



RESEARCH CENTER

FIELD

**Networks, Systems and Services,
Distributed Computing**

Activity Report 2016

Section Dissemination

Edition: 2017-08-25

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ASAP Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific Events Organisation

9.1.1.1. General Chair, Scientific Chair

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

9.1.2. Scientific Events Selection

9.1.2.1. Member of Conference Program Committees

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

Francois Taiani served in the program committee of the:

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

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

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

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

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

David Bromberg served in the program committee of the:

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

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

Davide Frey served in the program committee of the

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

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

George Giakkoupis served in the program committee of the:

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

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

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

9.1.3. Journal

9.1.3.1. Member of Editorial Boards

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

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

9.1.4. Invited Talks

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

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

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

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

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

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

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

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

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

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

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

9.1.5. Leadership within the Scientific Community

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

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

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

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

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

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

9.1.6. Research Administration

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

David Bromberg is scientific correspondent for ICT Digital in Rennes.

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

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

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

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

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

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

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

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

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

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

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

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

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

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

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

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

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

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

9.2.2. Supervision

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

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

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

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

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

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

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

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

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

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

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

9.2.3. Juries

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

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

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

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

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

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

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

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

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

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

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

CIDRE Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events Organisation

10.1.1.1. General Chair, Scientific Chair

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

10.1.1.2. Member of the Organizing Committees

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

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

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

10.1.2. Scientific Events Selection

10.1.2.1. Chair of Conference Program Committees

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

10.1.2.2. Member of the Conference Program Committees

Emmanuelle Anceaume served as a member of the following program committees:

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

Christophe Bidan served as a member of the following program committees:

- CRiSIS 2016 (11th International Conference on Risks and Security of Internet and Systems), September 2016, Roscoff, France.
- C&ESAR 2016 (23rd Computers & Electronics Security Applications Rendez-vous), November 2016, Rennes, France.
- IWTCC 2016 (3rd International Workshop on Trust in Cloud Computing), December 2016, Shanghai, China.

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

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

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

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

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

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

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

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

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

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

10.1.2.3. Reviewer

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

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

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

10.1.3.2. Reviewer - Reviewing Activities

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

10.1.4. Invited Talks

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

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

10.1.5. Leadership within the Scientific Community

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

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

10.1.6. Scientific Expertise

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

10.1.7. Research Administration

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

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

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

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

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Licence : Ludovic Mé, *Software Engineering tutorials*, 6 hours, L3 - first year of the engineer degree, CentraleSupélec, France;

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

Master : Ludovic Mé, *Information systems tutorials*, 6 hours, M1 - second year of the engineer degree, CentraleSupélec, France;

Master : Ludovic Mé, *Operating systems tutorials*, 3 hours, M1 - second year of the engineer degree, CentraleSupélec, France;

Master : Ludovic Mé, *Supervision of student project*, 1 project, 38 hours, M1 - second year of the engineer degree, CentraleSupélec, France;

Licence : Guillaume Piolle, *Algorithms*, 16.5 hours, L3 - first year of the engineer degree, Centrale-Supélec, France;

Licence : Guillaume Piolle, *Software engineering*, 18 hours, L3 - first year of the engineer degree, CentraleSupélec, France;

Master : Guillaume Piolle, *Modelling, Algorithms and Programming*, 30 hours, M1 - second year of the engineer degree, CentraleSupélec, France;

Master : Guillaume Piolle, *Computer security and privacy*, 9 hours, M1 - second year of the engineer degree, CentraleSupélec, France;

Master : Guillaume Piolle, *Computer networks*, 9 hours, M1 - second year of the engineer degree, CentraleSupélec, France;

Master : Guillaume Piolle, *Software project*, 8.5 hours, M1 - second year of the engineer degree, CentraleSupélec, France;

Master : Guillaume Piolle, *Security Policies*, 4.5 hours, M2 - third year of the engineer degree, CentraleSupélec, France;

Master : Guillaume Piolle, *Java programming*, 4.5 hours, M2 - third year of the engineer degree, CentraleSupélec, France;

Master : Guillaume Piolle, *Computer networks*, 9 hours, M2 - third year of the engineer degree, CentraleSupélec, France;

Master : Guillaume Piolle, *Software engineering*, 18 hours, M2 - third year of the engineer degree, CentraleSupélec, France;

Master : Guillaume Piolle, *Network Access Control*, 9 hours, M2 - third year of the engineer degree, CentraleSupélec, France;

Master : Guillaume Piolle, *Web development*, 18 hours, M2 - third year of the engineer degree, CentraleSupélec, France;

Master : Guillaume Piolle, *Privacy protection*, 4.5 hours, M2 - third year of the engineer degree, CentraleSupélec, France;

Master : Guillaume Piolle, *Computing project*, 40 hours, M2 - third year of the engineer degree, CentraleSupélec, France;

Licence : Eric Totel, *Models and programming languages*, 19.5 hours including 10.5 hours of lecture, L3 - first year of the engineer degree, CentraleSupélec, France;

Licence : Eric Totel, *Foundations of computer science, data structures and algorithms*, 6 hours, L3 - first year of the engineer degree, CentraleSupélec, France;

Licence : Eric Totel, *Software Modeling*, 15 hours, L3 - first year of the engineer degree, Centrale-Supélec, France;

Master : Eric Totel, *Computer systems' architecture*, 60 hours, M1 - second year of the engineer degree, CentraleSupélec, France;

Master : Eric Totel, *C language*, 24 hours including 6 hours of lecture, M2 - master CS (Cyber Security), CentraleSupélec, France;

Master : Eric Totel, *C language and C++ language*, 12 hours including 6 hours of lecture, M2 - third year of the engineer degree, CentraleSupélec, France;

Master : Eric Totel, *Dependability*, 9 hours including 7.5 hours of lecture, M2 - third year of the engineer degree and master research, CentraleSupélec, France;

Master : Eric Totel, *Dependability*, 3 hours of lecture, M2 - third year of the engineer degree (ingénierie des systèmes automatisés), CentraleSupélec, France;

Master : Eric Totel, *Dependability*, 4.5 hours of lecture, M2 - post-graduate training (master Architecture des Réseaux de Communication), CentraleSupélec, France;

Master : Eric Totel, *Intrusion Detection*, 6 hours of lecture, M2 - M2 - master CS (Cyber Security), CentraleSupélec, France;

Master : Eric Totel, *Intrusion Detection*, 8 hours of lecture, M2 - master 2 degree, University of Rennes 1, France;

Master : Eric Totel, *Intrusion Detection*, 4 hours of lecture, M2 - master 2 degree, University of Rennes 1, France;

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

Master : Eric Totel, *Supervision of student project*, 1 project, M2 - third year of the engineer degree, CentraleSupélec, France;

Licence: Frédéric Tronel, *Software engineering*, 40 hours, L3 - first year of the engineer degree, CentraleSupélec, France;

Licence: Frédéric Tronel, *Operating Systems*, 12 hours, L3 - first year of the engineer degree, CentraleSupélec, France;

Master: Frédéric Tronel is responsible of the M2 degree in *CyberSecurity* (mastère spécialisé), organized jointly by CentraleSupélec and Télécom Bretagne, France;

Master: Frédéric Tronel, *Operating systems*, 21 hours, M2 - third year of the engineer degree, CentraleSupélec, France;

Master: Frédéric Tronel, *Compilers*, 18 hours, M2 - third year of the engineer degree, CentraleSupélec, France;

Master: Frédéric Tronel, *Automatic reasoning*, 4.5 hours, M2 - third year of the engineer degree, CentraleSupélec, France;

Master: Frédéric Tronel, *Assembly Language*, 6 hours, M2 - third year of the engineer degree, CentraleSupélec, France;

Master: Frédéric Tronel, *Buffer overflow vulnerabilities (theory and practice)*, 20.5 hours, M2 - third year of the engineer degree, CentraleSupélec, France;

Master: Frédéric Tronel, *Firewall*, 15 hours, M2 - third year of the engineer degree, CentraleSupélec, France;

Master: Frédéric Tronel, *Calculability in distributed systems*, 6 hours, M2, jointly with University of Rennes 1 and CentraleSupélec, France;

Master: Frédéric Tronel, *Computer network*, 8 hours, M2, jointly with University of Rennes 1 and CentraleSupélec, France;

Licence : Valérie Viet Triem Tong, *Algorithms and Data Structures*, 36 hours of lecture including 7 hours of lectures, L3 - first year of the engineering degree, CentraleSupélec, France;

Licence : Valérie Viet Triem Tong, *Supervision of student project*, 6 projects of 2nd year of the engineer degree, CentraleSupélec, France;

Master : Valérie Viet Triem Tong, *Games Theory*, 18 hours, M1 - second year of the engineering degree, CentraleSupélec, France;

Master : Valérie Viet Triem Tong, *Formal Methods*, 9 hours, M2 - third year of the engineering degree, CentraleSupélec, France;

Master : Valérie Viet Triem Tong, *Intrusion detection using information flow control*, 9 hours, M2 / third year of the engineering degree, CentraleSupélec, France;

Master : Valérie Viet Triem Tong, *Programming in Java*, 12 hours, M1 - international students (NplusI) second year of the engineering degree, CentraleSupélec, France;

Master : Valérie Viet Triem Tong, *Small elements of decidability*, 7.5 hours, M2 - third year of the engineering degree, CentraleSupélec, France;

Master : Valérie Viet Triem Tong, *Supervision of student project*, 1 project, mastere CS (Cyber Security), CentraleSupélec, France;

Master : Valérie Viet Triem Tong, *Supervision of student project*, 8 projects, M1 - second year of the engineer degree, CentraleSupélec, France;

Master : Valérie Viet Triem Tong, *Supervision of student project*, 2 projects mastere CS (Cyber Security), CentraleSupélec, France;

Master : Valérie Viet Triem Tong, *Supervision of student project*, 1 project year of the engineer degree, CentraleSupélec, France;

Doctorant : Valérie Viet Triem Tong, *Malware analysis by OS information flow tracking*, 2 hours, Inria, Summerschool - Cyber in Bretagne, France;

10.2.2. Supervision

PhD : Julien Lolive, *Entrelacement des mécanismes d'identification et de respect de la vie privée pour la protection des contenus externalisés*, May 2016, supervised by Caroline Fontaine (50% - Télécom-Bretagne) and Sébastien Gambs (50%);

PhD : Erwan Godefroy, *Définition et évaluation d'un mécanisme de génération de règles de corrélation liée à l'environnement*, September 2016, supervised by Michel Hurfin (33%), Eric Totel (33%), and Frédéric Majorczyk (34% - DGA MI);

PhD : Pierre Obame Meye, *Sûreté de fonctionnement dans le nuage de stockage*, December 2016, supervised by Emmanuelle Anceaume (33%), Frédéric Tronel (33%), and Philippe Raipin Parvedy (34% - Orange Labs);

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

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

PhD in progress: Kun He, *Mise en œuvre de techniques de droit à l'oubli pour les contenus numériques*, started in October 2013, supervised by Christophe Bidan (50%) and Gaëtan LeGuelvouit (50% - IRT B-Com);

PhD in progress: Mouna Hkimi, *Détection d'intrusion dans les systèmes distribués*, started in October 2013, supervised by Eric Totel (50%) and Michel Hurfin (50%);

PhD in progress: Solenn Brunet, *Privacy-preserving location-based services*, started in October 2014, supervised by Sébastien Gambs (50%) and Jacques Traoré (50% - Orange Labs Caen);

PhD in progress: Laurent Georget, *Validation Formelle d'un moniteur de flux d'information pour le noyau Linux*, started in October 2014, supervised by Mathieu Jaume (25% - MdC LIP6), Guillaume Piolle (25%), Frédéric Tronel (25%), and Valérie Viet Triem Tong (25%);

PhD in progress : Florian Grandhomme, *Protocole de routage externe type BGP dans un environnement réseaux tactiques adhoc mobiles : faisabilité, performances et qualité de service*, started in October 2014, supervised by Gilles Guette (50%), Adlen Ksentini (25% - Eurecom), and Thierry Plesse (25% - DGA MI);

PhD in progress: Thomas Letan, *Contribution à la sécurité des couches basses des systèmes d'information*, started in January 2015, supervised by Guillaume Hiet (50%), Pierre Chifflier (25% - ANSSI), and Ludovic Mé (25%);

PhD in progress: Oualid Kouham, *Détection d'intrusions pour les systèmes de contrôle industriels*, started in January 2015, supervised by Stéphane Mocanu (50% - Gipsa-lab), Guillaume Hiet (25%), and Jean-Marc Thiriet (25% - Gipsa-lab);

PhD in progress: Damien Crémilleux, *Visualisation d'évènements de sécurité pour la supervision*, started in October 2015, supervised by Christophe Bidan (30%), Nicolas Prigent (35%), and Frédéric Majorczyk (35% - DGA MI);

PhD in progress: Mourad Leslous, *Déclenchement automatique de codes jugés suspects dans les applications Android*, started in October 2015, supervised by Thomas Genet (20% - Celtique Inria project 20), Jean François Lalande (40% - INSA Centre Val de Loire), and Valérie Viet Triem Tong (40%);

PhD in progress: Mounir Nasr Allah, *Contrôle de flux d'information par utilisation conjointe d'analyse statique et d'analyse dynamique accélérée matériellement*, started in November 2015, supervised by Guillaume Hiet (75%) and Ludovic Mé (25%);

PhD in progress: Pernelle Mensah, *Adaptation de la Politique de Sécurité guidée par l'Evaluation du Risque dans les Infrastructures de Communication modernes*, started in January 2016, supervised by Eric Totel (25%), Guillaume Piolle (25%), Christine Morin (25% - Myriad Inria project), and Samuel Dubus (25% - Nokia);

PhD in progress: David Lanoë, *Détection d'intrusion dans les applications distribuées : l'approche comportementale comme alternative à la corrélation d'alertes*, started in October 2016, supervised by Michel Hurfin (50%) and Eric Totel (50%);

PhD in progress: Aurélien Trulla, *Caractérisation de malware Android par suivi de flux d'information et nouvelles techniques d'évasion*, started in October 2016, supervised by Jean Louis Lanet (25% - Tamis Inria project) and Valérie Viet Triem Tong (75%);

PhD in progress : Ronny Chevalier , “Enhanced computer platform security through an intrusion-detection approach”, started in November 2016, supervised by Guillaume Hiet (50%), Boris Balach-eff (25% - HP), and Ludovic Mé (25%);

PhD in progress: Laetitia Leichtnam, *Visualisation pour la caractérisation d'évènements de sécurité*, started in October 2016, supervised by Eric Totel (40%), Nicolas Prigent (30%) and Ludovic Mé (30%);

PhD in progress : Charles Xosanavongsa, *Combining Attack Specification and Dynamic Learning from traces for correlation rule generation*, started in December 2016, supervised by Eric Totel (50%) and Ludovic Mé (50%);

PhD in progress : Yves Mocquard, *Population protocols*, started in September 2015, supervised by Bruno Sericola (Dyonisos Inria project) and Emmanuelle Anceaume.

10.2.3. Juries

Ludovic Mé was a member of the PhD committee for the following PhD thesis:

- Antoine Rault, *Protection de la vie privée des utilisateurs dans un système de recommandations collaboratif distribué*, University of Rennes 1, 06/23/2016 (President of the Jury);
- Tarek Sayeh, ‘*Contrôle sélectif de l'accès à des données RDF*’, University of Lyon 1, 09/08/2016 (President of the Jury);
- Ronan-Alexandre Cherrueau, *Composition de techniques de sécurité pour préserver la vie privée dans le contexte de l'informatique en nuage*, Ecole des Mines de Nantes, 11/18/2016 (Reviewer).

Eric Totel was a member of the PhD committee for the following PhD thesis:

- Siwar Kriaa, *Modélisation conjoint de la sûreté et de la sécurité pour l'évaluation des risques dans les systèmes cyber-physiques*, University of Paris-Saclay, Mars 2016 (President of the Jury);
- François Xavier Aguessy, *Evaluation Dynamique de Risque et Calcul de Réponses Basés sur des Modèles d'Attaques Bayésiens*, Telecom Sud-Paris and University Pierre & Marie Curie, September 2016. (Reviewer).

Guillaume Hiet was a member of the PhD committee for the PhD of Florent Marchand de Kerchov entitled *étendre des interpréteurs par détournement, ou comment étendre des interpréteurs sans en modifier le code*, prepared at Ecole des Mines de Nantes, 18 november 2016.

10.3. Popularization

Emmanuelle Anceaume was interviewed on the topic « Blockchain : comment le bitcoin révolutionne l'économie numérique ? » in a broadcast of "le labo des savoirs" (<http://labodessavoirs.fr/emissions-du-labo/>).

Guillaume Piolle has participated to the scientific popularization program *à la découverte de la recherche* aimed at secondary education pupils. His participation consisted in presentations about the objectives, methods and results of research activities in computer security and privacy (including, but not limited to our activities in CIDRE). It took place in high schools in Redon, Cesson-Sévigné and Dol-de-Bretagne.

Valérie Viet Triem Tong participates to (the stand and demo of) the 8h International Forum of CyberSecurity (FIC 2016).

Valérie Viet Triem Tong has published in Interstice a paper entitled "Lutter contre les codes malveillants" (https://interstices.info/jcms/p_91111/lutter-contre-les-codes-malveillants).

COAST Project-Team

8. Dissemination

8.1. Promoting Scientific Activities

8.1.1. Scientific Events Organisation

8.1.1.1. Member of the Organizing Committees

- François Charoy was co-chair of the PhD Forum for ICSOC 2016
- Claudia-Lavinia Ignat is in the organisation committee of The Fifteenth International Workshop on Collaborative Editing Systems in conjunction with CSCW 2017

8.1.2. Scientific Events Selection

8.1.2.1. Member of the conference program committees

- Claude Godart was PC member of the conference program committee of BPMDS (Business Process Modeling, Development and Support), EDOC (The enterprise computing conference), ICSOC (International Conference on Services Oriented Computing), IEEE CLOUD Computing, ICWS (IEEE International Conference on Web Services), SCC (IEEE International Conference on Services Computing), S2 ICIOT (S2 International Conference on Internet of Things), IEEE/WIC/ACM WI (Web Intelligence conference), WISE (Web Information Systems Engineering) conferences.
- Claudia-Lavinia Ignat was PC member of CSCW (International Conference on Computer Supported Cooperative Work and Social Computing) 2016, CDVE (International Conference on Cooperative Design, Visualization and Engineering) 2016, ICEBE (International Conference on e-Business Engineering) 2016 and The First IFIP Internet of People Workshop (IoP-W'16) in conjunction with Networking 2016 conference
- Olivier Perrin was PC Member of ICSOC 2016, I3E 2016 (15th IFIP Conference on e-Business, e-Services and e-Society), VECOS 2016 (10th International Workshop on Verification and Evaluation of Computer and Communication Systems), and some workshops.
- François Charoy was PC Member of ICEBE (International Conference on Business Engineering) 2016, CTS 2016 (International Symposium on Collaborative Technologies and Systems), DG.O (International Conference on Digital Government Research) 2016, IEEE WETICE 2016, ICSOC 2016, IEEE International Conference on Business Information Systems and of several workshops.
- Khalid Benali was PC Member of WorldCIST'16 (World Conference on Information Systems and Technologies), I-ESA'2016 (Interoperability of Enterprise Software and Applications), AFIN 2016 (International Conference on Advances in Future Internet), I3E 2016 (IFIP Conference on e-Business, e-Services and e-Society), ICICS 2016 (7th International Conference on Information and Communication Systems), MEDES 2016 (8th International Conference on Management of Digital EcoSystems), SYSCO'16 (third international conference on collaborative systems) and SoEA4EE'2016 (The 8th Workshop on Service oriented Enterprise Architecture for Enterprise Engineering).
- Gérald Oster was a PC member of CoopIS 2016 (International Conference on Cooperative Information Systems).

8.1.3. Journal

8.1.3.1. Member of the editorial boards

- Claude Godart is member of the editorial board of IEEE Transactions on Service Computing, International Journal of Services Computing, and member of the review board of the International Journal of Next Generation Computing.

- Claudia-Lavinia Ignat is member of the editorial board of Journal of CSCW (Computer Supported Cooperative Work).
- François Charoy is member of the editorial board of Service Oriented Computing and Applications Journal (Springer).

8.1.3.2. Reviewer - Reviewing activities

- In 2016, Olivier Perrin reviewed papers for IEEE Transactions on Services Computing journal, IEEE Transactions on Parallel and Distributed Systems and Journal of Systems and Software.
- In 2016, Claudia-Lavinia Ignat reviewed papers for Concurrency and Computation: Practice and Experience, World Wide Web Journal, CHI 2016 and CSCW 2017.
- In 2016, Gérald Oster reviewed papers for Computer Supported Cooperative Work Journal, Concurrency and Computation: Practice and Experience journal and CSCW 2017.

8.1.4. Invited talks

- François Charoy has been invited as a keynote Speaker at the IEEE WETICE Conference in Paris [6] on Collaborative Networks and Crisis Management.
- Claudia-Lavinia Ignat gave an invited lecture in May 2016 at SOAMED Graduate School in Berlin on Replicated Data Consistency
- Claudia-Lavinia Ignat gave an invited talk in June 2016 at the Department of Psychology, Wright State University, on Large-scale trust-based collaboration
- Claudia-Lavinia Ignat gave an invited talk in July 2016 at the Department of Computer Science and Engineering, Ohio Center of Excellence in Knowledge-enabled Computing (Kno.e.sis), Wright State University on Large-scale trust-based collaboration
- Gérald Oster gave an invited talk in July 2016 at the Department of Computer Science and Engineering, Ohio Center of Excellence in Knowledge-enabled Computing (Kno.e.sis), Wright State University on Distributed real-time collaborative editing

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

Permanent members of the COAST project-team are leading teachers in their respective institutions. They are responsible of lectures in disciplines like software engineering, database systems, object oriented programming and design, distributed systems, service computing and more advanced topics at all levels and in different of departments in the University. Most of the PhD Students have also teaching duties in the same institutions. As a whole, the COAST team accounts for more than 2500 hours of teaching. Members of the COAST team are also deeply involved in the pedagogical and administrative life of their departments.

- Gérôme Canals was the head of the Computer science department of the Nancy-Charlemagne University Institute of Technology (IUT Nancy Charlemagne) since September 2010 and until August 2016, and is responsible for the professional licence degree “Web application programming” since sept. 2001.
- Claude Godart is responsible for the Computer Science department of the engineering school ESSTIN.
- Khalid Benali is responsible for the professional Master degree speciality “Distributed Information Systems” of MIAGE and of its international branch in Morocco.
- François Charoy is responsible of the Software Engineering specialisation at the TELECOM Nancy Engineering School of University of Lorraine.
- Pascal Urso is responsible for the “Security, Services, Systems and Network” track of the master degree in computer science at University of Lorraine since September 2013.

8.2.2. Supervision

PhD (in progress): Quang Vinh Dang, Trust-based large scale collaboration, started in 10/2014, Claudia-lavinia Ignat and François Charoy

PhD (in progress): Hoai Le Nguyen, Study of group performance and behavior in collaborative editing, started in 9/2015, Claudia-Lavinia Ignat and François Charoy

PhD (in progress): Hoang Long Nguyen, A Trust Based Authorization Model and Framework for the Cloud, started in 11/2015, Claudia-Lavinia Ignat and Olivier Perrin

PhD (defended): Luc André, Replication and Consistency Maintenance in Peer-to-Peer Collaborative Environment, started in 9/2011, François Charoy and Gérald Oster

PhD (in progress): Victorien Elvinger, Secured Replication for Peer-to-Peer Collaborative Infrastructures, started in 10/2015, François Charoy and Gérald Oster

PhD (defended): Ahmed Bouchami, Sécurité des données collaboratives d'une plateforme PaaS, started in 11/2012, Olivier Perrin

PhD (in progress): Jordi Martori i Adrian, Data constraints for large-scale collaboration, started in 10/2013, François Charoy and Pascal Urso

PhD (in progress): Guillaume Rosinoski, Elastic BPM and the Cloud, started in 10/2014, François Charoy and Samir Youssef

PhD (in progress): Quentin Laporte-Chabasse, Federation of Organisations over Peer to Peer Collaborative Network, started in 10/2016, François Charoy and Gérald Oster

PhD (in progress): Béatrice Linot, Trust in cooperative systems, Jérôme Dinet et François Charoy, started 11/2016

8.2.3. Juries

- François Charoy was head of the Selection committee at TELECOM Nancy, Université de Lorraine
- COAST members were members of the following PhD and HdR defense committees:
- Mondri Ravi, PhD, Université de Grenoble, January 2016 (François Charoy)
 - Tomasz Buchert, PhD, Université de Lorraine, January 2016 (François Charoy)
 - Luc André, PhD, Université de Lorraine, May 2016 (François Charoy and Gérald Oster)
 - Adrian Shatte, PhD, James Cook University, Cairns, Australia, September 2016 (François Charoy)
 - Wassim Derguech, PhD, National University of Ireland, Galway, Ireland, December 2016 (François Charoy)
 - Philippe Dirix, PhD, Université de Lille, July 2016 (Khalid Benali)
 - Bouchra El Idrissi, PhD, Université Mohammed V de Rabat, Maroc, September 2016 (Khalid Benali)
 - Ghada Gharbi, PhD, Université de Toulouse 3, November 2016 (Claude Godart)
 - Hind Benfenatki, PhD, Université de Lyon 1, December 2016 (Claude Godart)
 - Brice Nedelec, PhD, Université de Nantes, October 2016 (Gérald Oster)
 - Anthéa Mayzaud, PhD, Université de Lorraine, October 2016 (Olivier Perrin)
 - Noran Azmy, PhD, Universität des Saarlandes and Université de Lorraine, November 2016 (Olivier Perrin)

8.3. Popularization

- In March 2016 members of the team (François Charoy and Phillippe Kalitine) participated to the “Rencontres Université Entreprise” in Paris to demonstrate the collaborative editor MUTE (<http://www.rue-aef.com>)
- In January 2016 Claudia-Lavinia Ignat presented Coast research activities to the first year students at Ecole de Mines de Nancy
- In May 2016 Claudia-Lavinia Ignat gave a lecture on Replicated Data Consistency at SOAMED Graduate School in Berlin
- In May 2016 Claudia-Lavinia Ignat organised the meeting Research@Inria at Inria Nancy-Grand Est for presenting to internship students, PhD students and postdocs various Inria programs and the main research topics at Inria with a focus on activities of research teams at Inria Nancy-Grand Est. She also presented the main activities of a researcher and briefly described her research work.
- In November 2016 members of the team (François Charoy and Matthieu Nicolas) participated to the “Rencontre Inria-Industrie” (RII) on the topic - Interactions avec les objets et services numériques” in Lille to demonstrate MUTE collaborative editor
- In December 2016 members of the team (Claudia-Lavinia Ignat, Gérald Oster, Matthieu Nicolas and Phillippe Kalitine) participated to the “Rencontre Inria-Industrie” (RII) on the topic - Nouvelles technologies pour la protection des données et des systèmes numériques” in Nancy to demonstrate collaborative editor MUTE
- In December 2016 members of the team (Gérald Oster, Matthieu Nicolas and Phillippe Kalitine) demonstrated the collaborative editor MUTE during the visit of the Rectors of the Mexican Technological Universities at LORIA in the context of the bilateral MEXPROTEC program.

8.4. Institutional commitment

- Claudia-Lavinia Ignat is in charge of European affairs for Inria Nancy Grand-Est. She is the Delegate of International Relations for Inria Nancy-Grand Est and member of COST-GTRI commission. She is member of the Inria Nancy-Grand Est COMIPERS committee. She participated to a working group in charge with the design of a booklet for industrials describing the technological offer of Inria Nancy-Grand Est (she was responsible for the part concerning Large-scale collaborative services and systems). She is responsible with the activity kindergarten at AGOS Inria Nancy-Grand Est.

CTRL-A Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events Organisation

10.1.1.1. Member of the Organizing Committees

Stéphane Mocanu is OC member of RESSI 2017 national meeting (<https://ressi2017.sciencesconf.org/>).

10.1.2. Scientific Events Selection

10.1.2.1. Chair of Conference Program Committees

Eric Rutten was program co-chair of the International Workshop on Autonomic High Performance Computing (AHPC 2016) (<http://hpcs2016.cisedu.info/2-conference/workshops—hpcs2016/workshop08-ahpc>) as part of the International Conference on High Performance Computing & Simulation (HPCS 2016) (<http://hpcs2016.cisedu.info> or <http://cisedu.us/rp/hpcs16>), July 18 - July 22, 2016, The University of Innsbruck, Innsbruck, Austria

Eric Rutten is organizer of an Open Invited Track on "Control for Computing Systems" at the 20th IFAC World Congress, to be held in Toulouse, July 9-14, 2017, (<https://www.ifac2017.org/OIT#geht5>).

10.1.2.2. Member of the Conference Program Committees

Gwenaél Delaval is PC member of the International Workshop on Autonomic High Performance Computing (AHPC 2016). (<http://hpcs2016.cisedu.info/2-conference/workshops—hpcs2016/workshop08-ahpc>)

Eric Rutten is PC member of the 13th International Workshop on Discrete Event Systems (WODES 2016), Xi'an, China on May 30 - June 1, 2016 (<http://wodes2016.diee.unica.it>) ; for the SEfSAS Book 3 (Software Engineering for Self-Adaptive Systems: Assurances) Volume 3 to be published by Springer LNCS. ; for the two major conferences on the topic : the 13th IEEE International Conference on Autonomic Computing (ICAC 2016) Wuerzburg, Germany, July 19-22, 2016 (<http://icac2016.uni-wuerzburg.de>) and the 4th International Conference on Cloud and Autonomic Computing (ICCAC 2016), Augsburg, Germany on September 12-16, 2016 (<http://icac2016.se.rit.edu>), Part of FAS* - Foundation and Applications of Self* Computing Conferences, Collocated with the IEEE Self-Adaptive and Self-Organizing System Conference ; he is PC member of the 2017 edition of these two conferences as well.

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

Eric Rutten is invited editor of Cluster Computing, The Journal of Networks, Software Tools and Applications (Springer), for the special issue of ICCAC 2015 Best Papers (<http://link.springer.com/journal/10586/19/2/page/1>).

10.1.3.2. Reviewer - Reviewing Activities

Stéphane Mocanu is reviewer for the journal of Discrete Events Dynamical Systems.

Eric Rutten is reviewer for the journal of Distributed Computing (Springer) ; the IEEE Transactions on Software Engineering ; the ACM Transactions on Adaptive and Autonomic Systems.

10.1.4. Invited Talks

Eric Rutten was invited to give a talk at the 9th Cloud Control Workshop, Stockholm, June 27-29 2016 (by invitation only) (<http://cloudresearch.org/workshops/9th>) and at the séminaire LIP / Avalon, 16 février 2016, ENS Lyon (<https://intranet.inria.fr/Actualite/SEMINAIRE-16-02-16-ERIC-RUTTEN-ENS-DE-LYON>).

10.1.5. Scientific Expertise

Eric Rutten is remote referee for the ERC advanced grants program.

10.1.6. Research Administration

Eric Rutten is member of the LIG laboratory concil, and in charge of scientific relations between Inria Grenoble Rhône-Alpes and CEA Tech.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

S. Mocanu teaches at ENSE3 school of INPG : TCP/IP networks, Real-time communications, Smart-grid communications and IEC 61850, Reliability, Embedded and real-time systems. He is Head of the Control Systems Master program at ENSE3.

G. Delaval teaches at levels L2, L3, M1 at UFRIM2AG (Computer Science Dept.) of UGA : Algorithmic, Programming, Compilation. Soguy Gueye gives tutorials in Programming in the same program.

10.2.2. Supervision

- PhDs in progress :
 - Adja Ndeye SYLLA ; Generation of coordination rules from an automaton, in the context of the redeployment of distributed contra; applications ; feb. 2015 ; E. Rutten, F. Pacull and M. Louvel (CEA)
 - Chabha Hireche, Etude et implémentation d'une approche probabiliste de contrôle de mission de drone autonome ; oct 2015 ; S. Mocanu, Catherine Dezan (U. Bretagne Occidentale), and Jean-Philippe Diguët (U. Bretagne Sud)
 - Ahmed Altaher : Mise en oeuvre d'un cadre de sureté de fonctionnement pour les systèmes de contrôle industriel : application à des systèmes de distribution d'énergie électrique (smart grids) ; april 2013 ; S. Mocanu, and J-M Thiriet (Gipsa-lab)
 - Maëlle Kabir-Querrec; Cybersécurité des systèmes de contrôle pour les smart-grids ; nov. 2014 ; S. Mocanu, and J-M Thiriet (Gipsa-lab)
 - Oualid Koucham, Détection d'intrusions dans les systèmes de contrôle industriels ; oct 2015 ; S. Mocanu, and J-M Thiriet (Gipsa-lab)
- PhD defended : Naweiluo Zhou ; Application-aware policies and control for transactional memory systems ; defended 19 oct. 2016 ; E. Rutten, G. Delaval, J.F. Mehaut (Inria/LIG Corse) [14] .

MIMOVE Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific Events Organisation

9.1.1.1. General Chair, Scientific Chair

Valérie Issarny is co-chair of the BIS'16 workshop, which is the yearly workshop organized by Inria@SiliconValley to present the state of scientific collaborations and to work on proposals for future ambitious joint projects.

9.1.2. Scientific Events Selection

9.1.2.1. Chair of Conference Program Committees

- Valérie Issarny is PC co-chair of ICSE-SEIS'2018 - The Software Engineering in Society Track of the ICSE'18 conference.

9.1.2.2. Member of the Conference Program Committees

- Valérie Issarny is PC member of the following International Conferences: COORDINATION'2016, FASE'2016 & 2017 & 2018, ICDCS'2016, ICSE-SEIS'2016 & 2017, ICSE'2018, InterIoT'2016, ISEC'2017, Middleware'2016, MOBILESoft'2017, SEAMS'17, EUROSYS'2017.
- Nikolaos Georgantas is PC member of the following international conferences: SOSE'16&'17, WETICE'16&'17, SAC'16 &'17, Aml'17, ICSE'17 Poster Track, ANT'16.
- Nikolaos Georgantas is PC member of the following international workshops: MRT'16, SERENE'16, ARM'16, IoT-ASAP'17.

9.1.3. Journal

9.1.3.1. Member of the Editorial Boards

- Nikolaos Georgantas is associate editor of the International Journal of Ambient Computing and Intelligence (IJACI);
- Valérie Issarny is associate editor of the Springer JISA Journal of Internet Services and Applications.

9.1.4. Invited Talks

- Valérie Issarny, *Monitoring Urban Pollution using Mobile Crowd Sensing: The SoundCity Use Case*, Keynote at - UIC - The 13th International Conference on Ubiquitous Intelligence and Computing, July 19, 2016; Toulouse, France.
- Valérie Issarny, *Revisiting Service-oriented Architecture for the IoT: A Middleware Perspective*, Keynote at - ICSOC - The 14th International Conference on Service-Oriented Computing, October 12, 2016; Banff, Alberta, Canada.

9.1.5. Scientific Expertise

- Valérie Issarny is elected member of the *Commission d'Evaluation Inria*;
- Nikolaos Georgantas is member of the Inria PhD scholarship, Inria postdoc scholarship and Inria professor leave (*Délégation*) scholarship selection committees at Inria Paris.

9.1.6. Research Administration

- Valérie Issarny is scientific coordinator of Inria@Silicon Valley and CityLab@Inria;
- Nikolaos Georgantas is member of the PhD monitoring committee at Inria Paris.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

E-learning

Valérie Issarny, MOOC *Villes intelligentes : défis technologiques et sociétaux*

<https://www.fun-mooc.fr/courses/inria/41009/session01/about>

Class teaching

Master: Rachit Agarwal, "Urban data democratization and its application to access urban concepts" as part of "Gestion de données ambiantes et Internet des objets", 9 hours (équivalent TD), niveau M2, University of Versailles Saint-Quentin en Yvelines, France.

9.2.2. Supervision

In 2016, the following PhD thesis was successfully defended:

Emil Andriescu, *Dynamic Data Adaptation for the Synthesis and Deployment of Protocol Mediators*, defended in February 2016, UPMC-EDITE, CIFRE Inria-Ambientic, advised by Valérie Issarny and Roberto Speicys-Cardoso (Ambientic).

Additionally, the following PhD theses are currently in progress at the MiMove team:

Georgios Bouloukakis, *Enabling Emergent Mobile Systems in the IoT: from Middleware-layer Communication Interoperability to Associated QoS Analysis*, started October 2013, UPMC-EDITE, advised by Nikolaos Georgantas and Valérie Issarny.

Radha Pallavali, *Dynamic adaptation of middleware-layer protocols for emergent mobile systems*, started November 2016, UPMC-EDITE, advised by Nikolaos Georgantas and Valérie Issarny.

Also, Valérie Issarny is co-advising with Ansgar Radermacher from CEA-LISE, the PhD thesis of Amel Belagoun on *Adaptabilité et reconfiguration des systèmes temps-réel embarquées*; this is a PhD from UPMC-EDITE with the research being undertaken at CEA-LISE.

9.2.3. Juries

Nikolaos Georgantas was examiner for the PhD thesis of Fatiha Houacine, *Architecture Orientée Service pour le Mobile Cloud Computing*, defended in November 2016, Conservatoire National des Arts et Métiers, France, advised by Ass. Prof. Samia Bouzefrane.

MYRIADS Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events Organisation

10.1.1.1. Member of the Organizing Committees

- Anne-Cécile Orgerie was the main organizer of the research school E3-RSD on energy-efficiency in networks and distributed systems held in Dinard in June 2016 (<http://e3rsd.irisa.fr>).
- Louis Rilling was the main organizer of the SEC2 2016 workshop on security in Clouds held in Lorient in July 2016 in conjunction with the Compas 2016 conference (<https://sec2-2016.inria.fr/>).
- Guillaume Pierre was co-workshop/tutorials chair of the ACM/IFIP/USENIX Middleware 2016 conference.
- Martin Quinson was the main organizer of the research school SUD gathering the SimGrid user community held in Fréjus in January.
- Nikos Parlavantzas was a member of the organizing committee for MMS 2016 (INSA Science Day) in April 2016

10.1.2. Scientific Events Selection

10.1.2.1. Chair of Conference Program Committees

- Guillaume Pierre was the program chair of the Systems track of the Compas 2016 national conference.
- Guillaume Pierre was a program co-chair of CloudDP 2016 (6th International Workshop on Cloud Data and Platforms)

10.1.2.2. Member of the Conference Program Committees

- Christine Morin was a member of the program committee of the ACM/IEEE, SC'16, IEEE ICDCS 2016, ACM/IEEE CC-Grid 2016, IEEE CloudCom 2016, IEEE NFV-SDN 2016, Euromicro PDP 2016, ICCCN 2016 conferences and Resilience'16, ScienceCloud'16, CrossCloud'16 workshops.
- Anne-Cécile Orgerie was a member of the program committee of the PASA 2016 workshop and the Compas 2016 conference.
- Guillaume Pierre was a member of the program committees of IEEE IC2E 2016, ICPP 2016, DADS track of ACM SAC 2016, CloudCom 2016, and IEEE ScalCom 2016.
- Martin Quinson was a member of the program committees of SimulTech 2016.
- Nikos Parlavantzas was a member of the program committees of VHPC 16, and CLOSER 2016.
- Cédric Tedeschi was a member of the program committee of ICWS 2016, ICCS 2016, CloSer 2016 and Compas 2016 conferences. He was a member of the program committee of the ERROR 2016 workshop.

10.1.2.3. Reviewer

- Jean-Louis Pazat was a reviewer for the Compas Conference.
- Martin Quinson was a reviewer for the Compas Conference.

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

Christine Morin is associate editor in the IEEE's Transactions on Parallel and Distributed Systems' Editorial Board.

10.1.3.2. Reviewer - Reviewing Activities

- Cédric Tedeschi was a reviewer for the TPDS journal.

10.1.4. Invited Talks

- “Developing an Understanding of Ecosystems and Energy-Water Interactions Through Data“, keynote talk, Inria@Silicon Valley BIS workshop, Paris, June 8th, 2016.
- "Infection dynamics in a metapopulation of cattle herds: models and their execution in large-scale computing infrastructure"; Christine Morin (together with Pauline Ezanno), talk for Rencontres INRA-Inria, Pont Royal en Provence, October 3rd, 2016.
- “Le coût énergétique du stockage dans le Cloud”, Anne-Cécile Orgerie, talk for the scientific days of the University of Nantes, Nantes, June 10, 2016.
- “Green Computing and Sustainability”, Anne-Cécile Orgerie, Keynote at the Annual Workshop of the French section of URSI (International Union of Radio Science), Rennes, France, March 2016.
- “L’axe Green IT à l’IRISA”, Anne-Cécile Orgerie, talk for the HCERES evaluation of IRISA, Rennes, January 21, 2016.
- “Real-time stream data processing for hyper-interactive applications in fog computing platforms”, Guillaume Pierre, invited presentation at the US-EU Invited Workshop on the Next Generation Internet of Things, Los Angeles (USA), March 31st 2016.
- “Toward hyper-interactive applications in fog computing platforms”, Guillaume Pierre, invited presentation at the 9th Cloud control workshop, Friiberghs Herrgård (Sweden), 27-29 June 2016.
- “Experimental methodologies for large-scale distributed systems”, Martin Quinson, research school E3-RSD on energy-efficiency in networks and distributed systems held in Dinard in June 2016.

10.1.5. Leadership within the Scientific Community

- Christine Morin was invited to participate in the CRA-W career mentoring workshop held in Washington DC on November 19-20, 2016. Together with AJ Brush she organized a panel on "Growing Research/Surviving First 2 Years" and together with Lori Pollock she organized a panel on "Networking and Finding Advocates". She also did 1-1 mentoring for junior computer scientists (postdocs, assistant-professors, junior scientists and junior R&D engineers).
- Anne-Cécile Orgerie is co-responsible for the Green axis of the CNRS GDR RSD (Network and Distributed Systems working group).
- Anne-Cécile Orgerie is secretary of the ASF: the French chapter of ACM SIGOPS.
- Cédric Tedeschi is a member of the steering committee of the Compas conference.

10.1.6. Scientific Expertise

Yvon Jégou is a member of the **Comité de Sélection et de Validation** (CSV) of the *Images & Réseaux* cluster (until June 2016).

Christine Morin was a member of the HCERES evaluation committee of the LORIA (visit in Nancy December 13-15, 2016). She was a remote reviewer for the Call 2015 of CHIST-ERA on the topic User-Centric Security, Privacy and Trust in the Internet of Things. She was a member of the Jury for the Inria - Académie des Sciences prizes 2016.

Jean-Louis Pazat is the coordinator of experts in Information Technology for the evaluation of international bilateral collaborations at the ministry of research and education.

Martin Quinson is a member of the scientific committee of the Blaise Pascal foundation for the scientific dissemination of Maths and Computer Science, and also of the 2017 forum “Vivid Maths” (mathématiques vivantes) organized by the CFEM (French commission for the teaching of maths). He acted as an expert for a project of the UNIT foundation, the technical and engineering numerical university.

Nikos Parlavantzas acted as an expert reviewer for ANR and ANRT CIFRE projects.

10.1.7. Research Administration

- Yvon Jégou is a member of the Grid 5000 executive committee (until June 2016).
- Christine Morin is a member of the board of the Project-Team Committee of Inria Rennes Bretagne Atlantique.
- Christine Morin was the scientific coordinator for the Inria evaluation seminar of the "distributed system and middleware" theme, held in Rungis in October 2016.
- Christine Morin has been a member of the University of Rennes 1 board of directors and of the International Affairs Commission and its board since March 2016.
- Anne-Cécile Orgerie is officer (chargée de mission) for the IRISA cross-cutting axis on Green IT.
- Jean-Louis Pazat was the leader of the "Large Scale Systems" department of IRISA until October 2016, after which this responsibility was taken over by Martin Quinson.
- Jean-Louis Pazat was the leader of the IRISA-INSA computing lab until October 2016

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Christine Morin is responsible for the Internet of Services: Programming Models & Things and Clouds (ISI) teaching unit of the Master in research in Computer Science of the University of Rennes 1 and of the EIT Digital Master School at the University of Rennes 1.

Christine Morin:

- Master 1: FreeRoom project (spanning the two semesters) co-supervised with Cédric Tedeschi and Paul Couderc, University of Rennes 1, France.
- Master 2: 4.5 hours ETD, Energy management in Large Scale Distributed Systems, Centrale-Supelec, Rennes, France.
- Master 2: Internet of Services: Programming Models & Things and Clouds (ISI), 12 hours ETD, EIT Digital Master School, University of Rennes 1, France.

Anne-Cécile Orgerie:

- Licence 3: ARCSYS2: Architecture and System - 24 hours of lecture at ENS Rennes
- Master 1: Cloud & Big Data - 12 hours of lecture and 12 hours of practical sessions at ENS Rennes
- Master 2: Green ICT - 5 hours of invited lecture at Telecom SudParis
- PhD students: Energy issues in HPC and Clouds - 1.5 jours of invited lecture at the research school of the ETN BigStorage

Guillaume Pierre (at the University of Rennes 1):

- License 3: Systèmes (25 hours ETD)
- License 3: Organisation et utilisation des systèmes d'exploitation 2 (67 hours ETD)
- Master 2: Techniques de développement logiciel dans le Cloud (39 hours ETD)
- Master 1: Service Technologies (24 hours ETD)
- Master 2: Approche algorithmique des applications et systèmes répartis (32 hours ETD)
- DU D√/©veloppeur-Concepteur Logiciel: Systèmes (42 hours ETD)

Martin Quinson (at ENS Rennes):

- Licence 3: Programming and Software Engineering (30 hours ETD); ARCSYS2 - architecture et syst√@mes 2 (60 hours ETD); Pedagogy (15 hours ETD).
- Agregation Science Industrielle: Programming and Software Engineering (20 hours ETD); Operating Systems and C programming (20 hours ETD); Networking (20 hours ETD).
- Master 2: Pedagogy and Scientific Mediation for Computer Science (30 hours EDT)

Jean-Louis Pazat (at INSA Rennes):

- Licence 3: Parallel and Multicore Programming (36 hours ETD)
- Master 1: Parallel and Distributed Programming (36 hours ETD)
- Master 1: Scientific Parallel Programming (36 hours ETD)
- Licence 3: Networks and SOA (20 hours ETD)

Nikos Parlavantzas (at INSA Rennes):

- Master 1: Performance Evaluation (32 hours ETD)
- Master 1: Operating Systems (36 hours ETD)
- Master 1: Big Data and Applications (15 hours ETD)
- Master 1: Networks and SOA (20 hours ETD)
- Master 1: Advanced Operating Systems (20 hours ETD)
- Master 1: Parallel programming (12 hours ETD)
- Master 1: Software Development Project (30 hours ETD)
- Licence 3: Networking (16 hours ETD)
- Master 2: Component-based Software Engineering (16 hours ETD)

Cédric Tedeschi (220 hours ETD at Univ. Rennes 1):

- Master 1: Cooperation and concurrency in Systems and Networks
- Master 1: Projects (in charge of the *UE*)
- Master 1: Parallel programming
- Master 2: Internet of Services and Infrastructures

10.2.2. Supervision

PhD in progress: Arif Ahmed, “Scalable Decentralized Edge Cloud Infrastructures”, started in October 2016, Guillaume Pierre.

PhD in progress: Ismael Cuadrado Cordero, Energy-efficient and network-aware resource allocation in Cloud infrastructures, started in October 2013, Christine Morin, Anne-Cécile Orgerie.

PhD in progress: Anna Giannakou, Self-adaptable security monitoring in Clouds, started in March 2014, Louis Rilling, Christine Morin, Jean-Louis Pazat.

PhD in progress: Baptiste Goupille-Lescar, Designing agile, distributed cyber-physical systems with advanced collaboration capabilities, started in January 2016, Michel Barreteau (Thales) Eric Lenormand (Thales), Christine Morin, Nikos Parlavantzas.

PhD in progress: David Guyon, Supporting energy-awareness for cloud users, started in September 2015, Anne-Cécile Orgerie, Christine Morin.

PhD in progress: Sabbir Hasan, SLA Driven Cloud autoscaling for optimizing energy footprint, started in December 2013, Thomas Ledoux (Ascola), Jean-Louis Pazat.

PhD: Ancuta Iordache, “Performance-cost tradeoffs in heterogeneous clouds”, University of Rennes 1, successfully defended on September 9th 2016. Guillaume Pierre.

PhD in progress: Yunbo Li, Resource allocation in a Cloud partially powered by renewable energy sources, started in October 2013, Anne-Cécile Orgerie, Jean-Marc Menaud (Ascola).

PhD in progress: Pernelle Mensah, Security policy adaptation driven by risk evaluation in modern communication infrastructures, started in December 2015, Samuel Dubus (Alcatel-Lucent), Christine Morin, Guillaume Piolle (Cidre), Eric Totel (Cidre).

PhD in progress: Édouard Outin, A multi-objective adaptation system for the management of a Distributed Cloud, started in October 2013, Olivier Barais (Triskell), Yvon Jégou, Jean-Louis Pazat.

PhD in progress: The Anh Pham, Dynamic Formal Verification of High Performance Runtimes and Applications, started in November 2016, Martin Quinson, Thierry Jéron.

PhD in progress: Issam Rais, Multi criteria scheduling for large scale High Performance Computing environments, started in October 2015, Anne-Cécile Orgerie, Anne Benoit (ROMA), Laurent Lefèvre (Avalon).

PhD in progress: Bruno Stevant, Resource allocation strategies for service distribution at the Internet edge to optimize end-to-end latency, started in December 2014, Jean-Louis Pazat.

PhD in progress: Gene Tato, Locality-aware Lazy Overlay Networks for WANS, started in December 2015, Marin Bertier, Cédric Tedeschi, Christine Morin.

PhD in progress: Amir Teshome, Definition and enforcement of Service-Level Agreements for Cloud security monitoring, started in October 2015, Louis Rilling, Christine Morin.

10.2.3. Juries

- Christine Morin was a reviewer in the PhD committee of Maxime Lorrillere, university Pierre et Marie Curie, February 4th, 2016.
- Christine Morin was a reviewer in the PhD committee of Richard Relaza, university of Toulouse, February 12th, 2016.
- Christine Morin was a member in the PhD committee of Anca Iordache, university of Rennes 1, September 9th, 2016.
- Christine Morin chaired the PhD committee of Ji Liu, university of Montpellier, November 3rd, 2016.
- Christine Morin was a member in the PhD committee of Daniel Balouek-Thomert, ENS Lyon, December 5th, 2016.
- Christine Morin chaired the PhD committee of Violaine Villebonnet, ENS Lyon, December 6th, 2016.
- Christine Morin was a reviewer in the PhD committee of Vincente Kherbache, university of Nice, December 7th, 2016.
- Anne-Cécile Orgerie was a member in the PhD committee of Frédéric Dumont, Ecole des Mines de Nantes, 21st of September 2016.
- Anne-Cécile Orgerie was a member in the PhD committee of Maxime Colmant, University of Lille, 24th of November 2016.
- Jean-Louis Pazat chaired the PhD committee of Pierre Obame Meye, University of Rennes 1, December 1st, 2016.
- Jean-Louis Pazat chaired the PhD committee of Fran \sqrt /Bois Lehericey, INSA Rennes, September 20, 2016.
- Guillaume Pierre was a reviewer in the PhD committee of Luc André, University of Lorraine, May 13th 2016.
- Guillaume Pierre was a reviewer in the HDR committee of Christoph Neumann, University of Rennes 1, November 23rd 2016.
- Guillaume Pierre was a reviewer in the PhD committee of Vincent Kherbache, university of Nice, December 7th, 2016.
- Louis Rilling was a member in the PhD committee of Allan Blanchard, University of Orléans, 6th of December 2016.
- Martin Quinson was a reviewer in the PhD committee of Dimitri Pertin, University of Nantes, April 22th, 2016.
- Martin Quinson was a member in the PhD committee of David Beniamine, University of Grenoble, December 5th, 2016.

- Cédric Tedeschi was a member of the PhD committee of Sajith Kalathingal, University of Rennes 1, December 13th, 2016.

10.3. Popularization

- Martin Quinson is a scientific expert in a teaching manual of Computer Science for primary schools, authored within the "La main à la pâte" popularization network. This manual was released this summer.
- Martin Quinson co-founded a working group of the Société Informatique de France toward the creation of new unplugged activities to teach the informatics to pupils. This group met twice in Lyon this year, in April and November.
- Martin Quinson participated and co-organized to several workshops and open events where high-school students were invited to discover Computer Science (March at ENS Rennes, November on the Beaulieu campus). He was a scientific expert to the MathC2+ event at ENS-Rennes in June.
- Martin Quinson participated to the full day meeting "Splash Education" targeting at determining the fundamental programming concepts that should be taught to every pupils, co-located with the SPLASH conference <http://2016.splashcon.org/track/splash-2016-splash-e>. He organized the 3-days event on instrumented teaching of computer science, co-located with the Orphee-RDV event <https://apprentissageinstrumentdelinformatique.wordpress.com/>.
- Martin Quinson continued the development of the PLM web platform, which is an exerciser to teach programming to beginners. He also submitted several project applications to pursue this work in the future. Unfortunately, none of these applications have been accepted so far. Prof Peter Hubwieser (Technical University of Munchen, chair of didactics of Computer Science) visited us for two weeks in November. Developing the PLM and exploiting the data already gathered were central elements of this work meeting. A joint publication is currently prepared, targeting the ItiCSE'17 conference.

REGAL Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific Events Organisation

9.1.1.1. General Chair, Scientific Chair

Swan Dubois: Co-Chair of the first Workshop DGDC, collocated with DISC 2016

Franck Petit: General Chair of the 17th International Symposium on Stabilization, Safety, and Security of Distributed Systems (SSS 2016), ed. LNCS, Lyon, France.

9.1.1.2. Member of the Organizing Committees

Swan Dubois: Member of the Organizing Committee and Publicity Chair of the 30th International Symposium on DIStributed Computing (DISC 2016)

9.1.2. Scientific Events Selection

9.1.2.1. Member of Steering Committee

- Marc Shapiro, Steering Committee of OPODIS 2013–2016.

9.1.2.2. Chair of Conference Program Committees

Pierre Sens: Chair of Distributed Systems and Networks track, 28th International Symposium on Computer Architecture and High Performance Computing (SBAC-PAD 2016), Los Angeles, USA.

9.1.2.3. Member of the Conference Program Committees

Luciana Arantes: IFIP International Conference on Distributed Applications and Interoperable Systems (DAIS 2016), International Workshop on Recent Advances in the Dependability Assessment of Complex System (Radiance 2016), IEEE International Symposium on Network Computing and Applications (NCA 2016), 28th International Symposium on Computer Architecture and High Performance Computing (SBAC-PAD 2016), 7th Latin-American Symposium on Dependable Computing (LADC 2016), 18th International Conferences on High Performance Computing and Communications (HPCC 2016), 11th International Conference on Green, Pervasive and Cloud Computing (GPC-2016), 35th International Conference of the Chilean Computer Science Society (SCCC 2016).

Swan Dubois: 30th International Symposium on DIStributed Computing (DISC 2016), 17th International Symposium on Stabilization, Safety, and Security of Distributed Systems (SSS 2016), 18th *Workshop on Advances in Parallel and Distributed Computational Models* (APDCM 2016), 18^{eme} Rencontres Francophones sur les Aspects Algorithmiques des Télécommunications (ALGO-TEL 2016)

Franck Petit: 18th *Workshop on Advances in Parallel and Distributed Computational Models* (APDCM 2016)

Pierre Sens: 27th International Symposium on Software Reliability Engineering (ISSRE 2016), 12th European Dependable Computing Conference (EDCC 2016) 30th IEEE International Parallel & Distributed Processing Symposium (IPDPS 2016), IEEE International Symposium on Network Computing and Applications (NCA 2016).

Marc Shapiro: Int. Conf. on Architectural Support for Programming Languages and Systems (ASP-LOS 2016), Int. Conf. on Principles of Distributed Systems (OPODIS 2016), Selection committee of Enterprise Research Challenge Contest (ERCC) at Int. Symp. on Stabilization, Safety, and Security of Dist. Sys. (SSS 2016), W. on Planet-Scale Distributed Systems (W-PSDS 2016).

9.1.2.4. Reviewer

Swan Dubois: 20th International Conference on Principles of Distributed Systems (OPODIS 2016), 4th International Conference on Networked Systems (NETYS 2016)

9.1.3. Journal

9.1.3.1. Member of the Editorial Boards

Franck Petit: co-editor of the proceedings of the 18th International Symposium on Stabilization, Safety, and Security of Distributed Systems, LNCS 10083.

Pierre Sens: Associate editor of International Journal of High Performance Computing and Networking (IJHPCN)

9.1.3.2. Reviewer - Reviewing Activities

Swan Dubois: ACM Transactions on Storage (TOS), SIAM Journal on Computing (SICOMP)

9.1.4. Invited Talks

Pierre Sens. Resource Management in Large Scale Distributed Systems, Dec. 2016, University of Santiago

Marc Shapiro. KTH, Stockholm, Sweden, Nov. 2016. [AntidoteDB: a Planet-Scale Available Transactional Database With Strong Semantics](#)

Marc Shapiro. Paris-Descartes University, Nov. 2016. [Just-Right Consistency](#)

Nuno Prego. Invariant-Preserving Applications for Weakly-consistent Replicated Databases. OPODIS PC workshop, October 2016, Lugano, Switzerland.

Marc Shapiro. Consistency in 3D. OPODIS PC workshop, October 2016, Lugano, Switzerland.

Marc Shapiro. “Consistency in 3D” [17]. [Invited talk at Int. Conf. on Concurrency Theory \(CONCUR\)](#), Québec, Canada, Aug. 2016.

Marc Shapiro. “Just-Right Consistency: Static analysis for minimal synchronisation.” Technical talk at Critéo, Paris, France, March 2016.

Marc Shapiro. [Keynote Speech at Laboratoire d’Informatique de Grenoble](#). “Just-Right Consistency: Static analysis for minimal synchronisation.” March 2016.

Marc Shapiro, “Reconciling performance and safety in the Antidote widely-geo-replicated database,” invited talk at [GDR RSD and ASF Winter School 2016](#), le Pleyne les Sept Laux, France, March 2016.

Marc Shapiro. Invited talk at [Inria/EPFL Workshop](#) “Consistency in three dimensions (It’s the invariants, stupid).” Rennes, Jan. 2016.

9.1.5. Scientific Expertise

Franck Petit, 2016: Expertise for HCERES

9.1.6. Research Administration

Franck Petit, 2014–2018: Deputy Director of LIP6

Franck Petit, since 2012: Member of the Executive Committee of Labex SMART, Co-Chair (with P. Sens) of Track 4, Autonomic Distributed Environments for Mobility.

Franck Petit, 2016–2020: Coordinator, ANR project ESTATE.

Pierre Sens, since 2016: Member of Section 6 of the national committee for scientific research CoNRS

Pierre Sens, since 2012: Member of the Executive Committee of Labex SMART, Co-Chair (with F. Petit) of Track 4, Autonomic Distributed Environments for Mobility.

Pierre Sens, 2012–2016: Member of the scientific council of UPMC

Pierre Sens, since 2015, officer at scientific research vice presidency UPMC

Pierre Sens, since 2014: Member of Steering Committee of International Symposium on Computer Architecture and High Performance Computing (SBAC-PAD).

Marc Shapiro, since 2009: Member of Scientific Advisory Board of the Center of Informatics and Information Technology (CITI), then Lab. for Informatics and Comp. Sc. (NOVA-LINCS) Universidade Nova de Lisboa, Portugal.

Marc Shapiro, since 2012: Member ERC (European Research Council) Consolidator Grants panel PE6.

Marc Shapiro, since 2013: member of the board of *Société Informatique de France*. Vice-Chair for Research since 2016.

Marc Shapiro, since 2016: Member of Advisory Board of IEEE Computer Society Special Technical Community on Operating Systems (STCOS).

Marc Shapiro, since 2014: Member of Steering Committee of Int. Conf. on Principles of Distributed Systems (OPODIS).

Marc Shapiro, 2016–2020: Coordinator, ANR project RainbowFS.

Marc Shapiro, 2013–2016: Coordinator, FP7 project **SyncFree**.

Julien Sopena, Member of “Directoire des formations et de l’insertion professionnelle” of UPMC Sorbonne Universités, France

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Julien Sopena is Member of “Directoire des formations et de l’insertion professionnelle” of UPMC Sorbonne Universités, France

Master: Julien Sopena is responsible of Computer Science Master’s degree in Distributed systems and applications (in French, SAR), UPMC Sorbonne Universités, France

Master: Luciana Arantes, Swan Dubois, Sébastien Monnet, Franck Petit, Pierre Sens, Julien Sopena, Advanced distributed algorithms, M2, UPMC Sorbonne Universités, France

Master: Jonathan Lejeune, Designing Large-Scale Distributed Applications, M2, UPMC Sorbonne Universités, France

Master: Maxime Lorrillere, Julien Sopena, Linux Kernel Programming, M1, UPMC Sorbonne Universités, France

Master: Luciana Arantes, Sébastien Monnet, Pierre Sens, Julien Sopena, Operating systems kernel, M1, UPMC Sorbonne Universités, France

Master: Luciana Arantes, Swan Dubois, System distributed Programming, M1, UPMC Sorbonne Universités, France

Master: Luciana Arantes, Swan Dubois, Franck Petit, Distributed Algorithms, M1, UPMC Sorbonne Universités, France

Master: Sébastien Monnet, Julien Sopena, Client-server distributed systems, M1, UPMC Sorbonne Universités, France

Licence: Pierre Sens, Luciana Arantes, Julien Sopena, Principles of operating systems, L3, UPMC Sorbonne Universités, France

Licence: Swan Dubois, Initiation to operating systems, L3, UPMC Sorbonne Universités, France

Licence: Swan Dubois, Franck Petit, Advanced C Programming, L2, UPMC Sorbonne Universités, France

Licence: Swan Dubois, Sébastien Monnet, Introduction to operating systems, L2, UPMC Sorbonne Universités, France

Licence: Mesaac Makpangou, C Programming Language, 27 h, L2, UPMC Sorbonne Universités, France

Ingénieur 4ème année : Marc Shapiro, Introduction aux systèmes d'exploitation, 26 h, M1, Polytech UPMC Sorbonne Universités, France.

9.2.2. Supervision

PhD: Mohamed Hamza Kaaouachi, "Autonomic Distributed Environments for Mobility", UPMC/Chart-LUTIN (Labex SMART), Franck Petit, Swan Dubois, and Francois Jouen (Chart), 01/12/2016.

PhD: Maxime Lorrillere, "A kernel cooperative cache for virtualized environments", UPMC, Sébastien Monnet, Julien Sopena, Pierre Sens, 02/04/2016.

PhD: Mahsa Najafzadeh, UPMC, funded by Inria competitive grant (Cordi-S), since Nov. 2012, Marc Shapiro, 22 April 2016.

PhD in Progress: Joao Paulo de Araujo, "L'exécution efficace d'algorithmes distribués dans les réseaux véhiculaires", funded by CNPq (Brésil), since Nov.2015, Pierre Sens and Luciana Arantes.

PhD in progress : Antoine Blin, "Execution of real-time applications on a small multicore embedded system", since April 2012, Gilles Muller (Whisper) and Julien Sopena, CIFRE Renault

PhD in progress: Sébastien Bouchard, "Gathering with faulty robots", UPMC, since Oct. 2016, Swan Dubois, Franck Petit, Yoann Dieudonné (University of Picardy Jules Verne)

PhD in progress: Marjorie Bournat, "Exploration with robots in dynamic networks", UPMC, since Sep. 2015, Swan Dubois, Franck Petit, Yoann Dieudonné (University of Picardy Jules Verne)

PhD in progress: Damien Carver, "HACHE : Horizontal Cache cHorEgraphy - Toward automatic resizing of shared I/O caches.", UPMC, CIFRE, since Jan. 2015, Sébastien Monnet, Pierre Sens, Julien Sopena, Dimitri Refauvelet (Magency).

PhD in Progress: Florent Coriat, "Géolocalisation et routage en situation de crise" since Sept 2014, UPMC, Anne Fladenmuller (NPA-LIP6) and Luciana Arantes.

PhD in progress: Rudyar Cortes, "Un Environnement à grande échelle pour le traitement de flots massifs de données," UPMC, funded by Chile government, since Sep. 2013, Olivier Marin, Luciana Arantes, Pierre Sens.

PhD in progress: Lyes Hamidouche, "Data replication and data sharing in mobile networks", UPMC, CIFRE, since Nov. 2014, Sébastien Monnet, Pierre Sens, Dimitri Refauvelet (Magency).

PhD in progress: Denis Jeanneau, "Problèmes d'accord et détecteurs de défaillances dans les réseaux dynamique," UPMC, funded by Labex Smart, since Oct. 2015, Luciana Arantes, Pierre Sens.

PhD in progress: Yoann Péron, "Development of an adaptive recommendation system", UPMC/Makazi, since May 2014, Franck Petit, Patrick Gallinari, Matthias Oehler (Makazi).

PhD in progress: Alejandro Z. Tomsic, UPMC, funded by SyncFree, since Feb. 2014, Marc Shapiro.

PhD in progress: Tao Thanh Vinh, UPMC, CIFRE, since Feb. 2014, Marc Shapiro, Vianney Rancurel (Scality).

PhD in progress: Gauthier Voron, "Big-Os : un OS pour les grands volumes de données," UPMC, since Sep. 2014, Gaël Thomas, Pierre Sens.

9.2.3. PhD committees

Franck Petit was the reviewer of:

- Mohamed Khaled, PhD UPJV (Advisors: F. Levé and V. Villain)

Franck Petit was Chair of:

- Quentin Bramas, UPMC (Advisor: S. Tixeuil)
- Fadwa Boubekeur, UPMC (Advisor: L. Blin)

Pierre Sens was the reviewer of:

- S. Chiky, HDR ISEP, Paris
- P. Li, PhD Bordeaux (Advisors: R. Namyst, E. Brunnet)
- J. Olivares, PhD Rennes 1 (Advisor: A-M Kermarrec)
- J. Pastor, PhD ENM, Nantes (Advisors: A. Lebre, F. Desprez)
- C. Sauvagnat, PhD IRIT, Toulouse (Advisor: M. Kaaniche)

Pierre Sens was Chair of

- C. Concolato, HDR Telecom Paris
- T. Ecarot, PhD, Telecom SupParis, UPMC (Advisor: D. Zeglache)

Marc Shapiro was on the following committees:

- Kirill Bogdanov (Advisors: Dejan Kostic, Jeff Maguire), licentiate thesis, KTH, Stockholm, Nov. 2016.
- Brice Nédélec (Advisors: Pascal Molli, Achour Mostefaoui), PhD thesis, Nantes, oct. 2016.

9.3. Popularization

Julien Sopena animated an activity during the [Science Festival 2016 at UPMC](#)

SPIRALS Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events Organisation

10.1.1.1. General Chair, Scientific Chair

Laurence Duchien has been General Chair of (**EJCP'2016**), that is an international summer school in the domain of software engineering. The summer school was held in Lille from 27 June to 1 July 2016.

10.1.2. Scientific Events Selection

10.1.2.1. Member of the Conference Program Committees

Laurence Duchien

- International Systems and Software Product Line Conference, Vision Track (SPLC)
- IEEE Conference on Software Engineering Education & Training (CSEE&T)
- International Workshop on Software Engineering for Systems-of-Systems (SESoS)
- European Conference on Software Architecture (ECSA)

Philippe Merle

- International Symposium on Security in Computing and Communications (SSCC)
- International Workshop on Adaptive and Reflective Middleware (ARM)
- Informatique des Organisation et Systèmes d'Information et de Décision (INFORSID)
- Workshop on CrossCloud Infrastructures & Platforms (CrossCloud)
- International Conference on Cloud Computing and Services Science (CLOSER), Special Session on Experiences with OCCI

Martin Monperrus

- International Symposium on Software Testing and Analysis (ISSTA)
- International Conference on Software Maintenance and Evolution (ICSME)

Romain Rouvoy

- ACM/IFIP/USENIX Middleware conference (Middleware)
- ACM Symposium on Applied Computing (SAC), track on Dependable, Adaptive, and Trustworthy Distributed Systems (DADS)
- International Symposium on Symbolic and Numeric Algorithms for Scientific Computing (SYNASC)
- International Conference on Ambient Systems, Networks and Technologies (ANT)
- International Conference on Formal Aspects of Component Software (FACS)
- IEEE International Workshop on Big Data Management for the Internet of Things (BIOT)
- International Workshop on Meta-Programming Techniques and Reflection (Meta)

Lionel Seinturier

International Conference on Service Oriented Computing (ICSOC)
 ACM/IEEE Joint Conference WICSA and CompArch (ICSA)
 ACM Symposium on Applied Computing (SAC), tracks Software Architecture Theory Technology and Applications (SA-TTA), Operating Systems (OS)
 IEEE International Symposium on Software Crowdsourcing (ISSC)
 Euromicro Conference on Software Engineering and Advanced Applications (SEAA), track Model-based development Components and Services (MOCS)
 International Conference on Software Paradigm Trends (ICSOFT-PT)
 International Cloud Forward Conference (CF)
 International Workshop on Interplay of Security, Safety and System/Software Architecture (ISSA)
 International Workshop on Models@run.time @ MODELS
 International Workshop on Models@run.time @ ICAC
 Workshop on Software Engineering for Sustainable Systems (SE4SuSy)
 International Workshop on Advanced Information Systems for Enterprises (IWAISE)
 Workshop on Model-driven Engineering for Component-based Software Systems (ModComp)

10.1.3. Journal*10.1.3.1. Member of the Editorial Boards*

Martin Monperrus is member of the editorial board of the international journal Springer Empirical Software Engineering (IF-2015: 1.933).

Romain Rouvoy is member of the editorial board of the journal Lavoisier Technique et Science Informatiques (TSI).

Lionel Seinturier is editor for software engineering of the ISTE-Wiley Computer Science and Information Technology book collection.

10.1.3.2. Reviewer - Reviewing Activities

Laurence Duchien: Lavoisier Technique et Science Informatiques (TSI), Wiley Software Practice and Experience (SPE), Elsevier Journal of Software and Systems (JSS).

Martin Monperrus: Springer Empirical Software Engineering (EMSE), Elsevier Information and Software Technology (IST), IEEE Transactions on Software Engineering (TSE).

Romain Rouvoy: Wiley Journal of Software: Evolution and Process (JSME), Elsevier Journal of Pervasive and Mobile Computing (PMC), Elsevier Journal of Computer Networks (COMNET), Elsevier Journal of Computer Communications (COMCOM), Elsevier Journal of Network and Computer Applications (JNCA), Elsevier Journal on Science of Computer Programming (SCICO).

Lionel Seinturier: ACM Computing Surveys, Elsevier Information and Software Technology (IST), Wiley Software Practice and Experience (SPE), Elsevier Science of Computer Programming (SCP), Springer International Journal on Software and Systems Modeling (SoSyM), Springer Knowledge and Information Systems (KAIS), Elsevier Computers & Electrical Engineering (CAEE), Oxford The Computer Journal, Revue Africaine de la Recherche en Informatique et Mathématiques Appliquées (ARIMA), Inderscience International Journal of Computer Applications in Technology (IJCAT).

10.1.4. Invited Talks

Romain Rouvoy gave on keynote at ECAAS 2016 in the 1st workshop on Engineering Context-Aware Applications and Services, on mobile crowdsensing.

Walter Rudametkin gave an invited talk on browser fingerprinting at CiComp 2016, the 8th International Congress on Computational Sciences.

Lionel Seinturier gave an webinar at the West University of Timisoara, Romania, on High-level Language Support for Reconfiguration Control in Component-Based Architectures.

10.1.5. Leadership within the Scientific Community

Martin Monperrus is the co-head of the "Groupe de Travail Génie Logiciel Empirique" of the GDR GPL.

Romain Rouvoy is the co-head of the "Groupe de Travail Génie Logiciel pour les Systèmes Cyber-physiques" of the GDR GPL.

10.1.6. Scientific Expertise

Laurence Duchien was member of the recruitment committee for Chaire Inria at Ecole des Mines de Nantes, and deputy head of the recruitment committee for Chargés de Recherche at Inria Lille - Nord Europe. She did some scientific expertises for Direction des Relations Internationales of the French Ministry of Research.

Martin Monperrus has evaluated grants for the Natural Sciences and Engineering Research Council of Canada (NSERC).

Romain Rouvoy has evaluated Discovery Grants for the Natural Sciences and Engineering Research Council of Canada (NSERC) and research proposals for the STIC-AmSud Program.

Lionel Seinturier was member of the recruitment committees for professors in computer science at the University of Bordeaux, and the University of Grenoble. He was scientific expert for ANRT and University Paris 6. He was member of the Agence Nationale de la Recherche (ANR) Scientific Evaluation Committee for Software and Network (CES25).

10.1.7. Research Administration

Laurence Duchien is member of the Scientific Advisory Board for the Certus Center of the Simula Lab Norway (2014-2016). She is member of the CNRS CoCNRS section 6 committee, and of the "bureau" of this committee.

Philippe Merle is member of the scientific board of Inria. He is in charge of creating the Lille's instance of the Irill research and innovation institute on free software. He is president of the CUMI (Comité des Utilisateurs des Moyens Informatiques), alternate member of the Comité de centre, member of the CLHSCT (Comité Local d'Hygiène, de Sécurité et de Conditions de Travail).

Romain Rouvoy is member of the CLDD (Commission Locale de Développement Durable), member of the CUB (Commission des Utilisateurs du Bâtiment), member of the CER (Commission Emplois Recherche), and member of the Horizon Startup committee for the Inria Lille - Nord Europe research center.

Lionel Seinturier is president of the CDT (Commission Développement Technologique), member of the BCP (Bureau du Comité des Projets), and scientific correspondent for DPEI (Direction Partenariat Europe et International), for the Inria Lille - Nord Europe research center. He heads the committee (so-called "vivier 27 rang A") that selects members of recruitment committees in Computer Science at the University of Lille.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Laurence Duchien teaches at the University of Lille 1, IEEA faculty. She heads the Carrières et Emplois service and is referent for the professional insertion in the PhD program in Computer Science at ComUE University Lille Nord de France. She is Director of Doctoral Studies for Computer Science in the Doctoral School Engineering Science (SPI) - ComUE Lille Nord de France.

Software Project Management, 50h, Level M2, Master MIAGE

Design of distributed applications, 42h, Level M1, Master of Computer Science

Software Product Lines, 8h, Level M2, Master of Computer Science

Research and Innovation Initiation, 22h, Level M2 IAGL, Master of Computer Science

Tutoring Internship, 16h, Level M2, Master of Computer Science

Martin Monperrus teaches at the University of Lille 1, IEEA faculty. He heads the **IAGL** specialty of the Master of Computer Science at the University of Lille 1.

Introduction to programming, 48h, Level L1, Licence of Computer Science

Object-oriented design, 39h, Level L3, Licence of Computer Science

Automated software engineering, 40h, Level M2 IAGL, Master of Computer Science

Romain Rouvoy teaches at the University of Lille 1, IEEA faculty. He heads the **Master of Computer Science** program at the University of Lille 1. He supervises the **Agil-IT** Junior Enterprise.

Infrastructures et Frameworks Internet, 32h, Level M2 IAGL, Master of Computer Science

Innovation & Initiation à la Recherche, 14h, Level M2 IAGL, Master of Computer Science speciality

Outils pour la Programmation des Logiciels, 12h, Level M2 IAGL, Master of Computer Science

Suivi de projets, 20h, Level M2, Master of Computer Science

Suivi d'alternants, 20h, Level M2, Master of Computer Science

Walter Rudametkin Ivey teaches at the University of Lille 1, Polytech engineering school.

GIS4 Programmation par Objets

GIS4 Architectures Logicielles

GIS2A3 (apprentissage) Projet programmation par Objet

IMA2A4 (apprentissage) Conception Modélisation Objet

GBIAAL4 Bases de données

Lionel Seinturier teaches at the University of Lille 1, IEEA faculty.

Conception d'Applications Réparties, 50h, Level M1, Master MIAGE

Conception d'Applications Réparties, 36h, Level M1, Master of Computer Science

Infrastructures et Frameworks Internet, 52h, Level M2 E-Services IAGL and TIIR, Master of Computer Science

10.2.2. Supervision

Defended HdR: Martin Monperrus, On Oracles for Automated Diagnosis and Repair of Software Bugs, 3 May 2016.

Defended PhD: Vincenzo Musco, Usages of Graphs and Synthetic Data for Software Propagation Analysis, 3 November 2016, Philippe Preux (Inria SequeL) & Martin Monperrus.

Defended PhD: Maxime Colmant, Multi-Dimensional Analysis of Software Power Consumptions in Multi-Core Architectures, 24 November 2016, Lionel Seinturier & Romain Rouvoy.

Defended PhD: Geoffrey Hecht, Détection et analyse de l'impact des défauts de code dans les applications mobiles, 30 November 2016, Romain Rouvoy.

Defended PhD: María Gómez Lacruz, Towards Improving the Quality of Mobile Apps by Leveraging Crowdsourced Feedback, 2 December 2016, Lionel Seinturier & Romain Rouvoy.

Defended PhD: Bo Zhang, Self-optimization of Infrastructure and Platform Resources in Cloud Computing, 12 December 2016, Lionel Seinturier & Romain Rouvoy.

In progress PhD: Benjamin Danglot, December 2016, Martin Monperrus.

In progress PhD: Lakhdar Meftah, November 2016, Romain Rouvoy & Isabelle Chrisment (Inria Madynes).

In progress PhD: Miguel Gonzalez, October 2016, Martin Monperrus & Romain Rouvoy & Walter Rudametkin.

In progress PhD: Sarra Habchi, Une supervision de contexte sensible à la confidentialité pour les développements logiciels en crowdsource, October 2016, Romain Rouvoy.

In progress PhD: Antoine Vastel, Cartographie de la qualité d'expérience pour l'accès à l'internet mobile, October 2016, Romain Rouvoy & Walter Rudametkin.

In progress PhD: Yahya Al Dhuraibi, Un cadre flexible pour l'élasticité dans les nuages, October 2015, Philippe Merle.

In progress PhD: Stéphanie Challita, Un cadre formel et outillé pour la gestion de toute ressource en nuage, October 2015, Philippe Merle.

In progress PhD: Thomas Durieux, Search-based Monitoring and Root Cause Diagnosis in Production, September 2015, Lionel Seinturier & Martin Monperrus.

In progress PhD: Gustavo Sousa, Towards dynamic software product lines to optimize management and reconfiguration of cloud applications, October 2012, Laurence Duchien & Walter Rudametkin Ivey.

In progress PhD: Amal Tahri, Evolution logicielle multi-vues, des réseaux domestiques au Cloud, March 2013, Laurence Duchien.

10.2.3. Juries

Laurence Duchien

HDR Tewfik Ziadi (University Paris 6), reviewer

HDR Christelle Urtado (University of Montpellier), reviewer

HDR Anne Etien (University of Lille 1), chair

HDR Martin Monperrus (University of Lille 1), garant

HDR Fabien Dagnat (University Rennes 1), reviewer

Bui Thi Mai Anh (University Paris 6), examiner

Alix Gogey (University of Lille 1), chair

Guillaume Bécan (University Rennes 1), reviewer

Martin Monperrus

Alan Charpentier (University of Bordeaux), examiner

Vincenzo Musco (University of Lille 1), co-supervisor

Romain Rouvoy

Assaad Moawad (University of Luxembourg), reviewer

Simon Dupont (École des Mines de Nantes), reviewer

Lucas Perronne (University of Grenoble), reviewer

Alexandre Caron (University of Lille 1), chair

Maxime Colmant (University of Lille 1), co-supervisor

Geoffrey Hecht (University of Lille 1 & UQAM), co-supervisor

María Gómez Lacruz (University of Lille 1), co-supervisor

Bo Zhang (University of Lille 1), co-supervisor

Lionel Seinturier

HDR Brahim Hamid (University of Toulouse), reviewer

Sebastian Martinez (University Bretagne Occidentale), reviewer

Julie Rochas (University of Nice), reviewer

Hamza Chehili (University Constantine 2, Algérie), reviewer

Naweulo Zhou (University of Grenoble), reviewer

Anca Iordache (University Rennes 1), examiner

Maxime Colmant (University of Lille 1), co-supervisor

María Gómez Lacruz (University of Lille 1), co-supervisor

Bo Zhang (University of Lille 1), co-supervisor

10.3. Popularization

Romain Rouvoy is in charge of a demonstrator of APISENSE[®] as part of the Xperium initiative of the **LILLIAD Learning center Innovation** at the University of Lille 1.

Lionel Seinturier has participated in October to the event Chercheur itinérant organized by the Inria Lille Nord Europe research center in the context of La Fête de la science. Two classrooms (3ème) have been visited. The theme of the visit was crowd-sensing and data gathering from mobile devices.

WHISPER Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events Selection

10.1.1.1. Member of the Conference Program Committees

- Pierre-Évariste Dagand: TyDe 2016 PC.
- Julia Lawall: FLOPS 2016 PC, PLDI 2016 EPC, LCTES 2016 PC, OOPSLA 2016 PC, ASE 2016 ERP, Middleware 2016 PC, GPCE 2016 PC, SLE 2016 PC, ICSME 2016 ERA.
- Gilles Muller: EDCC 2016 PC, OPODIS 2016 PC, DSN 2016 PC, ASPLOS 2016 PC.

10.1.2. Journal

10.1.2.1. Member of the Editorial Boards

- Julia Lawall: Editorial board of Science of Computer Programming (2008 - present).

10.1.2.2. Reviewer - Reviewing Activities

- Pierre-Évariste Dagand: Journal of Logical and Algebraic Methods in Programming (journal), Journal of Functional Programming (journal), Type-driven Development (workshop)
- Julia Lawall: Automated Software Engineering (journal).
- Gilles Muller: IEEE Transactions on Computers, Operating Systems Review.

10.1.3. Invited Talks

- Julia Lawall: PPL workshop (Japan) 2016, Linux Security Summit 2016, SPLASH 2016 Programming Languages Mentoring Workshop, IFIP WG 2.4 (Software Implementation Technology).

10.1.4. Research Administration

- Pierre-Évariste Dagand: Member of the steering committee for the Colloquium d'Informatique de L'UPMC Sorbonne Universités
- Julia Lawall: IFIP TC secretary (2012 - present).
Hiring committees: Inria Paris (CR2, 2016), Bordeaux (MdC, 2016), CNAM (MdC, 2016)
- Gilles Muller: EuroSys steering committee (2013-2016), elected member of WG 10.4 (Dependability), representative of Inria in Sorbonne University's advisory committee for research, member of the project committee board of the Inria Paris Center, member of the Paris committee for allocating post-docs, PhD stipends and sabbaticals.
- Bertil Folliot: Elected member of the IFIP WG10.3 working group (Concurrent systems)

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

- Licence: Pierre-Évariste Dagand, Distributed cooperating objects, L3, UPMC, France
- Professional Licence: Bertil Folliot, Programmation C, L2, UPMC, France
- Professional Licence: Bertil Folliot, Lab projects, L2, UPMC, France

10.2.2. Supervision

- PhD in progress : Antoine Blin, CIFRE Renault, Vers une utilisation efficace des multi-coeurs dans des systèmes embarqués à criticités multiples, 30 Janvier 2017, Gilles Muller, Julien Sopéna (Regal)
- PhD in progress : Mariem Saeid, Jens Gustedt (Camus), soutenance en 2017, Gilles Muller.
- PhD in progress : Cédric Courtaud, CIFRE Thalès, 2016-2018, Gilles Muller, Julien Sopéna (Regal).
- PhD in progress : Redha Gouicem, 2016-2018, Gilles Muller, Julien Sopéna (Regal).

10.2.3. Juries

- Pierre-Évariste Dagand: member of the Jury of Mahsa Najafzadeh (UPMC)
- Julia Lawall: PhD reporter for Pierre Wilke (Rennes), Alan Charpentier (Bordeaux), Guido Lena Cota (Milan, defense in 2017), Krishna Narasimhan (Frankfurt, defense in 2017). PhD jury for Ripon Saha (UT Austin).
- Gilles Muller: President of the PhD thesis of T. Tigori (U. of Nantes), Member of the Jury of V. Trigonakis (EPFL, Switzerland), Reporter of the PhD of A. Walker (U. of New South Wales, Australia).

10.3. Popularization

10.3.1. Talks

- Julia Lawall: Coccinelle: invited talk, Linux Security Summit, 2016.
- Julia Lawall: Coccinelle BoF: Linuxcon Europe 2016.
- Julia Lawall: Outreachy intern panel, Linuxcon Europe 2016.
- Julia Lawall: Prequel, 2016 OSADL networking day.

ALPINES Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events Organisation

10.1.1.1. General Chair, Scientific Chair

- SIAM Conference on Parallel Processing and Scientific Computing 2016 <http://www.siam.org/meetings/pp16/>, Paris. Co-chairs L. Grigori and R. Vuduc. The team Alpines as well as other members of Inria Paris and UPMC, were in charge of the local organization of this conference. There were a record number of 500 participants, 88 minisymposia sessions and 44 contributed talks.
- Frederic Hecht: Organizing the 8th FreeFem++ days (December 2016, Paris)

10.1.1.2. Member of the Organizing Committees

- Laura Grigori: Member of Program Committee of IEEE International Parallel and Distributed Processing Symposium, IPDPS 2016.
- Laura Grigori: Member of Program Committee of HiPC 2016, IEEE Int'l Conference on High Performance Computing.
- Laura Grigori: Member of Program Committee of IEEE Cluster 2016.
- Laura Grigori: Member of Organizing Committee of 5th SIAM Workshop on Combinatorial Scientific Computing (CSC) 2016.

10.1.2. Journal

10.1.2.1. Member of the Editorial Boards

10.1.2.1.1. Laura Grigori

- March 2014 – current. Member of the editorial board for the SIAM book series Software, Environments and Tools. See <http://bookstore.siam.org/software-environments-and-tools/>.
- June 2013 – current. Area editor for Parallel Computing Journal, Elsevier
- January 2016 – current. Associate Editor, SIAM Journal on Scientific Computing.
- January 2016 – current. Editorial board, Numerical linear algebra with applications Journal, Wiley.

10.1.2.1.2. Frédéric Nataf

- 2014 – current. Associate Editor, Journal of Numerical Mathematics, de Gruyter.

10.1.3. Invited Talks

- Laura Grigori: Invited plenary speaker, Fifth IMA Conference on Numerical Linear Algebra and Optimization, Birmingham, (http://www.ima.org.uk/conferences/conferences_calendar/5th_ima_conference_on_numerical_linear_algebra_and_optimisation.cfm.html, September 7-9, 2016.
- Frederic Hecht: tutorial with FreeFem++, CEMRACS 2016 CIRM, Luminy, Marseille, July 18-22, 2016.
- Frederic Hecht: Graduate Course: An introduction to scientific computing using free software FreeFem++ , The Fields Institute for Research in Mathematical Sciences , Toronto, Canada , 7-17 March . 2016.
- Frederic Nataf: tutorial on Domain Decomposition Methods, CEMRACS 2016 CIRM, Luminy, Marseille, July 18-22, 2016.

- Frederic Nataf: Invited plenary speaker, Franco-Scottish Seminar 2016: Linear Algebra and Parallel Computing at the Heart of Scientific Computing. 21 September 2016.

10.1.4. Leadership within the Scientific Community

- Laura Grigori: Chair of the SIAM SIAG on Supercomputing (SIAM special interest group on supercomputing), January 2016 - December 2017. Nominated by a Committee and elected by the members of this SIAG.
- Laura Grigori: Member of the PRACE (Partnership for Advanced Computing in Europe, <http://www.prace-ri.eu/>) Scientific Steering Committee, September 2016 - current.
- Laura Grigori: Steering committee member, Challenge 7: Information and communication society, ANR (Comité de Pilotage , Défi 7), since November 2016.

10.1.5. Scientific Expertise

- Laura Grigori: November 2015 - current, expert to the Scientific Commission of IFPEN (French Petroleum Institute). Evaluation of research programs, PhD theses, work representing a total of 5 days per year.
- Xavier Claeys: Member of the hiring committee for the position of maître de conférence 26 MCF 4346 at Université Claude Bernard Lyon 1, Spring 2016

10.1.6. Research Administration

10.1.6.1. Xavier Claeys

- Correspondent of the Association pour les Mathématiques en Interactions avec les Entreprises et la Société (AMIES) for Laboratoire Jacques-Louis Lions

10.1.6.2. Laura Grigori

- Member of the Director Committee (Comité Directeur) of GIS Geosciences franciliennes, since November 2015.
- Member (nominated by Inria) of the Scientific Committee of the Mathematics Department of UPMC

10.1.6.3. Frédéric Hecht

- Assistant Director of Fédération de Recherche en Mathématiques de Paris Centre, Fédération de Recherche en Mathématiques de Paris Centre, Since 2010

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

10.2.1.1. Xavier Claeys

- Academic year 2015-2016, total number of course hours: 192 hrs
 - Licence 1: Calculus, 12hrs, UPMC
 - Licence 2: Orientation and Professional Insertion, 40 hrs, UPMC
 - Master 1: Basic computing, 72 hrs of practical works in C++, UPMC
 - Master 1: Scientific computing, 44 hrs of lectures, UPMC
 - Master 2: Solving PDEs by using finite element methods, 18 hrs of practical works in C++, UPMC

10.2.1.2. Laura Grigori

- Spring 2016, UC Berkeley: Co-teaching a class with J. Demmel on Communication Avoiding Algorithms https://who.rocq.inria.fr/Laura.Grigori/TeachingDocs/CS-294_Spr2016/CS-294_CA_Spr2016.html. The class is available for mathematics students as a *Hot Topics Course in Mathematics*, and for Computer Science students as a *Special Topics* class. It was mainly designed for graduate students.

- 4-hour lecture at the XVII Jacques-Louis Lions Spanish-French School on Numerical Simulation in Physics and Engineering, June 2016, Gijon, Spain.

10.2.1.3. Frédéric Hecht

- Academic year 2015-2016, total number of course hours: 192 hrs
 - Master 1: Initiation au C++, 24hrs, M1, Université Pierre-et-Marie Curie Paris 6, France
 - Master 2: Des EDP à leur résolution par la méthode des éléments finis (MEF), 24hrs, M2, Université Pierre-et-Marie Curie Paris 6, France
 - Master 2: Numerical methods for fluid mechanics, 10hrs, M2, Université Pierre-et-Marie Curie Paris 6, France
 - Master 2: Calcul scientifique 3 / projet industriel FreeFem++, 28hrs, M2, Université Pierre-et-Marie Curie Paris 6, France
 - Master 2: Ingénierie 1 / Logiciel pour la simulation (FreeFem++), 21hrs, M2, Université Pierre-et-Marie Curie Paris 6, France
 - Master 2: Ingénierie 2 / Projet collaboratif, 21hrs, M2, Université Pierre-et-Marie Curie Paris 6, France
- CEMRACS 2016 : Calcul scientifique à haute performance, 3h course on Tutorial with FreeFem++. The slides are available on F. Hecht website, and videos can be found here <https://www.youtube.com/watch?v=NQy2kZQGBbg>.

10.2.1.4. Frédéric Nataf

- CEMRACS 2016 : Calcul scientifique à haute performance, 3h course on Domain decomposition methods The slides are available on F. Nataf's website, videos can be found here https://www.youtube.com/watch?time_continue=10672&v=rtgIFcN6w4.
- Spring 2016: Course on *Domain Decomposition Methods*, Master 2nd year Mathematics & Applications, University Pierre and Marie Curie
- Winter 2016: Course on *Domain Decomposition Methods*, Master 2nd year, Mathematics & Applications, ENSTA and UVSQ

10.2.2. Supervision

- PhD in progress: Alan Ayala, since October 2015 (funded by NLAFFET H2020 project), co-advisors Xavier Claeys and Laura Grigori.
- PhD in progress : Sebastien Cayrols, since October 2013 (funded by Maison de la simulation), advisor Laura Grigori.
- PhD in progress: Hussam Al Daas, since February 2015 (funded by contract with Total), advisor Laura Grigori.
- PhD in progress: Olivier Tissot, since October 2015 (funded by NLAFFET H2020 project), advisor Laura Grigori.
- PhD in progress: Pierre Marchand, since October 2016 (funded by ANR NonLocalDD project), advisors Xavier Claeys et Frédéric Nataf.
- PhD in progress: Zakariae Jorti, since February 2016 (funded by IFPen), advisor Laura Grigori.
- PhD : Ryadh Haferssas, defended december 2016 (funded by Ecole Doctorale, UPMC), advisor F. Nataf
- PhD : Mireille El-Haddad, defended december 2016(t UPMC), advisors F. Hecht and T. Sayah.
- HDR: X. CLAEYS, Boundary integral equations of time harmonic wave scattering at complex structures, Accreditation to supervise research, (UPMC Paris 6), February 2016.

10.3. Popularization

- 2 Conferences on being a mathematicien: **Applied Mathematics, Research...**, in the high school Viollet le Duc - Villiers-Saint-Frédéric, France for 200 high school students in 11th and 12th grade, april 2016.
- Part of the teaching duty of Xavier Claeys (around 70 hours total) has been dedicated to "orientation and insertion professionnelle". This has consisted in familiarizing young students (2nd year bachelor) with potential curricula, professional activities and networks related to mathematics.

AVALON Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific Events Organisation

9.1.1.1. General Chair, Scientific Chair

- Laurent Lefevre was :
 - Co-Workshop chair of Xgreen 2016 : Energy Efficiency in Large Scale Distributed Systems, Cartagena, Colombia, May 2016
 - Co-chair of the Special Session on Energy Efficient Management of Parallel Systems, Platforms, and Computations during PDP2016 : 24th Euromicro International Conference on Parallel, Distributed and Network based Processing, Heraklion, Greece, February 17-19, 2016
- Christian Perez was co-chair of the Topic 8 of Euro-Par 2016.

9.1.1.2. Member of the Organizing Committees

- Eddy Caron was:
 - Co-organizer of SC16 Inria Booth at Salt Lake City (Utah). November 13-18, 2016.
 - Co-organizer of SSS'2016 (The 18th International Symposium on Stabilization, Safety, and Security of Distributed Systems), Lyon, November 7-10, 2016.
 - Co-organizer of OpenStack WorkShop Lyon 2016 at ENS de Lyon. June 15, 2016.
- H el ene Coullon and Christian Perez were members of the organization team of the 5th workshop of the Joint Laboratory for Extreme Scale Computing, Lyon, 27-29 June 2016.
- Laurent Lefevre was :
 - Co-organizer of SC16 Inria Booth at Salt Lake City (Utah). November 13-18, 2016.
 - Co-organizer of the Ecoinfo conference on "Eco-design of hardware", Grenoble, September 27, 2016
 - Co-organizer of the Atelier Compas 2016 : Economiser l' nergie dans les syst mes distribu s, July 5, 2016 with Anne-C cile Orgerie (IRISA, Rennes)
 - Co-organizer of the E3-RSD school on Energy Efficiency in Networks and Distributed Systems, Dinard, May 23-27, 2016 with Anne-C cile Orgerie (IRISA, Rennes)
 - Tutorial Chair in CCGrid 2016: the 16th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing, Cartagena, Colombia, May 2016
- Fr d ric Suter was the co-organizer of the 6th edition of the SimGrid Users Days, Fr jus, January 18-21, 2016.

9.1.2. Scientific Events Selection

9.1.2.1. Member of the Conference Program Committees

- Eddy Caron was a member of the program committee of HCW'2016, ICACCI-2016, Xgreen 2016, CloudTech'16, CCGRID'2016
- Gilles Fedak was a member of the program committee of InterCloud'2016, CCloudCom'2016, Cluster 2016, Compass 2016, HPDC 2016, ICCCN'2016, ICPADS'2016.

- Olivier Glück was a member of the program committee of PDP 2016 (24th Euromicro International Conference on Parallel, Distributed, and Network-Based Processing) and the Xgreen2016 workshop of CCGrid 2016.
- Christian Perez was a member of the Workshop Committee at the 2016 ACM/IEEE International Conference on High Performance Computing, Networking, Storage and Analysis (SC16). He was a member of the program committee of the Grid'5000 winter School 2016. He served in the committee to select Outstanding Paper Award of HPCS 2016.
- Frédéric Suter was a member of the program committee of Vecpar 2016, ICCS 2016, ComPas 2016 and EuroMPI 2016

9.1.3. Journal

9.1.3.1. Member of the Editorial Boards

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

9.1.4. Invited Talks

Laurent Lefevre has been invited to give the following talks :

- "Reducing environmental impacts of ICT : challenges and solutions", Invited talk in "Agence de l'Eau Rhône Méditerranée et Corse", Lyon, December 15, 2016
- "Ecological digital world, is it possible ? / Numérique écologique, est ce possible ?", Invited Keynote for Université Ouverte de Lyon, Lyon, France, November 29, 2016
- "Grid'5000: French Nationwide Testbed for Research in Distributed Computing", Laurent Lefevre, BOF on Experimental Infrastructure and Methodology for HPC Cloud, Supercomputing 2016 Conference, Salt Lake City, USA, November 15, 2016
- "GreenFactory : orchestrating power capabilities and leverages at large scale for energy efficient infrastructures", Laurent Lefevre, CCDSC2016: Workshop on Clusters, Clouds, and Data for Scientific Computing, Dareize, France, October 3-6, 2016
- "Full life cycle in sustainable ICT for reaching energy reduction, energy efficiency and energy proportionality", Laurent Lefevre, Invited keynote talk, IEEE Tenth International Conference on Research Challenges in Information Science (RCIS2016) & Inforsid conference, Grenoble France, June 3, 2016

Gilles Fedak has been invited to give the following talks:

- "iEx.ec: Blockchain-based Cloud Computing", Inria Blockchain Day, Paris, December 12, 2016
- "Active Data: Large scale data management based on data life cycle", Journée Big Data de la Fédération Informatique de Lyon, December 9, 2016
- "Active Data, managing Data Life Cycle on heterogeneous systems and infrastructures", Workshop Data preservation (PREDON) of the MADICS research group on Big Data, Paris, CNRS, December 2, 2016
- "Blockchain applications are coming, what's next" Panel at the workshop ParisInvest, HEC, December 1st, 2016
- "iEx.ec: Blockchain-based Distributed Cloud Computing", Chaintech Meetup, Paris, November 29, 2016
- "iEx.ec: un Cloud distribué basé sur la blockchain", CES-3 Innovation Forum, Paris, 29 Septembre 2016
- "iEx.ec: un Cloud distribué basé sur la blockchain", EDF research Lab, Saclay, 28 Septembre 2016
- "iEx.ec: Blockchain-based Fully Distributed Cloud Computing", CAS Shanghai University, Shanghai, September 23, 2016
- "iEx.ec: Fully Distributed Cloud Computing thanks to the Ethereum Smart Contracts", Ethereum Developer Conference, Shanghai, September 21, 2016
- "iEx.ec: Blockchain-based Fully Distributed Cloud Computing", CNIC Chinese Academy of Sciences, Beijing, September 18, 2016
- "Relocaliser les data-centers dans la ville intelligente grâce à la blockchain" Smart Building Alliance, Lyon, France September 15, 2016

Frédéric Suter has been invited to give the following talk:

- "Modeling Distributed Platforms from Application Traces for Realistic File Transfer Simulation", Information Sciences Institute, University of Southern California, December 21, 2016.

9.1.5. Leadership within the Scientific Community

- Laurent Lefevre is Animator and chair of the transversal action on "Energy" of the French GDR RSD ("Réseaux et Systèmes Distribués")
- Christian Perez is co-leader of the pole Distributed Systems of the French GDR RSD ("Réseaux et Systèmes Distribués").

9.1.6. Scientific Expertise

- Eddy Caron reviewed a project for the French National Research Agency (ANR).
- Olivier Glück is member of the CNU (Conseil National des Universités) section 27 (Computer Science). He participated to the 2016 "Qualifications" session.
- Olivier Glück evaluated a Ph.D. CIFRE proposal (industrial funded PhD student).
- Christian Perez reviewed a project for the French National Research Agency (ANR).

9.1.7. Research Administration

- Eddy Caron is a member of the Inria's CDT (Commission de Développement Technologique) from Inria Rhone-Alpes center.
- Eddy Caron is the corresponding researcher "valorisation/transfert" in the Labex MILyon for the LIP laboratory.
- Olivier Glück is member of the "Conseil Académique" of Lyon 1 and Lyon University. He is also member of the "Conseil de la Faculté des Sciences et Technologies" of Lyon 1 University.
- Christian Perez is a member of the committee selection of the project call from the Rhône-Alpes region ARC6 (France). He is also a member of the Inria Grenoble Rhône-Alpes Strategic Orientation Committee.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Licence: Yves Caniou, Algorithmique programmation impérative, initiation, 10h, niveaux L1, Université Lyon 1, France

Licence: Yves Caniou, Système d'Exploitation, 35h, niveaux L3, Université Lyon 1, France

Licence: Yves Caniou, Système d'Exploitation, 35h, niveaux L2, Université Lyon 1, France

Licence: Yves Caniou, Programmation Concurrente, 33h, niveaux L3, Université Lyon 1, France

Licence: Yves Caniou, Réseaux, 36h, niveaux L3, Université Lyon 1, France

Master: Yves Caniou, Sécurité, 34h, niveaux M2, Université Lyon 1, France

Master: Yves Caniou, Projet, Bibliographie, Certification, 15h, niveaux M2, Université Lyon 1, France

Master: Yves Caniou, Sécurité, 20h, niveau M2, IGA Casablanca, Maroc

Master: Yves Caniou, Suivi d'étudiants (apprentissage, stage), 25h, niveaux M1 et M2, Université Lyon 1, France

Master: Yves Caniou, Responsable of professional Master SRIV (Systèmes Réseaux et Infrastructures Virtuelles), 30h, Université Lyon 1, France

Licence: Eddy Caron, Projet 1, 48h, L3, Ens de Lyon. France.

Licence: Eddy Caron, Architecture, Système et Réseaux, 48h, L3, Ens de Lyon. France.

- Master: Eddy Caron, Projet Intégré, 42h, M1, Ens de Lyon. France.
- Master: Eddy Caron, Système distribués, 30h, M1, Ens de Lyon. France.
- Master: Eddy Caron, Distributed Computing: Models and Challenges, 8h, M2, Ens de Lyon. France.
- Licence: Olivier Glück, Licence pedagogical advisor, 30h, niveaux L1, L2, L3, Université Lyon 1, France.
- Licence: Olivier Glück, Initiation Réseaux, 2x9h, niveau L2, Université Lyon 1, France.
- Licence: Olivier Glück, Réseaux, 2x70h, niveau L3, Université Lyon 1, France.
- Master: Olivier Glück, Responsible of professional Master SIR (Systèmes Informatiques et Réseaux) located at IGA Casablanca, 20h, niveau M2, IGA Casablanca, Maroc
- Master: Olivier Glück, Réseaux par la pratique, 20h, niveau M1, Université Lyon 1, France.
- Master: Olivier Glück, Services et Protocoles Applicatifs sur Internet, 40h, niveau M2, Université Lyon 1, France.
- Master: Olivier Glück, Services et Protocoles Applicatifs sur Internet, 24h, niveau M2, IGA Casablanca, Maroc
- Master: Olivier Glück, Administration des Systèmes et des Réseaux, 16h, niveau M2, Université Lyon 1, France.
- Master: Jean-Patrick Gelas, Programmation embarquée et mobile des objets, 17.5h, niveau M1, Université Lyon 1, France.
- Master: Jean-Patrick Gelas, Introduction au Cloud Computing, 24h, niveau M2 (CCI), Université Lyon 1, France.
- Master: Jean-Patrick Gelas, Système d'exploitation, 30h, niveau M2 (CCI), Université Lyon 1, France.
- Master: Jean-Patrick Gelas, Projet en Informatique en Anglais, 10h, niveau M2 (CCI), Université Lyon 1, France.
- Master: Jean-Patrick Gelas, Réseaux Avancés, 27h, niveau M2 (CCI), Université Lyon 1, France.
- Master: Jean-Patrick Gelas, Sécurité et Admin des infra réseaux, 37.5h, niveau M2 (CCI), Université Lyon 1, France.
- Master: Jean-Patrick Gelas, Technologies embarquées, 15h, niveau M2 (Image), Université Lyon 1, France.
- Master: Jean-Patrick Gelas, Routage (BGP), Routeurs et IPv6, 16.5h, niveau M2, Université Lyon 1, France.
- Master: Jean-Patrick Gelas, Systèmes embarqués (GNU/Linux, Android, ARM, Arduino), 39h, niveau M2, Université Lyon 1, France.
- Master: Jean-Patrick Gelas, Analyse de performance, 3h, niveau M2 (TIW), Université Lyon 1, France.
- Master: Jean-Patrick Gelas, Cloud Computing, 16h, niveau M2 (TIW), Université Lyon 1, France.
- Master Informatique: Laurent Lefevre, "Parallelism", Université Claude Bernard, France. (18h), M1
- Master Systèmes Informatique et Réseaux: Laurent Lefevre, "Advanced Networks", IGA Casablanca, Maroc (20h), M2

9.2.2. Supervision

PhD: Daniel Balouek-Thomert, *Ordonnancement et éco-efficacité dans les environnements virtualisés*, 09/2013, Eddy Caron (dir), Laurent Lefevre (co-dir), Gilles Cieza (NewGen society, co-dir), defended December 5th, 2016

PhD: Violaine Villebonnet, *Proportionnalité énergétique dans les systèmes distribués à grande échelle*, 9/2013, Laurent Lefevre (dir), Jean-Marc Pierson (IRIT, Toulouse, co-dir), defended December 6th, 2016

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

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

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

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

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

PhD in progress: Alexandre Veith : *Elastic Mechanisms for Big-Data Stream Analytics*, Labex MiLyon, Laurent Lefevre (dir), Marcos Dias de Assuncao (co-dir) (2016-2019)

PhD in progress: Valentin Lorentz : *Energy traceability of data*, Gilles Fedak (dir), Laurent Lefevre (co-dir) (2016-2019)

PhD in progress: Hayri Acar, *Towards a green and sustainable software*, Parisa Ghodous (dir), Gulfem Alptekin (co-dir), Jean-Patrick Gelas (co-dir) (2014-2017)

PhD in progress: Jad Darrous : *Geo-distributed storage for distributed Cloud*, Gilles Fedak (dir), Shadi Ibrahim (co-dir, Kerdata team, Inria Rennes) (2016-2019)

PhD in progress: Anchen Chai: *Simulation of the Distributed Execution of a Medical Imaging Simulator*, Hugues Benoit-Cattin (co-dir, CREATIS, INSA Lyon), Frédéric Suter (co-dir).

PhD in progress: Aurélie Kong-Win-Chang: *Techniques de résilience pour l'ordonnancement de workflows sur plates-formes décentralisées (cloud computing) avec contraintes de sécurité*, Yves Robert (dir, ROMA, ÉNS-Lyon), Eddy Caron (co-dir) et Yves Caniou (co-dir).

9.2.3. Juries

Eddy Caron has been member of the following PhD jury:

- Mohamed Hamza Kaaouachi: "Une approche distribuée pour les problèmes de couverture dans les systèmes hautement dynamiques.", January 2016, Reviewer, UPMC.
- Divya Gupta: "Towards Performance and Dependability Benchmarking of Distributed Fault Tolerance Protocols", March 2016, Reviewer, Université Grenoble Alpes.
- Bassirou Gueye: " Services auto-adaptatifs pour les grilles pair-à-pair", May 2016, Reviewer, Université de Reims Champagne-Ardenne.

Gilles Fedak has been member of the following PhD jury:

- Walid Saad: "Gestion de données pour le calcul scientifique dans les environnements grilles et cloud", October 2016, Reviewer, University of Sfax, Tunisia

Laurent Lefevre has been member of the following PhD juries:

- Chakadit Thaenchakun : "Energy efficiency in wired networks : traffic engineering and switching off", University of Toulouse, November 2016, Reviewer
- Pablo Llopis Sanmillan : "Enhancing the programmability and energy efficiency of storage in HPC and virtualized environments", Universidad Carlos III de Madrid, Spain, July 2016, Jury member - president.
- Sareh Fotuhi Piraghaj : "Energy-Efficient Management of Resources in Enterprise and Container-based Clouds", University of Melbourne, Australia, June 2016, Reviewer
- Mohammed Hussein : "Energy Efficiency in LEO Satellite and Terrestrial Wired Environments", University of Toulouse, June 2016, Reviewer
- Fouad Hanna, : "Etude et développement du nouvel algorithme distribué de consensus FLC", University of Franche-Comté, Besançon, February 2016, Reviewer

Christian Perez has been member of the following HdR and PhD juries:

- Fabrice Huet, HdR: "From HPC to Big Data: Models and Tools for Large Scale Middleware", University of Nice Sophia-Antipolis, France., Feb 2016, Reviewer.
- Tomasz Buchert, PhD: "Managing large-scale, distributed systems research experiments with control-flows", University of Lorraine, France., Jan. 2016, jury member.
- Naweiluo Zhou, PhD: "Autonomic Thread Parallelism and Mapping Control for Software Transactional Memory", University of Grenoble, France., Oct 2016, president.

9.3. Popularization

- Laurent Lefevre has been :
 - Interviewed in "Interception" Radio Magazine on "To click, is to pollute" ("Cliquer c'est polluer"), France Inter Radio, 6 November 2016
 - Interviewed with Françoise Berthoud, "Télévision : Changement de norme = grand gâchis écologique - Site Reporterre.net, - 5 April 2016
- Gilles Fedak has been interviewed in Bitcoin.fr, November 2016

DATAMOVE Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific Events Organisation

9.1.1.1. General Chair, Scientific Chair

- Euro-Par, Grenoble, August 2016: General chair and local organization.
- HCW'2016 (25th IEEE Heterogeneous Computing Workshop), Hyderabad, May 2016a: General Chair

9.1.1.2. Member of the Organizing Committees

- EGPGV (Eurographics Symposium on Parallel Rendering and Visualization): President of the steering committee.

9.1.2. Scientific Events Selection

9.1.2.1. Chair of Conference Program Committees

Euro-Par, Grenoble, August 2016: Topic chair.

9.1.2.2. Member of the Conference Program Committees

ISAV 2016, November 2016, Salt Lake City, USA

2nd IEEE BidDataSecurity, April 8-10 2016, New York, USA

IPDPS 2016 (27th IEEE International Parallel & Distributed Processing Symposium), May 23-27 2016, Chicago, USA

CloudTech, My 24-26 2016, Marrakech, Marocco

COMPAS, July 5-8 2016, Lorient, France

PMAA'16 (10th internat. workshop on Parallel Matrix Algorithms and Applications), July 6-8 2016, Bordeaux, France

ISPCD (15th Internat Symposium on Parallel and Distributed Computing), July 8-10 2016, Fuzhou, China

EuroMPI, September 25-28 2016, Edinburgh, Scotland, UK

28th SBAC-PAD, October 26-28 2016, Los Angeles, USA,

Edu-HPC (Workshop on Education for High-Performance Computing), November 2016, Salt Lake city, USA

CloudCom, December 12-15 2016, Luxemburg

9.1.3. Journal

9.1.3.1. Member of the Editorial Boards

Associate Editor of the Parallel Computing journal PARCO.

Member of the Editorial Board of JPDC.

Member of the Editorial Board of Computational Methods in Science and Technology.

Member of the Editorial Board of ARIMA (revue africaine de recherche en informatique et maths appliquées).

Member of the Editorial Board of IEEE Trans. Parallel and Distributed Systems TPDS.

9.1.4. Scientific Expertise

ANR project evaluation expert
 Nederlands e-science center expert

9.1.5. Research Administration

Executive committee member of Mathematics and Computer Science Council of Univ. Grenoble-Alpes (Membre du directoire du Conseil du Pôle MSTIC de l'UGA)
 Mathematics and Computer Science Council of Univ. Grenoble-Alpes Members (Membre du Conseil du Pôle MSTIC de l'UGA)
 Steering committee of Grid'5000

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

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

Master: D. Trystram, P-F. Dutot, "Complexity, approximation theory and randomization" master course (M2) at Univ. Grenoble-Alpes

Master: Pierre-François Dutot. 226 hours per year. Licence (first and second year) at IUT2/UPMF (Institut Universitaire Technologique de Univ. Grenoble-Alpes) and 9 hours Master M2R-ISC Informatique-Systèmes-Communication at Univ. Grenoble-Alpes.

Master: Grégory Mounié. 242 hours per year. Master (M1/2nd year and M2/3rd year) at Engineering school ENSIMAG, Grenoble-INP.

Master: Bruno Raffin. 28 hours per year. Parallel System. International Master of Science in Informatics at Grenoble (MOSIG-M2).

Master: Olivier Richard. 222 hours per year. Master at Engineering school Polytech-Grenoble, Univ. Grenoble-Alpes.

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

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

9.2.2. Supervision

PhD: David Glesser, Energy Aware Resource Management for HPC, Univ. Grenoble-Alpes. Defended November 2016. Advisers: Denis Trystram and Yianis Georgiou (ATOS/BULL)

PhD : Marwa Sridi, Un modèle de structure de données Cache-aware pour un parallélisme et un l'équilibrage dynamique de la charge, Univ Grenoble-Alpes. Defended April 2016. Advisers: Bruno Raffin, Vincent Faucher (CEA) and Thierry Gautier.

PhD in progress : Julio Toss, Parallel Algorithms and Data Structures for Physically Based Simulation of Deformable Objects, Univ. Grenoble-Alpes and UFRGS (co-tutelle). Started October 2013. Advisers: Bruno Raffin and Joao Comba (UFRGS).

PhD in progress : Estelle Dirand, Integration of High-Performance Data Analytics and IOs for Molecular Dynamics on Exascale Computer, Univ. Grenoble-Alpes. Started January 2016. Advisers: Bruno Raffin and Laurent Colombet (CEA).

PhD in progress: Michael Mercier, Resource Management and Job Scheduling in HPC-Cloud environments towards the Big Data era, Univ. Grenoble Alpes. Started October 2016. Advisers: Olivier Richard and Bruno Raffin.

PhD in progress: Raphaël Bleuse, Affinity Scheduling, Univ. Grenoble-Alpes. Started October 2013. Adviser: Denis Trystram and Gregory Mounié.

PhD in progress: Millian Poquet, Energy consumption optimization for high performance computing, Univ. Grenoble-Alpes. Started October 2014. Advisers: Denis Trystram and Pierre-François Dutot

PhD in progress: Valentin Reis, Machine Learning for resource management, Univ. Grenoble-Alpes. Started October 2015. Advisers: Denis Trystram and Eric Gaussier

PhD in progress: Abhinav Srivastav, Multi-objective Scheduling, Univ. Grenoble-Alpes. Started October 2015. Advisers: Denis Trystram and Oded Maler

PhD in progress: Alessandro Kraemer, Scheduling in the Cloud, Univ Grenoble-Alpes and UFPR (co-tutelle). Started October 2014. Advisers: Olivier Richard and Denis Trystram.

PhD in progress: Fernando Machado Mendonca, Locality Aware Scheduling, Univ. Grenoble-Alpes, Advisers: Frederic Wagner and Denis Trystram.

PhD in progress: Mohammed Khatiri, Tasks scheduling on heterogeneous Multicore, Univ. Grenoble-Alpes and University Mohammed First (co-tutelle), Advisers: Denis Trystram, El Mostafa DAOUDI (University Mohammed First, Oujda, Maroc)

9.2.3. Juries

PhD Defense of François Lehericey, 20th of September 2016. Jury Member. Ray Tracing Based Collision Detection: A quest for Performance. Université Bretagne Loire.

PhD Defense of Rémy Dautriche, 20th of October 2016. Jury President. Multi-scale Interaction Techniques for the Interactive Visualization of Execution Traces. Univ Grenoble-Alpes.

PhD Defense of Xiaohu Wu, 16th of February 2016. Reviewer. University of Nice.

PhD Defense of Ziad Sultan, 17th of June 2016. Jury President. Parallel Generic and Adaptive Exacte Linear Algebra. Univ. Grenoble-Alpes

9.3. Popularization

In conjunction with the Polaris team, the team (Seniors and PhDs) participates to several "computer science with hands" events, notably the "Fête de la science", every year, but also some visits of classes from high school of the area along the year at Inria Rhône-Alpes.

Talk at the ISN conference organized by Inria, dedicated to present the computer science to teachers of High School

HIEPACS Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events Organisation

10.1.1.1. General Chair, Scientific Chair

PMAA'16 The 9th International Workshop on Parallel Matrix Algorithms and Applications (PMAA16) was held in Bordeaux (France) and run from July 6 to 8, 2016.

10.1.1.2. Member of the Organizing Committees

The members of **HIEPACS** were involved in the **PMAA'16** organizing committees.

10.1.2. Scientific Events Selection

10.1.2.1. Member of the Conference Program Committees

IEEE PDP'16 (J. Roman), IPDPS'16 (L. Giraud), HiPC'16 (A. Guermouche), PDCN'16 (L. Giraud), PDSEC'16 (O. Coulaud, L. Giraud), SC'16 (E. Agullo, L. Giraud).

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

L. Giraud is member of the editorial board of the SIAM Journal on Matrix Analysis and Applications (SIMAX).

10.1.3.2. Reviewer - Reviewing Activities

ACM Trans. on Mathematical Software, Advances in Computational Mathematics, Computing and Fluid, IEEE Trans. on Parallel and Distributed Systems, International Journal of High Performance Computing Applications, Journal of Computational Physics, Journal of Scientific Computing, Linear algebra with applications, Mathematics and Computers in Simulation, Parallel Computing, SIAM J. Matrix Analysis and Applications, SIAM J. Scientific Computing, Theory of Computing Systems.

10.1.4. Invited Talks

L. Giraud, "Hard faults and soft-errors: possible numerical remedies in linear algebra solvers", VecPar'16, Porto.

10.1.5. Scientific Expertise

- E. Agullo: US Department of Energy's (DOE's) Exascale Computing Project (ECP) reviewing for research and development in Software Technology, specifically in the area of Math Libraries.
- P. Ramet is "Scientific Expert" at the CEA-DAM CESTA since oct. 2015.
- Jean Roman is member of the "Scientific Board" of the CEA-DAM. As representative of Inria, he is member of the board of ETP4HPC (European Technology Platform for High Performance Computing), of the French Information Group for PRACE, of the Technical Group of GENCI and of the Scientific Advisory Board of the Maison de la Simulation.

10.1.6. Research Administration

Jean Roman is a member of the Direction for Science at Inria : he is the Deputy Scientific Director of the Inria research domain entitled *Applied Mathematics, Computation and Simulation* and is in charge at the national level of the Inria activities concerning High Performance Computing.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

We indicate below the number of hours spent in teaching activities on a yearly basis for each scientific staff member involved.

Undergraduate level/Licence

- A. Esnard: System programming 36h, Computer architecture 40h, Network 23h at Bordeaux University.
- M. Faverge: Programming environment 26h, Numerical algorithmic 30h, C projects 20h at Bordeaux INP (ENSEIRB-MatMeca).
- P. Ramet: System programming 24h, Databases 32h, Object programming 48h, Distributed programming 32h, Cryptography 32h at Bordeaux University.

Post graduate level/Master

- E. Agullo: Operating systems 24h at Bordeaux University ; Dense linear algebra kernels 8h, Numerical algorithms 30h at Bordeaux INP (ENSEIRB-MatMeca).
- O. Coulaud: Paradigms for parallel computing 24h, Hierarchical methods 8h at Bordeaux INP (ENSEIRB-MatMeca).
- A. Esnard: Network management 27h, Network security 27h at Bordeaux University; Programming distributed applications 35h at Bordeaux INP (ENSEIRB-MatMeca).
- M. Faverge: System programming 74h, Load balancing and scheduling 13h at Bordeaux INP (ENSEIRB-MatMeca).
He is also in charge of the second year of Embedded Electronic Systems option at Bordeaux INP (ENSEIRB-MatMeca).
- L. Giraud: Introduction to intensive computing and related programming tools 20h, INSA Toulouse; Introduction to high performance computing and applications 20h, ISAE; On mathematical tools for numerical simulations 10h, ENSEEIHT Toulouse; Parallel sparse linear algebra 11h at Bordeaux INP (ENSEIRB-MatMeca).
- A. Guermouche: Network management 92h, Network security 64h, Operating system 24h at Bordeaux University.
- P. Ramet: Load balancing and scheduling 13h, Numerical algorithms 30h at Bordeaux INP (ENSEIRB-MatMeca). He also gives classes on Cryptography 30h, Ho Chi Minh City in Vietnam.
- J. Roman: Parallel sparse linear algebra 10h, Algorithmic and parallel algorithms 22h at Bordeaux INP (ENSEIRB-MatMeca).
He is also in charge of the last year “Parallel and Distributed Computing” option at ENSEIRB-MatMeca which is specialized in HPC (methodologies and applications). This is a common training curriculum between Computer Science and MatMeca departments at Bordeaux INP and with Bordeaux University in the context of Computer Science Research Master. It provides a lot of well-trained internship students for Inria projects working on HPC and simulation.

Summer School: on an annual basis, we run a three day advanced training (lecture and hands on) on parallel linear algebra in the framework of the European PRACE PATC (PRACE Advanced Training Centres) initiative. This training has been organized in many places in France and will be held next year in Ostrava - Czech Republic.

10.2.2. Supervision

PhD in progress : Pierre Blanchard; Fast hierarchical algorithms for the low-rank approximation of dense matrices and applications ; O. Coulaud, E. Darve.

PhD in progress : Nicolas Bouzat; Fine grain algorithms and deployment methods for exascale plasma physic applications ; M.Mehrenberger, J.Roman, G. Latu (CEA Cadarache).

PhD : Jean-Marie Couteyen Carpaye; Contributions to the parallelization and the scalability of the FLUSEPA code; defended on September 19th; P. Brenner, J. Roman.

PhD in progress : Arnaud Durocher; High performance Dislocation Dynamics simulations on heterogeneous computing platforms for the study of creep deformation mechanisms for nuclear applications; O. Coulaud, L. Dupuy (CEA).

PhD in progress : Aurélien Falco; Data sparse calculation in FEM/BEM solution; E. Agullo, L. Giraud, G. Sylvand.

PhD in progress : Cyril Fournier; Task based programming for unstructured mesh calculations; L. Giraud, G. Stafelbach.

PhD in progress : Grégoire Pichon; Utilisation de techniques de compression \mathcal{H} -matrices pour solveur direct creux parallèle dans le cadre des applications FEM; L. Giraud, P. Ramet.

PhD in progress : Louis Poirel; Algebraic coarse space correction for parallel hybrid solvers; E. Agullo, L. Giraud.

PhD : Maria Predari; Load balancing for parallel coupled simulations; defended on December 9th; A. Esnard, J. Roman.

10.2.3. Juries

- Okba Hamitou, "Efficient preconditioning method for the CARP-CG iterative solver for the solution of the frequency- domain visco-elastic wave equation", referee: Jan S. Hesthaven, Luc Giraud; Université de Grenoble, spécialité: mathématiques appliquées, 22 Décembre 2016.
- Jean-Charles Papin, "A Scheduling and Partitioning Model for Stencil-based Applications on Many-Core Devices", referee Jean-François Méhaut, Olivier Coulaud; Université Paris-Saclay préparée à l'École Normale Supérieure de Cachan spécialité: mathématiques appliquées, 8 Septembre 2016.

KERDATA Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events Organisation

10.1.1.1. General Chair, Scientific Chair

- Luc Bougé: Vice-Chair of the Steering Committee of the **Euro-Par** Series of conferences.

10.1.2. Scientific Events Selection

10.1.2.1. Chair of Conference Program Committees

- Gabriel Antoniu: Vice-Chair of the Program Committee of the ACM/IEEE CCGrid 2016 international conference (Hybrid and Mobile Clouds Tracks), Cartagena, May 2016.
- Alexandru Costan: Program Co-Chair of the ScienceCloud 2016 international workshop held in conjunction with HPDC 2016, Kyoto, June 2016.

10.1.2.2. Member of the Conference Program Committees

- Gabriel Antoniu: ACM HPDC 2016, IEEE Cluster 2016, PDSW-DISCS workshop (held in conjunction with ACM/IEEE SC16 conference), ARMS-CC 2016 workshop (held in conjunction with the PODC 2016 conference).
- Luc Bougé: Euro-Par 2016, IPDPS 2017, ICDE 2017, Euro-Par 2017, ISPDC 2017.
- Alexandru Costan: ACM/IEEE SC'16 BoF Applications Track, ACM/IEEE CCGrid 2016, IEEE BigData 2016, ICPP 2016, ARMS-CC 2016 workshop (held in conjunction with PODC 2016), FiCLOUD 2016, ScienceCloud 2016 workshop (held in conjunction with HPDC 2016).
- Shadi Ibrahim: IEEE Cluster 2016, IEEE/ACM CCGrid 2016, IEEE ICPADS 2016, IEEE CloudCom 2016, IEEE ICA3PP 2016, SCRAMBL 2016 (held in conjunction with Euro-Par 2016).

10.1.2.3. Reviewer

- Alexandru Costan: ACM/IEEE SC16, ACM HPDC 2016, IEEE Cluster 2016.
- Shadi Ibrahim: ACM HPDC 2016, Euro-Par 2016.

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

- Gabriel Antoniu: Future Generation Computer Systems, Special Issue on Resource Management for Big Data Platforms.
- Luc Bougé: Concurrency and Computation: Practice and Experience, Special Issues on the Euro-Par conference.
- Alexandru Costan: Soft Computing Journal, Special Issue on Autonomic Computing and Big Data Platforms

10.1.3.2. Reviewer, Reviewing Activities

- Alexandru Costan: IEEE Transactions on Parallel and Distributed Systems, Future Generation Computer Systems, Concurrency and Computation Practice and Experience, IEEE Communications, IEEE Transactions on Storage, Information Sciences
- Shadi Ibrahim: IEEE Transactions on Parallel and Distributed Systems, Future Generation Computer Systems, IEEE Transactions on Big Data, IEEE Transactions on Cloud Computing, Springer Parallel Computing, Computers and Electrical Engineering, Journal of Healthcare Engineering

10.1.4. Invited Talks

- Gabriel Antoniu:
 - BDEC 2016: Invited keynote talk at the *4th Big Data and Exascale Computing (BDEC) workshop*, Frankfurt, June 2016.
 - First Chinese-French Workshop on Extreme Computing: *Damaris: Jitter-Free I/O Management and In Situ Visualization of HPC Simulations using Dedicated Cores*, Guangzhou, May 2016.
 - 5th JLESC workshop: *Spark versus Flink: Understanding Performance in Big Data Analytics Frameworks*, Lyon, June 2016.
 - Inria/CIC-IPN workshop: *Scalable Big Data Processing on Clouds: A-Brain and Z-CloudFlow*, Mexico City, November 2016.
 - Inria/Technicolor workshop: *Spark versus Flink: Understanding Performance in Big Data Analytics Frameworks*, Rennes, November 2016.
 - 6th JLESC workshop: *Storage-Based Convergence Between HPC and Big Data*, Kobe, Japan, December 2016.
- Luc Bougé:
 - Comin Labs-DGA-ENSAI BigData day: *Support logiciel pour la gestion de données distribuées à très grande échelle*, IRISA, January 2016.
 - Société des agrégés: *Teaching informatics as a first-class subject*, annual meeting of the Regional Section, April 2016.
 - Luminy Algorithmics and Programming School: *Big Data: Tremendous challenges, great solutions*, Preparatory school teachers in Mathematics and Informatics, May 2016.
- Alexandru Costan:
 - UPB Scientific Days: *Big Data and Extreme Computing: A Storage-Based Pathway to Convergence*, The UPB Research Workshop on Distributed Systems, University Politehnica of Bucharest, June 2016.
 - Inria/CIC-IPN workshop: *Science Driven, Scalable Data-Intensive Processing on Clouds*, Mexico City, November 2016.
- Shadi Ibrahim:
 - Inria Scientific Days: *Big Data management at scale*, Rennes, June 2016.
- Chi Zhou:
 - 5th JLESC workshop: *Incorporating Probabilistic Optimizations for Resource Provisioning of Cloud Workflow Processing*, Lyon, June 2016.
- Nathanaël Cheriére:
 - 6th JLESC Workshop: *Accelerating the Scatter Operation on Dragonfly Networks*, Kobe, Japan, December 2016.
- Orçun Yıldız:
 - Grid'5000 Winter School: *Investigating the Root Causes of I/O Interference on Grid'5000*, Grenoble, February 2016.
 - 6th JLESC Workshop: *Towards Efficient Big Data Processing in HPC Systems*, Kobe, Japan, December 2016.
- Luis Eduardo Pineda Morales:
 - 5th JLESC workshop: *Exploring Elastic Scaling on Chameleon Cloud*, Lyon, June 2016.
 - Inria / CIC-IPN workshop: *Metadata Management for Geo-distributed Cloud Workflows*, Mexico City, November 2016.

10.1.5. Leadership within the Scientific Community

- Gabriel Antoniu: Scientific leader of the KerData project-team.
- Gabriel Antoniu: Topic leader for Inria for the *Data storage, I/O and in situ processing* topic, supervising collaboration activities in this area within the JLESC, Joint Inria-Illinois-ANL-BSC-JSC-RIKEN/AICS Laboratory for Extreme-Scale Computing.
- Luc Bougé: serves as a Vice-President of the *French Society for Informatics* (SIF), in charge of the teaching department.
- Gabriel Antoniu: Work package leader within the BigStorage H2020 ETN project for the *Data Science* work package.
- Alexandru Costan: Leader of the *Smart Cities* Working Group within the BigStorage H2020 ETN project.
- Shadi Ibrahim: Leader for the *Resource Management and Scheduling for Data-Intensive HPC Workflows* activity within the JLESC, Joint Inria-Illinois-ANL-BSC-JSC-RIKEN/AICS Laboratory for Extreme-Scale Computing.

10.1.6. Scientific Expertise

- Gabriel Antoniu served as a project evaluator for the ANR 2016 call (Phase 1).
- Luc Bougé: Member of the jury for the *Agrégation de mathématiques* and the *CAPES of mathématiques*. These national committees select high-school mathematics teachers in secondary schools and high-schools, respectively.
- Luc Bougé has been solicited by the Ministry of Education to participate to the committee in charge of designing and preparing the new *Informatics track* in the CAPES of mathematics. It will be offered for the 2017 session.
- Shadi Ibrahim served as a project evaluator in the DOE-ECP Program 2016: The research and development in Software Technology of the US Department of Energy's (DOE's) *Exascale Computing Project* (ECP).

10.1.7. Research Administration

- Luc Bougé: Nominated to seat at the CNU (*National University Council*) in the *Informatics* Section (27). His term ended in November 2016.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Gabriel Antoniu

- Master (Engineering Degree, 5th year): Big Data, 24 hours (lectures), M2 level, ENSAI (*École nationale supérieure de la statistique et de l'analyse de l'information*), Bruz, France.
- Master : Cloud Computing, 15 hours (lectures and lab sessions), M2 level, ENSAI (*École nationale supérieure de la statistique et de l'analyse de l'information*), Bruz, France.
- Master: Distributed Systems, 8 hours (lectures), M2 level, ALMA Master, Distributed Architectures module, University of Nantes, France.
- Master: Scalable Distributed Systems, 12 hours (lectures), M1 level, SDS Module, EIT ICT Labs Master School, France.

Luc Bougé

- Bachelor: Introduction to programming concepts, 36 hours (lectures), L3 level, Informatics program, ENS Rennes, France.

- Master: Introduction to compilation, 24 hours (exercice and practical classes), M1 level, Informatics program, Univ. Rennes I, France.

Alexandru Costan

- Bachelor: Software Engineering and Java Programming, 28 hours (lab sessions), L3, INSA Rennes.
- Bachelor: Databases, 68 hours (lectures and lab sessions), L2, INSA Rennes, France.
- Bachelor: Practical case studies, 24 hours (project), L3, INSA Rennes.
- Master: Big Data and Applications, 36h hours (lectures, lab sessions, project), M1, INSA Rennes.

Shadi Ibrahim

- Master (Engineering Degree, 5th year): Big Data, 24 hours (lectures and lab sessions), M2 level, ENSAI (*École nationale supérieure de la statistique et de l'analyse de l'information*), Bruz, France.
- Master : Cloud Computing and Hadoop Technologies, 16.5 hours (lectures and lab sessions), M2 level, ENSAI (*École nationale supérieure de la statistique et de l'analyse de l'information*), Bruz, France.
- Master: Cloud and Big data, 24 hours (lectures and lab sessions), M1 level, ENS Rennes, France.
- Master: Cloud1, Map-Reduce, (lectures, lab sessions), 15 hours (lectures and lab sessions), M2 level, Ecole des Mines de Nantes (EMN Nantes), Nantes, France.

10.2.2. Supervision

10.2.2.1. PhD in progress

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

Luis Eduardo Pineda Morales: *Efficient Big Data Management for Geographically Distributed Workflows*, thesis started in January 2014, co-advised by Alexandru Costan and Gabriel Antoniu. Defense planned in Spring 2017.

Orçun Yildiz: *Energy-Efficient Big Data Management in Petascale Supercomputers and Beyond*, thesis started in September 2014, co-advised by Shadi Ibrahim and Gabriel Antoniu.

Tien-Dat Phan: *Green Big Data Processing in Large-scale Clouds*, thesis started in October 2014, co-advised by Shadi Ibrahim and Luc Bougé.

Pierre Matri: *Predictive Models for Big Data*, thesis started in March 2015, co-advised by María Pérez and Gabriel Antoniu.

Mohammed-Yacine Taleb: *Energy-impact of data consistency management in Clouds and Beyond*, thesis started in August 2015, co-advised by Shadi Ibrahim and Gabriel Antoniu.

Ovidiu-Cristian Marcu: *Efficient data transfer and streaming strategies for workflow-based Big Data processing*, thesis started in October 2015, co-advised by Alexandru Costan and Gabriel Antoniu.

Nathanaël Cheriére: *Resource Management and Scheduling for Big Data Applications in Large-scale Systems*, thesis started in September 2016, co-advised by Shadi Ibrahim and Gabriel Antoniu.

Paul Le Noac'h: *Workflow Data Management as a Service for Multi-Site Applications*, thesis started in November 2016, co-advised by Alexandru Costan and Luc Bougé.

10.2.3. Juries

Gabriel Antoniu: Referee for the PhD thesis of Ms. Zhou Chi at the Nanyang Technological University (NTU), Singapore (January 2016).

Luc Bougé: Referee for the PhD thesis of Matthieu Perrin, LINA, Univ. Nantes (June 2016). Member of several PhD and HDR thesis juries in France.

10.2.4. Miscellaneous

10.2.4.1. Responsibilities

Luc Bougé: Co-ordinator between ENS Rennes and the Inria Research Center and the IRISA laboratory.

Luc Bougé: In charge of the Bachelor level (L3) and of the student seminar series at the Informatics Department of ENS Rennes.

Alexandru Costan: In charge of communication at the Computer Science Department of INSA Rennes.

Alexandru Costan: In charge of the organization of the IRISA D1 Department Seminar.

Shadi Ibrahim: Member of Grid'5000 Sites Committee: Responsible for the Rennes site.

10.2.4.2. Tutorials

Gabriel Antoniu and Shadi Ibrahim gave tutorials on *Big Data technologies and Hadoop* at the BigStorage Winter School in Barcelona (March 2016).

Shadi Ibrahim gave a Tutorial on *Green Big Data Processing using Hadoop* at the Euro-Par 2016 conference, Grenoble, France (with Anne-Cécile Orgerie).

10.3. Popularization

Luc Bougé:

Master Program, Rennes. Invited presentation to the M2 students about *Informatics as a scientific activity: Toward a responsible research* (December 2016).

Alexandru Costan:

Master Program, Rennes. Invited presentation to the M2 students about *Big Data Analytics* (November 2016).

POLARIS Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific Events Organization

9.1.1.1. General Chair, Scientific Chair

- Panayotis Mertikopoulos was the general co-chair of the GEL 2016 international workshop on Geometry, Evolution and Learning in Games

9.1.1.2. Member of the Organizing Committees

- Nicolas Gast served as Publicity Chair for ACM Sigmetrics 2016
- Jean-Marc Vincent served in the Organization Committee of the “Decision-making and Optimization under Uncertainty” summer school for young researchers, and the joint LICIA-EXASE workshop

9.1.2. Scientific Events Selection

9.1.2.1. Chair of Conference Program Committees

Arnaud Legrand was chair of the performance evaluation track of Europar 2016.

9.1.2.2. Member of the Conference Program Committees

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

- Bruno Gaujal and Nicolas Gast were members of the Technical Program Committee of ACM Sigmetrics 2016
- Nicolas Gast was a member of the Technical Program Committee of ACM E-Energy 2016.
- Panayotis Mertikopoulos was a member of the Technical Program Committee of VALUETOOLS 2016.
- E. Veronica Belmega was a member of the Technical Program Committee of IEEE Globecom 2016, IEEE ICC 2016, IEEE BlackSeaComm 2016, and IEEE WCNC 2016
- Jean-Marc Vincent was a member of the Technical Program Committees of ASMTA 2016, Simul-Tech 2016 and EPEW 2016
- Arnaud Legrand was a member of the Technical Program Committees of HiPC 2016, ICPP 2016, and COMPAS 2016.

9.1.3. Journal

9.1.3.1. Member of the Editorial Boards

- E. Veronica Belmega is an executive editor for the Transactions on Emerging Telecommunications Technologies.

9.1.3.2. Reviewer - Reviewing Activities

The members of the POLARIS team regularly review articles for JPDC, DAM, IEEE Transactions on Networking/Automatic Control/Cloud Computing/Parallel and Distributed Computing/Information Theory/Signal Processing/Wireless Communications, SIAM Journal on Optimization/Control and Optimization, and others.

9.1.4. Invited Talks

- Bruno Gaujal was a plenary speaker at ECQT 2016 (European Conference on Queuing Theory)
- Bruno Gaujal was a plenary speaker at “Journées SDA2 2016” (Groupe de Travail "Systèmes Dynamiques, Automates et Algorithmes" of the CNRS thematic group GDR Informatique Mathématique).
- Panayotis Mertikopoulos was a plenary speaker at the ADGO 2016 workshop on Algorithms and Dynamics for Games and Optimization
- Panayotis Mertikopoulos gave an invited tutorial on “*Online Optimization for Wireless Communications*” at the Orange workshop on Learning and Networks.
- Panayotis Mertikopoulos gave a two-part tutorial on “*Game Theory, Learning and Cognitive Radio*” at CROWNCOM 2016.

9.1.5. Leadership within the Scientific Community

Arnaud Legrand has organized a series of webinars on reproducible research and whose aim is to introduce the audience to one particular aspect of reproducible research and to illustrate how this aspect can be addressed with state-of-the-art tools. To this end, experts of a given topic are invited and their seminar is screencast so that researchers from other universities can easily follow it. So far, the following topics have been covered:

1. Introduction (reproducible research, challenges, ethic, ...) to reproducible research. Producing replicable articles and managing a laboratory notebook.
2. Controlling your experimental environment
3. Numerical reproducibility
4. Logging and backing up your work: a not so short introduction to git for research
5. Preserving software: ensuring availability and tracking provenance
6. Reproducible science in bioinformatics: current status, solutions and research opportunities

All the corresponding videos and materials are available at the following address: https://github.com/alegrand/RR_webinars/

9.1.6. Scientific Expertise

- E. Veronica Belmega was a member of the jury for the GRETSI–GdR ISIS thematic research group “best thesis” award
- Panayotis Mertikopoulos is a member of the steering committee (*comité de liaison*) of the optimization and decision theory group of the French Society for Industrial and Applied Mathematics (SMAD).
- Jean-Marc Vincent is a member of the scientific committees of the CIST (Centre International des Sciences du Territoire)

9.1.7. Research Administration

- Bruno Gaujal is member of the “bureau du LIG” (Laboratoire d’informatique de Grenoble)
- Bruno Gaujal is member of the “bureau du CP” of Inria Grenoble.
- Bruno Gaujal was member of the CR2 admissibility jury of Inria-Grenoble.
- Panayotis Mertikopoulos serves as the graduate students liaison (*chargé de mission doctorants*) for the Laboratoire d’Informatique de Grenoble
- Arnaud Legrand was coordinator of the Inria evaluation of the “Distributed and High Performance Computing” theme.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Master: Bruno Gaujal and Nicolas Gast, “*Advanced Performance Evaluation*”, 18h (M2), EN-SIMAG

Master: Guillaume Huard, “*Conception des Systèmes d’Exploitation*” (M1), Université Grenoble-Alpes

Master: Arnaud Legrand and Jean-Marc Vincent, “*Scientific Methodology and Performance Evaluation*”, 15h (22.5h) M2, M2R MOSIG

Master: Arnaud Legrand, “*Parallel Systems*”, 21h (31.5h) M2R, M2R Mosig.

Master: Arnaud Legrand, “*Scientific Methodology and Performance Evaluation*”, 24h (36h), ENS Lyon.

Master: Panayotis Mertikopoulos, “*Selected Topics in the Theory of Stochastic Processes*”, 16h M2, University of Athens, Athens, Greece

Master: Florence Perronnin, “*Simulation*”, M1, Université Versailles – Saint-Quentin

Master: Florence Perronnin, “*Probabilités–Simulation*”, RICM4 Polytech Grenoble

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

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

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

9.2.2. Supervision

Post-Doc: Angelika Studeny, Université Grenoble-Alpes (Jean-Marc Vincent)

PhD: David Beniamine, “*Analyse du comportement mémoire d’application parallèles de calcul scientifique*”, Université Grenoble-Alpes, 05/12/2016 (Guillaume Huard)

PhD: Joaquim Assunção, “*Fitting techniques to knowledge discovery through stochastic models*”, 08/12/2016 (Jean-Marc Vincent)

PhD in progress: Alexandre Marcastel, “*Online resource allocation in dynamic wireless networks*”, 10/2016 (Panayotis Mertikopoulos, E. V. Belmega)

PhD in progress: Stéphane Durand, “*Game theory and control in distributed systems*” (Bruno Gaujal)

PhD in progress: Stephan Plassart, “*Optimization of critical embedded systems*” (Bruno Gaujal)

PhD in progress: Baptiste Jonglez, “*Diversity exploitation in communication networks*” (Bruno Gaujal)

PhD in progress: Umar Ozeer, OrangeLabs, 12/2016 (Jean-Marc Vincent)

PhD in progress: Christian Heinrich, “*Performance Evaluation of HPC Systems Through Simulation*”, 12/2015 (Arnaud Legrand)

PhD in progress: Rafael Keller Tesser, “*Performance Evaluation of Dynamic Load Balancing for Legacy Iterative Parallel Applications*”, 12/2015 (Arnaud Legrand, Cotutelle with Philippe Navaux from UFRGS)

PhD in progress: Vinicius Garcia Pinto, “*Visual Performance Analysis of HPC applications running over Dynamic Task-based Runtimes*”, 12/2015 (Arnaud Legrand, Cotutelle with Nicolas Maillard and Lucas Schnorr from UFRGS)

9.2.2.1. Internships

- Jean-Marc Vincent supervised the eng. internship of Benjamin Briot (02–03/2016)
- Jean-Marc Vincent supervised the master internship Mathieu Baille (Magistère + TER M1)
- Guillaume Huard supervised the Licence internship of Michael Picard
- Guillaume Huard supervised the Licence internship of Loic Poncet

- Arnaud Legrand and Vincent Danjean supervised the eng. internship of Florian Poppek (06–08/2016)
- Arnaud Legrand supervised the master internship of Steven Quinito Masnada (02–08/2016) in collaboration with the CORSE team (Brice Videau and Frédéric Desprez)

9.2.3. Juries

- E. Veronica Belmega was a member of the jury for the PhD defense of Kenza Hamidouche (12/2016, Supélec)
- Bruno Gaujal was a reviewer for the HDR defense of Bruno Scherrer
- Bruno Gaujal was a member of the jury for the HDR defense of Patrick Loiseau
- Arnaud Legrand was reviewer for the PhD defense of Rafife Nheili

9.3. Popularization

The POLARIS team is actively involved in various scientific popularization activities. In addition to participating in the Fête de la Science (Guillaume Huard, Florence Perronnin, Jean-Marc Vincent), the POLARIS team also participates in the organization of the “Conférence Inria”. Jean-Marc Vincent has also organized (and/or participated in) several training courses for computer science teachers (at a high school level) and has supervised several MathC2+ trainees.

Jean-Marc Vincent also organized the 2-day-long atelier “Computer Science without Computers” for elementary school students; the atelier was nominated for the Shannon trophy (awarded by the Institut Henri Poincaré).

ROMA Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events Organisation

10.1.1.1. General Chair, Scientific Chair

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

Bora Uçar was the workshops chair at IPDPS 2016, local chair of the a topic of Euro-Par 2016, co-chair of PCO 2016 (a workshop of IPDPS 2016), and has organized mini-symposia at SIAM PP16 and PMAA16.

10.1.2. Scientific Events Selection

10.1.2.1. Steering committees

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

Bora Uçar serves in the steering committee of CSC.

10.1.2.2. Chair of Conference Program Committees

Anne Benoit was the program chair of HiPC 2016, and the program area chair for Algorithms of SC 2016.

Loris Marchal was the program chair of HeteroPar 2016.

10.1.2.3. Member of the Conference Program Committees

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

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

Laure Gonnord was a member of the program committee of VMCAI'17.

Jean-Yves L'Excellent was a member of the program committee of VECPAR'16.

Loris Marchal was a member of the program committee of IPDPS 2016.

Yves Robert was a member of the program committee of FTS, FTXS, ICCS, ISCIS, and SC

Bora Uçar was a member of the program committee of the following conferences and workshops: HiPC 2016, IPDPS 2016, ICCS 2016, HPC4BD 2016, P³MA, CSE 2016, MPP2016.

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

10.1.2.4. Reviewer

Jean-Yves L'Excellent reviewed papers for VECPAR'16, ADVCOMP'16.

Christophe Alias reviewed papers for IMPACT'16.

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

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

Loris Marchal is an invited associated Editor of Parallel Computing (Elsevier) for a special issue following HeteroPar 2016.

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

Bora Uçar is Associate Editor of Parallel Computing (Elsevier).

Frédéric Vivien is Associate Editor of Parallel Computing (Elsevier) and of JPDC (Elsevier Journal of Parallel and Distributed Computing).

10.1.3.2. Reviewer - Reviewing Activities

Christophe Alias reviewed papers for TVLSI (IEEE Transactions on Very Large Scale Integration Systems), PARCO (Parallel Computing), MICPRO (Microprocessors and Microsystems).

10.1.4. Invited Talks

Christophe Alias gave a talk at “Journée Calcul” in ENS-Lyon on May 2016 and a talk at “Journée Langage, Compilation et Sémantique” in ENS-Lyon on November 2016.

10.1.5. Tutorials

Yves Robert gave a tutorial on *Fault-tolerance techniques for HPC platforms* at PPoPP’16 (with Thomas Hérault), SC’16 (with Aurélien Bouteiller, George Bosilca, and Thomas Hérault) and Euro-Par’16.

10.1.6. Leadership within the Scientific Community

Christophe Alias, together with Cédric Bastoul (CAMUS), co-founded the Impact workshop (International Workshop on Polyhedral Compilation Techniques) on 2011, which is now the reference international event of the polyhedral compilation community <http://impact.gforge.inria.fr/>. Since then, Christophe Alias is involved in IMPACT committees.

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

10.1.7. Research Administration

Anne Benoit is a member of the executive committee of the Labex MI-LYON. She is the head of the Master of fundamental computer science at ENS Lyon.

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

Jean-Yves L’Excellent is a member of the direction board of the LIP laboratory.

Yves Robert was a member of the Senior Member election of Institut Universitaire de France. He was a committee member of the IEEE Fellows selection. he is a member of the scientific council of the Maison de la Simulation.

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

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Licence:

- Anne Benoit : Algorithmique avancée (CM 32h), L3, Ecole Normale Supérieure de Lyon.
- Maroua Maalej : Algorithmique et Programmation Avancée (TD=18, TP=24h), L2, Université Lyon 1 Claude Bernard : Autumn 2016.
- Maroua Maalej : Architecture et système (TP=24h), L2, Université Lyon 1 Claude Bernard : Autumn 2016.

- Maroua Maalej : Gestion de Projet et Génie Logiciel (TD/TP=10h), M1, Université Lyon 1 Claude Bernard : Autumn 2016.
- Christophe Alias : Compilation et outils de développement (CM+TD=18h), L3, INSA Centre-Val-de-Loire : Spring 2016.
- Christophe Alias : Concours E3A – épreuve informatique MPSI (correcteur) : Spring 2016.
- Yves Robert : Algorithmique (CM 32h), L3, Ecole Normale Supérieure de Lyon

Master:

- Anne Benoit, Resilient and energy-aware scheduling algorithms (CM 24h), M2, Ecole Normale Supérieure de Lyon.
- Laure Gonnord : Compilation (CM+TD 76h), M1, Université Claude Bernard Lyon 1, et M1 Ecole Normale Supérieure de Lyon.
- Laure Gonnord : Préparation à l’écrit et à l’oral d’informatique du capès d’informatique, 10h, M1 MEEF Université Claude Bernard Lyon1.
- Laure Gonnord : Program Analysis : (CM+TP 10h, avec D.Monniaux), M2 Ecole Normale Supérieure de Lyon.
- Christophe Alias : Optimisation d’applications embarquées (CM+TD=24h), M1, INSA Centre-Val-de-Loire.
- Christophe Alias: Advanced Compilers: Automatic Parallelization and High-level Synthesis (CM 24h, avec F. Rastello), M2, Ecole Normale Supérieure de Lyon, France.
- Frédéric Vivien, Algorithmique et Programmation Parallèles et Distribuées (CM 36 h), M1, École normale supérieure de Lyon, France.

10.2.2. Supervision

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

PhD in progress: Changjiang Gou, “Resilient and energy-aware scheduling algorithms for large-scale distributed systems”, started in September 2016, funding: China Scholarship Council, advisors: Anne Benoit and Loris Marchal.

PhD in progress: Li Han, “Algorithms for detecting and correcting silent and non-functional errors in scientific workflows”, started in September 2016, funding: China Scholarship Council, advisors: Yves Robert and Frédéric Vivien

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

PhD in progress: Aurélie Kong Win Chang, “Techniques de résilience pour l’ordonnancement de workflows sur plates-formes décentralisées (cloud computing) avec contraintes de sécurité”, started in October 2016, funding: ENS Lyon, advisors: Yves Robert, Yves Caniou and Eddy Caron.

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

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

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

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

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

PhD defended on July 1st: Guillaume Iooss, “Semantic tiling”, started in September 2011, joint PhD ENS-Lyon/Colorado State University, advisors: Christophe Alias and Alain Darté (ENS-Lyon) / Sanjay Rajopadhye (Colorado State University).

10.2.3. Juries

- Christophe Alias participated to the PhD jury of Guillaume Iooss (Colorado State University), in July 2016.
- Laure Gonnord participated to the Inria recruiting jury for junior research positions (CR2), in Rennes, in Spring 2016.
- Laure Gonnord participated to the PhD jury of Nasrine Damouche (Univ. Perpignan) and Sajith Kalathingal (Univ. Rennes), in December 2016.
- Laure Gonnord is member of the “Comité de Suivi de thèse” de Maurica Fonenantsoa (Univ. Réunion) since 2015.
- Loris Marchal participated to the selection committee recruiting an assistant professor (MCF) at University of Bordeaux 1, in Spring 2016.

10.3. Popularization

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

STORM Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific Events Selection

9.1.1.1. Chair of Conference Program Committees

- Samuel Thibault was a Program Committee chair for EuroPar'16.

9.1.1.2. Member of the Conference Program Committees

- Samuel Thibault was a member of the Program Committee for Compas'16, HCW'16, MuCoCos'16, P³MA'16
- Olivier Aumage was a member of the Program Committee for HUCAA 16'
- Raymond Namyst was a member of the Program Committees for Cluster'16, EuroPar'16 and SAC/MUSEPAT'16
- Denis Barthou was a Program Committee chair for UCHPC'16

9.1.1.3. Reviewer

The members of the team reviewed numerous papers for various international conferences such as IPDPS, Super-Computing, Euro-Par, ICPP.

9.1.2. Journal

The members of the team review papers from many high-level journals such as TPDS, CCPE, TACO, JPDC.

9.1.3. Invited Talks

- Samuel Thibault was invited to present StarPU advances at the "Scalable Task-based Programming Models" workshop of SIAM-PP 2016
- Samuel Thibault was invited to participate to the "What Do You Need to Know About Task-Based Programming for Future Systems?" panel of SIAM-PP 2016
- Samuel Thibault was invited to make a talk on StarPU at an meeting for the H2020 NLAFFET project
- Samuel Thibault was then invited to make a talk at the CCDSC-2016 workshop
- Samuel Thibault was invited to make a talk at Jussieu for a APR seminar
- Terry Cojean was invited to present his work at the "Task-based Scientific, High Performance Computing on Top of Runtime Systems" workshop of SIAM-PP 2016
- Terry Cojean was invited to present his work by the research group of Prof. Benkner at the University of Vienna.
- Terry Cojean was invited to give a talk on StarPU at the RESPA workshop of Super-Computing 2016, details available in [2]
- Luka Stanisic was invited to present an effective methodology for reproducible research on dynamic task-based runtime systems at the "Task-based Scientific, High Performance Computing on Top of Runtime Systems" workshop of SIAM-PP 2016
- Luka Stanisic was invited to present advanced usage of Git at the "Reproducible Research" webinars
- Olivier Aumage was invited to present StarPU at the Parallel Programming Frameworks: Technologies, Performance and Applications track of SIAM-PP 2016 in Paris.
- Olivier Aumage was invited to present StarPU at CERFACS in Toulouse.

- Olivier Aumage was invited to present StarPU at the workshop Building a European/American Community for the Development of Dynamic Runtimes in Extreme-Scale Systems, as part of ISC'2016 in Frankfurt.
- Olivier Aumage and Samuel Thibault presented a tutorial session on runtime systems and StarPU as part of the Prace Advanced Training Center (PATC) program in Paris, in partnership with La Maison de la simulation.
- Olivier Aumage was invited to present StarPU by the research group of Prof. Benkner at the university of Vienna.
- Olivier Aumage was invited to give a training session on advanced parallel programming models for HPC platforms as part of the EoCoE European Center of Excellence face-to-face meeting in Rome
- Raymond Namyst was invited to give a talk about Heterogeneous Programming at the RoMoL Workshop, Barcelona, March 2016
- Raymond Namyst was invited to give a talk about StarPU at the CEA 2016 HPC Workshop, Cargèse

9.2. Teaching - Supervision - Juries

9.2.1. Teaching administration

Samuel Thibault is responsible for the computer science topic of the first university semester.

Samuel Thibault is responsible for the creation of the new Licence Pro ADSILLH (Administrateur et Développeur de Systèmes Informatiques sous Licences Libres et Hybrides)

Denis Barthou is responsible for the cyber-security, systems and networks 3rd year of the ENSEIRB-MATMECA engineering school.

Raymond Namyst is Vice-chair of the Computer Science Training Department of University of Bordeaux

9.2.2. Teaching

Licence : Marie-Christine Counilh, Introduction to Computer Science, 64HeTD, L1, University of Bordeaux

Licence : Marie-Christine Counilh, Introduction to C Programming, 52HeTD, L1, University of Bordeaux

Licence : Samuel Thibault, Introduction to Computer Science, 32HeTD, L1, University of Bordeaux

Licence : Samuel Thibault, Networking, 51HeTD, L3, University of Bordeaux

Licence : Samuel Thibault, Computer Architecture, 77HeTD, L2, University of Bordeaux

Licence : Samuel Thibault, Tutored project, 10HeTD, L3, University of Bordeaux

Licence : Pierre-André Wacrenier, Introduction to Computer Science, 64HeTD, L1, University of Bordeaux

Licence : Terry Cojean, Networking, 40HeTD, L1, IUT Bordeaux

Licence : Terry Cojean, Object Oriented Programming, 24HeTD, L3, IUT Bordeaux

Master : Luka Stanisic, Operating Systems, 22HeTD, M1, University of Bordeaux

Master : Samuel Thibault, Operating Systems, 22HeTD, M1, University of Bordeaux

Master : Marie-Christine Counilh, Object Oriented Programming, 30HeTD, M1, University of Bordeaux

Master : Raymond Namyst, Operating Systems, M1, University of Bordeaux

Master : Pierre-André Wacrenier and Raymond Namyst, Parallel Programming, M1, University of Bordeaux

Engineering School: Samuel Thibault, Information System Security, 13HeTD, M1, ENSEIRB-MATMECA/IPB

Engineering School: Olivier Aumage, Languages and Supports for Parallelism, 14HeTD, M2, ENSEIRB-MATMECA/IPB joint with University of Bordeaux

Engineering School: Olivier Aumage, High Performance Communication Libraries, 20HeTD, M2, ENSEIRB-MATMECA/IPB joint with University of Bordeaux

Engineering School: Denis Barthou, Compilation, Architecture, Architecture for HPC, real-time 3D at ENSEIRB-MATMECA (around 200HeTD), from L3 to M2.

9.2.3. Supervision

- PhD: Gregory Vaumourin, Hybrid Memory Hierarchy and Dynamic Data Handling in Embedded Parallel Architectures, University of Bordeaux, defended in Nov 2016, advisors: Denis Barthou, Alexandre Guerre (CEA), Thomas Dombek (CEA)
- PhD: Marc Sergent, Passage à l'échelle d'un support d'exécution à base de tâches pour l'algèbre linéaire dense, University of Bordeaux, defended in Dec 2016, advisors: Raymond Namyst, Olivier Aumage, Samuel Thibault, David Goudin (CEA)
- PhD in progress: Suraj Kumar, Task-based programming paradigms and scheduling, 2013/12, Emmanuel Agullo, Olivier Beaumont, Samuel Thibault
- PhD in progress: Terry cojean, Programming heterogeneous machines using moldable tasks, 2014/09, Pierre-André Wacrenier, Abdou Guermouche, Raymond Namyst
- PhD in progress: Christopher Haine, Estimating efficiency and automatic restructuration of data layout, 2014/01, Olivier Aumage, Denis Barthou
- PhD in progress: Arthur Loussert, Ressource (co)Allocation in HPC systems, 2016/10, Raymond Namyst, Marc Perache (CEA), Benoît Welterlen (ATOS)
- PhD in progress: Raphaël Prat, Load Balancing in Molecular Dynamics, 2016/10, Raymond Namyst, Laurent Colombet (CEA)

9.2.4. Juries

Denis Barthou has participated to the following PhD juries

- Abdul Wahid MEMON, U. Versailles St Quentin, Jun 2016 (reviewer)
- Abderrahmane Nassim HALLI, U. of Grenoble, Sep 2016 (reviewer)
- Milan KABAC, U. Bordeaux, Oct 2016 (president)
- Nans ODRY, U. Aix Marseille, Oct 2016 (reviewer)

Raymond Namyst has participated to the following PhD juries

- David Beniamine, U. Grenoble, Dec 2016 (reviewer)
- Alban Rousset, U. Besançon, Oct 2016 (reviewer)
- Naweiluo Zhou, U. Grenoble, Oct 2016 (reviewer)
- Béranger Bramas, U. Bordeaux, Feb 2016 (president)
- Oleg Iegorov, U. Grenoble, Apr 2016 (president)

9.3. Popularization

- Samuel Thibault made a Inria talk about « Building Debian/Ubuntu packages to make it easy for users to install your software »

TADAAM Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events Organisation

10.1.1.1. General Chair, Scientific Chair

Guillaume AUPY was the Technical Program vice-chair of SC'17.

10.1.1.2. Member of the steering committee

Emmanuel JEANNOT is member of the steering committee of Euro-Par and the Cluster international conference.

10.1.2. Scientific Events Selection

10.1.2.1. Chair of Conference Program Committees

Guillaume AUPY was the co-chair of the Parallel and Distributed Algorithms track of ICA3PP'17.

Emmanuel JEANNOT was the Program chair of the Heterogeneity in Computing Workshop (HCW'17).

Emmanuel JEANNOT was the Program chair of the track parallelism of COMPAS 2016.

10.1.2.2. Member of the Conference Program Committees

Alexandre DENIS was a member of the program committee of Compas'16 and CCGrid 2017.

Brice GOGLIN was a member of the program committee of CCGrid 2016, Cluster 2016, EuroMPI 2017, HotInterconnect 24 and of the Exacomm workshop.

Emmanuel JEANNOT was a member of the program committee of IPDPS 2017, CCGRID 2017,

Guillaume MERCIER was a member of the program committee of EuroMPI 2016 and EuroMPI 2017.

10.1.2.3. Reviewer

Cyril BORDAGE was reviewer for Cluster 2016.

Alexandre DENIS was a reviewer for Cluster 2016.

Brice GOGLIN was a reviewer for IEEE Micro.

Farouk MANSOURI was a reviewer for Cluster 2016.

Guillaume MERCIER was a reviewer for IPDPS 2017.

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

Emmanuel JEANNOT is associate editor of the International Journal of Parallel, Emergent & Distributed Systems (IJPEDS).

Guillaume MERCIER is editor of the EuroMPI 2016 Special issue of the Journal of High Performance Computing Applications (IJHPCA).

10.1.3.2. Reviewer - Reviewing Activities

Guillaume AUPY was a reviewer for EURASIP Journal of Embedded Systems, Cluster Computing and Transactions on Parallel and Distributed Systems (TPDS).

Alexandre DENIS was a reviewer for the Journal of Parallel and Distributed Computing (JPDC).

Emmanuel JEANNOT was reviewer of IEEE TPDS.

Guillaume MERCIER was a reviewer for the EuroMPI 2016 Special Issue of the Parallel Computing journal.

François PELLEGRINI was a reviewer for SIAM Journal on Scientific Computing (SISC).

10.1.4. Invited Talks

Brice GOGLIN gave a talk about managing hardware locality in HPC during an AMD Tech Talk at AMD Research (Austin, TX).

Emmanuel JEANNOT gave a talk about topology-aware data management at the Workshop on Clusters, Clouds, and Data for Scientific Computing (CCDSC 2016).

Emmanuel JEANNOT gave a talk about metrics and models for process placement at the Third Workshop on Programming Abstractions for Data Locality (PADAL'16).

François PELLEGRINI delivered a keynote speech on freedom in the digital age, during the annual congress of *Société informatique de France*, Strasbourg.

François PELLEGRINI gave a talk on software law at Université de Nice Sophia-Antipolis.

François PELLEGRINI participated in a round-table on *Big data, compliance and personal data* during the JInov meeting, Paris.

François PELLEGRINI gave a talk on *Free software, a tool for sustainable development in countries of the Souths* law at the *Colloque international sur le logiciel libre dans les pays du Sud*, organized by Université Moulay Ismaïl & École nationale supérieure d'arts et métiers de Meknès.

François PELLEGRINI delivered a talk on freedom in the digital age, during the Defense Security Cyber summer school organized by Université de Bordeaux.

François PELLEGRINI delivered a talk on freedom and the ethics of informatics during the summer school for young researchers on the ethics of informatics, organized by CERNA and Allistene in Arcachon.

François PELLEGRINI participated in a round-table on the legal criteria for software originality in the colloquium on protection and infringement of software : the notion of digital common pool, organized by AFDIT at Conseil national des barreaux, Paris.

François PELLEGRINI delivered a talk on the issues of rights on immaterial goods for digital development, during the international seminar of training for trainers on internet and information systems governance, organised by ITICC with the support of Organisation Internationale de la Francophonie and ARCEP-BF, in Ouagadougou.

François PELLEGRINI delivered the opening conference on the legal and economic bases the digital economy, for a training seminar for Members of the Parliament of Benin on the issues of laws on digital matters, organized by Organisation Internationale de la Francophonie at Grand-Popo.

François PELLEGRINI gave a talk on the operational solutions to digital security issues, during the 4th NGO forum organized by the French embassy in Moscow.

François PELLEGRINI delivered a keynote speech on the governance of open and free innovation, at the invitation of the French ministry of Foreign affairs, during the workshop on open innovation which took place within the French-German inter-governmental conference on digital issues, in Berlin.

Adèle VILLIERMET has been invited to give a talk at the summer school of GDR RO.

10.1.5. Scientific Expertise

Emmanuel JEANNOT was member of the hiring committee for an assistant professor position in informatics at Université de Bordeaux.

Brice GOGLIN was also a member of the hiring committee for Inria Bordeaux - Sud-Ouest research scientists.

François PELLEGRINI was a member of the hiring committee for a full professor position in informatics at Université de Nice Sophia-Antipolis (PR27-327). He also reviewed a PR1 promotion file at Université de Bordeaux.

10.1.6. Standardization Activities

TADAAM attends the MPI Forum meetings on behalf of Inria (where the MPI standard for communication in parallel applications is developed and maintained).

A proposal is currently under early discussion for submission to the forum [7.15](#).

10.1.7. Tutorials

Brice GOGLIN gave a tutorial about managing hardware affinities on hierarchical platforms with HWLOC during a PRACE Advanced Training Center session.

François PELLEGRINI gave a “hands-on” tutorial on SCOTCH during a meeting of the European project COLOC.

10.1.8. Research Administration

Emmanuel JEANNOT is member of the scientific committee of the Labex IRMIA (Université de Strasbourg).

Emmanuel JEANNOT is the head of the young researcher commission of Inria Bordeaux Sud-Ouest in charge of supervising the hiring of the PhDs and post-doc of the center.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Members of the TADAAM project gave hundreds of hours of teaching at Université de Bordeaux and the Bordeaux INP engineering school, covering a wide range of topics from basic use of computers and C programming to advanced topics such as computer architecture, operating systems, parallel programming and high-performance runtime systems, as well as software law.

10.2.2. Supervision

PhD in progress: Remi Barat, multi-criteria graph partitioning, started in 2014. Advisor: François Pellegrini.

PhD in progress: Raphaël Blanchard, parallelization and data distribution of discontinuous Galerkin methods for complex flow simulations, started in 2013. Advisor: François Pellegrini.

PhD in progress: Nicolas Denoyelle, advanced memory hierarchies and new topologies, started in 2015. Advisor: Brice Goglin and Emmanuel Jeannot.

PhD in progress: Benjamin Lorendeau, new programming models and optimization of Code Saturn, started in 2015. Advisor: Yvan Fournier and Emmanuel Jeannot.

PhD in progress: Hugo Taboada, communication progression in runtime systems, started in 2015. Advisor: Alexandre Denis and Emmanuel Jeannot.

PhD in progress: Adèle Villiermet, topology-aware resource management, started in 2014. Advisor: Emmanuel Jeannot and Guillaume Mercier.

PhD stopped: Romain Prou, communication management based on remote memory access, student resigned in october 2016. Advisor: Alexandre Denis and Emmanuel Jeannot.

10.2.3. Juries

Brice GOGLIN was member of the PhD defense committee of:

- Mohamed Lamine Karaoui (Université Pierre et Marie Curie, Reviewer).

Emmanuel JEANNOT was member of the PhD defense committee of:

- Loïc Thiébault (Université de Versailles Saint-Quentin, Reviewer).

François PELLEGRINI was member of the PhD defense committee of:

- Karl-Eduard Berger (Université de Versailles Saint-Quentin);
- Alessandro Fanfarillo (Università degli Studi di Roma Tor Vergata, Reviewer);
- Thomas Hume, Université de Bordeaux;
- Sébastien Morais (Université Évry Val d'Essonne, Reviewer).

10.3. Popularization

Brice GOGLIN is in charge of the diffusion of the scientific culture for the Inria Research Center of Bordeaux. He organized several popularization activities in the center. He also gave several talks about computer architecture, high performance computing, and research careers to general public audience, school students, teachers, or even to non-expert Inria colleagues.

Brice GOGLIN was involved in the design of the section about fundamentals of computer science in the 2017 massive open online course that will help teachers of the new ICN section in schools (*Informatique et Création Numérique*). It was filmed for 10 video sequences (about an hour in total).

François PELLEGRINI was filmed during a 3-hour conference on author's rights, in the context of the MAPI'Days, to serve as an on-line training for personnel and students of Université de Bordeaux (<https://fad.u-bordeaux.fr/course/view.php?id=740>).

François PELLEGRINI is the author of an opinion piece on digital sovereignty in newspaper Le Monde (http://www.lemonde.fr/idees/article/2016/06/24/la-souverainete-numerique-passe-par-le-logiciel-libre_4957781_3232.html).

François PELLEGRINI is the co-author of a booklet on free/libre software licenses edited by Pôle Systematic Paris Région & Pôle Aquinetic, which is now in its second edition (http://systematic-paris-region.org/sites/default/files/content/page/attachments/LivretBleu_Juridique_GT-LogicielLibre_Systematic_Mai2016_web.pdf).

In the context of the decree authorizing the TES (*Titres Électroniques Sécurisés*) file, François PELLEGRINI published a set of three blog posts (starting with <http://www.pellegrini.cc/2016/11/la-biometrie-des-honnetes-gens/>), which have been cited and linked by several French newspapers (Libération, Mediapart, NextInpact). He also participated in a debate on the same subject, organised by the Ligue des droits de l'Homme de Gironde (<http://ldh-gironde.org/jeudi-15-decembre-2016-a-18h30-rencontre-debat-autour-du-mega-fichier-tes/>).

François PELLEGRINI delivered a talk on *Freedom and the ethics of informatics* during a seminar on *Technologies, ethics and cognition* organized by the bouddhist group Dhagpo Bordeaux, in partnership with Cap Sciences and Université de Bordeaux (<http://www.dhagpo-bordeaux.org/seminaire-technologies-ethique-cognition/>).

François PELLEGRINI was filmed, during an interview on *Innovation and free/libre licenses*, for the ULab Innov+ MOOC.

ASCOLA Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events Organisation

10.1.1.1. Member of the Steering and Organizing Committees

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

10.1.2. Scientific Events Selection

10.1.2.1. Member of the Conference Program Committees

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

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

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

10.1.3.2. Reviewer - Reviewing Activities

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

10.1.4. Invited Talks

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

10.1.5. Leadership within the Scientific Community

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

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

10.1.6. Research Administration

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

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

The team is involved in the following undergraduate and graduate-level programs at Mines Nantes and University of Nantes (the institutions all of eaching staff belongs to):

- The team is a main contributor to the **engineering program of EMN**.
- Within this engineering program, the team is steering, chairing and the main contributor to a two-year **graduate-level informatics specialization**. H. Grall is managing this program.
- The team is leading a three-year **engineering program on software engineering**. T. Ledoux is managing this program.

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

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

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

10.2.2. Juries

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

10.3. Popularization

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

⁰Green Lab Center

DIVERSE Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific Events Organisation

9.1.1.1. General Chair, Scientific Chair

Benoit Baudry and Benoit Combemale have been general co-chairs for MODELS 2016, the major international conference in the area of model-driven software and systems engineering.

9.1.1.2. Member of the Organizing Committees

Mathieu Acher:

- Social media chair, MODELS 2016

Arnaud Blouin:

- Student volunteers co-chair, MODELS 2016
- Social Media Chair, EICS 2016

9.1.2. Scientific Events Selection

9.1.2.1. Chair of Conference Program Committees

Noël Plouzeau was the program committee chair of the Component Based Software Engineering (CBSE) in 2016. Jean-Marc Jézéquel was co-chair of Digital Intelligence 2016, April 2016, Quebec City, Canada.

9.1.2.2. Member of the Conference Program Committees

Mathieu Acher:

- PC member SPLC 2016
- PC member SAC 2016
- PC member VaMoS 2016
- PC member SEAA 2016
- PC member REVE 2016

Olivier Barais:

- PC member SEAA 2016
- PC member 10th IEEE ICOSST-2016
- PC member compas2016
- PC member ASE 2016
- PC member TTC 2016
- PC member SAC 2016

Benoit Baudry:

- PC member ICSE 2016
- PC member ISSTA 2016
- PC member ICST 2016
- PC member ASE 2016

Arnaud Blouin:

- PC member of the foundation track for MODELS 2016
- PC member for IHM 2016
- PC member of the NIER/demo track for VISSOFT 2016
- PC member for the UCDAAS workshop at COMPSAC 2016

Benoit Combemale:

- PC member for ECMFA'16
- PC member for ICMT'16
- PC member for the GEMOC'16 workshop at MODELS'16
- PC member for the EXE'16 workshop at MODELS'16
- PC member for the MiSE'16 workshop at ICSE'16
- PC member for the LaMOD'16 workshop at Modularity'16
- PC member for the MoMo'16 workshop at Modularity'16

Johann Bourcier:

- PC member for the SEsCPS'16 workshop at ICSE'16

Jean-Marc Jézéquel:

- Program Board of MODELS 2016
- PC member for SPLC 2016 Industry Track
- PC member for SPLC 2016 Vision Track
- PC member for SEAMS 2016
- PC member for GEMOC 2016

9.1.2.3. Reviewer

Arnaud Blouin was a reviewer for ICST 2016, ASE 2016, ECMFA 2016. Noël Plouzeau was a reviewer for ICSE 2016. Olivier Barais was a reviewer for ICSE 2016, Sosym 2016. Johann Bourcier was a reviewer for ICSE 2016, ASE 2016 and Middleware 2016.

9.1.3. Journal

9.1.3.1. Member of the Editorial Boards

Benoit Baudry:

- SOSYM
- STVR

Benoit Combemale:

- Springer Journal on Software and System Modeling (SoSYM),
- Elsevier Journal on Computer Languages, Systems and Structures (COMLAN),
- Elsevier Journal on Science of Computer Programming (SCP), Advisory Board member of the Software Section.

9.1.3.2. Reviewer - Reviewing Activities

Mathieu Acher was a reviewer for TSE, JSS, IST.

Johann Bourcier was a reviewer for JSS, IEEE Communications Magazine,

Arnaud Blouin: SoSyM

Jean-Marc Jézéquel:

- Associate Editor in Chief of SOSYM
- IEEE Computer
- JSS
- JOT

9.1.4. Invited Talks

Benoit Baudry:

- Running software in uncertain environments. Invited talk at the ACCESS Distinguished Lecture Series at KTH, Stockholm.
- ECSLER: tool support for runtime evolution inside the JVM at the CREST workshop on genetic improvement, University College London.
- Improving software quality and DevOps automation with STAMP at OW2'con 2016.

Benoit Combemale:

- Towards Language-Oriented Modeling. Invited talk at RWTH Aachen University, Germany.
- Dynamic Validation & Verification in Language-Oriented Modeling. Keynote at MoDeVVA 2016.
- On the Globalization of Modeling Languages. Invited talk at CNES.
- A Bit of Software Engineering! Invited talk at Airbus.
- Modeling for Smart Cyber-Physical Systems. Invited talk at the French CPS days.
- Modeling for Sustainability. Invited talk at Lancaster University, United Kingdom.

9.1.5. Leadership within the Scientific Community

Benoit Baudry:

- Steering committee member for the ACM/IEEE MODELS conference

Benoit Combemale:

- Steering committee member for the ACM SLE conference
- Founding member and member of the advisory board of the GEMOC initiative.

9.1.6. Research Administration

Benoit Baudry is the leader of the DiverSE research team; he is in the scientific advisory board of the SVV lab, University of Luxembourg.

Jean-Marc Jézéquel is Director of IRISA (UMR 6074). He is Coordinator of the academic club of the French Cyber-defense Excellence Cluster, and Director of the Rennes Node of EIT Digital.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

The DIVERSE team bears the bulk of the teaching on Software Engineering at the University of Rennes 1 and at INSA Rennes, for the first year of the Master of Computer Science (Project Management, Object-Oriented Analysis and Design with UML, Design Patterns, Component Architectures and Frameworks, Validation & Verification, Human-Computer Interaction) and for the second year of the MSc in software engineering (Model driven Engineering, Aspect-Oriented Software Development, Software Product Lines, Component Based Software Development, Validation & Verification, *etc.*).

Each of Jean-Marc Jézéquel, Noël Plouzeau, Olivier Barais, Johann Bourcier, Arnaud Blouin, and Mathieu Acher teaches about 200h in these domains, with Benoit Baudry and Benoit Combemale teaching about 50h, for a grand total of about 1300 hours, including several courses at ENSTB, Supélec, and ENSAI Rennes engineering school.

Olivier Barais is deputy director of the electronics and computer science teaching department of the University of Rennes 1. Mathieu Acher is in charge of teaching duties management of this department. Noël Plouzeau is the head of the final year of the Master in Computer Science at the University of Rennes 1. Johann Bourcier is co-manager of the Home-Automation option at the ESIR engineering school in Rennes.

The DIVERSE team also hosts several MSc and summer trainees every year.

9.2.2. Supervision

- PhD: Sana Ben Nasr [17], *Mining and Modeling Variability from Natural Language Documents: Two Case Studies*, Inria, April 2016, B. Baudry and M. Acher
- PhD: Guillaume Becan [19] *Metamodels and Feature Models: Complementary Approaches to Formalize Product Comparison Matrices*, MESR, September 2016, B. Baudry and M. Acher
- PhD: Thomas Degueule, *Composition and interoperability of domain-specific language engineering*, Univ. Rennes I, 02/12/16
- PhD: Francisco Acosta, *Automatic Deployment and Reconfigurations in Internet of Things*, Univ. Rennes I, 12/12/2016
- PhD: David Mendez Acuna, *Variability in Modeling Languages*, Inria, 16/12/2016
- PhD: Jacky Bourgeois, *Automatic Synchronization of Energy Production and Consumption*, Open University, DATE
- PhD in progress: Mohamed Boussaa, *An Architecture for Testing Large-Scale Dynamic Distributed Systems*, 2013, B. Baudry, O. Barais
- PhD in progress: Alejandro Gomez Boix, *Distributed counter-measure against browser fingerprinting*, 2016, B. Baudry, D. Bromberg
- PhD in progress: Nicolas Harrand, *Automatic diversity for code obfuscation*, 2016, B. Baudry
- PhD in progress: Pierre Laperdrix, *Secretless moving target against browser fingerprinting*, B. Baudry, G. Avoine
- PhD in progress: Johan Pelay, *Langage pour une programmation incrémentale de réseau*, 2016, O. Barais, F. Guillemin
- PhD in progress: Quentin Plazar, *Combining Decision Procedures for Constraint Programming and SMT*, 2015, M. Acher, A. Goetib
- PhD in progress: Marcelino Rodriguez Cancio, *Automatic computation diversification*, 2015, B. Baudry and B. Combemale
- PhD in progress: Paul Temple, *Variability Testing of Computer Vision Algorithms*, 2015, M. Acher, J.-M. Jézéquel
- PhD in progress: Kwaku Yeboah-Antwi, *Runtime emergence of software diversity*, 2013, B. Baudry
- PhD in progress: Manuel Leduc, *TITRE*, 2016, O. Barais, B. Combemale
- PhD in progress: Youssou NDiaye, *Modelling and evaluating security in user interfaces*, 2016, N. Aillery, O. Barais, A. Blouin, A. Bouabdallah
- PhD in progress: Jean-Émile Dartois, *TITRE*, 2016, O. Barais
- PhD in progress: Oscar Luis, *Automatic test amplification*, 2016, B. Baudry
- PhD in progress: Alexandre Rio, *TITRE*, 2016, O. Barais, Y. Morel
- PhD: in progress, Kevin Corre, *Modélisation de la confiance dans les services sociaux et conversationnels*, 2014, O. Barais, G. Sunye
- PhD: in progress, Gwendal Le Moulec, *Towards the automatic synthesis of virtual reality applications*, 2015, B. Arnaldi, A. Blouin, V. Gouranton

9.2.3. Juries

9.2.3.1. Mathieu Acher

was in the examination committee of the following PhD thesis:

- Guillaume Becan, September 2016, Univ Rennes I, Supervisor
- Sana Ben Nasr, April 2016, Univ Rennes I, Supervisor
- Jaime Chavarriga, December 2016, Vrije Universiteit Brussel, Reviewer

9.2.3.2. Arnaud Blouin

was in the examination committee of the following PhD thesis:

- Thomas Degueule, December 2016, Univ Rennes I, Supervisor

9.2.3.3. Olivier Barais

was in the examination committee of the following PhD thesis:

- Thomas Degueule, December 2016, Univ Rennes I, Supervisor
- Maxime Colman, December 2016, Univ Lille I, Reviewer
- Alexandre Garnier, December 2016, EMN - Univ Nantes, Reviewer
- Matias Ezequiel Vara Larsen, April 2016, Univ Nice, Reviewer
- Djamel Khelladi, September 2016, UPMC, Reviewer
- Simon Dupont, April 2016, EMN - Univ Nantes, Reviewer

9.2.3.4. Benoit Baudry

was in the examination committee of the following PhD thesis:

- Guillaume Becan, September 2016, Univ Rennes I, Supervisor
- Sana Ben Nasr, April 2016, Univ Rennes I, Supervisor
- David Mendez, December 2016, Univ Rennes I, Supervisor

9.2.3.5. Olivier Barais

was in the examination committee of the following HDR:

- Sébastien Leriche, November 2016, ENAC, Reviewer

9.2.3.6. Jean-Marc Jézéquel

was in the examination committee of the following HDR:

- Tewfik Ziadi, December 2016, UPMC, Reviewer

9.2.3.7. Benoit Combemale

was in the examination committee of the following PhD thesis:

- Thomas Degueule, December 2016, Univ Rennes I, Supervisor
- Blazo Nastov, november 2016, Univ. Montpellier, Reviewer
- Florent Latombe, June 2016, Univ Toulouse, Examiner
- Andreas Wortmann, June 2016, Aachen University, Germany, Reviewer
- Matias Ezequiel Vara Larsen, April 2016, Univ Nice, Examiner

9.2.3.8. Johann Bourcier

was in the examination committee of the following PhD thesis:

- Francisco Javier Acosta Padilla, December 2016, Univ Rennes I, Supervisor

9.2.3.9. Jean-Marc Jézéquel

was in the examination committee of the following PhD thesis:

- Jabier Martinez, October 2016, Univ. Luxemburg, Examiner

9.3. Popularization

- IT industry forums. Our recent work on diversity against browser fingerprinting and the associated web site ⁰ have been demonstrated in the a major cybersecurity forum (FIC'15 ⁰), the largest IT event organized by the European commission (ICT'15 ⁰) and two open source forums (OWF'14 ⁰ and FOSSA'14 ⁰).
- General-audience press. Our work on browser fingerprinting has been featured Le Monde ⁰, and two full articles appeared in the MISC ⁰ and the Clubic magazines ⁰.

⁰<https://amiunique.org/>

⁰<https://fic2015.com/home/>

⁰<https://ec.europa.eu/digital-single-market/en/ict2015>

⁰<http://www.openworldforum.paris/>

⁰<https://fossa.inria.fr/>

⁰http://abonnes.lemonde.fr/sciences/article/2014/11/24/le-fossa-bazar-techno-participatif_4528568_1650684.html

⁰<http://connect.ed-diamond.com/MISC/MISC-081/Le-fingerprinting-une-nouvelle-technique-de-tracage>

⁰<http://pro.clubic.com/webmarketing/publicite-en-ligne/actualite-742853-fingerprinting-cookies.html>

FOCUS Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific Events Organisation

9.1.1.1. General Chair, Scientific Chair

I. Lanese: Co-chair and local organizer for the 8th Conference on Reversible Computation (RC 2016), Bologna, July 7th-8th, 2016.

9.1.1.2. Chair of Conference Program Committees

I. Lanese: 36th IFIP International Conference on Formal Techniques for Distributed Objects, Components and Systems (FORTE 2016)

D. Sangiorgi: 43rd International Colloquium on Automata, Languages, and Programming (ICALP 2016), Rome, July 2016

9.1.1.3. Member of the Conference Program Committees

M. Bravetti: 5th European Conference on Service-Oriented and Cloud Computing (ESOCC 2016); 14th International Conference on Software Engineering and Formal Methods (SEFM 2016); 10th IEEE International Conference on Big Data Science and Engineering (IEEE BigDataSE 2016); 2016 IEEE International Conference on Big Data (IEEE BigData 2016) 32nd Symposium on Applied Computing, track on Software Verification and Testing (SAC-SVT 2016); 7th International Conference on Fundamentals of Software Engineering (FSEN 2017).

U. Dal Lago: 13th IFIP WG 1.3 International Workshop on Coalgebraic Methods in Computer Science (CMCS 2016); 1st International Conference on Formal Structures for Computation and Deduction (FSCD 2016); 15th International Workshop on Termination (WST 2016); 17th International Workshop on Logic and Computational Complexity (LCC 2016, Chair).

I. Lanese: 1st International Workshop on Pre- and Post-Deployment Verification Techniques (PrePost 2016); 9th Interaction and Concurrency Experience (ICE 2016); 25th European Symposium on Programming (ESOP 2016); Special Track on Microservices: Science and Engineering of the 9th IEEE International Conference on Service-Oriented Computing and Applications (MSE @ SOCA 2016).

S. Martini: DIDAMATICA - Informatica per la Didattica (DIDAMATICA 2016).

D. Sangiorgi: 10th International Conference on Language and Automata Theory and Applications (LATA' 16).

V. Vignudelli: 9th Interaction and Concurrency Experience (ICE 2016).

G. Zavattaro: 21st International Symposium on Formal Methods (FM2016); 5th European Conference on Service-oriented and Cloud Computing (ESOCC' 16); 27th International Conference on Concurrency Theory (CONCUR' 16); 31st ACM/SIGAPP Symposium On Applied Computing - track on Software Verification and Testing (ACM-SAC 2016).

9.1.1.4. Member of the Editorial Boards

U. Dal Lago: Logical Methods in Computer Science.

M. Gabbrielli: Int. Journal Theory and Practice of Logic Programming.

C. Laneve: Frontiers in ICT (Section Formal Methods).

I. Lanese: Editor in chief of the Open Journal of Communications and Software (Scientific Online).

The Scientific World Journal (Hindawi Publishing Corporation): editor till August 3, 2016

F. Montesi: Guest editor for "Special issue on Service-Oriented Architecture and Programming (SOAP 2013)". Science of Computer Programming.

D. Sangiorgi: Acta Informatica, Distributed Computing, RAIRO Theoretical Informatics and Applications.

9.1.2. Invited Talks

U. Dal Lago: gave an invited course "Implicit Complexity and the Curry-Howard Correspondence" at 'Days in Logic 2016', Lisboa, Portugal.

D. Hirschhoff: gave an invited course "Mechanised Coinductive Proofs" at East China Normal University (Shanghai, China), in november 2016 (a course mainly targeted towards master students).

S. Martini: gave the invited talk "Types in programming languages, between modelling, abstraction and correctness" at 'Computability in Europe' (Cie 2016), special session on History and Philosophy of Computing, Paris, June 2016.

G. Zavattaro: gave an invited course on cloud computing management at the 'Bertinoro International Spring School 2016' (BISS'16), Bertinoro, Italy, 6-11 March, 2016.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

- Mario Bravetti
 - Master: "Linguaggi, Compilatori e Modelli Computazionali", 120 hours, 1st year, University of Bologna, Italy.
- Ugo Dal Lago
 - Undergraduate: "Introduction to Programming in Python", 20 hours, 1st year, University of Bologna, Italy.
 - Undergraduate: "Optimization", 36 hours, 2nd year, University of Bologna, Italy.
 - Master: "Cryptography", 36 Hours, 2nd Year, University of Bologna, Italy.
- Daniel Hirschhoff
 - Master: "Coinductive Methods in Computer Science", 2nd year, Ecole Normale Supérieure de Lyon.
- Maurizio Gabbrielli
 - Undergraduate: "Programming languages", 40 hours, 2nd year, University of Bologna, Italy.
 - Master: "Artificial Intelligence", 60 hours, 2nd year, University of Bologna, Italy.
- Elena Giachino
 - Undergraduate: "Programmazione", 40 hours, 1st year, University of Bologna, Italy.
- Saverio Giallorenzo
 - Undergraduate: "Laboratorio di Operating Systems", 40 hours, 2nd year, University of Bologna, Italy.
- Ivan Lanese
 - Undergraduate: "Programmazione", 32 hours, 1st year, University of Bologna, Italy.
 - Undergraduate: "Algoritmi e Strutture Dati", 45 hours, 2nd year, University of Bologna, Italy.
 - Master: "Ingegneria del Software Orientata ai Servizi", 22 hours, 2nd year, University of Bologna, Italy.
- Cosimo Laneve

Undergraduate: “Programmazione”, 70 hours, 1st year, University of Bologna, Italy.

Master: “Analisi di Programmi”, 42 hours, 1st year, University of Bologna, Italy.

- Simone Martini
 - Undergraduate: “Introduction to programming in Python”, 58 hours, 1st year, University of Bologna, Italy.
 - Undergraduate: “Computer abilities for biologists”, 8 hours, 1st year, University of Bologna, Italy.
 - Master: “Logical Foundations of Computer Science”, 48 hours, 2nd year, University of Bologna, Italy.
- Davide Sangiorgi
 - Undergraduate: “Operating Systems”, 110 hours, 2nd year, University of Bologna, Italy.
 - Master: “Models for concurrency”, 15 hours, 2nd year, University of Bologna, Italy.
- Marco Solieri
 - Undergraduate: “UNIX system programming”, 48 hours, 3rd year, Université Paris Diderot
 - Undergraduate: “Network programming”, 48 hours, 3rd year, Université Paris Diderot
- Gianluigi Zavattaro
 - Undergraduate: “Computer Architectures”, 60 hours, 1st year, University of Bologna, Italy
 - Undergraduate: “Programming Languages”, 60 hours, 2nd year, University of Bologna, Italy

9.2.2. Supervision

PhD thesis completed in 2016:

- Alberto Cappai, " On Equivalences, Metrics, and Computational Indistinguishability", University of Bologna, April 2016.
- Alessandro Rioli, " Coinductive Techniques on a Linear Quantum λ -calculus", University of Bologna, April 2016.
- Marco Solieri, “Sharing, Superposition and Expansion — Geometrical Studies on the Semantics and Implementation of λ -calculi and Proof-Nets”, S. Guerrini (Paris Nord) and S. Martini. [11].
- Saverio Giallorenzo, “Real-World Choreographies”, University of Bologna, April 2016 [10].

Below are the details on the PhD students in Focus: starting date, topic or provisional title of the thesis, supervisor(s). These are all PhDs in progress.

- Adrien Durier, september 2016, "Proving behavioural properties of higher-order concurrent languages", ENS de Lyon and University of Bologna. Supervisors Daniel Hirschhoff and Davide Sangiorgi.
- Abel Garcia, January 2014, “Analysis of Cloud Computing Systems”. Supervisor C. Laneve.
- Francesco Gavazzo, October 2015, “Coinductive Techniques for Effectful Lambda Calculi”. Supervisors U. Dal Lago and D. Sangiorgi.
- Raphaëlle Crubillé, October 2015, “Bisimulation Metrics and Probabilistic Lambda Calculi”, Université Denis Diderot and University of Bologna. Supervisors Thomas Ehrhard and Ugo Dal Lago.
- Vincenzo Mastandrea, October 2015, “Deadlock analysis in ASP”. Supervisors Cosimo Laneve and Ludovic Henrio (CNRS Sophia Antipolis).
- Valeria Vignudelli, January 2014, “Probabilities in Higher-Order languages”. Supervisor D. Sangiorgi.

9.2.3. *Juries*

U. Dal Lago has been member of the PhD evaluation committee for Charles Grellois (April 2016, Université Paris 7), and Thomas Leventis (December 2016, Université Aix-Marseille).

D. Hirschhoff has been referee (rapporteur) for the Habilitation à Diriger les Recherches of Nicolas Tabareau, Université de Nantes), November 2016, and member of the PhD committee of Martin Bodin (Université Rennes 1), Nov. 25, 2016.

S. Martini has been supervisor and member of the PhD evaluation committee for Marco Solieri (Université Paris 13 and Università di Bologna).

G. Zavattaro: has been member of the PhD jury of Laura Nenzi and Andrea Morichetta, IMT Lucca, Italy, July 2016.

9.3. Popularization

Simone Martini has carried out extended work of scientific divulgation, including

- member of the technical committee of Olimpiadi del Problem Solving (at Italian Ministry of Education), <http://www.olimpiadiproblemsolving.com>;
- invited talks (“Il pensiero computazionale spiegato ai manager”, given at ‘Il codice del futuro’, Teatro anatomico dell’Archiginnasio, Bologna, May 2016, and “Pensare computazionale: una quarta competenza dopo scrivere, leggere e far di conto”, given at ‘Trasformazioni sociali e trasmissione delle conoscenze nell’Università italiana’, Bologna, November 2016);
- various talks at institutes and workshops on the teaching methods for Computer Science;
- coordinator of some initiatives for the ‘Hour of Code’, see <https://italia.code.org/> and <http://www.programmailfuturo.it>.

D. Hirschhoff takes part in several popularization activities in schools, in Lyon (association "Maths en Jeans").

9.3.1. *Other duties*

S. Martini is a member of the Board of CINI (Italian National Interuniversity Consortium for Informatics), designated by the Ministry for Semplificazione e Pubblica Amministrazione, from 2015.

S. Martini has been elected Head of the Department of Computer Science and Engineering, University of Bologna, for the term 2015-2018.

D. Sangiorgi has been coordinator of undergraduate studies at the Department of Computer Science and Engineering, University of Bologna (Informatica per il Management), till October 2016, when G. Zavattaro has taken over from him.

INDES Project-Team

7. Dissemination

7.1. Promoting Scientific Activities

7.1.1. Scientific Events Organisation

7.1.1.1. General Chair, Scientific Chair

- Ilaria Castellani co-organised (with Mohammad Reza Mousavi) the workshop TRENDS 2016, which took place in Québec City in association with the CONCUR conference.

7.1.1.2. Member of the Organizing Committees

- Ilaria Castellani participated in the organisation of the 2nd Summer School of the BETTY project, which took place in Cyprus.

7.1.2. Scientific Events Selection

7.1.2.1. Member of the Conference Program Committees

- Ilaria Castellani served in the programme committee of the workshop EXPRESS/SOS 2016.
- Tamara Rezk served in the programme committee of POST, SEC@SAC, PLAS, IEEE SecDev, and APLAS 2016.

7.1.2.2. Reviewer

The team members have been reviewers for FSTJCS conference, SEC@SAC conference, USENIX Security 2016, POST 2016, NDSS 2016, and CCS 2016.

7.1.3. Journal

7.1.3.1. Member of the Editorial Boards

- Ilaria Castellani is a member of the editorial board of the french journal *Technique et Science Informatiques*.
- Tamara Rezk is a member of the editorial board of the french journal *Interstices*.

7.1.3.2. Reviewer - Reviewing Activities

The team members have been reviewers for the international journals JLAMP (*Journal of of Logical and Algebraic Methods in Programming*), LMCS (*Logical Methods in Computer Science*), International Journal of Information Security (IJIS), EEE TDCS, and ACM TISSEC.

7.1.4. Invited Talks

Manuel Serrano gave a presentation on "Diffuse Web programming" at The Open Source Innovation Spring 2016 (<http://open-source-innovation-spring.org/techniques-de-programmation-web-letat-de-lart-date-conf/>).

Nataliia Bielova has been invited to give a talk on Price discrimination of Online Airline Tickets at the Collaborative Action on the Protection of Privacy Rights in the Information Society (CAPRIS) project meeting, Sophia Antipolis, France.

7.1.5. Leadership within the Scientific Community

- Iliaria Castellani is the chair of the IFIP TC1 WG 1.8 on Concurrency Theory since May 2014. In this quality, she co-organises every year (together with the WG Secretary Mohammad Reza Mousavi) the annual business meeting of the working group as well as the workshop TRENDS, which is always affiliated with the CONCUR conference. Iliaria Castellani was a member of the european COST Action IC1201 BETTY on Behavioural Types (October 2012-October 2016). She also belonged to the Management Committee of BETTY and was the chair of its working group on security. Iliaria Castellani is a member of the COST Action IC1405 on Reversible Computation (November 2014-November 2018). She is also a deputy Management Committee member of this action.
- Nataliia Bielova has co-organised a Dagstuhl Seminar on Online Privacy and Web Transparency⁰ with researchers from Telefonica (Spain), Stony Brook University (USA) and Princeton University (USA).
- Nataliia Bielova is a member of the W3C Tracking Protection Working Group. This group works towards creating a “DoNotTrack” specification. Its goal is to help users express their preferences on third-party tracking and help companies ensure their compliance with the specification.

7.1.6. Scientific Expertise

During 2016, Tamara Rezk has been an international research proposal evaluator for the following research agencies: Ministerio de Ciencia y Tecnología e Innovación Productiva (Foncyt, Argentina), Executive Agency for Higher Education, Research, Development and Innovation Funding (UEFISCDI, Romania).

7.2. Teaching - Supervision - Juries

7.2.1. Teaching

Licence : Vincent Prunet, Algorithms and Data Structures, 8 ETD, L2, Lycée International de Valbonne Sophia Antipolis (within the scope of the national Inria action to promote early CS courses in all scientific curricula), France

Master : Nataliia Bielova, Information Flow Security in Web Applications, 15 ETD, University of Pierre et Marie Curie, France

Master : Tamara Rezk, Web Application Security, 28H ETD, University of Nice Sophia Antipolis, France

Master : Tamara Rezk, Proofs of Cryptography, 28H ETD, University of Nice Sophia Antipolis, France

Master : Tamara Rezk, Information Flow Security in Web Applications, 15 ETD, University of Pierre et Marie Curie, France

7.2.2. Supervision

PhD in progress : **Colin Vidal**, *Programmation Web réactive*, University of Nice, 1/07/2015, **Manuel Serrano** and **Gérard Berry**.

PhD in progress : **Dolière Francis Some**, *Web Tracking Prevention*, University of Nice, 1/11/2015, **Nataliia Bielova** and **Tamara Rezk**.

PFE Master in progress: Leila Kuntar, Analysis of web tracking technologies that use 1x1 pixel image, University of Nice, Nataliia Bielova

7.2.3. Juries

- Nataliia Bielova was an examiner of the PhD thesis of Willem De Groef, KU Leuven, Belgium.
- Iliaria Castellani was a member of the “Comité de sélection “ for a position of Maître de conférences at the University of Paris Diderot (Paris 7), IRIF Laboratory.

⁰<https://www.dagstuhl.de/en/program/calendar/semhp/?semnr=17162>

- Ilaria Castellani was a reviewer of the PhD thesis of Saverio Giallorenzo, University of Bologna. She took part in the jury of this PhD thesis, as well as of ten other PhD theses defended in the same round.
- Ilaria Castellani was an examiner for the PhD thesis of Aurélien Deharbe, Université Pierre et Marie Curie (Paris 6).
- Tamara Rezk was an examiner of the PFE juries for Security and Privacy and Mobile Cloud and IoT at University of Nice Sophia Antipolis.
- Manuel Serrano was an examiner of the PhD thesis of Rabah Laouadi, Université de Montpellier.
- Manuel Serrano was an examiner of the PhD thesis of Julien Pagès, Université de Montpellier.

7.3. Popularization

- Web users are continuously tracked as they browse the Web. One of the techniques for tracking is device fingerprinting that distinguishes users based on their Web browser and operating system properties. Together with Inria Celtique team, we have proposed solutions to detect and prevent device fingerprinting via runtime monitoring of JavaScript programs. We have published an article in a general public ERCIM News magazine ⁰ about prevention of device fingerprinting via program monitoring [10].
- We have implemented the *WebStats* website ⁰. This website collects, on a monthly basis, a number of JavaScript and security statistics about top 10 000 webpages: the usage of popular JavaScript libraries; the usage of different language constructs in these libraries; use of Content Security Policies and secure cookies, etc. The *WebStats* website can be used by programmers (to understand which JavaScript libraries are more popular), researchers in programming languages (when designing a subset of JavaScript, to safely exclude the language constructs that are rarely used according to *WebStats*), and researchers in privacy (to analyse which tracking libraries are the most prevalent).

7.4. Transfer

7.4.1. WebRobotics

The WebRobotics initiative aims at developing collaborations with partner academic and industry teams to jointly prototype and experiment end user applications involving assistive robots and sensor devices (depending on the size and number of the embedded components, applications may be either classified as robotic or IoT ones). Each WebRobotics project is structured around partner medical institutions that provide key requirements to specifications and use the actual prototype throughout their daily activity. WebRobotics Applications all use Hop.js as their core framework, natively supporting web protocols for communication and distribution of tasks, and any web enabled device such as a smartphone or tablet to drive the robots and applications. In 2016, the initiative accounted to two full time engineers until the completion of the project, mid year.

The Top Three Benefits of WebRobotics:

- WebRobotics focuses on key societal issues, developing real applications for demanding users.
- Application developers and users feedback to Hop.js framework developers, helping identify and prioritize key requirements.
- The WebRobotics application portfolio fosters the dissemination and transfer of the Hop.js technology to the Industry.

⁰<http://ercim-news.ercim.eu/en106/special/using-javascript-monitoring-to-prevent-device-fingerprinting>

⁰<http://webstats.inria.fr/>

The WebRobotics initiative now encompasses several prototypes in use by medical foundations and hospitals.

- RAPP. The WebRobotics project is part of the RAPP FP7 european project, to be completed in December 2016, where Hop.js technology is used by several academic and SME R&D teams to develop a distributed software platform and applications for assistive robotics. Two prototypes have been developed, the first one is a personal coach robot (a Nao humanoid robot embedding Hop.js distributed applications), and the second one is a smart rollator (a walking aid with additional hardware and software services for rehabilitation, training and activity monitoring. The rollator hardware and robotic components are provided by Inria Hephaistos). Both prototypes are being evaluated by partner medical institutions.
- Hopcare. Indes collaborates with other research teams (Inria STARS, Nice University Cobtek Project) and local institutes and SMEs to foster the development distributed monitoring and supervision applications with the Hop.js technology. An expert engineer is dedicated to this project (grant from UCN@Sophia Labex, until April 2016).
 - ICP (Institut Claude Pompidou Hospital, in Nice) is now using the Alzheimer diagnosis tool developed using Hop.js. User Data generated from Inria/Stars sensors and image analysis software are collected by a Hop.js server and processed before being delivered to the Physician's web tablet, as an editable web report, or paper ready PDF reports.
 - The activity monitoring application enables real-time monitoring of various events generated by hardware/software monitoring tools (such as the video monitoring applications from Inria/Stars) as well as user defined events. Hop.js is the common framework for the whole application (communications with remote information servers, processing of input data, database management, user authentication and authorization, custom views for web clients). The application will soon be deployed at the Nice Valrose EHPAD (a specialized institution for elderly who need medical care), where Inria runs an experimentation lab.
 - A third application has been developed to enable the configuration and use of Inria/Stars video analysis tools through a web interface. The application is used by researchers to tune their data processing algorithms.

7.4.2. Hop.js for IoT

As more and more software developers come to IoT, teams are facing critical challenges due to the inherent complexity of multi-platform distributed development, leading to team building issues, long and costly development cycles to deliver products with the highest quality, usability, and security standards

The Hop.js software suite enables agile software teams to build flexible, robust and secure end-to-end IoT applications with a single language and a consistent set of API and built-in software components.

Building on the Hop.js technology and the successful WebRobotics experiments, a startup project has been launched in 2016 as a spin-off of the Indes team, with the support of Inria DGD-T, funding two engineers from July 2016.

The team has initiated partnerships with IoT hardware vendors, adapted Hop.js to highly constrained execution environments on microcontrollers, and participated to a number of public and business events to promote the solution and meet future customers. The startup company is expected to launch in 2017.

PHOENIX Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events Organisation

10.1.1.1. Member of the Organizing Committees

Hélène Sauzéon was member of the organizing committee of the workshop “Journées d’étude du vieillissement cognitif”, Bordeaux, 2016.

10.1.2. Scientific Events Selection

10.1.2.1. Member of the Conference Program Committees

Charles Consel was member in the PC of the IEEE 2nd International Conference on Collaboration and Internet Computing (CIC 2016).

Hélène Sauzéon was member in the PC of the workshop “Journées d’étude du vieillissement cognitif”, Bordeaux, 2016.

10.1.3. Journal

10.1.3.1. Reviewer - Reviewing Activities

Hélène Sauzéon was solicited as a reviewer for the Journal of Cognitive Psychology and the British Journal of Psychology.

10.1.4. Invited Talks

Charles Consel gave the following invited talks:

- Invited talk on HomeAssist at ORCATECH, Oregon Health and Science University, Portland, USA. August 2016.
- Invited talk on “DiaSwarm – Orchestration of Masses of Sensors at the International Conference on Software & Systems Engineering and their Applications”, Paris, France. May 2016.
- Invited talk on “DiaSwarm – Orchestration of Masses of Sensors” at Northeastern University, Boston, USA. May 2016.
- Invited talk on “DiaSwarm – Orchestration of Masses of Sensors” at Galois Inc., Portland, USA. August 2016.
- Invited talk on HomeAssist at “Journées Inria Industries” entitled “Interaction avec les objets et services numériques”, Tourcoing, France. Nov 2016.

Hélène Sauzéon gave the following invited talks:

- “Assistance numérique pour la cognition sociale pour favoriser l’inclusion scolaire d’enfants avec troubles du développement” at 43èmes Entretiens de Médecine Physique et de Réadaptation (EMPR), held on March 25th 2015 in Montpellier, France.
- “La cognition sociale au-delà du cerveau : une cognition inclusive” at 43èmes Entretiens de Médecine Physique et de Réadaptation (EMPR), held on March 25th 2015 in Montpellier, France.
- “HomeAssist : An Assisted Living Platform for Aging in Place Based on an Interdisciplinary Approach”, at WORRKSHOP ACCEPT16- Deuxièmes rencontres interdisciplinaires autour des aides techniques, du handicap cognitif et de la perte d’autonomie, held on October 6-7, in Nîmes, France.
- “Everyday cognition, Aging and Cognitive disorders: insights and opportunities provided by Information and Communication Technologies”, at Scientific seminar of Dpt. of Psychology, University of Waterloo, on 18th Jul., 2016, Waterloo, Canada.

10.1.5. Research Administration

Hélène Sauzéon is associate director of the lab “Activité, handicap, cognition et système nerveux”, since 2015, where she leads the Cognitive Handicap research axis.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Licence: Hélène Sauzéon, “General Cognitive Psychology”, 18h, L2/L3, University of Bordeaux, France

Licence: Hélène Sauzéon, “Cognitive Neuropsychology”, 7h, DU, University of Bordeaux, France

Master: Hélène Sauzéon, “Cognitive Fonctions in Context”, “Technologies for Handicap and Autonomy”, “Virtual Reality and Health Applications”, 60h, M1/M2, University of Bordeaux, France

Master: Charles Consel, “Telephony Over IP”, 43h, M2, Bordeaux INP, France.

Master: Charles Consel, “Software Engineering for Smart Spaces”, 10h, M2, Bordeaux INP, France.

Master: Charles Consel, “Ubiquitous Computing”, 10h, M2, Bordeaux INP, France.

10.2.2. Supervision

Charles FAGES, “Design and Experimental Validation of a Technological Assistant for School Inclusion of Children with Autism Spectrum Disorders in Mainstream Classrooms”, University of Bordeaux, defended on May 30th 2016, co-directed by Hélène Sauzéon and Charles Consel.

Lucile DUPUY, “Design and validation of a home-based digital assistant for seniors with slight autonomy decline”, University of Bordeaux, defended on November 30th 2016, co-directed by Hélène Sauzéon and Charles Consel.

Cécile MAZON, “Personalization and evaluation of a digital assistant for school inclusion of college students with autism and/or intellectual disability”, University of Bordeaux, started in September 2016, co-directed by Hélène Sauzéon and Charles Consel.

P.A. CINQUIN, “Design and validation of a reader accessible to persons with cognitive troubles for a e-learning system”, University of Bordeaux, started in September 2016, co-directed by Hélène Sauzéon and Pascal Guitton.

10.2.3. Juries

Hélène Sauzéon was member of the thesis committee for:

- Lucile Burger, for her thesis in Psychology called “Effect of training executive functions on appropriate usage of memory strategies during ageing : a behavioural and electrophysiological study”, University of Tours, on December 9 2016.
- Caroline Pigeon, for her thesis in Neuropsychology called “Mobilisation attentionnelle des piétons aveugles : Effets de l’âge, de l’antériorité de la cécité et de l’aide à la mobilité utilisée”, University of Lyon 2, on December 6th 2016.

Nic Volanschi was member of the thesis committee for Milan Kabac for his thesis in Computer Science called “A Design-Driven Methodology for the Development of Large-Scale Orchestrating Applications”, University of Bordeaux, on September 26th 2016.

10.3. Popularization

Hélène Sauzéron gave talks to the following events for professional or general audiences:

- “Handicaps et technologies d’assistance pour les personnes avec déficiences cognitives” at “Les outils numériques au service des personnes avec autisme”, on October 7th, at Hôpital de Niort, France.
- “Présentation de la solution DomAssist et ses effets sur le fonctionnement quotidien de la personne et ses aidant professionnel” at “Territoire et solidarité entre les âges : accompagnement du bien vieillir”, organised by Union Régionale des Fédérations des Centres Sociaux d’Aquitaine, on November 14th, in Lormont, France.
- “Collège + : un nouvel outil d’apprentissage”, at Semaine de la mémoire, organised by Observatoire B2V, on September 21st, at Musée CapScience, Bordeaux, France.

Nic Volanschi participated on October 13th to the “Science fest” at Inria Bordeaux, where he gave 4 workshop sessions on “Manual digital sciences” for children aged 11 to 15. These workshop sessions are aimed to communicate basic notions of computer science to young students by using manual games.

RMOD Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events Selection

10.1.1.1. Chair of Conference Program Committees

- Anne Etien acted as Program chair for the following international events: IWST16 (International Workshop on SmallTalk Technologies) and VISSOFT 2016 (IEEE Working Conference on Software Visualization): NIER and Tool Track
- Stéphane Ducasse acted as Program Chair for ESUG 2016.

10.1.1.2. Member of the Conference Program Committees

- Stéphane Ducasse
 - International Conference 18th International Conference on Fundamental Approaches to Software Engineering (FASE) 2016.
 - For health reasons, I declined the PC participation to ICSE 2013, ECOOP 2013, ECOOP 2014, ECOOP 2015 (but I was the workshop chair) ECOOP 2016.
 - IWST'16 (International Workshop on SmallTalk Technologies).
- Anne Etien
 - DChanges'16 (4th International Workshop on Document Changes: Modeling, Detection, Storage and Visualization);
 - ME'16 (10th Workshop on Models and Evolution);
 - Modelwards'16 (4th International Conference on Model-Driven Engineering and Software Development).
 - IWST'16 (International Workshop on SmallTalk Technologies).
- Nicolas Anquetil
 - ICSoft-EA'16 (11th International Conference on Software Technologies and Applications);
 - IWST'16 (International Workshop on SmallTalk Technologies).
- Marcus Denker
 - SANER 2017 (23rd IEEE International Conference on Software Analysis, Evolution, and Reengineering)
 - Meta 2016 (International Workshop, SPLASH 16)
 - SLE 2016 (International Conference on Software Language Engineering)
 - DLS 2016 (Dynamic Languages Symposium at SPLASH)
 - IWST'16 (International Workshop on SmallTalk Technologies).
- Clément Béra
 - ICOOLPS'16 (11th Implementation, Compilation, Optimization of Object-Oriented Languages, Programs and Systems Workshop)
 - IWST'16 (International Workshop on SmallTalk Technologies).

10.1.2. Journal

10.1.2.1. Reviewer - Reviewing Activities

- Anne Etien reviewed manuscripts for the Software Quality Journal
- Nicolas Anquetil reviewed manuscripts for the ACM Transactions on Software Engineering and Methodology (TOSEM); Journal of Software: Evolution and Process (JSME); Computers & Operations Research (COR).
- Stéphane Ducasse reviewed manuscripts for Information ; Journal of Software: Evolution and Process (JSME); Journal of Science of Computer Programming; Journal of Object Technologies (JOT).
- Stéphane Ducasse and Marcus Denker are Moderators for arXiv cs.SE. <http://arxiv.org/list/cs.SE/recent>

10.1.3. Invited Talks

- Stéphane Ducasse gave a presentation at CITI laboratory Lyon, Diverse Team seminar Inria Rennes, La Sorbonne
- Clément Béra gave a presentation “Sista: Speculative inlining, Smalltalk-style”, with Eliot Miranda (Cadence Design Systems) at the Stanford EE Computer Systems Colloquium, Stanford University (<https://www.youtube.com/watch?v=f4Cvia-HZ-w>).

10.1.4. Scientific Expertise

- Anne Etien reviewed several proposals for *Jeune Entreprise Innovante* and *Crédit Impôt Recherche*;
- Nicolas Anquetil acted as expert to evaluate project proposal for *Fondo Nacional de Desarrollo Científico y Tecnológico* (FONDECYT), Chile;
- Marcus Denker reviewed a research proposal for FONDECYT (Chilean National Science and Technology Commission);
- Damien Pollet reviewed projects proposal for NWO (Netherlands Organisation for Scientific Research) Veni grant proposal;
- Stéphane Ducasse participated to FWO (Belgium) PhD grant panel;
- Damien Cassou was a member of the Apps Togo jury, a contest from Ministry of Industry of Togo to encourage innovation in apps development (<http://www.republicoftogo.com/Toutes-les-rubriques/Tech-Web/Voici-les-meilleures-applis-du-moment>).

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Master : C. Demarey, Intégration Continue, 4h, M2, GIS2A5, Polytech-Lille, France

Master : C. Demarey, Intégration Continue, 12h, M2, IAGL, Université de Lille 1, France

Master: Anne Etien, Metamodelisation for Reverse Engineering, 25h, M2, Montpellier, France

Master: Anne Etien, Test et Maintenance, 10h, M2, Polytech-Lille, France

Master: Anne Etien, Test et Maintenance, 14h, M2, Polytech-Lille, France

Master : Anne Etien, Système d’information objet, 22h, M1, Polytech-Lille, France

Master : Anne Etien, Bases de données, 44h, M1, Polytech-Lille, France

Master : Anne Etien, Bases de données Avancées, 12h, M1, Polytech-Lille, France

Licence : Anne Etien, Bases de données, 22h, L3, Polytech-Lille, France

Licence : Nicolas Anquetil, Conception et programmation objet avancées, 52h, L2, Univ. Lille1, IUT-A, France

Licence : Nicolas Anquetil, Principes des systèmes d’exploitation, 40h, L2, Univ. Lille1, IUT-A, France

Licence : Nicolas Anquetil, Modélisation mathématique, 14h, L2, univ. Lille1, IUT-A, France

Licence : Nicolas Anquetil, Conception et développement d'applications mobiles, 30h, L2, univ. Lille1, IUT-A, France

Licence : Nicolas Anquetil, Méthodologie de la production d'applications, 33h, L2, univ. Lille1, IUT-A, France

Licence : Damien Pollet, Java lecture, 30h, L3, Telecom Lille, France

Licence : Damien Pollet, Java lecture, 20h, L3, Telecom Lille, France

Licence : Damien Pollet, Java project, 20h, L3, Telecom Lille, France

Licence : Damien Pollet, Computer architecture, 10h, L3, Telecom Lille, France

Master : Damien Pollet, Technologies for information systems, 30h, M1, Telecom Lille, France

Master : Damien Pollet, Network algorithms, 30h, M2, Telecom Lille, France

Master : Damien Pollet, Software engineering, 6h, M1, Telecom Lille, France

Licence: Damien Cassou, Algorithmique et programmation, 25h, L1, Polytech-Lille, France

Licence: Damien Cassou, OpenDevs—Communauté de Développeurs, 30h, L3, Univ. Lille-1, France

Licence : Clément Béra, Algorithmique et programmation, 35h, L1, Polytech-Lille, France

Licence : Clément Béra, Conception orienté objet, 35h, L1, Univ. Lille-1, France

Master : Clément Béra, Génie Logiciel, 40h, M3, Univ. Lille-1, France

Master : Vincent Blondeau, Bases de données, 12h, M1, Polytech-Lille, France

E-learning

Mooc: Stéphane Ducasse, Damien Cassou, Luc Fabresse, “Programmation Objet Immersive en Pharo / Live Object Programming in Pharo”, 7 weeks, by France Université Numérique and Inria, for programmers, 3400 participants

10.2.2. Supervision

PhD in progress : Vincent Blondeau, “Studying and Enhancing Testing Habits of Developers in a Large IT Company”, CIFRE Worldline, started Oct 2014, Anne Etien, Nicolas Anquetil.

PhD in progress : Brice Govin, “Support to implement a rejuvenated software architecture in legacy software”, CIFRE Thales, started Jan 2015, Anne Etien, Nicolas Anquetil, Stéphane Ducasse.

PhD in progress : Gustavo Santos, “Assessing and Improving Code Transformations to Support Software Evolution”, started April 2014, Anne Etien, Nicolas Anquetil.

PhD: Camille Teruel, “Security for dynamic languages”, 21/01/2016, Stéphane Ducasse, Damien Cassou

PhD in progress: Marco Naddéo, “Evolvable and reusable software: from language design to developer tools”, started 01/01/2014, Viviana Bono (University of Turin), Damien Cassou, Stéphane Ducasse

PhD in progress: Clément Béra, “Evolvable Runtimes for a Changing World”, started Oct 2014, Stéphane Ducasse, Marcus Denker.

PhD in progress: Klérisson Paixao, “Automating reactions for API changes based on dynamic analysis”, started 16/08/2014, Marcelo Maia, Damien Cassou, Nicolas Anquetil.

10.2.3. Juries

- Anne Etien: Jonathan Pepin, PhD thesis, “Architecture d'entreprise : alignement des cartographies métiers et applicatives du système d'informations”, Dec. 5th, 2016, University of Nantes (France).
- Nicolas Anquetil: David Michael Cutting, PhD thesis, “Enhancing Legacy Software System Analysis by Combining Behavioural and Semantic Information Services”, Aug. 5th, 2016, University of East Anglia, Norwich (England).

10.3. Popularization

- Stéphane Ducasse and Damien Cassou were important contributors of the “Enterprise Pharo” book (<http://files.pharo.org/books/enterprise-pharo/>).
- Brice Govin and Vincent Blondeau participated in the contest “My thesis in 180 seconds”

TACOMA Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific Events Organisation

9.1.1.1. Member of the Organizing Committees

- PC member for Ehpwas 2016: 4th IEEE Int. Workshop on E-Health , 2016, F. Weis
- PC member of The 83th IEEE Vehicular Technology Conference, 15-18 May 2016, Nanjing, China, JM. Bonnin
- PC member of EAI International Conference on Mobile Medical Multimedia Technologies, Applications and Services, 14-15 June 2016, Budapest, Hungary, JM. Bonnin
- PC member of 13th African Conference on Research in Computer Science and Applied Mathematics, 11 - 14 October 2016, Tunis, Tunisia, JM. Bonnin
- PC member of The 84th IEEE Vehicular Technology Conference, 18-21 September 2016, Montreal, Canada, JM. Bonnin

9.1.2. Scientific Events Selection

9.1.2.1. Reviewer

- Mobile Networks and Applications, JM. Bonnin
- IEEE transactions on Mobile Computing, JM. Bonnin
- Simulation Modeling Practice and Theory, JM. Bonnin
- Computer Standards & Interfaces, an international journal on Engineering Science and Technology, JM. Bonnin

9.1.3. Invited Talks

- Keynote speech at the 6th NGNS international conferences, 17/12/2016, Rabat, Morocco, JM. Bonnin
- Invited talk at the Drive for All seminary, 31/08/2016, Paris, France, JM. Bonnin
- RFIDay Event, June 2016, Vitré. Talk and demos, P. Couderc
- Invited talk at the BMW Summer School, "New Business, New Mobility - YoGoKo case study", July 2016, Tegernsee, Bavaria, Germany, JM. Bonnin
- SESAME school of Tunis, Nov 2016, Tunis, Tunisia, JM. Bonnin
- Invited Talk at Smart Systems inter Labex Symposium, November 2016, Besançon, P. Couderc
- ENSAM school of Meknes, Dec 2016, Meknes, Morocco, JM. Bonnin

9.1.4. Leadership within the Scientific Community

- Jean-Marie Bonnin is member of the scientific council of the GIS ITS
- Jean-Marie Bonnin is member of the scientific council the Id4Car cluster
- Jean-Marie Bonnin is an elected member of the Scientific Council of IMT

9.1.5. Scientific Expertise

- Evaluation committee for the Belgium government, JM. Bonnin
- Expert for ANR, F. Weis and JM Bonnin
- Expert for CSV board of "Pôle Images et Réseaux", P. Couderc

9.1.6. Research Administration

- Head of the Networks, Telecommunication and service department at IRISA, JM. Bonnin

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

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

Master: Wireless LANs, F. Weis, 20 hours, M2, Telecom Bretagne

Master: Supervision of a Master 1 project related to the smart building (in collaboration with Myriads), 48 hours, P. Couderc, University Rennes 1

Master 2: Pervasive computing introduction course, Paul Couderc, 4 hours, University Rennes 1

Master 1: Network programming (lectures, tutorial, labs), 78 hours, Y. Maurel

L3/M2: network communications protocol for building automation (lectures, labs), 80 hours, Y. Maurel

Master 2: Software engineering (lectures, tutorial, labs), 82 hours, Y. Maurel

9.2.2. Supervision

PhD in progress: Adrien Capaine, Vers une plate-forme de LED connectées comme vecteur de services contextuels dans le cadre des bâtiments intelligents, 01/05/15, Frédéric Weis and Yoann Maurel

PhD in progress: Zaineb Lioune, Une Architecture pour des Services e-Santé évolutifs dans le cadre des Maisons Intelligentes, 01/09/14, Frédéric Weis, Tayeb Lemlouna and Philippe Roose

PhD in progress: Indra Ngurah, Protocoles de routage pour l'ITS, 01/05/16, Jean-Marie Bonnin

PhD in progress: Christophe Couturier, Exploitation de mécanismes EDGE pour l'ITS, 01/11/16, Jean-Marie Bonnin

PhD in progress: Alexandre Rio, Modélisation des activités de site consommateur d'énergie, 01/10/16, Olivier Barais and Yoann Maurel

9.2.3. Juries

Clément DUHART, "Toward Organic Ambient Intelligences ? EMMA", University du Havre, F. Weis, PhD referee

Minh Huong NGUYEN, "Contribution to Intelligent Transportations Systems: Security of Safety applications in Vehicular Ad hoc Networks", JM Bonnin, PhD referee

Matthieu KANJ, "Intelligent Supervision of Flexible Optical Networks", JM Bonnin, Président

9.3. Popularization

- Invited talk at the Telecom ParisTalks on "De la voiture connectée à la voiture autonome", "Le véhicule autonome, un véhicule ultra-communicant", March 2016, Paris, France, JM. Bonnin
- Invited talk at the A3C7 public event: "L'automobile intelligente et communicante: Carminat, GPS et demain?", "L'automobile communicante dans la ville", June 2016, Cesson-Sévigné, France, JM. Bonnin
- Invited talk at the workshop "Atelier Cybercriminalité dans les transports - Véhicule autonome et transport connecté : quelles stratégies de fiabilité et de sécurité ?", "Sécurité des Communications pour les ITS", June 2016, Angers, France, JM. Bonnin
- "Les véhicules autonomes seront communicants?", Revue TELECOM 182, Oct 2016, JM. Bonnin
- Special issue TPC for Revue TEC mobilité intelligente : "Routes & Véhicules : Quelles Connexions ?", Nov 2016, JM. Bonnin

- "Standards et ITS : vers un écosystème ouvert ?", Revue TEC Mobilité intelligente, Nov 2016, JM. Bonnin
- "Quand les modes de vie actuels façonnent l'habitat du futur", Site Internet Batiactu, Jan 2016, <http://www.batiactu.com/edito/quand-modes-vie-actuels-faconnent-habitat-futur-43438.php>
- Invited talk "Le logement évolutif, Michele Dominici", Matin de l'aura angevine, Jan 2016, Angers
- Cardinal Edifice imagine l'habitat de demain, Communiqué de presse de Cardinal, relayé sur le site Batinfo, Jan 2016. http://batinfo.com/actualite/cardinal-edifice-imagine-lhabitat-de-demain_4339
- Invited talk "Ville et Habitat intelligent : des innovations au service du vivre-ensemble ?", Michele Dominici, Feb 2016, La Friche la Belle de Mai, Marseille
- "Place au logement caméléon - freemium" - Métiers. LeMoniteur, 1 mars 2016. <http://www.lemoniteur.fr/articles/place-au-logement-cameleon-31516795>
- Invited talk "L'habitat d'hier, d'aujourd'hui et de demain, intervention de Michele Dominici", Apr 2016 dans le cadre du Printemps du Développement Durable, Langueux
- Ecole d'été "Ecologie et biens communs", Université de Bretagne Occidentale, Sept 2016, Michele Dominici

COATI Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events Organisation

10.1.1.1. Member of the Organizing Committees

Frédéric Havet

GCO 2016: 2nd French Brazilian Workshop on Graphs and Combinatorial Optimization, Redonda, Ceara, Brazil, May 28-April 1, 2016;

4th STINT meeting, January 25-27, Saint Bonnet de Champsaur, France;

Workshop on Shannon capacity, September 11-16, Cassis, France.

Bruce Reed

Workshop on Shannon capacity, September 11-16, Cassis, France.

10.1.2. Scientific Events Selection

10.1.2.1. Member of the Conference Program Committees

David Coudert

ONDM'16 : 20th International Conference on Optical Networking Design and Modeling, Cartagena, Spain, May 9-12, 2016;

IEEE ICC'16 : IEEE International Conference on Communications, Kuala Lumpur, Malaysia, May 23-27, 2016;

USRR'16 : 4th International Workshop on Understanding the Inter-play between Sustainability, Resilience and Robustness in networks, Halmstad, Sweden, September 15, 2016;

IEEE Globecom'16 : IEEE Global Communications Conference, Washington, DC, USA, December 4-8, 2016.

Frédéric Havet

AAIM 2016: 11th International Conference on Algorithmic Aspects in Information and Management, Bergamo, Italy, July 18-20, 2016;

JGA 2016: 18th Journées Graphes et Algorithmes, Paris, France, November 16-18, 2016.

Nicolas Nisse

AlgoTel 2016: 18es Rencontres Francophones sur les Aspects Algorithmiques des Télécommunications, Bayonne, France, 24-27 May, 2016.

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

Jean-Claude Bermond

Computer Science Reviews, Discrete Mathematics, Discrete Applied Mathematics, Journal of Graph Theory, Journal Of Interconnection Networks (Advisory Board), Mathématiques et Sciences Humaines, Networks, Parallel Processing Letters the SIAM book series on Discrete Mathematics, Transactions on Network Optimization and Control , Discrete Mathematics, Algorithms and Applications.

David Coudert

Discrete Applied Mathematics (Elsevier); Networks (Wiley).

Frédéric Havet

Discrete Mathematics and Theoretical Computer Science;

Nicolas Nisse

Guest editor of Special issue on Theory and Applications of Graph Searching Problems for Theoretical Computer Science (December 2016).

Bruce Reed

Journal of Graph Theory, Electronic Journal of Combinatorics;

10.1.3.2. Reviewer - Reviewing Activities

Members of COATI have reviewed numerous manuscripts submitted to international journals, including: *Algorithmica*, *Algorithms*, *Bulletin of the Malaysian Mathematical Sciences Society*, *Computer Communications*, *Computer Networks*, *Computers & Operations Research*, *Discrete Applied Mathematics*, *European Journal of Operational Research*, *IEEE/OSA Journal of Lightwave Technology*, *Networks*, *Photonic Network Communications*, *The Computer Journal*, *Theoretical Computer Science*, *IEEE/ACM Transactions on Communications*, *IEEE/ACM Transactions on Networking*, *IEEE Transactions on Network and Service Management*, etc.

10.1.4. Invited Talks

David Coudert

On the design of reliable wireless backhaul networks. International Conference on Ad Hoc Networks and Wireless (AdHoc-Now'16), Lille, France (July 4-5, 2016);

On the notion of hyperbolicity in graphs. Seminar of the Complex Networks team, LIP6, UPMC, Paris (October 12, 2016).

Nicolas Nisse

Spy Games. Groupe de travail de l'équipe CRO, LIF, Marseille, July 18th, 2016;

Recovery of disrupted airline operations. Seminar of LIMOS, Univ. Blaise Pascal, Clermont-Ferrand, January 28th, 2016.

Bruce Reed

The Typical Structure of H-Free Graphs. Sao Paulo Advanced School on Algorithms, Combinatorics, and Optimization, Sao Paulo, Brazil, July 216;

How To Determine If A Random Graph With A Fixed Degree Sequence Has A Giant Component. Sao Paulo Advanced School on Algorithms, Combinatorics, and Optimization, Sao Paulo, Brazil. July 2016;

On The Structure Of Typical H-Free Graphs. University of Birmingham Combinatorics Seminar, Birmingham, United Kingdom, May 2016;

How To Determine If A Random Graph With A Fixed Degree Sequence Has A Giant Component. Simon Fraser University, July 2016;

40th Australian Conference on Combinatorial Mathematics and Combinatorial Computing, NewCastle Australia, December 2016;

How To Determine If A Random Graph With A Fixed Degree Sequence Has A Giant Component. 13th Workshop on Algorithms and Models for the Wb Graph, Montreal, Canada, December 2016.

10.1.5. Leadership within the Scientific Community

David Coudert

Member of the steering committee of *Pôle ResCom du GDR RSD du CNRS* (since 2005);

Member of the steering committee of *Rencontres francophones sur les aspects algorithmiques des télécommunications* (AlgoTel).

Frédéric Havet

Member of the steering committee of *GT Graphes du GDR IM du CNRS*;
 Member of the steering committee of *Journées Graphes et Algorithmes (JGA)*;
 Member of the steering committee of *Journée Combinatoire et Algorithmes du Littoral Méditerranéen (JCALM)*.

Bruce Reed

Member of the selection committee for the CRM-Fields-Pims Prize.

10.1.6. Scientific Expertise

Jean-Claude Bermond

Expert for DRTT-MESR (Crédit impôt recherche(CIR et agréments) and various projects outside France.

David Coudert

Expert for the Future and Emerging Technologies Open Scheme (FET-Open) European program, and the ANR.

Frédéric Giroire

Expert for ANR.

Frédéric Havet

Expert for ANR.

Michel Syska

Expert for DRTT PACA.

10.1.7. Research Administration

Jean-Claude Bermond

Responsible fo the cooperation between Inria and Greece (meeting with the french Embassy in greece, obtention of join grants and of financial support for internships via the Bodossakis Foundation).

David Coudert

Scientific coordinator of the evaluation seminar of the Inria theme “Networks and Telecommunications”, Rungis, France, March 22-24, 2016.

Frédéric Havet

Responsible of the ComRed Team of I3S;

Recruiting committee (comité de sélection) University of Nice Sophia Antipolis.

Michel Syska

Elected member of CPRH (Comité Permanent de Ressources Humaines) University of Nice Sophia Antipolis;

Recruiting committee (comité de sélection) University of Nice Sophia Antipolis.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Licence

Pierre Aboulker

Recherche opérationnelle, 74h ETD, Niveau L2, IUT de Nice Côte d’Azur, UNS.

Julien Bensmail

Système d'information et logistique, 36h ETD, niveau S3, IUT Nice Côte d'Azur, UNS.

Christelle Caillouet

Database and advanced information system, 36h ETD, Level L2, IUT Nice Côte d'Azur, UNS;

Delivery Optimization, 30h ETD, Level L3, IUT Nice Côte d'Azur, UNS;

Introduction to Programming, 60h ETD, Level L1, IUT Nice Côte d'Azur, UNS;

Guillaume Ducoffe

Introduction au Web, 28h30 ETD, Level L2, Polytech Nice Sophia, France

Programmation Orientée Objet, 39h ETD, Level L2, Polytech Nice Sophia, France

Principes des systèmes d'exploitation, 26h ETD, Level L2, IUT de Nice Côte d'Azur, UNS.

Valentin Garnero

Introduction aux systèmes informatiques, 108h, niveau S1, IUT Nice Côte d'Azur, UNS.

Luc Hogie

Programmation Répartie, 36h ETD, IUT Nice Côte d'Azur, UNS.

Nicolas Huin

Introduction aux réseaux, 21h ETD, niveau S1, IUT Nice Côte d'Azur, UNS.

William Lochet

Paradigmes et interprétation, 18h ETD, L3, Univ. Côte d'Azur

Programmation objet, 18h ETD, L3, Univ. Côte d'Azur

Compilation, 18h ETD, L3, Univ. Côte d'Azur

Projet scientifique, 30h ETD, L2, Univ. Côte d'Azur

Informatique générale, 36h ETD, L1, Univ. Côte d'Azur

Intro programmation C, 12h ETD, L1, Univ. Côte d'Azur

Joanna Moulierac

Networks, 100h ETD, L1, IUT Nice Côte d'Azur, UNS.

Nicolas Nisse

Introduction à l'algorithmique, 24h ETD, MPSI, Lycée International Valbonne, France.

Steven Roumajon

Architecture des réseaux, 48h ETD, L2, IUT Nice Côte d'Azur, UNS.

Michel Syska

Operating Systems: Advanced Programming, 40h ETD, Level L2, IUT Nice Côte d'Azur, UNS;

Data Structures and Algorithms, 20h ETD, Level L2, IUT Nice Côte d'Azur, UNS;

Algorithmics, 30h ETD, Level L2, IUT Nice Côte d'Azur, UNS;

Distributed Programming, 30h ETD, Level L2, IUT Nice Côte d'Azur, UNS;

Bash Scripting, 30h ETD, Level L3, IUT Nice Côte d'Azur, UNS;

Introduction to Algorithms and Complexity, 60h ETD, Level L3, IUT Nice Côte d'Azur, UNS;

Linux System Administration, 35h ETD, Level L3, IUT Nice Côte d'Azur, UNS.

Master

David Coudert

Algorithms for Telecoms, 32h ETD, stream UbiNet of Master 2 IFI and Master RIF, UNS.

Frédéric Giroire,

Algorithmics of Telecommunications, 18h ETD, stream UbiNet of Master 2 IFI, UNS;

Green Networks, 18h ETD, stream UbiNet of Master 2 IFI, UNS;

Introduction to probability and statistics, 15h ETD, International Master 1, UNS;

Frédéric Havet

Graph colouring, 4h ETD, M2 MDFI, Aix Marseille Univ., France.

Nicolas Nisse

Graph Algorithms, 18h ETD, M2 IFI, parcours UBINET, UNS, France.

Resolution Methods, 15h ETD, M1 international, UNS, France;

Graph decompositions, 4h ETD, M2 MDFI, Aix Marseille Univ., France

Stéphane Pérennes

Calcul concurrent et distribué en Java, 30h TP, Master 1 Miage. Polytec Nice.

Responsabilités pédagogiques

Julien Bensmail

Co-organizer of the « Forum sur les poursuites d'études », IUT Nice Côte d'Azur (November 10, 2016);

Representative of the QLIO department at « Salon de l'étudiant », Palais des expositions, Nice (November 26, 2016).

Christelle Caillouet

Co-Responsible of QLIO Department, until February 2016.

Joanna Moulierac

Co-Responsible of the DUT Informatique en Alternance, Computer Science Department, from January 2014 to March 2016.

10.2.2. Supervision

PhD : Guillaume Ducoffe, *Metric properties of large graphs* <https://team.inria.fr/coati/phd-defense-of-guillaume-ducoffe/>, Université Nice Sophia Antipolis, December 9, 2016. Supervisor : David Coudert;

PhD in progress : Nicolas Huin, *Energy efficient Software Defined Networks*, since Oct. 2014, Supervisors: Frédéric Giroire and Dino Lopez (I3S);

PhD in progress : William Locht, *Forcing subdivisions in digraphs*, since Sept. 2015, Supervisors: Frédéric Havet and Stéphan Thomassé (ENS Lyon);

PhD in progress : Fionn McInerney, *Combinatorial Games in Graphs*, since Oct. 2016, Supervisor: Nicolas Nisse;

PhD in progress : Steven Roumajon, *Les déterminants de la compétitivité régionale : données microéconomiques et réseaux d'innovation*, since Nov. 2015, Supervisors: Patrick Musso (Gredég) and Frédéric Giroire;

PhD in progress : Andrea Tomassilli, *Diffusion of information on large dynamic graphs*, since Oct. 2016, Supervisors: Stéphane Pérennes and Frédéric Giroire.

10.2.2.1. Internships

Rohit Agarwal

Date: from Jul 2016 until Aug 2016

Institution: Univ. Nice Sophia Antipolis (France)

Supervisor: Nicolas Nisse

Theodoros Karagioules

Date: until March 2016

Institution: NKUA, Athens (Greece)

Supervisor: Nicolas Nisse

Raul Wayne Teixeira Lopez

Date: from Sep 2016 until Nov 2016

Institution: UFC, Fortaleza (Brazil)

Supervisor: Frédéric Havet

Ioannis Mantas

Date: from Mar 2016 until Aug 2016

Institution: Univ. Nice Sophia Antipolis (France)

Supervisor: David Coudert

Simon Nivelles

Date: from Jun 2016 until Jul 2016

Institution: ENS Cachan (France)

Supervisor: Guillaume Ducoffe et Nicolas Nisse

Stefano Ponziani

Date: from Mar 2016 until Aug 2016

Institution: Univ. Nice Sophia Antipolis (France)

Supervisor: Guillaume Ducoffe et Frédéric Giroire

Konstantinos Priftis

Date: until March 2016

Institution: Univ. of Patras (Greece)

Supervisor: David Coudert

Panagiotis Pylarinos

Date: from Nov. 2016

Institution: NKUA, Athens (Greece)

Supervisor: David Coudert

Andrea Thomassilli

Date: from Mar 2016 until Aug 2016

Institution: Univ. Nice Sophia Antipolis (France)

Supervisor: Nicolas Huin et Frédéric Giroire

Vladyslav Zaika

Date: from Mar 2016 until Aug 2016

Institution: Univ. Nice Sophia Antipolis (France)

Supervisor: Nicolas Nisse

10.2.3. Juries

David Coudert :

Member of the PhD jury of Guillaume Ducoffe, Univ. Nice Sophia Antipolis, December 9, 2016;

Referee and member of the PhD jury of Mohamad Kanj, Univ. Rennes, December 20, 2016;

Frédéric Giroire:

Member of the PhD jury of Leonardo Linguaglossa, Université Paris Diderot (Paris 7), September 9, 2016.

Frédéric Havet :

Member of the PhD jury of G. Duvillié, Université Montpellier, October 7 2016.

Nicolas Nisse :

Referee and member of the PhD jury of Valentin Garnero, Université Montpellier, July 4 2016.

Referee and member of the PhD jury of Jean-Florent Raymond, Université Montpellier, November 18 2016.

Member of the PhD jury of Guillaume Ducoffe, Univ. Nice Sophia Antipolis, December 9, 2016;

10.3. Popularization

Guillaume Ducoffe:

Fête de la Science: presented the stand "Introduction à l'algorithmique" at Valrose, Univ. Nice Sophia Antipolis, France, October 12nd, 2016.

Frédéric Havet:

Fête de la Science: co-organised the Village des Sciences at Vinon-sur-Verdon, France (November 10-14, 2016). F. Havet gave many talks and animated several stands during the whole week.

Semaine des Mathématiques : presented the stand "Les formes de largeur constantes" at Vinon sur Verdon (March 17, 2016)

Culture Science au Lycée : gave thé conference "Magie mathématique et binaire" at Lycée Caucadis Vitrolles (April 28, 2016) and the conferences "La magie du bonaire" and "La Science du Ballon de Football" at Lycée Caucadis Vitrolles (December 9, 2016).

Vendredis de la Science: conducted scientific workshops for school children (6-11 year old) on friday afternoon. Weekly in Januray-February and May-June 2016.

General audience conference : gave the conference "La Science du Ballon de Football" at Rians, Var, France (January 29, 2016).

Nicolas Nisse:

Fête de la Science: animated several stands during the Village des Sciences at Vinon-sur-Verdon, France (November 10-14, 2016).

Fête de la Science: animated several stands in Palais des Congrès de Juan-Les-Pins, October 22-23rd, 2016

Steven Roumajon:

Fête de la Science: presented the stand "Introduction à l'algorithmique" at Valrose, Univ. Nice Sophia Antipolis, France, October 12nd, 2016.

DANTE Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events Organisation

10.1.1.1. General Chair, Scientific Chair

- Jean Pierre Chevrot, Éric Fleury, Márton Karsai, Jean-Philippe Magué were scientific chairs of the Workshop on Data Driven Approach to Networks and Language.
- Éric Fleury, Márton Karsai and Paulo Goncalves were scientific chairs of the Workshop on Processes On and Of Networks.

10.1.1.2. Member of the Organizing Committees

- Éric Fleury, Márton Karsai and Laetitia Lecot were on the Organizing committee for the Network Science Thematic Semester
- Márton Karsai was in the organising committee of Computational Social Science: from social contagion to collective behaviour ECCS 2016 Satellite.

10.1.2. Scientific Events Selection

10.1.2.1. Chair of Conference Program Committees

- Isabelle Guérin Lassous was the general chair of ACM PE-WASUN 2016.
- Márton Karsai was the one of the program chairs of the conferences Do2Net, ComplexNetworks2016, D2NetLang, CSS2016.

10.1.2.2. Member of the Conference Program Committees

- Éric Fleury was on the PC of the conference ComplexNet, of the Conference on Complex Networks: From Theory to Interdisciplinary Applications, SensorNet 2017 and CoRes 2016.
- Márton Karsai was on the PC of the conferences NetSci-X 2016, IC2S2 2016, CompleNet 2016, WebSci16, Do2Net, AlgoTel 2016, ComplexNetworks2016, D2NetLang 2016, DyNo 2016 IEEE/ACM ASONAM 2016, CCS 2016, SocInfo 2016, CSS 2016, Contagion'16, COMPLEX NETWORKS 2016
- Isabelle Guérin Lassous was on the PC of: ACM MSWiM 2016, ICC 2016, Globecom 2016, ISCC 2016 and MedHocNet 2016.
- Thomas Begin was on the PC of: IEEE LCN 2016.
- Christophe Crespelle was on the PC of WG 2016.

10.1.2.3. Reviewer

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

- Isabelle Guérin Lassous is member of the editorial boards of Computer Communications (Elsevier), Ad Hoc Networks (Elsevier) and Discrete Mathematics & Computer Science.
- Anthony Busson is member of the editorial boards of Computer Communications (Elsevier).
- Márton Karsai is member of the editorial boards of Advances in Complex Systems (World Scientific).
- Jean Pierre Chevrot, K. Drager (U. of Hawaii), P. Foulkes (U. of York) are the chief editors of a special issue in the journal TopiCS in Cognitive Science on the theme "Sociolinguistic variation and cognitive science, coordination".
- Philippe Nain is Editor-in-Chief of Performance Evaluation (Elsevier)

10.1.3.2. Reviewer - Reviewing Activities

- Márton Karsai was acting as reviewer for the journals of Nature Communications, PNAS, PRL, PRX, PRE, Scientific Reports, EPJ Data Science, SNAM, EPL, EPJ B, PLoS One, Journal of Statistical Mechanics, Physics Letter A, Advanced in Complex Systems, Journal of Physics: Condensed Matter, Complex Networks, New Journal of Physics, Physica Scripta, Network Science,
- Jean-Pierre Chevrot was acting as reviewer for he journal Animal Behavior.

10.1.4. Invited Talks

- Márton Karsai gave invited talks at NetSciX'16 (January 2016, Wroclaw, Poland), Workshop on mechanisms underlying local to global signals in networks (19 May 2016, Lyon, France), HOMS NetSci'16 Satellite (30 May 2016, Seoul, Korea), Social Connectome NetSci'16 Satellite (30 May 2016, Seoul, Korea), SocioNet'16 workshop ENS Lyon (8 June 2016, Lyon, France), Coarse-graining of Complex Systems CCS'16 Satellite (21 September 2016, Amsterdam, The Netherlands), BURSTINESS in human behaviour and other natural phenomena, CCS'16 Satellite (21 September 2016, Amsterdam, The Netherlands), PhD course on Network Science (guest lecturer) Uppsala University, Department of Information Technology (18 November 2016, Uppsala, Sweden).
- Éric Fleury gave a invited talk at ISI foundation, Torino Italy and SocioNet'16 workshop ENS Lyon (8 June 2016, Lyon, France).
- Thomas Begin gave an invited talk at Diva Lab, University of Ottawa, Canada.
- Jean Pierre Chevrot gave two invited talks at the University of Oslo (Norway) at the Workshop Bridging gaps: Conceptual and epistemological approaches, Center for Multilingualism in Society across the Lifespan (MultiLing)
- Christophe Crespelle gave an invited talk at the Vietnam Institute for Advanced Studies in Mathematics, Hanoi, and the University of Bergen, Norway.

10.1.5. Leadership within the Scientific Community

10.1.6. Scientific Expertise

- Isabelle Guérin Lassous is a member of the research committee of the Milyon labex.
- Isabelle Guérin Lassous was a member of the HCERES evaluation committee of the IRISA laboratory.
- Isabelle Guérin Lassous is vice-chair of the HCERES evaluation committee of the LORIA laboratory.
- Isabelle Guérin Lassous was a member of the National Committee of the CNRS, section 06.
- Éric Fleury is member of the Inria senior research position (DR2) jury and junior research position (CR2/CR1)

- Éric Fleury has been an expert for the Fund for Scientific Research - FNRS.
- Éric Fleury has been a member of evaluation panels as part of the French National Research Agency (ANR) for ANR.
- Éric Fleury is member of the Inria Evaluation Committee.
- Éric Fleury is Co-chair of the Networking group ResCom of the CNRS GDR ASR. He is also a member of the scientific committee of the GDR ASR.
- Márton Karsai was reviewer for ANR, H2020 FET Open RIA.
- Philippe Nain is the coordinator of the "Strategic Technology Monitoring & Prospective Studies Inria Unit".
- Jean-Pierre Chevrot reviewed a ten-year track application for the University of New Mexico (UNM, US)

10.1.7. Research Administration

- Paulo Gonçalves is scientific liaison officer for international relations in Inria Research Centre of Rhône-Alpes.
- Paulo Gonçalves was scientific correspondent of the International Relations for the Computer Science Department at ENS Lyon. Responsibility ended in September 2016.
- Paulo Gonçalves is a member of the executive committee of the Milyon labex and referent for its valorisation committee.
- Christophe Crespelle is member of the steering committee of the IXXI - Rhône-Alpes Complex Systems Institute.
- Isabelle Guérin Lassous is vice-chair of the LIP laboratory.
- Isabelle Guérin Lassous is member of the department council of the Computer Science department of Université Lyon 1.
- Anthony Busson is Vice-president of the Thesis Commission at LIP.
- Anthony Busson is member of the committee of "Ecole Doctorale" 512 in computer science and mathematics.
- Éric Fleury is Deputy Scientific Delegate for Inria Grenoble Rhône Alpes
- Éric Fleury is in the in the Executive Committee of the IXXI à Rhône-Alpes Complex Systems Institute.
- Éric Fleury is member of the Council of the LIP laboratory.
- Éric Fleury is a member of the executive committee of the Milyon labex.
- Anthony Busson is the vice president of the thesis committee of the LIP laboratory.
- Thomas Begin is an elected member of the Council of the LIP laboratory.
- Jean Pierre Chevrot is member of the steering committee of the IXXI - Rhône-Alpes Complex Systems Institute.
- Márton Karsai is the co-responsible for the M2 master program in Modelling of Complex Systems at ENS Lyon
- Márton Karsai is the elected council member of the Complex System Society (2015-)
- Márton Karsai is the elected member of the steering committee of the IXXI Complex System Institute (2016-)

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

10.2.1.1. Teaching by Éric Fleury

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

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

10.2.1.2. Teaching by Márton Karsai

Márton Karsai is Associate Professor at the Computer Science department of ENS de Lyon and holds a Inria chair.

Master: CR15 - Complex Networks, 21H, M2, ENS de Lyon, France

Master: Dynamical Processes on Networks, 6H, M2, ENS de Lyon, France

Master: Modeling Social Systems, 9H, M2, ENS de Lyon, France

Master: Complex Networks 16H, Collegio Carlo Alberto, Torino Italy (guest lecturer)

10.2.1.3. Teaching by Paulo Gonçalves

Engineering school CPE-Lyon (years 3-5): Signal Processing (80 hours/yr)

10.2.1.4. Teaching by Isabelle Guérin Lassous

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

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

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

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

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

10.2.1.5. Teaching by Anthony Busson

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

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

DUT: full service (192h) in networking, operating-systems, and programming.

10.2.1.6. Teaching by Thomas Begin

Assistant Professor at Université Claude Bernard Lyon 1 in the Computer Science department since 2009.

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

Master: "Advanced networks", 20h, Master (M2 SRIV), University Lyon 1, France

Master: "Computer networks", 20h, Bachelor (L3), University Lyon 1, France

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

Master: "Distributed systems", 10h, Master (M1), University Lyon 1, France

10.2.1.7. Teaching by Christophe Crespelle

Assistant Professor at Université Claude Bernard Lyon 1 in the Computer Science department since 2009.

Master: "Complex networks", 15h, Master (M2), ENS de Lyon, France

Master: "Introduction to Computer Science", 30h, Master (M2), ENS de Lyon, France

Bachelor: "Combinatorial Optimisation", 18h, Bachelor (4th year), Vietnam National University in Hanoi, Vietnam

10.2.1.8. Teaching by Philippe Nain

University of Massachusetts at Amherst: graduate course on "Performance Modelling of Communication Networks and Distributed Systems" (32 hours).

10.2.2. Supervision

PhD defense: Yannick Léo, Deep dive into social network and economic data: a data driven approach for uncovering temporal ties, human mobility and socioeconomic correlations, ENS de Lyon, Dec 2016, Éric Fleury, Christophe Crespelle and Márton Karsai.

PhD in progress: Sarra Ben Alaya, Multi-scale classification and analysis of data on networks. Nov. 2015, P. Gonçalves (P. Borgnat, co-advisor)

PhD in progress: Esteban Bautista Ruiz, Statistical Graph Signal Processing. P. Gonçalves (P. Abry, co-advisor). Started Sept. 1st, 2016.

PhD in progress: Laurent Reynaud, Optimised mobility strategies for wireless networks. March 2013, I. Guérin Lassous

PhD in progress: Huu-Nghi Nguyen, Admission control in SDN networks. April 2014, T. Begin and A. Busson and I. Guérin Lassous

PhD in progress: Mohammed Amer, WiFi network management: a SDN approach. January 2015, A. Busson and I. Guérin Lassous

PhD in progress: Matteo Morini, New tools for understanding the dynamics of social networks, Oct 2013, E. Fleury, P. Jensen and M. Karsai

PhD in progress: Samuel Unicomb, Spreading processes on temporal networks, Oct 2016, E. Fleury and M. Karsai

PhD in progress: Jacobo Levy Abitbol, Information diffusion and language evolution on dynamical social networks, Oct 2016, E. Fleury and M. Karsai

PhD in progress: Marija Stojanova, Performance Modelling of IEEE 802.11 networks, Oct 2016, T. Begin

PhD in progress: Imen Achour, Data Dissemination Protocols for Vehicular Ad hoc Networks, informal supervising by A. Busson with T. Bejaoui and S. Tabbane (Supcom - Tunis)

10.2.3. Juries

- Isabelle Guérin Lassous was a member of the HDR examination boards of Christoph Neumann at Technicolor/Université de Rennes 1 and Frédéric Le Mouël at INSA de Lyon.
- Isabelle Guérin Lassous was a member of the Ph.D thesis examination board of Guillaume Gaillard at INSA de Lyon.
- Éric Fleury was member and reviewer of the HdR examination board of Tommaso Venturini at ENS de Lyon.
- Éric Fleury was president of the PhD examination boards of Michal Krol at UGA.
- Anthony Busson was member of the PhD examination boards of Lyad Cherif at Université Paris XI. December 2016.
- Anthony Busson was member of the PhD examination boards of Saiefeddine Bouallegue at Sup'Com / University of Carthage. June 2016.
- Anthony Busson was member of the mid-term examination boards for the PhD of Tu Lam Thanh at Supélec. November 2016.

DIANA Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

Chadi Barakat is on the editorial board of the *Computer Networks* journal, on the Technical Program Committee for the ACM Internet Measurement Conference (IMC) 2017, the ACM CoNext Conference 2016, the International Teletraffic Congress (ITC) 2017, the Passive and Active Measurement (PAM) Conference 2016, the IEEE Measurement and Networking (M&N) Workshop 2017, the Algotel Conference 2016, and the Asian Internet Engineering Conference (AINTEC) 2016. He is currently the scientific referee for international affairs at Inria Sophia Antipolis and member of the Conseil d'Orientation Scientifique et Technologique at Inria within the working group of international affairs (COST-GTRI).

Walid Dabbous is in member of the technical program committee of the IEEE INFOCOM International Workshop on Computer and Networking Experimental Research Using Testbeds, CNERT 2016. He is founding member of the ns-3 consortium. He co-organized the workshop on Future challenges in User-Centric Networks, co-located with Sigmetrics 2016 in June 2016. He is member of the scientific council of the Inria Bell-Labs laboratory on Communication networks of the future. He also serves as a chair of the scientific committee of the User Centric Networking (UCN@Sophia) Laboratory of Excellence. He was member of board of directors of the Telecom Platform Association responsible for the deployment and operation of the Com4Innov mutualized platform until July 2016. He is also member of the Ubinet International Master program steering committee. He is member of the Inria Sophia Antipolis project committee's bureau (Bureau du CP).

Arnaud Legout is on the editorial board of the *Computer Networks* journal, and was PC member of the ACM IMC 2016 conference. Arnaud Legout is the president of the Commission of the users of IT resources of Sophia Antipolis Inria research center.

Damien Saucez was co-organizer of the GdR RSD – Journées Cloud 2016 – with Fabien Hermenier (I3S). The conference over 2 days was composed of 16 presentations and two industrial keynotes (Amazon Web Services and Amadeus) with 50 attendees. The objective of this annual conference is to provide a forum for French researchers from the networking community and the distributed system community to exchange their latest findings. Damien Saucez was TPC member of IEEE ICC 2017, IEEE CCNC 2017, ACM CoNEXT Student Workshop 2016, DRCN 2016, IEEE CCNC 2016, ACM WNS3 2016, and IEEE Globecom 2016 SAC CN.

Thierry Turletti, Senior ACM and IEEE member, served in 2016 in the program committees of the following international workshops and conferences: the ACM SIGCOMM 2016 Posters and Demos, Salvador, Brazil, August 2016, the 7th Workshop on ns-3 at Seattle, Washington, June 15-16, 2016 and the 11th ACM Workshop on Challenged Networks (CHANTS), New York, USA, October 2016. Thierry Turletti is member of the Editorial Boards of the *Journal of Mobile Communication, Computation and Information* (WINET) published by Springer Science and of the *Advances in Multimedia Journal* published by Hindawi Publishing Corporation. He is chairman of the Committee for Technological Development (CDT) and member of the committee NICE that studies postdoc and visiting researcher applications at Inria Sophia Antipolis.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Master Ubinet: Chadi Barakat and Walid Dabbous, Evolving Internet, 31.5 hours, M2, University of Nice-Sophia Antipolis, France.

Master Ubinet: Chadi Barakat and Walid Dabbous, Internet Measurements and New Architectures, 31.5 hours, M2, University of Nice-Sophia Antipolis, France.

Master 1 International: Chadi Barakat, Algorithms for Networking, 22.5 hours, M1, University of Nice-Sophia Antipolis, France.

Master Estel: Chadi Barakat, Voice over IP, 9 hours, University of Nice-Sophia Antipolis, France.

Master RISM: Chadi Barakat, Mobility and wireless networking, 10.5 hours, University of Avignon, France.

Master Ubinet: Arnaud Legout, From BitTorrent to Privacy, 36 hours, M2, University of Nice-Sophia Antipolis, France.

Master 1 International: Arnaud Legout, Oral and written communications, 18 hours, M1, University of Nice-Sophia Antipolis, France.

Master IUP GMI: Damien Saucez, Security and privacy in networks, 38h, M2, University of Avignon, France.

IUT : Damien Saucez, Advanced Network Services and Operator Network Technologies, 27h, L1 and L2, University of Nice-Sophia Antipolis, France.

E-learning

Python: Arnaud Legout and Thierry Parmentelat are co-authors of the MOOC "Python : des fondamentaux à l'utilisation du langage" that lasts 7 weeks on FUN (<https://www.france-universite-numerique-mooc.fr/>), Inria. For the third session there were 12954 registered persons among them 1603 qualified for the final attestation of achievement.

Bioinformatics: As part of our contribution to E-learning activities, Thierry Parmentelat was co-author in a MOOC published on the FUN platform and named "Bioinformatique : algorithmes et génomes". This MOOC is dedicated to an introduction to the algorithmic techniques used in the interpretation of DNA sequences. It was played for the second time in French in 2016, and Thierry's contribution, as compared with the first session that was played in 2015, has been the addition of notebooks where the various algorithms are brought to the students' disposal, so they can run them interactively, or any variation they would want to study, on any DNA fragment they want, including all the ones from the ENA database <https://www.ebi.ac.uk/ena/data/sequence/search>. The first notebook-enhanced version of this MOOC in French was played in spring 2016 <https://www.fun-mooc.fr/courses/inria/41003S02/session02/info>, and attracted 3270 students. An English version of the notebook-enhanced MOOC is scheduled to run on the same FUN platform in spring 2017.

9.2.2. Supervision

PhD: Maksym Gabielkov defended his PhD on "Information propagation in social networks" in June 2016. His thesis was supervised by Arnaud Legout.

PhD: Xuan Nam Nguyen defended his PhD on "Software Defined Networking in challenged environments" April 22, 2016. His thesis was co-supervised by Thierry Turletti and Walid Dabbous. Damien Saucez also actively contributed to the thesis direction.

PhD: Riccardo Ravaioli defended his PhD on "Active and Passive Inference of Network Neutrality" on July 13th 2016. His thesis was co-supervised by Chadi Barakat and Guillaume Urvoy-Keller (I3S).

PhD in progress: Karyna Gogunska works on "Empowering Virtualized Networks with Measurement As a Service (MaaS)". Her thesis is co-supervised by Chadi Barakat and Guillaume Urvoy-Keller (I3S).

PhD in progress: Muhammad Jawad Khokhar works on "From Network Level Measurements to Expected Quality of User Experience". His PhD is supervised by Chadi Barakat.

PhD in progress: Mohamed Naoufal Mahfoudi works on cross-layer optimization techniques for next generation MIMO-based networks since November 2015. His thesis is co-supervised by Walid Dabbous and Robert Staraj (LEAT).

PhD in progress: Ghada Moualla works on "the problem of network faults and how to circumvent them by the means of Software Defined Networking, virtualization, and service function chaining" since November 2015. Her thesis is co-supervised by Thierry Turletti and Damien Saucez.

PhD in progress: Vitalii Poliakov works on "the application of Software Defined Networking on 5G networks in order to optimise the Quality of Experience of network services" since November 2015. His thesis is co-supervised by Damien Saucez and Lucile Sassatelli (I3S).

PhD in progress: Hardik Soni works on "Software Defined Networking in challenged environments" since September 2014. His thesis is co-supervised by Thierry Turletti and Walid Dabbous.

PhD in progress: Luigi Vigneri works on "Vehicles as a Mobile Cloud: Leveraging mobility for content storage and dissemination" since April 2014. His thesis is co-supervised by Chadi Barakat and Thrasyvoulos Spyropoulos (Eurecom).

9.2.3. *Juries*

Chadi Barakat served as reviewer of Panagiotis Matzakos PhD thesis, "Scheduling and Congestion Management Policies for QoS Provision in Disruption Tolerant Networks" defended in October at Eurecom.

Walid Dabbous served as reviewer of Leonardo Linguaglossa PhD thesis, "Two challenges of Software Networking: Name-based Forwarding and Table Verification", defended on September 9th 2016 at the Université Sorbonne Paris Cité.

Walid Dabbous served as jury member of Nikolaos Spountzis PhD thesis, "Network Layer Optimization for Next Generation Heterogeneous Networks", defended on December 14th 2016 at Eurecom.

Walid Dabbous served as reviewer for mid-term PhD defense of Sumit Kumara at Eurecom for his thesis entitled "Simultaneous multi-standard SDR platform".

Arnaud Legout served as reviewer of Riccardo Petrocco PhD thesis, "Scalable Video Coding Support for P2P Networks", defended on April 9, 2016, at TU Delft.

Damien Saucez served as reviewer for mid-term PhD defense of Sergio Livi at Université de Nice Sophia Antipolis for his thesis entitled "Towards NFV-based Green Networks".

Thierry Turletti served as reviewer of Sadaf Yasmin PhD thesis, "Cost-effective routing and cooperative framework or opportunistic networks", defended on February 17 2016 at the Faculty of Computing Mohammad Ali Jinnah University, Islamabad, Pakistan.

Thierry Turletti served as reviewer of Guillaume Gaillard PhD thesis, "Opérer les réseaux de l'Internet des Objets à l'aide de contrats de qualité de service (SLA)", defended on December 19 at University of Lyon, INSA Lyon, France.

9.3. Popularization

Chadi Barakat keeps participating to the organization of the Mediterranean Students Days @ Campus SophiaTech. The fourth edition took place on March 9-11, 2016, and the fifth edition will take place on February 28-March 2, 2017. All details on this event can be found at <http://univ-cotedazur.fr/events/meddays>.

Walid Dabbous contributed to a large audience book on Big Data ("Les Big Data à Découvert", CNRS Editions, 2017). His participation [29] is on "Networks for Big Data".

Arnaud Legout gave a presentation on Internet Privacy to high school students at Lycée Amiral in Grasse.

Damien Saucez was invited at AuvernIX to give a tutorial on the Locator/ID Separation Protocol (LISP) in December 2016.

Damien Saucez was invited in December 2016 to present Future Internet challenges to high school students at Lycée Aubrac de Bollène in the context of "Science culture au lycée".

Damien Saucez was invited at the Amadeus Global Forum in June 2016 to present the future of Software Defined Networking.

DIONYSOS Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events Organisation

10.1.1.1. Member of the Organizing Committees

Pierre L'Ecuyer is member of the Steering Committee of MCQMC.

G. Rubino and B. Tuffin are members of the Steering Committee of the International Workshop on Rare Event Simulation (RESIM).

Y. Hadjadj-Aoul is a member of the steering committee of the International Conference on Information and Communication Technologies for Disaster Management (ICT-DM) from December 2015.

Yann Busnel has been "Habilité à diriger les recherches" at the École Normale Supérieure de Rennes, under the seal of University Bretagne Loire, in December 2016, presenting a defense entitled "Analyse et traitement de flux de données large échelle".

10.1.2. Scientific Events Selection

10.1.2.1. Chair of Conference Program Committees

- Bruno Tuffin served as TPC co-chair for the 10th International Conference Performance Evaluation Methodologies and Tools (Valuetools'16), September 2016, Taormina, Italy.
- Yassine Hadjadj-Aoul served as TPC co-chair for the 3rd International Symposium on Networks, Computers and Communications (ISNCC 2016), May 2016, Hammamet, Tunisia.
- Yassine Hadjadj-Aoul served as TPC co-chair for the 13th conférence francophone sur les nouvelles technologies de la répartition (NOTERE 2016), Paris, France.

10.1.2.2. Member of the Conference Program Committees

Pierre L'Ecuyer was a member of the program committee of the following events:

- MCQMC'2016: Twelve International Conference on Monte Carlo and Quasi-Monte Carlo Methods in Scientific Computing, Stanford, California, Aug. 2016.
- SIMULTECH 2016: International Conference on Simulation and Modeling Methodologies, Technologies and Applications, Lisbon, Portugal, July 2016.
- ICORES 2016: International Conference on Operations Research and Enterprise Systems, Rome, Italy, Feb. 2016.

Bruno Tuffin was a member of the program committee of the following events:

- 5th Workshop on Smart Data Pricing (SDP 2016), Workshop of IEEE INFOCOM 2016, San Francisco, USA, April 2016.
- IEEE ICC 2016 - Communications Software, Services and Multimedia Applications Symposium, 23-27 May 2016, Kuala Lumpur, Malaysia.
- 22nd Asia-Pacific Conference on Communications (APCC 2016), Yogyakarta, Indonesia on 25-27 August 2016.
- GECON2016 (13th International Conference on Economics of Grids, Clouds, Systems, and Services), 20-22 September 2016, Athens, Greece.
- The International Conference on Wireless Networks and Mobile Communications (WINCOM'16), Fez, Morocco, October 26-29, 2016.
- Globecom'16 - CSSMA (2016 IEEE Global Communications Conference: Communications Software, Services and Multimedia Apps), 4-8 December 2016, Washington VD, USA.

Bruno Sericola was member of the program committee of the following events:

- ASMTA 2016: 23rd International Conference on Analytical and Stochastic Modelling Techniques and Applications, Cardiff, Wales, UK, August 2016.
- MACOM 2016: 9th International Workshop on Multiple Access Communications, Aalborg, Denmark, November 2016.
- INTERNET 2016: 8th International Conference on Evolving Internet, Barcelona, Spain, November 2016.
- DEPEND 2016: 9th International Conference on Dependability, Nice, France, July 2016.

Yann Busnel was a member of the program committee of the following events:

- NCA 2016: 15th IEEE International Symposium on Network Computing and Applications, Boston, USA, October 2016.
- CoRes 2016: 1ères Rencontres Francophones sur la Conception de Protocoles, l'Évaluation de Performance et l'Expérimentation des Réseaux de Communication, Bayonne, France, May 2016.

Adlen Ksentini was member of the program committee of the following events:

- IEEE ICC 2016 Mobile Wireless Networks Symposium, Kuala Lumpur, Malaysia 2016.
- IEEE Globecom 2016 Mobile Wireless Networks Symposium, Washington, DC USA 2016.
- IEEE WCNC 2016, Doha, Qatar, 2016.

Yassine Hadjadj-Aoul was a member of the program committee of the following events:

- IEEE ICC 2016 Mobile Wireless Networks Symposium, Kuala Lumpur, Malaysia 2016.
- IEEE Globecom 2016 Mobile Wireless Networks Symposium, Washington, DC USA 2016.
- IEEE WCNC 2016, Doha, Qatar, 2016.
- IEEE CSCN 2016 IEEE Conference on Standards for Communications & Networking, Berlin, Germany, 2016.

Gerardo Rubino was a member of the program committee of the following events:

- Networking 2016, The IFIP Networking Conference, Vienne, Autriche, May 2016.
- MAM9 (9th) International Conference on Matrix Analytic Methods in Stochastic Models, Budapest, Hongrie, June 2016.
- COMTEL 2016, VIII International Congress in Computer Science and Telecommunications, Lima, Perú, September 2016.
- Mascots 2016, the IEEE International Symposium on Modelling, Analysis and Simulation of Computer and Telecommunications Systems, Londres, UK, September 2016.

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

Bruno Tuffin is the Simulation Area Editor for *Informs Journal on Computing*.

Bruno Tuffin is an associate editor for the following journal:

- Mathematical Methods of Operations Research, since November 2008.

Pierre L'Ecuyer is an associate editor for the following journals:

- ACM Transactions on Mathematical Software, since August 2004.
- Statistics and Computing (Springer-Verlag), since June 2003.
- International Transactions in Operational Research, since May 2007.

Bruno Sericola is an associate editor for the following journals:

- International Journal of Stochastic Analysis, since April 2010.
- Performance Evaluation, since April 2015.

Bruno Sericola is Editor in Chief of the books series “Stochastic Models in Computer Science and Telecommunications Networks”, ISTE/WILEY, since March 2015.

Yassine Hadjadj-Aoul is a member of the editorial board of the CSC “International Journal of Computer Networks (IJCN)” since 2012.

Yassine Hadjadj-Aoul was a member of the guest editorial board of the following journals:

- Special issue in IGI, International Journal of Distributed Systems and Technologies (IJDST), “Information and Communication Technologies for Disaster Management” [99], Vol. 7, Issue 4, ISSN: 1947-3532 (October 2016)
- Hindawi Mobile Information Systems (Editorial), “Wireless and Mobile Technologies for the Internet of Things” [100], vol. 2016, ID 8206548 (2016)

10.1.3.2. Reviewer - Reviewing Activities

In addition to the reports done during his associate editor and conference TPC member duties, Bruno Tuffin has reviewed papers in 2016 for COMNET, Operations Research, Stochastic Models, Computers & OR, Journal of Communications & Networks.

Bruno Sericola served as a reviewer for several major international journals and conferences.

Adlen Ksentini has reviewed papers in 2016 for Transaction Parallel Distributed Systems-TPDS, Transaction on Wireless Communication - TWC, Transaction on Vehicular Technology - TVT, Wireless Communication Magazine, Elsevier Computer Communication.

Yassine Hadjadj-Aoul has reviewed papers in 2016 for Transaction on Vehicular Technology-TVT, Wireless Communication Magazine, Elsevier Computer Communication and for the following international conferences: Globecom’16, ICC’16, WCNC’16 and others.

César Viho has reviewed project proposals for the ANR and for CIFRE contracts for the ANRT. He has reviewed papers for the journals IEEE Transaction on Wireless Communication, IEEE Transactions on Vehicular Communications, IEEE Communications Magazine, and for the following international conferences: IWCNC, Globecom, and CCNC.

Gerardo Rubino has reviewed papers for several international journals and conferences (Networking 2016, MAM9, Mascots 2016, ...), ANR projects, etc.

10.1.4. Invited Talks

B. Tuffin. gave a plenary talk “Some applications of importance sampling to dependability analysis” at the International Conference on Monte Carlo techniques, Paris, France, July 2016.

B. Tuffin gave the following seminar presentations:

- B. Tuffin. Net neutrality. IRISA Evaluation by HCRES, Jan. 2016.
- P. L’Ecuyer, P. Maillé, N. Stier-Moses, B. Tuffin. Stochastic Optimization for Search Engines: Revenue-Maximizing Rankings with Quality-Sensitive Consumers. CREM-IRISA Workshop on Network Economics, January 2016.
- P. Maillé, G. Simon, B. Tuffin. On revenue-oriented Content Delivery Networks and their impact on Net Neutrality. CREM-IRISA Workshop on Network Economics, January 2016.
- B. Tuffin. La neutralité du Net. Journées scientifiques Inria, Rennes, Juin 2016.
- P. Maille and B. Tuffin. Auctions For Online Ad Space Among Advertisers Mixing Pay-per-view And Pay-per-click. DIRO, Université de Montréal, Canada, Nov 30, 2016.

Y. Hadjadj-Aoul gave a plenary talk “Efficient support of Massive M2M communications during emergency situations” at the International Conference on Information and Communication Technologies for Disaster Management (ICT-DM 2016), Vienna, Austria, December 2016.

Y. Busnel gave a plenary talk “Comment générer des échantillons uniformes sur des grandes masses de données ?” at the 9ème Colloque Francophone sur les sondages, Gatineau, Canada, October 2016.

G. Rubino made several invited and keynote talks in 2016:

- an invited talk at Advances in Uncertainty Quantification Methods, Algorithms and Applications, Kaust, Saudi Arabia, about rare event analysis [37];
- an invited talk at SIAM Conference on Uncertainty Quantification, Lausanne, Suisse, about rare event analysis in static models [39];
- a keynote at Mascots'16, London, UK, about a new performance metric [34];
- an invited talk at Technoconférence "Nouvelles expériences son et vidéo", Rennes, France, about QoE measuring [35];
- a keynote in Math AmSud Seminar, Montevideo, Uruguay, about QoE analysis and Big Data problems [38];
- a keynote at SoCPaR'16, Vellore, India, about new results concerning Perceptual Quality measuring [36].

10.1.5. Leadership within the Scientific Community

Bruno Tuffin is the co-director of the common lab ALSTOM-Inria since 2014.

Gerardo Rubino is one of the three French representatives at the Scientific Committee of the IFCAM (Indo-French Centre for Applied Mathematics), managing the cooperation in mathematics of the two countries, and federating at the French side, among several other participants, Inria and CNRS.

Gerardo Rubino is a member of the CSV (the technical committee) of the Images and Networks Cluster of Brittany, France.

10.1.6. Research Administration

- Bruno Sericola is responsible for the Inria Rennes-Bretagne Atlantique budget.
- Bruno Sericola is the leader of the research group MAPI (Math Appli Pour l'Info) the goal of which is to improve the collaboration between computer scientists and mathematicians.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Master 2nd year: Bruno Sericola, Mathematics, 12 hours, M2, Istic/University of Rennes 1, France.

Master 2nd year: Bruno Sericola, Logistic and performance, 12 hours, M2, Faculté de sciences économiques/University of Rennes 1, France.

Master 2nd year: Gerardo Rubino, Performance Evaluation, Istic/University of Rennes 1, France, 16 hours.

Master 2nd year: Performance Evaluation, Bruno Tuffin, Istic/University of Rennes 1, France, 4 hours.

Master 2nd year: César Viho, Algorithms on graphs, 40 hours, Istic/University of Rennes 1, France

Master 2nd year: César Viho, Multimedia Networking, 8 hours, Istic/University of Rennes 1, France

Master 2nd year: Yassine Hadjadj-Aoul, Multimedia streaming over IP (MMR), 48 hours, Esir/University of Rennes 1, France

Master 2nd year: Yassine Hadjadj-Aoul, Multimedia services in IP networks (RSM), 29 hours, Esir/University of Rennes 1, France

Master 2nd year: Yassine Hadjadj-Aoul, Software Defined Networks, 4 hours, Istic/University of Rennes 1, France

Master 2nd year: Yassine Hadjadj-Aoul, Video streaming over IP, 8 hours, Istic/University of Rennes 1, France

Master pro. 2nd year: Yassine Hadjadj-Aoul, C Programming, 12 hours, Istic/University of Rennes 1, France

ENSAI Rennes 3rd year: Gerardo Rubino, Neural Networks, 9 hours.

Supelec Rennes 3rd year: Gerardo Rubino, Dependability Analysis, 15 hours.

Seminars: Yann Busnel, Big Data for Security and Safety, 12 hours, Sapienza Università di Roma, Italy, April 2016.

Seminars: Yann Busnel, Big Data for Security and Safety, 18 hours, Indian Institute of Technology, Indore, India, October 2016.

10.2.2. Supervision

PhD in progress: Ajit Rai, “Availability prediction with logistics”, started in May 2015; advisors: B. Tuffin & G. Rubino, University Rennes 1.

PhD in progress: Corentin Hardy, “Device-Assisted Distributed Machine-Learning on Many Cores”, started in April 2016; advisors: Bruno Sericola & Erwan Le Merrer from team Cidre, University Rennes 1.

PhD in progress: Yves Mocquard, “Analyse de flux de données massifs dans les systèmes distribués large échelle”, started on September 2015; advisors: Bruno Sericola and Emmanuelle Anceaume from team Cidre, University Rennes 1.

PhD in progress: Ali Hodroj, “Enhancing content delivery to multi-homed users in broadband mobile networks”, started in November 2015; advisors: Bruno Sericola, Marc Ibrahim and Yassine Hadjadj-Aoul, University Rennes 1 and St Joseph University of Beyrouth.

PhD in progress: Hamza Ben Ammar, “Socially-aware network and cache resources optimization for efficient media content delivery in Content Centric Networks”, started in October 2015; advisors: Yassine Hadjadj-Aoul, Adlen Ksentini and Soraya Ait Chellouche, University Rennes 1.

PhD in progress: Imad Alawe, “Mobile SDN architecture”, started in October 2015; advisors: César Viho, Yassine Hadjadj-Aoul, University Rennes 1, Philippe Bertin, B-COM and Davy Darche, TDF.

PhD in progress: Jean-Michel Sanner; Cifre Grant, Orange Labs, “SDN technologies for network services performances adaptation of carriers networks”; started on January 2013; Advisors: Y. Hadjadj-Aoul and G. Rubino; University Rennes 1.

PhD in progress: Yue Li; Cifre Grant, Orange Labs; title: “Elaboration d’une architecture réseau unifiée, ouverte et flexible”, started on October 2013; Advisors: Y. Hadjadj-Aoul and G. Rubino; University Rennes 1.

PhD in progress: Nicolás Jara, “Fault tolerant design of dynamic WDM optical networks”, Technical University Federico Santa María (UTFSM) and university of Rennes 1, France. Advisors: R. Vallejos (Chile) and G. Rubino (France). Defense in 2017.

PhD in progress: Laura Aspirot, “Fluid Approximations for Stochastic Telecommunication Models”, University of the Republic, Uruguay. Advisors: E. Mordecki (Uruguay) and G. Rubino (France). Defense in 2017.

PhD in progress: Jorge Graneri, “Mathematical Models for Semantic Memory”, University of the Republic, Uruguay. Advisors: E. Mizraji (Uruguay) and G. Rubino (France). Started end 2016.

Master Project R& I 2016–2017, of Joshua Peignier and Estelle Varloot: “Game-theoretic tools to analyze classical vs collaborative economies”. Advisors: B. Tuffin and P. Maillé from Telecom Bretagne.

10.2.3. Juries

Bruno Tuffin was a member of the following PhD defense committees:

- Juan Eduardo Piccini: “Static Reliability and Resilience in Dynamic Systems”, University of the Republic, Montevideo, Uruguay, Mars 2016; reviewer.

- Maïder Estécahandy: “Méthodes accélérées de Monte-Carlo pour la simulation d’événements rares. Applications aux Réseaux de Petri”, Université de Pau et de l’Amour, Mars 2016; reviewer.
- Wenjing Shuai: “Management of electric vehicle systems with self-interested actors”, Telecom Bretagne, Sept. 2016; president.
- Simon Theissing: “Supervision en Transport Multimodal”, université de Paris-Saclay, Dec. 2016.

Bruno Sericola was a reviewer of the following PhD defense committee:

- A. Anjuka: “Stationary analysis of fluid queueing models”, Faculty of Science and Humanities, Anna University, Chennai, India.

Bruno Sericola was the president of the jury for the recruitment of Inria researchers in 2016.

Gerardo Rubino was a member of the following PhD defense committees:

- Juan Eduardo Piccini: “Static Reliability and Resilience in Dynamic Systems”, University of the Republic, Montevideo, Uruguay, Mars 2016; reviewer.
- Wassim Abbessi: “Mesures et Modélisation Fluide de Trafic Multimédia en Vue d’une Meilleure Gestion du Flux”, ENSI, Tunisia, November 12, 2016; reviewer.
- Yu-Ting Lin: “Performance analysis of video streaming services in mobile networks”, ParisTech, Paris, December 9, 2016; reviewer.

César Viho was:

- a member of juries for the recruitment of young graduate scientists and senior researchers at Inria;
- a member of the juries for the recruitment of young Associate Professors and Full Professors at ISTIC-Université Rennes 1;
- the Director of the MATISSE (Mathematics, Electronics and Computer Sciences) doctoral school in charge of managing the recruitment of PhD students and their activities during their doctorate, in all the concerned areas of the doctoral school.

10.3. Popularization

- P. Maillé and B. Tuffin responded to the public consultation on draft BEREC Guidelines on implementation of net neutrality rules. 2016.
- G. Rubino makes regular presentations to high school students about the research work in general, and specific technical topics in particular. Current talks:
 - Randomness as a tool
 - Internet as a research problem
 - Great challenges in maths: the Riemann Hypothesis
 - Great challenges in math/computer science: the “P versus NP” problem

DYOGENE Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events Organisation

10.1.1.1. Member of the Organizing Committees

- Bartłomiej Błaszczyszyn: 5th Stochastic Models Conference in Będlewo, Poland; <http://www.math.uni.wroc.pl/~lorek/bedlewo2016/index.php>
- Ana Busic: Workshop on the stochastic optimization and games with applications to energy and networks; <http://gdrro.lip6.fr/?q=node/147>

10.1.2. Scientific Events Selection

10.1.2.1. Member of the Conference Program Committees

- Bartłomiej Błaszczyszyn: WiOpt/Spaswin 2016.
- Anne Bouillard: Valuetools 2016 conference.
- Ana Busic: QEST 2016, IEEE SmartGridComm 2016,
- Jocelyne Elias: GSNC 2016, Globecom 2016 SAC CN, IEEE WCNC 2016, WD 2016, IEEE ICCVE 2016.
- Marc Lelarge: AISTATS 2017, NIPS 2016, Workshop on Algorithms and Models for the Web Graph 2016, ACM SIGMETRICS 2017, 2016, ACM Mobihoc 2017, 2016, IEEE INFOCOM 2017, 2016, ICALP 2016.

10.1.2.2. Reviewer

- Dalia-Georgiana Herculea: IEEE VTC , IEEE ICT.

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

- Marc Lelarge: IEEE Transactions on Network Science and Engineering, Bernoulli Journal, Queueing Systems.

10.1.3.2. Reviewer - Reviewing Activities

- Bartłomiej Błaszczyszyn: Ann. Appl. Probab., IEEE TNSE, TWC, WCL.
- Dalia-Georgiana Herculea: IEEE Access, Wiley Transactions on Emerging Telecommunications Technologies.

10.1.4. Invited Talks

- Bartłomiej Błaszczyszyn: Workshop on Continuum Percolation in Lille <http://math.univ-lille1.fr/~heinrich/Contperc2016/> , 1st Symposium on Spatial Networks in Oxford <http://www.eng.ox.ac.uk/sen/events.html>, Workshop on Probabilistic Methods in Telecommunication WIAS Berlin <https://www.wias-berlin.de/workshops/PMT16/>.
- Anne Bouillard: ASMTA conference.
- Ana Busic: Institute for Mathematics and its Applications, Univ. of Minnesota, Indo-UK workshop on Energy Management, ICMS Edinburgh, Workshop EDF Lab', Simons Institute Berkeley, Faculty of Electrical Engineering and Computing, University of Zagreb,
- Dalia-Georgiana Herculea: Institute of Stochastics, University of Ulm, LINC'S Internal Workshop.

10.1.5. Leadership within the Scientific Community

- Ana Busic is co-responsible of the research group COSMOS (Stochastic optimization and control, modeling and simulation) of the GDR-RO; <http://gdrro.lip6.fr/?q=node/78>.
- Dalia-Georgiana Herculea: Representation of Phd students in the Board of Laboratory of Information, Networking and Communication Sciences (LINCS).

10.1.6. Scientific Expertise

- Bartlomiej Blaszczyszyn: ANR France, ISF Israel, NSC Poland, ERC Europe.

10.1.7. Research Administration

- A. Busic: Co-president of CES (Commission des Emplois Scientifiques) of Inria Paris, Member of the hiring committee for CR2 research positions at Inria Paris, Member of CDT (Commission de développement technologique) of Inria Paris.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Licence: Anne Bouillard (Cours) et Rémi Varloot (TD) **Structures et algorithmes aléatoires** 80heqTD, L3, ENS, France.

Licence: Anne Bouillard (Cours) **Théorie de l'information et du codage** 24 heqTD, L3, ENS, France.

Licence: Anne Bouillard (Cours) **Algorithmique et programmation** 21 heqTD, L3, ENS, France.

Master: Bartlomiej Blaszczyszyn (Cours) **Processus ponctuels, graphes aléatoires et géométrie stochastique** 39heqTD, M2 Probabilités et Modèles Aléatoires, UPMC, France

Master: Anne Bouillard (Cours + TD) **Fondements de la modélisation des réseaux** 18heqTD, M2, MPRI, France

Master: Ana Busic and Marc Lelarge (Cours) et Rémi Varloot (TD) **Modèles et algorithmes de réseaux**, 50 heqTD, M1, ENS, Paris, France.

Master: Ana Busic (Cours) **Simulation**, 13.5 heqTD, M2 AMIS UVSQ, France.

Master: Marc Lelarge (TD) **Networks: distributed control and emerging phenomena** (cours given by Laurent Massoulié) M2, Ecole Polytechnique, France.

Master: Marc Lelarge (TD) **Aléatoire** (cours given by Sylvie Méléard) M2, Ecole Polytechnique, France.

10.2.2. Supervision

PhD: Kumar Gaurav, On some diffusion and spanning problems in configuration model [3], defended in November 2016, supervised by B. Blaszczyszyn

PhD in progress: Léo Miolane, supervised by Marc Lelarge

PhD in progress: Dalia-Georgiana Herculea, co-advised by B. Blaszczyszyn, E. Altman and Ph. Jacquet

PhD in progress: Lennart Gulikers, supervised by Marc Lelarge with Laurent Massoulié

PhD in progress: Md Umar Hashmi, Decentralized control for renewable integration in smartgrids, from December 2015, co-advised by A. Busic and M. Lelarge

PhD in progress: Alexandre Hollocou: supervised by Marc Lelarge with Thomas Bonald

PhD in progress: Christelle Rovetta, Applications of perfect sampling to queuing networks and random generation of combinatorial objects, from December 2013, co-advised by Anne Bouillard and Ana Busic

PhD in progress: Sébastien Samain, Monte Carlo methods for performance evaluation and reinforcement learning, from November 2016, supervised by A. Busic

PhD in progress: Rémi Varloot, supervised by Marc Lelarge with Laurent Massoulié

PostDoc: Arpan Mukhopadhyay, supervised by Marc Lelarge with Nidhi Hegde

PostDoc: Virag Shah: supervised by Marc Lelarge with Laurent Massoulié and Milan Vojnovic

10.2.3. Juries

- Anne Bouillard: reviewer of the PhD thesis of Mickael Back (University of Kaiserslautern).
- Ana Busic: PhD jury of Alexandra Ugolnikova, LIPN (Université Paris Nord), Rim Kaddah (Télécom ParisTech).
- Bartłomiej Błaszczyszyn: reviewer of the PhD thesis of Jihong YU LRI (Université Paris-Sud).
- Marc Lelarge: reviewer for the PhD thesis of Kevin Scaman (ENS Cachan) and Van Hao Can (Université Aix-Marseille).

10.3. Popularization

- Anne Bouillard: invited speaker at “Girls can code” 2016 session (Training session for female junior and senior highschool students).

EVA Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Event Organization

10.1.1.1. General Chair, Scientific Chair

- **Pascale Minet**
 1. co-chair with Leila Saidane of PEMWN 2016, organized in Paris (at the CNAM), France, November 2016.
- **Thomas Watteyne**
 1. Co-chair with Fabrice Theoleyre and Antoine Gallais of a special session on “Industrial Internet of Things: Constraints, Guarantees, and Resiliency” at the 23rd IEEE International Conference on Telecommunications (ICT), Thessaloniki, Greece, 16-18 May 2016.
 2. Technical Program Committee Chair and Local Chair, EAI Conference on Interoperability in IoT (InterIoT), Paris, France, October 2016.
 3. Demo Chair, IEEE International Conference on Sensing, Communication and Networking (SECON), London, UK, 27-30 June 2016.
 4. General Chair, Second ETSI 6TiSCH plugtests, Paris, France, 2-4 February 2016.
- **Nadjib Achir**
 1. track chair of the Internet of Things (IoT) track of the Selected Areas in Communications Symposium of IEEE Global Telecommunications Conference 2014
- **Selma Boumerdassi**
 1. chair of the International Workshop on Energy Management for Sustainable Internet-of-Things and Cloud Computing (EMSICC 2016), August 2016.
 2. chair of the International Conference on Mobile, Secure and Programmable Networking (MSPN 2016), June 2016.

10.1.1.2. Member of the Organizing Committee

- **Pascale Minet**
 1. chaired the session entitled “Wireless Sensor networks II” at the IEEE MASS 2016 conference held in Brasilia in October 2016.
- **Paul Muhlethaler**
 1. have invited two presenters Laurent Georges (ESIEE) and Nadjib Ait Saadi (Paris XII) at EVA-MIMOVE-RITs seminar. Laurent Georges presented his work on software radio and Nadjib Ait Saadi on virtualisation and communication in data centers.
- **Thomas Watteyne**
 1. Demo Chair, IEEE International Conference on Sensing, Communication and Networking (SECON), London, UK, 27-30 June 2016.
- **Christine Anocq**
 1. member of the organizing committee of the international conference PEMWN 2016

10.1.2. Scientific Events Selection

The list of conferences Inria-EVA researcher participated in as Technical Program Committee (TPC) members:

- **Nadjib Achir**
 1. TPC Member IEEE Global Telecommunications Conference, GLOBECOM 2016.
 2. TPC Member IEEE International Conference on Communications, ICC 2016.
 3. TPC Member Personal, Indoor and Mobile Radio Communications, PIMRC 2016.
 4. TPC Member IEEE Wireless Communications and Networking Conference, WCNC 2016.
 5. TPC Member IEEE Consumer Communications & Networking Conference, CCNC 2016.
 6. TPC Member Global Information Infrastructure and Networking Symposium, GIIS 2016.
 7. TPC Member International Conference On Network of the Future, NoF 2016.
 8. TPC Member of the fourth International conference on Performance Evaluation and Modeling in Wireless Networks, PEMWN 2016.
- **Selma Boumerdassi**
 1. TPC Member IEEE Global Telecommunications Conference, GLOBECOM 2016
 2. TPC Member IEEE International Conference on Communications, ICC 2016
 3. TPC Member International Conference on Open and Big Data, OBD, 2016
 4. TPC Member International Conference on Performance Evaluation and Modeling in Wired and Wireless Networks, PEMWN, 2016
 5. TPC Member International Conference on Platform Technology and Service, PlatCon, 2016
- **Pascale Minet**
 1. CSCN 2016, IEEE Conference on Standards for Communications and Networking, October 2016.
 2. CCNC 2016, 13th Annual IEEE Consumer Communications and Networking Conference, January 2016.
 3. DCNET 2016, 7th International Conference on Data Communication Networking, July 2016.
 4. PEMWN 2016, 5th International Conference on Performance Evaluation and Modeling in Wired and Wireless Networks, November 2016.
 5. PECCS 2016, 6th International conference on Pervasive and Embedded Computing and Communication Systems, July 2016.
 6. RTNS 2016, 24th International Conference on Real-Time and Network Systems, November 2016.
 7. Wireless Days, IFIP international conference, March 2016.
 8. WiSEE 2016, IEEE International Conference on Wireless for Space and Extreme Environments, September 2016.
- **Paul Muhlethaler**
 1. 3rd International Workshop on Energy Management for Sustainable Internet-of-Things and Cloud Computing (EMSICC 2016) 24 August 2016 Vienna.
 2. Technical Committee of the International Conference on Mobile, Secure and Programmable Networking MSPN' 2016, June 1 - 3 2016, Paris, France.
 3. Steering Committee Member of MobileHealth 2016, 6th EAI International Conference on Wireless Mobile Communication and Healthcare, November 14–16, 2016, Milan, Italia
 4. Technical Committee of the fourth International conference on Performance Evaluation and Modeling in Wireless Networks, PEMWN 2016, 22-24 November 2016, Paris, France.
- **Thomas Watteyne**

1. TPC Member IFIP/IEEE International Symposium on Integrated Network Management, workshop on Future Networks for Secure Smart Cities (FNSSC), 2017.
2. TPC Member IEEE International Conference on Communications (ICC), Selected Areas in Communications (SAC), 2015, 2016, 2017.
3. TPC Member IEEE International Conference on Telecommunications (ICT), Thessaloniki, Greece, 16-18 May 2016.
4. TPC Member IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC), 2008, 2009, 2013, 2016.
5. TPC Member International Conference on Embedded Wireless Systems and Networks (EWSN), 2016.

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

- **Nadjib Achir**
 1. guest editor of the special issue “Planning and Deployment of Wireless Sensor Networks”, of the International Journal of Distributed Sensor Networks.
- **Thomas Watteyne**
 1. Editor, EAI Transactions on Internet of Things since 2015.
 2. Editor, IEEE Internet of Things (IoT) Journal 2014-2016.

10.1.3.2. Reviewer - Reviewing Activities

- **Nadjib Achir**
 1. Sensor Networks (MDPI)
 2. Wireless Communications and Mobile Computing (Wiley)
 3. Internet of Things Journal (IEEE)
 4. Ad Hoc Networks Journal (Elsevier)
- **Selma Boumerdassi**
 1. The Journal of Human-centric Computing and Information Sciences (Springer).
- **Pascale Minet**
 1. Annals of Telecommunications,
 2. Ad Hoc Networks,
 3. International Journal of Distributed Sensor Networks,
 4. International Journal of Networked and Distributed Computing,
 5. Journal of Sensor and Actuator Networks,
 6. Computer Communications Journal,
 7. Sensors Journal.
- **Paul Muhlethaler**
 1. Annals of telecommunications
 2. Ad Hoc Networks,
 3. Journal of Distributed Sensor Networks,
 4. Journal of Networked and Distributed Computing,
 5. IEEE Transactions on Wireless Communications
 6. IEEE Transactions on Vehicular Technology
 7. IEEE Transactions on Information Theory
 8. International Journal of Distributed Sensor Networks. Hindawi.

10.1.4. Invited Talks and Panels

- **Thomas Watteyne:** SmartMesh IP: a ready-to-use IoT Solution. Inria-Chile, 2 December 2016.
- **Thomas Watteyne:** From Smart Dust to 6TiSCH: Academic and Commercial Background on TSCH Technology, Sensor Platform for HEalthcare in a Residential Environment (SPHERE) seminar, University of Bristol, Bristol, UK, 6 October 2016.
- **Thomas Watteyne** was panelist on “A Not So Politically Correct Reality Check about the IoT”, ACM International Symposium on Mobile Ad Hoc Networking and Computing (MobiHoc), Paderborn, Germany, 5-8 July 2016.
- **Thomas Watteyne:** A Not So Politically Correct Reality Check about the IoT. ACM MobiHoc, Paderborn, Germany, 6 July 2016.
- **Thomas Watteyne** was panelist on “IoT & quantified self” at the open Inria conference on “Digital Sciences and Technologies for Health”, Futur en Seine Festival, Paris, France, 10 June 2016.
- **Thomas Watteyne:** HeadsUp! Long-Term Real-Time Patient Position Monitoring. International Conference on Digital Sciences and Technologies for Health, Futur en Seine Festival, Paris, France, 10 June 2016.
- **Thomas Watteyne** was panelist on “IoT & Smart City” at the Inria@Silicon Valley annual workshop (BIS), Paris, France, 9 June 2016.
- **Thomas Watteyne:** PEACH: Predicting Frost Events in Peach Orchards Using IoT Technology, Inria@Silicon Valley annual workshop (BIS), “IoT & Smart City” panel, Paris, France, 9 June 2016.
- **Thomas Watteyne:** Overview (Industrial) IoT Standardization Efforts at IETF. ITU Meeting, Geneva, Switzerland, 10 May 2016.
- **Thomas Watteyne:** Having fun with Industrial IoT, University of Southern California, Los Angeles, CA, USA, 1 April 2016.
- **Thomas Watteyne:** Not-so-Politically Correct Food for Thought on NGIoT, US-Europe Invited Workshop on Next-Generation IoT (NGIOT), Los Angeles, CA, USA, 31 March 2016.
- **Thomas Watteyne:** Industrial IoT Standards and not-to-industrial applications, GDR SOC-SIP/RSD, Paris, France, 30 March 2016.

10.1.5. Leadership within the Scientific Community

- **Thomas Watteyne** is co-chair of IETF 6TiSCH standardization working group.
- **Thomas Watteyne** is Senior member of the IEEE since 2015.

10.1.6. Scientific Expertise

- **Paul Muhlethaler** is a reviewer for the European Commission. He regularly reviews project; this year he was at the last review meeting of E3Network a project dedicated to high-speed radio links in the E-band.
- **Thomas Watteyne** and Tengfei Chang consulted for ETSI as part of the “panel of experts” to prepare the Test Description and Golden Image for the ETSI 6TiSCH 3 plugtests, held on 15-16 July 2016 in Berlin, Germany.
- **Thomas Watteyne** and Tengfei Chang consulted for ETSI as part of the “panel of experts” to prepare the Test Description and Golden Image for the ETSI 6TiSCH 2 plugtests, held on 2-4 February 2016 in Paris, France.

10.1.7. Research Administration

- **Pascale Minet** was member of the evaluation committee in charge of recruiting an Assistant Professor at the University of Auvergne, Clermont-Ferrand in April and May 2016.
- **Pascale Minet** was a member of the EDITE Doctoral School’s Grant Allocation Committee (June 2016).

- **Thomas Watteyne** is member of the Inria-Paris “Comite de Centre” since 2016, where we work on making sure Inria-Paris will always remain one of the greatest places to work at!

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

License:

- **Thomas Watteyne** taught a 2-h course on industrial IoT at University of Southern California (USC), USA, 1 April 2016.

Master:

- **Thomas Watteyne** and Keoma Brun-Laguna taught a 4-day course on IoT, with associated hands-on labs. ENSTA ParisTech. Together with Dominique Barthel, 12-15 December 2016.
- **Thomas Watteyne** taught a 1/2-day crash course on the Industrial IoT, ParisTech, 5 October 2016.

10.2.2. Supervision

PhD:

- Mohamed Hadded, “Design and Optimizaion of Access Control Protocols in Vehicular Ad Hoc Networks (VANETs)”, EDITE - Télécom Sud-Paris, November 2016, **Paul Muhlethaler** adviser, Anis Laouiti, co-adviser.

PhD in progress:

- Nesrine Ben Hassine “Learning algorithms for network resource management”, UVSQ, Sept 2017 (expected), **Pascale Minet** adviser, co-adviser Dana Marinca.
- Younes Bouchaala “Handling Safety Messages in Vehicular Ad Hoc Networks (VANETs)”, UVSQ, Sept 2017 (expected), **Paul Muhlethaler** adviser.
- Keoma Brun-Laguna “Limits of Time Synchronized Channel Hopping” (*tentative title*), EDITE - UPMC, Dec 2018 (expected), **Thomas Watteyne** adviser.
- Jonathan Muñoz “km-scale Industrial Networks” (*tentative title*), EDITE - UPMC, Oct 2018 (expected), **Thomas Watteyne** adviser.

10.2.3. Juries

HdR:

- Gerard Chalhoub, “Enhanced communications in data collection multihop wireless sensor networks”, University of Auvergne, June 2016, **Pascale Minet** examiner.

PhD:

- Guillaume Gaillard, “Opérer les réseaux de l’Internet des Objets”, University of Lyon - INSA. Viva on 19 December 2016. **Pascale Minet** reviewer.
- Mohamed Hadded “Design and Optimization of Access Control Protocols in Vehicular Ad Hoc Networks (VANETs)” Thèse de Telecom Sud Paris. Viva on 30 Novembre 2016. Anis Laouiti examiner, **Paul Muhlethaler** examiner.
- Naourez Mejri, “Vers une ville intelligente au service du citoyen mobile: découverte de l’infrastructure d’accès et gestion intelligente de parkings”, University of La Manouba, ENSI, Tunis. Viva in November 2016. **Pascale Minet** examiner, **Paul Muhlethaler** reviewer.
- Nour Brinis Khay, “Stratégies de collecte de données dans les réseaux de capteurs”, University of La Manouba, ENSI, Tunis. Viva in November 2016. **Pascale Minet** examiner.

- Alexandre Ragaleux, “Mécanismes D’Accès Multiple dans les Réseaux Sans Fil Large Bande”, Université Pierre et Marie Curie. Viva on 22 September 2016. **Nadjib Achir** reviewer.
- Remy Leone “Intelligent Gateway for Low-Power Wireless Networks” (“Passerelle intelligente pour réseaux de capteurs sans fil contraints” in French), Telecom ParisTech, France, under the supervision of Jean Louis Rougier and Vania Conan. Viva on 24 June 2016. **Thomas Watteyne** examiner.
- Kevin Roussel, “Évaluation et amélioration des plates-formes logicielles pour réseaux de capteurs sans-fil, pour optimiser la qualité de service et l’énergie”, Inria Nancy/ Université de Lorraine, France, under the supervision of Ye-Qiong Song and Olivier Zendra. Viva on 3 June 2016. **Thomas Watteyne** examiner.
- Samira Chouikhi “Tolérance aux pannes dans un réseau de capteurs sans fil multi-canal ” University of Paris East Marne-La-Vallée. Viva in June 2016. **Pascale Minet** examiner, **Paul Muhlethaler** reviewer.
- Jin Cui, “Data aggregation in wireless sensor networks”, University of Lyon - INSA. Viva in June 2016. **Pascale Minet** reviewer.
- Mohamed Nidhal Mejri “Securing vehicular networks against denial of service attacks”, Université Paris 13. Viva on 19 May 2016. **Paul Muhlethaler** president, **Nadjib Achir** examiner.
- Chiraz Houaida, “Vers des mécanismes de routage robustes et optimisés dans un réseau sans-fil métropolitain et collaboratif”, University of Toulouse. Viva in May 2016. **Pascale Minet** reviewer.
- Antonio O. Gonga, “Mobility and Multi-channel Communications in Low-power Wireless Networks”, KTH Electrical Engineering, under the supervision of Prof. Mikael Johansson. Viva on 14 January 2016. **Thomas Watteyne** examiner.

10.3. Popularization

10.3.1. Demos

Inria-EVA is working with the Inria-Paris management team to install a permanent demo on the Inria-Paris premises in Q1 2017. Pieces of the same demo have been presented to all people and teams visiting the lab. For example, the high school students from the Lycee Louis-Le-Grand on 1 June 2016.

10.3.2. Videos

The following videos were prepared with the audio/video team of Inria.

1. Interview of **Thomas Watteyne** during the “Nouveaux Arrivants” workshop. To be published.
2. “Save The Peaches” details the Smart Agriculture deployment. Featuring **Thomas Watteyne** and Keoma Brun-Laguna.
 - English version: https://www.youtube.com/watch?v=_qGSH810Vkk
 - French version: <https://www.youtube.com/watch?v=cZvGw7DyIzI>

10.3.3. In the News

1. **Thomas Watteyne** featured in “Experto en IoT realiza webinar con Inria Chile”. Inria-Chile newsletter, December 2017.
2. Interview of **Thomas Watteyne**: “In Argentina alone, connected agriculture could have saved 10,000 jobs in one year”, Inria Homepage, November 2016.
3. Interview of **Thomas Watteyne** in “La Gazette”, the Inria-Paris newsletter, on Smart Agriculture, October 2016.

4. **Thomas Watteyne** featured in “Outcome Report from the US-Europe Invited Workshop on Next-Generation Internet of Things @USC”, Inria-SiliconValley Newsletter, 26 July 2016.
5. Keoma Brun-Laguna presented the PEACH project during the annual Math exhibition in Paris, on 28 May 2016.
6. **Thomas Watteyne** featured in “Inria deploys a wireless sensor network in Argentina to save peaches”, Inria-Paris homepage, 22 April 2016.
7. **Thomas Watteyne** featured in “Great fun at the OpenWSN & OpenMote tutorial at IEEE GLOBE-COM in San Diego!”, Inria-SiliconValley Newsletter, 17 March 2016.
8. **Thomas Watteyne** featured in “6TiSCH cherche à concilier protocole IPv6, réseau radio maillé et performance industrielle”, L’embarque, 8 February 2016.

10.3.4. Web Presence & Social Media

- The Inria-EVA team maintains the following websites:
 - <https://team.inria.fr/eva/>
 - <http://www.savethepeaches.com/>
 - <http://www.snowhow.io/>
 - <http://www.solsystem.io/>
 - <http://www.headsup.tech/>
- The Inria-EVA team maintains the Twitter accounts:
 - EVA (<https://twitter.com/InriaEVA>), 180 tweets
 - OpenWSN (<https://twitter.com/openWSN>), 88 tweets
 - savethepeaches (<https://twitter.com/peachesthesave>), 73 tweets
 - HeadsUp! (https://twitter.com/heads_up_tech), 28 tweets
 - REALMS team (https://twitter.com/realms_team), 28 tweets
 - SOLsystem (<https://twitter.com/SOLsystem>), 16 tweets
 - snowhow (https://twitter.com/snowhow_io), 14 tweets

FUN Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events Organisation

10.1.1.1. General Chair, Scientific Chair

- Nathalie Mitton is a member of the Steering committee of CIoT.
- Nathalie Mitton is general chair for AdHocNow 2016 and InterIoT 2016 and symposium chair of Wireless Ad hoc and Sensor Networks symposium ICNC 2017.
- Valeria Loscri is TPC chair for BODYNETS 2016, general co-chairs for PASC 2016, TPC co-chair for CoWPER 2016, TPC chair for the IoT day 2016
- Mouna Rekik was publicity chair for AdHocNet 2016.
- Aziz Mbacke is publicity chair for AdHocNow 2016.
- Riccardo Petrolo was web chair for AdHocNow 2016.
- Jean Razafimandimby Anjalalaina, was Publicity Chair for IoTIP 2016.

10.1.1.2. Member of the Organizing Committees

- the next CapTronic workshop on Factories of the future. Attendees : industries, ≈ 50 participants
- the International Conference on Ad Hoc Networks and Wireless (AdHoc-Now) from July 4th to July 6th (<https://project.inria.fr/AdHocNow2016/>), Attendees : academics, international ≈ 50 participants
- the Rescom days in January 12th and 13th, Attendees : academics, french-speaking ≈ 70 participants

10.1.2. Scientific Events Selection

10.1.2.1. Chair of Conference Program Committees

- Valeria Loscri is co-program chairs for AdHocNow 2016.
- Nathalie Mitton is/was (co-)program chair of the RESCOM community days in January 2016, for AdHocNow 2016, UIC 2016, VTC-Spring 2016, IoTIP 2016, ICNC 2016 and CSE 2016. She is co-program chair for WSCP 2017, VTC2017 and SWC 2017.

10.1.2.2. Member of the Conference Program Committees

- Valeria Loscri is/was in the Technical Program Committee (TPC) of MoWNet'16, IDCs 2016, HPCC 2016, WiMob 2016, ICARSC 2016, GIoTS 2017, MoWNet 2017, WiMob 2017, NanoComm 2017.
- Nathalie Mitton is/was in the Technical Program Committee (TPC) ICC 2016, SmartComp 2016, GlobeCom 2016, WPMC2016, PASC 2016, Wisarn 2016, CCNC 2017, VTC 2017
- Simon Duquennoy is TPC member of EWSN 2016 (and 2017), IEEE DCoSS 2016 (and 2017), IEEE MASS 2016, InterIoT 2016, UIC 2016

10.1.3. Journal

- Valeria Loscri is Co-editor in the Special Issue on Smart Wireless Access Networks and Systems For Smart Cities, Elsevier Ad Hoc Networks.
- Valeria Loscri is Co-editor for the book MIoT2015, Management of Cyber Physical Objects in the Future Internet of Things on behalf of Springer.

- Valeria Loscri is Co-editor for the book Vehicular Social Networks, on behalf of CRC Press Taylor and Francis Group.
- Valeria Loscri is a member of the 'Research Group on IoT Communications and Networking Infrastructure' at ComSoc Communities.

10.1.3.1. Member of the Editorial Boards

- Nathalie Mitton is editorial board members of AHSWN since 2011.
- Nathalie Mitton is editorial board member of Adhoc Networks since 2012.
- Nathalie Mitton is editorial board member of IET-WSS since 2013.
- Nathalie Mitton is editorial board member of ComSoc MMTTC e-letter since 2014.
- Nathalie Mitton is editorial board member of Wiley Transactions Emerging Telecommunications Technologies since 2016.
- Nathalie Mitton is editorial board member of Wireless Communications and Mobile Computing since 2016.
- Valeria Loscri is editorial board member of International Journal of Advanced Robotic Systems since 2016

10.1.4. Invited Talks

- Nathalie Mitton was invited speaker at CNRS Josy Days in Paris in October 2016
- Nathalie Mitton was invited speaker at Smyle Workshop at EPFL in Neuchatel, Switzerland, in September 2016
- Riccardo Petrolo was invited speaker at Rice University in Houston, USA in September 2016
- Nathalie Mitton was invited speaker at 4th International Workshop on Next Generation Green Wireless Networks (NextGWiN 2016) in Dublin, Ireland, September 2016
- Nathalie Mitton was invited speaker at Southeast University Seminar in Nanjing, China in June 2016
- Valeria Loscri was invited speaker at BIS days in Paris, June 2016
- Nathalie Mitton was invited speaker at 10th European eAccessibility Forum "e-Accessibility in a Connected World in Paris, May 2016
- Nathalie Mitton was invited speaker at UCN@Sophia Labex seminar Sophia Antipolis, April 2016
- Nathalie Mitton was invited speaker at "US-EU Workshop on the Next Generation Internet", Los Angeles, March 2016
- Nathalie Mitton was invited speaker at "IoT day Paris Descartes" on March 2016
- Valeria Loscri and Nathalie Mitton were invited speakers at JEAI days in Lille on February 2016
- Simon Duquenois was invited speaker at Bristol for the Sphere IRC project, in November 2016

10.1.5. Leadership within the Scientific Community

Nathalie Mitton is a member of the Steering Committee of the GDR Rescom.

10.1.6. Scientific Expertise

Nathalie Mitton is an elected member of the evaluation community of Inria. She has acted as a reviewer for ANRT and ANR project submissions. She is also member of the scientific committees of the competitiveness cluster of MATIKEN and for CITC (International Contactless Technologies Center).

Valeria Loscri is Scientific European Responsible for Inria Lille - Nord Europe. She has been reviewer in the context of 2017 Air Force Young Investigator Research Program. *Simon*

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

E-learning

Mooc, Nathalie Mitton, "Villes intelligentes : défis technologiques et sociétaux" , 5-week mooc by the IPL CityLab@Inria team, FUN, Inria, to open in January 2016

Master : Valeria Loscri, Objets Communicants, 24h (Mineure Habitat Intelligent), Ecole des Mines de Douai, France.

Master : Nathalie Mitton, Wireless sensor networks, 16h eqTD (Master MINT), Université Lille 1 and Telecom Lille 1, France

Bsc: Nathalie Mitton, Contactless technologies, 20h eqTD, Université de Valenciennes, France

Bsc: Farouk Mezghani, Contactless technologies, 20h eqTD, Université de Valenciennes, France

BSC: Riccardo Petrolo, Réseaux Informatique, 36h TP and TD (Licence Info), Université Lille 1, France

BSC: Riccardo Petrolo, Technologies du Web, 36h TP and TD (Licence 1), Université Lille 1, France

Master : Viktor Toldov, Systèmes Numériques (VHDL), 6h eqTD (Formation d'ingénieur), Télécom Lille, France

Licence : Jean Razafimandimby, Algorithms and Programming 1, 32h TP and TD, Université Lille 1, France

Licence : Jean Razafimandimby, Algorithms and Programming 2, 32h TP and TD, Université Lille 1, France

10.2.2. Supervision

PhD defended on July 26th 2016: Mouna Rekik, geographic multi path routing protocol based on swarm intelligence for wireless sensor and actuator networks in the context of Smart Grids, co-supervision Université Lille 1 and University of Sfax (Tunisia), 2013-2017, Nathalie Mitton and Zied Chtourou

PhD defended on Oct 25th 2016: Riccardo Petrolo, Internet of Things and Smart Cities, Université Lille 1, 2013-2016, Nathalie Mitton and Valeria Loscri

PhD in progress: Viktor Toldov, : Interférence et consommation dans les réseaux de capteurs, Université Lille 1, 2013-2016, Nathalie Mitton and Laurent Clavier

PhD in progress: Jean Razafimandimby, Distributed Cooperation and Communication among Heterogeneous Devices, Université Lille 1, 2014-2017, Nathalie Mitton and Valeria Loscri

PhD in progress: Aziz Mbacke, Smart Deployment of heterogeneous sensors and RFID in a Smart City, Université Lille 1, 2015-2018, Nathalie Mitton and Hervé Rivano (Urbanet)

PhD in progress: Jad Nassar, Ubiquitous networks for smart grids, Université Lille 1, 2015-2018, Nathalie Mitton and Nicolas Gouvy (HEI)

10.2.3. Juries

- PhD/HDR committees :
 - Simon Duquennoy was a member of the PhD defense committee of
 - * Mathieu Michel, University Mons Belgium, September 2016
 - * Anwar Hithnawi, ETH Zurich in November 2016.
 - Valeria Loscri was a member of the PhD defense committee of Riad Mazloun, University Paris 6, December 2016.

- Valeria Loscri was reviewer of the the following PhD thesis: Orazio Briante, Università Mediterranea di Reggio Calabria, May 2016.
- Nathalie Mitton is/was reviewer of the following PhD thesis:
 - * Remy Leone, UPMC, June 2016,
 - * Quentin Bramas, UPMC, October 2016,
 - * Laurent Reynaud, Univ. Lyon 1, March 2017.
- Nathalie Mitton was a member of the HDR defense committee of Nadjib AIT SAADI, University of Paris-Est Creteil Val de Marne (UPEC) 18 July 2016.
- Researcher selection committees :
 - Valeria Loscri was member of the Inria CR2 Lille competition selection committee.
 - Nathalie Mitton was member of the Inria CR2 Grenoble competition selection committee.
 - Nathalie Mitton was member of the Inria Research Grant Position selection committee.
 - Nathalie Mitton was member of the Assistant Professor (MdC) at Universités de Valenciennes, Rennes et de Lorraine, Institut Mines Telecom ParisTech competition selection committees.
- Nathalie Mitton is a member of the scientific committee of "Convergences du Droit et du Numérique".
- Valeria Loscri is a member of the committee of "Journée Nationale de l'Internet des Objets".

10.3. Popularization

- Tahiry Razafindralambo and Simon Duquennoy gave a talk for 13-45 in April 2016
- Emilio Compagnone gave a talk for 13-45 in May 2016
- Cristina Cano gave a talk at "30 min de Sciences" in May 2016
- Emilio Compagnone and Valeria Loscri gave a talk and a demo at Robotic Day at Euratechnologies in July 2016
- Nathalie Mitton, Cristina Cano and Viktor Toldov gave talks at IoTWeek by CITC on June 2016
- Nathalie Mitton gave a talk at NormaFret by i-Trans competitiveness cluster in September 2016
- Aziz Mbacke, Jad Nassar and Julien Vandaele gave some talks in high schools for the "Fête de la Science" in October 2016
- Nathalie Mitton co-authored popularization articles in La main à la pâte (to be published in January 2017), white paper on e-accessibility for BrailleNet/G3ict and an article in *Big Data à découvert* by CNRS edition.

GANG Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific Events Organisation

9.1.1.1. General Chair, Scientific Chair

Pierre Fraigniaud has organized the 1st conference on Highlights of Algorithms (HALG 2016), Paris, June 2016. This conference has gathered more than 200 participants to attend talks presenting the most significant results on algorithms produced in the academic year 2015-2016. The 2nd issue of this conference, Highlights of Algorithms 2017, will take place in Berlin.

<http://highlightsofalgorithms.org>

9.1.2. Scientific Events Selection

9.1.2.1. Chair of Conference Program Committees

- Carole Delporte was PC Co-chair of NETYS 2016 — the 4th International Conference on Networked Systems, Morocco, May 18-20, 2016.
- Pierre Fraigniaud is PC chair for the Track Algorithms of the 31st IEEE International Parallel & Distributed Processing Symposium (IPDPS), to be held in Orlando, Florida, USA, May 29 - June 2, 2017. <http://www.ipdps.org>

9.1.2.2. Member of Conference Program Committees

- Hugues Fauconnier: NETYS 2016, PODC 2016.
- Carole Delporte: ICDCN 2016, ICDCS 2016, DISC 2016, OPODIS 2016.
- Adrian Kosowski: PODC 2016, ALGOSENSORS 2016, ICALP 2017.
- Pierre Fraigniaud: WWW 2016, ESA 2016, IPDPS 2016, OPODIS 2016, SIROCCO 2016, ALGOSENSORS 2016, FUN 2016, WWW 2017, SPAA 2017, DISC 2017.
- Amos Korman: ICALP 2017

9.1.3. Journal

9.1.3.1. Member of Editorial Boards

- Pierre Fraigniaud is a member of the Editorial Board of Distributed Computing (DC).
- Pierre Fraigniaud is a member of the Editorial Board of Theory of Computing Systems (TOCS).
- Pierre Fraigniaud is a member of the Editorial Board of Fundamenta Informaticae (FI).

9.1.4. Invited Talks

Adrian Kosowski: SIROCCO 2016

9.1.5. Scientific Expertise

Pierre Fraigniaud is member of the evaluation committee for the ERC Starting Grants (Panel 6).

9.1.6. Research Administration

Pierre Fraigniaud is director of the Institute de Recherche en Informatique Fondamentale (IRIF).

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Master: Carole Delporte and Hugues Fauconnier, Algorithmique distribuée avec mémoire partagée, 6h, M2, Université Paris Diderot

Master: Hugues Fauconnier, Cours programmation répartie, 33h, M2, Univ. Paris Diderot

Master: Carole Delporte, Cours et TP Protocoles des services internet, 44h, M2, Univ. Paris Diderot

Master: Carole Delporte, Cours Algorithme réparti, 33h, M2, Univ. Paris Diderot

Master: Carole Delporte and Hugues Fauconnier, Protocoles Réseaux, 72h, M1, Université Paris Diderot

Licence: Carole Delporte and Hugues Fauconnier, Sécurité informatique, 36h, L3, Univ. Paris Diderot

Licence: Hugues Fauconnier, Programmation objet et interfaces graphiques, 48h, L2-L3, EIDD

Licence: Boufkhad Yacine, Algorithmique et Informatique, 132h, L1, IUT de l'Université Paris Diderot

Licence: Boufkhad Yacine, Programmation Orientée Objet, 60h, L2, IUT de l'Université Paris Diderot

Licence: Boufkhad Yacine, Traitement de données, 16h, L2, IUT de l'Université Paris Diderot

Master: Pierre Fraigniaud, Algorithmique avancée, 24h, Ecole Centrale Supélec Paris, M2

Master: Pierre Fraigniaud, Algorithmique parallèle et distribuée, 24h, Ecole Centrale Supélec Paris, M2

Master: Adrian Kosowski, Randomization in Computer Science: Games, Networks, Epidemic and Evolutionary Algorithms, 18h, M1, École Polytechnique

Licence: Adrian Kosowski, Design and Analysis of Algorithms, 32h, L3, École Polytechnique

Master: Pierre Fraigniaud and Adrian Kosowski, Algorithmique distribuée pour les réseaux, 24h, M2, Master Parisien de Recherche en Informatique (MPRI)

Master: Fabien de Montgolfier and Michel Habib, Grand Réseaux d'Interaction, 44h, M2, Univ Paris Diderot

Licence: Fabien de Montgolfier, Protocoles Réseau (TP/TD), 24h, M1, Univ Paris Diderot

Licence: Fabien de Montgolfier, Programmation avancée (cours/TD/projet, bio-informatique), 52h, L3, Univ. Paris Diderot

Master: Fabien de Montgolfier, Algorithmique avancée (bio-informatique), 26h, M1, Univ Paris Diderot

Licence: Fabien de Montgolfier, Algorithmique (TD), 26h, L3, Ecole d'Ingénieurs Denis Diderot

Master : Laurent Viennot, Graph Mining, 3h, M2 MPRI, Univ. Paris Diderot

Licence: Michel Habib, Algorithmique, 45h, L, ENS Cachan

Master: Michel Habib, Algorithmique avancée, 24h, M1, Univ. Paris Diderot

Master: Michel Habib, Mobilité, 33h, M2, Univ. Paris Diderot

Master: Michel Habib, Méthodes et algorithmes pour l'accès à l'information numérique, 16h, M2, Univ. Paris Diderot

Master: Michel Habib, Algorithmique de graphes, 12h, M2, Univ. Paris Diderot

Licence: Pierre Charbit, Introduction a la Programmation, 30h, L1, Université Paris Diderot, France

Licence: Pierre Charbit, Automates finis, 52h, L2, Université Paris Diderot, France

Licence: Pierre Charbit, Types de Données et Objet, 52h, L1, Université Paris Diderot, France

Master: Pierre Charbit, Programmation, 60h, M2Pro PISE, Université Paris Diderot, France

Master: Pierre Charbit, Algorithmique de Graphes, 12h, M2 MPRI, Université Paris Diderot, France

9.2.2. Supervision

PhD: Leonardo Linguaglossa (co-advised by Laurent Viennot, Fabien Mathieu and Diego Perino, both from Nokia Bell Labs) was a PhD hired by Inria through the ADR CCN contract. He obtained his PhD last September [1] at Paris Diderot University.

PhD in progress: Simon Collet (co-advised by Amos Korman and Pierre Fraigniaud). Title of thesis is: "Algorithmic Game Theory Applied to Biology". Started September 2015.

PhD in progress: Lucas Boczkowski (co-advised by Amos Korman and Iordanis Kerenidis). Title of thesis is: "Computing with Limited Resources in Uncertain Environments". Started September 2015.

PhD in progress: Briec Guinard (advised by Amos Korman). Title of thesis is: "Algorithmic Aspects of Random Biological Processes". Started October 2016.

PhD in progress: Laurent Feuilloley (advised by Pierre Fraigniaud). Title of thesis is: "Synchronous Distributed Computing". Started September 2015.

PhD in progress: Mengchuan Zou (co-advised by Adrian Kosowski and Michel Habib). Title of thesis is: "Local and Adaptive Algorithms for Optimization Problems in Large Networks". Started October 2016.

PhD in progress: Finn Volkel (advised by Michel Habib). Title of Thesis: "Convexity in graphs", started september 2016.

PhD in progress: Léo Planche (co-advised by Étienne Birmelé and Fabien de Montgolfier). Title if thesis is : "Classification de collections de graphes". Started October 2015.

PhD in progress: Alkida Balliu and Dennis Olivetti (PhD students from L'Aquila University and Gran Sasso Science Institute) are supervised by Pierre Fraigniaud.

PhD in progress: Lucas Hosseini (co-advised by Pierre Charbit, Patrice Ossona de Mendez and Jaroslav Nešetřil since Sept. 2014. Title : Limits of Structures.

9.2.3. Juries

Laurent Viennot was president of the jury in the PhD defense of Claudio Imbrenda on "Analysing Traffic Cacheability in the Access Network at Line Rate" at Telecom ParisTech (November 2016).

Michel Habib was reviewer for the PhD thesis of Matteo Seminaroti, "Combinatorial Algorithms for the seriation problem", Tilburg University, Holland, december 2016.

Laurent Viennot was reviewer for the PhD thesis of Guillaume Ducoffe on "Propriétés métriques des grands graphes" at Côte d'Azur Univ. (December 2016).

Laurent Viennot was co-advisor for the PhD thesis of Leonardo Linguaglossa on "Two challenges of Software Networking: Name-based Forwarding and Table Verification" at Paris Diderot Univ. (September 2016).

Carole Delporte was reviewer for the PhD thesis of Claire Capdevielle on "Étude de la complexité des implémentations d'objets concurrents et sans attente, abandonnables ou solo-rapides" at Bordeaux Univ (November 2016).

9.3. Popularization

- Laurent Viennot is "commissaire d'exposition" for the permanent exposition on "Informatique et sciences du numérique" at Palais de la découverte in Paris (opening in October 2017).
- An article centered around the eLife 2016 paper "A locally-blazed ant trail achieves efficient collective navigation despite limited information" [14], whose co-authors include Amos Korman (co-corresponding author), Lucas Boczkowski, and Adrian Kosowski, appeared on the Israeli daily newspaper "Haaretz", Dec 2016.
- The team has made contributions to the Encyclopedia of Algorithms [44], [41].

INFINE Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific Events Organisation

9.1.1.1. General Chair, Scientific Chair

- In 2016, Emmanuel Baccelli was general chair of the RIOT Summit.

9.1.1.2. Member of the Organizing Committees

- In 2016, Aline Viana was on the conference program committee for IEEE International Conference on Advanced Information Networking and Applications (IEEE AINA-2017).
- In 2016, Emmanuel Baccelli was in the conference programm committee of the ACM Mobile-Health'16.

9.1.2. Scientific Events Selection

9.1.2.1. Reviewer

- In 2016, Cédric Adjih was reviewer for WINCOM'16, and Globecom 2016.

9.1.3. Journal

9.1.3.1. Member of the Editorial Boards

- In 2016, Aline Viana was Associate Editor of ACM Computer Communication Review (ACM CCR) and Editorial Board member of "Wireless Communications and Mobile Computing Open Access Journal" of John Wiley&Sons and Hindawi.

9.1.3.2. Reviewer - Reviewing Activities

- In 2016, Aline Viana was reviewer for IEEE Transaction on Mobile Computing (TMC), Elsevier Pervasive and Mobile Computing, Elsevier AdHoc Networks, Elsevier Computer Networks.
- In 2016, Emmanuel Baccelli was member of the IETF Routing Directorate, and as such was reviewing RFCs in the making.

9.1.4. Invited Talks

- In 2016, Emmanuel Baccelli gave a number of invited talks on the topic of RIOT, including at the IoT Meetup (April 2016 in Athens, Greece), at the RIOT Summit (July 2016 in Berlin, Germany), at TelecomParisTech for ICSSEA'16 (June 2016, Paris, France), at EclipseCon'16 (October 2016 in Ludwigsburg, Germany), at Fraunhofer FOKUS for ASQF Day (December 2016 in Berlin, Germany)
- In 2016, Cédric Adjih gave a talk on RIOT at IFSSTAR (November 2016 in paris, France).
- In 2016, we also gave several invited talks at: Stochastic Networks Conference, UCSD; CIRM workshop on random matrices; Institut Henri Poincaré's "Nexus" of Information and Computation Theories; EPFL workshop for birthdays of Shannon, Urbanke and Telatar (see: <http://www.etr50.com/invited-speakers/>) ; LINCSC scientific advisory board.

9.1.5. Scientific Expertise

- In 2016, Cédric Adjih served as a expert reviewer for one ANR call for proposals.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

- **Masters**
- Engineering school, third year students at Ecole Polytechnique: Laurent Massoulié taught a course on “Networks: distributed control and emerging phenomena”.
- Course for Corps des Mines: Emmanuel Baccelli gave a half day course on “Communication Protocols and Operating Systems for the Internet of Things” in the context of the formation PESTO.
- Engineering school, third year students at Telecom ParisTech: Aline Carneiro Viana taught an 1 hour lesson on “Wireless Network” course.
- Engineering school, third year students at Telecom SudParis: Aline Carneiro Viana taught an 6 hour lessons on “Wireless Network” course.

9.2.2. Supervision

- Laurent Massoulié currently advises 2 PhD students: Lennart Gulikers and Remi Varloot.
- Cedric Adjih currently advises Fatma Somaa, on “handling mobility in routing in wireless sensor networks”, thesis started in 2013 and co-advised with Inès El Korbi (Institut Supérieur d’Informatique et de Gestion de Kairouan, Tunisie).
- Emmanuel Baccelli and Cédric Adjih are advising: Loïc Dauphin on “Robotics meets the Internet of Things”, (June 2016-).
- Aline Viana currently advises 2 PhD students: Roni Shigueta, on “Resource allocation in highly mobile wireless networks” (January 2012-2017). Guangshuo Chen, on “Understanding and predicting human demanded content and mobility” (September 2014-).
- PhD completed: Felipe Domingos on “identifying social attributes in VANETs” (January 2013-June 2016). Advisor: Aline Carneiro Viana.
- PhD completed: Oliver Hahm, “Enabling Energy Efficient Smart Object Networking at Internet-Scale”, 2012-2016. Advisor: Emmanuel Baccelli.

9.2.3. Juries

- Laurent Massoulié was on the PhD jury as reviewer for the PhD theses of Anna Benhamou and Alaa Saade, and he presided the PhD thesis committee of Kevin Scaman.
- Aline Viana was on the PhD jury as reviewer of Wenjing Shuai, “Management of electric vehicle systems with self-interested actors” Telecom Bretagne, September 2016.
- Aline Viana was on the PhD jury as examiner of Mouna Rekik, “Protocols for Smart Grids”, Université de Lille, France July 2016.
- Aline Viana was on the Master jury of Fausto Silva Moraes “Explorando Interações em Redes Sociais Online, Comunicação D2D e Estratégias de Cache para Uso Eficiente de Recursos em Redes Celulares”, Brazil November 2016.
- Emmanuel Baccelli was on the PhD jury of Francisco Acosta, “Self-adaptation for Internet of Things applications”, Université de Rennes 1, Dec. 2016.
- Emmanuel Baccelli was on the PhD jury of Kevin Roussel, “Évaluation et amélioration des plateformes logicielles pour réseaux de capteurs sans-fil, pour optimiser la qualité de service et l’énergie.” Université de Lorraine, June 2016.

9.3. Popularization

- Publication of “RIOT, le Systeme d’Exploitation pour l’Internet des Objets” in the magazine Open Silicium, Mars 2016. Co-authors: Alexandre Abadie, Cedric Adjih, Emmanuel Baccelli, Francisco Acosta, Hauke Petersen.
- Francisco Padilla and Loïc Dauphin participated to the “Fête de la Science 2016”.

MADYNES Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific Events Organisation

9.1.1.1. Member of the Organizing Committees

Rémi Badonnel was member of the organizing committee for the following conferences: IEEE International Conference on Network Softwarization (IEEE NetSoft 2016), IEEE/IFIP/In Assoc. with ACM SIGCOMM International Conference on Network and Service Management (IEEE/IFIP/In Assoc. with ACM SIGCOMM CNSM 2016), IEEE/IFIP International Symposium on Integrated Network Management (IEEE/IFIP IM 2017).

9.1.2. Scientific Events Selection

9.1.2.1. Chair of Conference Program Committees

Rémi Badonnel was TPC co-chair for the following conferences: the Experience Track of the IFIP/IEEE Network Operations and Management Symposium (IFIP/IEEE NOMS 2016), IFIP/IEEE International Workshop of Management of the Future Internet (IFIP/IEEE ManFI 2016), IFIP International Conference on Autonomous Infrastructure, Management and Security (IFIP AIMS 2016).

Isabelle Chrisment was TPC co-chair of the first IFIP Internet of People Workshop co-located with IFIP Networking 2016. She was member of the steering committee for RESSI'16 (Rendez-vous de la Recherche et de l'Enseignement de la Sécurité des Systèmes d'Information).

Olivier Festor was TPC co-chair of ACM/IEEE/IFIP Conference on Network and Service Management (CNSM) 2016. He is also member of the steering committee (NISC) that coordinates the main conferences in network and service management (IM, NOMS, CNSM and AIMS). He was also Tutorial chair of IEEE Netsoft 2016 and workshop co-chair at IEEE/IFIP NOMS'2016.

9.1.2.2. Member of the Conference Program Committees

Rémi Badonnel: IFIP International Conference on Autonomous Infrastructure, Management and Security (IFIP AIMS 2016) ; IFIP/IEEE International Conference on Network and Service Management (IFIP/IEEE CNSM 2016) ; IEEE Global Information Infrastructure and Networking Symposium (IEEE GIIS 2016) ; IEEE Global Communications Conference (IEEE GLOBECOM - SAC 2016) ; IFIP/IEEE International Symposium on Integrated Network Management (IFIP/IEEE IM 2017).

Thibault Cholez: 2nd IEEE International Workshop on Security Testing and Monitoring (STAM 2016, IEEE ICDCS Workshop)

Isabelle Chrisment: IFIP International Conference on Autonomous Infrastructures, Management and Security (IFIP AIMS'16) ; Rencontres Francophones sur la Conception de Protocoles, l'évaluation de Performance et l'Expérimentation Aspects Algorithmiques de Télécommunications (CoResl'16) ; IEEE/IFIP International Workshop on Analytics for Network and Service Management (AnNet 2016) ; IEEE/IFIP International Symposium on Network Operations and Management (IEEE/IFIP NOMS'16).

Oliver Festor: IFIP/IEEE International Symposium on Integrated Network Management (IFIP/IEEE IM'2017) ; IEEE/IFIP Network Operations and Management Symposium 2016 ; IEEE Netsoft 2016 ; IEEE Asia Pacific NOMS'2016.

Jérôme François: IFIP International Conference on Autonomous Infrastructure, Management and Security (IFIP AIMS 2016) ; IEEE Global Information Infrastructure and Networking Symposium (IEEE GIIS 2016) ; Principles, Systems and Applications of IP Telecommunications (IPTComm'16) ; IFIP/IEEE International Workshop on Management of SDN and NFV Systems (IFIP/IEEE ManSDN 2016) ; Asia-Pacific Network Operations and Management Symposium (APNOMS 2016); IFIP/IEEE International Symposium on Integrated Network Management (IFIP/IEEE IM 2017).

Abdelkader Lahmadi: IFIP International Conference on Autonomous Infrastructure, Management and Security (IFIP AIMS 2016), PhD workshop ; Asia-Pacific Network Operations and Management Symposium (APNOMS 2016); IFIP/IEEE International Symposium on Integrated Network Management (IFIP/IEEE IM 2017); IEEE/IFIP International Workshop on Management of the Future Internet (ManFI 2016, held as part of IEEE/IFIP NOMS 2016); IEEE Conference on Network Softwarization (IEEE NetSoft 2016).

Ye-Qiong Song: IEEE International Workshop on Factory Communication Systems (WFCS 2016); IEEE International Conference on Communications and Networking (ComNet 2016) ; IEEE International Conference on Emerging Technologies and Factory Automation (ETFAs 2016) ; 24th International Conference on Real-Time Networks and Systems (RTNS 2016) ; IEEE International conference on Telecommunications (ICT-2016) ; IFIP Wireless and Mobile Networking Conference (WMNC 2016).

Laurent Ciarletta: International Program Committee, IEEE CSS / RAS International Conference on Unmanned Aircraft Systems ICUAS 2016.

9.1.3. Journal

9.1.3.1. Member of the Editorial Boards

Rémi Badonnel is Associate Editor for the Wiley International Journal of Network Management (IJNM).

Olivier Festor is an associate editor of IEEE Transactions on Networks and Systems Management (TNSM).

Ye-Qiong Song is an Associate Editor for the Elsevier Computers and Electrical Engineering journal, and for the Journal of Multimedia Information System.

9.1.3.2. Reviewer - Reviewing Activities

The following reviews for journals has been made by team members:

Rémi Badonnel: IEEE Transactions on Network and Service Management (IEEE TNSM), Springer Journal of the Network and Systems Management (JNSM), Wiley International Journal of Network Management (IJNM), IEEE Communications Magazine (COMMAG).

Thibault Cholez: Journal of Communications and Networks, Elsevier Computer Networks, IEEE Transactions on Network and Service Management, Elsevier Computers & Security, IEEE Global Communications Conference, IFIP/IEEE International Symposium on Integrated Network Management

Isabelle Chrisment: IEEE Transactions on Network and Service Management (IEEE TNSM), IEEE Communications Magazine (COMMAG), Wiley Security and Communication Networks (SCN).

Jérôme François: IEEE Transactions on Network and Service Management (IEEE TNSM), Springer Journal of Network and Systems Management, Elsevier Computer Networks Journal

Abdelkader Lahmadi: IEEE Transactions on Network and Service Management (IEEE TNSM); IEEE Communications Magazine (COMMAG); Springer Journal of Network and Systems Management (JNSM); Elsevier Journal of Computer Communications (COMCOM); Elsevier Journal of Engineering Applications of Artificial Intelligence (EAAI).

Ye-Qiong Song: Elsevier Computers and Electrical Engineering journal, Elsevier Ad hoc network journal, Journal of Real-time systems (Springer), IEEE Transactions on Industrial Informatics.

9.1.4. Invited Talks

Thibault Cholez:

- RESSI 2016, Toulouse: "Efficiently Bypassing SNI-based HTTPS Filtering"
- IRTF ICNRG, Paris: "Challenges and directions for the security management of ICN services"

Isabelle Chrisment:

- US-EU Workshop on the Next Generation Internet of Things, March 30-April, 2016, USC, Los Angeles, USA. "Security and Monitoring of (Every)Things"

Jérôme François:

- IRTF NMLRG (IETF 95), Buenos Aires, Argentina: "HTTPS Traffic Classification"
- IRTF NMLRG (colocated with EuCNC), Athens, Greece, " NML in Inria High Security Lab: overview and datasets"
- IRTF NMLRG (IETF 96), Berlin, Germany: "Malicious Domains: Automatic Detection with DNS Traffic Analysis"

Abdelkader Lahmadi:

- i-NOVIA (Salon of Nouvelle Technologies), Strasbourg, "Cybersecurity: monitoring and defense", 5 October 2016

9.1.5. Scientific Expertise

Laurent Ciarletta serves as expert for the 2016 ANR Generic call.

Jérôme François serves as reviewer for ANRT to evaluate a CIFRE PhD proposition

Ye-Qiong Song serves as reviewer for ANRT to evaluate a CIFRE PhD proposition.

Ye-Qiong Song serves as expert for "Fonds de recherche nature et technologies, Quebec".

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Rémi Badonnel is heading the Telecommunications, Networks and Services specialization of the 2nd and 3rd years at the TELECOM Nancy engineering school, and is coordinating the Security Pathway Program at the same school, elaborated in the context of the International Master of Science in Security of Computer Systems built with the Mines Nancy and ENSEM engineering schools.

Laurent Ciarletta is co-heading the specialization Safe Systems Architecture of the Computer Science and IT department of the Ecole des Mines de Nancy ("Grande Ecole", Engineering School, Master degree level).

Olivier Festor is the Director of the TELECOM Nancy Engineering School.

Team members are teaching the following courses:

Rémi Badonnel 242 hours - L3, M1, M2 - Networks, Systems and Services, Software Design and Programming, Cloud Computing, Network and Security Management - TELECOM Nancy, Université de Lorraine

Thibault Cholez 300 hours - L3, M1, M2 - Techniques and Tools for Programming, Computer Networks, Object-Oriented Programming, C and Shell Programming, Network Services, Constraint development on small Connected Objects, Mobile applications and Internet of Things - TELECOM Nancy, Université de Lorraine

Isabelle Chrisment 220 hours -L3, M1, M2 -C and Shell Programming, Computer Networking, Operating Systems, Network Security. - TELECOM Nancy, Université de Lorraine

Laurent Ciarletta 250 hours - M1, M2 - Networks and Services, Interactive Computing, Pervasive Computing, Software Design and Programming, ARTEM - Mines Nancy - Ecole Nationale Supérieure des Mines de Nancy - Engineering school, Université de Lorraine, France

Jérôme François 70 hours - M1, M2 -Network security, Big Data - TELECOM Nancy, Université de Lorraine

Abdelkader Lahmadi 280 hours - L1, M1, M2 and Master Degree in Computer Science - Algorithms and Java programming, C language programming, Distributed algorithms, Sensor networks programming -ENSEM Engineering school, Université de Lorraine, France.

Ye-Qiong Song 230 hours - L1, M1, M2 Engineering degree and Master Degree in Computer Science - Algorithms and Java programming, Databases, Networking, Sensor networks - ENSEM - Engineering school, Université de Lorraine, France.

9.2.2. Supervision

9.2.2.1. PhD in progress in team

Elian Aubry, *Using Software Defined Network to manage Content Centric Networks*, since October 2013, supervised by Isabelle Chrisment & Thomas Silverston.

Pierre-Olivier Brissaud, *Anomaly detection in encrypted traffic*, since July 2016, supervised by Isabelle Chrisment, Jérôme François & Olivier Bettan (Thales)

Paul Chaignon, *Monitoring of SDN networks*, since July 2016, supervised by Olivier Festor, Jérôme François & Kahina Lazri (Orange Labs)

Maxime Compastie, *Software-Defined Security for the Cloud*, since Dec 2015, supervised by Olivier Festor & Rémi Badonnel.

Giulia De Santis, *Modelling and Analysis of Complex and Targeted Cyberattacks*, since October 2015, Olivier Festor & Abdelkader Lahmadi.

Meihui Gao, *Optimization models and methods for Network Functions Virtualization architectures*, since Nov 2015, supervised by Ye-Qiong Song & Bernardetta Addis.

Florian Greff, *QoS and fault-tolerance of distributed real-time systems over mesh networks*, since Feb. 2015, supervised by Ye-Qiong Song & Laurent Ciarletta.

Julien Vaubourg, *IP network models and simulators integration with DEVS for co-simulation of CPS*, since Oct. 2013, supervised by Vincent Chevrier & Laurent Ciarletta.

Thomas Paris, *Complex systems modeling using composition*, since Oct. 2015, supervised by Vincent Chevrier & Laurent Ciarletta.

Petro Aksonenko, *Optimized method of Calibration, Aligement and Advanced Attitude Algorithms for Strapdown Inertial Navigation Systems*, since Oct. 2016, supervised by Patrick Henaff, Anton Popov (KPI University) & Laurent Ciarletta

Patrick-Olivier Kamgue, *Routing management in WSNs*, since Jun 2012, supervised by Emmanuel Nataf & Olivier Festor in France, Thomas Djotio in Cameroun.

Daishi Kondo, *New Networking Architecture through Virtualization*, since September 2015, supervised with Olivier Perrin (EPI COAST) & Thomas Silverston.

Xavier Marchal, *Secure operation of virtualized Named Data Networks traffic*, since December 2015, supervised by Olivier Festor & Thibault Cholez.

Abdulqawi Saif, *Open Science for the scalability of a new generation search technology*, since December 2015, supervised by Ye-Qiong Song & Lucas Nussbaum.

Evangelia Tsiontsiou, *Multiconstrained QoS routing for wireless sensors networks with applications to smart space for ambient assisted living*, since Oct 2013, supervised by Ye-Qiong Song & Bernardetta Addis.

Shbair Wazen, *Service-level Monitoring of HTTPS*, since December 2013, supervised by Isabelle Chrisment & Thibault Cholez.

Nicolas Schnepf, *Orchestration and Verification of Security Functions for Smart Environments*, since October 2016, supervised by Stephan Merz, Rémi Badonnel & Abdelkader Lahmadi.

9.2.2.2. PhD defended in team

- [1] Tomasz Buchert, *Managing large-scale, distributed systems research experiments with control-flows*, Université de Lorraine, January 2016, supervised by Jens Gustedt & Lucas Nussbaum.
- Anthea Mayzaud, *Monitoring and Security for the Internet of Things*⁰, Université de Lorraine, October 2016, supervised by Isabelle Chrisment & Rémi Badonnel.
- Kévin Roussel, *Dynamic management of QoS and energy in heterogeneous sensor networks for e-health applications*⁰, June 2016, supervised by Ye-Qiong Song & Olivier Zendra.

⁰registration not fully completed

⁰<http://www.theses.fr/2016LORR0051>

9.2.3. Juries

Team members participated to the following Ph.D. defense committees in Computer Science if no other indication:

- Femke De Backere, in Computer Science from Ghent University, Belgium. Title: Design and Management of Pervasive eCare Services, June 2016 – (Rémi Badonnel as reviewer).
- Pasquale Puzio, PhD in Computer Science from TELECOM ParisTech, Sophia Antipolis, France. Title: Deduplication of Encrypted Data in Cloud Computing, February 2016 – (Isabelle Chrisment as examiner).
- Ziad Ismail, PhD in Computer Science from TELECOM ParisTech, Paris, France. Title: Optimal Defense Strategies to Improve the Security and Resilience of Smart Grids, April 2016 – (Isabelle Chrisment as reviewer).
- Erwan Godefroy, PhD in Computer Science from CentraleSupélec, Rennes, France. Title: *Définition et évaluation d'un mécanisme de génération de règles de corrélation liées à l'environnement*, September 2016 – (Isabelle Chrisment as president).
- Hiep Huu Nguyen, PhD in Computer Science from Université de Lorraine, Nancy, France. Title: Social Graph Anonymization, November 2016 – (Isabelle Chrisment as president).
- Chakadkit Thaenchaikun, PhD in Computer Science from Université de Toulouse, France. Title: Economie d'énergie en réseau filaire: Ingénierie de trafic et mise en veille, November 2016 – (Isabelle Chrisment as reviewer).
- Kim Thuat Nguyen, PhD in Computer Science from Télécom SudParis, France. Title: Protocoles de sécurité efficaces pour les réseaux de capteurs IP sans-fil et l'Internet des Objets, December 2016 – (Isabelle Chrisment as reviewer).
- Mohamed Sabt, PhD in Computer Science from Université de Technologie de Compiègne, France. Title: Outsmarting Smartphones - Trust based on Provable Security and Hardware Primitives in Smartphones Architectures, December 2016 – (Isabelle Chrisment as examiner).
- Michal Krol, PhD. in Computer Science from University of Grenoble, France. Title: Routing in wireless sensor networks, March 2016 – (Olivier Festor as reviewer).
- Marc Bruyère, PhD. in Computer Science from University of Toulouse 3 - Paul Sabatier, France. Title: An outright open source approach for simple and pragmatic Internet eXchange, July 2016 – (Olivier Festor as reviewer).
- Ahmed Bouchami, PhD. in Computer Science from Université de Lorraine. Title: Sécurité des ressources collaboratives dans les réseaux sociaux d'entreprise, July 2016. – (Olivier Festor as President).
- Benjamin Baron, PhD. in Computer Science from Pierre et Marie Curie Paris VI - Sorbonne Universités, France. Title: *Transport intermodale données massives pour le délestage des réseaux d'infrastructure*, October 2016 – (Olivier Festor as examiner).
- Messaoud Aouadj, PhD. in Computer Science from University of Toulouse 3 - Paul Sabatier, France. Title: *AirNet: le modèle de virtualisation Edge-Fabric comme plan de contrôle pour les réseaux programmables*, November 2016. – (Olivier Festor as reviewer).
- Tiphaine Viard, PhD. in Computer Science from Pierre et Marie Curie - Sorbonne Universités, France. Title: *Flots de liens pour la modélisation d'interactions temporelles et application à l'analyse de trafic IP*, September 2016 – (Olivier Festor as reviewer).
- Christoph Neumann, HDR in Computer Science from University of Rennes 1, France. Title: Contributions to Content Placement, Load-balancing and Caching: System Design and Security, November – 2016 (Olivier Festor as reviewer).
- Nadjib Ait Saadi, HDR in Computer Science from University Paris Est Créteil, France. Title: From Sensors to Data Centers: Optimization of Deployment, Resource Allocation and Reliability, July 2016 – (Olivier Festor as President).

- Promethee Spathis, HDR in Computer Science from Pierre et Marie Curie - Sorbonne Universités, France. Title: Information Delivery Past Struggles and New Directions, December 2016 – (Olivier Festor as reviewer).
- Hassan Said MOUSTAFA HARB, PhD. Université de Franche-Comté, France. Title: Energy Efficient Data Handling and Coverage for Wireless Sensor Networks, July 2016 – (Ye-Qiong Song as examiner).
- d'Abderrahmen Belfkih, PhD. Université du Havre, Title Contraintes temporelles dans les bases de données de capteurs sans fil, October 2016 – (Ye-Qiong Song as reviewer).
- Kawther Hassine, Ph.D. in ICT from Université de Carthage - SUPCOM Tunis. Title: Performance study of future wireless networks IEEE802.11 xy, December 2016 – (Ye-Qiong Song as reviewer).
- Lemia Louail, PhD. Université de Franche-Comté, Title: Approches cross-layer pour l'optimisation de la latence des communications dans les réseaux de capteurs sans fil, December 2016 – (Ye-Qiong Song as reviewer).
- Ahlem Mifdaoui, HDR. Université de Toulouse, Title: Contributions to Performance Analysis of Networked Cyber-Physical Systems, December 2016 – (Ye-Qiong Song as reviewer).

MAESTRO Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events Organisation

10.1.1.1. General Chair, Scientific Chair

- S. Alouf and A. Jean-Marie are the general chairs of the 13th SIGMETRICS/PERFORMANCE Joint International Conference on Measurement and Modeling of Computer Systems (ACM SIGMETRICS/IFIP PERFORMANCE 2016, Antibes Juan-les-Pins, France).

10.1.1.2. Member of the Organizing Committees

- A. Kadavankandy, J. Kazhuthuveetil Sreedharan, H. Mykhailenko, D. Politaki, and D. Tsigkari, were in the local organization committee of the 13th SIGMETRICS/PERFORMANCE Joint International Conference on Measurement and Modeling of Computer Systems (ACM SIGMETRICS/IFIP PERFORMANCE 2016, Antibes Juan-les-Pins, France).
- A. Kadavankandy, H. Mykhailenko, D. Politaki, D. Tsigkari, and A. Tuholukova were volunteer students at the 13th SIGMETRICS/PERFORMANCE Joint International Conference on Measurement and Modeling of Computer Systems (ACM SIGMETRICS/IFIP PERFORMANCE 2016, Antibes Juan-les-Pins, France).
- D. Politaki was a volunteer student at the Journées Cloud 2016, Nice, France.
- D. Politaki and E. Vatamidou are members of the organizing committee of the workshop “Monde des mathématiques industrielles (MOMI)”, to be held on 27-28 February 2017 at Inria, Sophia Antipolis. Additional information:
- L. Vermeersch was the local organization chair of the 13th SIGMETRICS/PERFORMANCE Joint International Conference on Measurement and Modeling of Computer Systems (ACM SIGMETRICS/IFIP PERFORMANCE 2016, Antibes Juan-les-Pins, France).

10.1.1.3. Member of Conference Steering Committees

- E. Altman chairs the Steering Committee of the Intl. Conference on NETWORK Games, CONTROL and OPTimization (this year: NETGCOOP 2016, Avignon, France).

10.1.2. Scientific Events Selection

10.1.2.1. Member of the Conference Program Committees

- 13th European Workshop on Performance Engineering (EPEW 2016, Chios, Greece) (**A. Jean-Marie**);
- IEEE Intl. Conference on Computer Communications (INFOCOM 2017, Atlanta, GA, USA) (**G. Neglia**);
- Intl. Conference on NETWORK Games, CONTROL and OPTimization (NETGCOOP 2016, Avignon, France) (**K. Avrachenkov**);
- 16th Intl. Conference on Next Generation Wired/Wireless Networking (NEW2AN 2016, St. Petersburg, Russia) (**K. Avrachenkov**);
- 10th Intl. Conference on Performance Evaluation Methodologies and Tools (VALUETOOLS 2016, Taormina, Italy) (**K. Avrachenkov**);
- 31st Intl. Symposium on Computer and Information Sciences (ISCIS 2016, Krakow, Poland) (**A. Jean-Marie**);

- 17th Intl. Symposium of Dynamic Games and Applications (ISDG 2016, Urbino, Italy) (**E. Altman**);
- Intl. Workshop on Bio-inspired Security, Trust, Assurance and Resilience (BioSTAR 2016, Fairmont, San Jose, CA, USA) (**E. Altman**);
- 9th Intl. Workshop on Multiple Access Communications (MACOM 2016, Aalborg, Denmark) (**K. Avrachenkov**);
- 5th International Conference on Computational Social Networks (CSoNet 2016, Ho Chi Minh City, Vietnam) (**K. Avrachenkov**);
- 1st Mini-Symposium on Stochastic Models: Methods and Applications (SAMMA 2016, Rhodes, Greece) (**E. Vatamidou**);
- 13th Workshop on Algorithms and Models for the Web Graph (WAW 2016, Montreal, Canada) (**K. Avrachenkov**).

10.1.2.2. Session organizer

- Session on Stochastic Modeling at the 17th Conference of the Société Française de Recherche Opérationnelle et d'Aide à la Décision (ROADEF 2016, Compiègne, France) (**A. Jean-Marie**).

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

- *ACM Transactions on Modeling and Performance Evaluation of Computing Systems* (TomPECS) (**K. Avrachenkov** since 2015).
- *Dynamic Games and Applications* (DGAA) (**E. Altman** since 2011);
- *Elsevier Computer Communications* (COMCOM) (**G. Neglia** since 2014);
- *IEEE/ACM Transactions on Networking* (ToN) (**E. Altman** since 2013);
- AIMS (American Institute of Mathematical Sciences) *Journal of Dynamics and Games* (JDG) (**E. Altman** since 2015);
- *Performance Evaluation* (PEVA) (**K. Avrachenkov** since 2008);
- *Wiley Transactions on Emerging Telecommunications Technologies* (ETT) (**S. Alouf** since July 2016).

10.1.3.2. Member of Advisory Boards

- E. Altman is Member of the advisory board of the international journal *IRAN Journal of Computer Science* published by University of Tabriz. Since 2016.

10.1.4. Invited Talks

MAESTRO members gave the following keynote lectures/plenary speeches (in alphabetical order):

- Eitan Altman gave a keynote talk at *The International Symposium on Ubiquitous Networking, UNet 2016*, Casablanca, May 30 – June 1st, 2016. Title: Game theory applied to SIS Epidemics in Networks.
- Eitan Altman gave a keynote lecture at *ITC 28* in Würzburg on 15 September 2015. Title: Dynamic Games for Analyzing Competition in the Internet.
- Alain Jean-Marie gave a keynote lecture at the *11th Workshop on Retrial Queues (WRQ11)*, in Amsterdam, 31 August – 2 September, 2016. Title: Impatient Customers and Optimal Control.

and the following invited talks (in alphabetical order):

- *Access-time aware cache algorithms*, at UCN'16 Workshop on Future challenges in User-Centric Networks, Antibes Juan-les-Pins, France, 14 June a workshop of ACM Sigmetrics / IFIP Performance 2016 (**G. Neglia**);
- *Distributed spectral decomposition and quantum random walk*, at Workshop on critical and collective effects in graphs and networks, MIPT, Moscow, April 2016 (**K. Avrachenkov**);
- *Distributed spectral decomposition and quantum random walk*, at the 20th Conference of the International Linear Algebra Society (ILAS), Leuven, Belgium, July 2016 (**K. Avrachenkov**);
- *Overview and comparison of random walk based techniques for estimating network averages*, at COSTNET Conference, Ribno, Slovenia, September 2016 (**K. Avrachenkov**);
- *Hitting Times in Markov Chains with Restart and their Applications to Ranking*, at Workshop dedicated to W. Stadje, Osnabruck, Germany, October 2016 (**K. Avrachenkov**).

10.1.5. Leadership within the Scientific Community

- E. Altman is a fellow member of IEEE (Class of 2010).
- E. Altman, A. Jean-Marie and P. Nain are (elected) members of IFIP WG7.3 on "Computer System Modeling". E. Altman is also Member of WG 6.3 of IFIP on Performance of Communication Systems.

10.1.6. Research Administration

E. Altman

- is co-responsible of one of the five themes of the SFR (Structure Fédérative de Recherche) AGORANTIC (in which Inria is a founding member) entitled "Digital Culture and Virtual Societies".

S. Alouf

- was member of the recruitment committee for junior Inria researchers (CR1, CR2);
- is member of the scientific committee of the joint laboratory Inria-Alstom since May 2014.

K. Avrachenkov

- together with Arnaud Legout (DIANA team) and Fabien Gandon (WIMMICS team) is co-responsible of the multi-disciplinary research theme (Action Transversale) "Semantic and Complex Networks" at Inria Sophia Antipolis - Méditerranée.

A. Jean-Marie

- is the scientific coordinator of Inria activities in Montpellier (since 2008); as part of this duty, he represents Inria at the Scientific Council of the Doctoral School "Sciences and Agrosiences" of the Univ. of Avignon, at the Regional Conference of Research Organisms (CODOR);
- is a member of the Steering Committee of the GDR RO, a national research initiative on Operations Research sponsored by the CNRS;
- is Head of project-team MAESTRO since October 2014;

G. Neglia

- is the scientific delegate for European partnerships for Inria Sophia Antipolis – Méditerranée since 2014;
- is member of the Inria COST GTRI (International Relations Working Group of Inria's Scientific and Technological Orientation Council since 2016).

MAESTRO members are in the following committees of Inria Sophia Antipolis-Méditerranée

- CLFP: Training Committee (**S. Alouf**, since November 2014);
- CSD: Doctoral Committee (**S. Alouf**, since February 2006);
- MASTIC: a commission in charge of popularization and regional and internal scientific animation (**D. Politaki**, since July 2016);
- NICE: Invited Researchers Committee (**K. Avrachenkov**, since 2010).

MAESTRO members are in charge of the following tasks for the research center and the project-team:

- Supervision and validation of the project-teams' yearly activity reports (**K. Avrachenkov**, since 2010);
- Organizing the fortnightly PhD seminars of the research center (**D. Politaki**, since November 2016);
- Organizing the fortnightly MAESTRO internal meetings (**J. K. Sreedharan**, since November 2013).

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Licence:

G. Neglia, "Probability", 50.5H, 1st year Water Engineering degree (L3), niv. of Nice Sophia Antipolis (UNS), France.

D. Politaki, "Intro Web", 36H, (L1), UNS, France.

Master:

S. Alouf, "Performance Evaluation of Networks", 31.5H, M2 IFI Ubinet, UNS, France.

A. Jean-Marie, "Foundations of Network Modeling", 12H, MPRI, Univ. Paris Diderot/ENS Ulm/Univ. Paris Saclay, France.

G. Neglia, "Distributed Optimization and Games", 31.5H, M2 IFI Ubinet, UNS, France.

G. Neglia, responsible for the "Winter School on Complex Networks", 22.5H, M1 Computer Science, UNS, France.

K. Avrachenkov, "Random-walk based algorithms for complex network analysis" at "Winter School on Complex Networks", 2H, M1 Computer Science, UNS, France.

10.2.2. Supervision

- PhD defended:
 - Alexandre Reiffers-Masson, "Competition over visibility and popularity in on line social networks", UAPV, 12 January 2016, advisors: Eitan Altman and Yezekael Hayel.
 - Jithin Kazhuthuveetil Sreedharan, "Sampling and Inference in Complex Networks", Univ. Côte d'Azur, 2 December 2016, advisor: Konstantin Avrachenkov.
 - Nessrine Trabelsi, "A Generic Framework for User Association and Interference Management in LTE Cellular Networks", UAPV, 20 December 2016, advisors: Eitan Altman and Rachid El Azouzi.
- PhD in progress:
 - Zaid Allybokus, 1 July 2016, advisors: Konstantin Avrachenkov and Lorenzo Maggi (Huawei).
 - Arun Kadavankandy, "Random Matrix Theory and Complex Networks," 5 March 2014, advisors: Konstantin Avrachenkov and Laura Cottatellucci (Eurecom).
 - Hlib Mykhailenko, "Probabilistic approaches for big data analysis," 1 May 2014, advisors: Fabrice Huet (SCALE team) and Philippe Nain.
 - Dimitra Politaki, "Greening data center," 1 February 2016, advisors: Sara Alouf and Fabien Hermenier (UNS).
 - Alina Tuholukova, "Caching at the Edge: Distributed Phy-aware Caching Policies for 5G Cellular Networks," 1 July 2016, advisors: Petros Elia (Eurecom) and Giovanni Neglia.

10.2.3. Juries

MAESTRO members participated in the Habilitation (HDR) thesis committees of (in alphabetical order):

- Patrick Loiseau, "Game theory and statistical learning in security, privacy and networks", Univ. Pierre et Marie Curie (Paris), 8 December 2016 (**E. Altman** as reviewer and jury president);

and in the Ph.D. committees of (in alphabetical order):

- Alexandre Reiffers-Masson, “Competition over visibility and popularity in on line social networks”, UAPV, 12 January 2016 (**E. Altman** as advisor);
- Nesrine Ben Khalifa, “Evolutionary games with non-uniform interactions and delays”, UAPV, 16 December 2016 (**E. Altman** as examiner).
- Mikael Touati, “Cooperative Game Theory and Stable Matchings in Networks”, Telecom ParisTech, 1st December 2016 (**E. Altman** as advisor);
- Jithin Kazhuthuveetil Sreedharan, “Sampling and Inference in Complex Networks”, Univ. Côte d’Azur, 2 December 2016 (**K. Avrachenkov** as advisor, **A. Jean-Marie** as jury president);
- Nessrine Trabelsi, “A Generic Framework for User Association and Interference Management in LTE Cellular Networks”, UAPV, 20 December 2016 (**E. Altman** as advisor);
- Osti Prajwal, “Resource allocation in wireless access network: A queueing theoretic approach”, Aalto Univ., Helsinki, Finland, 11 August 2016 (**K. Avrachenkov** as opponent).

10.3. Popularization

Activities are presented in chronological order:

- S. Alouf delivered a conference titled “Comment marche le Web ?” at Lycée Pierre et Marie Curie, Menton, for one classe of high school students (25 November 2016).
- D. Politaki participated to the “Fête de la science” at the Campus Valrose, Nice (13 October 2016) and at the Congress Center, Antibes Juan-les-Pins (22 October 2016). She animated the game “Datagramme” and the programming of Thymio.
- D. Politaki managed two sessions MEDITES in two middle schools (22 November 2016).
- D. Politaki participated to the Thymio competition (26 November 2016) which was organized by Hackathon Women Creativity 2016 in Nice.

D. Politaki is a member of MASTIC, a commission in charge of popularization and regional and internal scientific animation (since July 2016).

10.4. Participation in scientific events

10.4.1. Conferences and workshops

MAESTRO members gave presentations at the following scientific events (in alphabetical order):

- 9th International Conference on Matrix Analytic Methods in Stochastic Models (MAM9), Budapest, Hungary, 28–30 June 2016 (**E. Vatamidou**).
- 4th International workshop on Big Data and Social Networking Management and Security (BDSN), Barcelona, Spain, 5-7 December 2016 (**H. Mykhailenko**).
- 1st International Conference on Reliability, Safety and Security of Railway Systems (RSSR 2016), Paris, France, 28-30 June 2016, (**A. Tuholukova**).
- 2016 American Control Conference (ACC 2016), Boston, USA, July 6-8 2016, (**G. Neglia**).

10.4.2. Schools and doctoral courses

MAESTRO members have attended the following events (list in alphabetical order):

- E3-RSD Summer School on “Efficacité Énergétique des Réseaux et Systèmes Distribués” (20H), Dinard, France, 23-27 May 2016 (**S. Alouf**, **D. Politaki**);
- WAW 2015 School on complex networks and graph models (16H), Eindhoven, Netherlands, 7-8 December 2015 (**A. Kadavankandy** and **J. K. Sreedharan**).

MUSE Team

8. Dissemination

8.1. Promoting Scientific Activities

8.1.1. Scientific Events Organisation

8.1.1.1. Chair of Conference Program Committees

- R. Teixeira, Co-chair of the program committee of ACM IMC 2017,
- R. Teixeira, Co-chair of the program committee of ACM/ISOC ANRW 2017,
- V. Christophides, Tutorial co-chair of the 22nd IEEE Symposium on Computers and Communications (ISCC17) 03 - 06 July 2017, Heraklion, Crete, Greece (<http://www.ics.forth.gr/iscc2017/>)
- V. Christophides, Area Chair for “Semi-structured, Web, and Linked Data Management” in the 18th International Conference on Data Engineering (ICDE’16), May 16-20, 2016, Helsinki, Finland (<http://icde2016.fi>)
- V. Christophides, Workshop co-chair of the 1st International Workshop on Big Geo Data Quality and Privacy (BIGQP) with D. Kotzinos, C. Nikolaou, and Y. Theodoridis, March 21, 2017, Venice, Italy (<http://www-etis.ensea.fr/BigGeoQ-UP/BIGQP2017/>).
- V. Christophides, Workshop co-chair of the 2nd International Workshop on Preservation of Evolving Big Data, co-located with EDBT 2016 with G. Papastefanatos and S. Viglas March 15, 2016 Bordeaux, France (<http://www.diachron-fp7.eu/2nd-diachron-workshop.html>)

8.1.1.2. Member of the Conference Program Committees

- V. Christophides, PC member of the 2nd IFIP/IEEE International Workshop on Analytics for Network and Service Management (AnNet17) May 8, 2017 in Lisbon, Portugal.
- R. Teixeira, PC Member of 2016 Internet Measurement Conference (IMC) November 14-16, 2016 Santa Monica, California, USA.
- V. Christophides, PC member of the 1st International Workshop on Keyword-based Access and Ranking at Scale (KARS), collocated with EDBT2017, Venice, Italy.
- V. Christophides, PC member of the 25th ACM International Conference on Information and Knowledge Management (CIKM16), 24-28 October, Indianapolis, USA.

8.1.2. Invited Talks

- V. Christophides, "Web-scale Blocking, Iterative and Progressive Entity Resolution", ICDE 2017 Tutorial, with K. Stefanidis, and V. Efthymiou, April 19-22, 2017 in San Diego, California, USA.
- R. Teixeira, "HostView: Measuring Internet quality of experience on end-hosts", Dagstuhl Seminar 16012, January 4 – 7, 2016.
- R. Teixeira, "The Challenges of Measuring Internet Quality of Experience", Invited Keynote at the Internet-QoE workshop co-located with SIGCOMM’16.
- R. Teixeira, "Residential Internet Performance: A view from the Gateway", Invited talk at the 1st Stakeholder Consultation Workshop on Mapping of Broadband Services in Europe (SMART 2014/0016).
- T. Friedman, A.-K. Pietilainen, R. Teixeira, "Internet Measurements: A Hands-on Introduction", Invited Tutorial at the ACM SIGCOMM 2016, Florianapolis, Brazil, August 22-26 2016.
- V. Christophides, "Resolving Entities in the Web of Data: Concepts, Algorithms and Systems", Invited Tutorial at the International Summer School on Web Science and Technology (WebST 2016) Bilbao, Spain, 18-22 July 2016, co-organized by Deusto and Rovira i Virgili University.

8.1.3. Leadership within the Scientific Community

- R. Teixeira, Vice-chair of ACM SIGCOMM (Since July 2013).
- R. Teixeira, Chair of the ACM SIGCOMM Industrial Liaison Board.
- R. Teixeira, Member of the steering committee of the ACM Internet Measurement Conference (Nov. 2009–Jun. 2016).
- V. Christophides, Member of the EDBT Association (since 2014).

8.1.4. Scientific Expertise

- Reviewer of H2020 and FP7 projects: CogNet, SUPERFLUIDITY, MONROE, MAMI.
- Technical advisory board of the project "Mapping of Broadband Services in Europe".

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

Master: Renata Teixeira, "Methodology for research in networking", 10h eqTD, M2, UPMC, France.

Master: Timur Friedman, Renata Teixeira, "Network Metrology", 24h CM, M2, UPMC, France. Created this new master's level class.

Master: Vassilis Christophides, "Big Data Processing and Analytics", 25h M2, Ecole CentraleSup-elec, France. Created this new master's level class in Spring 2016.

E-learning

Mooc: Timur Friedman, Renata Teixeira, "Network Metrology", preparation of a five-week Mooc (May 2016) in the platform FUN, supported by Inria.

8.2.2. Supervision

PhD: Giuseppe Scavo (December 2016), "Content Curation and Characterization in Communities of a Place", advisors: Z. Ben-Houidi and R. Teixeira

PhD: Sofia Kleisarchaki (November 2016): "Difference Analysis in Big Data: Exploration, Explanation, Evolution" advisors: S. Amer-Yahia and V. Christophides

PhD in progress:

- Maximilian Bachl (Oct 2016-now), "Home network troubleshooting made easy feedback", advisor: R. Teixeira
- Sara el Aouad (May 2014-now): "Improving the quality of recommendation using semi-structured user feedback", advisors: C. Diot and R. Teixeira
- Diego da Hora (Feb 2014-now): "Crowdsourced Home Network Diagnosis", advisors: C. Diot and R. Teixeira
- Vassilis Efthimiou (Feb 2013-now): "Entity resolution in the Web of Data", advisor: V. Christophides

8.2.3. Juries

R. Teixeira: Member of Doctoral examining committee of Sheharbano Khattak (University of Cambridge, 2016),

R. Teixeira: Member of Doctoral examining committee of Zachary Scott Bischoff (Northwestern University, 2016).

V. Christophides: External evaluator of the Ph.D. Thesis of Maria Koutraki, University PARIS-SACLAY, September 2016

V. Christophides: Member of the appointment committee for the MCF 4234 position on Big Data at the University of Cergy-Pontoise, Mai 2016.

RAP Project-Team

7. Dissemination

7.1. Promoting Scientific Activities

7.1.1. Scientific events selection

7.1.1.1. Member of the editorial boards

- *Nicolas Broutin* is member of the steering committee of the international meeting on analysis of algorithms (AofA).
- *Philippe Robert* is Associate Editor of the Book Series “Mathématiques et Applications” edited by Springer Verlag and Associate Editor of the journal “Queueing Systems, Theory and Applications”.

7.1.2. Conferences

- *Nicolas Broutin* has given lectures at annual meeting of the ALEA working group of the GDR-IM, the workshop GRAAL that took place at IHES, at the workshop organized in honor of Svante Janson’s 60’s birthday in Sweden, and the workshop on geometric networks at the Symposium on Computational Geometry that was held in Eindhoven. He gave a plenary lecture at the conference on analysis of algorithms that was held in Strobl in June. He has also exposed his results at the probability seminar in Grenoble, the seminar of algorithmic and combinatorial geometry at IHP, and at the probability seminar of the NYU-ECNU Math institute in Shanghai.

Nicolas Broutin has given the following lectures:

- “Almost optimal sparsification of random geometric graphs” on Jan 30 at the Journées Présage at the Computer Science department of the University of Marne-la-Vallée,
- “The scaling limit of inhomogeneous random graphs” on June 29 at the Paris-Bath workshop that took place at the IHP.
- “Combinatorial structures and fixed-points arguments” on Nov 1 at NYU-ECNU Mathematics institute in Shanghai
- “Random graphs and their scaling limits” on Nov 24 at the Hong Kong University of Science and Technology

He has visited the mathematics department of Beijing Normal University (China), the computer science department of McGill University (Canada), the Mathematics Institute at the Hong-Kong University of Science and Technology, the NYU-ECNU institute for mathematical sciences at NYU Shanghai (China).

- *Renaud Dossalles* has given talks at the conference “Les probabilités de demain” (May 2016) and “Journées Modélisation Aléatoire et Statistique” (August 2016).
- *Christine Fricker* and GT have given talks at the Sigmetrics and MAMA workshop, Juan-les-Pins, 14-18 /6/2016 and at the 2nd ECQT (European Conference on Queueing Theory) Toulouse, 18-20/7/2016.
- *Veronica Quintana Rodriguez* gave a talk at the conference “17th International Network Strategy and Planning Symposium” in september (Montreal).
- *Philippe Robert* gave a talk at the department of mathematics of Brown University (April), at the stochastic networks conference in San Diego, and at the conference “Modern Problems in Theoretical and Applied Probability” in Novosibirsk in August.

7.1.3. Scientific expertise

- *Christine Fricker* is member of the jury of agrégation.

- *Philippe Robert* is member of the scientific council of EURANDOM.

7.2. Teaching - Supervision - Juries

7.2.1. Teaching

Master : *Nicolas Broutin* Master Parisien de Recherche en Informatique (MPRI), in the course 2.15 on Analysis of Algorithms.

Master: *Nicolas Broutin* , Analysis of Algorithms, NYU Shanghai.

Master: *Philippe Robert* , Master, Probabilités et Applications, UPMC.

7.2.2. Juries

- *Philippe Robert* has been member of the jury of PhD defense of Sarah Eugène, Claudio Imbrenda and Tanguy Cabana.

SOCRATE Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. General Chair, Scientific Chair

Jean-Marie Gorce was one of the general chairs in the following conferences:

- GDR-ISIS Meeting: "Wireless networks: decentralized problems and solutions", held in Telecom ParisTech, March, 15, 2016.
- Workshop : "Inclusive Radio Communications for 5G and beyond", held in conjunction with the conference IEEE PIMRC, September 4-7, 2016, Valencia, Spain.

9.1.2. Chair of Conference Program Committees

Florent de Dinechin is a PC chair of the Arith 2017 conference.

9.1.3. Member of the Conference Program Committees

Samir M. Perlaza was a member of the technical program committee of the following conferences:

- IEEE Wireless Communications and Networking Conference (WCNC). 19-22 March 2017, San Francisco, CA. PHY and Fundamentals Track.
- 3rd Workshop on Physical-layer Methods for Wireless Security. Workshop taking place at IEEE CNS 2016 in Philadelphia, PA, USA, Oct 17-19, 2016.
- Workshop on Wireless Energy Harvesting Communication Network. Workshop taking place at IEEE Global Communications Conference (GLOBECOM) in Washington, DC USA, Dec. 8, 2016.
- IEEE WCNC 2016 Workshop on Green and Sustainable 5G Wireless Networks (GRASNET). April 3, 2016, Doha, Qatar
- 6th International Conference on Game Theory for Networks (GameNets). May 10-12, 2016, Kelowna, BC, Canada.

Jean-Marie Gorce was a member of the following technical program committees:

- IEEE APCC(22th Asia-Pacific Communication Conference, Yogyakarta-Indonesia, August 25-27 2016).
- IEEE PIMRC Fundamental & PHY (27th IEEE International Symposium on Personal, Indoor and Mobile Radio Communications , Valencia, Spain, September 4-7, 2016).
- IEEE GLOBECOM Cognitive Radio Networks (Washington, DC, USA, December, 4-8, 2016).
- IEEE ICC Cognitive Radio Networks (IEEE International Conference on Communications, Malaysia, May 23-27 2016).

Guillaume Villemaud was a member of the following technical program committees:

- CROWNCOM2016
- VTC spring 2016
- PIMRC 2016
- EUCAP 2016.

Tanguy Risset was a member of the following technical program committees:

- IEEE Computer Society Annual Symposium on VLSI (ISVLSI) 2016.
- Design Automation and Test in Europe (DATE) 2016.
- International Conference on Cognitive Radio Oriented Wireless Networks (CROWNCOM) 2016 .

Florent de Dinechin was a member of the following technical program committees:

- 12th International Symposium on Applied Reconfigurable Computing (ARC 2016)
- 23rd IEEE Symposium on Computer Arithmetic (Arith)
- 27th Annual IEEE International Conference on Application-specific Systems, Architectures and Processors (ASAP 2016)
- IEEE International Conference on Field Programmable Technologies (FPT 2016)
- Design Automation and Test in Europe (DATE) 2016, track D11.
- 24th IEEE International Symposium on Field-Programmable Custom Computing Machines (FCCM 2016)
- Conférence d'informatique en Parallélisme, Architecture et Système (ComPAS 2016)

9.1.4. Member of the Editorial Boards

Guillaume Villemaud is an associate editor of *Annals of Telecommunications* (Springer).

Jean-Marie Gorce is an associate editor of *Telecommunications Systems* (Springer) and *Journal of Wireless communications and Networking* (Springer).

9.1.5. Invited Talks

S. Perlaza, "On the Benefits of Feedback in Wireless Communications". Invited talk at the Department of Telecommunications, CentraleSupélec, Gif-sur-Yvette, France, December 2, 2016.

G. Salagnac "Peripheral State Persistence For Transiently Powered Systems" at the 3rd edition of the LIP Seminar on Languages Compilation and Semantics. France, November 3 2016.

S. Perlaza, "On the Benefits of Feedback in Wireless Communications". Invited talk at the Department of Electrical Engineering and Computer Science, Technical University of Berlin, Berlin, Germany, November 18, 2016.

J.M. Gorce, "Energy-Capacity Fundamental Limits in a Cell with Dense Users" at Lundis de la radio, Orange Labs, Issy les Moulineaux, France, September 26, 2016.

S. Belhadj Amor, "Simultaneous Energy and Information Transmission". Invited talk at the School of Engineering and Applied Science, Princeton University, Princeton NJ, USA, April 21, 2016.

S. Belhadj Amor, "Simultaneous Energy and Information Transmission". Invited talk at the Center for Wireless Communication and Signal Processing Research (CWCSPP), ECE Department, New Jersey Institute of Technology (NJIT), Newark NJ, USA, April 15, 2016.

S. Perlaza, "Simultaneous Wireless Information and Energy Transmission". Invited talk at the University of Sheffield. Department of Automatic Control and Systems Engineering, Sheffield, UK, April 6, 2016.

T. Risset, "FIT/CorteXlab: A new testbed for cognitive radio experimentation". Invited talk at the Colorado-state University Fort Collins, Computer science department, Sep. 2016.

T. Risset "Compilation of Parametric Dataflow Applications for Software-Defined-Radio-Dedicated MPSoCs" at the 2nd edition of the LIP Seminar on Languages Compilation and Semantics. Lyon, France, June 24 2016.

T. Risset, "Experimenting Cognitive Radio Communication on FIT/CorteXlab". Invited talk at R2-Lab inauguration, Nice, France, Nov. 2016.

9.1.6. Leadership within the Scientific Community

Guillaume Villemaud is National Delegate (Alt.) for the COST IRACON.

9.1.7. Scientific Expertise

Guillaume Villemaud was reviewer of ANR projects and CIFRE grants.

Jean-Marie Gorce is a member of the following committees:

- Jury prix de thèse 2017 Signal Image et Vision, soutenu par l'association GRETSI, le GDR ISIS et le club EEA.
- Jury for the digital Impulse Innovation price, May, 2016.

Tanguy Risset is member of the Administration council (Conseil d'administration) of the GRAME institute (centre national de création musicale).

9.1.8. Tutorials in International Conferences

- S. Belhadj Amor and S. M. Perlaza, "Simultaneous Energy and Information Transmission". Tutorial at the 11th EAI International Conference on Cognitive Radio Oriented Wireless Networks (Crown-com), Grenoble, France, May 29, 2016.
- S. Belhadj Amor, S. M. Perlaza, and I. Krikidis, "Simultaneous Energy and Information Transmission". Tutorial at the European Wireless (EW) conference, Oulu, Finland, May 18, 2016.
- S. Belhadj Amor and S. M. Perlaza, "Simultaneous Energy and Information Transmission". Tutorial at the 23rd International Conference on Telecommunications, Thessaloniki, Greece, May 16, 2016.
- J.M. Gorce, "Fundamental Limits of Bursty Multi-user Wireless Networks for IoT", at the summer school RESCOM on 5G and Internet of Things, from 13th to 17th June 2016, Guidel Plage, France.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

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

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

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

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

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

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

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

Samir M. Perlaza and Jean-Marie Gorce teach the course on Network Information Theory at École Normale Supérieure de Lyon.

9.2.2. Supervision

PhD in progress **Tristan Delizy** *memory management for normally-of NV-RAM based systems*, Insa-Lyon, (Region ARC6) since 09/2016.

PhD in progress **Yohan Uguen** *Synthesis of arithmetic operators*, Insa-Lyon, (Ministry of research) since 09/2016.

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

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

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

PhD in progress **Nizar Khalfet** *Stochastic Energy Sources to Power Communication Systems*, École Doctorale EEA de Lyon, funded by EU Project COM-MED since 10/2016.

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

PhD : **Arturo Jimenez Guizar**: *Cooperative communications in Body Area Networks*, ANR Cormoran grant, 27/10/2016.

PhD : **Matthieu Vallerian**: *“Radio Logicielle pour réseau de capteurs”*, CIFRE/Orange, 15/06/2016.

9.2.3. Juries

Jean-Marie Gorce was a member of the jury of the following thesis:

- PhD Ehsan Ebrahimi Khaleghi, *Advanced techniques of Interference Alignment : Application to Wireless Networks* (Telecom ParisTech, January 2016), (as a reviewer).
- PhD Bhanukiran Perabathini, *fundamental limits of energy efficiency in wireless networks* (CentraleSupélec, January 2016), (as a reviewer).
- PhD Abraham Kaboré, *Study of detection-correction error codes for MAC/PHY layers in smart grid networks* (University Limoges, March 2016), (as a reviewer).
- PhD Marwa Chami, *Optimization of cognitive systems with successive interference cancellation and relaying* (CNAM, Paris, May 2016), (as a reviewer).
- PhD Jan Oksanen, *Machine learning methods for spectrum exploration and exploitation* (University of Aalto, September 2016), (as an opponent).
- PhD Wenjie Li, *Robust information gathering and dissemination in wireless sensor networks* (CentraleSupélec, November 2016), (as a reviewer).
- PhD Raphael Massin, *On the Clustering of Mobile Ad Hoc Networks* (Telecom ParisTech, November 2016), (as a reviewer).
- PhD Zheng Chen, *User-Centric Content-Aware Communication in Wireless Networks* (CentraleSupélec, December 2016), (as a reviewer).
- HdR Frédéric Guilloud, *contributions to error correction codes and to digital communications toward communications with short frames* (Telecom Brest, December 2016).

Samir M. Perlaza was a member of the jury of the following thesis:

- PhD Chao He, *“Broadcasting with delayed CSIT: Finite SNR analysis and heterogeneous feedback”*. Defended at CentraleSupélec on December 2 2016, Gif-sur-Yvette, France.

Florin Hutu was a member of the jury of the following thesis:

- PhD Jeremy Hyvert, *“Techniques de conception d’oscillateurs contrôlés en tension faible bruit de phase en bande Ku intégrés sur silicium en technologie BiCMOS”* (Université de Poitiers, September 2016).

Guillaume Villemaud was a member of the jury of the following thesis:

- PhD Roman IGUAL PEREZ, *“Platform hardware/software for the energy optimization in a node of wireless sensor networks”*, Univ. de Lille 1.
- Mohammad ABDI ABYANEH, *“Génération des signaux agrégés en fréquences dans le contexte de LTE-A”*. Telecom Paristech.
- Shiqi CHENG, *“Characterization and modeling of the polarimetric MIMO radio channel for highly diffuse scenarios”*. Univ. de Lille 1.

Tanguy Risset was a member of the jury of the following thesis:

- Marcos Aurelio Pinto Cunha (U. Grenoble, Jan. 2016) as jury president .
- Xiguang Wu (CentraleSupélec, Mar. 2016), as reviewer.
- Shaoyang MEN (U. Nantes, Oct. 2016) jury president.

Florent de Dinechin was a reviewer in the habilitation thesis of Roselyne Chotin-Avot (LIP6, Paris).

URBANET Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific Events Organisation

10.1.1.1. General Chair, Scientific Chair

- Razvan Stanica was general co-chair of CoRes 2016, the first French national conference on protocol design, performance evaluation and experimentation, held in Bayonne in May 2016.

10.1.2. Scientific Events Selection

10.1.2.1. Chair of Conference Program Committees

- Razvan Stanica was the co-chair of the track "Vehicular and Delay Tolerant Networks" at the Wireless Days 2016 conference, held in Toulouse in March 2016.

10.1.2.2. Member of the Conference Program Committees

- Walid Bechkit was in the TPC of IEEE ICC and IEEE GlobeCom.
- Razvan Stanica was in the TPC of the following conferences: IEEE ICC, IEEE GlobeCom, IEEE VTC Spring/Fall, AdHoc-Now, GIIS, IEEE ISC2, IEEE UIC, WF-IoT.
- Fabrice Valois was in the TPC of the following conferences: IEEE Globecom, IEEE ICC, IEEE ICT, IEEE WCNC, IEEE WCMC, WiSARN.

10.1.2.3. Reviewer

- Razvan Stanica was a reviewer for IEEE Infocom and IEEE WoWMoM.

10.1.3. Journal

10.1.3.1. Member of the Editorial Boards

- Razvan Stanica was Guest Editor for the Elsevier Computer Communication special issue on Mobile Traffic Analytics.
- Fabrice Valois is Associated Editor for Annals of Telecommunications.

10.1.3.2. Reviewer - Reviewing Activities

- Walid Bechkit was a reviewer for ACM Transactions on Sensor Networks, Journal of Network and Computer Applications (Elsevier), Journal of Network and Systems Management, Telecommunication Systems.
- Razvan Stanica was a reviewer for the following journals: IEEE Transactions on Mobile Computing, IEEE Communications Magazine, IEEE Transactions on Big Data, IEEE Transactions on Vehicular Technology, Vehicular Communications, Wireless Networks, China Communications, Frontiers of Information Technology & Electronic Engineering.

10.1.4. Invited Talks

- Hervé Rivano was an invited speaker at the Intelligent Internet of Things Showroom (SIDO), Lyon, April 2016.
- Hervé Rivano gave an invited talk at the inauguration of the Sense City EquipEx, Paris, April 2016.
- Hervé Rivano gave an invited talk at the UCN@Sophia Labex seminar, Sophia Antipolis, April 2016.
- Hervé Rivano was an invited speaker at the Inria Alumni jam session on IoT, Paris, November 2016.

- Fabrice Valois gave a talk on the “Scientific Challenges of IoT: the viewpoint of the CITI Lab.”, CA Foundation INSA Lyon, September 2016.

10.1.5. Leadership within the Scientific Community

- Hervé Rivano is member of the steering committee of the ResCom axis of the RSD CNRS GdR.
- Hervé Rivano is a member of the Scientific Council of TUBA Lyon.
- Fabrice Valois is a member of the Scientific Council of the LIMOS-UMR6158 laboratory, Clermont Ferrand.
- Fabrice Valois is member of the Scientific Council of the Labex IMU (Intelligence des Mondes Urbains).
- Fabrice Valois is in the steering committee of the Fédération d’Information de Lyon (FR 2000 CNRS).

10.1.6. Scientific Expertise

- Walid Bechkit was a reviewer for ANRT for Cifre PhD thesis.
- Hervé Rivano was a reviewer for the Sino-French call for project of the Joint Research Institute for Science and Society.
- Razvan Stanica was a reviewer for the following calls: ANR appel générique (France), ANRT Cifre (France), CETIC (Cameroun).
- Fabrice Valois was a reviewer for ANRT for Cifre PhD thesis.

10.1.7. Research Administration

- Walid Bechkit is responsible for seminar organization and scientific animation within the CITI laboratory.
- Hervé Rivano is member of the Administration Council of the EquipEx Sense City as representative of Inria.
- Hervé Rivano is member in the CITI laboratory council.
- Razvan Stanica is the CITI laboratory correspondent with the Labex IMU.
- Razvan Stanica is member of the steering committee of the Volvo Chaire at INSA Lyon.
- Fabrice Valois is director of the CITI research laboratory of INSA Lyon.
- Fabrice Valois is in the steering committee of the SPIE INSA Lyon IoT Chaire.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

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

Licence : Walid Bechkit, IP Networks, 40h, L3, Telecom. Dpt. INSA Lyon.

Licence : Hervé Rivano, IP Networks, 34h, L3, Telecom. Dpt. INSA Lyon.

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

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

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

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

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

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

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

Master : Walid Bechkit, Network architectures, protocols and services, 12h, M1, Telecom. Dpt. INSA Lyon.

Master : Walid Bechkit, Performance evaluation of telecom networks, 100h, M1, Telecom. Dpt. INSA Lyon.

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

Master : Walid Bechkit, Wireless networks: architecture and security, 18h, M2, INSA Lyon.

Master: Hervé Rivano, Wireless multihop networks, 10h, M2, University of Lyon.

Master: Hervé Rivano, Smart Cities, 4h, M2, Polytech Perpignan.

Master: Hervé Rivano, Smart Cities and IoT, 48h, M2, Telecom. Dpt. INSA Lyon.

Master : Razvan Stanica, Mobile Networks, 30h, M1, Telecom. Dpt. INSA Lyon.

Master : Razvan Stanica, Network Science, 10h, M2, Telecom. Dpt. INSA Lyon.

Master : Fabrice Valois, Mobile Networks, 30h, M1, Telecom. Dpt. INSA Lyon.

Master : Fabrice Valois, Wireless Sensor Networks, 6h, M2, University of Grenoble.

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

Hervé Rivano is responsible for the coordination of all courses in the Smart Cities and IoT option at the INSA Lyon Telecommunications department.

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

Razvan Stanica is responsible of the research option at the Telecommunications department of INSA Lyon.

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

Fabrice Valois and Walid Bechkit are elected members of the Telecommunications Department Council at INSA Lyon.

10.2.2. Supervision

PhD : Jin Cui, Data aggregation in wireless sensor networks, INSA Lyon, 06/2016. Advisor: Fabrice Valois.

PhD : Guillaume Gaillard, Opérer les réseaux de l'Internet des Objets à l'aide de contrats de qualité de service (Service Level Agreements), INSA Lyon, 12/2016. Advisors: Dominique Barthel (Orange Labs), Fabrice Theoleyre (I-Cube CNRS), Fabrice Valois.

PhD in progress : Yosra Bahri Zguira, DTN for IoT, since 05/2015. Advisors: Aref Meddeb (Univ. Sousse, Tunisia), Hervé Rivano.

PhD in progress: Abderrahman Ben Khalifa, Cognitive mechanisms for IoT networks. Advisors: Hervé Rivano, Razvan Stanica.

PhD in progress: Ahmed Boubrima, Optimal deployment of wireless sensor networks for air pollution monitoring, since 10/2015. Advisors: Walid Bechkit, Hervé Rivano.

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

PhD in progress : Rodrigue Domga Komguem, Autonomous WSN architectures for road traffic applications, since 11/2012. Advisors: Razvan Stanica, Maurice Tchente (Univ. Yaoundé, Cameroun), Fabrice Valois.

PhD in progress : Alexis Duque, Use of visible light communication in a smart city context, since 10/2015. Advisors: Hervé Rivano, Razvan Stanica.

PhD in progress : Leo Le Taro, Recalibration of wireless sensors for pollution monitoring, since 11/2015. Advisor: Hervé Rivano.

PhD in progress: Abdul Aziz Mack, Data gathering in sensor and passive RFID with energy harvesting for urban infrastructure monitoring, since 10/2016. Advisors: Nathalie Mitton (FUN team), Hervé Rivano.

PhD in progress: Jad Oueis, Systèmes PMR très haut débit fédérateurs, since 10/2015. Advisors: Razvan Stanica, Fabrice Valois.

PhD in progress: Mihai Popescu, Mobilité au sein de flottes de robots sous contrainte de maintien de la connectivité, since 11/2015. Advisors: Olivier Simonin (Inria CHROMA), Anne Spalanzani (Inria CHROMA), Fabrice Valois.

MS thesis: T.Alias, Univ. Bretagne Sud, Resource Allocation in Cloud RAN, 07/2016. Advisors: Hervé Rivano, Razvan Stanica.

MS thesis: M Biteau, Data Gathering in Linear WSN, 01/2016. Advisors: Isabelle Augé-Blum, Walid Bechkit.

MS thesis: L. Bontemps, INSA Lyon, Anonymization of Mobile Traffic Datasets, 10/2016. Advisors: Razvan Stanica.

MS thesis: N. Chovelon, INSA Lyon, Control Traffic Model for LTE Core Networks, 06/2016. Advisors: Razvan Stanica, Fabrice Valois.

MS thesis: A. Mermouri, INSA Lyon, User Mobility in Virtualized Cellular Networks, 10/2016. Advisors: Razvan Stanica.

10.2.3. Juries

- Hervé Rivano was reviewer in the following PhD defense committee:
 - L. Wang, Facilitating Mobile Crowdsensing from both Organizers' and Participants' Perspectives, Télécom SudParis and Université Pierre et Marie Curie – Paris 6, 05/2016.
- Razvan Stanica was member in the following PhD defense committee:
 - M. Abualhoul, Visible Light and Radio Communication for Cooperative Autonomous Driving, Mines Paris Tech, Université Paris Sciences et Lettres, 12/2016.
- Fabrice Valois was reviewer in the following PhD defense committee:
 - M. G. Chalhoub, Enhanced Communication in Data Collection Multihop WSN, LIMOS, Univ. Clermont Ferrand, 07/2016.
- Fabrice Valois was member in the following PhD defense committee:
 - M. B. Tian, Data Dissemination Protocols and Mobility Model for VANETs, LIMOS, Univ. Clermont Ferrand, 10/2016.

10.3. Popularization

- Hervé Rivano has been involved in several popularization actions, in particular with the Grand Lyon metropolis (on air quality monitoring, smart cities infrastructure), SPL Lyon Part Dieu (on sensors networks), the TUBA (on sensors, mobility, networking), and Cité du Design et de l'Industrie.
- Hervé Rivano was a panelist at a public debate on "revolutions in education, culture, thinking and public space".