



RESEARCH CENTER

FIELD

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

Activity Report 2015

Section Dissemination

Edition: 2016-03-21

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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 will be the General Chair of the 35th ACM Symposium on Principles of Distributed Computing (PODC 2016), Chicago, Illinois, USA, July 2016.

9.1.1.2. Member of the organizing committees

Davide Frey served as workshop and tutorial co-chair for the ACM/IFIP/USENIX International Conference on Middleware (Middleware).

George Giakkoupis served in the conference committee and the steering committee of the 34th ACM Symposium on Principles of Distributed Computing (PODC 2015), Donostia-San Sebastián, Spain, July 2015.

Anne-Marie Kermarrec is the vice-chair of ACM Eurosys.

Anne-Marie Kermarrec has been a member of the Inria Parity committee (and leader of the recruitment group) since September 2015.

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

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

François Taïani has been a member of the Steering Committee of *the annual ACM/IFIP/USENIX Middleware conference* since 2014.

François Taïani has been a member of the Steering Committee of the *IFIP International Conference on Distributed Applications and Interoperable Systems (DAIS)* since 2013.

9.1.2. Scientific events selection

9.1.2.1. Member of the conference program committees

Davide Frey served in the program committees of the following conferences.

14th IEEE International Conference on Peer-to-Peer Computing (P2P), Cambridge, MA, USA, Sep 2015.

ACM/IFIP/USENIX International Conference on Middleware (Middleware), Vancouver, Canada, Dec 2015.

High Performance Computing (HiPC) 2015, Bangalore, India, Dec 2015.

George Giakkoupis served in the program committee of the 17th International Conference on Distributed Computing and Networking (ICDCN 2016), Singapore, Jan 2016.

Anne-Marie Kermarrec was a program committee member of the conferences.

Middleware 2015, Vancouver, BC, Canada, December 2015.

Eurosys 2015, Bordeaux, France, April 2015.

SRDS 2015, Montreal, Canada, October 2015.

Systor 2015, Haifa, Israel, May 2015.

Netys 2015, Agadir, Morocco May 2015.

François Taïani was a program committee member of the conferences.

Middleware 2015, Vancouver, BC, Canada, December 2015.

IEEE International Conference on Peer-to-Peer Computing (P2P), Cambridge, MA, USA, Sep. 2015.

IEEE 34th Symposium on Reliable Distributed Systems (SRDS 2015), Montreal, Canada, October 2015.

The 45th Annual IEEE/IFIP International Conference on Dependable Systems and Networks (DSN 2015), Rio do Janeiro, Brazil, June 2015.

ICDCS 2015, The 35th IEEE International Conference on Distributed Computing Systems (ICDCS 2015), Columbus, Ohio, USA, June-July 2015.

9.1.3. Journal

9.1.3.1. Member of the 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

George Giakkoupis. *Vertex connectivity under sampling*. Seminar of the Computer Science and Telecommunications Department, Ecole Normale Supérieure, Rennes, France, Sep 15 2015.

George Giakkoupis. *Bounds on the voter model in terms of graph expansion*. Random Walks on Random Graphs and Applications Workshop, Eurandom, TU Eindhoven, The Netherlands, Apr 14 2015.

George Giakkoupis. *Rumor spreading: Techniques and results*. Tutorial, 8th Winter School on Hot Topics in Distributed Computing (HTDC), Flaine, France, Mar 18 2015.

George Giakkoupis. *Vertex connectivity under vertex sampling*. PIMS Algorithmic Theory of Networks Seminar, University of Calgary, Canada, Mar 6 2015.

Anne-Marie Kermarrec, *TM Recommenders*, Invited speaker at the 7th workshop on the Theory of Transactional Memory, Donostia, Spain 2015.

Anne-Marie Kermarrec, *Scalable personalization infrastructures*, IST Austria, April 2015.

Anne-Marie Kermarrec, *TM Recommenders*, Rennes, November 2015

Nupur Mittal, *Privacy-Conscious Information Diffusion in Social Networks*, Rennes, November 2015.

Michel Raynal, *Concurrent Systems: Hybrid Object Implementations and Abortable Objects*. at Euro-Par 2015.

Michel Raynal, *Communication Patterns and Input Patterns in Distributed Computing* at SIROCCO 2015.

François Taïani. *Engineering Scale: Software and Distribution for Tomorrow's World*. Keynote presentation at the Journées Nationales 2015 of the GDR GPL (France's research federation on software engineering and programming), Bordeaux, France, 9-12 June 2015.

François Taïani. *Large-Scale Systems And Self-Organization*. Invited lecture at the Doctoral School "Interoperability and automatic adaptation for novel generation middleware systems" of Doctoral Program in Computer Science of CUSO (Conférence Universitaire de Suisse Occidentale), Neuchâtel, Switzerland, November 26th - 27th, 2015.

9.1.5. Leadership within the scientific community

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

Anne-Marie Kermarrec co-organized the *Workshop Inria/Technicolor on workshop on storage and data analytics*, Rennes, Nov. 2015.

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

Anne-Marie Kermarrec was a member of the Inria scientific board (Bureau du comité des projets) in Rennes until July 2015.

François Taïani was the chair of the hiring committee for the position of *Professor at University of Rennes 1 - ESIR*.

9.1.6. Research administration

Davide Frey is scientific correspondent for the DPEI in Rennes.

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 : Simon Bouget, APF (Algorithmique et Programmation Fonctionnelle), 40 HEQTD (2 x 10 séances de 2 heures de TP), L1, Université de Rennes 1 (ISTIC), France.

Licence : Simon Bouget, SYS1 (Introduction aux Systèmes d'exploitation), 10 HEQTD (5 séances de 2 heures de TP), ESIR1 (L3), Université de Rennes 1 (ESIR), France.

Master : Simon Bouget, TLC (Techniques Logicielles pour le Cloud computing), 14 HEQTD (7 séances de 2 heures de TP), M2 Génie Logiciel Alternance, Université de Rennes 1 (ISTIC), France.

Master: Davide Frey, Scalable Distributed Systems, 10 hours, M1, EIT/ICT Labs Master School, Univ. Rennes 1, France.

Engineering School: François Taïani, Synchronization and Parallel Programming, 48h, 2nd year of Engineering School (M1), ESIR / Université of Rennes 1, France.

Engineering School: François Taïani, Distributed Systems, 24h, 3rd year of Engineering School (M2), ESIR / Université of Rennes 1, France.

Engineering School: François Taïani, Parallel Algorithms for Big Data, 24h, 3rd year of Engineering School (M2), ESIR / Université of Rennes 1, France.

Engineering School: François Taïani, Introduction to Operating Systems, 24h, 1st year of Engineering School (L3), ESIR / Université of Rennes 1, France.

Master: François Taïani, Programming Technologies for the Cloud, 32h, M2, Université of Rennes 1, France.

Michel Raynal, Introduction to distributed computing, 20h, M1, Univ. Rennes, France.

Michel Raynal, Distributed Computability, 20h, M2, Univ. Rennes, France.

9.2.2. Supervision

PhD: Ali Gouta *Caching and prefetching for efficient video services in mobile networks* [11]. Université de Rennes 1, January 15, 2015. Supervised by Anne-Marie Kermarrec.

PhD: Julien Stainer. *Computability Abstractions for Fault-tolerant Asynchronous Distributed Computing* [13]. Université de Rennes 1, March 18, 2015. Supervised by Michel Raynal.

PhD: Eleni Kanellou. *Data Structures for Current Multi-core and Future Many-core architectures* [12]. Université de Rennes 1, December 14, 2015. Supervised by Michel Raynal.

PhD in progress : Antoine RAULT, *User privacy in collaborative filtering systems*. Started on 1st October 2012. Supervised by Anne-Marie Kermarrec, Davide Frey.

PhD in progress : Stéphane Delbruel, Towards a Decentralized Embryomorphic Storage System, 1st October 2013, François Taïani and Davide Frey (since 1st October 2014).

PhD in progress : Resmi Ariyattu Chandrasekharannair, Towards Decentralized Federations for Plug-based Decentralized Social Networks, 1st December 2013, François Taïani.

PhD in progress : Simon Bouget, EMILIO: Emergent Middleware for extra-Large-scale self adaptation, 1st September 2014, François Taïani.

PhD in progress : Pierre-Louis Roman, Epidemic Distributed Convergence for Decentralized Social Networking, 1st October 2014, François Taïani, Davide Frey.

PhD in progress: Javier Olivares, A peer-sourcing infrastructure for personalized privacy-aware event processing, 1st October 2013, Anne-Marie Kermarrec.

PhD in progress : Olivier Ruas, Dynamic learning and recommendations in very large distributed computing infrastructures, 1st October 2015, Anne-Marie Kermarrec, François Taïani.

PhD in progress: Nupur Mittal. *Infrastructure et algorithmes pour la recommandation de contenus cross application*, December 1 2013, George Giakkoupis and Anne-Marie Kermarrec.

9.2.3. Juries

Anne-Marie Kermarrec was in the HDR juries of Vincent Gramoli (June 2015) and Sebastien Monnet (November 2015) (LIP 6).

François Taïani was a reviewer of the PhD for Raluca Diaconu. *Scalability for Virtual Worlds*. Université Pierre et Marie Curie, January 23, 2015.

François Taïani was the chair of the PhD jury for Julien Stainer. *Computability Abstractions for Fault-tolerant Asynchronous Distributed Computing*, Université de Rennes 1, March 18, 2015.

François Taïani was a reviewer of the PhD for Camille Fayollas. *Architecture logicielle générique et approche à base de modèles pour la sûreté de fonctionnement des systèmes interactifs critiques*. Université Toulouse 3 Paul Sabatier, July 21, 2015.

François Taïani was a reviewer of the PhD for Pierre André. *Test de systèmes ubiquitaires avec prise en compte explicite de la mobilité*. Université Toulouse 3 Paul Sabatier, November 17, 2015.

François Taïani was the chair of the PhD jury for Erwan Bousse. *Execution Trace Management to Support Dynamic V&V for Executable DSMLs*. Université de Rennes 1, December 3, 2015.

François Taïani was the chair of the PhD jury for Eleni Kanellou. *Data Structures for Current Multi-core and Future Many-core architectures*. Université de Rennes 1, December 14, 2015.

François Taïani served as external examiner on the PhD committee of Xi Li. *Workload Consolidation in Large-scale Data Centers*. University College Dublin (UCD), Ireland, December 16, 2015.

François Taïani was a member of the HDR jury for Benoît Parrein. *Le code à effacement Mojette : Applications dans les réseaux et dans le Cloud*. Université de Nantes, June 16, 2015.

François Taïani was a reviewer of the HDR of Gerson Sunyé. *A Model-Based Approach for Testing Large Scale Systems*. Université de Nantes, November 10, 2015.

9.3. Popularization

Anne-Marie Kermarrec wrote three articles on women in computer science: on the blog of the SIF Binaire in March 2015.

ATLANMODELS Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

10.1.1.1. Member of the organizing committees

- M. Tisi has coorganized the Scalable Model Driven Engineering Workshop (BigMDE'15) within the STAF federated conference.

10.1.2. Scientific events selection

10.1.2.1. Member of the conference program committees

- Gerson Sunye:
 - International: International Conference on IT Convergence and Security, International Conference on Software Engineering and Knowledge Engineering, International Workshop on Large-Scale Testing, International Workshop on Testing The Cloud, BigMDE Workshop
- Massimo Tisi:
 - International: International Conference on Software Language Engineering, International Conference on Model Transformation, International Conference on Current Trends in Theory and Practice of Computer Science, Transformation Tool Contest, Model Driven Requirement Engineering Workshop, Executable Modeling Workshop, BigMDE Workshop

10.1.2.2. Reviewer

- Hugo Brunelière
 - Maintenance and Evolution of Service-Oriented Systems and Cloud-Based Environments, MESOCA (ICSME 2015).
- Gerson Sunyé
 - International Conference on Software Engineering, ACM SIGSOFT Symposium on the Foundations of Software Engineering.

10.1.3. Journal

10.1.3.1. Reviewer - Reviewing activities

- Hugo Brunelière
 - Journal of Information and Software Technology (Elsevier), Journal of Software: Evolution and Process (Wiley), International Journal of Software and Systems Modeling (Springer).
- Gerson Sunyé
 - IEEE Transactions on Software Engineering, Journal of Systems and Software (2x), Software and Systems Modeling.
- Massimo Tisi
 - IEEE Transactions of Software Engineering, IEEE Software, Journal of Software: Evolution and Process, Journal of Systems and Software, Science of Computer Programming, Software and Systems Modeling, Software: Practice and Experience, Transactions on Software Engineering, Journal on Web Engineering, Journal of Logic and Algebraic Programming.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

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

License: M. Tisi, Projet IPIPIP, 8h, L3, Ecole des Mines de Nantes

Master: M. Tisi, Bases de Données, 30h, M1, Ecole des Mines de Nantes

Master: M. Tisi, Interaction Homme-Machine, 14h, M1, Ecole des Mines de Nantes

Master: M. Tisi, Model-Driven Engineering II, 45h, M2, Ecole des Mines de Nantes, Formation par Apprentissage

Master: M. Tisi, Sensibilisation Recherche, 12h, M2, Ecole des Mines de Nantes, Formation par Apprentissage

Master: G. Sunye, Model-Driven Engineering, 30h, M2, Université de Nantes

Master: G. Sunye, Software Engineering, 48h, M1, Université de Nantes

Master: G. Sunye, Software Testing, 48h, M1, Université de Nantes

Master: G. Sunye, Software Development, 24h, M1, Université de Nantes

License: S. Martínez, Bases de Données, 28h, L3, Ecole des Mines de Nantes

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

Master: S. Martínez, Master MIAGE - Model Transformations, 6h, Université de Nantes

License: S. Martínez, Domain Specific Languages, 3h, L3, Ecole des Mines de Nantes

10.2.2. Supervision

PhD in progress: Amine Benellane, Scalability of model transformations, Jordi Cabot, Massimo Tisi and Gerson Sunyé.

PhD in progress: Gwendal Daniel, Efficient storage of large models, Jordi Cabot, Massimo Tisi and Gerson Sunyé.

PhD in progress: Michel Albonico, Model-driven testing of cloud environments, Jordi Cabot and Gerson Sunyé.

PhD in progress: Mohamed Boussaa, An Architecture for Testing Large-Scale Dynamic Distributed Systems, Université de Rennes 1, Benoit Baudry, Olivier Barais, Gerson Sunyé.

PhD in progress: Kevin Corre, Model-based Trust, Université de Rennes 1–Orange, Olivier Barais, Gerson Sunyé, Jean-Michel Crom, Vincent Frey

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 is General chair of the 19-th edition of the International Conference on Principles of Distributed Systems (OPODIS 2015).

10.1.1.2. Member of the organizing committees

Emmanuelle Anceaume served as a member of the organization committee of the following conference

- International Conference on Principles of Distributed Systems (OPODIS 2015)

Sébastien Gambis served as a member of the organization committee of the following events:

- Journées thématiques: Respect de la vie privée et services mobiles sans contact (27-28 May, Issy-les-Moulineaux).
- Journée thématique: Sécurité et respect de la vie privée dans les systèmes mobiquitaires (24 September, Rennes).
- Entretien Jacques Cartier : La vie privée à travers les cultures. Convergences et divergences dans un monde globalisé (30 November 2015)

Nicolas Prigent served as a member of the organization committees of the following conferences and workshops:

- SSTIC 2015 (Symposium sur la Sécurité des Systèmes d'Information et des Communications 2015).
- VizSec 2015 (12th IEEE International Symposium on Visualization for Cyber Security).

Frédéric Tronel served as a member of the organization committee of the following conference:

- SSTIC 2015 (Symposium sur la Sécurité des Systèmes d'Information et des Communications 2015).

Ludovic Mé served as a member of the organization committee of the following conference:

- C&ESAR 2015 (Computers & Electronics Security Applications Rendez-vous),
- RESSI 2015 (Rendez-Vous de la Recherche et de l'Enseignement de la Sécurité des Systèmes d'Information).

Christophe Bidan served as a member of the organization committee of the following conference:

- ICISSP 2015 (International Conference on Information Systems Security and Privacy 2015).

10.1.2. Scientific events selection

10.1.2.1. Chair of conference program committees

Emmanuelle Anceaume served as a co-chair of the following conference

- 4-th IEEE Symposium on Network Cloud Computing and Applications (NCCA15)

Nicolas Prigent was the program chair of the following conference

- 12th IEEE International Symposium on Visualization for Cyber Security (VizSec 2015).

10.1.2.2. Member of the conference program committees

Emmanuelle Anceaume served a member of the program committee of the following conferences:

- 5-th International Conference on Pervasive and Embedded Computing and Communication Systems (PECCS 2015) (<http://www.peccs.org/Home.aspx?y=2015>)
- 14th IEEE International Symposium on Network Computing and Applications (IEEE NCA15)
- 14th IEEE International Conference on Trust, Security and Privacy in Computing and Communications (IEEE TrustCom-15)
- 17eme Rencontres Francophones sur les Aspects Algorithmiques de Télécommunications (ALGO-TEL 2015)

Sébastien Gambis served a member of the program committee of the following conferences:

- 13th International Conference on Privacy, Security and Trust (PST'15),
- 15th IFIP TC 6/TC 11 International Conference on Communications and Multimedia Security (CMS'15),
- 10th International Workshop on Data Privacy Management (DPM'15),
- 8th International Symposium on Foundations and Practice of Security (FPS'15).

Michel Hurfin served as a member of the program committee of the following conference:

- 7-th IEEE International Symposium on UbiSafe Computing (Ubisafe 2015)

Ludovic Mé served as a member of the program committee of the following conferences:

- C&ESAR 2015 (Computers & Electronics Security Applications Rendez-vous),
- RESSI 2015 (Rendez-Vous de la Recherche et de l'Enseignement de la Sécurité des Systèmes d'Information).

Guillaume Piolle served as a member of the program committee of the following conference:

- ACySe 2015 (Second International Workshop on Agents and CyberSecurity).

Christophe Bidan served as a member of the program committee of the following conference:

- IWTRCC 2015 (Second International Workshop on Trust in Cloud Computing).

Nicolas Prigent served as a member of the program committee of the following conferences:

- SSTIC 2015
- 12th IEEE International Symposium on Visualization for Cyber Security (VizSec).

Eric Totel served as a member of the program committee of the following conferences:

- C&ESAR 2015 (Computers & Electronics Security Applications Rendez-vous),
- 7-th IEEE International Symposium on UbiSafe Computing (Ubisafe 2015)

Frédéric Tronel served as a member of the program committee of the following conferences:

- SSTIC 2015.

10.1.2.3. Reviewer

- Gilles Guette as a reviewer for the International Conference on Information System Security and Privacy (ICISSP).

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

- Ludovic Mé and Valérie Viet Triem Tong act as reviewers for the following journal: IEEE Transactions on Network and Service Management (TNSM),
- Gilles Guette acts as a reviewer for the following journals: Security and Communication Networks (SCN),
- Gilles Guette acts as a reviewer for the following journals: Sensors.
- Emmanuelle Anceaume acts as a reviewer for the following journals: IEEE Transactions on Parallel and Distributed Systems (TPDS), IEEE Transactions on Dependable and Secure Computing (TDSC), and the Theoretical Computer Journal (TCS).
- Guillaume Piolle acts as a reviewer for the following journal: International Journal on Information Security (IJIS).
- Frédéric Tronel acts as a reviewer for the following journals: IEEE Transactions on Dependable and Secure Computing (TDSC).

10.1.4. Invited talks

Valérie Viet Triem Tong has been invited at the 3rd International Symposium on Information Systems Security, Kenitra Morocco (CISSI'2015). She has given a talk entitled *Capture de signatures comportementales de malware Android par suivi de flux d'information – Behavioral Signatures of Android Malware using information flow monitoring*.

Ludovic Me and Guillaume Hiet were invited at the 6th Assises du domaine Cyber Défense et SIEM organized by the R2GS (*Recherche et Réflexion en Gestion opérationnelle de la Sécurité*) club. They gave a talk entitled *Travaux de recherches en supervision de sécurité : tendances actuelles*.

Sébastien Gambbs was invited to give a tutorial on “inference attacks on location data” at the Shonan Seminar on Logic and Verification Methods in Security and Privacy in November in Japan. He has also given an invited talk on “Implementing the right to be forgotten” at the Workshop on Ethics and Artificial Intelligence held in Rennes in June as well as a talk on “Privacy challenges in the Information Society” at the French-Japanese workshop on cybersecurity held in Tokyo in April.

10.1.5. Research administration

Ludovic Mé acts as Scientific Officer for the Rennes - Bretagne Atlantic Inria Research Center.

Emmanuelle Anceaume acts as member of the

- Inria Commission d’Evaluation
- Université Rennes 1 Comité de selection

Sébastien Gambbs is a member of the committee for the Gilles Kahn award, which is given each year to the best PhD thesis in computer science in France by the Société d’Informatique de France. He is also the co-chair of Cybersecurity research axis of the IRISA laboratory as well as a member of the Inria-CNIL committee.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

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

Master: Ludovic Mé, *Information systems*, 4,5 hours, M1 - second year of the engineer degree, Supélec, France

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

Master: Ludovic Mé, *Supervision of student project*, 1 project, M2 - mastère cybersecurity degree, Supélec, France

Master: until September 2015, Ludovic Mé was responsible for the module “Secured information systems”, M2 - third year of the engineer degree, Supélec, France

Master: Sébastien Gambs, *Protection of Privacy*, 16 hours of lectures, M2 - Master Pro SSI, Université de Rennes 1, France.

Master: Sébastien Gambs, *Topics on Authentication*, 16 hours of lectures, M2 - Master Pro SSI, Université de Rennes 1, France.

Master: Sébastien Gambs, *Introduction to Computer Security*, 8 hours of lectures and 4 hours of practical works, M2 - Master Pro SSI, Université de Rennes 1, France.

Licence: Gilles Guette, *Network Initiation*, 27h, L3 - Licence, ISTIC/University of Rennes 1, France

Licence: Gilles Guette, *Network Initiation*, 43h, L3 - first year of the engineer degree, ESIR, France

Master: Gilles Guette, *Network Routing*, 28h, M1 - second year of the engineer degree, ESIR, France

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

Master: Gilles Guette, *Advanced Network Services*, 13h, M1 - second year of the engineer degree, ESIR, France

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

Master: Gilles Guette, *Security*, 26h, M1 - second year of the engineer degree, ESIR, France

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

Master: Gilles Guette, *Network Modeling*, 10h, M2 - third year of the engineer degree, ESIR, France

Master: Gilles Guette, *Network*, 6h, M2 - third year of the engineer degree, Supélec, 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*, M1 - second year of the engineer degree, ESIR, France

Licence : Guillaume Piolle, *Algorithms*, 21 hours, L3 - first year of the engineer degree, CentraleSupélec, France

Licence : Guillaume Piolle, *Software engineering*, 24 hours, L3 - first year of the engineer degree, CentraleSupélec, France

Master : Guillaume Piolle, *Modelling, Algorithms and Programming*, 22 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, *Software project*, 14 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*, 13.5 hours, M2 - third year of the engineer degree, CentraleSupélec, France

Master : Guillaume Piolle, *Software engineering*, 22 hours, M2 - third year of the engineer degree, CentraleSupélec, France

Master : Guillaume Piolle, *Symbolic Artificial Intelligence*, 4.5 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*, 12 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

Master : Guillaume Piolle, *Java EE*, 21 hours, Mastère spécialisé, 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, Supélec, France

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

Master : Eric Totel, *Computer systems' architecture*, 30 hours, M1 - second year of the engineer degree, Supélec, France

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

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

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

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

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

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

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

Licence: Frédéric Tronel, *Software engineering*, 49h, L3 - first year of the engineer degree, Centrale-Supélec, France.

Master: Frédéric Tronel, *Operating systems*, 18h, M2 - third year of the engineer degree, Centrale-Supélec, France .

Master: Frédéric Tronel, *Compilers*, 37h, M2 - third year of the engineer degree, CentraleSupélec, France.

Master: Frédéric Tronel, *Automatic reasoning*, 7h, M2 - third year of the engineer degree, Centrale-Supélec, France.

Master: Frédéric Tronel, *Assembly Language*, 4h30, M2 - third year of the engineer degree, CentraleSupélec, France.

Master: Frédéric Tronel, *Buffer overflow vulnerabilities (theory and practice)*, 7h, M2 - third year of the engineer degree, CentraleSupélec, France.

Master: Frédéric Tronel, *Firewall*, 8h, M2 - third year of the engineer degree, CentraleSupélec, France.

Master: Frédéric Tronel, *Calculability in distributed systems*, 9h, 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;

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*, 7h30 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, Supélec, France

Master: Emmanuelle Anceaume, *computer science (MRI) specialism - BIB - Colq*, 36h, M2, Istic, France.

Master: Nicolas Prigent, *Operating systems*, 18h, M2 - third year of the engineer degree, Centrale-Supélec, France;

Master: Nicolas Prigent, *Automatic reasoning*, 8h, M2 - third year of the engineer degree, Centrale-Supélec, France;

Master: Nicolas Prigent, *Web development*, 12 hours, M2 - third year of the engineering degree, CentraleSupélec, France;

Master: Nicolas Prigent, *Python Programming*, 6 hours, M2 - third year of the engineering degree, CentraleSupélec, France;

Master : Nicolas Prigent, *Advanced Java Programming*, 1,5 hours, M2 - third year of the engineering degree, CentraleSupélec, France;

Master: Nicolas Prigent, *Penetration Testing*, 18 hours, M2 - third year of the engineering degree, CentraleSupélec, France;

Master : Nicolas Prigent, *IDS and Visualization*, 2 hours, M2, ESIR, France.

Master : Nicolas Prigent, *Virtualization and Cloud Computing*, 4 hours, M2, ESIR, France.

Master : Nicolas Prigent, *MS Windows Configuration and Administration*, 16 hours, Mastère CS - Specialization year, CentraleSupélec, France.

Master : Nicolas Prigent, *MS Windows Configuration and Administration*, 16 hours, CQP - Specialization year, CentraleSupélec, France.

Master : Nicolas Prigent, *Cryptography, Cryptographic Protocols and Applications*, 32 hours, CQP - Specialization year, CentraleSupélec, France.

Master : Nicolas Prigent, *Supervision of student project* , 2 projects, M1 - second year of the engineer degree, CentraleSupélec, France.

Master : Nicolas Prigent, *Supervision of student project*, 2 project, M2 - third year of the engineer degree, CentraleSupélec, France.

Master : Nicolas Prigent, *Supervision of student project*, 1 project, Mastère CS - Specialization year, CentraleSupélec, France.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Master: Guillaume Hiet, *Firewall*, 6h, 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

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*, 15h including 6 hours of lecture, M2 - third year of the engineer degree, CentraleSupélec, France

Master: Christophe Bidan, *Introduction to security*, lab work (4h30), M2 - third year of the engineer degree, CentraleSupélec, France

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;

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

10.2.2. Supervision

PhD : Christopher Humphries, User-centred Security Event Visualisation, Université de Rennes 1, Defense 8/12/2015, supervised by Christophe Bidan, Nicolas Prigent and Frédéric Majorczyk

PhD : Paul Lajoie-Mazenc, Réputation et respect de la vie privée dans les réseaux dynamiques et auto-organisés, Université de Rennes 1, Defense 25/09/2015, supervised by Emmanuelle Anceaume and Valérie Viet Triem Tong

PhD : Regina Paiva Melo Marin, Enhancing Privacy Protection in Social Network Systems Through Decentralization and Policy Conflict Management, CentraleSupélec, Defense 7/09/2015, supervised by Christophe Bidan and Guillaume Piolle

PhD : Mounir Assaf, From Qualitative to Quantitative Program Analyses: Permissive Enforcement of Secure Information Flow, Université de Rennes 1, Defense 06/05/2015, supervised by Eric Total and Frédéric Tronel and Julien Signoles

HdR: Valérie Viet Triem Tong, "Apport du suivi de flux d'information pour la sécurité des systèmes", Université de Rennes 1, Defense 03/12/15.

PhD in progress : Pierre Obame Meye, Sûreté de fonctionnement dans le nuage de stockage, 01/02/2011, supervised by Emmanuelle Anceaume and Frédéric Tronel

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

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

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 (MdC LIP6, 25%), Guillaume Piolle (25 %), Frédéric Tronel (25 %), Valérie Viet Triem Tong (25 %) ;

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

PhD in progress: Simon Boche, "Respect de la vie privée dans les réseaux ubiquitaires", started in October 2012, supervised by Christophe Bidan (30 %), Nicolas Prigent (35 %), Gilles Guette (35 %) ;

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 %), Nicolas Prigent (50 %) ;

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

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 %) ;

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

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

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

PhD in progress: Florian Grandhomme, “Étude de protocoles de routage dynamique externe de type BGP dans un environnement réseaux tactiques adhoc mobiles : faisabilité, performances, qualité de service et passage à l’échelle.”, started in October 2014, supervised by Adlen Ksentini (Dionysos Inria project 30%), Gilles Guette (70%) ;

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

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

10.2.3. Juries

- Sébastien Gams was a member of the PhD committee (reviewer) for the PhD of Thibaud Antignac titled « Méthodes formelles pour le respect de la vie privée par construction », prepared at INSA de Lyon, February 2015.
- Sébastien Gams was a member of the PhD committee (reviewer) for the PhD of Marco Stronati titled « Designing Location Privacy Mechanisms for flexibility over time and space », prepared at Ecole Polytechnique, September 2015.
- Sébastien Gams was a member of the PhD committee (reviewer) for the PhD of Ali Kassem titled « Automated Verification of Exam, Cash, Reputation, and Routing Protocols », prepared at Université de Grenoble, September 2015.
- Sébastien Gams was a member of the PhD committee (reviewer) for the PhD of Iraklis Leontiadis titled « Privacy Preserving Data Collection and Analysis », prepared at Eurecom, October 2015.
- Ludovic Mé was a member of the PhD committee (reviewer) for the PhD of Ivan Studnia entitled « Détection d’intrusion pour des réseaux embarqués automobiles : une approche orientée langage », prepared at INSA de Toulouse, Septembre 2015.
- Ludovic Mé was a member of the PhD committee (reviewer) for the PhD of Eric Freyssinet entitled « Lutte contre les botnets : analyse et stratégie », prepared at Université Pierre et Marie Curie, Paris, November 2015.
- Ludovic Mé was a member of the HDR committee (reviewer) for the HDR of Yves Roudier entitled « Advances in the Design and Engineering of Secure Distributed Systems », prepared at Université Nice Sophia-Antipolis, Decembre 2015.
- Eric Totel was a member of the PhD committee (reviewer) for the PhD of Yosra Ben Mustapha entitled « Corrélation d’alertes: un outil plus efficace d’aide à la décision pour répondre aux intrusions », prepared at Telecom Sud Paris, Avril 2015.
- Eric Totel was a member of the PhD committee (reviewer) for the PhD of Samuel Marchal entitled « DNS and Semantic Analysis for Phishing Detection », prepared at Université de Lorraine, Juin 2015.

- Eric Totel was a member of the PhD committee (reviewer) for the PhD of Thibault Probst entitled « Evaluation et analyse des mécanismes de sécurité des réseaux dans les infrastructures virtuelles de cloud computing », prepared at Université fédérale de Toulouse, Septembre 2015.
- Valérie Viet Triem Tong was a member of the PhD committee for the PhD of Aurélien Thierry entitled « Désassemblage et détection de logiciels malveillants auto-modifiants », prepared at Université de Lorraine, March 2015.

10.3. Popularization

Guillaume Piolle has participated to two scientific popularization activities, both oriented towards secondary education pupils. In both cases, 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):

- Les cordées de la réussite : national program aimed at facilitating access to higher education for pupils from various social backgrounds ;
- Bilateral scientific mediation action between CentraleSupélec and the Joliot-Curie high school in Rennes.

Other kinds of popularization activities have taken place in the form of communications aimed at non-academic computing professionals, on the topic of personal data protection regulations and techniques [24], [20].

Sébastien Gambs was also involved in several events dedicated to the public at large such as a presentation at le Pouce (<https://www.inria.fr/ouest-inria/le-pouce-bilan-et-perspectives/>).

COAST Project-Team

8. Dissemination

8.1. Promoting Scientific Activities

8.1.1. Scientific events selection

8.1.1.1. Member of the conference program committees

- Claude Godart was PC member of the conference program committee of BPM (Business Process Management), BPMDS (Business Process Modeling, Development and Support), CBI (IEEE Conference on Business Informatics), EDOC (The enterprise computing conference), ICSOC (International Conference on Services Computing), IEEE CLOUD Computing, ICWS (IEEE International Conference on Web Services), SCC (IEEE International Conference on Services Computing), 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) 2015 and 2016, CDVE (International Conference on Cooperative Design, Visualization and Engineering) 2015, ICEBE (International Conference on e-Business Engineering) 2015, Best paper awards committee at CSCW 2016
- Olivier Perrin was PC Member of ICSOC 2015, I3E 2015 (14th IFIP Conference on e-Business, e-Services and e-Society), VECOS 2015 (9th International Workshop on Verification and Evaluation of Computer and Communication Systems), SITIS 2015.
- François Charoy was PC Member of ICEBE (International Conference on Business Engineering) 2015, CTS 2015 (International Symposium on Collaborative Technologies and Systems), DG.O (International Conference on Digital Government Research) 2015, IEEE International Conference on Business Information Systems and of several workshops.
- Khalid Benali was PC Member of IWEI 2015 (International IFIP Working Conference on Enterprise Interoperability), COLLA 2015 (International Conference on Advanced Collaborative Networks, Systems and Applications), WorldCIST'15 (World Conference on Information Systems and Technologies), ICDS 2015 (The International Conference on Digital Society), MEDES 2015 (ACM/IFIP International Conference on Management of Emergent Digital EcoSystems), INFORSID'2015, INNOV 2015 (International Conference on Communications, Computation, Networks and Technologies), I3E 2015 (The 14th IFIP Conference on e-Business, e-Services and e-Society), and AFIN 2015 (The Seventh International Conference on Advances in Future Internet).
- Gérald Oster was a PC member of CoopIS 2015 (International Conference on Cooperative Information Systems).

8.1.1.2. Member of the editorial boards

- Claude Godart is member of the editorial board of "IEEE transaction 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).

8.1.1.3. Reviewer - Reviewing activities

- In 2015, Olivier Perrin reviewed papers for IEEE Transactions on Services Computing journal and Elsevier Computers & Security journal.

- In 2015, Claudia-Lavinia Ignat reviewed papers for IEEE Transactions on Software Engineering.

8.1.2. Invited talks

- François Charoy has been invited as a keynote Speaker at the Pro-VE Conference in Albi [5] on Collaborative Networks and Crisis Management.
- François Charoy has been invited as a keynote Speaker at the ISCRAM Med conference in Tunis [6] on Web Scale collaboration and Crisis Management.

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 lecture in disciplines like software engineering, database systems, object oriented programming and design, distributed systems, service computing and even more advanced topics at all levels and in all kind 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.

- G r me Canals is the head of the Computer science department of the Nancy-Charlemagne University Institute of Technology (IUT Nancy Charlemagne) since sept. 2010, 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.
- Fran ois Charoy is responsible of the Software Engineering specialisation at the TELECOM Nancy Engineering School of University of Lorraine.
- G rard Oster is responsible of the 3rd year internship program 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 Fran ois Charoy

PhD (in progress): Hoai Le Nguyen, Study of group performance and behavior in collaborative editing, started in 9/2015, Claudia-Lavinia Ignat and Fran ois 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 (in progress): Luc Andr , Replication and Consistency Maintenance in Peer-to-Peer Collaborative Environment, started in 9/2011, Fran ois Charoy and G rard Oster

PhD (in progress): Victorien Elvinger, Secured Replication for Peer-to-Peer Collaborative Infrastructures, started in 10/2015, Fran ois Charoy and G rard Oster

PhD (in progress): Ahmed Bouchami , S curit  des donn es collaboratives d’une plateforme PaaS, started in 11/2012, Olivier Perrin

PhD (in progress): Adrien Devresse , Study of effective sharing and analysis of very large metadata repositories: application to the High Energy Physics computing community, started on 11/2011, 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 (defended): Mehdi Ahmed Nacer ended 5/2015, François Charoy and Pascal Urso.

8.2.3. *Juries*

- Claudia-Lavinia Ignat was a member of the jury for the recruitment in 2015 of permanent Inria junior researchers at Inria Nancy-Grand Est.
- 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:

- Amina Saoutal, PhD, Université de Technologie de Troyes, December 2015 (François Charoy et Claudia-Lavinia Ignat)
- Laurent Cailleux, PhD, Telecom Bretagne, January 2015 (François Charoy)
- Mehdi Ahmed Nacer, PhD, Université de Lorraine, May 2015 (François Charoy and Pascal Urso)
- Victor Codecedo, PhD, Université de Lorraine, September 2015 (François Charoy)
- Aurélie Montarnal, PhD, Ecoles des Mines D'Albi, October 2015 (François Charoy)
- Houssemed Medhioub, PhD, Université Pierre et Marie Curie, Paris, April 2015 (Olivier Perrin)
- Akram Bedoui, PhD, Université de Lorraine, Nancy, November 2015 (Olivier Perrin)
- Kevin Royer, PhD, ENSMA Poitiers, March 2015 (Claude Godart)
- Saoussen Cheikhrouhou, PhD, Université de Sfax, June 2015 (Claude Godart)
- Samuel Marchal, PhD, Université de Lorraine and Université du Luxembourg, June 2015 (Claude Godart)
- Mustapha Aznag, PhD, Université Aix-Marseille, Juillet 2015 (Claude Godart)
- Mohamed Bentounsi, PhD, Université Paris-Descartes, Juillet 2015 (Claude Godart)
- Elio Goettelmann, PhD, Université de Lorraine, October 2015 (Claude Godart)
- Kahina Gani, PhD, Université Blaise Pascal, Clermont-Ferrand, December 2015 (Claude Godart)

8.3. Popularization

- In 2015, Claudia-Lavinia Ignat participated at “Le Village des Sciences” at Loria.
- François Charoy has been invited to participate to a panel at Grand Est Numérique 3

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 led a working group called GT Europe that had to come up with certain propositions that could reinforce the participation of Inria Nancy-Grand Est researchers at european project calls. She participated to the working group “Livret d'accueil” that was in charge with the design of a booklet for newcomers at Inria Nancy-Grand Est. She is responsible with the activity kindergarten at AGOS Inria Nancy-Grand Est.

8.5. Collective Responsibilities outside Inria

- François Charoy is head of the “Commission de choix” of TELECOM Nancy and member of the Administration Council of TELECOM Nancy.
- François Charoy is elected member of CNU.
- Gérard Oster is member of the Administration Council of TELECOM Nancy and of the “Commission de choix” of TELECOM Nancy.
- Claude Godart is member of the Administration Council of the engineering school ESSTIN and member of the recruitment committee of the engineering school ESSTIN.

CTRL-A Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

10.1.1.1. General chair, scientific chair

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

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

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

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

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

10.1.1.2. Member of the organizing committees

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

10.1.2. Scientific events selection

10.1.2.1. Chair of conference program committees

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

10.1.2.2. Member of the conference program committees

Eric Rutten is PC member for:

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

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

10.1.3. Journal

10.1.3.1. Reviewer - Reviewing activities

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

10.1.4. Invited talks

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

10.1.5. Scientific expertise

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

10.2. Teaching - Supervision - Juries

10.2.1. Supervision

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

10.2.2. Juries

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

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'15 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. BIS'2015 in particular featured a one-day International Conference on Digital Assets, Data Philanthropy and Public Benefit, entitled "Who Owns the Data", which was co-organized with CITRIS, with the support of EIT Digital.

9.1.1.2. Chair of technical program committee

- Nikolaos Georgantas is co-chair of the ARM'15 international workshop.
- Valérie Issarny is co-PC chair of the New Idea track of ESEC/FSE'15.

9.1.1.3. Member of technical program committee

- Nikolaos Georgantas is PC member of the following international conferences: 3PGCIC'15, Aml'15, SOSE'15, DATA'15, ICSOFT-EA'15, ICSOFT-PT'15, ANT'15, WETICE'15, CBSE'15, SAC'16;
- Nikolaos Georgantas is PC member of the following international workshops: SCART'15, Projects Showcase event at STAF'15, SERENE'15, SESoS'15;
- Valérie Issarny is PC member of the following international conferences: Coordination'15&16, ESSOS'14, FASE'15-17, FSE'14, ICDCS'15-16, IFIPTM'15, ISPN'15, Middleware'15&16, SEAMS'14.

9.1.2. Journal

9.1.2.1. Member of editorial board

- 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.

9.1.2.2. Guest editor of special issue

- Nikolaos Georgantas is co-guest editor of the Thematic Series on the Internet of Things of the Springer JISA Journal of Internet Services and Applications.

9.1.3. Invited talks

- Valérie Issarny gave a keynote at Formal Methods 2015.

9.1.4. Scientific expertise

- Valérie Issarny is member of the IFSTTAR Scientific Council & "Commission d'évaluation des chercheurs";
- Valérie Issarny is member of the GDR GPL scientific council;
- 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-Rocquencourt.

9.1.5. 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-Rocquencourt.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

E-learning

Valérie Issarny is co-author and coordinator, and Animesh Pathak is co-author, of the MOOC entitled “Smart Cities: Technology and Societal Challenges”, which is provided via the FUN platform. The MOOC (in French) provides a high-level introduction to digital technologies underlying the design and development of smart cities. The course is composed of 5 weeks, each featuring from 5 to 8 sequences. Valérie Issarny and Animesh Pathak are authors of 5 and 4 sequences, respectively. The first edition of the MOOC is played in January 2016.

Class teaching

Master: Nikolaos Georgantas, “Pervasive Service Oriented Computing” as part of “Architectures orientées services”, 9 hours (équivalent TD), niveau M2, University of Versailles Saint-Quentin en Yvelines, France.

9.2.2. Supervision

In 2015 and beginning 2016, the following students successfully defended their PhD:

Benjamin Billet, *Data Stream Management System for the Future Internet of Things*, defended in March 2015, UVSQ-EDSTV, advised by Valérie Issarny;

Emil Andriescu, *Synthèse et déploiement dynamiques de protocoles de médiation pour l'interopérabilité dans les environnements collaboratifs nomades*, defended in February 2016, UPMC-EDITE, CIFRE Inria-Ambientic, advised by Valérie Issarny and Roberto Speicy-Cardoso (Ambientic).

Additionally, the following PhD thesis is currently in progress at the MiMove team:

Georgios Bouloukakis, *Runtime adaptation of middleware connectors for emergent mobile systems*, started October 2013, 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 Belaggoun 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 external reviewer for the PhD thesis of Amleto Di Salle, *Automated Synthesis of Service Choreographies*, defended in April 2015, Univ. of L'Aquila, Italy, advised by Prof. Paola Inverardi and Dr. Marco Autili;

Nikolaos Georgantas was examiner for the PhD thesis of Mourad Amziani, *Modeling, Evaluation and Provisioning of Elastic Service-based Business Processes in the Cloud*, defended in June 2015, Télécom SudParis and Université d'Evry Val Essonne, France, advised by Prof. Samir Tata and Dr. Tarek Melliti.

Valérie Issarny was reviewer for the PhD thesis of Dimitrios Miloris, *Trend Detection and Information Propagation in Dynamic Social Networks*, defended in April 2015, Ecole Polytechnique, France, advised by Philippe Jacquet and Paul Mühlethaler.

MYRIADS Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

10.1.1.1. General chair, scientific chair

- Christine Morin and Deb Agarwal were co-chairs of the Science Data Ecosystem workshop, held in the framework of the Data Science Symposium organized by IRISA for the 40th anniversary celebration (November 26th, 2015, Rennes, France)
- Louis Rilling was also co-organizer of the SEC2 2015 workshop, co-located with Compas 2015.
- Anne-Cécile Orgerie was co-chair of the ExtremeGreen workshop, in conjunction with CCGrid 2015 (Shenzhen, China, May 2015).

10.1.1.2. Member of the organizing committees

- Martin Quinson was the main organizer of the 2015 SimGrid's User Days (Lyon, France, 8-12 June 2015), gathering the community of users.
- Christine Morin was a member of the scientific committee for the Inria Scientific Days held in Nancy in June 2015.

10.1.2. Scientific events selection

10.1.2.1. Chair of conference program committees

- Guillaume Pierre was program committee co-chair of the EIT Digital Symposium on the Future of Cloud Computing (Rennes, France, 19-20 October 2015).

10.1.2.2. Member of the conference program committees

- Christine Morin was a member of the program committee of the ACM/IEEE CCGrid 2015 conference.
- Christine Morin was a member of the program committee of the first IEEE Conference on Network Function Virtualization and Software Defined Networks (NFV-SDN 2015) conference.
- Christine Morin was a member of the program committee of the 23rd Euromicro International Conference on Parallel, Distributed, and Network-Based Processing (PDP 2015).
- Christine Morin was a member of the technical posters committee of the 2015 ACM/IEEE International Conference on High Performance Computing, Networking, Storage and Analysis (SC15).
- Christine Morin was a member of the program committee of the Compas 2015 conference.
- Christine Morin was a member of the program committee of the 6th International workshop on Scientific Cloud Computing (ScienceCloud 2015) co-located with the ACM HPDC 2015 conference.
- Christine Morin was a member of the program committee of the 8th International workshop on Virtualization Technologies in Distributed Computing (VTDC-2015) co-located with the ACM HPDC 2015 conference.
- Christine Morin was a member of the program committee of the 10th international workshop on Virtualization in High-Performance Cloud Computing (VHPC 2015) co-located with the EuroPar 2015 conference.
- Christine Morin was a member of the program committee of the Resilience 2015 workshop co-located with the EuroPar 2015 conference.
- Anne-Cécile Orgerie was a member of the program committee of the CCGrid 2015 conference.

- Anne-Cécile Orgerie was a member of the program committee of the CloudNet 2015 conference.
- Nikolaos Parlavantzas was a member of the program committee of the CLOSER 2015 conference.
- Guillaume Pierre was a member of the program committee of the DADS track of the SAC 2015 conference.
- Guillaume Pierre was a member of the program committee of the IC2E 2015 conference.
- Guillaume Pierre was a member of the program committee of the AINA 2015 conference.
- Guillaume Pierre was a member of the program committee of the CSCS20-2015 conference.
- Guillaume Pierre was a member of the program committee of the CloudDP 2015 workshop.
- Guillaume Pierre was a member of the program committee of the VTDC 2015 workshop.
- Guillaume Pierre was a member of the program committee of the HotWeb 2015 workshop.
- Martin Quinson was a member of the program committee of the ACM SIGSIM Principles of Advanced Discrete Simulation (PADS 2015) conference.
- Martin Quinson was a member of the program committee of the High Performance Computing & Simulation (HPCS 2015) conference.
- Martin Quinson was a member of the program committee of the SimulTech 2015 conference.
- Martin Quinson was a member of the program committee of the Parallel and Distributed Computing Education for Undergraduate Students (Euro-EduPar 2015) workshop.
- Louis Rilling was program committee member of the DIHC 2015 workshop co-located with EuroPar 2015.
- Cédric Tedeschi was a member of the program committee of the ICWS 2015 conference.
- Cédric Tedeschi was a member of the program committee of the ICCS 2015 conference.
- Cédric Tedeschi was a member of the program committee of the CloSer 2015 conference.

10.1.3. Journal

10.1.3.1. Member of the editorial boards

Christine Morin has been appointed associate editor in the IEEE's Transactions on Parallel and Distributed Systems' Editorial Board since June 2015.

- Martin Quinson is a member since 2013 of the editorial board of the Interstices journal (edited by Inria in collaboration), aiming at increasing the scientific outreach of informatics.

10.1.4. Invited talks

- *Breaking the cloud : Energy-Efficient & Network-aware Distributed Cloud Infrastructure*. Ismael Cuadrado-Cordero, talk at GreenDays. Toulouse, France, 16-17 March 2015.
- *Resource allocation in a Cloud partially powered by renewable energy sources*. Yunbo Li, talk at GreenDays. Toulouse, France, 16-17 March 2015.
- *Breaking the cloud: Energy-efficient cloud PaaS*. Ismael Cuadrado-Cordero, poster presentation at the EIT Digital Symposium on the Future of Cloud Computing. Rennes, France, 19-20 October 2015.
- *Breaking the cloud: Energy-efficient cloud PaaS*. Ismael Cuadrado-Cordero, poster presentation at Green ICT day at IRISA. Rennes, France, 30 November 2015.
- *Self Adaptation for Security Monitoring in IaaS Clouds*. Anna Giannakou, 3 minute talk at the D1 Department Day. Rennes, France, 26 May 2015.
- *Self Adaptation in Security Monitoring for IaaS clouds*. Anna Giannakou, 5 minute talk at the SEC2-Premier atelier sur la Securite dans les Clouds. Lille, France, 30 June 2015.
- *Self Adaptable Security Monitoring in IaaS Clouds*. Anna Giannakou, poster presentation at the EIT Digital Symposium on the Future of Cloud Computing. Rennes, France, 19-20 October 2015

- *Self Adaptable Security Monitoring in IaaS Clouds*. Anna Giannakou, poster presentation at Club recherche du Pôle d'Excellence Cyber. Rennes, France 8 December 2015.
- *Private-by-design: towards Personal Local Clouds*. Christine Morin, invited presentation at the Dagstuhl seminar on the Distributed Cloud Computing (DCC), Dagstuhl, Germany, February 10, 2015.
- *Autonomic and Energy-Efficient Management of Large-Scale Virtualized Data Centers and Towards High Performance Computing in Clouds*. Christine Morin, invited tutorials at the *Seconda Università di Napoli*, Napoli, Italy, April 19-20 2015.
- *ConPaaS Generic Service for Automated Application Deployment in Distributed Clouds*. Christine Morin, presentation at the Inria Industry Meeting on Smart City & Mobility Innovations: Towards environmental and social sustainability, San Francisco, USA, May 11, 2015.
- *Security of Information Systems hosted in Clouds: SLA Definition and Enforcement in a Dynamic Environment*. Christine Morin, invited presentation at the SEC 2 workshop on security in clouds, co-located with Compas 2015, Lille, France, June 30, 2015.
- *Debate on Ecological Transitions*. Christine Morin, panelist, Nantes, France, September 24, 2015.
- *Energy Efficiency & Energy Saving in Clouds*. Christine Morin, presentation at the IRISA Green IT meeting, Rennes, France, November 30, 2015.
- *Self-adaptation for Security Monitoring in IaaS clouds*. Anna Giannakou, Christine Morin, and Louis Rilling, invited poster at the Cyber Pole of Excellence's research club meeting, Rennes, France, November 30, 2015.
- Anne-Cécile Orgerie gave a keynote entitled "Energy efficiency in Cloud computing infrastructures", at ExtremeGreen workshop in conjunction with CCGrid 2015, Shenzhen, China, May 4, 2015.
- Anne-Cécile Orgerie gave a talk entitled "Le Green IT à l'IRISA", Matinale Rennes Atalante on Smart Grids, Rennes, July 8, 2015.
- Anne-Cécile Orgerie gave a talk entitled "Green computing" and participated to a debate with Françoise Berthoud (CNRS), at the Forum du CNRS, Paris, December 12, 2015.
- *HARNESS: bringing real hardware heterogeneity to the cloud*. Guillaume Pierre, invited presentation at the 5th International Workshop on Cloud Data and Platforms. Co-located with EuroSys 2015 in Bordeaux, France. April 21, 2015.
- *HARNESS: bringing real hardware heterogeneity to the cloud*. Guillaume Pierre, invited presentation at the 8th International Workshop on Virtualization Technologies in Distributed Computing. Co-located with HPDC 2015, Portland, OR, USA, June 15th 2015.
- *Accelerating clouds with FPGA virtualization*. Ancuta Iordache, poster presentation at the EIT Digital Symposium on the Future of Cloud Computing. Rennes, France, 19-20 October 2015.
- *Accelerating clouds with FPGA virtualization*. Ancuta Iordache, presentation at the 5th Workshop on Storage and Data Analytics. Cesson-Sévigné, France, 19 November 2015.
- *Cloud application performance modeling in ConPaaS*. Guillaume Pierre, invited presentation at the Paris Open Source Summit. Paris, France, 18-19 November 2015.
- *An Edge Cloud Architecture for Latency-Critical Interactive Applications*. Teodor Crivat, poster presentation + demo at the EIT Digital Symposium on the future of Cloud computing. Rennes, France, 19-20 October 2015.
- *An Edge Cloud Architecture for Latency-Critical Interactive Applications*. Teodor Crivat, poster presentation + demo at the EIT Digital results day. Helsinki, Finland, December 1st 2015.

10.1.5. Scientific expertise

- Christine Morin acted as a reviewer for the University College Cork (UCC) Research Quality Review (April 2015). She was one of the scientific experts to examine a promotion as Senior University Lecturer in Computing Science and Engineering at the Faculty of Science and Technology of Umeå University (August 2015). She was a member of the ModaClouds European project Advisory Board. She is a member of the scientific council of ENS Cachan. She was a member of the admission jury for the 2015 Inria senior researcher competition.

She was a member of the selection committees for a Professor position in Computer Science at ESIR engineering school at the University of Rennes 1 and for a Professor position in Computer Science at ENS Rennes.

- Anne-Cécile Orgerie participated to the evaluation of three Doctoral schools in January 2015 as a young researcher expert for HCERES.
- Guillaume Pierre participated in the evaluation panels of ongoing national (ANR) projects LISP-LAB, MOEBUS, PROFIL, ABCD, and DataTweet. Paris, France, 27-27 October 2015.
- Nikolaos Parlavantzas acted as an expert reviewer for ANRT CIFRE, PHC Orchid, and FFCR projects.

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 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 et systèmes 2 (60 hours ETD at ENS Rennes)
- Master 2: Green ICT - 3 hours of invited lecture at Telecom SudParis

Nikolaos Parlavantzas (at INSA Rennes):

- 4th year: Operating Systems (40 hours ETD)
- 4th year: Big Data and Applications (25 hours ETD)
- 4th year: Networking and SOA (12 hours ETD)
- 4th year: Advanced Operating Systems (12 hours ETD)
- 4th year: Parallel programming (12 hours ETD)
- 4th year: Software Development Project (30 hours ETD)
- 5th year: Component-based Software Engineering (16 hours ETD)

Jean-Louis Pazat is responsible for the following graduate teaching Modules: Advanced operating Systems, Parallel Computing, Clouds, Networking and SOA.

Jean-Louis Pazat (at INSA Rennes):

- 4th year: Advanced Operating Systems and Clouds (32 hours ETD)
- 4th year: Parallel Programming (48 hours ETD)
- 4th year: Networking and SOA (48 hours ETD)
- 4th year: Software development project (60 hours ETD)

Guillaume Pierre (at the University of Rennes 1):

- License 3: Systèmes (25 hours ETD)
- License 3: Organisation et utilisation des systèmes d'exploitation 2 (67 hours ETC)
- Master 2: Techniques de développement logiciel dans le Cloud (39 hours ETD)
- Master 1: Service Technologies (24 hours ETD)
- Master 2: Approche algorithmique des applications et systèmes répartis (32 hours ETD)

Martin Quinson:

- Licence 3: Programming and Software Engineering (30 hours ETD at ENS Rennes)
- Master 1: Concurrency in Systems and Networks (20 hours ETD at University of Rennes 1)
- Master 2: Pedagogy and Scientific Mediation for Computer Science (30 hours EDT at ENS Rennes)

Cédric Tedeschi (at the University of Rennes 1):

- Master 1: Concurrency in Systems and Networks (70 hours ETD)
- Master 1: Parallel Programming (36h hours ETD)
- Master 1: Service Technologies (30h hours ETD)
- Master 2 (research): Internet of Services (6 hours ETD)

E-learning

Christine Morin contributed to a MOOC entitled "*Villes intelligentes : défis technologiques et sociaux*" that will be available on the FUN platform in January 2016.

Cédric Tedeschi is responsible for the Operating Systems class within the eMiage online teaching program.

Martin Quinson extended the Programmer's Learning Machine (PLM) with another lesson on recursive programming. The 12 new exercises revisit the old problem of Hanoi towers with several less common variants.

10.2.2. Supervision

PhD in progress : Ancuta Iordache, Multi-resource optimization for application hosting in heterogeneous clouds, started in February 2013, 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: 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: 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: Sabbir Hasan, SLA Driven Cloud autoscaling for optimizing energy footprint, started in December 2013, Thomas Ledoux (Ascola), Jean-Louis Pazat.

PhD in progress: Anna Giannakou, A Self-adaptable Security Supervision System for Clouds, started in March 2014, Christine Morin, Jean-Louis Pazat, Louis Rilling.

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

PhD in progress: Amir Teshome Wonjiga, Definition and Enforcement of Service Level Agreements for Cloud Security Supervision, started in October 2015, Christine Morin, Louis Rilling.

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: Palakiyem Wallah, Best-Effort Execution of Service Workflows, started in October 2013, Ayité Ajavon (University of Lomé, Togo), Jean-Louis Pazat, Cédric Tedeschi.

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

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 Total (Cidre).

10.2.3. Juries

- Christine Morin was a member (chair) of the PhD defense committee of Sylvain Gault, ENS Lyon (March 23rd 2015).
- Christine Morin was a reviewer of the HdR committee of Gilles Fedak, ENS Lyon (May 28th, 2015).
- Christine Morin was a reviewer of the HdR committee of Vania Marangozova-Martin, Grenoble University (June 12th, 2015).
- Christine Morin was a reviewer of the PhD defense committee of Tatiana Martsinkevich, Paris-Sud University (September 22nd 2015).
- Christine Morin was a member (chair) of the PhD defense committee of Arnaud Lefray, ENS Lyon (October 3rd 2015).
- Christine Morin was a reviewer of the HdR committee of Georges DaCosta, Toulouse University (November 12th, 2015).
- Christine Morin was a reviewer of the PhD defense committee of Aline Bousquet, Orléans University (December 2nd 2015).
- Christine Morin was a reviewer of the PhD defense committee of Damien Riquet, Lille 1 University (December 3rd 2015).
- Guillaume Pierre was a reviewer in the PhD committee of Mihai Dobrescu, EPFL, 3 July 2015.
- Guillaume Pierre was a reviewer in the PhD committee of Kaveh Razavi, Vrije Universiteit Amsterdam, 5 November 2015.
- Guillaume Pierre was a reviewer in the PhD committee of Diego Didona, Lisbon University, 20 November 2015.
- Martin Quinson was a member in the PhD committee of Luka Stanisic, Grenoble University, 30 October 2015.
- Louis Rilling was a member of the PhD defense committee of Pierrick Buret, Université de Limoges (December 1st 2015).
- Louis Rilling was a member of the PhD defense committee of Anis Bkakria, Télécom Bretagne (December 17th 2015).
- Cédric Tedeschi was a member in the PhD committee of Maurice Faye, ENS de Lyon, 10 November 2015.

10.3. Popularization

- Martin Quinson organized a 2-days workshop for secondary maths teachers on how algorithms could be used to reinforce the pupils abilities to verbalize, set out arguments and conduct rigorous demonstrations (Nancy, March 2-3 2015). This workshop was co-organized by the IREM (Institut de Recherche en Enseignement des Mathématiques) of Nancy.
- Martin Quinson gave a talk entitled “Computational Science: the real societal impact of computers”, during the workshop presented in previous item (Nancy, March 3th 2015).
- Martin Quinson co-organized a one day workshop for about 100 secondary computer science teachers. This event spreads the best practices to teach our topic (Nancy, March 12th 2015).

- Martin Quinson was a scientific expert in an experiment in which we explored how Scratch can be used to teach Computer Science in after school activities every week for the whole week.
- Martin Quinson is a scientific expert in a teaching manual of Computer Science for primary schools, currently authored within the «La main à la pâte» research network. This manual will be released in 2016.
- Martin Quinson organized a collaborative workshop on Wikipedia gathering students and researchers to improve the French speaking pages on Computer Science in the free encyclopedia (Rennes, December 10, 2015).

10.4. Miscellaneous

Christine Morin is a member of the Project-Team Committee of INRIA RENNES – BRETAGNE ATLANTIQUE (Comité des projets), a member of the board of the Project-Team Committee of INRIA RENNES – BRETAGNE ATLANTIQUE (since November 2015), *Référent Chercheur* for INRIA RENNES – BRETAGNE ATLANTIQUE. She was a member of the Irisa/Inria “Commission Personnel” being in charge of post-docs and “*délégations*” (until October 2015). She was corresponding for North America relationships in the Inria Direction of European and International Relationships (until November 2015).

Anne-Cécile Orgerie is in charge (chargée de mission) of the “Green IT” transversal axis of IRISA.

Nikolaos Parlavantzas is the local coordinator for the international exchange of students at the computer science department of Insa.

Guillaume Pierre is the local coordinator of the EIT Digital master school in Rennes, and the local coordinator of the Erasmus exchange program between Université de Rennes 1 and Politehnica University Bucharest.

Jean-Louis Pazat is the leader of the “Large Scale Systems” department of IRISA. He is the leader of the computer Science Lab at INSA (IRISA-INSA). He is the coordinator for reviews of international bilateral cooperation projects at the Ministry of Research and Higher Education in the STIC domain.

Thierry Priol is the director of the Inria European and International Partnership department.

Cédric Tedeschi is a member of the administration council of the EECS departement of the University of Rennes 1.

Yvon Jégou is a member of the Grid 5000 executive committee. He is a member of the *Comité de Sélection et de Validation (CSV)* of the *Images & Réseaux* cluster.

REGAL Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events organisation

9.1.1.1. General chair, scientific chair

- Luciana Arantes was scientific co-chair of the 16th Simposio em Sistemas Computacionais de Alto Desempenho
- Pierre Sens was general-chair of **EDCC 2015** conference.

9.1.1.2. Member of the organizing committees

- Luciana Arantes was organisation chair of **EDCC 2015** conference.
- Sébastien Monnet was finance chair for **EDCC 2015** conference.
- Franck Petit is member of the steering committee of SSS (International Symposium on Stabilization, Safety, and Security of Distributed Systems) conference.
- Pierre Sens is member of the steering committee of SBAC-PAD (International Symposium on Computer Architecture and High Performance Computing) conference.
- Marc Shapiro is a member of the Steering Committee of the Principles and Practice of Consistency for Distributed Data (PaPoC).
- Marc Shapiro is a member of the Steering Committee of the Int. Conf. on the Principles of Distributed Systems (OPODIS).

9.1.2. Scientific events selection

9.1.2.1. Chair of conference program committees

- Marc Shapiro chairs the 2016 Franco-American Doctoral Exchange Programme (FADEX).

9.1.2.2. Member of the conference program committees

- Luciana Arantes was a PC member of the 15th IFIP Distributed Applications and Interoperable Systems Conference (DAIS 2015); The 26th IEEE International Symposium on Software Reliability Engineering (ISSRE 2015); the 17th IEEE International Conference on High Performance Computing and Communications (HPCC 2015); The 14th IEEE International Symposium on Network Computing and Applications (NCA 2015); The 27th International Symposium on Computer Architecture and High Performance Computing (SBAC-PAD 2015); The Eighth International Conference on Dependability (DEPEND 2015).
- Swan Dubois was member of the program committee of 17th International Symposium on Stabilization, Safety, and Security of Distributed Systems (SSS 2015).
- Sébastien Monnet is PC member of 30th and 31st ACM/SIGAPP Symposium On Applied Computing - track Operating Systems (SAC 2015 and 2016); French conference on parallelism, architecture and system (Compas 2015); 14th workshop on Network and Systems Support for Games (NetGames 2015) and 16th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing (CC-Grid 2016).
- Pierre Sens was member of the program committee of 4rd IEEE/SAE International Conference on Connected Vehicles and Expo (ICCVE 2015); Europar 2015; 30th IEEE International Parallel and Distributed Processing Symposium (IPDPS'2016).
- Marc Shapiro was a member of the External Programme Committee for the Int. Conf. on Architectural Support for Programming Languages and Operating Systems (ASPLOS 2016).

- Marc Shapiro is PC member of W. on Planetary-Scale Distributed Systems (W-PSDS) 2015; member of the Middleware 2015 conference.

9.1.2.3. Reviewer

- Swan Dubois reviewed papers for the ACM Symposium on Principles of Distributed Computing (PODC 2015), the International Conference on Networked Systems (NETYS 2015), and the Rencontres Francophones sur les Aspects Algorithmiques de Télécommunications (AlgoTel 2015).
- Sébastien Monnet was external reviewer for the 30th IEEE International Parallel and Distributed Processing Symposium (IPDPS 2016).

9.1.3. Journal

9.1.3.1. Member of the editorial boards

- Franck Petit was invited editor with Michel Raynal for a special issue on Distributed Computing into TCS (Journal of Theoretical Computer Science)—Vol. 561. Also, he belongs to the editorial board of the Scientific World Journal and the Journal of Discrete Mathematics.
- Pierre Sens is associated editor of International Journal of High Performance Computing and Networking (IJHPCN).

9.1.3.2. Reviewer - Reviewing activities

- Luciana Arantes reviewed papers for the Journal of Parallel and Distributed Computing (JPDC).
- Swan Dubois reviewed papers for the Journal of Parallel and Distributed Computing (JPDC), Computer Networks (COMNET), and Theoretical Computer Science (TCS).
- Sébastien Monnet reviewed a paper for the IEEE Transactions on Parallel & Distributed Systems (TPDS 2016).

9.1.4. Invited talks

Pierre Sens gave the following invited talks:

- ICL Innovative Computing Laboratory - University of Tennessee, October 2015
- Maimonide seminar - Herzilya, Israel, November 2015.

Marc Shapiro gave the following invited talks:

- Royal Holloway London University, May 2015.
- Universidade Nova de Lisboa, May 2015.
- W. on Chemistry of Concurrent and Distributed Programming II, Agadir, Morocco, May 2015.
- CurryOn, Prague, July 2015.
- Workshop on Large-Scale Distributed Systems (LADIS), Monterey CA USA, Oct. 2015.
- CodeMesh, London, Nov. 2015.

9.1.5. Scientific expertise

Swan Dubois was member of the scientific committee for the assistant professor position n°1642 at University Paris-Sud.

Pierre Sens served on the jury for the "Prix de thèse Gilles Kahn" (SIF - Académie des Sciences).

Pierre Sens also chaired the selection committees for an assistant professor position at Grenoble University.

9.1.6. Research administration

- Pierre is Member of the scientific council of UPMC and officer at UPMC Vice Presidency of Research and Innovation.

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, Oliver Marin, Sébastien Monnet, Franck Petit, Pierre Sens, Advanced distributed algorithms, 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, 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, 22 h, M1, Polytech UPMC Sorbonne Universités, France.

9.2.2. Supervision

PhD: Raluca Diaconu, "Passage à l'échelle pour les mondes virtuels," UPMC, 01/23/2015, Joaquin Keller (Orange lab), Sébastien Monnet, Pierre Sens.

PhD: Lokesh Gidra, "Ramasse-miettes pour les machines virtuelles sur les processeurs multicoeurs," UPMC, 09/28/2015, Gaël Thomas, Marc Shapiro, Julien Sopena.

PhD: Karine Pires, "Diffusion et Transcodage à Grande Échelle de Flux Vidéo en Direct," UPMC, 03/31/2015, Gwendal Simon, Sébastien Monnet, Pierre Sens.

PhD: Maxime Véron, "Arbitrage décentralisé pour les jeux massivement parallèles," UPMC, 09/25/2015, Olivier Marin, Sébastien Monnet, Pierre Sens.

PhD: Marek Zawirski, "Cohérence à terme fiable avec des types de données répliquées," UPMC, 01/14/2015, Marc Shapiro.

PhD in Progress: João 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: Marjorie Bournat, “Gathering in robot networks”, UPMC, since Sep. 2014, 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: Mohamed Hamza Kaaouachi, “Autonomic Distributed Environments for Mobility”, UPMC/Chart-LUTIN (Labex SMART), Franck Petit, Swan Dubois, and François Jouen (Chart).

PhD in progress: Maxime Lorrillere, “A kernel cooperative cache for virtualized environments”, UPMC, Sébastien Monnet, Julien Sopena, Pierre Sens.

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

PhD in progress: Yoann Péron, “Development of an adaptive recommendation system”, UPMC/Makazi, 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: Guillaume Turchini, “Scalable platform for massively multiplayer online games..”, UPMC, since Sep. 2015, Sébastien Monnet.

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.

Master 1 : Mohamed Bekthaoui, “Cliques maximales dans les TVGs”, ENS Lyon, Swan Dubois.

9.2.3. *Juries*

Franck Petit was the reviewer of:

- T. Langner, PhD ETHZ, Zurich, Suisse. (Advisor: R. Watenhoffer)
- M. Djibril Faye, PhD LIP, ENS Lyon. (Advisor: E. Caron)
- M. Khaled, PhD MIS, Amiens. (Advisors: V. Villain and F. Levé)

Franck Petit was Chair of :

- D. Bonnin, PhD LaBRI, Bordeaux. (Advisors: C. Travers and Y. Métivier)
- M. Véron, PhD LIP6, Paris. (Advisors: P. Sens, O. Marin, and S. Monnet)

Pierre Sens was the reviewer of:

- G. Da Costa, HDR IRIT, Toulouse
- V. Marangozova, HDR LIG, Grenoble
- G. Fedak, HDR LIP, Lyon
- P. Li, PhD Bordeaux (Advisors: R. Namyst, E. Brunnet)
- R. Leroy, PhD LIFL - Maison de la Simulation, (Advisor: N. Melab)
- T. Martsinkevich, PhD LRI (Advisor: F. Cappello)
- M. Antoine, PhD Univ. Nice (Advisor: F. Baude)
- C. Gómez-Calzado, PhD Univ. San Sebastian, Spain (Advisor: M. Larrea)
- J. De la Houssaye, PhD Univ. Évry (Advisor: F. Pommereau)
- F. Zanon Boito, PhD LIG (Advisors: Y. Denneulin, P. Naveaux)
- A. El Rheddane, PhD LIG (Advisor: N. de Palma)

Pierre Sens was Chair of the defense committees of:

- S. Monnet, HDR LIP6, Paris
- D. Conan, HDR Télécom Sud Paris, Evry
- R. Angarita, PhD Dauphine, Paris (Advisor: M. Rukoz)
- X. Han, PhD Télécom Sud Paris, Evry (Advisor: N. Crespi)
- R. Farahbakhsh, Han, PhD Télécom Sud Paris, Evry (Advisor: N. Crespi)
- D. Yang, PhD Télécom Sud Paris, Evry (Advisor: D. Zeghlache)
- H. Xiong, PhD Télécom Sud Paris, Evry (Advisor: D. Zeghlache)
- L. Guo, PhD LIP6, Paris, (Advisor: G. Muller)

Marc Shapiro was a reviewer on the defense committee of Mehdi Ahmed-Nacer (Nancy).

Sébastien Monnet was member of the defense committee of Amadou Diarra, Phd Grenoble university, Grenoble (Advisor: V. Quema).

9.3. Popularization

Sébastien Monnet is responsible for the **Science Festival at UPMC for the LIP6**.

Sébastien Monnet and Julien Sopena animated an activity during the Science Festival 2015.

SCALE Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events organisation

9.1.1.1. general chair, scientific chair

- Ludovic Henrio, member of the chairing committee of ICE'2016; organisation of a workshop on Active object languages in September 2015.
- Fabien Hermenier co-chaired of the 4th Workshop Energy-Efficiency in Data Centres (E2DC)

9.1.2. Scientific events selection

9.1.2.1. responsible of the conference program committee

- Olivier Dalle, member of the SIMUTools Steering Committee;
- Eric Madelaine, member of the FACS Steering Committee;

9.1.2.2. member of the conference program committee

- Françoise Baude: program committee member of HPCS 2015, Compas2015
- Olivier Dalle: program committee member of DEVS/TMS'15, ACM SIGSIM PADS'15, WSC'15
- Ludovic Henrio: program committee member of ICE'15, PDP4PAD 2016, AGERE!2015
- Fabien Hermenier: program committee member of Compas2015, PDP, VTDC
- Fabrice Huet : program committee member of Europar 2014, IEEE Big Data 2014, BDCloud 2014.

9.1.3. Journal

9.1.3.1. reviewer

- Françoise Baude was a reviewer for International Journal of Computer Mathematics, and TSI special issue of Compas 2014;
- Olivier Dalle was a reviewer for journals ACM TOMACS, SCS SIMULATION, Elsevier SIMPRA;
- Fabien Hermenier was a reviewer for journals of Systems and Software, IEEE Transactions on Cloud Computing, Journal of Grid Computing;
- Ludovic Henrio was reviewer for the journal SCP (Science of Computer Programming);
- Eric Madelaine was reviewer for the journals SCP (Science of Computer Programming) and JLAMP (Journal of Logical and Algebraic Methods in Programming).

9.1.4. Invited talks

- Eric Madelaine presented a talk titled "Semantics and Equivalences for Parameterized Networks of Synchronised Automata (pNets)", at the "Advanced Software Technology Forum" of the Chinese Academy of Science, Shanghai, July 23rd.

9.1.5. Research administration

- Eric Madelaine is council member of the International Joint Research Laboratory of Trustworthy Software, Ministry of Education, China.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Licence : Françoise Baude, Algorithmique et Programmation en Java, 70 H eqTD, niveau L2, Polytech’Nice Sophia, UNS, France

Licence : Françoise Baude, Introduction au Web, 30 H eqTD, niveau L2, Polytech’Nice Sophia, UNS, France

Licence : Olivier Dalle, Systèmes Informatiques, 72 H eqTD, niveau L1, UFR Sciences, UNS, France

Licence : Olivier Dalle, Outils Formels Informatique, 36 H eqTD, niveau L2, UFR Sciences, UNS, France

Licence : Olivier Dalle, Projet Scientifique Informatique, 33 H eqTD, niveau L2, UFR Sciences, UNS, France

Licence : Olivier Dalle, Systèmes d’Exploitation, 72 H eqTD, niveau L2, UFR Sciences, UNS, France

Licence : Fabien Hermenier, Algorithmique et Programmation en Java, 70 H eqTD, niveau L2, Polytech’Nice Sophia, UNS, France

Licence : Fabien Hermenier, Introduction à Internet, 103 H eqTD, niveau L2, Polytech’Nice Sophia, UNS, France

Licence : Fabien Hermenier, Outils pour le Génie Logiciel 14 H eqTD, niveau L3/SI3, Polytech’Nice Sophia, UNS, France

Licence : Justine Rochas, TP de Programmation Orientée Objet 18 H eqTD, niveau L3, UFR Sciences, UNS, France

Master : Françoise Baude, Applications Réparties, 36 H eqTD, niveau M1/SI4, Polytech’Nice Sophia, UNS, France

Master : Françoise Baude and Ludovic Henrio, Distributed systems: an Algorithmic approach, 17 H + 17 h eqTD, niveau M2, Polytech’Nice Sophia/UFR Sciences, UNS, France

Master : Fabrice Huet, Programmation Parallèle et Distribuée, 63h eqTD, niveau M1, UFR Sciences, UNS, France

Master : Fabrice Huet, Programmation Avancée, 78h eqTD, niveau M1, UFR Sciences, UNS, France

Master : Fabien Hermenier, Software Architecture for Cloud Computing, 17h eqTD, niveau M2, Polytech’Nice Sophia, UNS, France

Master : Fabien Hermenier, Virtualised Architecture for Cloud Computing, 17h eqTD, niveau M2, Polytech’Nice Sophia, UNS, France

Master : Justine Rochas, TP de Systèmes Distribués 24 H eqTD, niveau M1, UFR Sciences, UNS, France

Master : Justine Rochas, TP de Technologies XML 24 H eqTD, niveau M1, UFR Sciences, UNS, France

Summer School : Eric Madelaine, “Designing, programming, and verifying distributed systems”, 9 H eqTD, East China Normal University Shanghai, China.

9.2.2. Supervision

PhD : Michaël Benguigui, “Valorisation d’options américaines et Value at Risk de portefeuille sur cluster de GPUs/CPU hétérogène”, UNS, 27/8/2015 advisor Françoise Baude.

PhD : Maeva Antoine, “Improving skewed data dissemination in structured overlays”, UNS, 23/3/2015, advisors Eric Madelaine and Fabrice Huet

PhD: Damian Vicino, “Improved Time Representation in Discrete-Event Simulation”, UNS-Carleton, 23/11/2015, advisors Olivier Dalle, Françoise Baude, Gabriel Wainer (Carleton University, Canada).

PhD in progress: Ge Song, “Publish-Subscribe Models for Large Scale Data Analysis Frameworks”, since Feb. 2013, advisor Fabrice Huet and Frédéric Magoulés (ECP)

PhD in progress : Vincent Kerbache, “Resource Management in a Cloud Supplied with Renewable Energies”, since Sep. 2013, advisors Eric Madelaine and Fabien Hermenier

PhD in progress : Oleksandra Kulankhina, “Model-driven environment for the development of safe component-based distributed applications”, since Oct. 2013, advisor Eric Madelaine

PhD in progress: Justine Rochas, “Programming model and middleware support for distributed and concurrent applications”, since Oct. 2013, advisor Ludovic Henrio

PhD in progress: Hlib Mykhailenko, “Probabilistic Approaches for Big Data Analytics”, since March. 2014, advisors Fabrice Huet, Philippe Nain (Inria)

PhD in progress: Vincenzo Mastandrea, “Deadlock analysis for concurrent and distributed programming”, since Oct. 2014, advisors Ludovic Henrio and Cosimo Laneve.

PhD in progress: Léa El Bèze, “Predictive Big Data Analytics: continuous and dynamically adaptable data request and processing”, since Nov. 2015, advisors Françoise Baude and Didier Parigot (Inria).

9.2.3. Juries

- Françoise Baude was jury president for the PhD of Ivan Paez (Université de Rennes 1).
- Ludovic Henrio was reviewer and jury member for the PhD of Sylvain Dailier (Université d’Orléans).
- Fabrice Huet reviewed the PhD thesis of Roelof Kemp (Vrije Universiteit, Amsterdam).

9.3. Popularization

- Françoise Baude is in charge since September 2011 of the set up and animation of an educational program *Cordées de la Réussite*, which in 2015 has launched a robotic project around the humanoid robot named Poppy. Since 2013, she is in charge of the AVOSTII-STI2D program implementation for Polytech’Nice Sophia, requiring advertising high-school pupils for engineering studies, in particular in ICT.

As EIT Digital Master School University of Nice Sophia-Antipolis coordinator, she is in charge of publicizing, orchestrating, and reporting about all the EIT Digital master programmes involvement of UNS (Internet and Technology Architecture, and Data Science programmes); and as part of the *Paris Node comité de pilotage*, to follow French activities within EIT Digital, and report about UNS activities within this KIC. Overall this mission required about four full-time months of work in 2015. She presented these two master programs at the Telecom Valley Innovation meeting on March 27th and June 18 2015, and in more details at the Kick-Off meeting of the Master School organized in Eindhoven for master students, on October 23th 2015.

She has been invited at the round table “Mystérieuses Big Data” on november 230th that was organized for the 50th anniversary of UNS.

- Fabrice Huet is in charge, since 2011, of the *Informatiques et Sciences du Numérique* courses for the academia of Nice. These courses are offered to high school teachers who volunteer to offer a Computer Science option to their students. He has also given seminars in high school during the *Fête de la Science*.

SPIRALS Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

10.1.1.1. General chair, scientific chair

Martin Monperrus has been General Chair of the 2nd European Open Symposium on Empirical Software Engineering (**EOSESE'2015**), organized in Lille on 3 December 2014 in the context of EvoLille 2015.

Romain Rouvoy has been General Chair of (**Compas'2015**), that is the national research conference on parallelism, architecture, and system. The conference was held in Lille from 30 June to 3 July 2015.

10.1.1.2. Member of the organizing committees

Martin Monperrus has been member of the organization committee of the **EvoLille'2015** scientific conference on software evolution and empirical software engineering that was held in Lille from 2nd December to 4th December 2015.

10.1.2. Scientific events selection

10.1.2.1. Chair of conference program committees

Romain Rouvoy is member of the Steering Committee of the IFIP International Conference on Distributed Applications and Interoperable Systems (**DAIS**) and the French conference **Compas**.

10.1.2.2. Member of the conference program committees

Laurence Duchien

International Software Product Line Conference (SPLC), track Vision

International Workshop on Software Engineering Research and Industrial Practice (SER&IP) at the ACM/IEEE International Conference on Software Engineering

European Conference on Software Architecture (ECSA)

IEEE International Conference on Cloud and Autonomic Computing (ICCAC)

Belgian-Netherlands software eVOLution seminar (BENEVOL)

IEEE International Conference on Software Analysis Evolution and Reengineering Committee for Female Student Funding

Filip Krikava

Transformation Tool Contest (TTC) at the Software Technologies Applications and Foundations (STAF) International Conference

Philippe Merle

International Workshop on Combining Model-Driven Engineering and Cloud Computing (Cloud-MDE)

Intelligent Service Clouds Workshop (ISC) at the International Conference on Services Oriented Computing

International Symposium on Security in Computing and Communications (SSCC)

International Workshop on Adaptive and Reflective Middleware (ARM)

Conférence en Ingénierie Logicielle (CIEL)

Martin Monperrus

ACM /IEEE International Conference on Software Engineering (ICSE)
International Conference on Software Maintenance and Evolution (ICSME)
International Workshop on Computational Antifragility and Antifragile Engineering (ANTIFRAG-
ILE)

Daniel Romero Acero

IEEE International Conference on Enabling Technologies: Infrastructure for Collaborative Enter-
prises (WETICE), track on Adaptive and Reconfigurable Service-Oriented and Component-Based
Applications and Architectures (AROSA)

Romain Rouvoy

ACM/IFIP/USENIX International Middleware conference (Middleware)
Dependable and Adaptive Distributed Systems track (DADS) at the Annual ACM Symposium on
Applied Computing (SAC)
Distributed Computing track (DC) of the International Symposium on Symbolic and Numeric
Algorithms for Scientific Computing (SYNASC)
Vision Track of the International Software Product Line Conference (SPLC)
International Conference on Computer Communications and Networks (ICCCN)
International Conference on Ambient Systems, Networks and Technologies (ANT)
IEEE International Workshop on Big Data Management for the Internet of Things (BIOT)
International Workshop on Adaptive and Reflective Middleware (ARM)
International Workshop on Adaptive Services for the Future Internet (WAS4FI)
International Workshop on Software Architectures for Next-generation Cyber-physical Systems
(SANCS)
International Workshop on Self-aware Internet of Things (Self-IoT)
International Workshop on Scalable Computing For Real-Time Big Data Applications (SCRAMBL)

Lionel Seinturier

IEEE/IFIP Conference on Software Architecture (WICSA)
International ACM Symposium on Component-Based Software Engineering (CBSE)
ACM Symposium on Applied Computing (SAC), tracks Software Architecture Theory Technology
and Applications (SA-TTA), Operating Systems (OS), Software Engineering Aspects of Green
Computing (SEGC)
International Workshop on Software Engineering for Smart Cyber-Physical Systems (SEsCPS) at
the ACM/IEEE International Conference on Software Engineering
IEEE International Symposium on Software Crowdsourcing (ISCC)
IEEE International Conference on Service Oriented Computing & Applications (SOCA)
Australasian Software Engineering Conference (ASWEC)
International Workshop on Model-Driven Engineering for Component-Based Software System
(ModComp)
Euromicro Conference on Software Engineering and Advanced Applications (SEAA), track Model-
based development Components and Services (MOCS)
IEEE Service Visionary Track on Service Composition for the Future Internet (SCFI)
IEEE/ACIS International Conference on Software Engineering Research Management and Applica-
tions (SERA)
IEEE International Conference on Enabling Technologies: Infrastructure for Collaborative Enter-
prises (WETICE), track on Formal Verification of Service Based Systems (FVSBS)
Workshop on Patterns Promotion and Anti-patterns Prevention (PPAP)
Conférence francophone en sur les Architectures Logicielles (CAL)

10.1.2.3. Reviewer

Philippe Merle has reviewed papers for the International ACM SIGSOFT Symposium on Component-Based Software Engineering (CBSE).

10.1.3. Journal

10.1.3.1. Member of the editorial boards

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

Martin Monperrus is member of the editorial board of the international journal Springer Empirical Software Engineering (IF-2014: 2.161).

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: Elsevier Science of Computer Programming (SCP), Elsevier Journal of Systems and Software (JSS), Wiley Software Practice and Experience (SPE).

Philippe Merle: Elsevier Journal of Systems and Software (JSS), Lavoisier Technique et Science Informatiques (TSI), IEEE Cloud Computing.

Martin Monperrus: IEEE Transactions on Dependable and Secure Computing (TDSC), Wiley Journal of Software Testing, Verification and Reliability (STVR), Software Quality Journal (SQJ), Springer Empirical Software Engineering (EMSE), Communications of the ACM (CACM).

Romain Rouvoy: IEEE Computer, IEEE Internet of Things Journal, Lavoisier Technique et Science Informatiques (TSI), Journal of Network and Computer Applications (JNCA), Elsevier Computer Communications (COMCOM), Elsevier Science of Computer Programming (SCP), IEEE Journal of Software: Evolution and Process (JSME).

Lionel Seinturier: Elsevier Journal of Systems and Software (JSS), Elsevier Journal of Network and Computer Applications (JNCA), Science China Information Sciences (SCIS), Springer Journal of Internet Services and Applications (JISA), Wiley Software Practice and Experience (SPE).

10.1.4. Invited talks

Martin Monperrus gave on keynote in Barcelona at IEEE CNSM 2012, and an invited course on automatic repair at the Escuela de Ciencias Informáticas, a winter school held in Buenos Aires (Argentina).

10.1.5. Leadership within the scientific community

Laurence Duchien is the head of the CNRS GDR GPL (Génie de la Programmation et du Logiciel). GDR GPL gathers 700 researchers from 90 teams in the domain of software engineering and programming languages.

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 Composants Objets Services : Modèles, Architectures et Langages" of the GDR GPL.

10.1.6. Scientific expertise

Laurence Duchien was member of a recruitment committee for a Senior Research Scientist position at the University of Luxembourg, for a Full Professor Position at the University of Montpellier and at the University of Bordeaux, for a Full Professor and an Inria Chair at Ecole des Mines de Nantes. She is expert for Program Hubert Curien.

Philippe Merle was member of the recruitment committee for research engineers for Inria SED Lille and Grenoble.

Martin Monperrus has been expert for the Natural Sciences and Engineering Research Council of Canada (NSERC/CRSNG).

Romain Rouvoy has been expert for the Natural Sciences and Engineering Research Council of Canada (NSERC/CRSNG).

Lionel Seinturier has been expert for the EU COST program, the Swiss National Science Foundation, the Qatar National Research Fund, and the French DRRT. He was member of a recruitment committee for a Senior Research Scientist position at the University of Luxembourg.

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 PEDR 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 vice-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 president of the CLDD (Commission Locale de Développement Durable), member of the CUB (Commission des Utilisateurs du Bâtiment), and member of the Horizon Startup committee for the Inria Lille - Nord Europe research center.

Lionel Seinturier is member of the CDT (Commission Développement Technologique), member of the CER (Commission Emplois Recherche), 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 University of Lille 1.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Laurence Duchien teaches at the University of Lille 1, IEEA faculty. She heads the **research program** in Master of Computer Science at University Lille 1. 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 also Director of Doctoral Studies for Computer Science in 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.

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 **IAGL** specialty of the Master of Computer Science at the University 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 special-
 ity,
 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, 18h, Level M1, Master of Computer Science,
 Infrastructures et Frameworks Internet, 6h, Level M2 E-Services and TIIR, Master of Computer Science.

10.2.2. Supervision

Defended HdR: Philippe Merle, Intergiciel d'intergiciels adaptable à base de services, composants et aspects, University Lille 1, 24 September 2015.

Defended PhD: Benoit Cornu, Automatic Analysis and Repair of Exception Bugs for Java Programs, 26 November 2015, Lionel Seinturier & Martin Monperrus.

Defended PhD: Marc Sango, Traceability of Concerns and Observer-Based Verification for Railway Safety-Critical Software, 18 September 2015, Laurence Duchien & Christophe Gransart.

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: Maria Gomez Lacruz, Self-Optimization of Software Systems Driven by Wisdom of the Crowds, October 2013, Lionel Seinturier & Romain Rouvoy.

In progress PhD: Geoffrey Hecht, Auto-optimisation des architectures orientées services : Application aux applications mobiles et Cloud, October 2013, Romain Rouvoy.

In progress PhD: Vincenzo Musco, Etude de la topologie et de l'évolution des graphes logiciels, October 2013, Philippe Preux (Inria SequeL) & 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.

In progress PhD: Bo Zhang, Elasticité spontanée des services et infrastructures dans le Cloud, October 2013, Lionel Seinturier & Romain Rouvoy.

10.2.3. Juries

Laurence Duchien

HDR Reda Bendraou (Université Paris 6), reviewer
 HDR Jean-Rémy Falleri (University of Bordeaux), reviewer
 HDR Anis Sharfi (Université of Nice-Sophia Antipolis), reviewer
 Marc Sango (University Lille 1), director
 Jonathan Aceituno (University Lille 1), chair
 Radu Ciucanu (University Lille 1), chair
 Fabien Gilson (University of Namur), reviewer
 Sam Rottenberg (Telecom SudParis), reviewer
 Shuai Wang (University of Oslo), reviewer
 Jakub Zwolakowski (University Paris VII), reviewer
 Jacob Geisel (Université of Toulouse), examiner
 Vincent Lanore (ENS Lyon) Dec 2015, examiner

Martin Monperrus

Benoit Cornu (University Lille 1), co-supervisor

Romain Rouvoy

Codé Diop (INSA Toulouse), reviewer

Ivan Paez (University of Rennes 1), reviewer

Paul van der Walt (University of Bordeaux), reviewer

Lionel Seinturier

HDR Rémi Douence (University of Nantes), reviewer

HDR Patricia Stolf (University of Toulouse), reviewer

HDR Philippe Merle (University Lille 1), examiner

Benoit Cornu (University Lille 1), director

Damien Riquet (University Lille 1), chair

Nour Assy (Telecom SudParis), reviewer

Thomas Calmant (University of Grenoble), reviewer

Cédric Eschler (University of Toulouse), reviewer

Leandro Fountoura-Cupertino (University of Toulouse), reviewer

Ilias Gerostathopoulos (Charles University Prague), reviewer

Pierre Samson (University of Pau), reviewer

Abderrahmane Seriai (University Bretagne Sud), reviewer

Borjan Tchakaloff (University Bretagne Occidentale), reviewer

Ghada Ben Nejma (University of Pau), examiner

10.3. Popularization

Julien Duribreux and **Antoine Vuiller** has given a demonstration of the APISSENSE[®] crowd-sensing platform (see Section 6.1) at the RIC day in September. The event targets students from computer science master programs and engineering schools in Lille.

Loïc Huertas has participated in June to Rencontres Inria Industries (RII) Futur en Seine organized by the Paris Rocquencourt research center where he presented the PowerAPI software library (see Section 6.2) for energy monitoring of software systems.

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 (2nde and 1^{ère}) 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 organisation

10.1.1.1. Member of the organizing committees

Gilles Muller was a member of the organizing committee of the Programming Language and Operating Systems workshop (PLOS). He was the sponsor co-chair and the grant co-chair of the EuroSys conference.

Julia Lawall was the publicity co-chair of the EuroSys conference.

10.1.2. Scientific events selection

10.1.2.1. Member of the conference program committees

Julia Lawall was a member of the program committee for the following conferences that took place in 2015: Automated Software Engineering (ASE), EuroSys, IEEE International Conference on Distributed Computing System (ICDCS), International Conference on Software Maintenance and Evolution (ICSME, ERA track), and OOPSLA.

Gilles Muller was a member of the program committee for the following conferences that took place in 2015: European Dependable Conference (EDCC), Dependable Systems and Network (DSN), Timely Results In Operating Systems (TRIOS). He was also a member of the program committee for the upcoming Conference on Architectural Support for Programming Languages and Operating Systems (ASPLOS 2016).

Gilles Muller was a member of the EuroSys 2015 PhD prize R. Needham award.

Pierre-Évariste Dagand was a member of the EuroSys 2015 shadow program committee and member of the program committee of the Programming Languages and Operating Systems (PLOS) workshop.

10.1.3. Journal

10.1.3.1. Member of the editorial boards

Julia Lawall is a member of the editorial board of Science of Computer Programming.

10.1.3.2. Reviewer - Reviewing activities

Julia Lawall reviewed an article for the journal Empirical Software Engineering and an article for the journal Computer Languages, Systems & Structures.

Pierre-Évariste Dagand reviewed an article for the Journal of Computer Programming and an article for Computer Surveys.

10.1.4. Invited talks

Julia Lawall gave an invited talk on “Analysis and Manipulation of Linux Kernel Source Code using Coccinelle” at the 15th IEEE International Working Conference on Source Code Analysis and Manipulation (SCAM, <http://www.ieee-scam.org/2015/>).

Julia Lawall gave an invited talk on “Coccinelle for the Working Programmer” at Curry On (<http://www.curry-on.org/>)

Julia Lawall was invited to give several presentations on Coccinelle at Intel, in Portland, Oregon, in June 2015.

Gilles Muller was invited to give a talk at the NICTA Summer school in Sydney in January 2015, and at the FuDiCo IV workshop in Cornell in October 2015 on his joint work with Renault on mixing real-time and best effort applications on an embedded multicore processor.

Pierre-Évariste Dagand gave an invited talk at the EuroSys program committee meeting on the subject of certified binary parsing, in Cambridge, UK, in January 2015.

10.1.5. Leadership within the scientific community

Julia Lawall is a member of the IFIP TC2 working group WG2.11, on Program Generation. She participated in the WG2.11 meetings in January and November, 2015.

Gilles Muller is a member of the IFIP 10.4 working group on Dependable Computing and Fault Tolerance. He participated in the meetings in January and July, 2015. He gave a talk during the July meeting on his joint work with Renault on mixing real-time and best effort applications on an embedded multicore processor.

10.1.6. Scientific expertise

Julia Lawall served on selection committees for a professor position at UPMC, a professor position at Rennes, and an assistant professor position at the University of Copenhagen. Julia Lawall also served on the jury for the Prix Inria (Grand Prix Inria – Académie des sciences, Prix Inria - Académie des sciences du jeune chercheur, and Prix de l'innovation Inria – Académie des sciences – Dassault Systèmes), and on the Inria national commission for selecting young engineer positions (ADT).

10.1.7. Research administration

Julia Lawall was a Member at Large of the SIGPLAN Executive Committee, for a three-year term ending in June 2015.

Gilles Muller is a member of the steering committee of the EuroSys conference.

Gilles Muller is representing Inria in the Sorbonne Universités advisory committee for research. He is a member of the project committee board of the Inria Paris Center and a member of the Paris committee for allocating post-doc, PhD and sabbatical.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Master/Doctorat : Pierre-Évariste Dagand, **Algorithms**, 60 hours, University of Cape Coast, Ghana

10.2.2. Supervision

Julia Lawall and Gilles Muller co-supervised the PhD work of Valentin Rothberg and Peter Senna Tschudin.

Julia Lawall serves as the external supervisor of Krishna Narasimhan, a PhD student at Goethe University, Frankfurt, supervised by Christoph Reichenbach.

Gilles Muller is the supervisor of the PhD work of Antoine Blin who is supported by a CIFRE grant with Renault.

Pierre-Évariste Dagand and Julia Lawall co-supervised the bachelor's internship of Arthur Blot.

PhD : Florian David, Efficient and Precise Monitoring of Java Locking algorithms on multicore architectures, Université Pierre et Marie Curie, 8 juillet 2015, Gilles Muller and Gaël Thomas

10.2.3. Juries

Julia Lawall was a member of the PhD jury of Shaowei Wang at Singapore Management University.

Gilles Muller was a reviewer of the PhD of Inti Yulien Gonzalez Herrera at the University of Rennes1, a reviewer of the PhD of Amadou Diara at the University of Grenoble, and a reviewer of the PhD of Julien Tanguy at the University of Nantes.

Gilles Muller was a member of the HDR jury of Vincent Gramoli at the Université Pierre et Marie Curie.

10.3. Popularization

Julia Lawall presented a tutorial on Coccinelle at the 2015 KVM Forum in Seattle, Washington, USA in August 2015 (“Getting Started with Coccinelle (KVM edition)”, <http://kvmforum2015.sched.org/>)

Julia Lawall organized a Development Tools Tutorial microconference at the 2015 Linux Plumbers Conference in Seattle, Washington, USA in August 2015 (<http://linuxplumbersconf.org/2015/ocw/events/LPC2015/tracks/423>). She also gave a talk “Introduction to Coccinelle” at that event.

Julia Lawall served on the program committee for the joint Linuxcon Linux Plumbers session at Linuxcon 2015, and on the program committee of the 17th Real Time Linux Workshop (industry workshop).

Julia Lawall served as a mentor for the Linux kernel in the Outreachy internship program for women and other underrepresented groups in winter and summer 2015 (<https://www.gnome.org/outreachy>). She also served as the Linux kernel coordinator for the Outreachy internship program, and organized panel presentations about the program at LinuxCon North America in Seattle, Washington, USA in August 2015 (<http://events.linuxfoundation.org/events/archive/2015/linuxcon-north-america>), and at LinuxCon Europe in Dublin, Ireland in October 2015 (<http://events.linuxfoundation.org/events/archive/2015/linuxcon-europe>).

Julia Lawall participated in the Linux Kernel developer panel at LinuxCon Europe in Dublin, Ireland in October 2015 (<http://events.linuxfoundation.org/events/archive/2015/linuxcon-europe>).

ALPINES Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

10.1.1.1. General chair, scientific chair

- Frédéric Hecht: Organizing the 7th FreeFem++ days (December 2015, Paris)
- Frédéric Hecht: Organizing Contributions to PDE for Applications, September 2015, Paris

10.1.1.2. Member of the organizing committees

- Laura Grigori: Member of Scientific Committee of Ecole CEA-EDF-Inria on Efficacité Énergétique dans le Calcul Haute Performance / Green HPC, 2015.

10.1.2. Scientific events selection

10.1.2.1. Member of the conference program committees

- Laura Grigori: Member of Program Committee of IEEE International Parallel and Distributed Processing Symposium, IPDPS 2015.
- Laura Grigori: Member of Program Committee of IEEE/ACM SuperComputing SC15 Conference, November 2015.
- Laura Grigori: Member of Program Committee of HiPC 2015, IEEE Int'l Conference on High Performance Computing.
- Laura Grigori: Member of Program Committee of International Conference on Parallel Processing and Applied Mathematics PPAM15, 2015.
- Laura Grigori: Member of Program Committee of Workshop on Parallel Symbolic Computation (PASCO 2015), University of Bath, UK, 2015.

10.1.3. Journal

10.1.3.1. Member of the editorial boards

- Laura Grigori: Area editor for Parallel Computing Journal, Elsevier, since June 2013.
- Laura Grigori: Member of the editorial board for the SIAM book series Software, Environments and Tools. See http://bookstore.siam.org/software-environments-and-tools/?_ga=1.57283618.921241804.1409909401. Since March 2014.
- Frédéric Nataf: Member of the editorial board of Journal of Numerical Mathematics

10.1.4. Invited talks

- Laura Grigori: Invited speaker (plenary), ACM/IEEE Supercomputing'15, International Conference for High Performance Computing, Networking, Storage, and Analysis, Austin, November 2015, http://sc15.supercomputing.org/schedule/event_detail?evid=inv103. This is the major conference of high performance computing, attended by 12,000 people.
- Laura Grigori: Invited plenary speaker, Emerging Technology Conference, June 2015, University of Manchester, <http://emit.manchester.ac.uk/>.
- Frédéric Nataf: Invited plenary speaker, XXIII International Conference on Domain Decomposition Methods, 6-10 July 2015, South Korea.

- Frédéric Nataf: Invited plenary speaker, International Conference on Preconditioning Techniques for Large Sparse Matrix Problems, 17-19 June 2015, at the University of Technology, Eindhoven, Netherlands.
- Xavier Claeys: invited talk in the Seminar on PDE, LMV, Univ. Versailles, 15th of Jan. 2015.
- Xavier Claeys: invited talk in the Seminar on Applied Math., CMAP, École Polytechnique, 8th of Dec. 2015.

10.1.5. Leadership within the scientific community

- Laura Grigori: Program Director of the SIAM SIAG on Supercomputing (SIAM special interest group on supercomputing), January 2014 - December 2015. Nominated by a Committee and elected by the members of this SIAG. One of the roles is to Co-Chair the SIAM Conference on Parallel Processing and Scientific Computing 2016.

10.1.6. 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.

10.1.7. Research administration

- Frédéric Hecht: President of the selection committee of the opening 0254 MCF 26, Université de Technologie de Compiègne.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

- Master: Laura Grigori, Guest lecture in a class on Randomized Linear Algebra taught by Ravi Kanan, UC Berkeley, November 2015. The slides of the lecture on *Algorithms for computing low rank approximations* can be found on Laura Grigori's webpage.
- Master: Laura Grigori, Spring 2015, UC Berkeley, Creation of a reading group and lectures on randomized linear algebra that gathers together students and experts interested in learning more and working on fast linear algebra algorithms for machine learning applications. More details are available at <https://who.rocq.inria.fr/Laura.Grigori/RandNLA.html>, including the videos of the lectures. The co-organizers of this reading group are Prof. J. Demmel (CS Department), Prof. M. Gu (Math Department), Prof. M. Mahoney (Statistics Department).
- Master: Laura Grigori, Spring 2015, UC Berkeley, Guest lecturer in CS267 Class of J. Demmel on *Applications of Parallel Computing* (lectures 13 to 16). The slides are available on L. Grigori's website, videos can be found here https://www.youtube.com/playlist?list=PLkFD6_40KJyX8nEjk6oTLWohdVhjjP3X.
 - Lecture 13 on Communication Avoiding Algorithms in Linear Algebra
 - Lecture 14 on Graph partitioning
 - Lecture 15 on Sparse Direct Solvers
 - Lecture 16 on Iterative Solvers
- Master : Frederic Nataf, Course on Domain Decomposition Methods, 30 hours, Master 2, UPMC, France.
- Master : Frederic Nataf, Course on Domain Decomposition Methods, 15 hours, Master 2, ENSTA, France.
- Textbook published by SIAM: AN INTRODUCTION TO DOMAIN DECOMPOSITION METHODS: ALGORITHMS, THEORY, AND PARALLEL IMPLEMENTATION, V. Dolean, P. Jolivet and F. Nataf, 2015.

- Licence : Xavier Claeys, Calculus, 12hrs, L1, Université Pierre-et-Marie Curie Paris 6, France
- Licence : Xavier Claeys, Orientation et Insertion Professionnelle, 40hrs, L2, Université Pierre-et-Marie Curie Paris 6, France
- Master : Xavier Claeys, Informatique de base, 72hrs, M1, Université Pierre-et-Marie Curie Paris 6, France
- Master : Xavier Claeys, Informatique Scientifique, 44hrs M1, Université Pierre-et-Marie Curie Paris 6, France
- Master : Xavier Claeys, Résolution des EDP par éléments finis, 18hrs M2, Université Pierre-et-Marie Curie Paris 6, France
- Master : Frédéric Hecht , Informatique de base, 24hrs, M1, Université Pierre-et-Marie Curie Paris 6, France
- Master : Frédéric Hecht , Des EDP à leur résolution par la méthode des éléments finis (MEF), 24hrs, M2, Université Pierre-et-Marie Curie Paris 6, France
- Master : Frédéric Hecht , Numerical methods for fluid mechanics, 10hrs, M2, Université Pierre-et-Marie Curie Paris 6, France
- Master : Frédéric Hecht , Calcul scientifique 3 / projet industriel Freefem++, 28hrs, M2, Université Pierre-et-Marie Curie Paris 6, France
- Master : Frédéric Hecht , Ingénierie 1 / Logiciel pour la simulation (Freefem++), 21hrs, M2, Université Pierre-et-Marie Curie Paris 6, France
- Master : Frédéric Hecht , Ingénierie 2 / Projet collaboratif, 21hrs, M2, Université Pierre-et-Marie Curie Paris 6, France

10.2.2. Supervision

- PhD: Pierre-Henri Tournier, Absorption de l'eau et des nutriments par les racines des plantes : modélisation, analyse et simulation, Univ. Paris VI, February 2015, co-advisors M. Compte and F. Hecht.
- 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 : Ryadh Haferssas, since October 2013 (funded by Ecole Doctorale, UPMC), advisor F. Nataf
- PhD in progress : Mireille El-HAddad, since March 2014 (Cotuelle l'Université Saint-Joseph de Beyrouth, Liban et UPMC) , advisors F. Hecht and T. Sayah.
- PhD in progress : Guillaume Verger El-HAddad, since Sept. 2013 (funded by ANR Becasim, Université de Rouen), advisors F. Hecht and I. Danaila.

10.2.3. Juries

- Laura Grigori: PhD thesis of Florian Dang, Examiner, president of the jury, Université de Versailles, July 2015.
- Laura Grigori: PhD thesis of Hamza Jeljeli, Examineur, Université de Lorraine, Juillet 2015.
- Xavier Claeys: PhD thesis of Mathieu Lecouvez, Examineur, École Polytechnique, Juillet 2015
- Xavier Claeys: PhD thesis of Simon Marmorat, Examineur, École Polytechnique, Novembre 2015
- Frédéric Hecht: HDR of Laurence Moreau , Rapporteur, UTT, Troyes, June 2015
- Frédéric Hecht: PhD thesis of Arnaud BERTRAND , Rapporteur, Université de Strasbourg, November 2015
- Frédéric Hecht: PhD thesis of Moussa Diédhiou , Examineur, Université de la Rochelle, December 2015

AVALON Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

10.1.1.1. General chair, scientific chair

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

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

10.1.1.2. Member of the organizing committees

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

10.1.2. Scientific events selection

10.1.2.1. Chair of conference program committees

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

10.1.2.2. Member of the conference program committees

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

C. Pérez: CCGRID 2015, ParCo 2015

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

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

O. Glück: PDP 2015, ExtremeGreen 2015

10.1.3. Journal

10.1.3.1. Member of the editorial boards

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

10.1.3.2. Reviewer - Reviewing activities

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

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

10.1.4. Invited talks

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

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

10.1.5. Scientific expertise

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

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

E-learning

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

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

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

10.2.2. Supervision

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

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

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

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

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

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

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

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

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

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

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

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

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

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

10.2.3. Juries

Eddy Caron has been member of the following PhD Juries:

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

Thierry Gautier has been member of the following PhD Jury:

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

Laurent Lefevre has been member of the following PhD Juries:

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

Christian Pérez has been member of the following PhD Juries:

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

10.3. Popularization

Eddy Caron has participated to the following interview:

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

Laurent Lefevre has participated to the following interviews and publications :

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

Olivier Glück has participated to the following interview:

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

HIEPACS 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

Luc Giraud has been member of the scientific program committee of the international conferences HiPC'15, IPDPS'16 and PDSEC'15.

Jean Roman has been member of the scientific program committee of the international conferences IEEE PDP'15 and PDP'16.

10.1.1.2. Reviewer

Furthermore, the **HIEPACS** members have contributed to the reviewing process of several international conferences: CCGRID 2015, IEEE IPDPS 2016,

10.1.2. Journal

10.1.2.1. Member of the editorial boards

Luc Giraud is member of the SIAM J. Matrix Analysis and Applications editorial board.

10.1.2.2. Reviewer - Reviewing activities

The **HIEPACS** members have contributed to the reviewing process of several international journals (ACM Trans. on Mathematical Software, Advances in Computational Mathematics, IEEE Trans. on Parallel and Distributed Systems, Journal of Parallel and Distributed Computing, Parallel Computing, SIAM J. Scientific Comp., ...).

10.1.3. Invited talks

Luc Giraud gave an invited talk at the 2015 **Salishan Conference on High-Speed Computing** (April 27 - 30, 2015) as well as to the seminar of the Laboratoire Jean Kuntzmann (LJK) in Grenoble (Nov. 2015).

Mathieu Favre gave an invited talk at an EDF seminar on High Programming Productivity for High Performance Computing via Runtime Systems (December 15th, 2015).

10.1.4. Scientific expertise

Luc Giraud was a member of the evaluation committee of the "Software for Exascale Computing" (SPPEXA) program funded by the funding agencies from France (ANR), Germany (DFG), and Japan (JST). He also acted as expert for projects submitted to the Israel Science Foundation.

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.

Pierre Ramet is Scientific Advisor at CEA-DAM (French Department of Energy) since October 2015. He is member of the evaluation committee at GENCI since 2008. He is also member of the Scientific Board of :

- the Scientific Computing axis of the Cluster of Excellence CPU from Bordeaux University since 2014,
- the Mesocentre in Bordeaux University since 2010.

10.1.5. 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

Undergraduate level/Licence

1. A. Esnard: Operating system programming, 36h, University Bordeaux I; Using network, 23h, University Bordeaux I.
He is also in charge of the computer science certificate for Internet (C2i) at the University Bordeaux I.
2. M. Faverge: Programming Environment, 26h, L3; Numerical Algorithmic, 30h, L3; C Projects, 20h, L3, ENSEIRB-MatMeca, France
3. P. Ramet: System programming 24h, Databases 32h, Objet programming 48h, Distributed programming 32h, Cryptography 32h at Bordeaux University.

Post graduate level/Master

1. O. Coulaud: Paradigms for parallel computing, 24h, ENSEIRB-MatMeca, Talence; Méthodes hiérarchiques, 8h, ENSEIRB-MatMeca, Talence.
2. E. Agullo: Operating systems, 24h, University Bordeaux I; Dense linear algebra kernels, 8h, ENSEIRB-MatMeca; Numerical Algorithms, 30h; ENSEIRB-MatMeca, Talence.
3. A. Esnard: Network management, 27h, University Bordeaux I; Network security, 27h, University Bordeaux I; Programming distributed applications, 35h, ENSEIRB-MatMeca, Talence.
4. M. Faverge: System Programming, 74h, M1; Load Balancing and Scheduling, 19h, M2, ENSEIRB-MatMeca, Talence.
He is also in charge of the second year of Embedded Electronic Systems option at ENSEIRB-MatMeca, Talence.
5. P. Ramet: Scheduling, 8h; Numerical Algorithmic, 30h; ENSEIRB-MatMeca, Talence.
He also give classes on Cryptography, 30h, Ho Chi Minh City, Vietnam.
6. L. Giraud: Introduction to intensive computing and related programming tools, 20h, INSA Toulouse; Introduction to high performance computing and applications, 20h, ISAE-ENSICA; On mathematical tools for numerical simulations, 10h, ENSEIHT Toulouse; Parallel sparse linear algebra, 11h, ENSEIRB-MatMeca, Talence.
7. A. Guermouche: Network management, 92h, University Bordeaux I; Network security, 64h, University Bordeaux I; Operating system, 24h, University Bordeaux I.
8. J. Roman: Parallel sparse linear algebra, 10h, ENSEIRB-MatMeca, Talence; Parallel algorithms, 22h, ENSEIRB-MatMeca, Talence.

10.2.2. Supervision

Defended PhD thesis

1. Astrid Casadei, *Optimisations des solveurs linéaires creux hybrides basés sur une approche par complément de Schur et décomposition de domaine*, defended on October 19th, advisors: F. Pellegrini and P. Ramet.
2. Arnaud Etchevery, *Simulation de la dynamique des dislocations à très grande échelle*, defended on November 23th, advisors: O. Coulaud and G. Sylvand.

3. Xavier Lacoste, *Scheduling and memory optimizations for sparse direct solver on multi-core/multi-gpu cluster systems*, defended on February 18th, advisors: F. Pellegrini and P. Ramet.
4. Stojce Nakov, *On the design of sparse hybrid linear solvers for modern parallel architectures*, defended on December 14th, advisors: E. Agullo and J. Roman.
5. Alexis Praga, *Un modèle de transport chimie atmosphérique à grande échelle adapté aux calculateurs massivement parallèles*, defended on January 30th, advisors: D. Cariolle (CERFACS) and L. Giraud.
6. Fabien Rozar, *Contributions à l'amélioration de l'extensibilité de simulations parallèles de plasmas turbulents*, defended on November 5th, advisors: G. Latu and J. Roman.
7. Salli Moustafa, *Massively parallel Cartesian discrete ordinates method for neutron transport simulation*, defended on December 15th, advisors: P. Ramet and J. Roman.
8. Mawussi Zounon, *On numerical resilience in linear algebra*, defended on April 1st, advisors: E. Agullo and L. Giraud.

PhD in progress :

1. Pierre Blanchard, *Fast and accurate methods for dislocation dynamics*, starting Oct. 2013, advisors: O. Coulaud and E. Darve (Stanford Univ.).
2. Bérenger Bramas, *Optimization of time domain BEM solvers*, starting Jan 2013, advisors: O. Coulaud and G. Sylvand.
3. Nicolas Bouzat, *Fine grain algorithms and deployment methods for exascale plasma physic applications*, starting October 2015, advisors: G. Latu, M. Mehrenberger and J. Roman.
4. Jean-Marie Couteyen, *Parallélisation et passage à l'échelle du code FLUSEPA*, starting Feb 2013, advisors : P. Brenner (Airbus Defence and Space) and J. Roman.
5. Arnaud Durocher, *Passage à l'échelle des simulations de Dynamique des Dislocations sur plateforme hétérogène pour l'étude des mécanismes de fluage dans les matériaux du nucléaire*, starting Nov. 2015, advisors: O. Coulaud and L. Dupuy (CEA-DEN)
6. Aurélien Falco, *High performance solver for BEM-FEM coupling*, starting December 2015, advisors: E. Agullo, L. Giraud and G. Sylvand.
7. Grégoire Pichon, *Utilisation de techniques de compression \mathcal{H} -matrices pour solveur direct creux parallèle dans le cadre des applications FEM*, starting October 2015, advisors: L. Giraud and P. Ramet.
8. Cyrille Fournier, *New parallel programming paradigm for LES calculation at large scale*, starting March 2015, advisors: L. Giraud and G. Staffelbach (CERFACS).
9. Maria Predari, *Dynamic Load Balancing for Massively Parallel Coupled Codes*, starting Oct. 2013, advisors: A. Esnard and J. Roman.
10. Louis Poirel, *Two level hybrid linear solver*, starting Nov. 2014, advisors: E. Agullo, M. Faverge and L. Giraud.

10.2.3. Juries

- HDR of M. Chau (INP Toulouse) entitled "Algorithmes Parallèles Asynchrones et Applications en Calcul Scientifique" defended December 2015. L. Giraud (referee).
- PhD of J. Herrmann (ENS Lyon) entitled "Memory-aware Algorithms and Scheduling Techniques for Matrix Computations" defended November 2015. L. Giraud (examinator).
- Phd of E. Cieren (Université Bordeaux) entitled "Molecular Dynamics for Exascale supercomputers" defended October 2015. O. Coulaud (examinator).

- Phd of P. Pei Li (Université Bordeaux) entitled "Système unifié de transformation de code et d'exécution pour un passage aux architectures multicœurs hétérogènes" defended December 2015. J. Roman (examinator).

10.3. Popularization

In the context of HPC-PME initiative, we started a collaboration with ALGO'TECH INFORMATIQUE and we have organised one of the first PhD-consultant action implemented by Xavier Lacoste led by Pierre Ramet. ALGO'TECH is one of the most innovative SMEs (small and medium sized enterprises) in the field of cabling embedded systems, and more broadly, automatic devices. The main target of the project is to validate the possibility to use the sparse linear solvers of our team in the area of electromagnetic simulation tools developed by ALGO'TECH.

The **HIEPACS** members have organized the PATC training session on Parallel Linear algebra at CINES in Montpellier April 9-10, 2015.

KERDATA Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

10.1.1.1. General chair, scientific chair

Gabriel Antoniu: Program Co-Chair of the **EIT Digital Future Cloud Symposium** (Rennes, October 2015).

10.1.1.2. Member of the organizing committees

Alexandru Costan: Organizer of the IRISA D1 Department Day Seminar.

10.1.2. Scientific events selection

10.1.2.1. Chair of conference program committees

Gabriel Antoniu: Track Chair for the following international conferences: IEEE Cluster 2015 (Data, Storage, and Visualization Track - Chicago, September 2015) and 3PGCIC 2015 (Distributed Algorithms Track - Krakow, November 2015).

Alexandru Costan: Program Co-Chair of the following international workshops: BigDataCloud 2015 held in conjunction with the Euro-Par 2015 conference (Vienna, August 2015) and ScienceCloud 2015 held in conjunction with HPDC 2015 (Portland, June 2015).

10.1.2.2. Member of the conference program committees

Gabriel Antoniu: ACM HPDC 2015, ACM/IEEE CCGrid'2015, ACM/IEEE SC'15, Euro-Par 2015, BigDataCloud 2015 workshop (held in conjunction with the Euro-Par 2015 conference).

Luc Bougé: BigDataCloud 2015, BigData 2015, ICA3PP 2015, CCGRID 2016.

Alexandru Costan: Member of the following Program Committees: IEEE Cluster 2015, CSCS 2015, ARMS-CC 2015, BigDataCloud 2015, ScienceCloud 2015, CSE

Other reviews: IEEE BigData 2015, SC 2015, HPDC 2015, CCGrid 2015, Euro-Par 2015.

Shadi Ibrahim: Member of the following Program Committees: IEEE Cluster 2015, IEEE Cloudcom 2015, ICPADS 2015, IEEE CSE 2015, IEEE FCST 2015, IEEE ICA3PP 2015, IFIP NPC 2015, MEDES 2015, BigDataCloud 2015 workshop (held in conjunction with the Euro-Par 2015 conference), SCRAMBL 2015 workshop (held in conjunction with the CCGrid 2015 conference).

Other reviews: IEEE BigData 2015, SC 2015, HPDC 2015, CCGrid 2015, Euro-Par 2015.

10.1.3. Journal

10.1.3.1. Member of the editorial boards

Alexandru Costan: Soft Computing Journal, Special Issue on Autonomic Computing and Big Data Platforms

10.1.3.2. Reviewer

Shadi Ibrahim: IEEE Transactions on Parallel and Distributed Systems, IEEE Transactions on Services Computing, IEEE Transactions on Cloud Computing, ACM Transactions on Architecture and Code Optimization, ACM Transactions on Internet Technology, Future Generation Computer Systems, IEEE Systems Journal, Cluster Computing.

Alexandru Costan: IEEE Transactions on Parallel and Distributed Systems, IEEE Transactions on Cloud Computing, Future Generation Computer Systems, Concurrency and Computation Practice and Experience.

10.1.4. Invited talks

Gabriel Antoniu:

3rd JLESC workshop: *To Overlap or Not to Overlap: Optimizing Incremental MapReduce Computations for On-Demand Data Upload*, 3rd workshop of the Joint Laboratory for Extreme Scale Computing, Barcelona, Spain, July 2015.

Huawei Workshop on New Directions in Algorithms and Software, *Scalable data-intensive processing for science on distributed clouds: A-Brain and Z-CloudFlow*, Paris, March 2015.

Inria-Mexico workshop: *Scalable data-intensive processing for science on distributed clouds: A-Brain and Z-CloudFlow*, First Inria-Mexico Workshop in Applied Mathematics and Computer Science Mexico City, June 2015.

IRISA Data Science Symposium: *Damaris: Jitter-Free I/O Management and In Situ Visualization of HPC Simulations using Dedicated Cores*, Science Data Ecosystem workshop, Rennes, November 2015.

Luc Bougé

BigDataCloud 2016: *Data computing in distributed, very large-scale clouds: From execution models to programming models*, satellite workshop of the Euro-Par 2015 conference, Vienna, August 2015.

10.1.5. Leadership within the scientific community

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

Gabriel Antoniu: Leader for the Big Data, I/O and visualization activity within the **JLESC** - Joint Inria-Illinois-ANL-BSC-JSC-RIKEN/AICS Laboratory for Extreme-Scale Computing.

Gabriel Antoniu: Principal Investigator of the Z-CloudFlow Microsoft Research-Inria Project, for which he received an Azure Research Award.

10.1.6. Scientific expertise

Luc Bougé: Member of the jury for the *Agrégation de mathématiques*, the French national hiring committee to hire high-school mathematics teachers at the national level.

Gabriel Antoniu: Project evaluator for 12 ANR projects submitted to the ANR 2016 call (Phase 1).

10.1.7. Research administration

Luc Bougé: Nominated to seat at the CNU (*National University Council*) in the *Informatics* Section (27). His 4-year term has been renewed in November 2015.

Luc Bougé: Scientific Project Leader for Fundamental Informatics at the ANR - *Agence Nationale de la Recherche* until August 2015, for 40% of his time. It was the end of his 3-year delegation contract.

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, 5 hours (lectures), M2 level, SDS Module, M2RI Master Program, ENS Rennes, France.
- Master: Scalable Distributed Systems, 12 hours (lectures), M1 level, SDS Module, EIT ICT Labs Master School, France.
- Master (Engineering Degree, 5th year, *Big Data* option), 10 hours (lectures), M2 level, INSA de Lyon, France.

Luc Bougé

- Bachelor: Introduction to programming concepts, 24 hours (lectures), L3 level, Informatics program, ENS Rennes, France.
- Master: Introduction to object-oriented high-performance programming, 24 hours (lectures), M1 level, Mathematics program, ENS Rennes, France.
- Master: Introduction to compilation, 12 hours (exercice classes), M1 level, Informatics program, Univ. Rennes 1, France.

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, 3 hours (lectures), M2 level, ENSAI (*École Nationale Supérieure de la Statistique et de l'Analyse de l'Information*), Bruz, France.
- Master: Distributed Systems (cloud data management), 4 hours (lectures), M2 level, ALMA Master, Distributed Architectures module, University of Nantes, 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.

10.2.2. Supervision

10.2.2.1. PhD in progress

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.

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

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.

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

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

10.2.3. Juries

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

Gabriel Antoniu: Jury member of the PhD defense of Ms. Safae Dahmani at the University Bretagne Sud (December 14, 2015).

Shadi Ibrahim: Jury member of the PhD defense of Ms. Karine Pires at the University Pierre et Marie Curie, Paris (March 31, 2015).

10.2.4. Miscellaneous

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

Shadi Ibrahim: Project evaluator in the STIC-AMSUD Program 2015.

Shadi Ibrahim: Leader of the BigStorage project recruitment task force.

Gabriel Antoniu: Invited to give a tutorial on *Big Data Technologies* at the PUF Summer School co-organized with the 3rd JLESC workshop in Barcelona (July 2015).

Shadi Ibrahim: Invited to give a 2 days tutorial on *Hadoop* at IT4Innovations, Technical University Ostrava, Czech Republic (December 2015).

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.

10.3. Popularization

Luc Bougé:

Collège international, Valbonne. Invited presentation to the students of the preparatory classes on *Doing research in computer science* (January 2015).

Lycée Chateaubriand, Rennes. Invited presentation to the students of the preparatory classes on *Science of numerics* (March 2015).

IRISA Conf Lunch Program. Invited presentation about *Surviving the Data Deluge* (October 2015).

Master Program, Rennes. Invited presentation to the M2 students about *Informatics as a scientific activity: Toward a responsible research* (December 2015).

IRISA Open House Days, Rennes. Invited presentation about *Wikipedia back stage*, and management of an open booth to let visitors improve their skills about searching Wikipedia (December 2015).

Alexandru Costan:

CumuloNumBio'15, Aussois. Invited presentation at the *Summer School of Bioinformatics* about *Big Data Management on Clouds* (June 2015).

IRISA, Rennes. Invited presentation at the *Conf'Lunch* about *Clouds and MapReduce Programming* (October 2015).

EIT Digital, Rennes. Invited presentation at the Future Cloud Symposium about *Enhancing video gaming user experience with Big Data analytics based on Apache Flink - a use case* (October 2015).

Gabriel Antoniu:

EIT Digital. Invited presentation at the Future Cloud Symposium on *Scalable data-intensive processing for science on distributed clouds* (October 2015).

MESCAL Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events organisation

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

9.1.2. Scientific events selection

9.1.2.1. Member of the conference program committees

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

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

9.1.3. Journal

9.1.3.1. Reviewer - Reviewing activities

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

9.1.4. Invited talks

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

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

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

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

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

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

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

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

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

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

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

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

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

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

E-learning

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

9.2.2. Supervision

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

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

9.2.3. Juries

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

9.3. Popularization

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

MOAIS Project-Team

8. Dissemination

8.1. Promoting Scientific Activities

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

8.1.1. Scientific events organisation

8.1.1.1. Member of the organizing committee

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

8.1.2. Scientific events selection

8.1.2.1. Member of the conference program committee

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

8.1.3. Journal

8.1.3.1. Member of the editorial board

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

8.1.4. Invited talks

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

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

8.2.2. Supervision

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

8.2.3. Juries

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

ROMA Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

10.1.1.1. General chair, scientific chair

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

10.1.2. Scientific events selection

10.1.2.1. Steering committees

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

10.1.2.2. Chair of conference program committees

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

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

10.1.2.3. Member of the conference program committees

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

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

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

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

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

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

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

10.1.2.4. Reviewer

Christophe Alias reviewed papers for DATE’15.

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

Bora Uçar reviewed papers for SC15 and MFCS 2015.

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

10.1.3. Journal

10.1.3.1. Member of the editorial boards

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

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

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

10.1.3.2. Reviewer - Reviewing activities

Anne Benoit reviewed papers for TOPC and TCS.

Christophe Alias reviewed papers for PARCO and IEEE TVLSI.

Laure Gonnord reviewed papers for PARCO.

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

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

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

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

10.1.4. Invited talks

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

10.1.5. Leadership within the scientific community

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

Yves Robert participated to the following selection committees:

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

10.1.6. Scientific expertise

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

10.1.7. Research administration

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

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

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

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

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

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Licence:

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

Master:

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

10.2.2. Supervision

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

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

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

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

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

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

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

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

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

10.2.3. *Juries*

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

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

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

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

10.3. Popularization

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

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

STORM Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

10.1.1.1. Member of the organizing committees

- Raymond NAMYST was publicity co-chair of ACM International Conference on Computing Frontiers 2015 (CF'15).

10.1.2. Scientific events selection

10.1.2.1. Member of the conference program committees

- Samuel THIBAUT was a program committee member for EuroPar'15.
- Olivier AUMAGE was a program committee member for HUCAA'15.
- Raymond NAMYST was member of the program committee for IEEE Cluster 2015, ROSS 2015, PPAM 2015, RESPA 2015, SAC/MUSEPAT 2016 and EuroPar 2016.

10.1.2.2. Reviewer

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

10.1.3. Journal

10.1.3.1. Reviewer - Reviewing activities

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

10.1.4. Invited talks

- Samuel THIBAUT was invited to participate to the HCW panel at IPDPS'15, and to the GPU thematic school in Grenoble in December 2015.
- Olivier AUMAGE was invited to participate to the workshop on Graph-based Languages and Task Programming workshop organized by the company Total in Pau in March 2015, and to the Parallel Runtimes and Architectures panel at the HiPEAC Computer System Week in Oslo in May 2015.

10.1.5. Scientific expertise

Raymond NAMYST has been Scientific Advisor at CEA/DAM (French Department of Energy) since 2007.

Denis Barthou was scientific expert for ANR CIFRE PhD files and for ANR HPC/simulation proposal.

10.1.6. Research administration

Raymond NAMYST is member of the committee in charge of allocating research delegations at Inria Bordeaux Sud-Ouest.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching administration

- Raymond NAMYST is co-chair of Teaching Department in Computer Science of University of Bordeaux
- Denis BARTHOU is in charge of the RSR option (M2 level) at Bordeaux INP.
- Samuel THIBAULT is responsible for the computer science topic of the first university semester.

10.2.2. Teaching

Licence : Marie-Christine Counilh, Introduction to Computer Science, 42HeTD, L1, University of Bordeaux

Licence : Marie-Christine Counilh, Object Oriented Programming, 51HeTD, L2, University of Bordeaux

Licence : Raymond Namyst, Computer Architecture, 38HeTD, L1, University of Bordeaux

Licence : Raymond Namyst, System Programming, 59HeTD, L3, University of Bordeaux

Licence : Samuel Thibault, Introduction to Computer Science, 42HeTD, L1, University of Bordeaux

Licence : Samuel Thibault, Networking and programming project, 24HeTD, L3, University of Bordeaux

Licence : Pierre-André Wacrenier, Introduction to Computer Science, 42HeTD, L1, University of Bordeaux

Licence : Pierre-André Wacrenier, System Programming, 35HeTD, L3, University of Bordeaux

Master : Raymond Namyst, Operating Systems, 60HeTD, M1, University of Bordeaux

Master : Raymond Namyst, Parallel Programming, 33HeTD, M1, University of Bordeaux

Master : Samuel Thibault, Operating Systems, 24HeTD, M1, University of Bordeaux

Master : Pierre-André Wacrenier, Parallel Programming, 51HeTD, M1, University of Bordeaux

Engineer School : Olivier Aumage, High Performance Communication Libraries, 20HeTD, Bac+5, ENSEIRB/IPB

Engineer School : Olivier Aumage, Languages and Supports for Parallelism, 14HeTD, Bac+5, ENSEIRB/IPB

Engineer School : Nathalie Furmento, Operating Systems, 20HeTD, Bac+5, ENSEIRB/IPB

Engineer School: Denis Barthou, Compilation, 28HeTD, M1, ENSEIRB/IPB

Engineer School: Denis Barthou, Computer Architectures, 54HeTD, L3, ENSEIRB/IPB

Engineer School/M2: Denis Barthou, Architecture of parallel computers, 24HeTD, M2, ENSEIRB/IPB

Engineer School: Denis Barthou, Games and interaction, 20HeTD, M2, ENSEIRB/IPB

Engineer School: Denis Barthou, Programming and Software Engineering, 55HeTD, L3/M1, ENSEIRB/IPB

10.2.3. Supervision

PhD: Corentin Rossignon, Design of an object-oriented runtime system for oil reserve simulations on heterogeneous architectures, 2015/07, Olivier Aumage and Pascal Hénon (TOTAL) and Raymond Namyst and Samuel Thibault

PhD: Paul-Antoine Arras, Ordonnancement d'applications à flux de données pour les MPSoC embarqués hybrides comprenant des unités de calcul programmables et des accélérateurs matériels, 2015/02, Emmanuel Jeannot, Samuel Thibault, Didier Fuin, Arthur Stoutchinin

PhD: Emmanuelle Saillard, Static/dynamic/iterative analyses for validation and improvement of multi-models HPC applications, U. Bordeaux, 2015/09, Patrick Carribault (CEA) and Denis Barthou

PhD: Emmanuel Cieren, Molecular Dynamics on Exascale Supercomputers, 2015/10, Laurent Colombet (CEA), Raymond Namyst

PhD: Antoine Capra, Virtualization in the context of High Parallel Computing, 2015/12, Marc Pérache (CEA), François Diakhaté (CEA), Raymond Namyst

PhD: Pei Li, Unified system of code transformation and execution for heterogeneous multi-core architectures, 2015/12, Elisabeth Brunet (Telecom Sud-Paris), Raymond Namyst

PhD in progress: Christopher Haine, Estimating efficiency and automatic restructuration of data layout, 2014/01, Olivier Aumage, Denis Barthou

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, 2014/11, Christian Perez (LIP/ENSL), Julien Bigot (Maison de la Simulation), Olivier Aumage, Guillaume LATU (IRFM).

PhD in progress: Marc Sergent, Passage à l'échelle de moteur d'exécution à base de graphes de tâches, 2013/09, Olivier Aumage, David Goudin (CEA/CESTA), Samuel Thibault, Raymond Namyst

PhD in progress: Suraj Kumar, Task-based programming paradigms and scheduling, 2013/12, Emmanuel Agullo, Olivier Beaumont, Samuel Thibault

PhD in progress: Hugo Brunie. Characterizing and Using Hierarchical Heterogeneous Memories. 2015/09, Julien Jaeger (CEA), Patrick Carribault (CEA), Denis Barthou

PhD in progress: P. Huchant. Static/Dynamic Parallelism Adaptation. 2015/09, Denis Barthou, Raymond Namyst

PhD in progress: G. Vaumourin. Hybrid Memory Hierarchy and Dynamic Data Handling in Embedded Parallel Architectures. Alexandre Guerre (CEA), Thomas Dombek (CEA), Denis Barthou

PhD in progress: J.C. Papin, Potentials-based dynamic scheduling and partitioning tools for domain decomposition based simulations, Laurent Colombet (CEA), Raymond Namyst

10.2.4. Juries

Samuel THIBAUT was member of PhD defense jury of the following candidates:

- Nicolas Bertrand (INP Toulouse, Examiner)
- Sébastien Frémal (Mons Université (Belgium), Examiner)

Denis BARTHOU was member of PhD defense jury of the following candidates:

- Imen Fassi (U. Strasbourg, Reviewer)
- Leandro Fontoura Cupertino (U. Toulouse, Reviewer)
- Vincent Palomares (U. Versailles St Quentin, Reviewer)

Raymond NAMYST was member of the PhD defense jury of the following candidates:

- Aurèle Mahéo (Université Versailles Saint-Quentin, Reviewer)
- Luka Stanisic (Université de Grenoble, Reviewer)
- Safae Dahmani (CEA, Reviewer)
- Andi Drebes (Université Pierre et Marie Curie, President)
- Salli Moustafa (EDF, President)
- Vincent Lanore (ENS Lyon, President)
- Damien Dosimont (Université de Grenoble, Examiner)
- Florent Lopez (Université de Toulouse, Examiner)

He was also member of the HDR defense jury of the following candidates:

- Georges Da Costa (Université Paul Sabatier de Toulouse, President)

Nathalie FURMENTO was member of a Recruiter Committee for a permanent engineer position at the Université de la Rochelle.

10.3. Popularization

- Olivier Aumage gave a tutorial on task-based runtime systems at the HiPEAC conference in Amsterdam in January 2015.
- Olivier Aumage participated to the Inria Booth at the SuperComputing conference in Austin in November 2015.
- Samuel Thibault gave a talk at the ELCI Workshop in Paris.
- Samuel Thibault published a paper « L'accessibilité partout ! Retour d'expérience sous Debian » in the professional « Programmez ! » journal.

TADAAM Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events organisation

9.1.1.1. General chair, scientific chair

TADAAM has organized the 22nd European MPI Users' Group Meeting, also known as EuroMPI. EuroMPI is the preeminent meeting for users, developers and researchers to interact and discuss new developments and applications of message-passing parallel computing, in particular in and related to the Message Passing Interface (MPI).

TADAAM has also organized the MPI Forum meeting that took place just after the EuroMPI conference.

9.1.1.2. Member of the steering committee

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

9.1.2. Scientific events selection

9.1.2.1. Chair of conference program committees

Alexandre DENIS, Brice GOGLIN, Emmanuel JEANNOT and Guillaume MERCIER acted as Program Co-chairs as well as Proceeding Editors of Euro-MPI 2015.

9.1.2.2. Member of the conference program committees

Brice GOGLIN was a member of the program committee of HotInterconnect 23, EuroMPI 2015.

Emmanuel JEANNOT was a member of the program committee of IPDPS'2015, PPAM 2015, EuroMPI 2015, Heteropar'2015, Compas 201, HiPC' 15

Alexandre DENIS was a member of the program committee of HeteroPar 2015, HiPC' 15, EuroMPI 2015, and Compas' 15.

Guillaume MERCIER was a member of the program committee of EuroMPI 2015.

9.1.2.3. Reviewer

Emmanuel JEANNOT was reviewer of SuperComputing.

Alexandre DENIS was a reviewer for CCGrid'2015.

Guillaume MERCIER was a reviewer for IPDPS 2015.

9.1.3. Journal

9.1.3.1. Member of the editorial boards

Emmanuel JEANNOT is associate editor of the International Journal of Parallel, Emergent and Distributed Systems

9.1.4. Editing activities

Emmanuel Jeannot edited the special issue following the HeteroPar 2014, APCIE 2014, and TASUS 2014 workshops [9].

9.1.4.1. Reviewer - Reviewing activities

Brice GOGLIN was a reviewer for the IEEE Micro journal.

Guillaume MERCIER was a reviewer for the Simulation and Modelling Practice and Theory Journal (SIMPAT) and Parallel Computing (PARCO)

Emmanuel JEANNOT was a reviewer for IEEE TPDS, Parallel Computing, JPDC, ACM TACO

François Pellegrini was a reviewer for Parallel Computing.

9.1.5. Invited talks

Alexandre DENIS gave a talk about overlap of communication and computation at *CEA/DAM*.

Brice GOGLIN gave a talk about managing locality in hierarchical computing platforms at *Maison de la Simulation*.

Emmanuel JEANNOT gave an invited talk system-scale optimisation of HPC applications at the PADAL workshop in Berkeley⁰.

Emmanuel JEANNOT gave an invited talk on topology-aware data management at the Sandia National Lab working group.

Emmanuel JEANNOT gave the keynote speech at the Heteropar'2015 workshop in Vienna.

François PELLEGRINI was invited to participate in a round table on the law of the Internet of things at the Law faculty of Université d'Aix-Marseille.

François PELLEGRINI gave an invited talk on legal aspects of software creation during the *Journées nationales du GDR "Génie de la Programmation et du Logiciel"*⁰ in Bordeaux.

François PELLEGRINI gave an invited talk on legal aspects of software creation during the *Journées du réseau du développement logiciel (DevLOG)*⁰ in Bordeaux.

François PELLEGRINI was invited to participate in a round table on the use of personal data for the personalization of healthcare treatments, in the context of the 3rd *Rencontres du droit et de l'innovation* held by the Forum Montesquieu in Bordeaux.

François PELLEGRINI was invited to give a talk on Big data and personal data, in the context of the Juriconnexion meetings⁰, at École française du Barreau, in Issy-les-Moulineaux.

9.1.6. Scientific expertise

Emmanuel JEANNOT was member of the hiring committee for the professor position in computer science of the university of Bordeaux.

François PELLEGRINI is a commissioner at CNIL, the French data privacy supervision authority, where he has been appointed by the President of the French Senate in December 2013.

François PELLEGRINI, as a commissioner at CNIL, is the representative for France in the data privacy supervision bodies of several European organizations that process personal data (Europol, the Schengen information system, etc.). He has been appointed as technical expert for on-site inspection missions of such data processing systems.

9.1.7. 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).

9.1.8. Tutorials

Brice GOGLIN gave tutorials about managing hardware affinities on hierarchical platforms with HWLOC during a PRACE Advanced Training Center session and during EuroMPI. He also gave a hands-on session on advance uses of the GIT version control system in Inria Bordeaux internal seminars.

⁰<https://sites.google.com/a/lbl.gov/padal-workshop/padal15>

⁰<http://gdr-gpl.cnrs.fr/node/196>

⁰<http://devlog.cnrs.fr/jdev2015/t4>

⁰<http://www.juriconnexion.fr/programme-de-la-journee-du-8-decembre-2015-2/>

Emmanuel JEANNOT gave a tutorial about optimizing process placement with TreeMatch during a PRACE Advanced Training Center session.

9.1.9. Research administration

Emmanuel JEANNOT is member of the scientific council 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.

François PELLEGRINI is deputy vice-president of Université de Bordeaux in charge of digital issues. In this context, he participates in the definition and implementation of policies regarding aspects of research such as the development of the academic computing center of the Bordeaux area (MCIA), relationships with other universities (UPPA, Université de La Rochelle), etc.

9.2. Teaching - Supervision - Juries

9.2.1. 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.

9.2.2. Supervision

PhD: François Tessier, Placement of parallel applications according to the topology and the affinity, Université de Bordeaux, defended Jan. 26, 2015. Advisor: Emmanuel Jeannot and Guillaume Mercier.

PhD: Paul-Antoine Arras, Ordonnement d'applications à flux de données pour les MPSOC, Université de Bordeaux, defended Feb. 3, 2015. Advisor: Emmanuel Jeannot and Samuel Thibault.

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: Romain Prou, communication management based on remote memory access, started in 2015. Advisor: Alexandre Denis 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.

9.2.3. Juries

Brice GOGLIN was member of the PhD defense of the following candidates:

- Surya Narayanan Khizahanchery Natarajan (Inria Rennes, Reviewer)

Emmanuel JEANNOT was member of the PhD defense of the following candidates:

- Ivan Cores, (Universidade Da Coruña, Reviewer)
- Emmanuelle Saillard (Université de Bordeaux, President)
- Farouk Mansouri (Université de Grenoble, Reviewer)
- Stéfano Drimon Kurz Mór (Federal University of Rio Grande do Sul, Reviewer)

François PELLEGRINI was member of the PhD defense of the following candidates:

- François Tessier (Université de Bordeaux, President)
- Astrid Casadei (Université de Bordeaux, Member)
- Karl-Eduard Berger (CEA & Paris Saclay, Reviewer)

Brice GOGLIN was also a member of the hiring committees for the Inria Bordeaux communication department head, for a communication assistant, and for the works council (AGOS) assistant.

Emmanuel JEANNOT was member of the hiring committee of a research team assistant.

9.3. Popularization

Brice GOGLIN is in charge of the diffusion of the scientific culture for the Inria Research Center of Bordeaux. He gave numerous talks about high performance computing and research careers to general public audience and school student. He is also involved in the popularization of computer programming and robotics programming and gave several wide audience seminar on these topics.

François PELLEGRINI was invited to give a talk about privacy and information security by the students of ENS Bretagne at Rennes, in the context of their “EntretiENS” conference program.

François PELLEGRINI was a member of the jury of the Student Demo Cup at the Paris Open-Source Summit.

ASCOLA Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events organisation

9.1.1.1. General chair, scientific chair

- A. Lebre co-organized cloudDays@Paris. Supported by the GDR RSD consortium, the DISCOVERY Inria Project Labs, the LIP6 labs and Telecom Sud Paris, this national event gathered 80 researchers and phd students to discuss about latest results in Virtualization and Cloud Computing⁰ from the network and distributed system communities.
- A. Lebre was general chair of the ACM VTDC⁰ 2015 workshop collocated with HPDC (30 participants).

9.1.1.2. Member of the organizing committee

- 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 companies⁰.
- M. Südholt has been a member of the steering committee of the international conference Modularity since 2011.
- J.-M. Menaud member of GIS (Groupement d'intérêt scientifique) PERLE - Pôle d'Excellence de la Recherche Ligérienne en Energie.
- J.-M. Menaud member of GIS (Groupement d'intérêt scientifique) SyMeTRIC.
- J.-M. Menaud is the animator of "Pôle Science du Logiciel et des Systèmes Distribués" in Laboratoire des Sciences du Numérique à Nantes (LS2N) since June 2015.
- 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).
- N. Tabareau has co-organized with Peter LeFAnu Lumsdaine the HoTT-UF workshop, satellite to the RDP conferences.

9.1.2. Scientific events selection

9.1.2.1. Member of the conference program committee

- A. Lebre was member of the program committees of ACM/IEEE CCGRID 2015, IEEE IC2E 2015, SCRAMBL 2015, EuroPar 2015, IEEE CloudCom 2015, and DSDIS 2015.
- T. Ledoux was member of the program committees of the following conferences: Int. Conf. on Eco-friendly Computing and Communication Systems (ICECCS'15), Int. Workshop on Green and Sustainable Software (GREENS'15) @ ICSE, Workshop on Adaptive and Reflective Middleware (ARM'15) @ Middleware, ACM Symposium On Applied Computing (SAC'15)- track Software Engineering Aspects of Green Computing.
- J.-M. Menaud has served on the program committee of SMARTGREENS 2015, ENERGY 2015, VHPC'15, CFSE-10, CLOUD COMPUTING 2015, 11th AICT 2015, 4th E2DC 2015, Green-Com2015.

⁰CloudDays@Paris, 2015.

⁰<http://people.rennes.inria.fr/Adrien.Lebre/VTDC/vtdc15.html>

⁰Green Lab Center

- J.-C. Royer was a member of the program committees of WETICE 2015, CAL 2015, and ICIS 2015.

9.1.3. Journal

9.1.3.1. Member of the editorial board

- M. Südholt has been a member of the editorial board of the Springer journal “Transactions of Aspect-Oriented Software Development” (TAOSD) since 2010 and has been appointed co-editor-in-chief since April 2015.
- A. Lebre is associate editor for the IEEE Transactions on Big Data journal.

9.1.3.2. Reviewer

- A. Lebre has been a reviewer for the Software: Practice and Experience and IEEE TPDS Journals.
- T. Ledoux has been a reviewer for the Journal of Parallel and Distributed Computing (JPDC)-Elsevier (2015).
- J.-M. Menaud has been a reviewer for IEEE Transactions on Parallel and Distributed Systems (TPDS).
- M. Südholt has been a reviewer for IEEE “Transactions in Software Engineering” (TSE) and the Springer journal “Transactions on Aspect-Oriented Software Development” (TOASD).

9.2. Teaching - Supervision - Juries

9.2.1. 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.
- Since 2011 our team has defined and set up a new 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.
- Members of the team have taught different **courses at different study levels in Rennes** mainly organized by University of Rennes and the research institutes IRISA and Inria.

m members have taught 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.

In addition, J. Noyé has been interim head of the DAPI department of École de Mines de Nantes until Oct. 2015 and has been its vice-head since then.

9.2.2. Supervision

The team has been supervising 18 PhD thesis (at least partially) in 2015, of which four have been co-supervised with external academic partners (one with partners from TU Darmstadt, Germany, and VU Brussel, Belgium) and two with another Inria team (Myriads from Rennes). Four PhDs have been co-supervised with industrial partners (Orange group, Sigma group, and the EasyVirt SME).

One PhD thesis has been defended this year: Jurgen Van Ham has presented a model and corresponding extension of Scala integrating event-based, aspect-oriented and object-oriented programming features. Three PhD students are preparing her defense for end of the first quarter 2015.

Rémi Douence has defended his habilitation (HDR) on the topic: “Composition non modulaire modulaire” presenting new means for the modularization of composition problems.

9.2.3. Juries

- J.-C. Royer was a member of the HDR committee of Mohamed Graiet (Université Paris Dauphine), July 2015.
- A. Lebre was a member of the PhD committee of Houssemed Medhioub, “Architectures et mécanismes de fédération dans les environnements Cloud Computing et Cloud Networking”, University Pierre et Marie Curie/TelecomSud Paris, April 2015.
- J. Noyé was a member of the PhD committee of Dries Harnie: "Blame Prediction: Early detection of type errors in dynamically typed programming languages", Vrije Universiteit Brussel, Aug. 2015.
- J.-M. Menaud was a reviewer of the PhD of : Christina Herzog (Nov. 26, 2015) "Contributions à la modélisation avec un Système Multi Agent du transfert technologique en Green IT", Reviewer, Toulouse. Ibrahim Safieddine (Oct. 29, 2015) "Optimisation d'Infrastructures de Cloud Computing dans des Green Datacenters", Reviewer, Grenoble. Ge LI (Jull. 22, 2015) "Contrôle des applications fondé sur la qualité de service pour les plateformes logicielles dématérialisées (Cloud)", Reviewer, Annecy. Ahmed El Rheddane (Fev. 25, 2015) "Elasticité dans le Cloud Computing", Member, Grenoble.
- J.-M. Menaud was a reviewer of the **HdR** committee of Patricia Stolf (Nov. 13, 2015) "La gestion des ressources pour des infrastructures vertes par la reconfiguration", Reviewer, Toulouse.

DIVERSE Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

10.1.1.1. Member of the organizing committees

Benoit Baudry:

- International Symposium on Software Testing and Analysis (ISSTA'15)
- International Conference on Model Driven Engineering, Languages and Systems (MODELS'15)

Benoit Combemale:

- International Conference on Model Driven Engineering, Languages and Systems (MODELS'15)
- International Workshop on The Globalization of Modeling Languages (GEMOC'15)
- international workshop on Next Generation of Modularity Approaches for Multiple Dimensions of Sustainability (Sustainability'15)

10.1.2. Scientific events selection

10.1.2.1. Chair of conference program committees

Jean-Marc Jézéquel is co-chair of Digital Intelligence 2016, April 2016, Quebec City, Canada. Noel Plouzeau is co-chair of CBSE 2016 (Component Based Software Engineering) conference program committee, April 2016, Venice, Italy.

10.1.2.2. Member of the conference program committees

Benoit Baudry:

- International Conference on Software Engineering (ICSE'15)
- International Conference on Foundations of Software Engineering (ESEC-FSE'15)
- International Conference on Automated Software Engineering (ASE'15)
- International Conference on Model Driven Engineering, Languages and Systems (MODELS'15)

Arnaud Blouin:

- IEEE International Workshop on User Centered Design and Adaptive Systems (UCDAS), 2015

Benoit Combemale:

- International Conference on Software Language Engineering (SLE'15)
- European Conference on Modelling Foundations and Applications (ECMFA'15)
- International Conference on Model Transformation (ICMT'15)
- International Conference on Software Engineering and Formal Methods (SEFM'15)
- International Conference on Software and System Process (ICSSP'15)
- International Workshop on Multi-Paradigm Modeling (MPM'15)
- International Workshop on Executable Modeling (EXE'15)
- International Workshop on Modelling in Software Engineering (MiSE'2015)

Jean-Marc Jézéquel:

- 10th International Workshop on Models at Run-Time, associated to MODELS 2015
- 19th International Software Product Line Conference, July 20-24, Nashville, TN USA.
- 9th International Workshop on Variability Modelling of Software-intensive Systems, January 22-24, 2015 - Hildesheim, Germany

Johann Bourcier:

- 1st International Workshop on Software Engineering for Smart Cyber-Physical Systems, associated to ICSE 2015
- 3rd FoCAS Workshop on Fundamentals of Collective Adaptive Systems, associated to SASO 2015

Mathieu Acher:

- 19th International Software Product Line Conference, July 20-24, Nashville, TN USA.
- SEAA'15 : Euromicro Conference series on Software Engineering and Advanced Applications
- SAC'15 (SE) : 30th ACM Symposium on Applied Computing - Software Engineering (SE) Track
- ICSE'15 (NIER) : 37th International Conference on Software Engineering - New Ideas and Emerging Results (NIER) Track
- EduSymp'15 : Educators Symposium @ Model Driven Engineering Languages and Systems
- A-MOST'15 : 11th Workshop on Advances in Model Based Testing (at ICST)
- SPLTea'15: 2nd International workshop on teaching and product lines (organizer)

Noel Plouzeau:

- CBSE 2015: 18th conference on Component Based Software Engineering, Montreal, Canada, 2015.

Olivier Barais:

- Modularity 2015 Demo Poster Session: 14th International Conference on Modularity March 16-19, 2015 Ft. Collins, Colorado, USA
- SEAA 2015: 41st EUROMICRO Conference on Software Engineering and Advanced Applications (SEAA) Madeira, Portugal, August 26th - 28th, 2015
- SAC 2015: SAC 2015 The 30th ACM/SIGAPP Symposium On Applied Computing Salamanca, Spain
- SPLat 2015: 2nd Software Product Line Analysis Tools Workshop, July 20-24, Nashville, TN USA.
- WETICE 2016: 24th IEEE International Conference on Enabling Technologies: Infrastructure for Collaborative Enterprises.

10.1.2.3. Reviewer

Arnaud Blouin:

- EICS'15, ACM SIGCHI symposium on Engineering interactive computing systems
- ICSE'15, International Conference on Software Engineering
- IHM'15, French speaking conference on human-computer interaction

Johann Bourcier

- ICSE'15, 37th International Conference on Software Engineering
- FSE'15, 10th Joint Meeting of the European Software Engineering Conference and the ACM SIGSOFT Symposium on the Foundations of Software Engineering
- CBSE'15, The 18th International ACM Sigsoft Symposium on Component-Based Software Engineering
- DSN 2015, The 45th IEEE/IFIP International Conference on Dependable Systems and Networks

10.1.3. Journal

10.1.3.1. Member of the editorial boards

Benoit Baudry is an Associate Editor of the following journals:

- Journal of Systems and Software (JSS)
- Journal on Software and System Modeling (SoSYM)

Benoit Combemale is member of the editorial boards of the following journals:

- Journal on Computer Languages, Systems and Structures (COMLAN)
- Journal on Science of Computer Programming (SCP), Advisory Board of the Software Section.

Jean-Marc Jézéquel is an Associate Editor in Chief of the following journal:

- Journal on Software and System Modeling (SoSYM)

Jean-Marc Jézéquel is an Associate Editor of the following journals:

- IEEE Computer
- Journal of Systems and Software (JSS)
- Journal of Object Technology: JOT

10.1.3.2. Reviewer - Reviewing activities

Arnaud Blouin:

- Journal Universal Access in the Information Society
- Journal of Computer Science and Technology
- Journal of Software Engineering for Robotics

Benoit Combemale:

- Journal on Software and System Modeling (SoSYM)
- Transactions on Software Engineering (TSE)

Mathieu Acher

- Journal on Software and System Modeling (SoSYM)
- Transactions on Software Engineering (TSE)
- Information and Software Technology (IST)
- Automated Software Engineering: An International Journal (ASE)

Johann Bourcier:

- Journal of Systems and Software (JSS)

Olivier Barais

- International Journal on Software and Systems Modeling (SoSyM)
- Journal of Systems and Software
- Transactions on Software Engineering (TSE)

10.1.4. Invited talks

Benoit Baudry:

- MIT CSAIL: Automatic generation of software diversity in application source code
- LORIA (Nancy, France): Automatic software diversification in application code.

Benoit Combemale:

- McGill: From Model (driven) Engineering, to Language (driven) Engineering.
- IRT Saint Exupery: On the Globalization of Modeling Languages.
- INRA Toulouse: Modeling for Sustainability.

Jean-Marc Jézéquel:

- ECNU Shanghai: Model Driven Engineering of DSLs
- Present And Ulterior Software Engineering Seminar (Chair of Software Engineering at ETH Zurich): Language Families

Olivier Barais:

- ECNU Shanghai: Model Driven Engineering of DSLs
- EJCP 2015: Ecole Jeunes Chercheurs en Programmation

10.1.5. 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

10.1.6. Scientific expertise

Benoit Baudry:

- Member of the Scientific Advisory Board for the SVV lab, University of Luxembourg.

Arnaud Blouin:

- Member of the advisory board of the FNR project MODELS, Luxembourg.

Jean-Marc Jézéquel:

- Member of the Scientific Committee of the GDR GPL of CNRS.

10.1.7. Research administration

Jean-Marc Jézéquel is Director of IRISA (UMR 6074). He is Administrator of the IRT B-com (representing University of Rennes 1). He is Coordinator of the academic club of the French Cyber-defense Excellence Cluster, and Director of the Rennes Node of EIT Digital.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

The DIVERSE team bears the bulk of the teaching on Software Engineering at the University of Rennes 1 and at INSA Rennes, at the levels M1 (Project Management, Object-Oriented Analysis and Design with UML, Design Patterns, Component Architectures and Frameworks, Validation & Verification, Human-Computer Interaction) and M2 (Model driven Engineering, Aspect-Oriented Software Development, Software Product Lines, Component Based Software Development, Validation & Verification, *etc.*).

Each of Jean-Marc Jézéquel, Noël Plouzeau, Olivier Barais, 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, CentraleSupélec Rennes, and ENSAI.

Noël Plouzeau is the manager of the final year of the Master Pro 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.

Mathieu Acher is in charge of teaching services of ISTIC.

The DIVERSE team also receives several Master and summer trainees every year.

10.2.2. Supervision

- HDR: Benoit Combemale: *Towards Language-Oriented Modeling*, 2015
- PhD: Erwan Bousse, *Intégration et combinaison des techniques de V&V dans un contexte d'ingénierie système*, thèse, 2012-2015, B. Baudry and B. Combemale
- PhD: Valéria Lelli, *On Testing Interactive Systems*, thèse 2012-2015, B. Baudry and A. Blouin
- PhD: Inti Gonzalez, *Ressources reservation in Pervasive Middleware*, thèse 2012-2015, J. Bourcier, O. Barais
- PhD: Ivan Paez Anaya, *Proactive Adaptation in Pervasive Environment*, thèse 2012-2015, J. Bourcier, N. Plouzeau and J.-M. Jézéquel
- PhD in progress : Sana Ben Nasr, *Modeling variability in regulatory requirements*, thèse 2013-2016, B. Baudry and M. Acher
- PhD in progress : Kwaku Yeboah-Antwi, *Runtime emergence of software diversity*, thèse 2013-2016, B. Baudry and O. Barais
- PhD in progress : Guillaume Bécan, *Reverse Engineering and Evolution of Variability-intensive Software Systems*, thèse 2013-2016, B. Baudry and M. Acher
- PhD in progress : Paul Temple, *Massive Benchmarking of Vision Algorithms Using Synthetic Video Variants*, thèse 2015-2018, J.-M. Jézéquel and M. Acher
- PhD in progress : Quentin Plazar, *Combining Decision Procedures for Constraint Programming and SMT*, thèse 2015-2018, A. Gotlieb, S. Bardin and M. Acher
- PhD in progress : Mohamed Boussaa, *An Architecture for Testing Large-Scale Dynamic Distributed Systems*, thèse 2013-2016, O. Barais, G. Sunye, B. Baudry.
- PhD in progress : Thomas Degueule, *Next Generation of MDE Tooling Support*, thèse 2013-2016, O. Barais and A. Blouin
- PhD in progress : David Mendez Acuna, *Variability in Modeling Languages*, thèse 2013-2016, B. Baudry and B. Combemale
- PhD in progress : Jacky Bourgeois, *Automatic Synchronization of Energy Production and Consumption*, thèse 2012-2015 co-tutelle avec the Open University, J. Bourcier, B. Baudry and G. Kortuem
- PhD in progress : Francisco Acosta, *Automatic Deployment and Reconfigurations in Internet of Things*, thèse 2013-2016 co-encadrement avec l'équipe ACES, J. Bourcier, F. Weis
- PhD in progress : Pierre Laperdrix, *Secretless moving target against browser fingerprinting*, thèse 2014-2017, B. Baudry
- PhD in progress : Johan Pelay, *Langage pour une programmation incrémentale de réseau*, thèse 2014-2017 co-encadrement avec le laboratoire B-COM, O. Barais, F. Guillemin
- PhD in progress : Kévin Corre, *Modélisation de la confiance dans les services sociaux et conversationnels*, thèse 2014-2017 co-encadrement avec l'équipe AtanMod, O. Barais, G. Sunye
- PhD in progress : Marcelino Rodriguez-Cancio, *Automatic computation diversification*, thèse 2015-2018, B. Baudry and B. Combemale
- PhD in progress : Gwendal Le Moulec, *Towards synthesizing families of virtual reality applications*, thèse 2015-2018, with the Inria Hybrid Team, B. Arnaldi, A. Blouin, V. Gouranton

10.2.3. Juries

Benoit Baudry was in the examination committee of the following PhD thesis and HDR:

- Dionysios Efstathiou, October 2015, King's College London, Referee
- Aminata Sabané, December 2015, École Polytechnique de Montréal, Referee
- Mehdi Amhed-Nacer, May 2015, University of Nancy, Referee
- Mathieu Foucault, November 2015, University of Bordeaux, Examiner
- Erwan Bousse, December 2015, University of Rennes, Supervisor
- Valeria Lelli, December 2015, INSA Rennes, Supervisor
- Benoit Combemale, December 2015, University of Rennes, member

Benoit Combemale was in the examination committee of the following PhD thesis:

- Paola Vallejo, December 2015, University of Brest, Examiner
- Erwan Bousse, December 2015, University of Rennes, Supervisor

Arnaud Blouin was in the examination committee of the following PhD thesis:

- Valeria Lelli, December 2015, INSA Rennes, Supervisor

Jean-Marc Jézéquel was in the examination committee of the following PhD thesis and HDR:

- Jose Galindo Duarte, March 2015, University of Sevilla, Examiner
- Christopher Henard, May 2015, University of Luxembourg, Examiner
- Ivan Paez Anaya, September 2015, University of Rennes, Supervisor
- Remi Douence (HDR), January 2015, University of Nantes, Examiner
- Philippe Merle (HDR), September 2015, University of Lille, Examiner
- Axel Legay (HDR), November 2015, University of Rennes, President
- Benoit Combemale (HDR), December 2015, University of Rennes, Examiner
- Gerson Sunye (HDR), December 2015, University of Nantes, Examiner
- Jean-Rémy Falleri (HDR), December 2015, University of Bordeaux, Examiner
- Reda Bendraou (HDR), December 2015, University of Paris 6, Examiner

Johann Bourcier was in the examination committee of the following PhD :

- Ivan Paez Anaya, September 2015, University of Rennes, Supervisor
- Inti Gonzalez, December 2015, University of Rennes, Supervisor

Olivier Barais was in the examination committee of the following PhD :

- Inti Gonzalez, December 2015, University of Rennes, Supervisor
- Simon Urli, February 2015, University of Nice, Referee
- Sam Rottenberg, April 2015, Telecom Sud Paris, Referee
- Pierre Samson, November 2015, University of Pau, Referee

10.3. Popularization

Benoit Combemale participated to the “Inria Industry meeting” focused on “Power Transition”, as part of the Futur en Seine festival. He presented the results of the collaboration with Obeo and INRA on the use of domain-specific languages for resource management.

Our research about browser fingerprinting have appeared in the MISC magazine (a French, general-audience magazine about technology and cyber-security) [75] and have been showcased at ICT’15 (a large European forum that gathers EU policy makers, industry and academics in the area of ICT) and at IRISA’s open house.

FOCUS Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events organisation

9.1.1.1. Chair of conference program committees

I. Lanese: Co-chair of 8th Interaction and Concurrency Experience (ICE 2015)

9.1.1.2. Member of the conference program committees

M. Bravetti: Int. Conference on Simulation and Modeling Methodologies, Technologies and Applications (SIMULTECH 2015); 9th IEEE Int. Conference on Big Data Science and Engineering (IEEE BigDataSE 2015); 4th European Conference on Service-Oriented and Cloud Computing (ESOCC 2015); 20th Int. Workshop on Formal Methods for Industrial Critical Systems (FMICS 2015); 6th Int. Conference on Fundamentals of Software Engineering (FSEN 2015); 13th Int. Conference on Software Engineering and Formal Methods (SEFM 2015).

U. Dal Lago: 18th Int. Conference on Foundations of Software Science and Computation Structures (FOSACS 2015); 6th Workshop on Developments in Implicit Computational Complexity (DICE 2015); 31st Workshop on Mathematical Foundations of Programming Semantics (MFPS 2015); 42nd Int. Colloquium on Automata, Languages, and Programming (ICALP 2015); 11th Int. Workshop on Developments in Computational Models (DCM 2015); 16th Italian Conference on Theoretical Computer Science (ICTCS 2015); 24th EACSL Annual Conference on Computer Science Logic (CSL 2015).

D. Hirschhoff: 18th Int. Conference on Foundations of Software Science and Computation Structures (FoSSaCS), 2015.

I. Lanese: 12th Int. Conference on Formal Aspects of Component Software (FACS 2015); 7th Conference on Reversible Computation (RC 2015); 35th IFIP Int. Conference on Formal Techniques for Distributed Objects, Components and Systems (FORTE 2015); 11th Int. Workshop on Developments in Computational Models (DCM 2015); Special Session on Formal Approaches to Parallel and Distributed Systems (4PAD) of the 23rd Euromicro Int. Conference on Parallel, Distributed and Network-based Processing (PDP 2015).

S. Martini: 30th ACM/IEEE Symposium on Logic in Computer Science (LICS) 2015.

F. Montesi: 6th Int. Conference on Ambient Systems, Networks and Technologies (ANT 2015); 31st Annual ACM/SIGAPP Symposium On Applied Computing (SAC 2015) - Operating Systems track; 8th Programming Language Approaches to Concurrency- and Communication-centric Software (PLACES 2015). 8th Interaction and Concurrency Experience (ICE 2015).

D. Sangiorgi: 20th Int. Symposium on Fundamentals of Computation Theory 2015 (FCT); 10th Int. Andrei Ershov Memorial Conference (PSI 2015); 10th Int. Conference on Language and Automata Theory and Applications.

V. Vignudelli: 8th Interaction and Concurrency Experience (ICE 2015).

G. Zavattaro: 17th Int. Conference on Formal Engineering Methods (ICFEM 2015); 12th Int. Colloquium on Theoretical Aspects of Computing (ICTAC 2015); 8th IEEE Int. Conference on Service Oriented Computing and Applications (SOCA 2015); 4th European Conference on Service-oriented and Cloud Computing (ES-OCC' 15); 5th Int. Workshop on Adaptive Services for the Future Internet (WAS4FI 2015); 3rd IEEE Int. Workshop on Formal Methods Integration (FMi 2015); 20th Int. Symposium on Formal Methods (FM2015); Int. Conference on Cloud Computing Technologies and Applications (CLOUDTECH 2015); 30th ACM/SIGAPP Symposium On Applied Computing - track on Software Verification and Testing (ACM-SAC 2015).

9.1.1.3. Member of the editorial boards

U. Dal Lago: Logical Methods in Computer Science.

M. Gabrielli: 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).

F. Montesi: Guest editor for "Special issue on Service-Oriented Architecture and Programming (SOAP 2013)". Science of Computer Programming.

D. Sangiorgi: Logical Methods in Computer Science, Acta Informatica, Distributed Computing, RAIRO Theoretical Informatics and Applications.

9.1.2. Invited talks

M. Bravetti: 14th Int. Workshop on Foundations of Coordination Languages and Self-Adaptive Systems (FOCLASA 2015).

U. Dal Lago: gave an invited course "From Implicit Complexity to Quantitative Resource Analysis" at the Warsaw's Open PhD lectures in Computer Science.

C. Laneve: Int. Symposium on Web Services, Formal Methods and Behavioural Types (WS-FM/BEAT 2015).

S. Martini: Colloque "Computing, Logic and Types", Université Jean Moulin Lyon 3.

D Sangiorgi: DIMAP Logic Day 2015, Centre for Discrete Mathematics and its Applications, University of Warwick; Joint 22th Int. Workshop on Expressiveness in Concurrency and 12th Workshop on Structural Operational Semantics, Madrid; 12th Int. Colloquium on Theoretical Aspects of Computing (ICTAC 2015), Cali, Colombia.

G. Zavattaro: 26th Conference on Concurrency Theory (CONCUR'15).

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

- Mario Bravetti
 - Undergraduate: “Tecnologie Web”, 66 hours, 3rd year, University of Bologna, Italy.
 - Master: “Linguaggi di Programmazione e Modelli Computazionali”, 120 hours, 2nd 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.
- 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.
 - 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.
 - Undergraduate: “Programming languages”, 50 hours, 2nd year, University of Bologna, Italy.
- Jacopo Mauro
 - Undergraduate: “Algoritmi e strutture dati”, 20 hours, 1st year, University of Bologna, Italy.
- Giulio Pellitta
 - Undergraduate: “Tutorato informatico trasversale”, 100 hours, Degree in Quantitative Finance, University of Bologna, Italy.
 - Undergraduate: “Attività di supporto alla didattica universitaria di Informatica nell’ambito della Piattaforma di e-learning A3”, 120 hours, 1st year, University of Bologna, Italy.

Undergraduate: “Idoneita’ Informatica”, 50 hours, 1st year, University of Bologna, Italy.

Undergraduate: “C.I. Fisica, Informatica e Statistica - Modulo 2 Informatica”, 12 hours, 1st 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: “Programmation impérative”, 33 hours, 1st year, Inst. Galilée, Université Paris 13.
 - Undergraduate: “Structures de données”, 12 hours, 2nd year, Coursus préparatoire intégré ingénieurs, Sup Galilée, Université Paris 13.
 - Undergraduate: “Programmation fonctionnelle”, 14 hours, 2nd year, Inst. Galilée, Université Paris 13
 - Undergraduate: “Programmation web”, 20 hours, 3rd year, Inst. Galilée, Université Paris 13
 - Undergraduate: “Administration système” 30 hours, 3rd year, Inst. Galilée, Université Paris 13
 - Master: “Internet, Intranet, Web”, 35 hours, 2nd year, Ecole d’ingénieurs Sup Galilée, Université Paris 13
 - Master: “Administration système Unix”, 44 hours, 3rd year, Ecole d’ingénieurs Sup Galilée, Université Paris 13
- Gianluigi Zavattaro
 - Master: “Linguaggi di Programmazione e Modelli Computazionali”, 120 hours, 1st year, University of Bologna, Italy.

9.2.2. Supervision

PhD thesis completed in 2015:

- Jean-Marie Madiot, “Higher-order languages: dualities and bisimulation enhancements”, jointly supervised by D. Sangiorgi and D. Hirschhoff. March 2015 [11].
- R. Amadini. “Portfolio Approaches in Constraint Programming”, University of Bologna, June 2015 [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.

- Ferdinanda Camporesi, January 2009, “Analysis of system biology”, R. Cousot (Ecole Normale, Paris) and M. Gabbrielli
- Alberto Cappai, January 2013; “Security, ICC and probabilistic bisimulation”, U. Dal Lago.
- Abel Garcia, January 2014, “Analysis of Cloud Computing Systems”, C. Laneve.
- Francesco Gavazzo, October 2015, “Causality in coinduction”, D. Sangiorgi.
- Saverio Giallorenzo, January 2013, “Real-World Choreographies”, M. Gabbrielli and F. Montesi
- Vincenzo Mastandrea, October 2015, “Deadlock analysis in ASP”, Cosimo Laneve (with Ludovic Henrio, CNRS Sophia Antipolis).
- Alessandro Rioli, January 2012; Bisimulation equivalence in quantum lambda calculi, U. Dal Lago.
- Marco Solieri, December 2011; “Géométrie de l’interaction, réseaux, et lambda-calcul”, S. Guerrini (Paris Nord) and S. Martini.
- Valeria Vignudelli, January 2014, “Probabilities in Higher-Order languages”, D. Sangiorgi.

9.2.3. Juries

Dal Lago has been member of the PhD evaluation committee for Erika De Benedetti (January 2015, University of Torino).

Laneve has been member of the PhD evaluation committee for Abiar Al-Homaimedi, King's College London, June 2015

Simone Martini has been rapporteur and member of the PhD evaluation committee for Matthieu Perrinel (Ecole Normale Supérieure de Lyon); member of the PhD evaluation committee for Paolo Pistone (Università Roma Tre) and Federica Panarotto (Università di Verona).

9.3. Popularization

Simone Martini has carried out extended work of scientific divulgation:

- member of the technical committee of Olimpiadi del Problem Solving (at Italian Ministry of Education), <http://www.olimpiadiproblemsolving.com>;
- member of the technical committee of two national projects of Italian Ministry of Education, founded by ESF - European Social Fund: 'Robotica educativa', and 'Informatica nei licei';
- 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

Simone 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.

Simone Martini has been elected Head of the Department of Computer Science and Engineering, Università di Bologna, for the term 2015-2018.

Davide Sangiorgi is coordinator of undergraduate studies at the Department of Computer Science and Engineering, Università di Bologna (Informatica per il Management).

INDES Project-Team

8. Dissemination

8.1. Promoting Scientific Activities

8.1.1. Scientific events organisation

8.1.1.1. General chair, scientific chair

Manuel Serrano was the General chair of the 11th ACM Dynamic Language Symposium (DLS'15), co-located with Splash 2015 (<http://2015.splashcon.org/track/dls2015>). Manuel Serrano was the General chair of 13th Trends In Functional Programming Symposium. (<https://tfp2015.inria.fr/>).

8.1.1.2. Member of the organizing committees

Nataliia Bielova was a publication chair of International Symposium on Engineering Secure Software and Systems (ESSoS 2015). Ilaria Castellani co-organised the workshop TRENDS 2015, affiliated with the CONCUR 2015 conference which took place in Madrid at the beginning of September.

8.1.2. Scientific events selection

8.1.2.1. Member of the conference program committees

- Ilaria Castellani served on the programme committee member of the conferences CONCUR 2015, TGC 2015, TTCS 2015 and ICTAC 2015.
- Tamara Rezk served on the programme committee member of the conferences ESSoS 2015, CSF 2015, POST 2015, PLAS 2015.
- Manuel Serrano served on the program committee of the 20th ACM ICFP'15.

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

Master : Nataliia Bielova, Information Flow Security in Web Applications, 15 ETD, University of Pierre et Marie Curie, France

Doctorat : Ilaria Castellani, Behavioral Types, 15H ETD, University of Florence, Italy

Licence : Vincent Prunet, Algorithms and Data Structures, 80 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 : 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

Master: Bernard Serpette, From Lambda-calculus and Pi-calculus to an Abstract Distributed Machine, 24H ETD, Escuela de Verano de Ciencias Informáticas, Rio Cuarto, Argentina

Master: Manuel Serrano, Programming the Diffuse Web, 4,5h ETD, Ecole Normale Supérieure de Cachan, France

8.2.2. Supervision

PhD : Johan Grande, Conception and Implementation of a modular concurrent programming language, University of Nice Sophia Antipolis, September 2015, Manuel Serrano and Gérard Boudol

PhD in progress: Yoann Couillec, Langages de programmation et données ouvertes, University of Nice Sophia Antipolis, 1/10/2012, Manuel Serrano

PhD in progress : Francis Dolière Some, Web Tracking Prevention, November 2015, Nataliia Bielova and Tamara Rezk

PhD in progress : Colin Vidal, HipHop, September 2015, Manuel Serrano and Gérard Berry

PFE master 2: Julien Chiramello, Décomposition en nombres premiers en informatique quantique, Tamara Rezk and Benjamin Grégoire

8.2.3. *Juries*

Iliaria Castellani was a member of the “Comité de sélection” for a position of Maître de conférences at the University of Paris-Est Créteil (Paris 12).

Iliaria Castellani was an examiner of the PhD thesis of Ioana Cristescu, Université Paris-Diderot (Paris 7).

Tamara Rezk was an examiner of the PhD thesis of Marco Patrignani, KU Leuven University.

Manuel Serrano was a member of a "comité de sélection" of UPMC (Paris 6).

8.3. Transfer

8.3.1. *Price discrimination in e-commerce*

In 2014, we started a collaborative project with Thomas Vissers, Wouter Joosen (KULeuven, Belgium) and Nick Nikiforakis (Stony Brook University, USA). The goal of this project is to analyse the price discrimination in e-commerce, and more precisely in the online airline tickets websites. This work (published at HotPETs 2014) has achieved a strong impact on the general public and society at large – its scientific results has been disseminated via the popular science French magazine “Science et vie” No. 1177, in the article called “*Achat sur Internet – Des prix à la tête du client!*”.

8.3.2. *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 2015, The initiative accounted to two full time engineers.

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.

The WebRobotics initiative now encompasses several prototypes in use by medical foundations and hospitals.

- RAPP. The WebRobotics project is now part of the RAPP FP7 european project, launched in December 2013, 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 are being 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. Indes contribution to the project is supported by the EC grant and by an Inria self funded ADT (Technology Development Program).
- 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, since may 2015).
 - 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.

PHOENIX Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events selection

9.1.1.1. Member of the conference program committees

Charles Consel

- ESOP 2015, the 24th European Symposium on Programming. April 11-15, 2015 London, United Kingdom.

9.1.2. Invited talks

- C. Consel: HomeAssist: An Assisted Living Platform for Aging in Place Based on A Multidisciplinary Approach. Presentation at Washington State University, July 7, 2015.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Licence: H  l  ne Sauz  on, "General Cognitive Psychology", 36h, L2/L3, University of Bordeaux, France

Licence: H  l  ne Sauz  on, "Cognitive Neuropsychology", 14h, DU, University of Bordeaux, France

Master: H  l  ne Sauz  on, "Cognitive Science of Language", "Technologies For Cognitive Disabilities", "Human Factors and HCI", 120h, 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.

9.2.2. Supervision

PhD: Paul van der Walt, "Certification d'une plateforme ouverte", completed in December 2015, supervised by Charles Consel

PhD in progress: Milan Kabac, "Orchestration    grande   chelle d'objets communicants", started in September 2012, supervised by Charles Consel

PhD in progress: Charles Fage, "Validation exp  rimentale d'un assistant num  rique d'inclusion scolaire d'  l  ves coll  giens porteurs d'autisme", started in September 2012, supervised by H  l  ne Sauz  on

PhD in progress: Lucile Dupuy, "DomAssist: Assistance domiciliaire pour la personne   g  e et son aidant formel bas  e sur la technologie DiaSuiteBox", started in September 2013, supervised by H  l  ne Sauz  on and Charles Consel

PhD in progress: Adrien Carteron, "A development environment dedicated to assistive application", started in October 2014, supervised by Charles Consel.

PhD in progress: C  cile Magnier, "Customized technology for autonomous schooling: on longitudinal effects for students with an autism spectrum disorder", started in November 2014, supervised by H  l  ne Sauz  on and Charles Consel.

PhD in progress: Quentin Chisin, "Digital home assistance for young adults with Down syndrome", started in December 2014, supervised by Bernard N'Kaoua and Charles Consel.

9.2.3. Juries

Charles Consel participated in the following jury:

- Thesis defense committee for A. Capra, Universit   de Bordeaux, december 2015.

Hélène Sauzéon participated in the following juries:

- Thesis defense committee for S. Gombart, Université de Tours, december 2015
- Thesis defense committee for B. Chateau, Université de Poitiers, december 2015

9.3. Popularization

- Hélène Sauzéon. " Assistance numérique pour soutenir les activités quotidiennes des personnes âgées et/ou avec handicap cognitif." Journée de Lancement du Living Lab e-santé Aquitain. March 5, 2015, Bordeaux.
- Hélène Sauzéon. " Quels outils numériques pour les élèves avec handicap cognitif ?" Congrès FNAREN. June 24-27, 2015, Cenon.
- Hélène Sauzéon. "DomAssist : perspectives d'application en EPHAD." Congrès EHPAD et Innovations. July 2, 2015, Bordeaux.
- Phoenix members. Présentation de DomAssist et Colleege+. Les rencontres Inria-Industrie sur le thème de la santé. Novembre 13, 2015, Bordeaux.
- Benjamin Bertran. Présentation de DomAssist. Colloque sur la Silver Economy. October 19, 2015, Bordeaux (200 personnes).
- Benjamin Bertran. Présentation de DomAssist / HomeAttendant, Rencontre médico-social. October 1, Limoges (80 personnes).

RMOD Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

10.1.1.1. General chair, scientific chair

Anne Etien was General chair of IWST15, the International Workshop of Smalltalk Technologies (part of ESUG 2015).

10.1.1.2. Member of the organizing committees

- Nicolas Anquetil, Anne Etien and Damien Cassou organized the umbrella conference EvoLille (= EOSESE + RIMEL + BENEVOL) as well as BENEVOL. Funding was acquired from sponsors (8000 EUR). The event had 60 participants.
- Nicolas Anquetil organized RIMEL.
- Marcus Denker and Stéphane Ducasse are in the board of ESUG and organized ESUG 2015, the yearly Smalltalk industrial conference.
- RMoD organized Pharo Conf 2015, the yearly Pharo meeting of both industrial and reserach users.

10.1.2. Scientific events selection

10.1.2.1. Chair of conference program committees

- Nicolas Anquetil, Anne Etien and Damien Cassou where program chairs of BENEVOL, Belgian-Netherlands software eVOLution seminar (Dec 03-04, 2015. Lille, France)
- Anne Etien was program chair at IWST 2015 (International Workshop of Smalltalk Technologies).

10.1.2.2. Member of the conference program committees

- Anne Etien
 - BENEVOL 2015 : BELgian-NETHERlands software eVOLution seminar (Dec 03-04, 2015. Lille, France)
 - Modelsward16 : 4th International Conference on Model-Driven Engineering and Software Development (19 - 21 Feb 2016, Rome, Italy)
 - ICSoft-PT15 : 10th International Conference on Software Paradigm Trends
 - ICSoft-PT16 : 11th International Conference on Software Paradigm Trends (24 - 26 Jul 2016, Lisbon, Portugal)
- Nicolas Anquetil
 - BENEVOL 2015 : BENEVOL 2015 : BELgian-NETHERlands software eVOLution seminar (Dec 03-04, 2015. Lille, France)
 - SANER 2015 : International Conference on Software Analysis, Evolution, and Reengineering (Mar 2–6, 2015; Montreal, Canada)
 - CIEL 2015 : 4 me Conference en Ingenierie du Logiciel (Jun 9–11, 2015; Bordeaux, France)
 - ICSoft-EA : 10th International Joint Conference on Software Engineering and Applications (Jul 20–22, 2015; Colmar, France)
 - AICCSA 2015 : ACS/IEEE International Conference on Computer Systems and Applications (Nov 17–20, 2015; Marrakech, Morocco)
- Damien Cassou

- BENEVOL 2015 : BElgian-NEtherlands software eVOLution seminar (Dec 03-04, 2015, Lille, France)
- Marcus Denker
 - SANER 2016 (23rd IEEE International Conference on Software Analysis, Evolution, and Reengineering)
 - VISSOFT'15 NIER/TD (IEEE Working Conference on Software Visualization, NIER and Tool Track)
- Martin Dias
 - DChanges 2015 (International Workshop on (Document) Changes: Modeling, Detection, Storage and Visualization 2015)
- Stéphane Ducasse
 - International Conference Onward! 2015.
 - International Conference 18th International Conference on Fundamental Approaches to Software Engineering (FASE) 2015, 2016
 - declined: ECOOP 2015, ECOOP 2016.

10.1.2.3. Reviewer

- Gustavo Santos reviewed for SANER 2016 (23rd IEEE International Conference on Software Analysis, Evolution, and Reengineering).
- Klérisson Paixão reviewed for SANER 2016 (23rd IEEE International Conference on Software Analysis, Evolution, and Reengineering).
- Klérisson Paixão reviewed for 19th International Conference on Fundamental Approaches to Software Engineering (FASE).

10.1.3. Journal

10.1.3.1. Reviewer - Reviewing activities

Nicolas Anquetil reviewed a book on software evolution for Springer. He also reviewed manuscripts for the following international journals:

- IEEE Transactions on Software Engineering (IEEE Computer Society, ISSN: 0098-5589)
- Journal of Software: Evolution and Process (Wiley, ISSN: 2047-7481)
- Journal of Systems and Software (Elsevier, ISSN: 0164-1212)
- IET Software (IET, ISSN 1751-8806)

Marcus Denker reviewed an article for Science of Computer Programming (Elsevier, ISSN: 0167-6423)

10.1.4. Scientific expertise

- Damien Cassou reviewed a proposal for *Jeune Entreprise Innovante*.
- Marcus Denker reviewed a research proposal for *Fondo Nacional de Desarrollo Científico y Tecnológico (FONDECYT), Chile*

10.1.5. Research administration

- Marcus Denker and Stéphane Ducasse are Moderators of arXiv cs.SE, from 2015. <http://arxiv.org/list/cs.SE/recent>
- Marcus Denker was vice president of the local Inria Lille *commission développement technologique*.

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
 Licence : Damien Cassou, OpenDevs Communauté de Développeurs, 40, L3, Université Lille 1, France
 Licence : Damien Cassou, Conception orientée objet, 52.5, L3, Université Lille 1, France
 Master : Damien Cassou, Qualité logicielle, 30, M2, Université Lille 1, France
 Master : Damien Cassou, CAL Tests et Maintenance, 12, M2, Université Lille 1, France
 Master: Anne Etien, Test et Maintenance, 10, M2, Polytech-Lille, France
 Master : Anne Etien, Système d'information objet, 22, M1, Polytech-Lille, France
 Master : Anne Etien, Bases de données, 44, M1, Polytech-Lille, France
 Master : Anne Etien, Bases de données Avancées, 12, M1, Polytech-Lille, France
 Licence : Anne Etien, Bases de données, 22, L3, Polytech-Lille, France
 Licence : Damien Pollet, Java lecture, L3 level, 130 students, 30 hours (for the students), Telecom Lille, France
 Licence : Damien Pollet, Java lecture, L3 level, 60 remote students, 20h, Telecom Lille, France
 Licence : Damien Pollet, Java project, L3 level, 10 remote students, 20h, Telecom Lille, France
 Licence : Damien Pollet, Computer architecture, L3 level, 10h, Telecom Lille, France
 Master : Damien Pollet, Technologies for information systems, M1 level 30h, Telecom Lille, France
 Master : Damien Pollet, Network algorithms, M2, 30h, Telecom Lille, France
 Master : Damien Pollet, Software engineering, M1, 6h, Telecom Lille, France
 Nicolas Anquetil, Conception et programmation objet avancées, 64h, L2, Univ. Lille1, France
 Nicolas Anquetil, Programmation Système, 48h L2, Univ. Lille1, France
 Nicolas Anquetil, Projet tuteuré, 32h L2, univ. Lille1, France
 Nicolas Anquetil, Programmation mobile, 32h L2, univ. Lille1, France

10.2.2. Supervision

Martin Dias, Supporting Merging, 27/11/2015, Damien Cassou, Stéphane Ducasse.
 Guillermo Polito, Isolation and Reflection in Dynamic Object Oriented Languages, 13/04/2015, Noury Bouraqadi, Luc Fabresse, Stéphane Ducasse.
 PhD in progress: Vincent Blondeau, CIFRE Worldline, started Oct 2014, Anne Etien, Nicolas Anquetil.
 PhD in progress: Brice Govin, CIFRE Thales, started Jan 2015, Anne Etien, Nicolas Anquetil, Stéphane Ducasse.
 PhD in progress: Gustavo Santos, started April 2014, Anne Etien, Nicolas Anquetil
 PhD in progress: Camille Teruel, Security for dynamic languages, 01/12/2012, Stéphane Ducasse, Damien Cassou
 PhD in progress: Marco Naddeo, 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, Stéphane Ducasse.
 Internships: Cyril Ferlicot, Yann Lesage, Skip Lentz, Thomas Durieux, Cédric Lenquette, Xavier Koma, Mathieu Schepens, Thomas Heniart.

10.2.3. Juries

- Anne Etien: Eli Richa, Qualification des générateurs de code source dans le domaine de l'avionique: le test automatisé des chaînes de transformation de modèles, 15/12/15, Telecom ParisTech (reviewer)
- Damine Cassou: Martin Dias, Supporting Integration Activities with First-Class Code Changes, 27/11/2015, Lille.
- Stéphane Ducasse:
 - *Habilitation*
 - * *Reflective Languages for Mobile Robotics Applications Development*, Dr. Luc Fabresse, Université de Lille 1, Lille, 08/12/15.
 - * *Supporting Software Evolution in Organizations*, Dr. Nicolas Anquetil, Université de Lille 1, Lille, 09/05/14.
 - *Thèses*
 - * *Organisation des développeurs open-source et fiabilité logicielle*, Mathieu Foucault, Université de Bordeaux, France. 30/11/15. (referee)

10.3. Popularization

- Marcus Denker gave one presentation about Pharo at the open source conference FOSDEM 2015.
- RMOD co-organized and participated at ESUG 2015.
- Multiple public Pharo Sprints in Lille.
- A MOOC for Pharo is in preparation (Stéphane Ducasse, Damien Cassou)

TACOMA Team

8. Dissemination

8.1. Promoting Scientific Activities

8.1.1. Scientific events organisation

8.1.1.1. Member of the conference program committees

- PC member for Ehpwas 2015: 3rd IEEE Int. Workshop on E-Health , 2015, F. Weis

8.1.2. Invited talks

- "L'habitat adaptatif: un pas à franchir vers la ville durable", speech at BATI-MAT/Le Mondial du Bâtiment on 5 November 2015. http://visiteur.batimat.com/?IdNode=6564&CurrentNode=11261&Lang=FR&Zoom=cb627eb94499111bd0da1a764a20bc34&KM_Session=b6bc7a1

8.2. Teaching - Supervision - Juries

8.2.1. 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: Mobile and Pervasive Computing , 12 hours, P. Couderc, M2, University of Rennes 1

8.2.2. Supervision

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

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

8.2.3. Juries

Frédéric Weis was in the following PhD examination committees:

Abdulkader BENCHI, Middleware Systems for Opportunistic Computing in Challenged Wireless Networks, University Bretagne Sud (PhD referee)

Osama ABU OUN, Conception d'une plate-forme multi-échelle hybride pour évaluer les performances des systèmes orientés Internet des Objets, University Franche-Comté (PhD referee)

8.2.4. Internship

Master 2 Internship, 6 months: "Enhancing a Web Administration GUI for Smart Home devices", Charles Ferron

Master 1 Internship, 4 months: "Synchronization between connected LEDs", Youness Aghazzaf

8.3. Popularization

8.3.1. Hack'Archi

Organized as part of the "Architecture de la Transformation" call for proposals, the Hack'Archi was an open workshop held in Paris-Belleville school of architecture (ENSA) on 4 and 5 December 2015. About 90 students in disciplines as diverse as architecture, sociology, urbanism and engineering gathered for this 24-hours "architectural hackathon". Students were organized in small teams of 5 or 6 members to work on enriching the preselected projects, proposed by the social landlords.

During the Hack'Archi, Michele Dominici was the representative of the project led by NEOTOA (a french social landlord) and helped 6 students in architecture, sociology, urbanism and engineering proposing new ideas about the on-demand room. We had in charge the leadership and coordination of the students. Our team was awarded the first prize of the Hack'Archi⁰.

8.3.2. Miscellaneous

- Atelier de l'Innovation, Fondation Rennes 1. <https://fondation.univ-rennes1.fr/actualite/neotoa-nouveau-partenaire-de-la-fondation-0>.
- "Un habitat très prospectif | Espace des sciences". Date accessed: 16 December 2015. <http://www.espace-sciences.org/sciences-ouest/335/dossier/un-habitat-tres-prospectif>.
- Pitch at "Rencontres Inria - Industrie and Meito", 21 May 2015. <http://videos.rennes.inria.fr/InriaMeito2015/index-pitchInriaMEITO2015.html>
- Fondation de l'Université de Rennes 1 - Chaire Habitat Intelligent et Innovation. Date accessed: 16 December 2015. http://www.legrand.fr/formation/fondation-universite-rennes1-chaire-habitat-intelligent-innovation_5746.
- Live video interview at Festival des Sciences, "Samedi en direct du plateau TV du Village des sciences'". <https://www.youtube.com/watch?v=MDkKd4PI5vQ&feature=youtu.be&t=4541>.
- Website of the chair "Habitat Intelligent et Innovation". On-line since October 2015. <https://fondation.univ-rennes1.fr/la-chaire-habitat-intelligent-et-innovation>.

⁰Hack'Archi : retour sur 24h d'innovations - Lab CDC. Date accessed: 16 December 2015. <http://labcdc.caissedesdepots.fr/hackarchi-etudiants-et-professionnels-autour-dun-meme-defi/>

COATI Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

10.1.1.1. General chair, scientific chair

Jean-Claude Bermond :

Mediterranean Days 2015 : February 18-20 (<http://campus.sophiatech.fr/meddays2015/>).

Frédéric Havet :

SGT 2015 : 2nd French School on Graph Theory, Porquerolles, France, May 18-22 2015;

15th JCALM : 15th Journées Combinatoire et Algorithmes du Littoral Méditerranéen. Sophia Antipolis, France, March 10-11, 2015.

Nicolas Nisse :

GRASTA-MAC : joint Workshops 7th Workshop on GRaph Searching, Theory and Applications and 5th workshop on Moving And Computing, Montréal, Canada, October 19-23rd, 2015. Organizers: G. Hahn and N. Nisse.

10.1.1.2. Member of the organizing committees

David Coudert, Frédéric Havet (chair), Michel Syska : SGT 2015, 2nd French School on Graph Theory, Porquerolles, France, May 18-22 2015;

Frédéric Havet (chair) : 17th Journées Graphes et Algorithmes (JGA 2015), Orléans, France, November 4-6, 2015.

10.1.2. Scientific events selection

10.1.2.1. Chair of conference program committees

Frédéric Giroire

Algotel'15: 17es Rencontres Francophones sur les Aspects Algorithmiques de Télécommunications, Beaune, France, June 2-5, 2015; Chairs: L. Blin and F. Giroire.

10.1.2.2. Member of the conference program committees

David Coudert :

ONDM'15 : 19th International Conference on Optical Networking Design and Modeling, Pisa, Italy, May 11-14, 2015;

PHYSComNet : International Workshop on Physics Inspired Paradigms in Wireless Communications and Networks, Bombay, India, May 29, 2015;

IEEE ICC'15 : IEEE International Conference on Communications, London, UK, June 8-12, 2015;

SEA'15 : 14th International Symposium on Experimental Algorithms, Paris, France, June 29 - July 1, 2015;

USRR'15 : 3rd International Workshop on Understanding the Inter-play between Sustainability, Resilience and Robustness in networks, Munich, Germany, October 7, 2015;

IEEE Globecom'15 : IEEE Global Communications Conference, San Diego, CA, USA, December 6-10, 2015.

Nicolas Nisse :

International Conference on Ad Hoc Networks and Wireless (Ad-Hoc Now), track on Mobile Agents, Athens, Greece (June 29-July 1st 2015).

VIII Latin-American Algorithms, Graphs and Optimization Symposium (LAGOS), Praia das Fontes, Beberibe, Ceará, Brazil (11-15 May, 2015).

10.1.3. Journal

10.1.3.1. Member of the editorial boards

Jean-Claude Bermond :

Combinatorics Probability and Computing (Cambridge University Press);
 Computer Science Reviews (Elsevier);
 Discrete Applied Mathematics (Elsevier);
 Discrete Mathematics (ScienceDirect);
 Discrete Mathematics, Algorithms and Applications (World Scientific);
 Journal of Graph Theory (Wiley);
 Journal of Interconnection Networks (Advisory Board, World Scientific);
 Mathématiques et Sciences Humaines (<http://msh.revues.org>);
 Networks (Wiley);
 Parallel Processing Letters (World Scientific);
 SIAM's Discrete Mathematics and Applications Book Series (SIAM).

David Coudert :

Discrete Applied Mathematics (Elsevier);
 Networks (Wiley).

Frédéric Havet :

Discrete Mathematics and Theoretical Computer Science (<http://dmtcs.episciences.org/>).

10.1.3.2. Reviewer - Reviewing activities

Members of COATI have reviewed numerous manuscripts submitted to international journals, including: Algorithmica, Bulletin of the Malaysian Mathematical Sciences Society, Computer Communications, Computer Networks, Computers & Operations Research, Discrete Applied Mathematics, IEEE/OSA Journal of Light-wave Technology, Networks, Photonic Network Communications, The Computer Journal, Theoretical Computer Science, IEEE/ACM Transactions on Communications, IEEE/ACM Transactions on Networking, etc

10.1.4. Invited talks

Frédéric Havet :

VIII Latin-American Algorithms, Graphs and Optimization Symposium (LAGOS 2015), Beberibe, Brazil (May 11-15, 2015), "Induced subdigraphs of digraphs with large chromatic number";

2015 Barbados Graph Theory Workshop, Holetown, Barbados (March 27-April 3), "Subdigraphs of digraphs with large chromatic number".

Nicolas Nisse :

Journées du GDR IM, Bordeaux (Feb. 2nd, 2015), "Cops and robber games in graphs";
 Réunion ANR Displexity, Arcachon (September 3rd, 2015), "Allowing each node to communicate only once in a distributed system";
 GRASTA-MAC'15, Montréal, Canada (October 19th, 2015), "Cops and Robber Games";
 Journées Graphes et Algorithmes (JGA) 2015, Orléans (November 4th, 2015), "Jeux de Gendarmes et Voleur dans les Graphes".

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 Giroire :

Member of the steering committee of *Action GREEN du GDR RSD du CNRS*.

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)*.

10.1.6. Scientific expertise

Jean-Claude Bermond :

Expert for *DRTT-MESR (Crédit Impôt Recherche CIR)*;
Expert for an *Eurostars* application *POF* transceiver;
Evaluation of *PISCOPIA Fellowship Programme Marie Curie Action*, for the University of Padua (Italia).

Christelle Caillouet :

Member of the comité de sélection MCF of 27^e section of Univ. Nice Sophia Antipolis;
Member of the comité de sélection MCF of 27^e section of Univ. Toulon.

David Coudert :

Expert for the *Future and Emerging Technologies Open Scheme (FET-Open)* European program, and the ANR;
Member of the comité de sélection MCF of 27^e section of *LIRMM*, Univ. Montpellier.

Frédéric Havet :

Expert for the ANR.

Joanna Moulhierac :

Member of the comité de sélection MCF of 27^e section of Univ. Nice Sophia Antipolis.

Nicolas Nisse :

Expert for the ANR.

Michel Syska :

Expert for *DRTT PACA*.

10.1.7. Research administration

Jean-Claude Bermond :

Member of the doctoral school of the Univ. of Marseille;
Responsible of the Attractivity for *Inria Sophia Antipolis - Méditerranée* and more generally for the *Campus Sophia Tech* (in particular signature of bilateral agreements, contacts with French Embassies and creation of join grants).

Frédéric Giroire :

Elected member of *I3S* laboratory committee since 2012.

Frédéric Havet :

Responsible of Pôle ComRed of I3S laboratory.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

The members of COATI are strongly involved in teaching with more than 1200 hours in various university levels.

Licence

- Christelle Caillouet, *IT Tools*, 53h ETD, Level L1, IUT Nice Côte d'Azur, UNS;
- Christelle Caillouet, *Database and advanced information system*, 36h ETD, Level L2, IUT Nice Côte d'Azur, UNS;
- Christelle Caillouet, *Operations Research*, 81h ETD, Level L2, IUT Nice Côte d'Azur, UNS;
- Christelle Caillouet, *Delivery Optimization*, 30h ETD, Level L3, IUT Nice Côte d'Azur, UNS;
- Guillaume Ducoffe, *Introduction au Web*, 39h ETD, L2, Polytech'Nice, Univ. Nice Sophia Antipolis (UNS), France;
- Guillaume Ducoffe, *Programmation Objet*, 25.5h ETD, L2, Polytech'Nice, UNS, France;
- Guillaume Ducoffe, *Algorithmique et Structures de Données*, 39h ETD, L2, Polytech'Nice, UNS, France;
- Nicolas Huin, *Networks*, 42h ETD, Level L2, IUT Nice Côte d'Azur, UNS;
- Alvinice Kodjo, *Interfaces Homme Machine*, 24h ETD, Level L1, UNS;
- Alvinice Kodjo, *Réseaux*, 15h ETD, Level L2, UNS;
- Dimitris Letsios *Algorithmique et Programmation Impérative*, 36h ETD, Level L1, UNS;
- Dimitris Letsios *Programmation Web*, 8h ETD, Level L1, UNS;
- Dimitris Letsios *Informatique Fondamentale*, 36h ETD, Level L1, UNS;
- Dimitris Letsios *Algorithmique et Programmation Objet*, 54h ETD, Level L2, UNS;
- Dimitris Letsios *Programmation Orientée Objet Java*, 18h ETD, Level L2, UNS;
- Dimitris Letsios *Mathématiques*, 18h ETD, Level L3, UNS;
- Dimitris Letsios *Mathématiques*, 18h ETD, Level M1, UNS;
- Fatima Zahra Moataz, *Programmation avec Python*, 12h ETD, Level L1, UNS;
- Fatima Zahra Moataz, *Systèmes Informatiques*, 24h ETD, Level L1, UNS;
- Benjamin Momège, *Mathématiques Discrètes*, 75h ETD, Level L3, Polytech'Nice, UNS;
- Joanna Moulierac, *Introduction to Operating Systems*, 60h ETD, Level L1, IUT Nice Côte d'Azur, UNS;
- Joanna Moulierac, *Networks*, 100h ETD, Level L1, IUT Nice Côte d'Azur, UNS;
- Joanna Moulierac, *Algorithmics*, 60h ETD, Level L2, IUT Nice Côte d'Azur, UNS;
- Nicolas Nisse, *Introduction à l'informatique*, 24h ETD, Classe préparatoire MPSI (Lycée international de Valbonne), France;
- Michel Syska, *Operating Systems : Advanced Programming*, 90h ETD, Level L2, IUT Nice Côte d'Azur, UNS;
- Michel Syska, *Algorithmics*, 90h ETD, Level L2, IUT Nice Côte d'Azur, UNS;
- Michel Syska, *Distributed Programming*, 30h ETD, Level L2, IUT Nice Côte d'Azur, UNS;

Michel Syska, *Bash Scripting*, 40h ETD, Level L3, IUT Nice Côte d'Azur, UNS;
 Michel Syska, *Introduction to Algorithms and Complexity*, 30h ETD, Level L3, IUT Nice Côte d'Azur, UNS;
 Michel Syska, *Linux System Administration*, 40h 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;
 Frédéric Giroire, *Green Networks*, 18h ETD, stream UbiNet of Master 2 IFI, UNS;
 Frédéric Giroire, *Introduction to probability and statistics*, 15h ETD, International Master 1, UNS;
 Frédéric Havet, *Combinatorial optimisation*, 24h ETD, M1 international, UNS, France;
 Nicolas Nisse, *Resolution Methods*, 15h ETD, M1 international, UNS, France;
 Nicolas Nisse, *Graph Algorithms*, 18h ETD, M2 IFI, parcours UBINET, UNS, France.

Doctorate

Nicolas Nisse, *Graph Theory and Optimization*, 27h ETD, University of Oulu, Finland, September 15-18th, 2015.

10.2.2. Internships

Paul Bertot : Nov 2014 - Feb 2015, IUT Nice Côte d'Azur, France
 Flavian Jacquot : Nov 2014 - Feb 2015, IUT Nice Côte d'Azur, France
 Bogdan Sirenko : March - Aug 2015, Master IFI, Ubinet, Univ. of Nice, France
 Theodoros Karagkioulos : Oct 2015 - March 2016, National and Kapodistrian Univ. of Athens, Greece
 Konstantinos Priftis : Oct 2015 - March 2016, Univ. of Patras, Greece
 Steven Roumajon : March - Aug 2015, Master RIF, Univ. of Nice, France

10.2.3. Teaching Administration

Stream Ubinet, Master 2 IFI (<http://ubinet.unice.fr>)
 Jean-Claude Bermond, member of the scientific committee;
 Frédéric Giroire, responsible of the Internships, since October 2011.
 International Master 1 (<http://computerscience.unice.fr/master1>)
 Jean-Claude Bermond, member of the scientific committee of the international track of the M1, responsible of the recruiting committee and of the winter school.
 IUT Nice Côte d'Azur
 Christelle Molle-Caillouet, Co-Responsible of QLIO Department, since September 2015;
 Joanna Moulhierac, Co-Responsible of the DUT Informatique en Alternance, Computer Science Department, since January 2014;
 Joanna Moulhierac, member of the Conseil de D épartement Informatique at IUT Nice.

10.2.4. Supervision

PhD : Fatima Zahra Moataz, *Towards Efficient and Fault-Tolerant Optical Networks: Complexity and Algorithms* [14], Université Nice Sophia Antipolis, October 30, 2015. Supervisor : David Coudert;

PhD : Mohamed Amine Bergach, *Adaptation of the Fast Fourier Transform processing on hybrid integrated CPU/GPU architecture* [13], Université Nice Sophia Antipolis, October 2, 2015. Supervisors : Robert de Simone (AOSTE) and Michel Syska;

PhD in progress : Steven Roumajon, *Regional competitiveness and innovation networks*, since November 2015. Supervisors : Frédéric Giroire and Patrick Musso (GREDEG);

PhD in progress : Nicolas Huin, *Energy-Efficient Software Defined Networks*, since October 2014. Supervisors : Frédéric Giroire and Dino Lopez (I3S);

PhD in progress : Guillaume Ducoffe, *Metric properties of large graphs*, since September 2014. Supervisor : David Coudert;

PhD in progress : William Lochet, *Cliques and independent sets in graph classes, generalisation to the oriented case*, since September 2015, co-supervised by Frédéric Havet and Stéphan Thomassé (ENS Lyon).

10.2.5. Juries

Jean-Claude Bermond :

Member of the PhD jury of Fatima Zahra Moataz, Univ. Nice Sophia Antipolis, October 30, 2015.

David Coudert :

Member of the PhD jury of Fatima Zahra Moataz, Univ. Nice Sophia Antipolis, October 30, 2015;

Referee and member of the PhD jury of Benjamin Momège, Univ. Blaise Pascal, Clermont-Ferrand, July 8, 2015.

Frédéric Havet :

Referee and member of the PhD jury of M. Bonamy, Univ. of Montpellier, February 9 2015;

Referee and member of the PhD jury of R. Letourneur, Université of Orléans, July 9 2015;

Member of the PhD jury of Hang Zhou, ENS Paris, July 6 2015.

Michel Syska :

Member of the PhD jury of Mohamed Amine Bergach, Univ. Nice Sophia Antipolis, October 02, 2015.

10.3. Popularization

- Vulgarization talk : N. Nisse presented a talk on "Combinatorial Games", Lycée des Remparts (classes de seconde), Marseille (April 17th, 2015).
- Fête de la Science : F. Havet presented the stand "Pavage, art et preuves" et "Magie mathématique" at Vinon-sur-Verdon, France (October 12-16, 2015); F. Havet gave the talk "La science du ballon de football" at Vinon-sur-Verdon, France (October 16, 2015).
- Semaine des Mathématiques : F. Havet presented the stand "Les maths c'est magique" at Mouans Sartoux (March 18, 2015).
- Vendredis de la Science : F. Havet conducted scientific workshops for school children (6-11 year old) on friday afternoon in Rians, France. Once a month in March, April, May, June 2015, and weekly since November 2015.
- Jean-Claude Bermond presented a talk on the impact of big data on the telecommunications services and networks for banks investors at Paris, France (April 10 2015).

DANTE Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

10.1.1.1. Member of the organizing committees

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

10.1.2. Scientific events selection

10.1.2.1. Chair of conference program committees

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

10.1.2.2. Member of the conference program committees

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

10.1.3. Journal

10.1.3.1. Member of the editorial boards

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

10.1.4. Invited talks

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

10.1.5. Leadership within the scientific community

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

10.1.6. Scientific expertise

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

10.1.7. Research administration

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

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

10.2.1.1. Teaching by  ric Fleury

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

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

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

10.2.1.2. Teaching by Thomas Begin

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

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

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

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

10.2.1.3. Teaching by Paulo Gonalves

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

10.2.1.4. Teaching by Christophe Crespelle

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

10.2.1.5. Teaching by Isabelle Gu erin Lassous

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

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

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

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

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

10.2.1.6. Teaching by Anthony Busson

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

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

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

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

10.2.2. Supervision

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

10.2.3. Juries

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

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

DIANA Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

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 gave an invited talk on Realistic and Reproducible Wireless Networking Experiments at the REPPAR'2015 workshop at Vienna. He is founding member of the ns-3 consortium and co-organized the ns-3 workshop in May 2015. He is vice-president of the PlanetLab Europe consortium. He co-organizes 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 servers as a chair of the scientific committee of the User Centric Networking (UCN@Sophia) Laroratory of Excellence. He is member of board of directors of the Telecom Platform Association responsible for the deployment and operation of the Com4Innov mutualized platform. He co-organized the joint UCN@Sophia Labex - Com4Innov day on research and experimentation. 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).

Thierry Turletti, Senior ACM and IEEE member, served in 2015 in the program committees of the following international workshops: the 21th Packet Video Workshop, Sydney, Australia, USA, June 4-5, 2015, the 6th Workshop on ns-3 at Barcelona, Spain, May 13, 2015, the 10th ACM Mobicom Workshop on Challenged Networks at Paris, France, September 11, 2015, the 11th ACM SIGCOMM Asian Internet Engineering Conference (AINTEC), Bangkok, Thailand, November 2015 and the 13th ACM International Symposium on Mobility Management and Wireless Access (MOBIWAC), Cancun, Mexico, November 2015; 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 president of the Committee for Technological Development (CDT) and member of the committee NICE that studies postdoc and visiting researcher applications at Inria Sophia Antipolis

Chadi Barakat is on the editorial board of the Computer Networks journal, on the Technical Program Committee for the Traffic Monitoring and Analysis (TMA) 2015 workshop, the Passive and Active Measurement (PAM) 2016 Conference, the Algotel 2016 Conference, the ACM SIGCOMM 2015 Posters and Demos Session, and Publicity Co-Chair for ACM SIGCOMM 2015. He is currently the scientific referee for international affairs at Inria Sophia Antipolis and member of the Conseil d'Orientation Scientifique et Technologique (COST) at Inria within the working group of international affairs (COST-GTRI).

Arnaud Legout is on the editorial board of the Computer Networks journal, and was PC member of the ACM CoNEXT 2015 conference. Arnaud Legout is the president of the Commission of the users of IT resources of Sophia Antipolis Inria research center.

Damien Saucez is member of the TPC of DRCN 2016 and CCNC 2016. Damien Saucez is secretary and document shepherding at the IETF LISP working group (details about the secretary and shepherd roles can be found in RFC 2418 and RFC 4858). Damien Saucez is secretary of the Project Committee (CP) at Inria Sophia Antipolis Méditerranée.

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

Mooc: Arnaud Legout and Thierry Parmentelat, Python : des fondamentaux à l'utilisation du langage, 7 weeks, FUN (<https://www.france-universite-numerique-mooc.fr/>), Inria, 9615 registered persons, 1487 qualified for the final attestation of achievement.

9.2.2. Supervision

PhD in progress: Maksym Gabielkov works on "Information propagation in social networks" since October 2012. His thesis is supervised by Arnaud Legout.

PhD: Alina Quereilhac defended her PhD on "A Platform and Domain Independent Approach to Network Experiment Automation" in June 2015. Her thesis was co-supervised by Walid Dabbous and Thierry Turletti.

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: Xuan Nam Nguyen works on "Software Defined Networking in challenged environments", since October 2012. His thesis is co-supervised by Thierry Turletti and Walid Dabbous.

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: Riccardo Ravaioli works on "Active and Passive Inference of Network Neutrality" since October 2012. His thesis is co-supervised by Chadi Barakat and Guillaume Urvoy-Keller (I3S).

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 Quentin Jacquemart PhD thesis, "Towards Uncovering BGP Hijacking Attacks" defended in October at Eurecom.

Chadi Barakat served as reviewer of Florin Coras PhD thesis, "On the Scalability of LISP and Advanced Overlaid Services " defended in July 2015 at Polytechnic University of Catalonia (UPC), Barcelona.

Chadi Barakat served as reviewer of Pavlos Sermpezis PhD thesis, "Performance Analysis of Mobile Social Networks with Realistic Mobility and Traffic Patterns" defended in February 2015 at Eurecom.

Thierry Turletti served as examiner of Diala Naboulsi PhD thesis, "Analysis and exploitation of mobile traffic datasets", defended in September 2015 at INSA Lyon.

Walid Dabbous served as reviewer of Patrick Senac HDR thesis, "L'Internet de l'extrême. Modèles, protocoles et mécanismes de bout en bout pour les réseaux de communication de nouvelle génération" defended in October 2015 at UPMC.

Walid Dabbous served as reviewer of Gwendal Simon HDR thesis, "Massive Interactive Multimedia Services Over the Internet" defended in April 2015 at Télécom Bretagne, Univ. of Rennes 1.

Walid Dabbous served as reviewer of Natalya Rozhnova PhD thesis, "Congestion control for Content-Centric Networking" defended in May 2015 at UPMC.

Thierry Turletti served as examiner and president of Haiyang Jiang PhD thesis, "Research on parallelization of network intrusion detection system", defended in May 2015 at Univ. of Grenoble.

Thierry Turletti served as reviewer of Peng He PhD thesis, "Design and evaluation of high performance software based packet classification systems", defended in May 2015 at Univ. of Grenoble.

Thierry Turletti served as reviewer of Michelle Tortelli PhD thesis, "Information-Centric Networking: Routing Design and Performance Evaluation Methodologies", defended in January 2015 at Politecnico di Bari.

9.3. Popularization

Chadi Barakat presented ACQUA at the Scientific Day of the Afnic (JCSA 2015). See <https://www.afnic.fr/fr/l-afnic-en-bref/actualites/actualites-generales/9333/show/jcsa15-retour-sur-la-journee-du-conseil-scientifique-de-l-afnic-2015.html>.

Walid Dabbous was invited again in October 2015 to present Future Internet challenges to high school students at CIV for the Science Week (Fête de la science).

Arnaud Legout presented at lycée Amiral de Grasse to students in première and terminale a conference on privacy in the Internet in April 2015.

Damien Saucez has made a speech on the reproducibility of experimentation at the Journée Cloud 2015 of the GdR RSD Cloud Action Transverse (see <https://rsd-cloud.lip6.fr/journee.html>).

DIONYSOS Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events organisation

9.1.1.1. Member of the organizing committees

Pierre L'Ecuyer was a member of the following groups:

- Steering Committee for the IMACS Seminar on Monte Carlo Methods (biennial conference), since 2009.
- Steering Committee for the International Conference on Monte Carlo and Quasi-Monte Carlo Methods in Scientific Computing, since 2006.
- Selection committee for the INFORMS Simulation Society Distinguished Service Award, 2012-2015.

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.

R. Marie and G. Rubino are members of the IFIP WG 7.3 (Working Group in Computer Performance Modeling and Analysis).

9.1.2. Scientific events selection

9.1.2.1. Chair of conference program committee

- Bruno Tuffin served as coordinator of Analysis Methodology track at the 48th Winter Simulation Conference, Huntington Beach, CA, December 2015.
- Adlen Ksentini served as Technical Program Committee Chair of the 1st IEEE on Standards for Communications and Networking (CSNC)
- Adlen Ksentini is serving as Symposium Chair of Mobile and Wireless Network Symposium of IEEE ICC 2016, Kuala Lumpur, Malaysia.
- Yassine Hadjadj-Aoul served as Technical Program Committee Chair of the 2nd International Conference on Information and Communication Technologies for Disaster Management (ICT-DM).

9.1.2.2. Member of the conference program committees

Pierre L'Ecuyer was a member of the program committee of the following events:

- MCM'2015: Tenth IMACS Seminar on Monte Carlo Methods, Linz, Austria, July 2015.
- SIMUL 2015: Seventh International Conference on Advances in System Simulation, Barcelona, Nov. 2015.
- SIMULTECH 2015: International Conference on Simulation and Modeling Methodologies, Technologies and Applications, Colmar, France, July 2015.
- BIRS Workshop on Applied Probability Frontiers: Computational and Modeling Challenges, Banff, Canada, June 2015.

Bruno Tuffin was a member of the program committee of the following events:

- IEEE ICC 2015 - Communications Software, Services and Multimedia Applications Symposium, London, UK, June 8-12, 2015.
- NetEcon 2015: the 10th Workshop on the Economics of Networks, Systems and Computation, Portland, Oregon, USA, in conjunction with ACM SIGMETRICS, June 2015.
- 2015 ACM SIGSIM Conference on Principles of Advanced Discrete Simulation (ACM SIGSIM PADS 2015), the University of Westminster, London, UK, June 15-17, 2015.
- 4th Workshop on Smart Data Pricing (SDP 2015), Workshop of IEEE INFOCOM 2015, Hong Kong, May 1st, 2015.
- 10th IMACS Seminar on Monte Carlo Methods (MCM 2015), Linz, Austria, July 2015.
- 8th International Workshop on Simulation, Vienna, Austria, September 21-25, 2015.
- The International Conference on Wireless Networks and Mobile Communications (WINCOM'15), Marrakech, Morocco, October 20-23, 2015.

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

- ASMTA 2015, 22nd International Conference on Analytical & Stochastic Modelling Techniques & Applications, Albena, (Varna) Bulgaria, 26-29 May 2015.
- MACOM 2015, 8th International Workshop on Multiple Access Communications, Helsinki, Finland, 3-4 September 2015.
- INTERNET 2015, 7th International Conference on Evolving Internet, St. Julians, Malta, 11-16 October 2015.

Adlen Ksentini was member of the program committee of the following events:

- IEEE ICC 2015 Mobile Wireless Networks Symposium, London, UK, 2015.
- IEEE Globecom 2015 Mobile Wireless Networks Symposium, San Diego, USA, 2015.
- IEEE WCNC 2015, New Orleans, USA, 2015.

Yassine Hadjadj-Aoul was a member of the program committee of the following events:

- IEEE ICC 2015 Mobile Wireless Networks Symposium, London, UK, 2015.
- IEEE Globecom 2015 Mobile Wireless Networks Symposium, San Diego, USA, 2015.
- IEEE WCNC 2015, New Orleans, USA, 2015.
- IEEE CSCN 2015 IEEE Conference on Standards for Communications & Networking, Tokyo, Japan, 2015.

Gerardo Rubino served or serves at the program committee of the following conferences:

- QEST 2015: 12th International Conference on Quantitative Evaluation of SysTEms, Madrid, Spain, August 2015.
- ComTel 2015: VIII Congreso Internacional de Computación y Telecomunicaciones, Lima, Perú, September 2016
- ComTel 2016: VIII Congreso Internacional de Computación y Telecomunicaciones, Lima, Perú, September 2016
- MASCOTS 2016: The 24th IEEE conference in Modelling, Analysis and Simulation of Computer and Telecommunications Systems, London, England, September 2016.
- Networking 2015: The 14th IFIP Networking Conference, Toulouse, France, May 2015.
- Networking 2016: The 15th IFIP Networking Conference, Vienna, Austria, May 2016.

9.1.2.3. Reviewer

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'15, Globecom'15, CCNC'16.

Adlen Ksentini has reviewed papers in 2015 for Transaction Paralel 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 2015 for Transaction on Vehicular Technology-TVT, Wireless Communication Magazine, Elsevier Computer Communication and for the following international conferences: Globecom'15, ICC'15, WCNC'15.

9.1.3. Journal

9.1.3.1. Member of the editorial boards

Bruno Tuffin is an associate editor for the following journals:

- INFORMS Journal on Computing, since 2007.
- Mathematical Methods of Operations Research, since November 2008.
- ACM Transactions on Modeling and Computer Simulation, since July 2009.

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.
- Performance Evaluation.

Bruno Sericola is Editor in Chief of the books series "Stochastic Models in Computer Science and Telecommunications Networks", ISTE/WILEY.

Adlen Ksentini is Associate Editor of IEEE Access Journal.

Yassine Hadjadj-Aoul is guest editor for the Hindawi's Special Issue on "Wireless and Mobile Technologies for the Internet of Things".

Yassine Hadjadj-Aoul is a member of the editorial board of the CSC Journal's "International Journal of Computer Networks (IJCN)" since 2012.

9.1.3.2. Reviewer - Reviewing activities

In addition to the reports done during his associate editor and conference TPC member duties, Bruno Tuffin has reviewed papers in 2015 for ACM TOMPECS, Computers & Operations Research, IEEE Network Magazine, Operations Research, Statistics & Computing.

Bruno Sericola has reviewed papers for several major international journals and conferences.

Yassine Hadjadj-Aoul has reviewed papers for several major international journals and conferences such as: Security and Communication Networks (Wiley), IEEE Communication Magazine, and IEEE Transaction on Vehicular Technologies (TVT).

Gerardo Rubino has reviewed papers for several major international journals and conferences, including Performance Evaluation, RAIRO, book chapters, and the reviewing activities related to the service at different program committees.

9.1.4. Invited talks

- B. Tuffin. “Rare event simulation applied to dependability analysis”. Université de Pau, May 2015.
- B. Tuffin (joint work with P. L’Ecuyer, P. Maillé, N. Stier-Moses). “Revenue-Maximizing Rankings for Online Platforms with Quality-Sensitive Consumers”. GRD COS, Toulouse, September 2015.
- B. Tuffin (joint work with P. Maillé, G. Simon). “On revenue-oriented Content Delivery Networks and their impact on Net Neutrality”. GEARD, Université de Montréal, Canada, Sept. 2015.
- B. Tuffin. “Rare event simulation applied to dependability analysis”. GDR MASCOT-NUM, IHP Paris, October 2015.
- B. Tuffin (joint work with P. L’Ecuyer, P. Maillé, N. Stier-Moses). “Stochastic Optimization for Search Engines: Revenue-Maximizing Rankings with Quality-Sensitive Consumers”. NTNU, Trondheim, Norway, November 2015.
- A. Ksentini, “On the Cloudification of mobile networks”, Tutorial at IEEE Globecom, December 2015, San Diego, USA.
- A. Ksentini, “Cloud and mobile network, the marriage”, Invited Seminar, Univ. Reims, October, 2015
- A. Ksentini, “SDN and NFV”, Tutorial in the International School on Cloud Computing, Tunis, Tunisia, April 2015.
- C. Viho, “Quality of Experience(QoE)-based resource management in wireless networks”, plenary talk at the 2nd International Congress on Telematics, Computing and Communications (WITCOM 2015), Mexico DF, Mexico, November 4, 2015.
- C. Viho, “How to Deal with Interoperability Testing in The Challenging and Ever-changing Context of IoT”, invited talk at the 2nd EAI International Conference on Interoperability in IoT (InterIoT 2015), Roma, Italy, October 26, 2015.
- G. Rubino, “Random Neural Networks: some applications and extensions”, invited speaker in Imperial College Seminar in honor of Prof. Erol Gelenbe, London, September November 2015.
- G. Rubino, “Automatic measuring of perceptual quality, a major QoE component of video- and audio-based services”, plenary speaker in Soft Computing Methods for the Design, Deployment, and Reliability of Networks and Network Applications (SOFTNET 2015), Paris, France, July 2015.
- G. Rubino, “Statistical Learning and Queueing Models: an Hybrid Approach for Performance Evaluation”, plenary speaker in 15th International Conference on Hybrid Intelligent Systems (HIS 2015), Séoul, Korea, November 2015.
- G. Rubino, “Risk and loss, prediction and analysis: probabilistic approaches”, keynote speaker in 2nd Int. Conference on Information and Communication Technologies for Disaster Management, Rennes, France, December 2015.

9.1.5. Research administration

- Bruno Tuffin was a member of Inria-MITACS selection committee, 2015.
- Bruno Sericola is responsible for the Inria Rennes-Bretagne Atlantique budget.
- Bruno Sericola has been (until August 2015) a member of the Inria Evaluation Committee which role is to assess the calibre of research conducted at Inria and to guarantee the quality of its hiring and internal promotions.
- Bruno Sericola is the leader of the research group MAPI (Math Appli Pour l’Info) the goal of which is to improve the collaboration between computer scientists and mathematicians.
- Bruno Sericola has been member of the HCERES (Haut Conseil de l’Évaluation de la recherche et de l’enseignement supérieur) Evaluation Committee for the scientific evaluation of the CITI (Centre of Innovation in Telecommunications and Integration of service), Lyon, France, in February 2015;
- Adlen Ksentini is the secretary of the IEEE ComSoc Technical Committee on Software.

- Adlen Ksentini is the the secretary of the IEEE ComSoc France Section.
- Gerardo Rubino is a member of the Technical Committee on Multimedia Communications of IEEE.
- G. Rubino has been appointed as the Inria representative at the Scientific Committee of the IFCAM (Indo-French Center for Applied Mathematics), a joint international unit between Indian Ministry of Science and Technology and several French institutions including CNRS, Inria, École Polytechnique, École Normale Supérieure, Inria, Nice Sophia Antipolis University and University of Toulouse III.
- Gerardo Rubino is a member of the Research Commission of TELECOM Bretagne (advisory board for the research activities of the institution).
- Gerardo Rubino is a member of the CSV (Selection and Validation Committee) of the “Images et Réseaux” (Images and networks) cluster in the French Brittany Region. The cluster includes most companies and academic institutions working in networking and in image-based applications in Western France.
- Gerardo Rubino has been appointed as a member of the Scientific Advisory Board of the Center for Uncertainty Quantification in Computational Science and Engineering, of KAUST, Saudi Arabia, since January 2014.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Master and PhD at NTNU (Trondheim, Norway): 25 hours intensive course on Game Theory and Network Economics

Undergraduate students, Probability, 40 hours, University of Science and Technology of Hanoi, Vietnam

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

Master M2: Mathematics, 12 hours Istic/University of Rennes 1, France

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

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

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

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

Master M2: Dependability analysis, 15 hours, SUPELEC Engineering School, Rennes, France

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

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

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

Master M2: Software Defined Networks, 4 hours, Istic/University of Rennes 1, France

9.2.2. Supervision

PhD in progress: Ajit Rai, “Availability prediction with logistics”, started in May 2015; advisor: B. Tuffin & G. Rubino, University Rennes 1.

Master: Yves Mocquard, “On population protocols”; advisors: Bruno Sericola and Emmanuelle Anceaume, University of Rennes 1.

PhD in progress: Corentin Hardy, “Device-Assisted Distributed Machine-Learning on Many Cores”, started on November 2015; advisors: Bruno Sericola, University of 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, University of Rennes 1.

Btissam Errahmadi; Cifre Grant, Orange Labs; title: “Coopération et auto-* dans un réseau de small cells”; PhD started on January 2013; advisors: C. Viho and A. Ksentini; University Rennes 1.

Osama Arouk; title: “Cellular-based M2M communication: congestion control”; PhD started on December 2012; advisors: C. Viho and A. Ksentini; University Rennes 1.

Farouk Messaoudi, title: “Orchestration et la virtualisation des ressources de terminaux, la vision Global OS”; PhD started on October 2014, advisor: A. Ksentini, P. Bertin; University Rennes 1.

Florient Grandhomme, title: “Etudes de protocoles de routage dynamique externe de type BGP dans un environnement réseaux tactiques adhoc mobiles : faisabilité, performances, qualité de service, et passage à l’échelle.”, PhD started on October 2014, advisors: A. Ksentini, G. Guette; University Rennes 1.

Louiza Yala, title: “CDNaaS: Content Delivery Network as a Service”, PhD started on October 2015, advisors: A. Ksentini; University Rennes 1.

Imad Awad, title: “Mobile SDN architecture for 5G”, PhD started on October 2015, advisors: A. Ksentini, P. Bertin; University Rennes 1.

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.

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.

Meriem Bouzouita; cotutelle between University of Rennes 1 and Carthage University; title: “Optimized random access for M2M communications in LTE-Advanced Networks”, started on October 2012; Advisors: Y. Hadjadj, N. Zangar, S. Tabbane, C. Viho; Carthage University, University Rennes 1.

Hamza Ben Ammar; University of Rennes 1; title: “Socially-aware network and cache resources optimization for efficient media content delivery in Content Centric Networks (CCN)”, started on October 2015; Advisors: Y. Hadjadj, A. Kentini, S. Ait-Chellouche; University of Rennes 1.

Nicolas Jara Carvallo; joint PhD between the University of Rennes 1 in France and the UTFSM in Chile; title: “Fault tolerant design of dynamic WDM optical networks”, started on October 2015; Advisors: R. Vallejos in Chile, G. Rubino in France.

Laura Aspirot; PhD from the University of the Republic, Uruguay; title: “Fluid Approximations for Stochastic Telecommunication Models”; co-advisors: E. Mordecki from UDELAR and G. Rubino in France.

Jorge Graneri; PhD from the University of the Republic, Uruguay; title: “Mathematical models for semantic memory pathologies”; co-advisors: E. Mizraji from UDELAR and G. Rubino in France.

9.2.3. Juries

Bruno Tuffin was a member of the following Habilitation defense committees:

- Pascal Redou. Modèles formels pour l’analyse et la simulation *in virtuo* de systèmes complexes d’inspiration biologique. Université de Bretagne Occidentale, Brest, 2015, rapporteur.
- P. Maillé. Insights from economic studies of telecommunication networks. Telecom Bretagne Rennes, Octobre 2015.

Gerardo Rubino was a member of the following Habilitation defense committee:

- Gwendal Simon. Massive Interactive Multimedia Services Over the Internet. HDR of the University of Rennes 1, Rennes, France. April 7, 2015. President of the jury.

Bruno Tuffin was a member of the following PhD defense committees:

- Josu Doncel. Efficiency of Distributed Queueing Games and of Path Discovery Algorithms. LAAS-CNRS, March 2015.
- Christelle Vergé. Modèle d'îlots de particules et application en fiabilité. École Polytechnique, Juillet 2015, rapporteur.
- Jeanne Demgne. Modélisation d'actifs industriels pour l'optimisation robuste des stratégies de maintenance. Université de Pau et de l'Amour, Octobre 2015, rapporteur.
- Vincent Moutoussamy. Contributions à l'analyse de fiabilité structurale : prise en compte de contraintes de monotonie pour les modèles numériques. Université de Toulouse, Novembre 2015, rapporteur.
- Yangyang Chen. Performance Analysis of Mobile Relays for LTE. Telecom Bretagne, December 2015.

Bruno Sericola was a member of the following:

- The jury for the recruitment of young graduate scientists.
- The jury for allocating the Inria Ph.D. and Research Supervising Bonus.
- The jury for allocating the university students' thesis grants.
- The PhD defense committee of Mathilde Pascal, "Oral health in children and young adults after renal transplantation", UFR d'odontologie, university of Rennes 1, December 2015, examinateur.

Adlen Ksentini was member of the following PhD defense committees:

- Mamadou Tourad DIALLO, Qualité d'expérience et adaptation de service vidéo. Institut Mines-Télécom Sud Paris, Juin 2015, rapporteur.
- Shengyang Chen, Etude des méthodes d'ordonnancement sur les réseaux de capteurs sans fil, Univ. Reims, Octobre 2015, rapporteur.

C. Viho was a member of the juries for the recruitment of young Associate Professors and senior Professors at ISTIC-Université Rennes 1. He was a member of the following PhD defense committees:

- Tanguy Ropitault, "Routage et performances dans les réseaux CPL pour le Smart Grid", Telecom Bretagne, June 2015, president.
- Roudy Dagher, "Sur la radionavigation dans les villes intelligentes du futur : Le cas des réseaux de capteurs sans-fils", Université de Lille 1, June 2015, rapporteur.

Gerardo Rubino was a member of the following PhD defense committees:

- Thiago Wanderlay Matos de Abreu. "Modélisation et analyse de performances des réseaux en chaîne basés sur IEEE 802.11". ENS Lyon, March 2015. Reviewer.
- Pedro Vilanova. "Multilevel approximations of Markovian jump processes with applications in communication networks". Center for Uncertainty Quantification, Stochastic Numerics Research Group, KAUST, Saudi Arabia, May 2015.

9.3. Popularization

- In [80], [83], Bruno Tuffin and his co-author Patrick Maillé discuss for a large audience the issues and challenges of network neutrality.
- Bruno Sericola and Emmanuelle Anceaume made a presentation to students of the ENS (Ecole Normale Supérieure) Rennes on their works on the performance evaluation of data streaming analysis algorithms.
- 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

- Bartek Blaszczyszyn and Marc Lelarge co-organized Stochastic networks and stochastic geometry conference dedicated to François Baccelli on his 60th birthday; <http://www.di.ens.fr/~blaszczy/FB60/>
- M. Lelarge: Co-organizer, Cargèse fall school on random graphs, with Dieter Mitsche and Pawel Pralat
<http://math.unice.fr/~dmitsche/Fallschool/Fallschool.html>
- M. Lelarge: Co-organizer, Workshop on Community Detection, with Laurent Massoulié
<http://www.msr-inria.fr/conferences-workshops/workshop-on-community-detection-at-institut-henri-poincare/>

10.1.1.1. Chair of conference program committees

Ana Busic: Valuetools 2015 TPC co-chair. <http://valuetools.org/2015/show/home>

10.1.1.2. Member of the conference program committees

- Bartek Blaszczyszyn: WiOpt/SpaSWiN 2015
- Anne Bouillard was a member of the program committee of WiOpt 2015 and Valuetools 2015.
- Ana Busic: ACM Sigmetrics, WiOpt, IEEE SmartGridComm.
- Marc Lelarge: WEIS, WiOpt, WAW.

10.1.2. Journal

10.1.2.1. Member of the editorial boards

- F. Baccelli serves on the editorial boards of: Bernoulli, JAP, AAP et Questa.
- M. Lelarge serves on the editorial boards of: IEEE's Transactions on Network Science and Engineering, Bernoulli Journal and Queueing Systems.

10.1.3. Invited talks

- F. Baccelli gave the following invited lectures: Keynote Lecture, *ISWCS'15*, Brussels, August 2015; Invited lecture at the *Huawei Vision Forum, Paris*, on stochastic geometry for wireless networks, March 2015; Invited lecture at the *EPFL Inria Joint Meeting, Lausanne*, on coverage in cellular networks, January 2015.
- Bartek Blaszczyszyn: WiOpt/SpaSWiN 2015, Simons workshop on Stochastic Geometry and Networks, University of Texas at Austin.
- A. Busic: keynote talk at CaFFEET (California France Forum on Energy Efficiency Technologies); <http://caffet.com/>
- M. Lelarge: The International Symposium on Optimization (ISMP), Pittsburgh (Jul.); CAP2015 : Conférence sur l'Apprentissage automatique, Lille (Jul.); Algotel, Beaunes (Jun.); DALI 2015 - Workshop on Learning Theory, Spain (Apr.); Assemblée Générale du GdR Information Signal Image viSion (ISIS), Lyon (Apr.); Combinatorial and algorithmic aspects of convexity, Paris (Jan.).

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Licence : Anne Bouillard (Cours) et Ana Basic (TD) **Structures et algorithmes aléatoires** 80heqTD, L3, ENS, France.

Licence : Anne Bouillard (Cours) **Théorie de l'information et du codage** 36 heqTD, L3, ENS, France.

Licence : Anne Bouillard (Cours) **Algorithmique et programmation** 21 heqTD, L3, ENS, France.

Licence : Anne Bouillard (TD) **Systèmes digitaux** 9 heqTD, L3, ENS, France.

Master: Bartek Blaszczyszyn (with Laurent Massoulié), Graduate Course on point processes, stochastic geometry and random graphs (program "Master de Sciences et Technologies"), 45h, UPMC, Paris 6, France.

Master : Bartek Blaszczyszyn (with Laurent Decreusefond), Graduate Course on Spatial Stochastic Modeling of Wireless Networks (master program "Advanced Communication Networks"), 45h, I'X and Telecom ParisTech, Paris.

Master : Anne Bouillard (Cours + TD) **Fondements de la modélisation des réseaux** 18heqTD, M2, MPRI, France

Master: Ana Basic et Marc Lelarge (Cours) et Rémi Varloot (TD) Modèles et algorithmes de réseaux, 50heqTD, M1, ENS, Paris, France.

Master: Ana Basic, Simulation, 9hCours, M2 AMIS, UVSQ, France

Master: Marc Lelarge (Cours), Algorithms for Networked Information, 27heqTD, M2 ACN, Ecole polytechnique

Master: Marc Lelarge (TD), Networks: distributed control and emerging phenomena, 36 heqTD, M1, Ecole polytechnique.

10.2.2. Supervision

HdR : Marc Lelarge, Topics in random graphs, combinatorial optimization, and statistical inference[2], ENS, 23 février 2015.

PhD : Miodrag Jovanovic, Evaluation and optimization of the quality perceived by mobile users for new services in cellular networks, started in January 2012, defended in 2015 advisor B. Blaszczyszyn, co-advisor M.Karray; [1]

PhD in progress : Kumar Gaurav, Convex comparison of network architectures, started in October 2011, advisor B. Blaszczyszyn;

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 Basic;

PhD in progress : Umar Hashmi, Decentralized control for renewable integration in smartgrids, from December 2015, advisors: A. Basic and M. Lelarge;

PhD in progress: Lennart Gulikers, Spectral clustering, depuis décembre 2014, encadrants: Marc Lelarge et Laurent Massoulié

PhD in progress : Rémi Varloot, Dynamique de Formation des Réseaux, depuis février 2015, encadrants: Marc Lelarge et Laurent Massoulié

PhD in progress: Alexandre Hollocou, Local community detection, depuis décembre 2015, encadrants: Thomas Bonald et Marc Lelarge

10.2.3. Juries

- A. Basic: Examiner for PhD: Pierre-Antoine BRAMERET (ENS Cachan) 2015.
- A. Basic: membre du jury de recrutement CR2 Inria Saclay - Île-de-France.
- A. Basic: membre de la Commission des Emplois Scientifiques du CRI Paris-Rocquencourt
- A. Basic: membre de la Commission de développement technologique (CDT) de Paris-Rocquencourt
- M. Lelarge: External Examiner for PhD: Jean Barbier (ENS) and Hang Zhou (ENS)
- M. Lelarge: Member of the hiring committee for "maître de conférence Probabilités (Université Lyon 1)"

EVA 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 and Farouk Kamoun of PEMWN 2015, organized in Hammamet, Tunisia, November 2015.
- **Thomas Watteyne**
 1. Co-chair, IETF 6TiSCH standardization working group.
 2. Technical Program Committee Chair and Local Chair, EAI Conference on Interoperability in IoT (InterIoT), Paris, France, October 2016.
 3. General Chair, Second ETSI 6TiSCH plugtests, Paris, France, 2-4 February 2016.
 4. Technical Program Committee Chair, EAI Conference on Interoperability in IoT (InterIoT), part of the IOT360 Summit, Rome, Italy, 28-29 October 2015.
 5. Chair, OpenWSN/6TiSCH Hackathon, Czech Republic, 19 July 2015.
 6. Chair, First ETSI 6TiSCH plugtests, Prague, Czech Republic, 17-18 July 2015.
 7. Program co-chair of the 1st International Workshop on IoT challenges in Mobile and Industrial Systems (IoTSys), in conjunction with MobiSys, Florence, Italy, 18 May 2015.
- **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 2015), August 2015.
 2. chair of the International Conference on Mobile, Secure and Programmable Networking (MSPN 2015), June 2015.

10.1.1.2. Organizing Committee Member

- **Paul Muhlethaler**
 1. organized the DGA Inria workshop on Telecommunication and networking “Cloud, cloudlet & MANET” in October 2015.
- **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 2015

10.1.2. Scientific Events Selection

10.1.2.1. Conference Program Committee Member

- **Paul Muhlethaler**

1. Steering Committee Member of MobileHealth 2015, 5th EAI International Conference on Wireless Mobile Communication and Healthcare, October 14–16, 2015, London, Great Britain
 2. Technical Committee of the fourth International conference on Performance Evaluation and Modeling in Wireless Networks, PEMWN 2015, November 2015, Hammamet , Tunisia.
- **Pascale Minet**
 1. TPC Member CIT 2015, 15th IEEE International Conference on Computer and Information Technology, May 2015,
 2. TPC Member DCNET 2015, 6th International Conference on Data Communication Networking, July 2015,
 3. TPC Member DMEMS 2015, Workshop on design, control and software implementation for distributed MEMS, September 2015.
 4. TPC Member ICN 2015, 14th International Conference on Networks, April 2015.
 5. TPC Member IUCC 2015, the 14th IEEE International Conference on Ubiquitous Computing and Communications, October 2015.
 6. TPC Member PEMWN 2015, 4th International Conference on Performance Evaluation and Modeling in Wired and Wireless Networks, November 2015.
 7. TPC Member PECCS 2015, 5th international conference on Pervasive and Embedded Computing and Communication Systems, February 2015.
 8. TPC Member RAWSN 2015, 3rd International Workshop on RFID And Adaptive Wireless Sensor Networks, May 2015.
 9. TPC Member RTNS 2015, 23th International Conference on Real-Time and Network Systems, November 2015.
 10. TPC Member WINCOM 2015, 1st International Conference on Wireless Networks and Mobile Communications, October 2015.
 - **Thomas Watteyne**
 1. TPC Member IEEE International Conference on Communications (ICC), Selected Areas in Communications (SAC), 2015, 2016.
 2. TPC Member International Conference on Embedded Wireless Systems and Networks (EWSN), 2016.
 3. TPC Member IEEE World Forum on Internet of Things (WF-IoT), 2015.
 4. TPC Member International Workshop on Internet of Things, Machine to Machine and Smart Services Applications (IoT), part of International Conference on Collaboration Technologies and Systems (CTS), 2015.
 5. TPC Member IEEE Wireless Communications and Networking Conference (WCNC), 2015.
 6. TPC Member IEEE International Conference on Embedded Software and Systems (ICESS), 2015.
 - **Nadjib Achir**
 1. TPC Member IEEE Global Telecommunications Conference, GLOBECOM 2015;
 2. TPC Member IEEE International Conference on Communications, ICC 20145;
 3. TPC Member Personal, Indoor and Mobile Radio Communications, PIMRC 2015.
 4. TPC Member IEEE Wireless Communications and Networking Conference, WCNC 2015;
 5. TPC Member IEEE Consumer Communications & Networking Conference, CCNC 2015;

6. TPC Member Global Information Infrastructure and Networking Symposium, GIIS 2015.
 7. TPC Member International Conference On Network of the Future, NoF 2015.
- Selma Boumerdassi
 1. TPC Member IEEE Global Telecommunications Conference, GLOBECOM 2015;
 2. TPC Member IEEE International Conference on Communications, ICC 2015;
 3. TPC Member International Workshop on Communicating Objects and Machine to Machine for Mission-Critical Applications, COMMCA 2015;
 4. TPC Member International Conference on Open and Big Data, OBD, 2015;
 5. TPC Member International Conference on New Technologies of Information and Communication, NTIC, 2015;
 6. TPC Member International Conference on Performance Evaluation and Modeling in Wired and Wireless Networks, PEMWN, 2015;
 7. TPC Member International Conference on Advances in Computing, Communications and Informatics, ICACCI, 2015;

10.1.3. Journal

10.1.3.1. Editorial Board Member

- **Thomas Watteyne**
 1. Editor, EAI Transactions on Internet of Things since 2015.
 2. Editor, IEEE Internet of Things (IoT) Journal since 2014.
- Nadjib Achir
 1. guest editor of the special issue “Planning and Deployment of Wireless Sensor Networks”, of the International Journal of Distributed Sensor Networks.

10.1.3.2. Journal Reviewer

- **Paul Muhlethaler**
 1. Reviewer Annals of telecommunications
 2. Reviewer IEEE Transactions on Wireless Communications
 3. Reviewer IEEE Transactions on Vehicular Technology
 4. Reviewer IEEE Transactions on Information Theory
 5. Reviewer International Journal of Distributed Sensor Networks. Hindawi.
- **Pascale Minet**
 1. Reviewer Real-Time Systems
 2. Reviewer International Journal of Distributed Sensor Networks
 3. Reviewer Computer Communications Journal
 4. Reviewer Annals of telecommunications
 5. Reviewer ACM Computing Surveys
- **Thomas Watteyne**
 1. Reviewer Springer Journal of Internet Services and Applications, 2015.
 2. Reviewer IEEE Internet of Things (IoT) Journal, 2015.
 3. Reviewer IEEE Transactions on Industrial Informatics, 2015.
- Nadjib Achir
 1. Reviewer Sensor Networks (MDPI)
 2. Reviewer Wireless Communications and Mobile Computing (Wiley)

3. Reviewer Internet of Things Journal (IEEE)
 4. Reviewer Ad Hoc Networks Journal (Elsevier)
- Selma Boumerdassi
 1. Reviewer Ad Hoc Networks Journal (Elsevier);
 2. Reviewer The journal of Future Generation Computer Systems (Elsevier).

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Master:

- **Thomas Watteyne** taught an Intensive 1-week course on IoT, with associated hands-on labs. ENSTA ParisTech. Together with Quentin Lampin and Dominique Barthel, 12-18 November 2015.
- **Thomas Watteyne** taught a 3-hour class on “Getting your Hands Dirty With the Industrial IoT”. IoT360 Summer School, Rome, Italy, 27 October 2015.
- **Thomas Watteyne** taught a 1-day crash course on the Industrial IoT, ParisTech, 30 September 2015.
- **Thomas Watteyne** taught a 3-hour class on “Deterministic Wireless Sensor Networks”, Ecole Temps Reel (ETR), with Pascal Thubert, Rennes, France, 28 August 2015.
- **Thomas Watteyne** taught a 1h class on the Silicon Valley at KULAK, Kortrijk, Belgium, 17 March 2015.
- **Thomas Watteyne** taught an Intensive 1-week course on IoT, with associated hands-on labs. ENSTA ParisTech. Together with Quentin Lampin and Dominique Barthel, 19-23 January 2015.
- **Pascale Minet** taught “Déploiement de réseaux de capteurs sans fil : couverture et connectivité” in Master Systèmes et Services pour l’Internet des Objets of the University of Marne-la-Vallée.
- **Pascale Minet** taught Mobile ad hoc networks and wireless sensor networks: medium access, routing and energy efficiency in Master ScTIC (Systèmes complexes, Technologies de l’Information et du Contrôle) of the University of Paris 12.
- **E-learning**
 - **Thomas Watteyne** recorded a MOOC on the Internet of Things (IoT) together Prof. Mischa Dohler from with King’s College London, FutureLearn platform, 3-week course, first course on 23 November 2015. Over 20,000 registered!

10.2.2. Supervision

PhD :

- Ines Khoufi, “Autonomous or assisted deployment by mobile robots of wireless sensor networks: coverage and connectivity issues”, University Pierre et Marie Curie - Paris VI, September 2015, **Pascale Minet** adviser, Anis Laouiti, co-adviser.
- Ines Ben Jemaa, “Multicast communications for cooperative vehicular systems”, Mines ParisTech, December 2014, **Paul Muhlethaler** co-adviser, Nadjib Achir reviewer.

10.2.3. Juries

HdR:

- Kinda Khawam, “Radio resource management in heterogeneous networks”, University of Paris Sud, November 2015, **Pascale Minet** examiner.

- Anis Laouiti, “From mobile ad hoc networks to smart cities”, University of Paris Sud, September 2015, **Pascale Minet** examiner.

PhD:

- Kevin Roussel, “Évaluation et amélioration des plates-formes logicielles pour réseaux de capteurs sans-fil, pour optimiser la qualité de service et l’énergie”, Université de Lorraine, viva 17 December 2015, **Thomas Watteyne** examiner.
- Antonio O. Gonga, “Mobility and Multi-channel Communications in Low-power Wireless Networks”, KTH Electrical Engineering, viva on 14 January 2016, **Thomas Watteyne** examiner.
- Roudy Dagher, “Sur la radionavigation dans les villes intelligentes du futur – Le cas des réseaux de capteurs sans fils”, Inria-Lille, viva 6 October 2015,, **Thomas Watteyne** examiner.
- Georgios Z. Papadopoulos, “Improving Medium Access in Dynamic Wireless Sensor Networks”, ICube lab, University of Strasbourg, 28 September 2015, **Thomas Watteyne** examiner.
- Ons Mabrouk, “Communications opportunistes dans les réseaux de capteurs radio cognitive”, University of La Manouba, ENSI, Tunis, November 2015, **Pascale Minet** examiner.
- Jean-Baptiste Dupe, “Ordonnancement et gestion de ressources pour un système de télécommunications haut débit : optimisation de la bande passante satellite”, University of Toulouse, October 2015, **Pascale Minet** reviewer.
- Rafik Zitouni, “Software defined radio for cognitive wireless sensor networks”, University of Paris Est, October 2015, **Pascale Minet** reviewer.
- Tanguy Ropitault, “Routage et performances dans les réseaux CPL pour le smart grid”, Telecom Bretagne, Juin 2015, **Pascale Minet** reviewer.
- Rana Diab, “HMC-MAC : un protocole MAC hybride et multi-canal pour les réseaux de capteurs sans fil”, Université Blaise Pascal, Clermont-Ferrand, June 2015, **Pascale Minet** reviewer.
- Dimitrios Millioris, “Trend Detection and Information Propagation in Dynamic Social Networks”, Ecole Polytechnique, April 2015, **Paul Muhlethaler** examiner.
- Guangyu Li “Adaptive and Opportunistic QoS-based Routing Protocol in VANETs” University of Paris Saclay July 2015, Paul **Paul Muhlethaler** reviewer.
- Zakia Khalfallah “Underwater Wireless Sensor Network Deployment for Water Pollution Monitoring in Rivers”, UPMC December 2015, **Paul Muhlethaler** examiner.
- Ines Koufi, “Autonomous or assisted deployment by mobile robots of wireless sensor networks: coverage and connectivity issues”, University Pierre et Marie Curie - Paris VI, September 2015, Nadjib Achir reviewer.
- Oussama Stiti, “Étude de l’urbanisation des accès virtuels et stratégie de métamorphose de réseaux ”, University Pierre et Marie Curie - Paris VI, November 2015, Nadjib Achir reviewer.
- El Hadj Malick Ndoeye, “Réseaux de capteurs sans fil linéaires : impact de la connectivité et des interférences sur une méthode d’accès basée sur des jetons circulants”, Université Blaise Pascal, Clermont-Ferrand, June 2015, Nadjib Achir reviewer.
- Sabrina Naimi, “Gestion de la mobilité dans les réseaux Ad Hoc par anticipation des métriques de routage”, Université Paris Sud and ENIT (Tunisia), July 2015, Anis Laouiti reviewer.

10.3. Popularization

10.3.1. Web Presence

- <https://team.inria.fr/eva/>
- <https://twitter.com/InriaEVA>

10.3.2. Demos

- We deployed a 15-node network at the SolutionsCOP21 expo at the Grand Palais in Paris, held alongside the COP21 meeting, 4-10 December 2015. French President Francois Hollande and Minister of Research Thierry Mandon came by the demo.
- The EVA team organized several demonstrations of wireless sensor networks for undergraduates who visited Inria in February and December 2015.

10.3.3. Talks

- The Rise of the Industrial IoT! Inria-DGA day, Paris, France, 15 October 2015, **Thomas Watteyne**.
- Wireless In the Woods: Monitoring the Snow Melt Process in the Sierra Nevada. “demi-heure de la science” seminar. 3 September 2015, Rocquencourt, France, **Thomas Watteyne**.
- From Smart Dust to 6TiSCH: building the Industrial Internet of Things. 4th International Symposium on Sensor Science (I3S), 13-15 July 2015, Basel, Switzerland, **Thomas Watteyne**.
- Reaching Industrial-class Reliability with a Converged IPv6 Network in the Smart Building. Joint presentation with Pascal Thubert (Cisco). MEITO day on Smart Buildings, 21 May 2015, Rennes, France, **Thomas Watteyne**.
- OpenWSN: Having FUN with TSCH and the IoT-LAB. FUN research team seminar, Inria-Lille, 3 April 2015, Lille, France, **Thomas Watteyne**.
- Determinism in the IoT: the example of 6TiSCH and OpenWSN. IRTF T2TRG meeting, 22 March 2015, Dallas, TX, USA, **Thomas Watteyne**.

10.3.4. Panels

- **Thomas Watteyne** chair, panel on “Sensing and Networking”, Inria@Silicon Valley annual workshop (BIS), 13 May 2015, Berkeley, CA, USA.

10.3.5. In the News

- Article on IPSO CHALLENGE 2015, Inria-Paris Newsletter, 15 December 2015.
- Interview of **Thomas Watteyne** in Smart Insights on “The Internet of Important Things”, Issue 15, number IV, 14 December 2015.
- “Two Inria technologies rewarded at the IPSO Challenge 2015 in San Jose”, FrenchTechHub newsletter, 10 December 2015.
- “Interview: **Thomas Watteyne**, EVA research team and REALMS associate team, presents his research, his collaboration with California and the IPSO Challenge”. Inria@SiliconValley newsletter, October 2015.
- “Two Inria-EVA projects make it to IPSO CHALLENGE semi-finals”, inria.fr, October 2015.
- IPSO Alliance Announces Semi-Finalists for IPSO Challenge 2015, Reuters, August 2015.

10.4. Others

10.4.1. Position held at Inria

Paul Muhlethaler is the scientific director of the DGA-Inria partnership.

FUN Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

10.1.1.1. General chair, scientific chair

- Valeria Loscri is/was (co)general chair for SwanSity 2015 and PACS 2015, of the special track "Body Area NanoNETworks: Electromagnetic, Materials and Communications (BANN-EMC)" in Body Area Networks conference.
- Aziz Mbacke is publicity chair for AdHocNow 2016.
- Nathalie Mitton is/was (co)general chair for AdHocNow 2016, Cloudification of IoT 2015, AdHoc-Nets 2015 and Inter-IoT 2015.
- Nathalie Mitton was demo chair for MobiCom 2015.
- Riccardo Petrolo is publicity chair for AdHocNets 2015 and web chair for AdHocNow 2016.
- Jean Razafimandimby Anjalalaina, was Publicity Chair for IoTIP 2015.
- Viktor Toldov is publicity chair for IndiaCom 2015.

10.1.1.2. Member of the organizing committees

- The full team organizes AdHocNow 2016.

10.1.2. Scientific events selection

10.1.2.1. Chair of conference program committees

- Valeria Loscri is co-program chairs for AdHocNow 2016 and Member of the IEEE SMC (Systems, Man and Cybernetics Society) TC on "Interactive and Wearable Computing and Devices".
- Nathalie Mitton was co-program chair of the summer school RESCOM 2015 and of the RESCOM community days in January 2016.
- Nathalie Mitton is co-program chair for AdHocNow 2016, IEEE CSE 2016, SmartComp 2016, UIC 2016, VTC-Spring 2016, ICC 2016, NOMS 2015.

10.1.2.2. Member of the conference program committees

- Valeria Loscri is/was in the Technical Program Committee (TPC) of MoWNet' 15/16, IDCS 2015/16, SWIT-Health 2015, HPCC 2015, WiMob'2015, Ntms 2015, IoTIP' 15, IoT2015, ICARSC 2015,
- Nathalie Mitton is/was in the Technical Program Committee (TPC) of Algotel 2015, NOMS 2015, ICC 2015.
- Tahiry Razafindralambo is/was in the Technical Program Committee (TPC) of Globecom 2015.

10.1.3. Journal

- Valeria Loscri is Co-editor of SPART, special Issue on Signal Processing Algorithms for Real-Time Sensing by Means of Wireless Sensor Networks.
- 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 a member of the 'Research Group on IoT Communications and Networking Infrastructure' at ComSoc Communities.

- 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.

10.1.4. Invited talks

- Valeria Loscri was invited speaker at "Cloudification of the Internet of Things - CIoT" conference in Paris in June 2015.
- Valeria Loscri gave a talk at ICT2B "Innovation Runway Event" in Frankfurt, to present Vital project (February 2015).
- Valeria Loscri gave a talk at ICT2B "Venture Academy Event", in Chaldiki, Greece (June 2015).
- Nathalie Mitton was invited speaker at the French-India Architecture and Technological Trends and Issues in Indiacom in New Delhi in March 2015.
- Nathalie Mitton was invited speaker at IIIT Allahabad at the event on Smart Cities in Allahabad in March 2015.
- Nathalie Mitton was invited speaker at Rencontres Inria Industries in San Francisco in May 2015.
- Nathalie Mitton was invited speaker at BIS meeting in Berkeley in May 2015.
- Nathalie Mitton was invited speaker at the Inria-Mexico meeting in Mexico in June 2015.

10.1.5. 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).

10.1.6. Research administration

Nathalie Mitton is a member of the Steering Committee of the GDR Rescom.

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 : Roudy Dagher, Objets Communicants, 24h (Mineure Habitat Intelligent), Ecole des Mines de Douai, France.

Master: Valeria Loscri, Connected Objects, 24h eqTD (Engineer), Ecole des Mines, Douai

Master: Valeria Loscri, Telecom, 6h supervision TP (Engineer), Paris Telecom

Master : Nathalie Mitton, Wireless sensor networks, 36h eqTD (Master TIIR and MINT), Université Lille 1 and Telecom Lille 1, France

Bsc: Nathalie Mitton, 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), 18h eqTD (Formation d'ingénieur), Télécom Lille, France

Master : Viktor Toldov, Systèmes Numériques (Projet VHDL), 15h eqTD (Formation d'ingénieur), Télécom Lille, France

Master : Viktor Toldov, Communication numérique (Communication en bande transposée), 6h eqTD (Formation d'ingénieur), Télécom Lille, France

Master : Viktor Toldov, Communication numérique (Projet), 10h eqTD (Formation d'ingénieur), Télécom Lille, France

Master : Viktor Toldov, Technologie de l'électronique numérique et du signal, 25.5h eqTD (Formation d'ingénieur), Télécom Lille, France

Master : Viktor Toldov, Réseaux d'Objets Communicants (Projet), 15h eqTD (Formation d'ingénieur), Télécom Lille, France

Master : Viktor Toldov, Signal et Communication (Signaux déterministes), 3h eqTD (Formation d'ingénieur), Télécom Lille, France

Master : Viktor Toldov, Signal et Communication (Signaux aléatoires), 4.5h eqTD (Formation d'ingénieur), Télécom Lille, France

Master : Viktor Toldov, Projets Scientifiques et Technologiques 10h eqTD (Formation d'ingénieur), Télécom Lille, France

Licence : Jean Razafimandimby, Algorithms and Programming, 30h eqTD, Université Lille 1, France

Master : Tahiry Razafindralambo, Réseaux d'Objets Communicants (Projet), 9h eqTD (Formation d'ingénieur), Télécom Lille, France

Master : Tahiry Razafindralambo, Qualité de Service, 7h eqTD (Formation d'ingénieur - SPIRALE), Télécom Lille - , France

10.2.2. Supervision

PhD defended on Dec 15th, 2015: Natale Guzzo, Auto - organisation et économie d'énergie dans un réseau sans fil de surveillance de fret, Université Lille 1, 2013-2015, Nathalie Mitton

PhD defended on Oct 6th 2015: Roudy Dagher, Géolocalisation en environnement réel, extérieur et intérieur avec réseau de capteurs, Université Lille 1, 2013-2015, Nathalie Mitton

PhD in progress: 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: 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 in progress: Jean Razafimandimby, Distributed Cooperation and Communication among Heterogeneous Devices, Université Lille 1, 2014-2017, Tahiry Razafindralambo 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

- Nathalie Mitton was reviewer of the following PhD thesis:
 - Mario Antonio Gasperin Zancanaro, UPMC, January 2015
 - Benjamin Billet, Inria Rocquencourt, 19 march 2015
 - Farouk Mezghani, University of Toulouse, 9 october 2015

- Malisa Vucinic, University of Grenoble, 17 november 2015
- Nathalie Mitton was member of the PhD defense committee of Filippo Rebecchi, 18 september 2015, UPMC.
- Nathalie Mitton was member of the Inria CR2 Lille and Nancy competition selection committee.

10.3. Popularization

- Salvatore Guzzo Bonifacio gave a talk on "Introduction to Wireless Sensor Networks" in the framework of "Fête de la Science".
- Nathalie Mitton gave a talk on "Introduction to RFID" to Terminales S a in the framework of "Fête de la Science".
- Nathalie Mitton gave a talk at the BIS conference on Smart Cities in Berkeley in May 2015.
- Nathalie Mitton presented the wireless networks to ISN classes on March 2015.
- Nathalie Mitton gave a talk on the Connected bike to the BeyondLab PlugTest on March 2015.
- Jean Razafimandimby gave a talk on "Can robots cooperate?" to BTS a in the framework of "Fête de la Science".
- Viktor Toldov gave a talk on "Introduction to Wireless Sensor Networks" in the framework of "Fête de la Science".
- Viktor Toldov gave a talk on the PREDNET project to the BeyondLab PlugTest on March 2015.
- Viktor Toldov gave a talk on the PREDNET project during the IAE conference on Connected objects in December 2015, Lille.

GANG Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events selection

10.1.1.1. Chair of conference program committees

ICDCN 2015 – The 16th ACM International Conference on Distributed Computing and Networks, India, January 2015 (Amos Korman was PC co-chair for distributed computing track).

FCT 2015 – 20th International Symposium on Fundamentals of Computation Theory, Poland, August 2015 (Adrian Kosowski was PC co-chair).

NETYS 2015 – The International Conference on Networked Systems, Marocco, May 2015 (Hugues Fauconier was PC co-chair).

10.1.1.2. Member of the conference program committees

ICALP 2015 – 42nd Int. Colloquium on Automata, Languages and Programming, Japan, July 2015 (Pierre Fraigniaud – PC member of track C).

PODC 2015 – 34th ACM Symposium on Principles of Distributed Computing, Spain, July 2015 (Amos Korman – PC member).

SPAA 2015 – 27th ACM Symposium on Parallelism in Algorithms and Architectures, USA, June 2015 (Pierre Fraigniaud – PC member).

WWW 2015 – 24th World Wide Web Conference, Italy, May 2015 (Pierre Fraigniaud – PC Member of Social Networks and Graph Analysis track).

DISC 2015 – 29th Symposium on Distributed Computing, Japan, October 2015 (Amos Korman and Pierre Fraigniaud – PC members).

IPDPS 2015 – 29th IEEE International Parallel and Distributed Processing Symposium, India, May 2015 (Pierre Fraigniaud – PC member).

MFCS 2015 – 40th Int. Symposium on Mathematical Foundations of Computer Science, Italy, August 2015 (Pierre Fraigniaud – PC member).

CIAC 2015 – 8th Int. Conference on Algorithms and Complexity, France, May 2015, (Pierre Fraigniaud – PC member).

EUROPAR 2015 – 21st European Conference on Parallel Computing, Austria, August 2015 (Pierre Fraigniaud – PC member).

SIROCCO 2015 – 22th Colloquium on Structural Information and Communication Complexity, Spain, July 2015 (Adrian Kosowski and Pierre Fraigniaud – PC members).

SSS 2015 – International Symposium on Stabilization, Safety, and Security of Distributed Systems, Canada, August 2015 (Adrian Kosowski – PC member).

NETYS 2015 – The International Conference on Networked Systems, Marocco, May 2015 (Carole Delporte – PC member).

Algotel 2015 – 17eme Rencontres Francophones sur les Aspects Algorithmiques de Télécommunications, France, June 2015 (Carole Delporte – PC member).

10.1.2. Journal

10.1.2.1. Members of editorial boards

Pierre Fraigniaud is member of the editorial boards of Distributed Computing (DC), Theory of Computing Systems (TOCS), Fundamenta Informaticae (FI) and Journal of Interconnection Networks (JOIN).

10.1.3. Invited talks

SIROCCO 2015 – 22th Colloquium on Structural Information and Communication Complexity, Spain, July 2015 (Amos Korman – invited speaker).

ADHOC-NOW 2015 – 14th International Conference on Ad-Hoc Networks and Wireless, special track on Distributed Computing with Mobile Agents, Greece, June/July 2015 (Pierre Fraigniaud – invited speaker).

AAAC 2015 – 8th meeting of Asian Association for Algorithms and Computation, Hiroshima, Japan, May 2015 (Pierre Fraigniaud – invited speaker).

ACBD 2015 – 2nd European Meeting on Algorithmic Challenges of Big Data, Germany, September 2015 (Pierre Fraigniaud – invited speaker).

MARAMI 2015 – Modèles et Analyses Réseau : Approches Mathématiques et Informatiques, 6ème édition, France, September 2015 (Michel Habib – invited speaker).

HaifaGraphWorkshop 2015 – 15th Haifa Workshop on Interdisciplinary Applications of Graph Theory, Combinatorics, and Algorithms, Israel, June 2015 (Michel Habib – invited speaker).

10.1.4. Leadership within the scientific community

Pierre Fraigniaud is Director of LIAFA (Laboratoire d'Informatique Algorithmique : Fondements et Applications, UMR 7089, CNRS et université Paris Diderot), since 2010.

Pierre Fraigniaud is Director of Federation IFP (Fédération d'Informatique Fondamentale de Paris-Diderot, FR 3634, CNRS et université Paris Diderot), since 2014.

Pierre Fraigniaud is Steering Committee member of the key conferences in distributed computing theory: PODC (ACM Symposium on Principles of Distributed Computing, 2010–2013 and 2015–2018) and SPAA (ACM Symposium on Parallelism in Algorithms and Architectures, since 2002).

10.1.5. Research administration

Pierre Fraigniaud has been an elected member of the EATCS (European Association for Theoretical Computer Science) since October 2013.

Pierre Fraigniaud has been a jury member of the ERC for Starting Grants (in 2013 and 2015; shadow committee member in 2014 and 2016).

Michel Habib has been a member of the NSERC evaluation committee for Computer Science (February 2015, Ottawa, Canada).

Michel Habib has been chair of the AERES evaluation committee for the LaBRI (Bordeaux, January 2015).

Pierre Fraigniaud was a member of the jury for the 2015 Edsger W. Dijkstra Prize in Distributed Computing (previously committee member in 2010 and president in 2011).

Adrian Kosowski has been acting in the Polish Academy of Sciences as elected member of Young Scientists Academy (2012–2016) and member of the Committee for Computer Science (2015–2018).

10.2. Teaching - Supervision - Juries

10.2.1. 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
- Master: Pierre Fraigniaud, Algorithmique avancée, 24h, Ecole Centrale
- Master: Pierre Fraigniaud, Algorithmique parallèle et distribuée, 24h, Ecole Centrale
- Master: Adrian Kosowski, Communication and Routing, 4h, M1, ENSEIRB-MATMECA
- Master: Adrian Kosowski, Randomization in Computer Science: Games, Networks, Epidemic and Evolutionary Algorithms, 24h, M1, 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, Introduction à la programmation, 26h, L1, Univ Paris Diderot
- Licence: Fabien de Montgolfier, Programmation avancée (bio-informatique), 26h, L3, Univ. Paris Diderot
- Master: Fabien de Montgolfier, Algorithmique avancée (bio-informatique), 26h, M1, Univ Paris Diderot
- Licence: Fabien de Montgolfier, Systèmes et Réseaux, 52h, L3, Ecole d'Ingénieurs Denis 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, 18h, M2 MPRI, Université Paris Diderot, France

E-learning

Carole Delporte and Hugues Fauconnier were involved in the project SPC "informatique en ligne" (1 year, approved in June 2015), which consisted in preparing video sequences related to Bachelor level courses at Paris VII university.

10.2.2. Supervision

HdR: Amos Korman on the topic of “Distributed Decision and Distributed Biological Algorithms”, Université Paris Diderot, November 2015.

PhD: François Durand was an Inria engineer hired by Gang under a contract with Alcatel-Lucent Bell Labs France. He obtained his PhD last September [1], under the subject “Towards Less Manipulable Voting Systems”.

PhD: The Dang Huynh (co-advised by Laurent Viennot and Fabien Mathieu) was a PhD Cifre with Alcatel-Lucent Bell Labs France. He obtained his PhD in June 2015 [2], under the subject “Extension of PageRank and application to social networks.” He now works in the industry on related topics.

PhD in progress: Leonardo Linguaglossa (co-advised by Laurent Viennot, Fabien Mathieu and Diego Perino, both from Bell Labs / Alcatel-Lucent / Nokia).

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: Laurent Feuilloley (advised by Pierre Fraigniaud). Title of thesis is: "Synchronous Distributed Computing". Started September 2015.

Foreign PhD co-supervision in progress: Alkida Balliu and Dennis Olivetti (PhD students of Gianlorenzo D'Angelo at L'Aquila University and Gran Sasso Science Institute) have Pierre Fraigniaud as their foreign co-supervisor since September 2015. They are expected to undertake a 6-month research visit to the team in 2016.

10.2.3. Juries

Laurent Viennot was reviewer for the PhD thesis of Dimitrios Miliouris on “Trend detection and information propagation in dynamic social networks” at Ecole Polytechnique (May 2015).

Laurent Viennot was co-advisor for the PhD thesis of The Dang Huynh on “Extension de PageRank et application aux réseaux sociaux” at UPMC (April 2015).

Hugues Fauconnier participated as a jury member in the PhD defense of Lena Kanellou on “Structures de données pour des architectures multi-cœur actuelles et de futures architectures many-cœur” at Univ Rennes (December 2015).

Hugues Fauconnier was a reviewer for the PhD thesis of Giuseppe Di Luna “On deterministic counting in anonymous dynamic networks” at University Sapienza in Rome (May 2015).

Pierre Fraigniaud was reviewer for the PhD thesis of Adi Shklarsh on “Modeling Bacteria-Inspired Smart Swarms ” at Tel Aviv University (2015).

Michel Habib participated as a jury member in the PhD defense of Brahim Neggazi on “Self-stabilizing algorithms for graph parameters”, Université Claude Bernard Lyon I (May 2015).

Michel Habib was a reviewer for the PhD thesis of Sid Ali Selmane on “Détection et analyse de communautés”, Université Lumière Lyon 2 (May 2015).

Michel Habib participated as a jury member in the PhD defense of Stephen Gray on “Subgraph Epimorphisms: Theory and Application to Model Reductions in Systems Biology”, Université Paris Diderot (June 2015).

Michel Habib participated as a jury member in the PhD defense of Ronan Hamon on “Analyse de réseaux temporels par des méthodes de traitement du signal”, Laboratoire de Physique, ENS Lyon (September 2015).

Michel Habib was a reviewer for the HDR of Mathieu Liedloff on “Algorithmes exponentiels pour l'étiquetage, la domination et l'ordonnancement”, Orléans (December 2015).

Michel Habib was a reviewer for the HDR of Mamadou Kante on “Studying graphs: structure via rank-width, and listing of minimal dominating sets”, Clermont-Ferrand (December 2015).

Amos Korman participated as a jury member in the PhD defense of Jara Uitto, at ETH Zurich.

Adrian Kosowski was a reviewer for the PhD thesis of Krzysztof Turowski on “The analysis of algorithmic properties of the skeleton graph coloring problem” at the Gdansk University of Technology (May 2015).

10.3. Popularization

Michel Habib has contributed a text [41] to the “Encyclopedia of Algorithms”, providing a unifying and historical overview of graph searching problems and algorithms.

INFINE Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events organisation

9.1.1.1. General chair, scientific chair

- Emmanuel Baccelli co-chair of ACM MobileHealth 2015

9.1.1.2. Member of the organizing committees

- Aline Viana was Publication Chair of ACM MobiCom 2015, IEEE SECON 2015 and part of Poster and Demo committee of ACM SIGCOMM 2015

9.1.2. Scientific events selection

9.1.2.1. Chair of conference program committees

- In 2015 Aline Viana was TPC co-chair of the Symposium on Selected Topics in Communications.

9.1.2.2. Member of the conference program committees

- In 2015 Aline Viana was on the conference programm committee for IFIP NTMS, IEEE SECON

9.1.2.3. Reviewer

- In 2015 Cedric Adjih was reviewer for InterIoT 2015, ICC 2016, PEMWN 2015, Ad Hoc & Sensor Wireless Networks.

9.1.3. Journal

9.1.3.1. Member of the editorial boards

- In 2015 Aline Viana was Associate Editor of ACM Computer Communication Review (ACM CCR)

9.1.3.2. Reviewer - Reviewing activities

- In 2015 Aline Viana was reviewer for IEEE Transaction on Mobile Computing (TMC), IEEE Transactions on Parallel and Distributed Systems (TPDS), Elsevier Pervasive and Mobile Computing, Elsevier AdHoc Networks.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

- **Masters**
- Engineering School: Cédric Adjih, “Microcontrollers: from embedded systems to the Internet of Things”, 3 hours TD, Telecom SudParis.
- Engineering school, third year students at Ecole Polytechnique: Laurent Massoulié taught an 18 hour course on “Networks: distributed control and emerging phenomena”, and gave 18 hours of exercise classes for the Operations Research course taught by Stéphane Gaubert.
- PhD students course: Laurent Massoulié taught a 10 hour course to PhD students (mostly from EPFL and ETH but not only) on community detection, as part of a summer school in Les Diablerets.
- M2 course: Laurent Massoulié taught 10 hours in an M2 course of the Master of Probability and Statistics at Jussieu, on random graphs and epidemic models.

9.2.2. Supervision

1. Cedric Adjih currently advises Fatma Soma, 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).
2. Laurent Massoulie currently advises 2 PhD students: Lennart Gulikers and Remi Varloot.
3. Emmanuel Baccelli currently advises 2 PhD students: Oliver Hahm, on "Dependable IoT protocols and platforms", (Nov. 2012-) and Hauke Petersen, on "Holistic and generic IoT network stacks", (Nov. 2013-).
4. Aline Viana currently advises 3 PhD students: Felipe Domingos, on "Identifying Social Attributes in VANETs" (January 2013-). Roni Shigueta, on "Resource allocation in highly mobile wireless networks" (January 2012-). Guangshuo Chen, on "Understanding and predicting human demanded content and mobility" (September 2014-).
5. PhD completed: Eduardo Mucelli, "Revealing new facets of human behavior", November 2011-May 2015. Advisor: Aline Carneiro Viana.

9.2.3. Juries

1. Aline Viana was on the PhD jury of Filippo Rebecchi, "Device-to-Device Data Offloading: From Model to Implementation", Univ. Paris 6 - Sorbone Universite, September 2015;
2. Aline Viana was on the PhD jury of N. R. Zema, "Spontaneous mobility and autonomous (Re)configuration techniques to support next generation networks", Univ. of Reggio Calabria, April 2015;

9.3. Popularization

1. An interview from Laurent Massoulie was published in «La Recherche », concerning our work on community detection.
2. Cedric Adjih participated to the "Inria-Industry Meeting" dedicated to energy transition, with a demo of RIOT, an open-source OS for the Internet of Things. Among different uses of the RIOT, RIOT enables IoT devices and embedded systems to easily participate in an interoperable, IP-based, communication infrastructure. Such a standard-based infrastructure is essential for data collection (e.g. sensors) providing the information feeding smart energy systems (big data analytics).
3. Emmanuel Baccelli was the editor (with Dave Raggett) of ERCIM News Special Issue on Internet of Things and Web of Things (ERCIM News No 101).

MADYNES Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

10.1.1.1. General chair, scientific chair

Thomas Silverston organized (General Chair) the 2nd international Workshop on Crowd-Assisted Sensing in Pervasive Systems and Communications (CASPER'2015) along with the IEEE PERCOM Conference on March 27th 2015.

10.1.1.2. Member of the organizing committees

Remi Badonnel was member of the organizing committee for the following conferences: IEEE International Conference on Cloud Networking (IEEE CloudNet 2015), IEEE International Conference on Network Software-ization (IEEE NetSoft 2016).

Isabelle Chrisment was member of the organizing committee for the following conferences: JCSA 2015 (Journée du Conseil Scientifique de l'AFNIC) "*Quelles mesures sur Internet, pour quels usages scientifiques et techniques*", RESSI'15 (*Rendez-vous de la Recherche et de l'Enseignement de la Sécurité des Systèmes d'Information*).

Lucas Nussbaum was member of the organizing committee for the following conferences: Reppar (2st International Workshop on Reproducibility in Parallel Computing, held together with Euro-Par 2015).

Vassili Rivron and Cécile Dolbeau-Bandin organized a one-day seminar on "*Us et abus de l'Internet : enjeux sociologiques et psychologiques des pratiques numériques*", Université de Caen Basse Normandie, Caen, on 25th September 2015.

Vassili Rivron, Claudia Ignat and Isabelle Chrisment organized a one-day seminar on "Social science insights for large scale and mobile collaboration/networks", LORIA, Nancy, on 14th September 2015.

Ye-Qiong Song was member of the organizing committee for MSR 2015 (<http://msr2015.loria.fr/>) and co-organizer for "networks and real-time QoS" session of the real-time system summer school ETR 2015 (Ecole temps réel 2015).

10.1.2. Scientific events selection

10.1.2.1. Chair of conference program committees

Rémi Badonnel was TPC co-chair for the following conferences: IFIP/IEEE International Symposium on Integrated Network Management (IFIP/IEEE IM 2015), 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).

Laurent Ciarletta was associated Associate Editor for IEEE CSS / RAS International Conference on Unmanned Aircraft Systems ICUAS 2015.

Jérôme François was co-chair of the PhD workshop at IFIP International Conference on Autonomous Infrastructures, Management and Security (IFIP AIMS'15).

10.1.2.2. Member of the conference program committees

Bernardetta Addis: International Conference on Green IT Solutions (ICGREEN 2015) ; Design of Reliable Communication Networks (DRCN 2016)

Remi Badonnel: IFIP/IEEE International Symposium on Integrated Network Management (IFIP/IEEE IM 2015) ; IFIP International Conference on Autonomous Infrastructure, Management and Security (IFIP AIMS 2015) ; IFIP/IEEE International Conference on Network and Service Management (IFIP/IEEE CNSM 2015) ; IEEE Global Information Infrastructure and Networking Symposium (IEEE GIIS 2015) ; Asia-Pacific Network Operations and Management Symposium (APNOMS 2015) ; IEEE Global Communications Conference (IEEE GLOBECOM - SAC 2015) ; IFIP/IEEE Network Operations and Management Symposium (IFIP/IEEE NOMS 2016).

Thibault Cholez: 7th IEEE International Workshop on Network Science for Communication Networks (NetSciCom 2015) ; 9th International Conference on Autonomous Infrastructure, Management and Security (AIMS 2015) PhD workshop.

Isabelle Chrisment: IFIP International Conference on Autonomous Infrastructures, Management and Security (IFIP AIMS'15); Rencontres Francophones sur les Aspects Algorithmiques de Télécommunications (AlgoTel'15); Colloque francophone sur l'ingénierie des protocoles et Nouvelles Technologies de la Répartition (CFIP-NOTERE'15); IFIP/IEEE International Symposium on Integrated Network Management (IFIP/IEEE IM'15); IFIP/IEEE International Symposium on Network Operations and Management (IFIP/IEEE NOMS'16).

Laurent Ciarletta: IEEE CSS / RAS International Conference on Unmanned Aircraft Systems ICUAS 2015.

Olivier Festor: IFIP/IEEE International Symposium on Integrated Network Management (IFIP/IEEE IM 2015); IFIP International Conference on Autonomous Infrastructure, Management and Security (IFIP AIMS 2015); IFIP/IEEE International Conference on Network and Service Management (IFIP/IEEE CNSM 2015); Asia Pacific Network Operations and Management Symposium (APNOMS 2016); ACM SIGCOMM Poster/Demo Committee 2015; IEEE International Conference in COmmunications (IEEE ICC 2016); IEEE International Conference on Network Softwarization (IEEE Netsoft 2015, IEEE Netsoft 2016); IFIP/IEEE Network Operations and Management Symposium (IFIP/IEEE NOMS 2016).

Jérôme François: IFIP/IEEE International Symposium on Integrated Network Management (IFIP/IEEE IM'15); Sec-SDN workshop of the 1st Network Softwarization Conference (IEEE NetSoft, 2015); Asia-Pacific Network Operations and Management Symposium (APNOMS 2015); Principles, Systems and Applications of IP Telecommunications (IPTComm'15); Global Information Infrastructure and Networking Symposium (IEEE GIIS 2015).

Abdelkader Lahmadi: IFIP/IEEE International Symposium on Integrated Network Management (IFIP/IEEE IM'15); IFIP/IEEE International Symposium on Network Operations and Management (IFIP/IEEE NOMS'16); Asia-Pacific Network Operations and Management Symposium (APNOMS 2015); IFIP/IEEE International Workshop on Management of the Future Internet (ManFI 2015).

Lucas Nussbaum: Reppar (2nd International Workshop on Reproducibility in Parallel Computing, held together with Euro-Par 2015); CloudCom'2015 (HPC on Cloud track); WETICE'2015 (Convergence of Distributed Grid, Cloud and their Management track); ComPAS'2015.

Thomas Silverston: CASPER'15 Workshop (with IEEE Percom); ICNS Workshop (with IEEE Globecom'15); ACM AINTEC 2015, ACM ICN 2015 (Posters and Demos).

Françoise Simonot-Lion: 10th IEEE International Workshop on Factory Communication Systems (WFCS 2015); CARS@EDCC2015, satellite workshop of the 11th European Dependable Computing Conference - Dependability in Practice, 2015.

Ye-Qiong Song: 10th IEEE International Workshop on Factory Communication Systems (WFCS 2015); 5th IEEE International Conference on Communications and Networking (ComNet 2015); 20th IEEE International Conference on Emerging Technologies and Factory Automation (ETFAs 2015); 13th International Conference on Smart Homes and Health Telematics (ICOST 2015); 8th IFIP Wireless and Mobile Networking Conference; 23rd International Conference on Real-Time Networks and Systems (RTNS 2015).

10.1.3. Journal

10.1.3.1. Member of the editorial boards

Rémi Badonnel is Associate Editor for the Wiley International Journal of Network Management (IJNM).

Olivier Festor is Associate Editor for -IEEE Transactions on Network and Service Management and -Wiley International Journal of Network Management (IJNM).

Françoise Simonot-Lion is Associate Editor for the IEEE Transactions on Industrial Informatics.

Ye-Qiong Song is Associate Editor for the Elsevier Computers and Electrical Engineering Journal.

10.1.3.2. Reviewer - Reviewing activities

The following reviews for journals has been made by team members:

Bernardetta Addis: Computers and Operation Research (COR), Discrete Applied Mathematics (DAM), Journal of Network and Systems Management (JONS), Telecommunication Systems (TELS).

Remi Badonnel: IEEE Transactions on Network and Service Management (IEEE TNSM), Springer Journal of the Network and Systems Management (JNSM), Elsevier International Journal on Computer Networks (COMNET), IEEE Communications Magazine (COMMAG).

Thibault Cholez: IEEE Transactions on Network and Service Management (IEEE TNSM), IEEE Communications Letters.

Isabelle Chrisment: Elsevier Computer Communications (COMCOM).

Abdelkader Lahmadi: 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).

Lucas Nussbaum: Concurrency and Computation: Practice and Experience ; SoftwareX.

Thomas Silverston: Elsevier Computer Network.

Françoise Simonot-Lion: Journal Mathematical Problem in Engineering, IEEE Transactions on Industrial Informatics.

Ye-Qiong Song: the Elsevier Computers and Electrical Engineering journal, Elsevier Ad hoc network journal, Journal of Real-time systems (Springer), ACM Transactions on Architecture and Code Optimization (TACO), IEEE transaction on cloud computing.

10.1.4. Invited talks

Isabelle Chrisment gave a talk on Mitigation of Topological Attacks in RPL based Networks at the IFIP WG11.2 seminar in June 2015, Paris, France.

Isabelle Chrisment and Jérôme François gave a talk on Internet Monitoring for Tracking Cybercriminal Activities at the French-German Cybersecurity Workshop, in February 2015, Saarbrücken, Germany.

Jérôme François gave a talk on monitoring network for fighting cybersecurity threats at the Cybersecurity French-Japanese Workshop in April 2015, Tokyo, Japan. He presented a tutorial on data analytics for network management at IFIP AIMS 2015. He also presented flow aggregation techniques at the first NMLRG (Network Machine Learning Research group) meeting at the IETF 94.

10.1.5. Leadership within the scientific community

Olivier Festor is Chair of the IFIP Working-Group 6.6 on Network and systems management. This working group is actively involved the animation of most major conferences in this research area and organizes frequent meetings and workshops on the domain.

Olivier Festor was Co-chair together with Lisandro Zambenedetti Grandvile from the Federal University of Rio Grande do Sul (UFRGS) of the Internet Research Task Force (IRTF) Network Management Research Group until november 2015.

10.1.6. Scientific expertise

Isabelle Chrisment is member of AFNIC scientific board since January 2013.

Thibault Cholez was invited by Thales to review the results of the NoE FP7 CAPITAL whose objective was to propose and motivate a research program in the field of cyber security for the European Commission.

Olivier Festor served as external expert in the AERES panel for the LIG laboratory evaluation.

Isabelle Chrisment participated in the review of a FNR (Fonds National de la Recherche - Luxembourg) proposal.

Thomas Silverston participated in the review of a FNR proposal (Luxembourg).

Françoise Simonot-Lion is Scientific Delegate with HCERES. She was member of the regional jury for the i-LAB 2015 Competition (Ministère de l'Enseignement Supérieur et de la Recherche and BPI-France)

Ye-Qiong Song is a member of the national Gilles Kahn best computer science PhD thesis awards committee.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Remi 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 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.

E-learning

MOOC : Rémi Badonnel, "Introduction to Nagios-based Monitoring", MOOC exercices complementing the initial course (45 minutes + 25 minutes), Youtube Platform (Flamingo Channel), TELECOM Nancy, Master/Engineering Students, more than 30 000 views in 2 years (initial course).

Team members are teaching the following courses:

Bernardetta Addis 216 hours, -M2 -Operational Research, Discrete Optimization -Écoles des Mines de Nancy, Université de Lorraine

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 340 hours, -L3, M1, M2 -Main topics: Computer Networks, Databases, Object-Oriented Programming, C and Shell Programming, Techniques and Tools for 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 Programing, Computer Networking, Operating Systems, Network Security. -TELECOM Nancy, Université de Lorraine

Laurent Ciarletta 250 hours -L3, M1, M2 -Component-based software development, Pervasive Computing, Networking and Systems -Écoles des Mines de Nancy, Université de Lorraine & ARTEM

Olivier Festor 192 hours -L3, M1, M2 -Network, Programming, Algorithmics, Complexity - TELECOM Nancy, Université de Lorraine

Jérôme François 70 hours -M1, M2 -Network security, Big Data -Université de Lorraine & Telecom Nancy

Abdelkader Lahmadi 280 hours - L1, M1, M2 -Algorithms and Java programming, C language programming, Real Time systems, Databases, Distributed algorithms, Constrained systems programming -ENSEM & Telecom Nancy

Emmanuel Nataf 192 hours -L1 L2 M2 -Network, operating system, network monitoring -IUT Nancy-Charlemagne & Telecom Nancy & Université de Lorraine

Lucas Nussbaum 96 hours (due to partial leave to Inria), -L3, M1, M2 -Systems and networks administration -IUT Nancy-Charlemagne

Ye-Qiong Song 230 hours, -L1, M1, M2 -Algorithms and Java programming, Databases, Networking, Sensor networks -ENSEM

10.2.2. Supervision

10.2.2.1. PhD in progress in team

Jonathan Arnault, *Data-Analytics infrastructure for Security Monitoring*, since November 2015, supervised by Isabelle Chrisment & Jérôme François.

Elian Aubry, *Using Software Defined Network to manage Content Centric Networks*, since October 2013, supervised by Isabelle Chrisment & Thomas Silverston.

Tomasz Buchert, *Orchestration of Experiments on Distributed Systems*, since Oct 2011, supervised by Jens Gustedt & Lucas Nussbaum.

Maxime Compastie, *Software-Defined Security for the Cloud*, since Dec 2015, supervised by Olivier Festor & Remi 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.

Gaetan Hurel, *Mobile Cloud Security*, since Jan 2014, supervised by Olivier Festor, Abdelkahder Lahmadi & Remi Badonnel.

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.

Anthea Mayzaud, *Monitoring and Security for the Internet of Things*, since May 2013, supervised by Isabelle Chrisment & Rémi Badonnel.

Kevin Roussel, *Dynamic management of QoS and energy in heterogeneous sensor networks for e-health applications*, since December 2012, supervised by Ye-Qiong Song & Olivier Zendra.

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, *Contributions for the Management of HTTPS traffic*, since December 2013, supervised by Isabelle Chrisment & Thibault Cholez.

10.2.2.2. PhD defended in team

- [1] François Despau, *Modelling and evaluation of the end to end delay in WSN*, Université de Lorraine, September 2015, supervised by Ye-Qiong Song & Abdelkahder Lahmadi.
- [2] Mohamed Said Seddiki, *Dynamic resource allocation and quality of service management in Network Virtualization*, Université de Lorraine, April 2015, supervised by Ye-Qiong Song & Mounir Frikha.

10.2.3. Juries

Team members participated to the following Ph.D. defense committees in Computer Science if no other indication:

- Dalal Belabed, in Informatics, Telecommunication and Electronics from Université Paris 6. Title: Optimization of Virtual Networks: design and assessment, 2015 – (Bernardetta Addis).
- Manamiary Bruno Andriamiarina, in Computer Science and Networking from Télécom SudParis and Université Pierre et Marie Curie. Title: Corrélation d’alertes : un outil plus efficace d’aide à la décision pour répondre aux intrusions, April 2015 – (Isabelle Chrisment as president).
- Florent Fourcot, joint Ph.D. from Télécom Bretagne and TU Dresden. Title: Address Spreading in Future Internet Supporting both the Unlinkability of Communication Relations and the Filtering of Non Legitimate Traffic, January 2015 – (Isabelle Chrisment as reviewer)
- Badis Hammi, in Networking, Knowledge and Organization from Université de Technologie de Troyes. Title: Vers une détection à la source des activités malveillantes dans les clouds publics : application aux attaques de déni de service, September 2015 – (Isabelle Chrisment as reviewer).
- Christopher Humphries, from Université de Rennes 1. Title: User-centred security event visualisation, December 2015 – (Isabelle Chrisment as president).
- Yosra Ben Mustapha. From Université de Lorraine. Title: Développement d’algorithmes répartis corrects par construction, May 2015 – (Isabelle Chrisment as reviewer)
- Yves Studnia. In Networking, Telecommunication, System and Architecture from Université Fédérale Toulouse Midi-Pyrénées, delivered by INSA Toulouse. Title: Détection d’intrusion pour des réseaux embarqués automobiles : une approche orientée langage, September 2015 – (Isabelle Chrisment as reviewer).
- Khalid Alsubli, from the University of Waterloo. Title: Security Configuration Management in Intrusion Detection, November 2015 – (Olivier Festor as reviewer).
- Yann Bachi, from Université Fédérale Toulouse Midi-Pyrénées. Title: Sécurité des équipements grands publics connectés à Internet: évaluation des liens de communication, June 2015 – (Olivier Festor as reviewer).
- Jonathan Dechaux, from École Polytechnique. Title: Formalisation, implémentation et tests d’une méthodologie et des techniques d’évaluation de logiciels antivirus. Application aux virus de documents, December 2015 – (Olivier Festor as reviewer).
- Léa El Samarji. From Télécom Bretagne. Title: Risk-aware Decision Support System to Counter Coordinated and Simultaneous Attacks, March 2015 – (Olivier Festor as reviewer).
- Samuel Marchal, joint Ph.D. from University of Luxembourg and Université Lorraine. Title: DNS and Semantic Analysis for Phishing Detection, June 2015 – (Olivier Festor as reviewer).
- Patrick Raad, from Université Pierre et Marie Curie, Paris 6. Title: Protocol Architecture and Algorithms for Distributed Data Center Networks, December 2015 – (Olivier Festor as reviewer).
- Mihai Andries, from Université de Lorraine. Title: Object and human tracking, and robot controls through a load sensing floor, December 2015 – (Ye-Qiong Song as president).
- Mouna Abdelmoumen, from Université de Carthage - SUPCOM Tunis. Title: Modèles de mobilité et leur impact sur la capacité des réseaux sans fil et mobiles, December 2015 – (Ye-Qiong Song as reviewer).

- Ali Kadhum Idrees, from Université de Franche-Comté. Title: Distributed Coverage Optimization Techniques for Improving Lifetime of Wireless Sensor Networks, October 2015 – (Ye-Qiong Song as reviewer).
- Ehsan Muhammad, from Université de Pau et des Pays de l'Adour. Title: Designing of MAC layer for Mission-Critical Surveillance Applications in Wireless Image Sensor Networks, June 2015 – (Ye-Qiong Song as reviewer).

Team members participated to the following Habilitation Degree in Computer Science defense committees of:

- Yves Roudier, from Université Nice-Sophia Antipolis, France. Title: Advances in the Design and Engineering of Secure Distributed Systems, December 2015 – (Isabelle Chrisment as examiner).
- Bertrand Mathieu, from Université Rennes 1. Title: Efficient Use of Network Resources for End-Users Quality Quality Improvement, April 2015 – (Olivier Festor as reviewer)
- Alain Pirovano, from Université Paul Sabatier de Toulouse. Title: Conception et Optimisation d'Architectures Réseaux pour les Systèmes de Communication Aéronautiques. February 2015 – (Olivier Festor as reviewer)
- Patrick Senac, from Université Pierre et Marie Curie, Sorbonne Universités. Title : L'Internet de l'extrême. Modèles, protocoles et mécanismes de bout en bout pour les réseaux de communication de nouvelle génération. December 2015 – (Olivier Festor as examiner)
- Claire Pagetti, from INP-ENSEEIH. Title: Programmation sûre de plates-formes embarquées de type multi/pluri-cœurs, (January 2015) – (Françoise Simonot-Lion as examiner)

Team members participated to the following recruitment selection committee:

- Isabelle Chrisment was member of the selection committee from Université de Technologie de Troyes to recruit an Assistant Professor (February 2015), from Université de Nice-Sophia Antipolis to recruit an Assistant Professor (April 2015) and from Université de Strasbourg to recruit a Professor (May 2015).

10.3. Popularization

Thomas Silverston gave an interview with a subject on smart cities for the program *Mov'Futur* on the *Le Mouv'* radio (December 2015).

MAESTRO Project-Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

10.1.1.1. General chair, scientific chair

- A. Dandoush was co-chair of the International Workshop on Physics Inspired Paradigms in Wireless Communications and Networks (Physcomnet 2015, Mumbai, India).
- 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

- E. Altman was in the steering committee and an advisor in the organizing committee of 13th Intl. Symposium on Modeling and Optimization in Mobile, Ad Hoc and Wireless Networks (WiOpt 2015, Mumbai, India).

10.1.2. Scientific events selection

10.1.2.1. Member of the conference program committees

MAESTRO members were in the TPC of the following events (in alphabetical order):

- 10th ACM MobiCom Workshop on Challenged Networks (CHANTS 2015, Paris, France) (**G. Neglia**)
- 11th Advanced Intl. Conference on Telecommunications (AICT 2015, Brussels, Belgium) (**K. Avrachenkov**);
- IEEE ICC Workshop on Dynamic Social Networks (DySON 2015, London, UK), (**K. Avrachenkov**).
- 35th IEEE Intl. Conference on Computer Communications (IEEE INFOCOM 2016, San Francisco, USA) (**G. Neglia**)
- 7th IEEE Intl. Workshop on Network Science for Communication Networks (IEEE NetSciCom 2015, Hong Kong, PRC) (**K. Avrachenkov, G. Neglia**);
- 15th Intl. Conference on Next Generation Wired/Wireless Networking (NEW2AN 2015, St. Petersburg, Russia) (**K. Avrachenkov**);
- 9th Intl. Conference on Performance Evaluation Methodologies and Tools (VALUETOOLS 2015, Berlin, Germany) (**K. Avrachenkov, G. Neglia**)
- 30th Intl. Symposium on Computer and Information Sciences (ISCIS 2015, London, UK) (**A. Jean-Marie**);
- 13th Intl. Symposium on Modeling and Optimization in Mobile, Ad Hoc and Wireless Networks (WiOpt 2015, Mumbai, India), (**K. Avrachenkov**);
- 8th Intl. Workshop on Multiple Access Communications (MACOM 2015, Helsinki, Finland) (**K. Avrachenkov**);
- Intl. Workshop on Physics Inspired Paradigms in Wireless Communications and Networks (Physcomnet 2015, Mumbai, India) (**A. Jean-Marie**);
- Musimorphoses (Paris, France)) (**E. Altman**);
- 12th Workshop on Algorithms and Models for the Web Graph (WAW 2015, Eindhoven, The Netherlands) (**K. Avrachenkov**);
- 17th Workshop on Mathematical Performance Modeling and Analysis (MAMA 2015, Portland, Oregon, USA) (**A. Jean-Marie, P. Nain**).

10.1.2.2. Reviewer

The members of the team reviewed numerous papers for numerous international conferences.

10.1.3. Journal

10.1.3.1. Member of editorial boards (list in alphabetical order of journal name)

- *Performance Evaluation* (PEVA) (**P. Nain** Editor-in-Chief since 1 January 2008).
- *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 Transactions on Control of Networks* (TCNS) (**E. Altman** since 2013);
- *IEEE/ACM Transactions on Networking* (ToN) (**E. Altman** since 2013);
- *Journal of Economic Dynamics and Control* (JEDC) (**E. Altman** since 2001);
- *Performance Evaluation* (PEVA) (**K. Avrachenkov** since 2008).

10.1.3.2. Reviewer - Reviewing activities (list in alphabetical order of journal name)

- *Computer Communications* (COMCOM) (**S. Alouf**);
- *Computers in Industrial Engineering* (**A. Jean-Marie**);
- *IEEE Trans. on Control of Network Systems* (TCNS) (**A. Reiffers-Masson**);
- *IEEE Trans. on Mobile Computing* (TMC) (**G. Neglia**);
- *Mathematical Problems in Engineering* (**A. Jean-Marie**);
- *Performance Evaluation* (PEVA) (**J. K. Sreedharan**);
- *Social Network Analysis and Mining* (SNAM) (**A. Reiffers-Masson**);

10.1.4. Invited talks

MAESTRO members gave the following invited talks (in alphabetical order):

- *A Markovian queueing system for modeling a smart green base station*, in the series “séminaire Fondation HEC”, Gerad, Montréal, Canada, 13 October 2015, (**A. Jean-Marie**);
- *Extremes and Random Walks in Network Sampling Processes*, seminar at Yandex, Russia, 13 May 2015 (**K. Avrachenkov**);
- *Game models in epidemics in networks* seminar at Telecom SudParis on 22 October 2015 (**E. Altman**);
- *Game Theory and Online Social Network* seminar at NYU, New York, USA, August 2015 (**A. Reiffers-Masson**);
- *Graph-based Semi-supervised Learning Methods*, seminar at IIT Mumbai, India, 4 March 2015 (**K. Avrachenkov**);
- *Modeling with Markov chains: the MARMOTE software*, UCN@Sophia Labex seminar, 3 September 2015 (**A. Jean-Marie**);
- *On the convergence of the Rolling Horizon procedure*, 2nd 2015 Meeting of the COS working group of the GdR RO, Paris, 3 December 2015 (**A. Jean-Marie**).

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”.

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.”
- is Scientific coordinator of the European project CONGAS.

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), at the Regional Consulting Committee for Research and Technological Development (ARAGO Committee);
- 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;
- was member of the recruitment committee for a *Maître de Conférences* position at Univ. Paris Est Créteil.

P. Nain

- has been Chairman of Inria’s Evaluation Committee from 1 September 2012 to 31 August 2015 (<http://www.inria.fr/en/institute/organisation/committees/evaluation-committee>).

G. Neglia

- is the scientific delegate for European partnerships for Inria Sophia Antipolis – Méditerranée.

MAESTRO members are in the following committees of Inria Sophia Antipolis-Méditerranée

- CC (Comité de Centre): General Information Commission (**G. Neglia** since September 2013);
- 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 (**S. Alouf**, from November 2011 until December 2015);
- 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 MAESTRO internal meetings (**J. K. Sreedharan**, since November 2013).

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

Licence:

S. Alouf, “Probability”, 33H, 1st year Water Engineering degree (L3), Univ. of Nice Sophia Antipolis (UNS), France.

G. Neglia, “Probability”, 18H, 1st year Water Engineering degree (L3), UNS, France.

A. Reiffers-Masson, “Introduction to telecommunications network engineering”, 63H, Computer Science Program (L2), Univ. of Avignon (UAPV), 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”, 29H, 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.

A. Reiffers-Masson, “Information theory”, 7.5H, Computer Science Program (M1), UAPV, France.

A. Reiffers-Masson, “Radio Interface”, 9H, Computer Science Program (M1), UAPV, France.

A. Reiffers-Masson, “Sentimental Analysis”, 13.5H, Computer Science Program (M2), UAPV, France.

A. Reiffers-Masson, “Cryptography”, 13.5H, Computer Science Program (M2), UAPV, France.

Doctorat:

A. Jean-Marie, “Advanced Markov Modeling”, 18H, Univ. of Montpellier 2, France.

G. Neglia, “PhD School on Network Science”, 20H, Univ. of Pisa, Italy.

10.2.2. Supervision

PhD defended:

Ilaria Brunetti, “New approaches to Evolutionary Games and Decision Dynamics”, UAPV, 8 December 2015, advisor: Eitan Altman.

Julio Cesar Louzada Pinto, “Dissemination of information in opinion dynamics in social networks”, Telecom SudParis, 14 January 2016, advisors: Eitan Altman, Tijani Chahed and Jeremie Jakubowicz.

Alexandre Reiffers-Masson, “Competition over visibility and popularity in on line social networks”, UAPV, 12 January 2016, advisors: Eitan Altman and Yezekael Hayel.

Abdoulaye Tall, “Optimization and Self-Optimization for LTE networks”, UAPV, 17 December 2015, advisors: Eitan Altman and Zwi Altman.

PhD in progress:

Alberto Benegiamo, “Mathematical tools for smart grids,” 1 November 2013 interrupted in 31 August 2015, advisors: Patrick Loiseau (Eurecom) and Giovanni Neglia.

Arun Kadavankandy, “Random Matrix Theory and Complex Networks,” 5 March 2014, advisors: Konstantin Avrachenkov and Laura Cottatellucci (Eurecom).

Jithin Kazhuthuveetil Sreedharan, “Diffusion processes in complex networks,” 23 July 2013, advisor: Konstantin Avrachenkov.

Hlib Mykhailenko, “Probabilistic approaches for big data analysis,” 1 May 2014, advisors: Fabrice Huet (SCALE team) and Philippe Nain.

Yonathan Portilla, “Analysis of social networks,” 1 January 2012, advisor: Eitan Altman.

10.2.3. Juries

MAESTRO members participated in the Habilitation (HDR) thesis committees of (in alphabetical order):

- Nidhi Hegde: “Resource Allocation in Wireless Data Networks”, 16 January 2015, UPMC, (**E. Altman** as reviewer);
- Patrick Maillé: “Insights from economic studies of telecommunication networks”, 7 October 2015, Univ. de Rennes, (**E. Altman** as reviewer);

and in the Ph.D. committees of (in alphabetical order):

- Iliaria Brunetti: “New approaches to Evolutionary Games and Decision Dynamics”, UAPV, 8 Dec. 2015, (**E. Altman** as advisor);
- The Dang Huynh: “Extension de PageRank et application aux réseaux sociaux”, Univ. Paris Diderot, 1 June 2015, (**K. Avrachenkov** as reviewer);
- Ovidiu-Constantin Iacoboaiea: “Coordination of self organization (SON) functionalities in future radio access networks”, Telecom ParisTech, 2 Oct. 2015, (**E. Altman** as reviewer);
- Ane Izagirre: “Interpolation approximations for steady-state performance measures”, INSA, Toulouse, 21 September 2015, (**K. Avrachenkov** as reviewer);
- Maialen Larrañaga: “Dynamic control of stochastic and fluid resource-sharing systems”, Univ. of Toulouse, 23 September 2015, (**A. Jean-Marie** as reviewer);
- Julio Cesar Louzada Pinto: “Dissemination of information and opinion dynamics in social networks”, Telecom SudParis, 14 January 2016, (**E. Altman** as advisor);
- Fatima Zahra Moataz, “Towards Efficient and Fault-Tolerant Optical Networks: Complexity and Algorithms”, Univ. of Nice Sophia Antipolis, 30 Oct. 2015, (**A. Jean-Marie** as jury president);
- Alexandre Reiffers-Masson: “Competition over visibility and popularity in on line social networks”, UAPV, 12 January 2016, (**E. Altman** as advisor);
- Abdoulaye Tall: “Optimization and Self-Optimization for LTE networks”, UAPV, 17 Dec. 2015, (**E. Altman** as advisor).

10.3. Popularization

Activities are presented in chronological order:

- S. Alouf delivered a conference titled “Comment marche le Web ?” at Lycée General et Technologique du Rempart, Marseille, for two classes of high school students (20 March 2015).
- A. Reiffers-Masson participated to the “Fête de la science” at the UAPV, (8 October 2015). His presentation was about Online Social Networks.

S. Alouf is a member of MASTIC, a commission in charge of popularization and regional and internal scientific animation (from November 2011 until December 2015).

10.4. Participation in scientific events

10.4.1. Keynotes, tutorials and invited talks

MAESTRO members gave the following keynote lectures/plenary speeches (in alphabetical order):

- *Defense strategies against SIS epidemics in networks*, at 6th Conference on Decision and Game Theory for Security (GameSec), London, UK, 4 November 2015 (**E. Altman**);
- *Graph-based semi-supervised learning methods*, at 5th Intl. Conference on Network Analysis (NET), Nizhny Novgorod, Russia, 18 May 2015 (**K. Avrachenkov**);
- *Timelines Analysis and competition over popularity, influence and visibility in social networks*, at IEEE ICC Workshop on Dynamic SOcial Networks (DySON), London, UK, 8 June 2015 (**E. Altman**);

the following tutorials (in alphabetical order):

- *Complex Networks and their Analysis with Random Walks*, at 27th Intl. Teletraffic Congress (ITC 27), Gent, Belgium, 7 September 2015 (**K. Avrachenkov**);

and the following invited talks (in alphabetical order):

- *Competition in social networks*, at “Stochastic networks and stochastic geometry” a conference dedicated to François Baccelli on his 60th birthday, Institut Henri Poincaré, Paris, 12-14 January 2015 (**E. Altman**);
- *Exploration and exploitation in learning in multiobjective MDPs*, at NETLEARN/ORANGE workshop on Learning and Networks, Issy-les-Moulineaux, 9 October 2015 (**E. Altman**);
- *Extremes and Random Walks in Network Sampling Processes*, at EURANDOM workshop on Random Walks on Random Graphs and Applications, Eindhoven, Netherlands, 14-16 April 2015 (**K. Avrachenkov**);
- *Game models in social networks*, at NYU Workshop on Control and Optimization of Network Systems (CONES), New York, USA, 1 May 2015 (**E. Altman**);
- *Performance Evaluation... of a Laser*, at Imperial College, Seminar in the honor of Pr. E. Gelenbe/ISCIS 2015, London, UK, 23 September 2015 (**A. Jean-Marie**);
- *Spectral Properties of Random Matrices for Stochastic Block Model*, at Intl. Workshop on Physics Inspired Paradigms in Wireless Communications and Networks (PHYSCOMNET), IIT Mumbai, India, 29 May 2015 (**A. Kadavankandy**);
- *Whittle index policy for crawling ephemeral content*, at Workshop on Modern trends in controlled stochastic processes, Univ. of Liverpool, UK, 29 June 2015 (**K. Avrachenkov**).

E. Altman was part of a one hour panel on network neutrality which took place as part of the WiOpt conference in IIT Mumbai, India, 25-29 May, 2015.

10.4.2. Conferences and workshops

MAESTRO members gave presentations at the following scientific events (in alphabetical order):

- Bell Labs Future X days (Openday), Paris, France, 10-11 June 2015 (**J. K. Sreedharan**);
- 12th European Workshop on Performance Engineering (EPEW), Madrid, Spain, 31 August - 1 September 2015 (**A. Jean-Marie**);
- 54th IEEE Conference on Decision and Control (CDC 2015), Osaka, Japan, 15-18 December 2015 (**K. Avrachenkov, G. Neglia**);
- 14th IFIP International conference on networking (Networking 2015), Toulouse, France, 20-22 May 2015 (**G. Neglia**);
- 3rd Intl. workshop on Big Data and Social Networking Management and Security (BDSN), Limassol, Cyprus, 7 December 2015 (**A. Reiffers-Masson**);
- 12th Workshop on Algorithms and Models for the Web-graph (WAW), Eindhoven, Netherlands, 10-11 December 2015 (**A. Kadavankandy**);
- 6th Workshop on Dynamic Games in Management Science, Montreal, Canada, 22-23 October 2015, (**I. Brunetti**).

10.4.3. Schools and doctoral courses

MAESTRO members have attended the following events (list in alphabetical order):

- COST ACROSS Summer School on “NFV meets Big Data Architecture and Performance Evaluation” (30H), Würzburg, Germany, 8-15 April 2015 (**A. Dandoush**);
- 12th EDBT Summer School on “Graph Data Management” (26H), Palamós, Spain, 31 August - 4 September 2015 (**H. Mykhailenko**);
- WAW 2015 School on complex networks and graph models (16H), Eindhoven, Netherlands, 7-8 December 2015 (**A. Kadavankandy** and **J. K. Sreedharan**).

MUSE Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific events organisation

9.1.1.1. General chair, scientific chair

- Program chair of the 5th PhD School on Traffic Monitoring and Analysis (TMA), 2015.

9.1.1.2. Member of the organizing committees

- R. Teixeira, Workshop co-chair of ACM SIGCOMM 2015.

9.1.2. Scientific events selection

9.1.2.1. Chair of conference program committees

- R. Teixeira, Co-chair of the program committee of ACM CoNEXT 2015.
- V. Christophides, Area Chair for “Semi-structured, Web, and Linked Data Management” in the 18th International Conference on Data Engineering (ICDE’16), Bali, Indonesia 2016 (internationalscienceindex.org/event/2016/10/bali/ ICDE)
- 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 (www.diachron-fp7.eu/2nd-diachron-workshop.html)

9.1.2.2. Member of the conference program committees

- R. Teixeira, ACM IMC 2015
- V. Christophides, Int’l Conference on Information and Knowledge Management (CIKM) 2015
- V. Christophides, Int’l Conference on Extending Database Technology (EDBT) 2016

9.1.2.3. Reviewer

- A.-K. Pietilainen, CHI 2016

9.1.3. Journal

9.1.3.1. Member of the editorial boards

- R. Teixeira, Editor of IEEE/ACM Transactions on Networking (Feb. 2011 – Feb. 2015)

9.1.4. Invited talks

- R. Teixeira, “HostView: Measuring Internet quality of experience on end-hosts”, Journée thématique - Métrologie des réseaux - de la DGA, Rennes, November 2015.
- R. Teixeira, “UCN user study”, panelist at ACM SIGCOMM workshop on crowdsourcing and crowdsharing of (big) Internet data, London, August 2015.
- R. Teixeira, “HostView: Measuring Internet quality of experience on end-hosts”, Princeton University, USA, July 2015.
- R. Teixeira, “HostView: Measuring Internet quality of experience on end-hosts”, Journée du Conseil scientifique de l’Afnic, Paris, July 2015.
- R. Teixeira, “Home network diagnosis”, Workshop of “Aux frontières du système” of the “Conférence d’informatique en Parallélisme, Architecture et Système”, Lille, June, 2015.
- R. Teixeira, “Measuring Internet Experience from Home Networks”, invited talk, Workshop on Active Internet Measurements, San Diego, USA, April, 2015.

- R. Teixeira, “Home network performance diagnosis”, Microsoft Research Devices and Networking Summit, Paris, May 2015.
- R. Teixeira, “Home network performance diagnosis”, workshop on Information and Communication Systems and their application to vertical sectors, Montevideo, Uruguay, March 2015.
- R. Teixeira, “Fathom: A Browser-based Network Measurement Platform”, invited talk at Federal University of Rio de Janeiro, Brazil, March 2015.

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9.1.5. Leadership within the scientific community

- R. Teixeira, Vice-chair of ACM SIGCOMM (since Jun. 2013).
- R. Teixeira, chair of the ACM SIGCOMM Industrial Liaison Board.
- R. Teixeira, member of the steering committee of the ACM Internet Measurement Conference (since Nov. 2009)

9.2. Teaching - Supervision - Juries

9.2.1. 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.

E-learning

Mooc: Timur Friedman, Renata Teixeira, “Network Metrology”, preparation of a five-week Mooc to start in May 2016 in the platform FUN, supported by Inria.

9.2.2. Supervision

PhD: Nelly Vouzoukidou (October 2011-September 2015): “Continuous top-k Queries over Real-time Web Streams” University Pierre et Marie Curie (UPMC). Advisors: B. Amann and V. Christophides

PhD in progress:

- Sara el Aouad, “Improving the quality of recommendation using semi-structured user feedback”, May 2014, advisors: C. Diot and R. Teixeira
- Diego da Hora, “Crowdsourced Home Network Diagnosis”, February 2014, advisors: C. Diot and R. Teixeira
- Giuseppe Scavo, “Exploiting Network Content-awareness to provide novel added value services”, November 2013 advisors: Z. Ben-Houidi and R. Teixeira
- Sofia Kleisarchaki (October 2013-now): “Temporal Analytics of the Social Web” cotutelle between University of Crete & University of Joseph Fourier - Grenoble. Advisors: S. Amer-Yahia and V. Christophides)
- Vassilis Efthimiou (February 2013-now): “Entity resolution in the Web of Data” University of Crete. Advisor: V. Christophides

9.2.3. Juries

V. Christophides: member of the supervision committee of the Ph.D. Thesis of Charalampos Nikolaou, Univ. of Athens, 2015

RAP Project-Team

7. Dissemination

7.1. Promoting Scientific Activities

7.1.1. Scientific events selection

7.1.1.1. Member of the conference program committees

- *Philippe Robert*, Caching in Wireless Networks Conference (2015)

7.1.2. Journal

7.1.2.1. 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”.

7.1.3. Invited talks

- *Cédric Bourdais*, *Sarah Eugene*, *Philippe Robert* and *Wen Sun*] have been invited to the Young European Queueing Theorists (YEQT’9) workshop in Eindhoven in November 2015.

7.1.4. 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.
- *Christine Fricker* and *Guilherme Thompson* participated to ITC 27 (International Teletraffic Congress) in Ghent in September 2015.
- *Renaud Dessalles*, *Philippe Robert* and *Wen Sun* gave talks at INFORMS Applied Probability Conference in July 2015 in Istanbul.
- *Philippe Robert* gave a talk at the department of mathematics at the University of Novosibirsk, in October 2015.

7.1.5. 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.

Master: *Philippe Robert*, Communication Networks, University of Novosibirsk, 12h.

7.2.2. Juries

- *Nicolas Broutin* has been a member of the committee for the PhD thesis of Daphné Dieuleveut (U Orsay).
- *Philippe Robert* has been reviewer of HDR document by Nidhi Hegde.

SOCRATE Project-Team

9. Dissemination

9.1. Promoting Scientific Activities

9.1.1. Scientific Event Organisation

9.1.1.1. General Chair, Scientific Chair

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

9.1.1.2. Member of Organizing Committees

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

9.1.2. Member of Conference Program Committees

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

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

9.1.3. Member of Editorial Boards

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

9.1.4. Tutorials at International Conferences

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

9.1.5. Invited Talks

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

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

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

9.1.6. Research Administration

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

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

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

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

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

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

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

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

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

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

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

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

9.2.2. Supervision

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

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

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

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

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

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

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

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

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

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

9.2.3. Juries

Florent de Dinechin

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

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

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

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

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

Tanguy Risset

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

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

PhD Andrea Enrici *Model Driven Engineering of Parallel and Distributed Embedded Systems: the Ψ -chart Approach* (Telecom-ParisTech, Dec. 2015), (as a reviewer).

Jean-Marie Gorce

- HdR Eric Simon *Estimation de canal et Synchronisation pour les systèmes OFDM en présence de mobilité* (U. Lille, June 2015), (as a reviewer).
- PhD Thi-Minh-Dung Tran *Methods for finite-time average consensus protocols design, network robustness assessment and network topology reconstruction* (U.Grenoble March 2015), (as a reviewer).
- PhD Selma Belhadj Amor *Gains en capacité dans les canaux à accès multiple et à diffusion par l’exploitation de la voie de retour* (Telecom Paris Tech, March 2015), (as the jury president).
- PhD Matthieu De Mari *Allocations de ressources dans les réseaux sans fils* (CentraleSup-elec, July 2015), (as a reviewer).
- PhD Raouia Masmoudi *Télécommunications domotiques efficaces en termes de consommation d’énergie* (U. Cergy Pontoise and U. Sfax, Nov 2015), (as the jury president).
- PhD Yangyang Chen *performance analysis of mobile relays for LTE ; Telecoms Bretagne* (U.Rennes Dec 2015), (as a reviewer).

Guillaume Villemaud

PhD Nicolas Chevalier *Performances de l’optique sans fil pour les réseaux de capteurs corporels* (U. Limoges, dec. 2015), (as a reviewer).

URBANET Team

10. Dissemination

10.1. Promoting Scientific Activities

10.1.1. Scientific events organisation

10.1.1.1. General chair, scientific chair

- Hervé Rivano was general co-chair of the ResCom Summer School "Smart Cities", held in Lyon in June 2015.

10.1.1.2. Member of the organizing committees

- Razvan Stanica was in the organizing committee of the ResCom Summer School "Smart Cities", held in Lyon in June 2015.

10.1.2. Scientific events selection

10.1.2.1. Member of the conference program committees

- Walid Bechkit was TPC member for the following conferences: IEEE ICC, IEEE CCNC, ACS/IEEE AICCSA, IWCMC and ISPS.
- Marco Fiore was TPC member for IEEE INFOCOM, IEEE WoWMoM, IEEE ICC, IEEE VNC, IEEE VTC, IEEE/IFIP WONS, IEEE WF-IoT, MobiArch, ExtremeCom, IEEE/IFIP Wireless Days, IEEE UIC, IEEE WiMob, and a number of international workshops.
- Razvan Stanica was in the TPC of the following conferences: IEEE ICC, IEEE GlobeCom, IEEE VTC Fall, IEEE CCNC, ISNCC, WSC, ICCVE, GIIS, IOV, MobiArch, MobiApps, WF-IoT, INT-GAST, AlgoTel.
- Fabrice Valois was in the TPC of the following conferences: IEEE ICC, IEEE AINA, IEEE Globecom, IWCMC, IEEE VTC Spring, IEEE WCNC.

10.1.3. Journal

10.1.3.1. Member of the editorial boards

- Marco Fiore is Technical Committee member for Elsevier Computer Communications.
- Marco Fiore and Razvan Stanica were Guest Editors for the Elsevier Computer Communication special issue on Mobile Traffic Analytics.

10.1.3.2. Reviewer - Reviewing activities

- Walid Bechkit was a reviewer for the following journals: Elsevier Ad-Hoc Networks, Telecommunication Systems and Journal of Network and Computer Applications.
- Marco Fiore served as a reviewer for a number of international journals, including IEEE Transactions on Mobile Computing, IEEE Journal on Selected Areas in Communications, IEEE Transactions on Vehicular Technology, IEEE Transactions on Wireless Communications, IEEE Transactions on Communications, IEEE Transactions on Industrial Informatics, IEEE Communications Magazine, IEEE Vehicular Technology Magazine, Elsevier Ad-hoc Networks, Elsevier Computer Communications, Elsevier Vehicular Communications.
- Razvan Stanica was a reviewer for the following journals: IEEE Communications Magazine, Elsevier Ad-Hoc Networks, Elsevier Computer Communications, Elsevier Vehicular Communications, Springer Annals of Telecommunications, IEEE Sensors Journal, Sensors, Procedia Engineering, Journal of Advanced Transportation, Frontiers of Information Technology & Electronic Engineering.

10.1.4. Invited talks

- Marco Fiore gave an invited talk "Mobile Traffic Data Analytics for 5G Cognitive Networking" at the 1st GdR MaDICS Workshop on Big Data for the 5G RAN, Paris, November 2015.
- Marco Fiore gave an invited lecture on "Mining cellular traffic collected at mobile operator network probes" at the Networks and Data Mining Summer School, Luchon, June 2015.
- Marco Fiore gave an invited talk "Road traffic modeling with an eye to networking applications" at Telecom Sud Paris, Paris, June 2015.
- Hervé Rivano gave an invited talk and a demo entitled "Capteurs pour la route intelligente" at the inauguration conference of the Sense City EquipEx, Marne la Vallée, March 2015.
- Hervé Rivano gave an invited talk entitled "Issues of urban capillary networks" in the Japan-France workshop on Cyber security, French Embassy, Tokyo, April 2015.
- Hervé Rivano gave an invited talk entitled "Urban networks for Smarter Cities" in the Aristote association workshop on Smart Cities, Ecole Polytechnique, April 2015.
- Hervé Rivano gave an invited talk entitled "Networking for Smarter Cities" in the Berkeley-Inria-Stanford workshop of Inria@SiliconValley, Berkeley, May 2015.
- Hervé Rivano gave an invited talk and a demo entitled "Sensors for smart roads" in the Global Metropolitan Lab of the World Bank, Marne la Vallée, June 2015.
- Hervé Rivano gave an invited talk entitled "Including citizens in the design of Smart Cities – Needs, results and challenges of interdisciplinarity" in the CNRS Lamsade/NSF-Dimacs Citizens Science workshop, Paris, December 2015.
- Razvan Stanica gave an invited talk entitled "Véhicules connectés : Pourquoi nos voitures apprennent à parler?" in the Connected Objects workshop organized in the context of the 28th Jacques Cartier Meetings, Lyon, December 2015.
- Fabrice Valois gave an invited talk entitled "Capillary networks for Smart Cities" in the Ecole d'été ResCom, GDR CNRS, Lyon, June 2015.

10.1.5. Leadership within the scientific community

- Hervé Rivano has been named in the working group of Rhone Alpes region and Caisse des Dépôts et Consignations on "Territoires Augmentés", Lyon, November 2015.
- Fabrice Valois has been named as a member of the Scientific Council of the LIMOS-UMR6158 laboratory, Clermont Ferrand, in January 2015.

10.1.6. Scientific expertise

- Marco Fiore was a reviewer for the following calls: MiSe FCS (Italy), MiSe DA (Italy), ANR appel générique (France).
- Hervé Rivano has done a scientific expertise for the Aquitaine Province, April 2015.
- Hervé Rivano is involved in the "Villes et territoires innovants" working group of the Conseil National de l'Information Géographique.

10.1.7. Research administration

- Walid Bechkit is responsible for seminar organization and scientific animation within the CITI laboratory.
- Hervé Rivano is responsible with the Economic and Strategic Intelligence affairs of the CITI research laboratory, in charge with setting up ZRRs within the lab.
- Hervé Rivano is member of the Administration Council of the EquipEx Sense City as representative of Inria.
- Hervé Rivano is member of the Steering Committee of the ResCom axis of the ASR CNRS GdR.

- Hervé Rivano and Razvan Stanica are members in the CITI laboratory council.
- Razvan Stanica is the CITI laboratory correspondent with the Labex IMU.
- Fabrice Valois is director of the CITI research laboratory of INSA Lyon.

10.2. Teaching - Supervision - Juries

10.2.1. Teaching

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

Licence : Walid Bechkit, IP Networks, 40h, L3, Telecom. Dpt. INSA Lyon.

Licence : Hervé Rivano, IP Networks, 20h, L3, Telecom. Dpt. INSA Lyon.

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

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

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

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

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

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

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

Master : Isabelle Augé-Blum, Networks of the Future, 10h, M2, University of Lyon.

Master : Walid Bechkit, Network architectures, protocols and services, 12h, M1, Telecom. Dpt. INSA Lyon.

Master : Walid Bechkit, Performance evaluation of telecom networks, 100h, M1, Telecom. Dpt. INSA Lyon.

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

Master : Walid Bechkit, Wireless networks: architecture and security, 18h, M2, INSA Lyon.

Master: Hervé Rivano, Wireless multihop networks, 10h, M2, University of Lyon.

Master: Hervé Rivano, Smart Cities, 4h, M2, Polytech Perpignan.

Master : Razvan Stanica, Mobile Networks, 30h, M1, Telecom. Dpt. INSA Lyon.

Master : Fabrice Valois, Mobile Networks, 30h, M1, Telecom. Dpt. INSA Lyon.

Master : Fabrice Valois, Wireless Sensor Networks, 6h, M2, University of Grenoble.

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

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

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

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

Fabrice Valois and Walid Bechkit are elected members of the Telecommunications Department Council at INSA Lyon.

E-learning

MOOC : Hervé Rivano, Villes intelligentes et technologies numériques, with the Inria Project Lab « Smart Cities », FUN platform.

10.2.2. Supervision

PhD : Diala Naboulsi, Analysis and exploitation of mobile traffic datasets, INSA Lyon, 09/2015. Advisors: Marco Fiore, Razvan Stanica, Fabrice Valois.

PhD : Trista Lin, Smart parking: network, infrastructure and urban service, INSA Lyon, 12/2015. Advisors: Frédéric Le Mouel (CITI DynaMid), Hervé Rivano.

PhD in progress : Yosra Bahri Zguira, DTN for IoT, since 05/2015. Advisors: Aref Meddeb (Univ. Sousse, Tunisia), Hervé Rivano.

PhD in progress: Ahmed Boubrima, Optimal deployment of wireless sensor networks for air pollution monitoring, since 10/2015. Advisors: Walid Bechkit, Hervé Rivano.

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

PhD in progress : Jin Cui, Aggregation: From data dynamics to network dynamics, since 11/2012. Advisor: Fabrice Valois.

PhD in progress : Rodrigue Domga Komguem, Autonomous WSN architectures for road traffic applications, since 11/2012. Advisors: Razvan Stanica, Maurice Tchente (Univ. Yaoundé, Cameroun), Fabrice Valois.

PhD in progress : Alexis Duque, Use of visible light communication in a smart city context, since 10/2015. Advisors: Hervé Rivano, Razvan Stanica.

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

PhD in progress : Leo Le Taro, Recalibration of wireless sensors for pollution monitoring, since 11/2015. Advisor: Hervé Rivano.

PhD in progress: Jad Oueis, Systèmes PMR très haut débit fédérateurs, since 10/2015. Advisors: Razvan Stanica, Fabrice Valois.

PhD in progress: Mihai Popescu, Mobilité au sein de flottes de robots sous contrainte de maintien de la connectivité, since 11/2015. Advisors: Olivier Simonin (Inria CHROMA), Anne Spalanzani (Inria CHROMA), Fabrice Valois.

MS thesis: S. Bouchareb, INSA Lyon, Capacity Limits in Cloud RAN, 09/2015. Advisors: Samir Perlaza (Inria Socrate), Razvan Stanica.

MS thesis: A. Merabtene, Univ. Lyon 1, Usage-Mobility Correlation in Mobile Phone Data, 07/2015. Advisor: Razvan Stanica.

MS thesis: J. Oueis, INSA Lyon, Energy Harvesting in Wireless Sensor Networks, 07/2015. Advisors: Razvan Stanica, Fabrice Valois.

MS thesis: B. Saves, INSA Lyon, Mobile data collection in wireless sensor networks for air pollution monitoring, 09/2015. Advisors: Walid Bechkit, Hervé Rivano.

MS thesis: J. Wang, INSA Lyon, Wi-Fi based Localization in Urban Spaces, 09/2015. Advisors: Patrice Raveneau, Razvan Stanica.

10.2.3. Juries

- Marco Fiore was external reviewer in the following PhD defense committees:
 - E. Mucelli, From Human Routine to more Efficient Mobile Networks, École Polytechnique, Paris, 03/2015.
 - F. Mezghani, Dissemination de contenus dans les reseaux vehiculaires, INP Toulouse, 10/2015.
- Hervé Rivano was external reviewer in the following PhD defense committees:
 - H. Xiang, Quasi-Optimal Mobile Crowdsensing : Cadre de conception et algorithmes, Télécom SudParis, Université Pierre et Marie Curie, 01/2015.

- G. Artero Gallardo, Qualité de service dans de environnements réseaux mobiles, hétérogènes et contraints, IRIT, INP Toulouse, 03/2015.
- R. Dagher, Sur la radionavigation dans les villes intelligentes du futur. Le cas des réseaux de capteurs sans fils, Inria, Université de Lille 1, 10/2015.
- Hervé Rivano was member in the following PhD defense committees:
 - F. Zahra Moataz, Vers des Réseaux Optiques Efficaces et Tolérants aux Pannes : Complexité et Algorithmes, I3S, Université de Nice-Sophia Antipolis, 10/2015.
- Fabrice Valois was external reviewer in the following PhD defense committees:
 - G. Romaniello, Energy Efficient Protocols for Harvested Wireless Sensor Networks, LIG, Université de Grenoble, 03/2015.
 - D. Carvin, Mécanismes de supervision distribués pour la gestion des réseaux dynamiques, LAAS, INSA Toulouse, 07/2015.
 - C. Cobarzan, Internet of Highly Mobile Things, I-Cube, Université de Strasbourg, 09/2015.
 - N. Guzzo, Facing the real challenges in wireless sensor network-based applications : an adaptative cross-layer self- organization WSN protocol, Inria, Université de Lille 1, 12/2015.
- Fabrice Valois was member in the following PhD defense committees:
 - T. Antignac, Méthodes formelles pour le respect de la vie privée par construction, CITI, INSA Lyon, 02/2015.
 - Y. Chen, Routing Algorithm Dedicated to Environmental Data Collection: Precision Agriculture, LIMOS, Université Blaise Pascal, Clermont-Ferrand, 04/2015.
 - M. Vucinic, Architectures and Protocols for Secure and Energy-Efficient Integration of Wireless Sensor Networks with the Internet of Things, LIG, Université de Grenoble, 11/2015.
 - T. Lin, Smart Parking : Network, Infrastructure and Urban Service, CITI, INSA Lyon, 12/2015.

10.3. Popularization

- Hervé Rivano gave a popularization talk entitled "Réseaux de capteurs urbains" in the Tuba X-pert session of February 2015.
- Hervé Rivano participated to a TV Show on "IoT and Smart Cities", Tele Grenoble, April 2015.
- Razvan Stanica gave a popularization talk entitled "Teaching Our Cars How to Speak: Communications for Intelligent Transportation Systems" in the internal meeting of the Transportation Group of the Spie company.