennes1, funded by MRT (2013-2016).

    Supervised by Julien Pettré

9.2.3. Juries

- Franck Multon

    reviewer of Julien Lardy's PhD defense "Analyse et simulation cinématique du mouvement du bras lors de la manipulation d'un objet pour la simulation ergonomique à l'aide d'un mannequin numérique", IFSTTAR Lyon, University Lyon1, February 2013

    reviewer of Zohrhe Anvari's PhD defense "Transport des enfants et locomotion : approche intégrative biomécanique et comparative chez l'humain et le primate non humain", Museum National d'Histoire Naturelle, September 2013

president of Thibaut Le Naour's PhD defense "Utilisation des relations spatiales pour l'analyse et l'édition de mouvement", University Bretagne Sud, December 2013

reviewer of Maud Pasquier's Phd defense "Segmentation de la locomotion humaine dans le domaine du sport et de la déficience à partir de capteurs embarqués", Université de Grenoble, September 2013

reviewer of Aurore Huchez's PhD defense "Etude de la gestion et du contrôle de l'inertie lors de la réalisation d'une tâche acrobatique complexe en gymnastique", Université de Valenciennes, January 2013

reviewer of Fabrice Megrot's HDR defense "Sur l'instabilité motrice: De l'équilibre du sujet à la marche du patient", Université Technologique de Compiègne, July 2013

president of Nicolas Courty's HDR defense "Contributions to Analysis/Synthesis Schemes in Computer Animation", Université Bretagne Sud, April 2013

- Armel Cretual

  reviewer of Jessica Schiro's PhD defense "Analyse biomécanique multi variables du geste de tourner le volant chez les conducteurs sans déficiences motrices", Université de Valenciennes, March 2013

- Julien Pettré

  reviewer of Panayiotis Charalambous's PhD defense "Data driven techniques for crowd simulation and evaluation", University of Cyprus, December 2013

MYRIADS Project-Team

9. Dissemination

9.1. Scientific Animation

9.1.1. Program committees

Roberto Cascella   was program committee member for IEEE VTC 2013-Fall and IEEE VTC 2013-Spring.

Eugen Feller   was program committee member of EE-LSDS 2013 and PDP (2013, 2014).

Yvon Jégou   was program committee member of IEEE TrustCom 2013 conference, GC2013 conference and ORMaCloud workshop co-located with ACM HPDC 2013.

Christine Morin   was program committee member of the *International Symposium on Parallel and Distributed Computing* (ISPDC) in 2013 and 2014, IEEE *International Parallel & Distributed Processing Symposium* (IPDPS) in 2014, IEEE/ACM *International Symposium on Cluster, Cloud and Grid Computing* (CC-GRID) in 2013 and 2014, CLOSER in 2013 and 2014, *International Conference on Cloud and Green Computing* (CGC) in 2013, Resilience (Workshop on Resiliency in High Performance Computing in Clusters, Clouds, and Grids) co-located with EuroPar in 2013, VTDC (International Workshop on Virtualization Technologies in Distributed Computing) co-located with ACM HPDC in 2013, ScienceCloud co-located with ACM HPDC in 2013, OrmaCloud co-located with ACM HPDC in 2013 and 2014, ESPAS (Workshop on Extreme Scale Parallel Architectures and Systems) in 2014 CrossCloud (workshop on cloud interoperability and federation) co-located with INFOCOM in 2014, Distributed Cloud Computing (DCC) workshop co-located with SIGCOMM in 2014. She was *General Co-Chair* of the IEEE ISPA conference held in Melbourne, Australia, in July 2013. She was *Program vice-chair* of the IEEE GreenCom conference held in Beijing, China, in August 2013. She was *General co-chair* of the DIHC international workshop co-located with the EuroPar conference held in Aachen, Germany, in August 2013. She is *Tutorial Chair* of the IEEE Cluster conference to be held in Madrid, Spain, in September 2014.

Anne-Cécile Orgerie   was program committee member of FedICI workshop co-located with EuroPar 2013, OPTIM workshop co-located with HPCS 2013, IEEE GreenCom 2013, CGC 2013, ITC SSEEGN seminar co-located with ATNAC 2013, TIWDC 2013, HSNCE workshop co-located with COMPSAC 2013, EEHPDC workshop co-located with HPDC 2013, EE-LSDS 2013, and E2HPC2 workshop co-located with EuroMPI 2013. She was also publication co-chair for ICPP 2013, general co-chair for ExtremeGreen workshop co-located with CCGrid 2013, and demo chair for EE-LSDS 2013.

Guillaume Pierre   was program committee member of CCGrid 2013, CFSE 2013, IC2E 2013, SAC 2013, DAIS 2013, CSCS19, CloudDP 2013, ISPDC 2013, ORMaCloud 2013, BigDataCloud 2013, DIHC 2013, IC2E 2014, DADS track of SAC 2014, and MobileCloud 2014. He was also workshop chair of EuroSys 2014.

Thierry Priol   was SC'13 "Grids and Clouds" track co-chair.

Cédric Tedeschi   was a program committee member of ICWS 2013, ICCS 2013, CloSer 2013 and ComPas2013.

9.1.2. Evaluation committees, consulting

Roberto Cascella   was invited to join the final review of the FUI11 CompatibleOne French project.

Yvon Jégou   is a member of the Grid 5000 executive committee. He is a member of the *Comité de Sélection et de Validation (CSV)* of the *Images & Réseaux* cluster.

C. Morin   acted as an expert to review proposals for the French Research Agency (ANR). She is a member of the ModaClouds European project Advisory Board. Since September 2013, she has been a member of the Irisa/Inria "Commission Personnel" being in charge of post-docs and "*délégations*". She is a member of the scientific council of ENS Cachan. She was a member of a professor position selection committee at *Ecole des Mines de Nantes*.

Anne-Cécile Orgerie   is expert at the AERES for evaluating the doctoral schools.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Roberto Cascella (at the University of Rennes 1):

- License 3: Inter-networking (30h ETD)

Christine Morin is responsible for the ISI teaching unit.

Christine Morin:

- Master : Internet of Services: Programming Models & Infrastructures (ISI), 12 hours ETD, M2RI, University of Rennes 1, France.
- Master : Cluster single system image operating systems, 4.5 hours ETD, M2, Institut Telecom Sud Paris, France.
- Master : Energy management in computing infrastructures (as part of the Eco-STIC module), 4.5 hours ETD, M1, Supelec, France.

Anne-Cécile Orgerie (at ENS de Rennes):

- Master 1: projet logiciel (24 hours ETD)
- License 3: architecture et systèmes 2 (36 hours ETD)

Nikos Parlavantzas (at INSA Rennes):

- 4th year: Operating Systems (40 hours ETD)
- 4th year: Big Data and Applications (25 hours ETD)
- 4th year: Networking and SOA (12 hours ETD)
- 4th year: Advanced Operating Systems (12 hours ETD)
- 4th year: Parallel programming (12 hours ETD)
- 4th year: Software Development Project (30 hours ETD)
- 5th year: Component-based Software Engineering (16 hours ETD)

Jean-Louis Pazat is responsible for the following graduate teaching Modules: Advanced operating Systems, Parallel Computing, Networking and SOA.

Jean-Louis Pazat (at INSA Rennes for 2012-2013):

- 4th year: Advanced Operating Systems (32 hours ETD)
- 4th year: Parallel Programming (48 hours ETD)
- 4th year: Networking and SOA (48 hours ETD)
- 4th year: Software development project (60 hours ETD)

Guillaume Pierre (at the University of Rennes 1):

- License 3: Systèmes (25 hours ETD)
- License 3: Organisation et utilisation des systèmes d'exploitation 2 (67 hours ETC)
- Master 2: Techniques de développement logiciel dans le Cloud (39 ETD)
- Master 1: Service Technologies (24 ETD)
- Master 2: Approche algorithmique des applications et systèmes répartis (32 ETD)

Cédric Tedeschi (at the University of Rennes 1 for 2012-2013):

- Licence 3: Organization of Operating System (38 hours ETD)
- Licence 3: Algorithmic methods (22 hours ETD)
- Master 1: Multitask Operating Systems (65 hours ETD)
- Master 1: Concurrency in Systems and Networks (56 hours ETD)
- Master 2: Muti-users systems (50 hours ETD)
- Master 2 (research): Internet of Services (6 hours ETD)

9.2.2. Supervision

PhD : Marko Obrovac, Chemical Computing for Distributed Systems: Algorithms and Implementation, Université de Rennes 1, March, 28 2013, Thierry Priol, Cédric Tedeschi.

PhD : Erwan Daubert, Environmental adaptation of services in large scale distributed architectures, INSA de Rennes, May 24 2013, Françoise André, Olivier Barais (Triskell), Jean-Louis Pazat.

PhD : Chen Wang, Using Chemical Metaphor to Express Workflow and Service Orchestration, INSA de Rennes May, 28 2013, Jean-Louis Pazat.

PhD : Stefania Costache, Market-based Autonomous Resource and Application Management in the Cloud, defended on 3 July 2013, Christine Morin, Nikos Parlavantzas.

PhD in progress : Djawida Dib, Dynamic adaptation in distributed systems, October 2010, Christine Morin, Nikos Parlavantzas.

PhD in progress : Ancuta Iordache, Multi-resource optimization for application hosting in heterogeneous clouds, February 2013, Guillaume Pierre.

PhD in progress: Yunbo Li, Resource allocation in a Cloud partially powered by renewable energy sources, October 2013, Anne-Cécile Orgerie, Jean-Marc Menaud (Ascola).

PhD in progress: Ismael Cuadrado Cordero, Energy-efficient and network-aware resource allocation in Cloud infrastructures, October 2013, Christine Morin, Anne-Cécile Orgerie.

PhD in progress: Édouard Outin, A multi-objective adaptation system for the management of a Distributed Cloud, October 2013, Olivier Barais (Triskell), Yvon Jégou, Jean-Louis Pazat.

PhD in progress: Sabbir Hasan, SLA Driven Cloud autoscaling for optimizing energy footprint, December 2013, Thomas Ledoux (Ascola), Jean-Louis Pazat.

9.2.3. Juries

- Christine Morin is a reviewer in the PhD defense committee of Marco Meoni, EPFL (January 8, 2013).
- Christine Morin is a member of the PhD defense committee of Flavien Quesnel, Ecole des Mines de Nantes (February 20th, 2013).
- Christine Morin is a reviewer in the PhD defense committee of Damien Borghetto, Université de Toulouse 1 (June 3rd 2013).
- Christine Morin is a reviewer in the PhD defense committee of Enric Tejedor Saavedra, Université Polytechnique de Catalogne (UPC), Spain (July 15th, 2013).
- Christine Morin is a member of the PhD defense committee of Gylfi Gudmundsson, Université de Rennes 1 (September 12th 2013).
- Christine Morin is a member of the PhD defense committee of Joseph Emeras, Université de Grenoble (October 1st, 2013).
- Christine Morin is the president the HDR committee of Laurent Lefèvre, ENS Lyon (November 14th 2013).
- Christine Morin is a reviewer in the PhD defense committee of Sylvain Lefebvre, CNAM, Paris (December 10th 2013).

- Christine Morin is the president of the PhD defense committee of Minh Tuan Ho, University of Rennes 1 (December 18th, 2013).
- Guillaume Pierre is a member of the PhD defense committee of Jiayi Liu, Telecom Bretagne (November 4th 2013).
- Guillaume Pierre is a member of the promotion committee to the rank of Assistant Professor of George Pallis, university of Cyprus (October 30th 2013).
- Guillaume Pierre is a member of the PhD defense committee of Alexandre van Kampen, Inria (March 8th 2013).
- Guillaume Pierre is a member of the PhD defense committee of Viet-Trung Tran, Inria (January 21st 2013).
- Cédric Tedeschi is a member of the PhD defense committee of Chen Wang, Université Rennes 1 (May 28th 2013)
- Jean-Louis Pazat is a reviewer for the PhD thesis of Frederico Alvares, Ecole des Mines de Nantes (April 9th 2013)
- Jean-Louis Pazat is the president of the PhD defense of Rémy Druilhe, Université de Lille (December 5th 2013)
- Jean-Louis Pazat is the president of the PhD defense of Tan Le Nhan, Université de Rennes 1 (December 10th 2013)

9.3. Popularization and scientific animation

- Roberto Cascella gave a talk entitled "The Contrail approach for interoperable and dependable Clouds" at Create-Net, 12 December 2013 (Trento, Italy)
- Roberto Cascella gave a talk entitled "The Contrail Approach for Interoperable Clouds" at Cloud Interoperability Workshop, 18 September 2013 (Madrid, Spain — http://www.cloudplugfest.org/cloud-interoperability-week/workshop)
- Roberto Cascella gave a talk entitled "Open Social Lab: Ad Hoc Clouds for Crowd Social Computing" at Séminaire thématique Inria "Smart Cities", 17 July 2013 (Paris, France)
- Roberto Cascella was a panelist in the panel "la sécurité dans le monde ouvert d'Internet" at journée CominLabs (Rennes, France)
- Roberto Cascella gave a talk entitled "Contrail: Open Computing Infrastructures for Elastic Services" at pre-FIA workshop "Multi-Cloud Scenarios for the Future Internet", 7 May 2013 (Dublin, Ireland)
- Djawida Dib gave a talk entitled "Meryn - Open, SLA-driven, Cloud Bursting PaaS " at Lawrence Berkeley National Laboratory, Berkeley, USA, in June 2013.
- Stefania Costache gave a talk entitled "Market-based Autonomous Resource and Application Management in the Cloud" at Queen's University of Belfast, Belfast, UK, in November 2013.
- Florian Dudouet gave a talk about VEP at the Contrail summer school (Almere, the Netherlands, July 2013)
- Eugen Feller gave a talk entitled "From Autonomic Cloud Management to Storage and Data Management for Scientific Applications" at Ericsson Research Silicon Valley, October 2013 (San Jose, CA, USA).
- Eugen Feller gave a talk entitled "DALHIS – Data Analysis on Large Heterogeneous Infrastructures for Science" at the Berkeley-Inria-Stanford workshop, May 2013 (Stanford University, CA, USA).
- Yvon Jégou gave a talk entitled *Mise en œuvre des SLAs dans la pile logicielle Contrail* at the Workshop "SLA Management in Cloud computing", colocated with ComPAS'2013.
- Yvon Jégou demonstrated the VEP component of Contrail on the Contrail booth during the *EGI Community Forum 2013*, April 8-12, Manchester UK.

- Yvon Jégou gave talk *Contrail Virtual Execution Platform* at the *OpenNebulaConf* event, September 24-26, Berlin, Germany.

- Christine Morin was invited to give a tutorial on *Energy Management in Large-scale Distributed Systems* at the *Green Wireless Communications school* of the NEWCOM Network of Excellence, Poznan, Poland, in September 2013.

- Christine Morin gave a talk entitled "Dependable Cloud Computing in Contrail" on Inria booth at SC'13, Denver, USA, November 2013.

- Christine Morin was invited to give a talk on Myriads activities on cloud computing at the EIT ICT Labs meeting on future clouds, Rennes, France, November 2013.

- Christine Morin gave a talk on Myriads research activities on cloud computing at CREATE-NET, Trento, Italy in December 2013.

- Guillaume Pierre gave a talk about ConPaaS and organized a hands-on session at Contrail summer school (Almere, the Netherlands, July 2013)

- Guillaume Pierre organized the 1st ConPaaS workshop (Amsterdam, the Netherlands, June 13th 2013) and gave the opening presentation

- Anne-Cécile Orgerie gave a talk entitled "Economies d'énergie dans les systèmes distribués à grande échelle", at ENS de Rennes, December 2013.

- Anne-Cécile Orgerie gave a talk entitled "Energy-Efficiency in Large-Scale Distributed Systems: an On-Off Approach" at the ACS department at LBNL, Berkeley, USA, May 2013.

- Anne-Cécile Orgerie gave a talk entitled "Snooze: an autonomic and energy-efficient management system for virtualized clusters" at GreenDaysLuxembourg, January 2013.

- Cédric Tedeschi gave a talk *Un protocole pour la capture atomique de molécules* at the "System" track of ComPAS'2013.

- Alexandra Carpen-Amarie gave a talk entitled "Experimental Study of the Energy Consumption in IaaS Cloud Environments " at GreenDaysLille, November 2013.

9.4. Miscellaneous

Roberto Cascella   is a member of the Inria "Commission locale formation".

Christine Morin   is a member of the Project-Team Committee of INRIA RENNES – BRETAGNE ATLANTIQUE (Comité des projets), *Référent Chercheur* for INRIA RENNES – BRETAGNE ATLANTIQUE, Coordinator of the Inria@Silicon Valley program (in collaboration with Inria DRI) until August 2013, member of the scientific council of ENS Cachan. She is the coordinator of Contrail European project.

Nikos Parlavantzas   is the local coordinator for the international exchange of students at the computer science department of Insa.

Jean-Louis Pazat   is the leader of the "Large Scale Systems" department of IRISA. He is member of the Steering committee (conseil d'administration) of Insa Rennes. He is a member of the Computer Science Department committee and member of the IRISA-INSA Lab committe. He is the local coordinator for the international exchange of students at the computer science department of Insa.

Thierry Priol   is the director of the Inria European Partnership department.

Cédric Tedeschi   is a member of the administration council of the EECS departement of the University of Rennes 1.

PANAMA Project-Team

9. Dissemination

9.1. Scientific Animation

Rémi Gribonval is in charge of the Action "Parcimonie" within the French GDR ISIS on Signal & Image Processing

Rémi Gribonval is a member of the International Steering Committee for the LVA conference series.

Rémi Gribonval is a member of the IEEE Technical Committee on Signal Processing Theory and Methods (2012–2014), and a member of the Awards sub-committee.

Rémi Gribonval was a member of the organizing committee of the GRETSI 2013 edition.

Rémi Gribonval is a member of the program committee of the GRETSI.

Rémi Gribonval is a member of the Steering Committee of the SPARS international workshop (chairman until 2013).

Frédéric Bimbot is the Head of the "Digital Signals and Images, Robotics" in IRISA (UMR 6074).

Frédéric Bimbot has been the General Chairman of the Interspeech 2013 Conference in Lyon (1400 participants) [46].

Frédéric Bimbot is a member of the International Advisory Council of ISCA (International Speech Communication Association)

Nancy Bertin is a member of the IEEE Technical Committee on Audio and Acoustic Signal Processing (2013–2015).

Nancy Bertin and Frédéric Bimbot co-organised a two-day workshop on "localization, separation and tracking of audio sources", in the context of IRISA D5 (Signal, Image & Robotics) department's scientific animation seminars.

Laurent Albera was a scientific council member at University of Rennes 1.

Laurent Albera was co-organizer with David Brie at Paris of a one-day seminar on tensor decompositions and applications sponsored by the GDR ISIS (french research groups in signal and image processing).

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Licence : N. Bertin, "Discovery of selected topics in audio signal processing research", 9 hours, L3, École Supérieure de Réalisation Audiovisuelle (ESRA), France

Master : N. Bertin, "Audio rendering, coding and source separation", 9 hours, M2, Université Rennes 1, France

Master : N. Bertin, "Audio indexing and classification", 9 hours, M2, Université Rennes 1, France

Master : R. Gribonval, "Sparse representations for inverse problems in signal and image processing", 10 hours, M2, Université Rennes 1, France

Master : R. Gribonval, "Signal and image representations", 8 hours, M2, Université Rennes 1, France

Master: R. Gribonval, coordination of the ARD module "Acquisition et Représensation de Données", M2, Université Rennes 1, France

Laurent Albera gives lectures in Mathematics and in Signal Processing, and he supervises end of school year projects, mainly at the university of Rennes 1:

Licence: L. Albera, "Mathematics for electronics", 18 hours, L2, Université Rennes 1, France

Licence: L. Albera, "Mathematics for electronics", 21 hours, L3, Université Rennes 1, France

Licence: L. Albera, "Mathematics", 48 hours, L3, Ecole Supérieure d'Ingénieurs de Rennes, France

Master: L. Albera, "Multimodal analysis of biomedical signals", 12 hours, M1, Ecole Supérieure d'Ingénieurs de Rennes, France

Master: L. Albera, "Evaluation of EEG signals to measure brain activity during entertainment applications", project supervision (with Technicolor R&I France), M2, Ecole Supérieure d'Ingénieurs de Rennes, France

Master : L. Albera, "Blind equalization", 4.5 hours, M2, Université Rennes 1, France

Master: L. Albera, "Brain source imaging", project supervision, M2, Université Rennes 1, France

Doctorat : L. Albera, "Brain source imaging", 2.5 hours, EUROSAE formation continue, France

Doctorat : L. Albera, "Brain source imaging", 6 hours, CominLabs, Université Rennes 1, France

Laurent Albera is responsible of the "Signal Processing" branch of the SISEA (Signal, Images, Embedded Systems and Control) Master 2 of University of Rennes 1.

9.3. Popularization

9.3.1. *Journée science et musique*

Participants: Nancy Bertin, Frédéric Bimbot, Jules Espiau de Lamaestre, Rémi Gribonval, Corentin Guichaoua, Srdan Kitic, Stéphanie Lemaile, Pierre Machart, Laurent Simon, Nathan Souviraà-Labastie, Stefan Ziegler.

PANAMA coordinated the organization of a public event called "Journée Science et Musique" (Day of Music and Science). This yearly event organized by the METISS/ PANAMA Team since 2011 aims at sharing with the wide audience the latest innovations and research projects in music. The motivation for hosting this event is to explain and promote the technology behind audio-processing that people face in their daily lives. The event is free to everyone and people have the possibility to attend talks by selected speakers or meet numerous experts that demonstrate current projects in which people can interactively participate. Edition 2013 hosted 350 visitors.

9.3.2. *Radio and press*

Nancy Bertin was an invited speaker in the France Inter scientific radio show "La Tête au Carré".

9. Dissemination

9.1. Scientific Animation

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

9.2.2. Supervision

9.2.3. Juries

9.3. Popularization

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

9. Dissemination

9.1. Scientific Animation

9.1.1. Scientific committees of conferences

- J. Erhel is a member of the editorial board of the PARENG'2013 conference (Pecs, Hungary, March 2013).
- J. Erhel is a member of the scientific committee of the MAMERN'13 conference (Granada, Spain, April 2013).
- J. Erhel is a member of the scientific committee of the SMAI 2013 conference (Seignosse, France, May 2013).
- J. Erhel is a member of the international advisory committee of the parallel CFD conferences (Changsha, Hunan, China, May 2013).

9.1.2. Organization of workshops

- J. Erhel organized with E. Faou and T. Lelièvre the conference NASPDE (Rennes, September 2013).

9.1.3. Editorial Boards

- B. Philippe is one of the four chief-editors of the electronic journal ARIMA (revue Africaine de la Recherche en Informatique et Mathématiques Appliquées).
- B. Philippe is managing editor of the electronic journal ETNA (Electronic Transactions on Numerical Analysis).
- J. Erhel and G. Pichot are editors of the proceedings of Domain Decomposition XXI (LNCSE, Springer)
- J. Erhel is member of the editorial board of ETNA.
- J. Erhel is member of the editorial board of ESAIM:Proceedings.
- J. Erhel is member of the editorial board of Mathematics of Planet Earth 2013, un jour-une brève.
- J. Erhel is member of the wide consortium of the prospective think tank: MATHématiqueS en INteractions pour la TERRE (funded by ANR)

9.1.4. Steering committees

- J. Erhel is a member of the steering committee of the Réseau National des Systèmes Complexes.
- J. Erhel is the scientific coordinator of the website Interstices (since June 2012).
  See http://www.interstices.info.

9.1.5. Inria, IRISA and University committees

- É. Canot is member of the CLHSCT (Comité Local Hygiène Sécurité Conditions de Travail), of Inria-Rennes, from September 2010.
- J. Erhel is member of the Comité Technique d'Etablissement Public of Inria.
- J. Erhel is member of Conseil d'Administration of Inria.
- J. Erhel is member of the working group of Inria Rennes on project management.
- J. Erhel participated in the panel during the workshop on HAL organized by the Universities of Rennes.
- G. Pichot is responsible for the domain "environment" at IRISA.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

- A. Abdelmoula is teaching assistant (permanent position) in computer science at the University of Tunis, Tunisia.
- S. Khalfallah is teaching assistant (permanent position since September 2012) in mathematics at the University of Kairouan, Tunisia.
- L. Lenôtre is teaching assistant (contrat doctoral avec mission d'enseignement) in mathematics at the University of Rennes 1.
- A. Le Gentil: Master M1; title: TP d'analyse, conception et programmation orientée objets; 26 hours; INSA, Rennes, France.
- J. Erhel: Master M2; title: Cours de modélisation et calcul scientifique; 12 hours; INSA, Rennes, France.
- É. Canot and G. Lecourt: Master M2; title: TP de modélisation et calcul scientifique; 12 hours each; INSA, Rennes, France.

9.2.2. Supervision

PhD: M. Oumouni, University of Rennes 1 and University of Kenitra, June 2013, co-advisors J. Erhel and Z. Mghazli.

PhD: A. Abdelmoula, University of Rennes 1 and University of Tunis, December 2013, co-advisors B. Philippe and M. Moakher.

PhD in progress: S. Khalfallah, University of Rennes 1 and University of Tunis, October 2009, co-advisors J. Erhel and A. ben Abda.

PhD in progress: L. Lenôtre, University of Rennes 1, October 2012, co-advisors A. Lejay (Inria Nancy) and G. Pichot, with J. Erhel.

PhD in progress: S. Mansour, University of Rennes 1 with LIU and AUB (Beiruth, Lebanon), January 2013, co-advisors É. Canot, M. Muhieddine and N. Nassif.

PhD in progress: L.-B. Nguenang, University of Yaounde 1, October 2011, advisors E. Kamgnia with B. Philippe.

PhD in progress: M. ben Refifa, University of Tunis, October 2013, advisors Rachida Bouhlila with J. Erhel and É. Canot.

PhD in progress: S. Sabit, University of Rennes 1, October 2010, advisors J. Erhel with É. Canot.

9.2.3. Juries

- HdR: O. Coulaud, University of Bordeaux, November 2013. Reviewer J. Erhel.
- PhD: R. Lago, University of Toulouse, Mathematics, June 2013. Examiner J. Erhel.
- PhD: C. Heinry, University of Paris 6, Mathematics, December 20123. Reviewer J. Erhel.

9.3. Popularization

- J. Erhel participated in the Inria workshop on scientific popularization, Paris, January 2013.
- J. Erhel participated in the Mathematics of Planet Earth Day at UNESCO, Paris, March 2013.
- J. Erhel gave a talk entitled "la terre se met aux maths", during the week of maths, at lycée Victor and Hélène Basch, Rennes, in March 2013 [59]. See http://www.irisa.fr/sage/jocelyne
- J. Erhel participated in the panel on "Observer et mesurer la terre", Rencontres CNRS Jeunes Sciences et Citoyens, Ile de France, March 2013 See http://www.scienceouverte.fr/Rencontres-CNRS-Jeunes-Sciences-et,413 and http://www.scienceouverte.fr/-Divers-voyages- [58]
- J. Erhel was invited to "congrès des jeunes chercheurs", at ISFEC Bretagne, Rennes, April 2013

- J. Erhel gave a talk with F. Tort (ENS Cachan) entitled "L'informatique, c'est pas pour les filles", at the salon "Educatec-Educatice", Paris, November 2013.

- J. Erhel coordinated with C. Leininger the journal TDC no 1062 "les mathématiques de la terre", october 2013. See http://www.cndp.fr/tdc/tous-les-numeros/les-mathematiques-de-la-terre.html

- B. Philippe wrote a review on TDC no 1062. See http://www.interstices.info.

- J. Erhel wrote a document entitled "sur les traces des polluants", in TDC no 1062 [57].

- J. Erhel wrote a paper entitled "Le Jour d'après : vers une réflexion sur les modèles climatiques ", in Interstices [56]

- J. Erhel wrote two texts in the blog mpt2013: "Henry Darcy et sa loi" [54] and "La diffusion, un moteur universel" [55].

- B. Philippe wrote a text in the blog mpt2013: "La terre a du potentiel" [61] See http://mpt2013.fr/.

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

9. Dissemination

9.1. Scientific Animation

- *Technical program committees of conferences*

    Charles Kervrann: PC member for ISBI'2013, ISBI'2014, reviewer for ICASSP'2013, ICASSP'2014, ICIP'2013, ICIP'2014, EMMCPRV'2013, GRETSI'2013, member of scientific committee of "Journées d'Imagerie Optique Non-Conventionnelle" (JIONC'2014).

    Patrick Bouthemy: PC member for ICPRAM'2013, ICPRAM'2014, MLDM'2013, TAIMA'2013, reviewer for ISBI'2013, ISBI'2014, ICRA'2013, member of scientific committee of ELMI'13.

- *Journal reviewing*

    Charles Kervrann: reviewer in 2013 for IEEE Transactions on Image Processing, IEEE Transactions on Medical Imaging, SIAM Journal Imaging Sciences, PLoS One, Image and Vision Computing, Journal of Signal Image and Video Processing.

    Patrick Bouthemy: reviewer in 2013 for International Journal of Computer Vision, IEEE Transactions on Circuits and Systems for Video Technology, IEEE Transactions on Image Processing, IEEE Transactions on Medical Imaging.

- *Project reviewing*

    Charles Kervrann: reviewer in 2013 for ERC (Consolidator Grant), ANR and IDEX Paris-Saclay.

- *Participations in seminars, invitations, awards*

    Charles Kervrann was invited to give a talk entitled "Non parametric change detection methods in fluorescence life cell imaging for subcellular trafficking and exocytosis analysis" at the GdR 2588 "BioImage Informatics" Days (Institut Curie, Paris, July 2013) and the ANR MOTIMO workshop (University of Nice, September 2013).

- *Responsibilities*

    Charles Kervrann:

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

    Member of executive board of the GdR MIV (2588 - Microscopie Fonctionnelle du Vivant) CNRS, member of the scientific committee of the Interdisciplinary MiFoBio School CNRS (http://www.mifobio.fr).

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

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

    Member of the Steering Committee of ESFRI EuroBioImaging (Inria representative).

    Patrick Bouthemy:

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

    Deputy member of the board of directors of IRT (Technological Research Institute) B-com.

    President of AFRIF (Association Francaise pour la Reconnaissance et l'Interprétation des Formes) and member of the board of the GRETSI (Groupement de Recherche en Traitement du Signal et des Images).

- *Other activities*

    SERPICO is involved in the CNRS French networks GdR MIV (2588 - Microscopie Fonctionnelle du Vivant) and the GdR ISIS.

    SERPICO is member of the regional BioGenOuest GIS.

    SERPICO is member of the France-BioImaging Infrastructure in Biological Imaging.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Charles Kervrann:

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

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

Engineer Degree and Master 2 Statistics and Mathematics: Statistical Models and Image Analysis, 37 hours + 15 hours (TP, Nam-Hoai Nguyen), 3rd year, Ecole Nationale de la Statistique et de l'Analyse de l'Information ENSAI Bruz & University of Rennes 1.

Course on "Introduction to Markov Random Fields" (2 hours), "Image Denoising in Live Cell Imaging" (2 hours) and "Object tracking in Video-Microscopy" (2 hours) for BIAT'2013 (BioImaging Advanced Training), Campus of CNRS, Gif-sur-Yvette, November 2013.

Course on "Biological Imaging" (4 hours) for CIMI (Centre International de Mathematiques et d'Informatique de Toulouse) Image Processing Thematic School, Saint-Lary, June 2013.

Patrick Bouthemy:

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

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

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

Course on "Motion Analysis" (2 hours) for BIAT'2013 (BioImaging Advanced Training), Campus of CNRS, Gif-sur-Yvette, November 2013 and for the CNRS formation "Comprendre les différentes méthodes d'analyse de la dynamique en biologie et leurs paramètres", Institut Jacques Monod, Paris, novembre 2013.

9.2.2. Supervision

PhD in progress: Philippe Roudot, Lifetime estimation of moving vesicles in FLIM microscopy, started in October 2010, supervised by Charles Kervrann and Francois Waharte (UMR 144, PICT IBiSA, CNRS-Institut Curie).

PhD in progress: Denis Fortun, Optical flow computing, aggregation methods and statistical methods: application to time-lapse fluorescence microscopy, started in October 2010, supervised by Charles Kervrann and Patrick Bouthemy.

PhD in progress: Antoine Basset, Event detection and recognition in video-microscopy and applications in cell biology, started in October 2012, supervised by Patrick Bouthemy and Charles Kervrann in collaboration with Jérôme Boulanger (UMR 144, CNRS-Institut Curie).

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

9.2.3. Juries

Chair of a jury for the recruitment of an assistant professor: University of Rennes 1 (Section CNU 26) [Charles Kervrann].

Member of a jury for the recruitment of an assistant professor: University of Caen - Basse Normandie (Section CNU 27) [Patrick Bouthemy].

Referee of Habilitation thesis: N. Komodakis (ENPC) [Patrick Bouthemy], J.-B. Sibarita (University of Bordeaux 2) [Charles Kervrann].

Referee of PhD thesis: X.S. N'Guyen (University of Paris 6) supervised by S. Dubuisson et C. Gonzales [Patrick Bouthemy], M. Souded (University of Nice Sophia-Antipolis) supervised by F. Bremond [Patrick Bouthemy], K. Haas (University of Bordeaux 2) supervised by D. Choquet [Charles Kervrann, Chair of the jury], M.A. Kechkar (University of Bordeaux 2) supervised by J.-B. Sibarita [Charles Kervrann], L. Genin (University of Paris 13) supervised by F. Champagnat and G. Le Besnerais [Charles Kervrann].

Chair of PhD thesis juries: C. Maumet (University of Rennes 1) supervised by C. Barillot [Patrick Bouthemy], A. Petit (University of Rennes 1) supervised by E. Marchand [Patrick Bouthemy].

SIROCCO Project-Team

9. Dissemination

9.1. Scientific Animation

- C. Guillemot is associate editor of the Eurasip International Journal on Image Communication.
- C. Guillemot is senior member of the editorial board of the IEEE Journal on selected topics in signal processing.
- C. Guillemot is member of the award committee of the Eurasip Image communication journal.
- C. Guillemot is member of the Selection and Evaluation Committee of the "Pôle de Compétitivité" Images and Networks of the Region of Ouest of France.
- C. Guillemot is member as scientific expert of the CCRRDT (Regional Committee of Research and Technological Development) of the Brittany region.
- C. Guillemot is member of the committee in charge of the IEEE Brillouin-Glavieux award.
- C. Guillemot has been a member of technical program committees of international conferences of the field (EUSIPCO 2013, IEEE-MMSP 2013, PV-2013 and PCS-2013).
- C. Guillemot is member of the "bureau du Comité des Projets" as well as of the "commission personnels" in charge of the postdoc and delegation recrutments.
- C. Guillemot was a member of the selection committee for recruting a Professor at KTH, Stokholm(2013).
- C. Labit is the Vice-president of the Scientific Board, in charge of Research and Innovation, for the University of Rennes1 (since June 1st, 2008)
- C. Labit is president of the Rennes-Atalante Science Park and of the start-up incubator Emergys (since April, 2007).
- C. Labit has been president of the organization committee of 2013 Gretsi-EEA Signal-Image-Vision thesis prize
- C. Labit is member of the GRETSI association board.
- C. Labit is member of the ICT strategic steering committee (CPS-7) of the National Research Agency (ANR).
- O. Le Meur co-organized a special session on "Visual attention and applications" at Wiamis 2013.
- A. Roumy is a member of the GRETSI association board.
- A. Roumy has been a member of the technical program committee of the international conference EUSIPCO 2013.
- A. Roumy is titular member of the National Council of Universities (CNU section 61, 2012-2015).
- A. Roumy is a local liaison officer for Eurasip.
- A. Roumy co-organized a special session on "Compressed Sensing and Sparse Representations for Visual Information Processing" at the Picture Coding Symposium (PCS), 2013.

9.2. Patents and Standardization

The team has contributed to the 3DV standardization initiatives of the ITU/MPEG joint collaborative team on video coding (JCT-VC) [40]. A joint proposal with Qualcomm and Mediatek has been adopted in the 3DV standard in July 2013 [42], [41].
Four patents have been filed jointly by Technicolor and Inria in the area of 2D video coding.

9.3. Teaching - Supervision - Juries

9.3.1. Teaching

Master: C. Guillemot, Image and video compression, 12 hours, M2 computer science, Univ. of Rennes 1, France.

Master: C. Guillemot, Image and video compression, 12 hours, M2 SISEA, Univ. of Rennes 1, France.

Master: L. Guillo, Multimedia Communication, 15 hours, M2 Network Engineering, Univ. of Rennes 1, France.

Master: O. Le Meur, Selective visual attention, 13 hours, M2, Univ. of Paris 8, France.

Master: O. Le Meur, Acquisition/Image Processing/Compression, 22 hours, M2 MITIC, Univ. of Rennes 1, France.

Master; A. Roumy, Acquisition/Image processing/Compression, 16 hours, M2 MITIC, Univ. of Rennes 1, France.

Master: A. Roumy, Magistère program, Information Theory, Computer science and telecommunications, 18 hours, Ecole Normale Supérieure de Cachan, Ker Lann campus, France.

Engineering degree: C. Guillemot, Video communication, 16 hours, Télécom Lille 1, Villeneuve-d'Ascq, France.

L1: L. Guillo, Programming, Univ. of Rennes 1, France.

Engineering degree: C. Labit, Entrepreneurship and innovation, 3 hours, ESIR, Rennes, France.

Engineer degree: O. Le Meur, Image Processing, video analysis and compression, 54 hours, ESIR2, Univ. of Rennes 1, France.

Engineer degree: O. Le Meur, Visual communication, 65 hours, ESIR3, Univ. of Rennes 1, France.

Engineering degree: A. Roumy, Image processing and numerical analysis, 51 hours, ECAM Rennes, France.

9.3.2. Supervision

PhD in progress : J. Aghaei Mazaheri, Sparse representations and dictionary learning for satellite image compression, Oct. 2011, C. Guillemot and C. Labit (contract with Astrium)

PhD in progress : M. Bevilacqua, Image and video super-resolution using neighbor embedding algorithms, Feb. 2011, A. Roumy and C. Guillemot (contract with Alcatel/Lucent)

PhD in progress : B. Huang, Video compression with generalized lifting, Apr. 2012, C. Guillemot (Cifre contract with Orange)

PhD in progress : D. Khaustova, Objective evaluation of 3D video quality, Dec. 2011, O. Le Meur (Cifre contract with Orange)

PhD in progress : M. Ebdelli, Video inpainting for editing and loss concealment, Dec. 2010, C. Guillemot and O. Le Meur

PhD in progress : M. Alain, Spatio-temporal linear embedding for epitome-based video compression, Oct. 2012, C. Guillemot (Cifre contract with Technicolor)

PhD in progress : N. Dhollande, HEVC codec optimization based on content pre-analysis, Oct. 2012, O. Le Meur and C. Guillemot (Cifre contract with Thomson Video Networks)

PhD in progress : M. Le Pendu, HDR video compression, Dec. 2012, C. Guillemot (Cifre contract with Technicolor)

PhD in progress : Julio-Cesar Ferreira, multi-view super-resolution, Oct. 2013, C. Guillemot and O. Le Meur (Co-tutelle with University of Uberlandia, Brazil).

9.3.3. Juries

- C. Guillemot has been member (rapporteur) of the jury of the HDR committee of:
    - M. Cagnazzo, Telecom ParisTech, Sept. 2013
- C. Guillemot has been member (rapporteur) of the jury of the PhD committee of:
    - G. Pettrazuoli, Telecom ParisTech,Jan. 2013
- C. Labit has been member (as examiner) of the jury of the HDR committee of:
    - Marc Chaumont, Université de Montpellier 2, Jul. 2013
- C. Labit has been member (as president) of the jury of the PhD committee of:
    - Mikael Carlavan, Université Nice-Sophia Antipolis, June 2013

9.4. Popularization

- L. Guillo is advisor of secondary school pupils following the course "Informatique et Science du Numérique (ISN)" of the Lycée Jean Macé in Rennes, France.

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

9. Dissemination

9.1. Scientific Animation

Éric Fabre was evaluator of the first round of the ANR call for projects, 2013. He is also a regular reviewer for the Ministry of Research and Innovation, through the Credit Impot Recherche program (support to industrial research through tax reductions).

Éric Badouel is Associate Editor of the ARIMA journal, member of the Board of SARIMA and of the Steering Committee of LIRIMA. He is the Secretary of the Permanent Committee of the CARI.

Nathalie Bertrand is elected member of the Steering Committee of QEST, international conference on Quantitative Evaluation of Systems. She is also on the Steering Committee of the international workshop QAPL. She has served this year on the Programme Committee of MSR'13, MFCS'13, QEST'13 and QAPL'13. She is member and scientific secretary of the Gilles Kahn PhD award committee.

Thierry Jéron was PC member of ACM SAC-SVT 2014, PECCS 2014, MAROC 2013, TAP 2013, RV 2013. He was co-chairman of a Dagstuhl seminar on Symbolic Methods in Testing (January 2013). He is member of the steering committee of Movep'2014 in Nantes (July 2014). He is member of the IFIP Working Group 10.2 on Embedded Systems. He gave an invited lecture on "Model-based conformance test generation for timed systems" at the workshop MAROC'2013.

Loïc Hélouët was co-organizer with Hervé Marchandof the MSR 2013 Conference. He is member of the program committee of the SDL conference. In 2013, he was also reviewer for the following conferences: SDL, TACAS, CONCUR, MOVEP, and journals : SOSYM, TCS. He is also scientific coordinator of the DISTOL associated team. He co-organizes (with N. Bertrand, F. Schwarzentruber, D. Cachera and J.-P. Talpin) the 68NQRT seminar at IRISA/Inria Rennes, a weekly event that proposes talks in the domain of theoretical computer science (around 40 talks each year from worldwide participants). He is *référent chercheur* for the Inria Rennes research center, helping researchers that face difficulties during their carreer. He was part of the committee for the selection of a *maître de conférences* position at ISTIC in May 2013.

Hervé Marchand member of the IFAC Technical Committees (TC 1.3 on Discrete Event and Hybrid Systems) since 2005. He is member of the steering committee of MSR (Modélisation de systèmes réactifs). He was co-organizer with Loïc Hélouëtof MSR 2013 in Rennes (13-15 November 2013). He was PC member of DCDS Conference and PC chair with Loïc Hélouëtof MSR 2013. He is PC member of the forthcoming WODES conference and IFAC World Congress in 2014. He was reviewer for Automatica, Transaction automatic and control, Discrete Event dynamical systems as well as CDC, ACC conference.

9.2. Teaching - Supervision - Juries

9.2.1. *Teaching*

Éric Fabre

> Master: ASR: introduction to distributed systems and algorithms, 12h, M2, Univ. Rennes 1, France.

> Master: Information theory, 30h, M1, Ecole Normale Superieure de Rennes, France.

Nathalie Bertrand

> Master: Advanced verification techniques, 15h (eq. TD), M2, ISTIC, Université de Rennes 1, France.

> Agreg: Formal languages, 27h (eq. TD), M2, Ecole Normale Superieure de Rennes, France.

Loïc Hélouët

Licence: JAVA programming, 37h, INSA Rennes, France.

Agreg: Finite automata, and flow algorithms, 8h (eq. TD), M2, ENS Rennes, France.

9.2.2. Supervision

HdR: Loïc Hélouët, *Scenario Automata: theory and applications* , Rennes 1 University, 17th May 2013.

PhD: Carole Hounkonnou, *Auto-diagnostic actif dans les réseaux de télécommunications*, Rennes 1 University, 12th July 2013, supervised by Éric Fabre.

PhD: Rouwaida Abdallah, *Implémentabilité de systèmes distribués décrits à l'aide de scénarios*, ENS Cachan antenne de Bretagne, 16th July 2013, supervised by Loïc Hélouët and Claude Jard.

PhD: Amélie Stainer, *Contribution to the Verification of Timed Automata: Determinization, Quantitative Verification and Reachability in Networks of Automata*, Rennes 1 University, 25th November 2013, supervised by Thierry Jéron and Nathalie Bertrand.

PhD: Aurore Junier, *Performance and stability analysis in telecommunication networks*, Rennes 1 University, 16th December 2013, supervised by Anne Bouillard and Claude Jard.

PhD in progress (Defense on January 7th, 2014): Sébastien Chédor, *Diagnostic, opacité et test de conformité pour des systèmes récursifs.*, started in September 2009, supervised by Thierry Jéron and Christophe Morvan.

PhD in progress: Mohamadou Lamine Diouf, *Opacité des artefacts dans un système workflow*, started in spring 2011, supervised by Éric Badouel and colocated with Dakar Université Cheik Anta Diop (Senegal).

PhD in progress: Srinivas Pinisetty, *Runtime validation of critical control-command systems*, started in December 2011, supervised by Hervé Marchand and Thierry Jéron.

PhD in progress: Paulin Fournier, *Parameterized verification of networks of probabilistic processes*, started in September 2012, supervised by Thierry Jéron and Nathalie Bertrand.

PhD in progress: Bruno Karelovic, *Approximated analysis for checking Stochastic Models and Games*, started in November 2012, supervised by Blaise Genest and Wieslaw Zielonka.

9.2.3. Juries

Éric Fabre was reviewer of the PhD thesis of Fabien Kuntz, "Optimization of the monitoring of avionic systems through enhanced diagnosis performances," LABRI and University Bordeaux 1, July 2013. He also reviewed the PhD thesis of Leila Bennacer, "Contribution to self-diagnosis methods in large scale communication networks," University Paris-Est Creteil, Dec. 2013.

Thierry Jéron was member of the PhD defense jury of Aymeric Hervieu (Dec. 2013, Université Rennes 1).

Hervé Marchand was a member of the PhD defense juries of Mohammed Ali Kammoun (LAGIS, Metz) in July 2013 and of Xin An (Inria Rhones Alpes, Grenoble) in October 2013.

9.3. Popularization

Loïc Hélouët contributed to a vist of young pupils (3e) visiting IRISA to discover a research environment in February 2012. He did a short interactive presentation (1 hour) of his research theme, and of the duties of a researcher.

Éric Fabre gave a survey presentation about failure diagnosis in telecommunication networks to the 2nd year students of ENST Bretagne (Brest) engaged in a research training track. This was followed by informal discussions about the every day life of a researcher.

TASC Project-Team

9. Dissemination

9.1. Scientific Animation

- Nicolas Beldiceanu:
    - Head of the Inria TASC team and LINATASC team.
    - Member of the program committee of CP 2013.
    - Member of the program committee of CPAIOR 2013.
    - Member of the program committee of CPAIOR 2014.
    - Member of the program committee of CP 2014.
    - Reviewer for the Constraints Journal.
- Fréderic Benhamou:
    - Vice-President for Research of Nantes University, France.
- Gilles Chabert:
    - Member of the program committee of JFPC 2013.
    - Reviewer for CP 2013.
    - Reviewer for IJCAI 2013.
    - Supervision PhD committee Aymeric Bethencourt (ENSTA Bretagne), Gilles Chabert.
    - Supervision PhD committee of Remy Guyonneau (ISTIA Angers), Gilles Chabert.
- Sophie Demassey:
    - Member of the application track program committee of CP 2013.
- Jean-Guillaume Fages:
    - Member of the program committee of JFPC 2014.
- Narendra Jussien:
    - Head of the computer science department at EMN.
    - Director of the series *Operations Research and Constraint Programming* from ISTE/Wiley.
    - Member of the program committee of CP 2013.
    - Member of the program committee of CPAIOR 2013.
- Xavier Lorca:
    - Member of the program committee of JFPC 2013.
    - Managing the topic *constraints and optimization* within the LINA.
    - Member of the LINA lab council.
    - Reviewer for IJCAI 2013.
    - Reviewer for RAIRO.
    - Reviewer for the Constraints Journal.
- Eric Monfroy:
    - Co-chair of the ACM SAC CSP track 2013.
    - Co-chair of the ACM SAC CSP track 2014.
    - Member of the program committee of CHR 2013.

– Member of the program committee of JFPC 2013.
– Reviewer for IEEE TEC.
– Reviewer for Information Sciences (Elsevier).
– Co-Editor of the CP Newsletter (until july 2013).
– Member of the *Conseil d'Administration* of the AFPC.

- Charles Prud'Homme:
  – Member of the program committee of JFPC 2014.

- Florian Richoux:
  – Member of the program committee of Learning and Intelligent OptimizatioN Conference" 2014 (LION 8).
  – Member of the program committee of ACM Symposium On Applied Computing 2014 (SAC'14).
  – Member of the program committee of JFPC 2014.
  – Reviewer for the journal IEEE Transactions on Computational Intelligence and AI in games.
  – Reviewer for the conference CP 2013.

- Thierry Petit:
  – Co head of the LINA TASC team.
  – Member of the program committee of CP 2013.
  – Member of the program committee of CPAIOR 2014.
  – Member of the program committee of ECAI 2014.
  – Program chair of JFPC 2014.
  – Reviewer for the Constraints Journal.

- Charlotte Truchet:
  – Equal Opportunity Officer for Nantes University since October 2012, for gender equality issues.
  – Program chair of JFPC 2013.
  – Member of the program committee of JFPC 2014.
  – Reviewer for IJCAI 2013.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Master: N. Beldiceanu, Constraint (Master ORO), 30h, M2, Nantes University, France.

Master: N. Beldiceanu, Logic Programming, 32h, M2, Mines de Nantes, France.

Master: N. Beldiceanu, Gipad end project, 8h, M2, Mines de Nantes, France.

Licence: N. Beldiceanu, Imperative Programming, 12h, L3, Mines de Nantes, France.

Licence: N. Beldiceanu, Interface, 12h, L3, Mines de Nantes, France.

Master: G. Chabert, Non-linear programming, 20h, M2, Mines de Nantes, France.

Master: G. Chabert, Non-linear optimization, 20h, M1, Mines de Nantes, France.

Master: G. Chabert, Non-linear optimization, 24h, M1, Nantes University, France.

Licence: G. Chabert, Variational calculus, 12h, L3, Mines de Nantes, France.

Licence: G. Chabert, Numerical methods, 21h, L3, Mines de Nantes, France.

Licence: G. Chabert, Simulation and parameter estimation, 18h, L3, Mines de Nantes, France.

Licence: G. Chabert, Numerical integration, 15h, L3, Mines de Nantes, France.

Licence: G. Chabert, Supervisions of projects, 66h.

Master: X. Lorca, Head of the major of the Master in Engineering, Computer Science for Decision Support, 30h, M2, Mines de Nantes, France.

Master: X. Lorca, Algorithms and Complexity, 20h, M1, Mines de Nantes, France.

Master: X. Lorca, Data Warehouse and Data Analysis, 20h, M1, Mines de Nantes, France.

Master: X. Lorca, Graph Theory, Algorithms, 20h, M1, Mines de Nantes, France.

Master: X. Lorca, Business Intelligence, 20h, M2, Mines de Nantes, France.

Master: X. Lorca, IT System and Software Development, 20h, M2, Mines de Nantes, France.

Master: X. Lorca, Implementation Project, 20h, M2, Mines de Nantes, France.

Licence: E. Monfroy, Algorithm, 40h, L1, Nantes University, France.

Licence: E. Monfroy, Algorithm 2, 16h, L2, Nantes University, France.

Licence: E. Monfroy, Logic, 40h, L2, Nantes University, France.

Licence: E. Monfroy, Language theory, 96h, L3, Nantes University, France.

Master: T. Petit, Director of the Discrete Optimization degree, M2, GIPAD, Mines Nantes, France.

Master: T. Petit, Director of the Artificial Intelligence and Constraint Programming degree, M2, GIPAD, Mines Nantes, France.

Master: T. Petit, Scheduling and optimization, M2, 18h, Mines de Nantes, France.

Master: T. Petit, Constraint Programming in Choco, M2, 20h, Mines de Nantes, France.

Master: T. Petit, Supervisor of two final 6 months projects, M2, 12h, Mines de Nantes, France.

Licence: T. Petit, Data structures, L2, 20h, Mines de Nantes, France.

Licence: T. Petit, SQL, L2, 19h, Mines de Nantes, France.

Licence: T. Petit, HMI, L2, 13h , Mines de Nantes, France.

Licence: T. Petit, Data processing integration in HMI, L2, 10h, Mines de Nantes, France.

Licence: T. Petit, Java, L1, 40h, Mines de Nantes, France.

Licence: T. Petit, IPIPIP project, L1, 5h, Mines de Nantes, France.

Licence: T. Petit, ACDC project, L1, 7.5h, Mines de Nantes, France.

Master: F. Richoux, Constraint Programming, 12h, M2, University of Nantes, France.

Licence: F. Richoux, Design Patterns in Object-Oriented Programming, 86h, L3, University of Nantes, France.

Licence: F. Richoux, Algorithm and Data Structures, 45h, L2, University of Nantes, France.

Licence: F. Richoux, Introduction to Computer Science, 28h, L1, University of Nantes, France.

Licence: Charlotte Truchet, Algorithms and Programming, 46h, L1, University of Nantes, France.

9.2.2. Supervision

PhD: Arnaud Letort, Scalable multi-dimensional resources scheduling constraints [11], Nantes University, October 28 2013, Nicolas Beldiceanu.

Internship of Julie Laniau with Charlotte Truchet on *using constraints for checking audio real time programs* (from February 2013 to June 2013).

PhD in progress: Bruno Belin, Interactive conception of sustainable urban environments with constraints, September 2011, Charlotte Truchet, Marc Christie, Fréderic Benhamou.

PhD in progress: Jean Guillaume Fages, Graph Theory in Constraint Programming, Theory and application to several graph covering problems, October 2011, Xavier Lorca, Nicolas Beldiceanu.

PhD in progress: Charles Prud'Homme, Controlling Propagation and Search within a Constraint Solver, October 2011, Xavier Lorca, Narendra Jussien, Rémi Douence, defense planned for February 2014.

PhD in progress: Alban Derrien, Constraint propagation with limited time complexity, October 2012, Thierry Petit, Nicolas Beldiceanu.

PhD in progress: Ignacio Sala Donoso, Packing curved shapes, May 2013, Gilles Chabert, Nicolas Beldiceanu.

PhD in progress: Alejandro Reyes Amaro, New parallel algorithms for combinatorial optimization, October 2013, Florian Richoux, Eric Monfroy.

9.2.3. *Juries*

- N. Beldiceanu, Member of the PhD committee of the thesis of Arnaud Letort (Univ. Nantes, October 28, 2013).
- G. Chabert, Member of the PhD committee of the thesis of Remy Guyonneau (ISTIA Angers).

9.3. Popularization

- Within the context of the global constraint catalog:
  - we provide more exercises (up to 55 currently) with their solution and a web version allowing some interaction will be available in spring 2014.
  - the effort for converting and completing the 900 figures of the catalog using TikZ has been continued up to a point where beginning 2014 only 150 figures need still to be converted.
- Within the context of the library IBEX the following courses were given:
  - A workshop in June and December 2013 in Brest (ENSTA).
  - A user oriented course in July 2013 at the doctoral days of the GDR Macs in Strasbourg.
  - A developer oriented course *IBEX days* in October 2013 in Paris (Ecole des Ponts, Paritech).
- A the 2013 edition of the Fête de la Science (Nantes University):
  - Two talks on *Artificial Intelligence and real time strategy games* were given by Florian Richoux.
  - One talk on *Challenges around optimizations problems* was given by Xavier Lorca.
  - One half day discussing and answering questions around the work of professor and researcher in computer science with young persons (17 years old) was spent by Nicolas Beldiceanu.

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

9. Dissemination

9.1. Scientific Animation

Laurent Amsaleg

- was a reviewer for TPAMI in 2013;
- was a reviewer for Information Systems in 2013;
- was a reviewer for Multimedia Tools and Applications in 2013;
- was a program committee member of ICMR 2013;
- was a program committee member of MMM 2013;
- was a program committee member of CBMI 2013;
- was a program committee member of ICME 2013;
- was a program committee member of SISAP 2013;
- was a program committee member of SITIS 2013.

Vincent Claveau

- is a member of the editorial board of the journal Traitement Automatique des Langues;
- is a board member of Association pour la Recherche d'Information et Applications;
- was a program committee member of Conf. francophone en Traitement automatique des langues naturelles, France;
- was a program committee member of Conf. en Recherche d'Information et Applications, Switzerland;
- was a program committee member of ISCA/IEEE Workshop on Speech, Language and Audio in Multimedia, France;
- was a reviewer for the journal BioInformatics;
- was a reviewer for the journal Technique et Science Informatique;
- was a editorial committee member of the special issue *Fouille de Données et Humanités Numériques* of the RNTI journal;
- was a reviewer for Hubert Curien program.

Teddy Furon

- was an associate editor for IEEE Trans. on Information Forensics and Security;
- was an associate editor for Elsevier Digital Signal Processing Journal;
- was an associate editor for Hindawi Scientific World Journal;
- was a member of the IEEE Information Forensics and Security Technical Committee;
- was a program committee member of IHMMSEC 2013;
- was a program committee member of CMS 2013;
- was a program committee member of WIFS 2013.

Guillaume Gravier

- is president of the administration council of the French-speaking speech communication association (AFCP);
- is the coordinator of the Special Interest Group Speech and Language in Multimedia of the Intl. Speech Communication Association;
- is a member of the informal coordination group of the Mediaeval benchmarking initiative;
- was a member of the steering committee of Interspeech 2013, in charge of tutorials, special sessions and program coordination;
- was the general chair of the ISCA/IEEE Workshop on Speech, Language and Audio in Multimedia;
- was a program committee member of ACM Conf. on Multimedia;
- was a program committee member of IEEE Intl. Conf. on Multimedia Signal Processing;
- was a program committee member of ISCA Intl. Workshop on Non-Linear Speech Processing;
- was a program committee member of Interspeech;
- was a program committee member of IEEE Intl. Conf. on Multimedia and Expo;
- was a program committee member of Intl. Workshop on Content-based Multimedia Indexing;
- was a program committee member of Intl. Language Resources and Evaluation Conf.;
- was a program committee member of GRETSI;

Patrick Gros

- is scientific officer of the Inria research center of Rennes – Bretagne Atlantique, and thus member of the executive board of the center;
- is a member of the scientific board of Université européenne de Bretagne;
- is a member of the Evaluation Board of Inria;
- was appointed as an expert by the French National Agency;
- was a program committee member of the Intl. Conf. on Creative Content Technologies, Spain;
- was a program committee member of Conférence en Recherche d'Information et Applications, Switzerland;
- was a Technical Program Committee member of the European Signal Processing Conf. Morocco;
- was a program committee member of the ACM Int. Conf. on Multimedia Retrieval, USA;
- was a program committee member of Int. Conf. on Machine Learning and Data Mining, Germany;
- was a program committee member of the MUSCLE Intl. Workshop on Computational Intelligence for Multimedia Understanding, Turkey;
- was a program committee member of GRETSI workshop, France.

Hervé Jégou

- has co-organized a tutorial on Large-Scale Visual Recognition at CVPR 2013;
- was a program committee member of CVPR 2013;
- was a program committee member of ICCV 2013;
- was a program committee member of CBMI 2013;
- was a program committee member of CORESA 2013;
- was a program committee member of FGCV 2013;

François Poulet

- was a program committee member of VINCI'2013;
- was a program committee member of AusDM'2013;
- was a program committee member of KDIR'2013;
- was a program committee member of KICSS'2013;
- was a program committee member of IC3K'2013;
- is a reviewing committee member of AKDM, Springer;
- was a reviewer for DAMI, Data Mining, Springer;
- was a reviewer for IJSS, International Journal of System Science;
- was a reviewer for RNTI, Revue des Nouvelles Technologies de l'Information;

Christian Raymond

- is a member of the editorial board of the journal Discours;
- was a member of the organization committee of ISCA/IEEE Workshop on Speech, Language and Audio in Multimedia;
- was a program committee member of Interspeech;
- was a reviewer for IEEE Transaction on Speech, Language an Audio Processing;
- was a reviewer for the Journal Traitement Automatique des Langues;
- was a program committee member of Conf. francophone en Traitement Automatique des Langues Naturelles;
- was a program committee member of Intl. Conf. on Machine Learning and Applications.

Pascale Sébillot

- was a member of the program committee of Conf. francophone en Traitement automatique des langues naturelles, France;
- was a member of the program committee of Workshop on Distributional Semantics, France;
- was a member of the program committee of Conf. Terminologie et Intelligence Artificielle, France;
- was a member of the program committee of ISCA/IEEE Workshop on Speech, Language and Audio in Multimedia, France;
- is a member of the permanent steering committee of Conf. francophone en Traitement automatique des langues naturelles
- is an editorial committee member of the Journal Traitement Automatique des Langues;
- was a member of the reading committee of several issues of the Journal Traitement Automatique des Langues.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

9.2.1.1. Course and track responsibilities

Ewa Kijak is head of the Image engineering track of ESIR (Ecole Supérieure d'Ingénieur de Rennes), the engineering school of University of Rennes 1, France.

Guillaume Gravier is coordinator of the course "Data analysis and probabilistic models" of the Master by research in Computer Science (2nd year), University of Rennes 1, France.

Patrick Gros is coordinator of the track "From Data to Knowledge: Machine Learning, Modeling and Indexing Multimedia Contents and Symbolic Data" of the Master by research in Computer Science (2nd year), University of Rennes 1, France.

Francois Poulet is head of Master 2 Mitic, Computer Science Methods and ICT.

9.2.1.2. List of courses

Master: Laurent Amsaleg, High-Dimensional Indexing, 13h, M2R, University Rennes 1, France

Master: Laurent Amsaleg, DataBase tuning, 10h, M2, ENSAI, France

Master: Vincent Claveau, Indexing and multimedia databases, 15h, M2, ENSSAT

Master: Vincent Claveau, Natural Language Processing, 36h, M2, Univ. Rennes 1

Master: Vincent Claveau, Data-Based Knowledge Acquisition 2: Symbolic Methods, 27 hours, M1, INSA de Rennes

Master: Vincent Claveau, Symbolic and sequential data, 10h, M2R, University of Rennes 1

Master: Vincent Claveau, Multimedia indexing and machine learning, M2, 10 hours, University Rennes 1

Master: Ewa Kijak, Image analysis and classification, 30h, M1, ESIR

Master: Ewa Kijak, Image processing, 34h, M1, ESIR

Master: Ewa Kijak, Supervised learning, 16h, M2R, University Rennes 1

Master: Ewa Kijak, Statistical data mining, 26h, M2, University Rennes 1

Master: Ewa Kijak, Indexing and multimedia databases, 15h, M2, ENSSAT

Master: Guillaume Gravier, Data analysis and probabilistic models, 20h, M2, Univ. Rennes 1

Master: Guillaume Gravier, Speech and audio processing, 4h, M1, ESILV

Master: Patrick Gros, Mathematics workshop, 12h, ISTIC, University of Rennes 1

Doctorate: Patrick Gros, Introduction to projective geometry for computer vision and imagery, 12h, University of Rennes 1

Master: François Poulet, Introduction to Data Mining, 21h, M2, ISTIC, University of Rennes 1

Master: François Poulet, Visual Data Mining, 14h, M2, ISTIC, University of Rennes 1

Master: François Poulet, Machine Learning for Multimedia Data, 28h, M2 ISTIC, University of Rennes 1

Master: François Poulet, Visual Analytics, 21h, M2, ISTIC, University of Rennes 1

Master: François Poulet, Large Scale Classification, 11h, M2, ISTIC, University of Rennes 1

Master: Pascale Sébillot, Advanced Databases and Modern Information Systems, 70h, M2, INSA de Rennes

Master: Pascale Sébillot, Data-Based Knowledge Acquisition 2: Symbolic Methods, 18h, M1, INSA de Rennes

9.2.2. Supervision

PhD: Khaoula Elagouni, Combining neural-based approaches and linguistic knowledge for text recognition in multimedia documents, INSA de Rennes, May 28, 2013, Pascale Sébillot, Christophe Garcia (LIRIS, Lyon) and Franck Mamalet (Orange Labs, Rennes)

PhD: Cédric Penet, De l'indexation d'évènements dans des films - Application à la détection de violence, Université Rennes 1, October 10, 2013, Guillaume Gravier, Patrick Gros and Claire-Hélène Demarty (Technicolor)

PhD: Gylfi Gudmunson, Parallelism and distribution for very large scale content-based image retrieval, Université Rennes 1, September 12, 2013, Laurent Amsaleg and Patrick Gros

PhD: Thanh-Nghi Doan: Large Scale Support Vector Machine Algorithms for Visual Classification, University of Rennes 1, Nov.2013, Francois Poulet

PhD in progress: Raghavendran Balu, started October 2013, Teddy Furon and Laurent Amsaleg

PhD in progress: Petra Bosilj, Video description and retrieval, started October 2012, Ewa Kijak and Sebastien Lefèvre (IRISA/SEASIDE)

PhD in progress: Mihir Jain, Video description and retrieval, started February 2011, Hervé Jegou

PhD in progress: Ludivine Kuznik, Structuration et navigation dans des archives documentaires, started April 18, 2011, Guillaume Gravier, Pascale Sébillot and Jean Carrive (INA)

PhD in progress: Abir Ncibi, Machine learning models for TV stream structuring, started October 2011, Vincent Claveau, Guillaume Gravier, Patrick Gros

PhD in progress: Bingqing Qu, Structure discovery of TV programs from an homogeneous collection, started October 2012, Guillaume Gravier and Jean Carrive (INA)

PhD in progress: Anca Roxana Simon, Hierarchical semantic structuring of video collections, started October 1, 2012, Guillaume Gravier and Pascale Sébillot

PhD in progress: Stefan Ziegler, Landmark-driven speech recognition, started September 2010, Guillaume Gravier (with PANAMA)

9.2.3. *Juries*

Laurent Amsaleg, PhD, Zineddine Kouahla, Univ. Nantes

Guillaume Gravier, PhD, reviewer, A. Abduraman, Eurecom

Guillaume Gravier, PhD, M. Bouallègue, Univ. Avignon

Guillaume Gravier, HDR, reviewer, P. Paroubek, Univ. Paris-Sud

Hervé Jégou, PhD, Stefan Gammeter, ETHZ

Hervé Jégou, PhD, Relja Arandjelovic, Oxford University

Hervé Jégou, PhD, Albert Gordo, UAB

Francois Poulet, PhD, reviewer, Sébastien Heymann, UMPC-LIP6

Pascale Sébillot, HDR, reviewer, Pierre Beust, Caen Basse Normandie university

Pascale Sébillot, PhD, president, Antoine Boutet, Rennes 1 university

Pascale Sébillot, PhD, reviewer, Wei Wang, Paris-Sud university

Pascale Sébillot, PhD, reviewer, Prajol Shresta, Nantes university

Pascale Sébillot, PhD, reviewer and president, Fanny Lalleman, Toulouse university

Pascale Sébillot, PhD, reviewer, Nicolas Foucault, Paris-Sud university

9.3. Popularization

- Guillaume Gravier, Patrick Gros and Hervé Jégou: Invited talks at INA, January 2013
- Guillaume Gravier: Invited speaker at Séminaire Délégation Générale pour l'Armement, Paris
- Guillaume Gravier: Invited talk at PUC Minas, Brazil, April 2013
- Guillaume Gravier: Seminar on Speech and Audio Processing, M. Sc. Students, INSA Rennes, France
- Patrick Gros and Pascale Sébillot: Invited speakers at the workshop on Big Data, ENSAI, Rennes, France, November 2013.
- Guillaume Gravier: Invited speaker at Colloquium Rennais des Sciences du numérique, Rennes
- Hervé Jégou: Invited talk at Universita Autonoma de Barcelona, January 2013
- Hervé Jégou: Invited talk at University of Caen, January 2013
- Hervé Jégou: Invited talk at Oxford University, Visual Geometry Group, UK, November 2013

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

9. Dissemination

9.1. Scientific Animation

9.1.1. *Journals*

9.1.1.1. Benoit Baudry

is an Associate Editor of the following journal:

- Journal of Systems and Software (JSS)
- Journal on Software and System Modeling (SoSYM)

9.1.1.2. Jean-Marc Jézéquel

is an Associate Editor of the following journal:

- IEEE Computer
- Journal of Systems and Software (JSS)
- Journal on Software and System Modeling (SoSYM)
- Journal of Object Technology: JOT

9.1.1.3. Noël Plouzeau

is chief editor of a special issue of the TSI French research journal, dedicated to software engineering.

9.1.2. *Conferences*

9.1.2.1. Benoit Baudry

has been chair for the program committee of ICST'13, the 6th International Conference on Software Testing Verification and Validation, Luxembourg, April 2013, and a member of the program committee of the following conferences:

- MODELS 2013 The 16th International Conference on Model Driven Engineering Languages and Systems Miami, USA, October 2013
- SEIP 2013 track, the Software Engineering in Practice track at ICSE'13, San Francisco, USA, May 2013
- AMT 2013, the 2nd International workshop on the Analysis of Model Transformations, Miami, USA, October 2013

9.1.2.2. Benoit Combemale

has been a member of the program committee of the following conferences, symposia and workshops:

- APSEC'13, The 20th Asia-Pacific Software Engineering Conference, Thailand, 2013.
- SEFM'13, The 10th International Conference on Software Engineering and Formal Methods, Spain, 2013.
- ICMT'13, The 6th International Conference on Model Transformation, Hungary, 2013.
- ECMFA'13, The 9th European Conference on Modelling Foundations and Applications, Montpellier, 2013.
- QSIC13, The 13th International Conference on Quality Software, China, 2013.
- Educators' Symposium at MODELS'13, USA, 2013.
- AMT workshop on Analysis of Model Transformations (AMT), at MODELS'13, USA, 2013.
- CMA workshop on Comparing Modeling Approaches (CMA), at MODELS'13, USA, 2013.
- CMA workshop on Comparing Modeling Approaches (CMA), at RE'13, Brazil, 2013.
- VOLT workshop on Verification Of ModeL Transformation (VOLT), at ICMT'13, Hungary, 2013.

Benoit Combemale has also been an external reviewer for IEEE Transactions on Software Engineering, Journal of Software and Systems Modeling (SoSyM), and ICSE'13 (International Conference on Software Engineering).

9.1.2.3. Jean-Marc Jézéquel

has been a member of the program board (PB) or program committee (PC) of the following conferences:

- MODELS 2013, The 16th International Conference on Model Driven Engineering Languages and Systems Miami, USA, October 2013 (PB)
- ICSE 2013 The 35th International Conference on Software Engineering, San Francisco, USA, May 18-26, 2013 (PC)
- ICSE 2013 Doctoral Symposium San Francisco, USA, May 18-26, 2013 (PC)
- MiSE 2013 5th International Workshop on Modeling in Software Engineering, San Francisco, USA, May 18-26, 2013 (PC)
- VaMoS 2013 The Seventh International Workshop on Variability Modelling of Software-intensive Systems January 23-25, 2013 - CNR, Pisa, Italy (PC)

9.1.2.4. Olivier Barais

has been a member of the program committee of the following conferences, symposia and workshops:

- SC'13, The 12th International Conference on Software Composition, Budapest, Hungary
- SEAA'13, The 39th Euromicro Conference on Software Engineering and Advanced Applications (SEAA 2013) Santander, Spain 2013
- SAC'13, The 28th Symposium On Applied Computing Coimbra, Portugal.
- VARICOMP'13, The 4th International Workshop on Variability & Composition @Modularity·AOSD, Fukuoka, Japan
- VAO'13, The 1st Workshop on View-Based, Aspect-Oriented and Orthographic Software Modelling, Montpellier, France
- WEITICE'2013, the 22nd IEEE International Conference on Collaboration Technologies and Infrastructure Hammamet, Tunisia
- CSMR2013 tools demo: the 17th European Conference on Software Maintenance and Reengineering tools demo track
- CIEL, the 2nd French Conference in Software Engineering. Nancy,

Olivier Barais has also been an external reviewer for IEEE Transactions on Software Engineering, Journal of Software and Systems Modeling (SoSyM), Journal of Software System (JSS), ACM TaaS (Transactions on Autonomous and Adaptive Systems), STVR (Software Testing, Verification and Reliability) and CBSE'13 (International Conference on Software Engineering).

9.1.2.5. Arnaud Blouin

has been external/sub reviewer for: IEEE Transactions on Software Engineering, Journal of Software and Systems Modeling (SoSyM), ICSE'13 (International Conference on Software Engineering), EICS'13 (ACM SIGCHI symposium on Engineering interactive computing systems), ICMT'13 (International Conference on Model Transformation), ASPEC'13 (Asia-Pacific Software Engineering Conference), and IHM'13 (French speaking conference on human-computer interaction).

9.1.2.6. Mathieu Acher

has organized the Journée ligne de produits (7th edition) in Paris (Sorbonne). He has been reviewer for ACM Surveys, International Journal on Software Tools for Technology Transfer (STTT), Journal of Systems and Software (JSS), Journal of Software and Systems Modeling (SoSyM), program committee for the Fifth International Workshop on Feature-Oriented Software Development (FOSD'13), the 1st International workshop on Reverse Variability Engineering (REVE'13).

9.1.2.7. Noël Plouzeau

has been program committee chair of the CIEL'2013 conference (the French conference on Software Engineering), Nancy, april 2013, and a member of the program committee of the CBSE 2013, Component Based Software Engineering, Seattle, USA, june 2013.

9.1.2.8. johann Bourcier

has been in the program committee of PECCS 2013 and an external reviewer for TaaS (Transactions on Autonomous and Adaptive Systems), and JSS (Journal of Systems and Software).

9.1.3. Workshops, Tutorials and Keynotes

9.1.3.1. Benoit Combemale

was an invited keynote speaker at CIEL'13 (the French Conference on Software Engineering) and gave a talk entitled "On Modeling and Testing When Unpredictability Becomes the Pattern" [12]. He also has been invited to give a talk at Neptune'13 (the French Industrial Conference on Model Driven Engineering) entitled "On the Globalization of Modeling Languages"[13], at the french day organized by CNRS on MDE and Scientific Models[14] entitled "Language and Model Composition", at the workshop AOM (Barbados) entitled "On Language Composability", and at the Università degli Studi di Milano (Italy) entitled "Model-Driven Engineering for Software Language Engineering".

Benoit Combemale also has been co-chair of the workshops GlobalDSL'13 at ECOOP (cf. http://gemoc.org/globaldsl13, published on the ACM DL), and GEMOC'13 at MODELS (cf. http://gemoc.org/gemoc2013, published on CEUR).

9.1.4. Expertises

9.1.4.1. Benoit Baudry

is on the scientific advisory board of the Software Verification and Validation Lab from the Security and Trust research center in Luxembourg.

9.1.4.2. Arnaud Blouin

is a member of the Advisory Board of the FNR Core project MoDEL (2013-2015, Luxembourg) that works on the use of model-driven software product line for generating and testing user interfaces.

9.1.4.3. Benoit Combemale

is the coordinator of the international GEMOC initiative, and a member of its Advisory Board.

9.1.4.4. Jean-Marc Jézéquel

is a member of the Advisory Board of the NSF REMODD Project (Repository for Model Driven Development), and of the Advisory Board of the international GEMOC initiative.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

The Triskell team bears the bulk of the teaching on Software Engineering at the University of Rennes 1 and at INSA Rennes, at the levels M1 (Project Management, Object-Oriented Analysis and Design with UML, Design Patterns, Component Architectures and Frameworks, Validation & Verification, Human-Computer Interaction) and M2 (Model driven Engineering, Aspect-Oriented Software Development, Software Product Lines, Component Based Software Development, Validation & Verification, *etc.*).

Each of Jean-Marc Jézéquel, Noël Plouzeau, Olivier Barais, Benoit Combemale, Johann Bourcier, Arnaud Blouin and Mathieu Acher teaches about 200h in these domains, with Benoit Baudry teaching about 50h, for a grand total of about 1400 hours, including several courses at ENSTB, Supelec and ENSAI Rennes.

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[12]Cf. http://people.irisa.fr/Benoit.Combemale/ciel2013
[13]Cf. http://people.irisa.fr/Benoit.Combemale/neptune2013
[14]Cf. http://devlog.cnrs.fr/journee-idm-et-modeles-scientifiques

Olivier Barais (from january 2013 to august 2013) and Noël Plouzeau (september 2013) are the managers of the Master2 Pro in Computer Science at the University of Rennes.

Johann bourcier is co-manager of the Home-Automation option at the ESIR engineering school in Rennes.

The Triskell team also receives several Master and summer trainees every year.

9.2.2. Supervision

PhD : Clément Guy, *Generic Definition of Domain Specific Analysis using MDE*, thèse 2010-2013, J.-M. Jézéquel and B. Combemale

PhD : Tam Le Nhan, *Model-Driven Software Engineering for Cloud Computing*, thèse 2010-2013, J.-M. Jézéquel and G. Sunye

PhD : Nicolas Sannier, *IDM pour l'ingénierie des exigences*, thèse CIFRE avec EDF 2010-2013, B. Baudry

PhD : Aymeric Hervieu, *Model-based testing: handling performance in embedded software product lines*, thèse CIFRE avec Kereval 2010-2013, B. Baudry and A. Gotlieb

PhD : Stephen Creff, *Hierarchical Product Lines*, thèse 2009-2012, J.-M. Jézéquel and J. Champeau

PhD : François Fouquet, *Contracts for Enterprise Service Bus*, thèse 2009-2012, J.-M. Jézéquel and N. Plouzeau

PhD : Paul Istoan, *SOA Product Lines*, thèse en co-tutuelle avec l'université du Luxembourg, 2009-2012, J.-M. Jézéquel and N. Guelfi

PhD : Viet-Hoa Nguyen, *Model Driven Design Methodology for Trusted Real-Time Components*, thèse 2009-2012, J.-M. Jézéquel and N. Plouzeau

PhD in progress : Emmanuelle Rouillé, *Processus Logiciels dirigés par les intentions*, thèse CIFRE avec SodiFrance, 2010-2013, J.-M. Jézéquel, B. Combemale and O. Barais

PhD in progress : Erwan Bousse, *Intégration et combinaison des techniques de V&V dans un contexte d'ingénierie cystème*, thèse, 2012-2015, B. Baudry and B. Combemale

PhD in progress : Julien Richard-Foy, *A DSL factory for modular Web oriented architecture*, thèse CIFRE avec Zenexity, 2011-2014, J.-M. Jézéquel and O. Barais

PhD in progress : João Bosco Ferreira Filho, *Variability modeling in software intensive systems*, thèse 2011-2014, O. Barais, B. Baudry and M. Acher

PhD in progress : Hamza Samih, *Extending model-based testing with variability and security management*, thèse CIFRE avec All4Tec, 2011-2014, B. Baudry

PhD in progress : Valéria Lelli Leitão Dantas, *On Testing Interactive Systems*, thèse 2012-2015, B. Baudry and A. Blouin

PhD in progress : Kwaku Yeboah-Antwi, *Runtime emergence of software diversity*, thèse 2013-2016, B. Baudry and O. Barais

PhD in progress : Sana Ben Nasr, *Modeling variability in regulatory requirements*, thèse 2013-2016, B. Baudry and M. Acher

PhD in progress : Mohamed Boussaa, *An Architecture for Testing Large-Scale Dynamic Distributed Systems*, thèse 2013-2016, B. Baudry and O. Barais

PhD in progress : Thomas Degueule, *Next Generation of MDE Tooling Support*, thèse 2013-2016, O. Barais and A. Blouin

PhD in progress : David Mendez Acuna, *Variability in Modeling Languages*, thèse 2013-2016, B. Baudry and B. Combemale

PhD in progress : Ivan Paez Anaya, *Proactive Adaptation in Pervasive Environment*, thèse 2012-2015, J.Bourcier, N. Plouzeau and J.-M. Jézéquel

PhD in progress : Inti Gonzalez Herrera, *Ressources reservation in Pervasive Middleware*, thèse 2012-2015, J. Bourcier, O. Barais

PhD in progress : Jacky Bourgeois, *Automatic Synchronization of Energy Production and Consumption*, thèse 2012-2015 co-tutelle avec the Open University, J.Bourcier, B. Baudry and G. Kortuem

PhD in progress : Francisco-JavierAcosta Padilla, *Automatic Deployment and Reconfigurations in Internet of Things*, thèse 2013-2016 co-encadrement avec l'équipe ACES, J. Bourcier, F. Weis

9.2.3. *Juries*

9.2.3.1. *Benoit Baudry*

was in the examination committee of the following PhD thesis:

- Walter Rudametkin Ivey, January 2013, Université de Grenoble (Referee)
- Amel Bennaceur, July 2013, Université Pierre et Marie Curie (Referee)
- Hajer Saada, December 2013, Université de Montpellier (Referee)
- Akram Ajouli, Septembre 2013, Université de Nantes (Member)

9.2.3.2. *Benoit Combemale*

was in the examination committee of the following PhD thesis:

- Clément Guy, December 2013, University of Rennes (Co-supervisor)
- Moussa Amrani, November 2013, University of Luxembourg (Member)
- Mounira Kezadri, July 2013, University of Toulouse (Member)
- Robert Guduvan, April 2013, University of Toulouse (Member)
- Laurent Wouters, January 2013, LIP6 (Member)

9.2.3.3. *Noël Plouzeau*

was in the examination committee of the following PhD thesis:

- François Fouquet, March 2013, University of Rennes (Co-supervisor)
- Nguyen Viet-Hoa, December 2013, University of Rennes (Co-supervisor)

9.2.3.4. *Olivier Barais*

was in the examination committee of the following PhD thesis:

- François Fouquet, March 2013, University of Rennes (Co-supervisor)
- Erwan Daubert, May 2013, University of Rennes (Co-supervisor)
- Pankesh Patel, November 2013, Université Pierre et Marie Curie (Member)

VISAGES Project-Team

9. Dissemination

9.1. Scientific Animation

9.1.1. Editorial board of journals

- C. Barillot is Associate Editor of IEEE Transactions on Medical Imaging (IEEE-TMI).
- C. Barillot is Associate Editor of Medical Image Analysis (MedIA).
- C. Barillot is Associate Editor of ISRN Signal Processing.
- C. Barillot is Associate Editor of Current Medical Imaging Reviews.
- C. Barillot serves in the peer review committee of the Journal of Computer Assisted Tomography.
- C. Barillot serves in the peer review committee of Neuroimage.
- P. Maurel serves in the peer review committee of Frontiers in Neurosciences

9.1.2. Workshop/Symposium Organization

- S. Prima was the co-organiser and chairman (with Antoine Balzeau from CNRS-MNHN, Paris and François Marchal from CNRS, Marseille) of the colloquium "Symmetry and asymmetries in anthropology" which took place on 24 January 2013 during the annual meeting of the Société d'Anthropologie de Paris (http://www.sapweb.fr).
- S. Prima was in the Steering Committeee of the MICCAI workshop on Mesh Processing in Medical Image Analysis (MeshMed 2013), Nagoya, Japan, September 26, 2013 (http://www2.imm.dtu.dk/projects/MeshMed).
- C. Barillot was program co-chair of the Miccai 2013 international conference (http://www.miccai2013.org/organization.html). MICCAI 2013 Proceedings have been published as LNCS series from Springer. The volume numbers are LNCS 8149, 8150 and 8151 (http://www.springer.com/computer/image+processing/book/978-3-642-40810-6).

9.1.3. Peer Reviews of journals

- IEEE TIP (CB), Medical Image Analysis (CB), NeuroImage (CB), Computer Methods and Programs in Biomedicine (CB), Phys. Med. Biol. (CB), Comp. in Biol & Med. (CB), J. of Neuroscience Methods (CB), Image and Vision Computing (CB), JMIV (CB), NeuroBiology of Aging (IC).

9.1.4. Technical Program Committees (TPC) of conferences

- C. Barillot was area chair of Miccai 2012, SPIE 2012, TPC member of MICCAI workshops DCICTIA 2012, ICSS 2012, MBIA 2012, and MCV 2012, TPC member of IEEE CBMS 2012, ICPR 2012, ESMRMb 2012, SFRMBM 2012, ECR/imaGine 2011.
- S. Prima was TPC member of MeshMed'2013.
- P. Maurel was TPC member of MICCAI'2013.
- O. Commowick was TPC member of MICCAI'2013, IEEE ISBI'2013.

9.1.5. Scientific societies

- C. Barillot is member of the Board of Directors of IPMI (Information Processing in Medical Imaging)
- C. Barillot is member of IEEE EMBS
- C. Barillot is senior member of IEEE
- C. Barillot is member of the European Society of Molecular Imaging (ESMI)

- C. Barillot, O. Commowick, P Maurel and S. Prima are members of the MICCAI society
- E. Bannier, C. Barillot and I. Corouge are members of the European Society of Magnetic Resonance in Medicine and Biology (ESMRMb)

9.2. Teaching - Supervision - Juries

9.2.1. *Teaching*

Teaching on 3D Medical Imaging (visualization, segmentation, fusion, management, normalization) in the following tracks:

- Master 2 SIBM, University of Angers-Brest-Rennes : 26h (*C. Barillot, O. Commowick, S. Prima, I. Corouge, E. Bannier, J.-Y. Gauvrit*):
    - C. Barillot is responsible for one semester.
    - J.-Y. Gauvrit is the coordinator for the Master.
- Master 1 SIBM, University of Rennes: 5h (S. Prima)
- Elise Bannier gave 4-day lecture in fMRI and E-Prime to Emmanuelle Le Bars, MR Physicist from the University Hospital of Montpellier (February 2012, Rennes, France). This training was funded by Siemens.
- Ecole Supérieure d'Ingénieur de Rennes (ESIR): 60h in medical imaging (P. Maurel)

Other topics :

- Ecole Supérieure d'Ingénieur de Rennes (ESIR): 60h in general image processing (P. Maurel) and 60h in algorithmics and complexity (P. Maurel)
- ENS Cachan-Bretagne: 24h in introduction to image processing (P. Maurel)

9.2.2. *Supervision*

- PhD Hrishikesh Deshpande, Dimensionality Reduction and Statistical Learning for Computational Modelling of Natural Evolution of Brain Pathologies, Inria, December 2012, Christian Barillot, Pierre Maurel
- PhD Renaud Hedouin, Biomarker discovery in brain imaging by using diffusion MRI, Inria/Inserm, November 2013, Christian Barillot, Olivier Commowick
- PhD Yogesh Karpate, Quantitative analysis of MRI in Multiple Sclerosis in the context of the clinically isolated syndroma, INSERM, December 2011, Christian Barillot, Olivier Commowick
- PhD Camille Maumet, From Group to Patient-Specific Analysis of Brain Function in Arterial Spin Labelling and BOLD Functional MRI, University of Rennes I, defended April 2013, Christian Barillot, Pierre Maurel
- PhD Lorraine Perronnet, Neurofeedback Using Virtual Reality And Combining Eeg-Mri For Brain Rehabilitation, Inria/CominLabs Hemisfer project, from Dec 2013, Christian Barillot, Maureen Clerc (Inria Sophia-antipolis), Anatole Lecuyer (HYBRID project), Fabien Lotte (Inria Bordeaux)
- PhD Hélène Raoult, "Angio-RM morphologique et dynamique sans injection de produit de contraste dans l'exploration des pathologies neurovasculaires", CHRU Rennes, Nov. 2011, Elise Bannier, Jean-Yves Gauvrit
- PhD Aymeric Stamm, Diffusion Directions Imaging: High resolution reconstruction of white matter fascicles from low angular resolution diffusion MRI, University of Rennes I, defended Nov. 2013, Christian Barillot, Patrick Perez (Technicolor)

9.2.3. *Juries*

- C. Barillot: PhD reviewer, Andrea Valsecchi, University of Oviedo, Spain, Dec. 2013
- C. Barillot: PhD reviewer, Maxime Taquet, Université Catholique de Louvain, Belgium, Nov. 2013

- C. Barillot: PhD, Solveig Badillo, University Paris Sud, Orsay, Nov. 2013
- C. Barillot: PhD, Thomas Samaille, University PIERRE ET MARIE CURIE, Paris, June 2013
- C. Barillot: PhD reviewer, Sylvain Merlet, University of Nice-Sophia Antipolis, Nice, Sept. 2013
- C. Barillot: PhD reviewer, Stefano Baraldo, Department of Mathematics, Politechnico di Milano, Italia, June 2013
- C. Barillot: PhD, president, Tao LI, University of Rennes I, Rennes, Feb. 2013
- C. Barillot: HDR, Olivier Coulon, University of Aix-Marseille, Marseille, Sept. 2013
- C. Barillot: HDR president, Alexandre Krupa, University of Rennes I, Marseille, Dec. 2012

9.3. Popularizationn

- Inria Emergence, "Une plateforme de Neuroimagerie pour la sclerose en plaque"
- Serimedis/inserm Multimedia report (http://www.serimedis.inserm.fr/fr/spotlight/6203/visages-vision-action-et-gestion-d-informations-en-sante/page/1/SN/techno)
- Video production for INPI Trophee of 2013 (http://www.bretagne-innovation.tm.fr/Temoignages/Laureats-Trophees-INPI-Bretagne-2013-Laboratoire-VisAGeS-Video).
- Ouest Inria: "La fabuleuse histoire de Shanoir "
- Emergences Inria: "Un cloud pour l'imagerie médicale" (http://emergences.inria.fr/2012/newsletter_24/L22-IRT)