Activity Report 2012

Section Dissemination

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

7. Dissemination

7.1. Scientific Animation

7.1.1. Program committees

- PC member for IE'12: 8th Int Conference on Intelligent environments, Guanajuato, Mexico, June 2012, M. Banâtre.
- PC member of the 15th International Symposium on Wireless Personal Multimedia Communications (WPMC'12), F. Weis.

7.1.2. Organizing and reviewing activities

Michel Banâtre is expert to the European Commission (FP7 program): reviewer member for SM4All and CONSERN projects.

7.2. Teaching - Supervision - Juries

7.2.1. Teaching

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

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

Master : Distributed Systems, M. Banâtre, 18 hours, M2, Ecole des mines de Nantes, France

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

Master: Mobile communications and ambient computing, M. Banâtre, 8 hours, M2, ENSEIRB Bordeaux, France

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

7.2.2. Supervision

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

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

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

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

ADAM Project-Team

9. Dissemination

9.1. Scientific Animation

Laurence Duchien served in the following scientific animations actions.
- Chair of the 3ème Journées du GDR CNRS GPL, Rennes, June 2012,
- Chair of the 4ème Journée Lignes de Produits, Lille, November 2012,
- Member of the Editorial Board of Lavoisier TSI,
- Member of the following PC committees:
    - 7th International Symposium on Software Engineering for Adaptive and Self-Managing Systems, (SEAMS), Zürich, Switzerland, June 2012,
    - 15th International ACM SIGSOFT Symposium on Component Based Software Engineering (CBSE), Bertinoro, Italy, June 2012,
    - Joint 10th Working IEEE/IFIP Conference on Software Architecture & 6th European Conference on Software Architecture (WICSA/ECSA), Helsinki, Finland, August 2012,
- Reviewer for the following journals: Elsevier Journal of System and Software, Springer Software and System Modeling, Elsevier Science of Computer Programming,
- Reviewer for the LNCS book Models@runtime.

Philippe Merle served in the following scientific animation actions.
- PC member of the 11th Workshop on Adaptive and Reflective Middleware (ARM), Montréal, Canada, December 2012,
- PC co-chair of the 1ère Conférence en Ingénierie du Logiciel (CIEL), Rennes, June 2012.

Adel Noureddine served as Organization Chair of the 9th MajecSTIC conference that was held in Lille in October 2012. MajecSTIC is the national conference for PhD students and young researchers in Information and Communication Technologies and covers topics from Computer Science to Electrical Engineering.

Romain Rouvoy served in the following scientific animations actions.
- Member of the steering committee of the IFIP International Conference on Distributed Applications and Interoperable Systems,
- Member of the following PC committees:
    - 27th International ACM Symposium on Applied Computing - 7th Track Dependable and Adaptive Distributed Systems (DADS), March 2012,
    - 1st Nordic Symposium on Cloud Computing & Internet Technologies (NordiCloud), August 2012,
    - 8th International Conference on the Quality of Information and Communications Technology (QUATIC) - Track Quality in Cloud Computing, September 2012,
    - 2nd International Workshop on Adaptive Services for the Future Internet (WAS4FI), September 2012,
    - 1st International Workshop on Self-Aware Internet of Things (Self-IOT), September 2012,
    - 6th International Workshop on Middleware Tools, Services and Run-time Support for Networked Embedded Systems (MidSens), December 2012,
    - 7th International Workshop on Middleware for Next Generation Internet Computing Workshop (MW4NG), December 2012,
    - 11th International Workshop on Adaptive and Reflective Middleware (ARM), December 2012,
- Reviewer for the following journals: Elsevier Science of Computer Programming, Elsevier Information and Software Technology, IEEE Software, Springer Journal of Internet Services and Applications, Wiley Journal of Software: Evolution and Process, Lavoisier TSI.

Lionel Seinturier served in the following scientific animations actions.

- Guest co-editor of a special issue of the Elsevier Science of Computing journal on Software Evolution, Adaptability and Maintenance,
- Member of the editorial board of the ISTE-Wiley series of books on Computer Science and Information Technology and editor for the Software Engineer domain of this series,
- PC Chair of the 2nd IEEE International Workshop on Advanced Information Systems for Enterprise (IWAISE),
- Member of the following PC committees:
    - 4th IEEE International Conference on Service-Oriented Computing and Applications (SOCA), Taipei, December 2012,
    - 38th Euromicro Conference on Software Engineering and Advanced Applications (SEAA), MOCS Track & DANCE workshop, Cesme, Turkey, September 2012,
    - IEEE International Workshop on Future Green Communications (FGC), Paris, April 2012,
    - 6ème Conférence francophone sur les architectures logicielles (CAL), Montpellier, May 2012,
- Reviewer for the following journals: Elsevier Science of Computer Programming, Elsevier Journal of Systems Architecture, Central European Journal of Computer Science, Lavoisier TSI.

Martin Monperrus served as:

- Referee for ACM Transactions on Software Engineering and Methodology (TOSEM), Elsevier Science of Computer Programming (SCP), IEEE Transactions on Software Engineering (TSE), Wiley Software Practice and Experience (SPE)
- External Referee for International Conference on Foundations of Software Engineering (FSE), ICSE New Ideas and Emerging Results Track (ICSE NIER), European Conference on Modeling Foundations and Applications (ECMFA)

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Permanent members teach the following courses.

Laurence Duchien 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 PRES University Lille Nord de France. She teaches the following courses.

Software Project Management, 50h, Level M2, Master MIAGE, University Lille 1,

Design of distributed applications, 42h, Level M1, Master of Computer Science, University Lille 1,

Object-Oriented Design, 42h, Level M2, Master of Computer Science, University Lille 1,

Software Product Lines, 6h, Level M2, Master of Computer Science, University Lille 1,

Research and Innovation Initiation, 22h, Level M2, Master of Computer Science, University Lille 1,

Tutoring Internship, 22h, Level M2, Master of Computer Science, University Lille 1.

Martin Monperrus teaches at the University Lille undergraduate and graduate courses. In particular:

Introduction to programming, 48h, Level L1, Licence of Computer Science, UFR IEEA, University Lille 1,

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

Automated software engineering, 40h, Level M2, Master of Computer Science speciality IAGL, UFR IEEA, University Lille 1.

Romain Rouvoy heads the IAGL specialty of the Master of Computer Science at the University Lille 1. He supervises the Agil-IT Junior Enterprise and gives the following courses at the University Lille 1:

Initiation à la Programmation, 48h, Level L1, Licence of Computer Science, UFR IEEA, University Lille 1,

Conception d'Applications Réparties, 42h, Level M1, Master of Computer Science, UFR IEEA, University Lille 1,

Qualité du Logiciel, 30h, Level M2, Master of Computer Science speciality MIAGE, UFR IEEA, University Lille 1,

Infrastructures et Frameworks Internet, 8h, Level M2, Master of Computer Science speciality IAGL, UFR IEEA, University Lille 1,

Innovation & Initiation à la Recherche, 14h, Level M2, Master of Computer Science speciality IAGL, UFR IEEA, University Lille 1,

Intergiciels Orienté Services, 50h, Level M2, Master of Computer Science speciality IPI-NT, UFR IEEA, University Lille 1,

Suivi de projets, 60h, Level M2, Master of Computer Science, UFR IEEA, University Lille 1,

Suivi d'alternants, 60h, Level M2, Master of Computer Science, UFR IEEA, University Lille 1.

Lionel Seinturier heads the E-Services specialty of the Master of Computer Science at the University Lille 1. He gives the following graduate courses at the University Lille 1.

Conception d'applications réparties, 18h, M1, University Lille 1,

Infrastructures et frameworks Internet, 6h, M2, University Lille 1.

9.2.2. Supervision

PhD : Gabriel Hermosillo, Towards Creating Context-Aware Dynamically-Adaptable Business Processes Using Complex Event Processing, University Lille 1, 5 June 2012, Laurence Duchien & Lionel Seinturier.

PhD : Gabriel Tamura, QoS-CARE: Un Système Fiable pour la Préservation de Contrats de Qualité de Service à travers de la Reconfiguration Dynamique, University Lille 1 & University Los Andes, Bogota, Colombia, 28 May 2012, Laurence Duchien.

PhD in progress : Benoit Cornu, Automated Runtime Software Repair, October 2012, Lionel Seinturier & Martin Monperrus.

PhD in progress : Rémi Druilhe, Réduction de l'emprunte énergétique dans la maison numérique, October 2010, Laurence Duchien & Lionel Seinturier.

PhD in progress : Alexandre Feugas, Maintien de la qualité de service au cours de l'évolution d'applications orientées services, October 2010, Laurence Duchien.

PhD in progress : Nicolas Haderer, AntDroid: Opportunistic Mobile Sensing of User Activities, October 2010, Lionel Seinturier & Romain Rouvoy.

PhD in progress : Jonathan Labéjof, R* - Réflexivité au service de l'évolution des systèmes de systèmes, October 2009, Lionel Seinturier & Philippe Merle. To be defended on 20 December 2012.

PhD in progress : Matias Martinez, Automated Program Repair at Development and Runtime, October 2011, Laurence Duchien & Martin Monperrus.

PhD in progress : Adel Noureddine, Software Engineering for Green Autonomic Systems, October 2010, Lionel Seinturier & Romain Rouvoy.

PhD in progress : Russel Nzekwa, Building Feedback Control Loops for Self-Adaptive Very-Large-Scale Environments, October 2009, Lionel Seinturier & Romain Rouvoy.

PhD in progress : Fawaz Paraiso, Interopérabilité des environnements middleware de cloud computing, October 2011, Lionel Seinturier & Philippe Merle.

PhD in progress : Clément Quinton, Migration d'applications dans les environnements middleware de cloud computing, October 2011, Laurence Duchien.

PhD in progress : Marc Sango, Composants logiciels, boucle de contrôle et adaptation pour applications safety critical dans le domaine ferroviaire, October 2012, Laurence Duchien & Christophe Gransart.

9.2.3. *Juries*

Laurence Duchien was in the following HDR examination committee:

- Thierry Geraud, University Marne-la-Vallée, June 2012 (chair).

Laurence Duchien was in the following PhD examination committees:

- Nabil Fakhfakh, University of Malaga, Spain, January 2012 (referee),
- Gabriel Tamura, University Lille 1 & University Los Andes, Bogota, Colombia, May 2012 (director),
- Gabriel Hermosillo, University Lille 1, June 2012 (director),
- Michal Malohlava, Charles University, Prague, September 2012 (referee),
- Takoua Ben Rhoula Aouina, University Paris 11, November 2012 (referee),
- Loic Petit, University of Grenoble, December 2012 (examiner).

Philippe Merle was in the PhD examination committee of Jonathan Labéjof, University Lille 1, December 2012 (co-advisor).

Lionel Seinturier was in the following PhD examination committees:

- Gabriel Tamura, University Lille 1 & University Los Andes, Bogota, Colombia, May 2012 (examiner),
- Gabriel Hermosillo, University Lille 1, June 2012 (co-director),
- Sandrines Santilles, Märladalen University, Sweden, June 2012 (opponent),
- Ali Hassan, Telecom Bretagne, September 2012 (referee),
- Mohamed Lamine Boukhanoufa, University Paris 11, September 2012 (examiner),
- Jonathan Labéjof, University Lille 1, December 2012 (director).

9.3. Popularization

Nicolas Petitprez participated to Salon de la Vente à distance that was held in Lille from October 23 to 25, 2012. Inria held a booth in this exhibition that is dedicated to professionals from the retail industry. Nicolas demonstrated the results and the prototype that has been developed in the context of the FUI Macchiato (see Section 8.2) project.

Laurence Duchien participated to a panel on Mobile computing for Banking applications that was held in April 2012 in Paris.

Aurélien Bourdon gave several demonstrations of the PowerAPI software library (see Section 5.6), especially for the Recherche, Innovation, Creation (RIC) day that was held on 6 October 2012 in Lille and that targets graduate students from the M.Sc and Computer Engineering programs. He also gave this demonstration during visits such as the one of Michel Cosnard, CEO of Inria, and the one of Jean-François Pauwels, vice-president for research at University Lille 1. Finally the demonstration was also played during workshops dedicated to green computing, such as Eco-conception des logiciels un outil novateur pour le pilotage des projets informatiques in October 2012, and Rencontre Inria Industrie in March 2012.

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

8. Dissemination

8.1. Scientific Animation

8.1.1. Programme Committees of Conferences and Workshops

- Nelly Bencomo is PC member of the following international conferences: SEAMS '12& '13, MODELS '12& '13, CIbSE '12& '13, Poster track at RE '12& '13, SANES session at PECCS '13, SBES '13;

- Nelly Bencomo is PC member of the following international workshops: UsARE '12 at ICSE '12, VAMOS '13;

- Nikolaos Georgantas is PC member of the following international conferences: DAIS '12, ICSOFT '12, DATA '12, SOSE '13, ANT '13;

- Nikolaos Georgantas is PC member of the following international workshops: MW4NG'12, ARM'12;

- Valérie Issarny is PC member of the following international conferences: ESSOS '12, FASE '13, ICDCS '13, ICSE-NIER '12, ICSE '13, IFIPTM '13, ISARCS '13, Middleware '12, SEAMS '12& '13;

- Valérie Issarny is PC member of the following international workshops: SESO@ICSE '13, SERENE' 12& '13;

- Animesh Pathak is PC member of the following international conferences: ICCC '12, iThings '12, NPC '12, SENSORNETS '12, S-Cube '12; and

- Animesh Pathak is PC member of the following international workshops: SESENA '12, WSN4ITS '12, GeoHCI '13, and the Middleware '12 doctoral symposium.

8.1.2. Leadership Services in Academic Events and Edited Journals

- Nelly Bencomo is Student Volunteers Co-Chair at ICSE 2012;

- Nikolaos Georgantas is associate editor of the International Journal of Ambient Computing and Intelligence (IJACI);

- Nikolaos Georgantas is associate editor of the international journal Conference Papers in Computer Science;

- Valérie Issarny is member of the Steering Committee of the Middleware and ESEC/FSE conferences;

- Valérie Issarny is associate editor of the Springer JISA Journal of Internet Services and Applications;

- Valérie Issarny is the general chair of the ESSoS 2013 International Symposium on Engineering Secure Software and Systems; and

- Animesh Pathak is the Production Chair of HiPC 2012 & 2013.

8.1.3. Other Academic Services

- Nikolaos Georgantas is member of the PhD monitoring committee at Inria Paris-Rocquencourt;

- Valérie Issarny acted as Paris Node director of the EIT ICT Labs KIC from January to September 2012;

- Valérie Issarny is coordinator of the EC FP7 FET IP CONNECT;

- Valérie Issarny is scientific leader of the EC FP7 IP CHOReOS;

- Valérie Issarny is expert for the EC FP7 ICT work programme, and ARTEMIS Joint Undertaking;
- Valérie Issarny is member of the INRETS scientific council (IFSTTAR since 2011) & "Commission d'évaluation des chercheurs";
- Valérie Issary is member of the GDR GPL scientific council;
- Valérie Issarny is member of the evaluation committee of ANR BlancJCJC'12, of Swedish Research Council subcommittee for Computer Science'2012 and Vienna Science and Technology Fund'2012; and
- Animesh Pathak is member of review board for EIT ICT labs 2013 call, Smart Spaces, and Cyber-Physical Systems tracks.

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

Valérie Issarny gives a 12 hours lecture on "Pervasive Service Oriented Computing" as part of the SWAS lecture of the Master 2 COSY of the University of Versailles Saint-Quentin en Yvelines;

Animesh Pathak co-taught a M2 level course on "Web sémantique, contenus et usages" at University of Versailles Saint-Quentin-en-Yvelines in Spring 2012; and

Animesh Pathak gave two three-hour guest lectures at CNAM, Paris as part of a M2 level course.

8.2.2. Supervision

In 2012, the following student successfully defended his PhD: Nebil Ben Mabrouk, *"QoS Service Oriented Middleware for Pervasive environments"*, defended April 2012, advised by Nikolaos Georgantas and Valérie Issarny

Additionally, the following PhD theses are currently in progress at the ARLES project-team:

- Emil Andriescu, *"Synthèse et déploiement dynamiques de protocoles de médiation pour l'interopérabilité dans les environnements collaboratifs nomades"*, started October 2012, advised by Valérie Issarny
- Dionysis Athanasopoulos, *"Evolution and Maintenance in Service-oriented Software"*, started October 2008, advised by Apostolos Zarras and Valérie Issarny
- Amel Bennaceur, *"Synthèse dynamique de connecteurs pour les réseaux ubiquitaires"*, started October 2009, advised by Valérie Issarny
- Benjamin Billet, *"Self-adaptive Streaming Middleware for the Internet of Things"*, started October 2012, advised by Valérie Issarny
- Sara Hachem, *"Middleware pour l'Internet des objets intelligents"*, started October 2012, advised by Animesh Pathak and Valérie Issarny
- Pankesh Patel, *"Enabling High-Level Application Development in Sensing-and-Actuation-augmented Pervasive Systems*, started October 2010, advised by Animesh Pathak and Valérie Issarny

8.2.3. Juries

Valérie Issarny served on the PhD jury of two students: Ahmed Gater (May 2012, UVSQ), and Ajay Kattepur (November 2012, U. Rennes I)

ASAP Project-Team

9. Dissemination

9.1. Scientific Animation

A.-M. Kermarrec was the chair of the ACM Software System Award Committee.

A.-M. Kermarrec is a member of the scientific committee of the Société Informatique de France

A.-M. Kermarrec gave an invited seminar at the University of Lisbon is September 2012

A.-M. Kermarrec is a member of the steering committee of Eurosys.

A.-M. Kermarrec is a member of the steering committte of Middleware

A.-M. Kermarrec is a member of the steering committte of the SNS workshop

A.-M. Kermarrec is a member of the steering committte of the Winter School on hot topics in distributed systems

A.-M. Kermarrec is a member of the IEEE Internet Computing Editorial Board

A.-M. Kermarrec co-organized the Workshop Inria/Technicolor on distributed storage systems, Nov. 2012

A.-M. Kermarrec was an expert for WWTF (Vienna Science and Technology Fund) in 2012.

A.-M. Kermarrec is a member of the Inria scientific board (Bureau du comité des projets) in Rennes

A.-M. Kermarrec served in the program committees for the following conferences:

Eurosys 2012 : Bern, Swizerland, April 2012

Middleware 2012 : *ACM/IFIP/USENIX International Conference on Middleware*, Montreal, Canada, December 2012

DEBS 2012 : *ACM International Conference on Distributed Event-Based Systems*, Berlin, Germany, July 2012.

LADIS 2012 : *Large-Scale Distributed Systems and Middleware*, Madeira, Portugal, July 2012

VLDB 2013 : *International Conference on Very Large Data Bases*, Trento, Italy, August 2013.

SIGMOD 2013 : *ACM International Conference on Data Management*, NYC, USA, June 2013.

ICDCS 2013 : *International Conference on Distributed Computing Systems*, Philadelphia, USA, July 2013.

M. Raynal was program co-chair of ICDCN 2013, 14th International Conference on Distributed Computing and Networking, Mumbai, January 2013.

M. Raynal served in the program committees for the following conferences:

ICDCN 2012 *13th Int'l Conference on Distributed Computing and Networking (ICDCN'12)*, Hong-Kong, Hong Kong, January 3-6, 2012.

WTTM 2012 *4th Workshop on the Theory of Transactional Memory (WTTM'12)*, (satellite workshop of PODC'12), Madeira, 2012.

DISC 2012 *26th Int'l Symposium on Distributed Computing (DISC'12)*, Salvador, Brazil, 2012.

ICDCS 2012 Liaison Co-Chair, *32th IEEE Int'l Conference on Distributed Computing Systems (ICDCS'12)*, Macau, June, 2012.

D. Frey co-chaired the Workshop on Social Networks Systems colocated with Eurosys, Bern, April 2012.

D. Frey was program co-chair of ICDCN 2013, 14th International Conference on Distributed Computing and Networking, Mumbai, January 2013.

D. Frey served in the technical program committee of the following conferences:

Middleware 2012: *ACM/IFIP/USENIX International Conference on Middleware*, Montreal, Canada, December 2012.

P2P 2012: *The 12th IEEE International Conference on Peer-to-Peer Computing* Tarragona, Spain, September, 2012.

SSS 2012: *The 14th International Symposium on Stabilization, Safety, and Security of Distributed Systems* Toronto, Canada, October 2012.

IPDPS 2013: *IEEE International Parallel & Distributed Processing Symposium*, Boston, Massachusetts USA, May 2013.

A. Boutet served in the technical program committee and shadow program committee for the following conferences:

CyberC 2012: *International Conference on Cyber-enabled distributed computing and knowledge discovery*, Sanya, China, October 2012.

Eurosys 2013: *The European Conference on Computer Systems*, Prague, Czech Republic, April 2013.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Licence (bachelor) courses:

Marin Bertier, Programmation C, 26h, niveau L3, INSA de Rennes, France.

Marin Bertier, Unix, 20h, niveau L3, INSA de Rennes, France.

Marin Bertier, Programmation Scheme, 36h, niveau L1, INSA de Rennes, France.

Master courses:

Anne-Marie Kermarrec, P2P Systems and Applications, 15h, M2, Université of Rennes 1, France.

Anne-Marie Kermarrec, Gossip-based computing, 5 hours, M2, University of San Sebastian, Spain.

Marin Bertier, Algorithmique distribuée, 16h, niveau M2, INSA de Rennes, France.

Marin Bertier, Système d'exploitation, 56h, niveau M1, INSA de Rennes, France.

Marin Bertier, Parallélisme, 20h, niveau M1, INSA de Rennes, France.

Davide Frey, Scalable Distributed Systems, 10 hours, M2, Université de Rennes 1, France.

Mathieu Goessens, Managing students projects, M2 MIAGE, Université of Evry, France, worked with Delphine Lebédel (Mozilla corporation).

Doctoral courses:

Anne-Marie Kermarrec, Large-scale distributed systems, 28h, EPFL, Switzerland

A.-M. Kermarrec, lecture at the METIS Spring School, Tanger, Marocco.

9.2.2. Supervision

PhD: Damien Imbs, "Calculabilité et conditions de progression des objets partagés en présence de défaillances", Universtité de Rennes 1, April, 2012, advised by Michel Raynal

PhD: Afshin Moin, "Les techniques de recommandation et de visualisation pour les données A Une Grande Echelle", Universtité de Rennes 1, July, 2012, advised by Anne-Marie Kermarrec .

PhD in progress: Mohammad Alaggan, "Private similarity computation in user-centric peer-to-peer systems"; October 1 2010; Anne-Marie and Sébastien Gambs; MENRT Grant.

PhD in progress: Antoine Boutet, Inria Grant (ERC) (2009-2012)

PhD in progress: Tyler Crain, Marie Curie European Grant (2010-2013)

PhD in progress: Ali Gouta, CIFRE ORANGE (2012-2015)

PhD in progress: Arnaud Jégou, Inria Grant (ERC) (2010-2013)

PhD in progress: Eleni Kanellou, "Liveness in Transactional Systems"; September 2011; Michel Raynal; Marie Curie European Grant (2010-2013)

PhD in progress: Konstantinos Kloudas, Inria CORDIS Grant (2009-2012)

PhD in progress: Julien Stainer, MENRT Grant (2011-2014)

PhD in progress: Antoine Rault, "Privacy through decentralization"; October 1, 2012; Anne-Marie Kermarrec, Davide Frey; Inria/Region Grant.

PhD in progress: Alexandre van Kempen, CIFRE TECHNICOLOR (2009-2012)

9.2.3. Juries

Anne-Marie Kermarrec was a member of the following PhD Juries.

Joao Leitao, University of Lisbon, Portugal, August 2012

Adrien Friggeri, ENS Lyon, June 2012

Hervé Baumann, University Paris Diderot, September 2012

Sergey Legtchenko in University Pierre et Marie Curie, October 2012

Raphaël Fournier in University Pierre et Marie Curie, December 2012

Qinna Wang, ENS Lyon, August 2012

Anne-Marie Kermarrec was a member of the following HdR Juries.

Arnaud Legout, Inria Sophia, 20/01/2012

François Taïani was a member of the following PhD juries.

Matthew Leeke, Towards the Design of Efficient Error Detection Mechanisms, The University of Warwick (UK), 16/2/2012 (external examiner)

Simon Meyffret, Local And Social Recommendation In Decentralized Architectures, INSA de Lyon / LIRIS (F), 7/12/2012 (rapporteur)

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

9. Dissemination

9.1. Scientific Animation

9.1.1. Event organization, animation of scientific community

9.1.1.1. International

- **Aspect-oriented Software Association (AOSA):** Mario Südholt has been the chair of this international organization (headquarted in California) since 2011
- **COST Action:** Jean-Marc Menaud is a management committee member of the European COST Action IC0804: Energy efficiency in large scale distributed systems from 2009 to 2013.
- **Grid'5000 Winter School.** A. Lèbre has been the general chair of the 5th edition of the Grid'5000 winter school organized by EMN, the LINA laboratory and Inria in Nantes, December 3-6 2012 (70 attendees). https://www.grid5000.fr/mediawiki/index.php/Grid5000:School2012.
- **OW2:** Jean-Marc Menaud has been a member of the OW2 board committee since 2010.

9.1.1.2. National

- **COMIN Labs laboratory of Excellence:** Jean-Marc Menaud has been the co-coordinator of the focus on Energy and resource efficiency in ICT since Jun. 2011. Mario Südholt has been co-coordinating the Security focus of COMIN Labs.
- **Enterprise Information Systems in the Cloud.** M. Südholt has been part of the organization committee of this event organized by the Images&Networking competitivity cluster in Sep, 2012. He has also given an invited lecture there on the foundations of the Cloud.
- **Eco-conception of software.** J.-M. Menaud co-organized the first event on *Eco-conception des logiciels* in Nantes, and an event on *Efficacité énergétique : comment monitorer et quels sont les impacts sur les applications ?* in Lyons.
- **Software Product Line series of events.** J.-C. Royer started a steering committee for the *Journée lignes de produits logiciels*, which took place in Lille, November 6, http://www.jldp.org/2012

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

- **P. Cointe:** He is the head of the LINA computer science laboratory (UMR 6241)http://www.lina.univ-nantes.fr/. As such he was involved in the CominLabs (labex) proposal.

  He is a member of the board of the Doctoral School MATISSE in Rennes as well as the selection and evaluation committee and the board of the cluster Images & Réseaux. He is the chair of the STIC-MATHS committee working for the Pays de la Loire Council (CCRRDT) and the PRES L'UNAM.

- **A. Lèbre** has been the program chair of the 6th international workshop on "Virtualization Technologies in Distributed Computing" (VTDC 2012) co-located with HPDC 2012 in Delft, the Netherlands. He also was a member of the program committee of the IEEE International Conference on Cloud and Green Computing (CGC 2012). He also took part to several reviewing processes for the IEEE Transactions on Parallel and Distributed Systems Journal, the Concurrency and Computation: Practice and Experience Journal, the French journal *Technique des Sciences Informatiques* and has been involved as external reviewers for the ISPA, the ICPADS and the Europar conferences.

- **T. Ledoux** was a member of the program committees of the following conferences: 3rd International Workshop on Green and Cloud Management (GCM'12), 11th International Workshop on Adaptive and Reflective Middleware (ARM'12), Second International Conference on ICT as Key Technology against Global Warming (ICT- GLOW'12), 28th Symposium On Applied Computing (SAC'13) - track Software Engineering Aspects of Green Computing.

  He is a member of the board of the Regional Doctoral School STIM. He is a member of the board of the Follow-up committee of the PhD theses at LINA.

- **J.-M. Menaud** has served on the program committee of the 7th Workshop on Virtualization in High-Performance Cloud Computing (VHPC'12), the first International Workshop on Cloud and Grid Interoperability (Cloud&Grid 2012), the IEEE/ACM Inter. Conference on Green Computing and Communications (GreenCom2012), the Eighth Advanced International Conference on Telecommunications (AICT 2012), the Second International Conference on Smart Grids, Green Communications and IT Energy-aware Technologies (ENERGY 2012), the first International Conference on Smart Grids and Green IT Systems (SMARTGREENS 2012), the second International Conference on ICT as Key Technology against Global Warming (ICT-GLoW 2012), the first Workshop on Collaborative and Autonomic Green computing (CAGing 2012) and the French Conference *NOuvelles Technologies de la REpartition* (NOTERE'12). He was a reviewer for the International Journal of Computer and Telecommunications Networking (COMNET), the International Journal of the Electronics and Telecommunications Research Institute, and the International Journal on Transactions on Parallel and Distributed Systems.

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

- **J. Noyé** co-organized the 7th international workshop on "Domain-Specific Aspect Languages" (DSAL 2012) co-located with AOSD 2012 in Potsdam, Germany.

- **J-C. Royer:** He is a member of the editorial board of the journal TSI. He was a member of the program committee of CAL 2012 and CIEL 2012 and did reviews for the SPLC conference, and the RNTI and SoSym journals.

- **M. Südholt** is the chair of the international association of AOSD. He is a member of the steering committees of the international conferences AOSD and Software composition. He is also a member of the editorial board of the international journal "Transactions of AOSD", which is published by Springer Verlag.

  He was a member of the program committes of the international conferences GPCE'12 and AOSD'12 as well as of 2 international and 2 national workshops.

  He is a member of the council of the *Laboratoire Informatique de Nantes Atlantique* (LINA, UMR 6241). He also serves on the selection and evaluation committee of the competitiveness cluster Images & Réseaux. Finally, he is a member of the governing board of AOSD-Europe, the European Network of Excellence in AOSD.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

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

- The team is a main contributor to the **engineering program of EMN**.
- Within this engineering program, the team is steering, chairing and the main contributor to a final-year **graduate-level informatics specialization**.
- Since 2009 our team has defined and set up a new three-year **engineering program on software engineering**

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

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

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

m members have taught each for about 190 hours on average in 2012 (hours of presence in front of students). Hereby, we have taken into account that researchers and some professors have not taught at times and that part of the program is taught by temporary staff.

9.2.2. Supervision

The team has been supervising 16 PhD thesis in 2012, of which four have been co-supervised with external partners (three with foreign partners from U. Chile; TU Darmstadt, Germany; Lancaster U., U.K.) and one with the French TASC team from EMNantes.

One PhD has been defended in Sep. 2012, Remy Pottiers thesis on "Approche langage pour l'administration d'infrastructures virtualisées".

Two members of the team have started preparing an HDR in 2012 for defense in 2013.

9.2.3. Juries

- **A. Lèbre** was member of the PhD committee of Sheheryar Malik (University of Nice).
- **J.-M. Menaud** was a reviewer of the PhD of Sheheryar Malik, Nice University, and member of the PhD committees of Xavier Etchevers, Grenoble University, and Eugen Feller, Rennes University.
- **J-C. Royer** was a reviewer of the PhD of Alfred Sanogo, Université Paris Nord, and a member of the PhD committees of Rémy Pottier, EMN, and Takoua Ben-Rouhma, Université Paris Sud.
- **M. Südholt** was a reviewer of the PhD of Arjan De Roo, university of Twente, the Netherlands.

ATLANMOD Team

9. Dissemination

9.1. Scientific Animation

9.1.1. Organization

In 2012, the AtlanMod team has coorganized the following events:

- J. Cabot has coorganized the OCL and Textual Modeling Workshop (OCL'12) [6] co-located with the MoDELS conference.
- J. Cabot has coorganized the CloudMDE workshop, the First International Workshop on Model-Driven Engineering on and for the Cloud, co-located with ECMFA 2012.

9.1.2. Steering Committees

Participation in Steering Committees of Research Conferences:

- Jordi Cabot: International Conference on Model Transformation

9.1.3. Editorial Boards

Participation to editorial boards of scientific journals:

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

9.1.4. Reviewing of International Journals

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

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

9.1.5. Program Committee members

Participation to conference program committees:

- Fabian Buettner:
  - International: Workshop on the Analysis of Model Transformations (AMT), Model-Driven Security Workshop (MDSec).
- Jordi Cabot:
  - International: World Wide Web Conference, International Conference on Model-Driven Engineering Language and Systems, Software Language Engineering conference, European Conference on modeling foundations and applications, International Conference on Web Engineering, Transformation Tool Contest, International Conference on Conceptual Modeling, International Conference on Advanced Information Systems Engineering, eXtreme Modeling workshop, Model-Driven Engineering for High Performance and CLoud computing workshop, Model Driven Web Engineering Workshop.

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[6] http://st.inf.tu-dresden.de/OCL2012/

- – National: French national conference on MDE, Spanish national conference on MDE.
- Javier Canovas:
  - – International: International Workshop on Modeling Social Media.
  - – National: French national conference on MDE, Spanish national conference on MDE.
- Massimo Tisi:
  - – International: International Conference on Engineering of Complex Computer Systems, International Conference on Current Trends in Theory and Practice of Computer Science, International Conference on Software Engineering and Advanced Applications, International Conference on Web Information Systems and Technologies, International Conference on Model Transformation, Transformation Tool Contest, Workshop on Domain-Specific Modeling, Extreme Modeling Workshop, Academics Modelling with Eclipse Workshop.

9.1.6. Research Evaluation Committees

- Jordi Cabot:Reviewer for Spanish CICYT Research Projects Call, Reviewer for the National Dutch Projects Call

9.1.7. Awards

The team got a price while participating in a hackathon organized as part of the SoTeSoLa 2012 Summer School. The objective was to perform useful reverse engineering tasks from a given base of legacy source code. The AtlanMod team (Hugo Bruneliere) and the Public Research Center Henri Tudor - Luxembourg (Jean-Sebastien Sottet, a former AtlanMod post-doc) worked together and proposed a model-based prototype using the MoDisco and ATL tools developed within the team. Javier Canovas got the best paper award in the National Spanish conference on MDE [32]

9.2. Teaching - Supervision - Juries

9.2.1. Invited Talks

Jordi Cabot gave an invited lecture in the 12th International School on Formal Methods for the Design of Computer, Communication and Software Systems (http://www.sti.uniurb.it/events/sfm12mde/)

9.2.2. Teaching

Teaching duties of AtlanMod members done in 2012 involved the following courses:

License: J. Cabot is in charge of a 24-hour course on MDE in the CS degree at the Ecole des Mines de Nantes .

Seminar: J. Canovas. Software modernization in Eclipse, 3h, Universidad de Cádiz, Spain.

Master: J. Canovas. Model-Driven Software Development, 2h, L1, Universidad Autónoma de Madrid, Spain

License: M. Tisi, Programmation Modulaire, 12h, L2, Ecole des Mines de Nantes

License: M. Tisi, Structures de Données, 15h, L3, Ecole des Mines de Nantes

License: M. Tisi, Interaction Homme-Machine, 15h, M1, Ecole des Mines de Nantes

License: M. Tisi, UML, 20h, M1, Ecole des Mines de Nantes

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

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

License: M. Tisi, Programmation, 40h, L3, Ecole des Mines de Nantes

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

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

9.2.3. Supervision

HdR : Jordi Cabot, MDE 2.0 - Pragmatic Formal model verification and other challenges, ED-STIM Ecole des Mines de Nantes, 12/09/2012

PhD in progress : Carlos A. González, Pragmatic Model Verification, October 1st, 2011, Jordi Cabot

PhD in progress : Salvador Martínez Pérez, Automatic reconstruction and analysis of semantic network security policies from deployed security components, November 1st, 2011, Jordi cabot and Frédéric Cuppens

PhD in progress : Valerio Cosentino, Extraction and refactoring of Business Logic from Legacy Applications, December 1st, 2010, Jordi Cabot, Patrick Albert

9.2.4. Juries

Jordi Cabot was a member of the jury of the thesis of Thang Quyet Pham (Telecom Bretagne).

9.3. Popularization

9.3.1. Introductory book to Model-Driven Engineering

Jordi Cabot has co-written the book "Model-Driven Software Engineering in Practice" (published by Morgan and Claypool) [9], an introductory book to the domain of model driven engineering that discusses how approaches based on modeling can improve the daily practice of software professionals. The book is being used in more than 10 different universities as basic teaching material for MDE courses at the moment.

9.3.2. Dissemination to the local community

As part of our commitment to the Eclipse community (cf. next subsection), we co-organized again this year (together with the Obeo company) an Eclipse DemoCamp event in Nantes to promote the new Eclipse Juno version's release. The Eclipse DemoCamps are an opportunity to showcase all of the technology being built by local Eclipse community members, as well as an excellent opportunity to meet other Eclipse enthusiasts in the region (notably industrial actors) and present them some of the Eclipse-based technologies developed by the team in the context of our research works. This year, we have notably presented during the event our three latest prototypes: Collaboro, EMFtoCSP and Virtual EMF.

Also, we have been invited to present our team and its activities to the Board of Architects of Steria Ouest (premises located in Nantes). We described them our main research fields and experiments in term of modeling, and raised some real interest from their side. Concretely, this has resulted in a first successful collaboration with them that happened this year (cf. related subsection).

9.3.3. Involvement in the worldwide Open Source Community via Eclipse

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

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

- Leading of the MDT MoDisco project (Hugo Bruneliere), the Eclipse reference project concerning model-driven reverse engineering;
- Commitment to other projects directly under *Eclipse.org*: MMT ATL and EMFT EMF Facet (Hugo Bruneliere);
- Commitment to other projects under *EclipseLabs*: EMFToCSP (Jordi Cabot, Carlos Gonzalez) and Virtual EMF (Caue Clasen, Jordi Cabot);

- Creation and development of a new incubation project under *Eclipse Labs*: Collaboro (Javier Canovas);

- Organization of an official Eclipse DemoCamp in Nantes, on the 28th of June 2012, for locally promoting the Eclipse Juno release including the MoDisco, ATL and EMF Facet team's projects (Hugo Bruneliere, in collaboration with the Obeo company);

- Publication of a paper on MoDisco in the European ERCIM NEWS Journal 88, dedicated to Software Evolution (Hugo Bruneliere and Jordi Cabot, in collaboration with the Mia-Software company);

- Presentation of talks during the two main Eclipse events (Hugo Bruneliere): at EclipseCon North America 2012 about EMF Facet, at EclipseCon Europe 2012 about Collaboro.

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

CIDRE Project-Team

9. Dissemination

9.1. Scientific Animation

Ludovic Mé acts as a

- member of the editorial board of the « Journal in Computer Virology », Springer (http://www. springer.com/computer/journal/11416).

- member of the steering committee of the « 7ème Conférence sur la Sécurité des Architectures Réseaux et Systèmes d'Information (SAR-SSI 2012) » held in May 2012 in Cabourg, France (https:// sarssi2012.greyc.fr/).

- member of the steering committee of the « 15th International Symposium on Research in Attacks, Intrusions and Defenses (RAID 2012) » held in September 2012 in Amsterdam, The Netherlands (http://www.raid2012.org/).

- member of the steering committee of the « Computer & Electronics Security Applications Rendez-vous - Cloud and Security, threat or opportunity ? (C&ESAR 2012) » held in November in Rennes, France (http://www.cesar-conference.org/).

- member of the program committee of the « 5th SETOP International Workshop on Autonomous and Spontaneous Security (SETOP 2012) » held in September 2012 in Pisa, Italy (http://sesar.dti.unimi. it/SETOP2012/).

- member of the program committee of the « 7th International Conference on Risks and Security of Internet and Systems (CRiSIS 2012) » held in October 2012 in Cork, Ireland (http://4c.ucc.ie/ crisis2012/).

- member of a DGA's scientific committee.

Emmanuelle Anceaume acts as a

- member of the International Evaluation Panel of the Call 2012 for the topic Context- and Content-Adaptive Communication Networks of the CHIST-ERA, a European Network of Research

- member of the program committee of the « 11th IEEE International Conference on Ubiquitous Computing and Communications (IUCC 2012) » held in June 2012 in Liverpool, England (http:// scim.brad.ac.uk/~hmibrahi/IUCC2012/).

- member of the program committee of the « 11th IEEE International Conference on Trust, Security and Privacy in Computing and Communications (TrustCom-2012) » held in June 2012 in Liverpool, England (http://www.scim.brad.ac.uk/~hmibrahi/TrustCom2012/).

- member of the program committee of the « 7th International Conference on Frontier of Computer Science and Technology (FCST-12) » held in November 2012 in Suzhou, China (http://trust.csu.edu. cn/conference/fcst2012/).

- member of the program committee of the « 9th FTRA International Conference on Secure and Trust Computing, data management, and Applications (STA 2012) » held in September 2012 in Gwangju, Korea (http://www.ftrai.org/sta2012/).

- external reviewer for the IEEE Transactions on Parallel and Distributed Systems journal, the ACM Transactions on Autonomous and Adaptive System journal, and the ACM Transactions on Systems, Man, and Cybernetics (Part A: Systems and Humans).

Christophe Bidan acts as a

- member of the program committee of the « 7th Conference on Network Architectures and Information Systems Security (SAR-SSI 2012) » held in May 2012 in Cabourg, France (https://sarssi2012.greyc.fr/).

- member of the program committee of the « 8th International Conference on Security and Privacy in Communication Networks (SecureComm 2012) » held in September 2012 in Padua, Italy (http://securecomm.org/2012/show/home).

- member of the program committee of the « 5th International Workshop on Autonomous and Spontaneous Security (SETOP 2012) » held in September 2012 in Pisa, Italy (http://sesar.dti.unimi.it/SETOP2012/).

Sébastien Gambs acts as a

- leader of the action line on « Privacy, Security and Trust in the Information Society » from EIT ICT labs (until September 2012).

- member of the editorial board of International Journal of Data Mining, Modelling and Management (http://www.inderscience.com/browse/index.php?journalID=342#board).

- member of the editorial board of International Journal of Privacy and Health Information Management (http://www.igi-global.com/journal/international-journal-privacy-health-information/41027).

- co-organizer of a panel on « Location-based services and privacy: are we moving in the right direction ? (6th International Conference on Computers, Privacy and Data Protection - CPDP 2012) » held in January 2012 in Brussels, Belgium (http://www.cpdpconferences.org/thursday26january.html).

- member of the organization committee of the « 3ème Atelier sur la Protection de la Vie Privée (APVP 2012) » held in June 2012 in Ile de Groix, France (http://www.irisa.fr/prive/sgambs/apvp2012.html).

- member of the program committee of the « 3ème Atelier sur la Protection de la Vie Privée (APVP 2012), » held in June 2012 in Ile de Groix, France (http://www.irisa.fr/prive/sgambs/apvp2012.html).

- member of the program committee of the « 4th International Workshop on SEcurity and SOCial Networking (SESOC 2012) » held in March 2012 in Lugano, Switzerland (http://www.sesoc.org/home.htm).

- member of the program committee of the « Workshop on Privacy and Anonymity for the Digital Economy (PADE 2012) » held in June 2012 in London, United Kingdom (http://pade12.mytestbed.net/).

- member of the program committee of the « 10th International Conference on Privacy, Security and Trust (PST 2012) » held in July 2012 in Paris, France (http://www.unb.ca/pstnet/pst2012/).

- member of the program committee of the « 1st International Workshop on Citizen Sensor Networks (CitiSen 2012) » held in August 2012 in Montpellier, France (https://sites.google.com/site/citisen2012/).

- member of the program committee of the « 13th Conference on Communications and Multimedia Security (CMS 2012) » held in September 2012 in Canterbury, United Kingdom (http://sec.cs.kent.ac.uk/cms2012/?page=main).

- member of the program committee of the « 7th International Workshop on Data Privacy Management (DPM 2012) » held in September 2012 in Pisa, Italy (http://www-ma4.upc.edu/DPM2012/).

- member of the program committee of the « 5th Symposium on Foundations and Practice of Security (FPS 2012) » held in October 2012 in Montréal, Canada (http://conferences.telecom-bretagne.eu/fps2012/).

- member of the program committee of the « 5th ACM SIGSPATIAL International Workshop on Location-Based Social Networks (LBSN 2012) » held in November 2012 in Redondo Beach, USA (http://www.cs.umb.edu/~gghinita/LBSN12/).
- external reviewer for GeoProcessing 2012 (Conference on Advanced Geographic Information Systems, Applications, and Services), CCS 2012 (19th ACM Conference on Computer and Communications Security), the Neural Computation journal, IEEE Transactions on Parallel and Distributed Systems, Journal of Parallel and Distributed Computing and Information Systems.

Gilles Guette acts as a

- member of the program committee of the « Symposium sur la sécurité des technologies de l'information et des communications (SSTIC 2012) » held in June 2012 in Rennes, France (https://www.sstic.org/2012/news/).

Guillaume Hiet acts as a

- member of the program committee of the « 15th International Symposium on Research in Attacks, Intrusions and Defenses (RAID 2012) » held in September 2012 in Amsterdam, The Netherlands (http://www.raid2012.org/).

Michel Hurfin acts as a

- member of the editorial board of the « Springer Journal of Internet Services and Applications » (http://www.springer.com/computer/communications/journal/13174).
- member of the program committee of the « 3rd International Workshop on Interconnections of Wireless Sensor Networks (IWSN 2012) » held in May 2012 in Hangzhou, China (http://iwsn2012.gforge.uni.lu/index.html).
- member of the program committee of the « 4th International Workshop on Workflow Management in Service and Cloud Computing (WMSC2012) » held in November 2012 in Xiangtan, China (http://kpnm.hnust.cn/confs/wmsc2012).
- member of the program committee of the « 11st African Conference on research In Computer Science and Applied Mathematics (CARI 2012) » held in October 2012 in Algiers, Algeria (http://www.cari-info.org/).
- external reviewer for the Elsevier Journal of Computer and System Sciences (JCSS) and PODC 2012 (31st ACM SIGACT-SIGOPS Symposium on Principles of Distributed Computing).
- member of the Inria COST-GTAI (reviewer for ADT submissions and project proposal).

Guillaume Piolle acts as a

- member of the CERNA (*Commission de réflexion sur l'éthique de la recherche en sciences et technologies du numérique d'Allistene*), ethical committee for the French research in digital sciences and technologies.
- member of the organization committee of the « 3ème Atelier sur la Protection de la Vie Privée (APVP 2012), » held in June 2012 in Ile de Groix, France (http://www.irisa.fr/prive/sgambs/apvp2012.html).
- member of the program committee of the « 3ème Atelier sur la Protection de la Vie Privée (APVP 2012), » held in June 2012 in Ile de Groix, France (http://www.irisa.fr/prive/sgambs/apvp2012.html).
- member of the program committee of the « 1st Workshop on Information Hiding Techniques for Internet Anonymity and Privacy (IHTIAP 2012) » held in June 2012 in Venice, Italy (http://www.iaria.org/conferences2012/IHTIAP.html).
- member of the program committee of the « 1st Workshop on Rights and Duties of Autonomous Agents (RDA2 2012) » held in August 2012 in Montpellier, France (https://rda2-2012.greyc.fr/).
- external reviewer for Interstices (online peer-reviewed journal of Inria - http://interstices.info/) and RAID 2012 (15th International Symposium on Research in Attacks, Intrusions and Defenses).

Nicolas Prigent acts as a

- member of the program committee of the « Symposium sur la sécurité des technologies de l'information et des communications (SSTIC 2012) » held in June 2012 in Rennes, France (https://www.sstic.org/2012/news/).

- member of the organization committee of the « Symposium sur la sécurité des technologies de l'information et des communications (SSTIC 2012) » held in June 2012 in Rennes, France (https://www.sstic.org/2012/news/).

- member of the program committee of the « 5th SETOP International Workshop on Autonomous and Spontaneous Security (SETOP 2012) » held in September 2012 in Pisa, Italy (http://sesar.dti.unimi.it/SETOP2012/).

Eric Totel acts as a

- external reviewer for RAID 2012 (15th International Symposium on Research in Attacks, Intrusions and Defenses), and CRISIS 2012 (7th International Conference on Risks and Security of Internet and Systems).

Frédéric Tronel acts as a

- member of the program committee of the « Symposium sur la sécurité des technologies de l'information et des communications (SSTIC 2012) » held in June 2012 in Rennes, France (https://www.sstic.org/2012/news/).

- member of the organization committee of the « Symposium sur la sécurité des technologies de l'information et des communications (SSTIC 2012) » held in June 2012 in Rennes, France (https://www.sstic.org/2012/news/).

- external reviewer for RAID 2012 (15th International conference Recent Advances on Intrusion Detection) and PODC 2012 (31st ACM SIGACT-SIGOPS Symposium on Principles of Distributed Computing).

Valérie Viet Triem Tong acts as a

- member of the program committee of the « FTRA International Conference on Advanced IT, engineering and Management (FTRA AIM 2012) » held in February 2012 in Seoul, Korea (http://web.ftrai.org/aim2012/home).

- external reviewer for the IEEE Transactions on Network and Service Management journal (TNSM), the Technique et Science informatiques Journal (TSI), and the British Journal of Applied Science & Technology.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Ludovic Mé is Professor at Supélec:

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

Master: "Intrusion detection", 9 hours of lecture, M2 - Master research, Rennes, France

Master: "Intrusion detection", 8 hours of lecture, M2 - Master Pro SSI, université de Rennes 1, France

Master: "Intrusion detection", 9 hours of lecture, M2 - Master SSI, Supélec & Télécom Bretagne, France

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

Christophe Bidan is Professor at Supélec:

Licence: "Programming models", 13 hours, L3 - first year of the engineer degree, Supélec, France

Licence: "Foundations of computer science, data structures and algorithms", 40 hours including 18 hours of lecture, L3 - first year of the engineer degree, Supélec, France

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

Master: "Software engineering", 22 hours, M1 - second year of the engineer degree, Supélec, France

Master: "Supervision of student project", 9 hours, M1 - second year of the engineer degree, Supélec, France

Master: "Introduction to security threat", 4.5 hours of lecture, M2 - third year of the engineer degree, Supélec, France

Master: "Cryptography", 44 hours including 18 hours of lecture, M2 - third year of the engineer degree, Supélec, France

Master: "Audit technique Web", 3 hours, M2 - third year of the engineer degree, Supélec, France

Sébastien Gambs is Associate Professor at Université de Rennes 1:

Master: « Protection of Privacy », 32 hours including 16 hours of lectures, M2 - Master Pro SSI, université de Rennes 1, France

Master: « Topics on Authentication », 16 hours of lectures, M2 - Master Pro SSI, université de Rennes 1, France

Master: Supervision (50%) of the master thesis of Simon Boche, Antoine Rault and Mohammed Ghesmoune from February to June

Gilles Guette is Associate Professor at Université de Rennes 1:

Master: « System and Network Security », 48 hours, M1 - second year of the engineer degree; speciality Automation, ESIR, France

Master: « Supervision of student project », 12 hours, M1 - second year of the engineer degree; speciality Telecommunication and Network, ESIR, France

Master: « Network Security », 40 hours, M2 - third year of the engineer degree; speciality Telecommunication and Network, ESIR, France

Master: « System and Scripting », 24 hours, M2 - third year of the engineer degree; speciality Telecommunication and Network, ESIR, France

Master: « Infrastructure Network », 20 hours, M2 - third year of the engineer degree; speciality Telecommunication and Network, ESIR, France

Master: « Supervision of student project », 20 hours, M2 - third year of the engineer degree; speciality Telecommunication and Network, ESIR, France

Master: « System and Network Security », 24 hours, M2 - third year of the engineer degree; speciality Software engineering, ESIR, France

Guillaume Hiet is Associate Professor at Supélec:

Licence: "Programming models and languages", 4 hours, L3 - first year of the engineer degree, Supélec, France

Licence: "Foundations of computer science, data structures and algorithms", 16 hours, L3 - first year of the engineer degree, Supélec, France

Master: "Introduction to SSI", 9 hours of lecture, M1 - second year of the engineer degree, Supélec, France

Master: "Supervision of student project", 9 hours, M1 - second year of the engineer degree, Supélec, France

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

Master: "Security in UNIX/Linux", 4.5 hours including 1.5 hours of lecture, M2 - third year of the engineer degree, Supélec, France

Master: "Intrusion detection sensors", 3 hours, M2 - third year of the engineer degree, Supélec, France

Master: "Alert correlation", 3 hours, M2 - third year of the engineer degree, Supélec, France

Master: "Securing an application vulnerable to buffer overflows", 8 hours, M2 - third year of the engineer degree, Supélec, France

Master: "Supervision of student project", 3 hours, M2 - third year of the engineer degree, Supélec, France

Master: "Introduction to UNIX/Linux", 3 hours, M2 - post-graduate training (master Cyber Security), Supélec, France

Master: "Securing Linux (LDAP authentication, ACL and disk encryption)", 6 hours, M2 - post-graduate training (master Cyber Security), Supélec, France

Master: "Security of Passwords", 3 hours, M2 - post-graduate training (master Cyber Security), Supélec, France

Master: "Security of Java", 3 hours, M2 - post-graduate training (master Cyber Security), Supélec, France

Master: "Intrusion detection sensors", 3 hours, M2 - post-graduate training (master Cyber Security), Supélec, France

Master: "Preparation for the ICTF competition in computer security", 12 hours, M2 - post-graduate training (master Cyber Security), Supélec, France

Master: "Securing UNIX/Linux", 7 hours of lecture, M2 - post-graduate training CQP, Supélec, Gif-sur-Yvette, France

Master: "Intrusion detection", 10 hours of lecture, M2 - post-graduate training CQP, Supélec, Gif-sur-Yvette, France

Master: "Intrusion detection (Introduction)", 20 hours including 8 hours of lecture, M2 - Master Pro SSI, université de Rennes 1, France

Master: "Intrusion detection (Introduction)", 10 hours including 4 hours of lecture, M2 - ESIR (Ecole supérieure d'ingénieur de Rennes), Université de Rennes 1, France

Guillaume Piolle is an Assistant Professor at Supélec:

Licence: « Programming models and languages », 7.5 hours, L3 - first year of the engineer degree, Supélec, France

Licence: « Foundations of computer science, data structures and algorithms », 18 hours, L3 - first year of the engineer degree, Supélec, France

Licence: « Logical systems and associated electronics », 36 hours, L3 - first year of the engineer degree, Supélec, France

Licence: « Software engineering », 18 hours, L3 - first year of the engineer degree, Supélec, France

Master: « Modelling, algorithms and programming », 20 hours, M1 - second year of the engineer degree, Supélec, France

Master: « Computer security and privacy », 11.5 hours, M1 - second year of the engineer degree, Supélec, France

Master: « Software development project », 12 hours, M1 - second year of the engineer degree, Supélec, France

Master: « C++ /Qt », 18 hours, M2 - third year of the engineer degree, Supélec, France

Master: « Security policies », 4.5 hours, M2 - third year of the engineer degree, Supélec, France

Master: « Network access protection », 3 hours, M2 - third year of the engineer degree, Supélec, France

Master: « Network supervision in Java », 18 hours, M2 - third year of the engineer degree, Supélec, France

Master: « Web development », 20 hours, M2 - third year of the engineer degree, Supélec, France

Master: « Symbolic Artificial Intelligence », 4.5 hours, M2 - third year of the engineer degree, Supélec, France

Master: « Law and computing », 11.5 hours, M2 - third year of the engineer degree, Télécom Bretagne and Supélec, France

Master: « Occupations at the law-computing interface », 4 hours, M2 - third year of the engineer degree, Télécom Bretagne, France

PhD : « Privacy and personal data protection », 9 hours, Matisse doctoral school, Rennes, France.

Master: « Legal aspects of computing », 1.5 hours, ENS Cachan (Rectorat de Rennes), Rennes, France.

Master: « Privacy and personal data protection on the Internet », 9 hours, URFIST Ouest – Université Rennes 2, France.

Nicolas Prigent is Associate Professor at Supélec:

Licence: « Programming », 20 hours, L3 - first year of the engineer degree, Supélec, France

Master: « Network programming », 15 hours, M2 - third year of the engineer degree, Supélec, France

Master: « Network programming », 11 hours, M2 - post-graduate training, Supélec, France

Master: « Computer security », 4 hours, M2 - third year of the engineer degree, Supélec, France

Master: « Computer security and pentesting », 10 hours, M2 - third year of the engineer degree, Supélec, France

Master: « Programming », 6 hours of lecture, M2 - third year of the engineer degree, Supélec, France

Master: « Python programming for computer security », 1.5 hours, M2 - third year of the engineer degree, Supélec, France

Master: « Operating systems », 12 hours of lecture, M2 - third year of the engineer degree, Supélec, France

Master: « Computer science (computability and complexity) » , 3 hours of lecture, M2 - third year of the engineer degree, Supélec, France

Master: « Operating systems (MS Windows) », 20 hours of lecture, M2 - post-graduate training, Supélec, France

Master: « Security », 17 hours including 9 hours of lecture, M2 - post-graduate training, Supélec, France

In-house training: "Computer networks", 6 hours including 3 hours of lectures

Eric Totel is Associate Professor at Supélec:

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

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

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

Master: « C language », 24 hours including 6 hours of lecture, M2 - master SSI (Sécurité des systèmes d'information), Supélec, France

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

Master: « Dependability », 6 hours including 4.5 hours of lecture, M2 - third year of the engineer degree and master research, Supélec, France

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

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

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

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

Master: Supervision (50%) of the master thesis of Erwan Godefroy

Master: Supervision (50%) of the master thesis of Pierre Karpman

Frédéric Tronel is Associate Professor at Supélec:

Licence: « Software engineering », 18 hours, L3 - first year of the engineer degree, Supélec, France

Master: « Operating systems », 10.5 hours of lecture, M2 - third year of the engineer degree, Supélec, France

Master: « Compilation », 21 hours including 9 hours of lecture, M2 - third year of the engineer degree, Supélec, France

Master: « Automatic reasoning », 6 hours including 4.5 hours of lecture, M2 - third year of the engineer degree, Supélec, France

Master: « Buffer overflow vulnerabilities (theory and practice) », 15 hours including 3 hours of lecture, M2 - third year of the engineer degree, Supélec, France

Master: « Virtualization », 1.5 hours of lecture, M2 - third year of the engineer degree, Supélec, France

Master: « Firewalls », 6 hours, M2 - third year of the engineer degree, Supélec, France

Master: « Firewalls », 3 hours, M2 - post-graduate training, Supélec, France

Master: « Makefile », 3 hours, M2 - post-graduate training, Supélec, France

Master: « Calculability in distributed systems », 7.5 hours including 6 hours of lecture, M2 Master research Rennes, France

Master: « Buffer overflow vulnerabilities (theory and practice) », 6 hours including 3 hours of lecture, M2 - third year of the engineer degree, Telecom Bretagne, France

Master: Supervision (50%) of the master thesis of Pierre Karpman

Valérie Viet Triem Tong is Associate Professor at Supélec:

Licence: « Programming », 9 hours, L3 - first year of the engineer degree, Supélec, France

Master: « Computer security », 13.5 hours including 4h30 of lecture, M2 - third year of the engineer degree, Supélec, France

Master: « Game Theory », 20 hours of lecture, M1 - second year of the engineer degree, Supélec, France

Master: « Foundations of computer science », 10.5 hours of lecture, M2 - third year of the engineer degree, Supélec, France

Master: « Spontaneous networking », 3 hours of lecture, M2 - third year of the engineer degree, Supélec, France

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

Master: Valérie Viet Triem Tong is responsible for the module « Security of data and Infrastructure information systems », M2 - Master research, Rennes, France

Master: « Supervision of student training », 1 training period (6 months), M2 - Supélec, France

Emmanuelle Anceaume (CR CNRS):

> is co-responsible of the BIB and STAGE modules of the Master Research of the university de Rennes 1.

Michel Hurfin (CR Inria):

> Master: Supervision (50%) of the master thesis of Erwan Godefroy

> PhD and Post-Doc: in charge of junior researchers at Inria (training through research, relationships with doctoral schools, Support for thematic schools)

9.2.2. Supervision

The defense of the HDR of Eric Totel occurred in december 2012 while the defense of the PhD of Heverson Borba Ribeiro occurred in October 2012. At the end of 2012, fourteen theses are in progress.

> HDR: Eric Totel, « Techniques de détection d'erreur appliquées à la détection d'intrusion », Université de Rennes 1 , December 6th 2012.

> PhD: Heverson Ribeiro, « Exploiting Rateless Coding in Structured Overlays to Achieve Persistent Storage », université de Rennes 1, October 12th 2011, supervised by Emmanuelle Anceaume and Michel Hurfin.

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

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

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

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

> PhD in progress: Thomas Demongeot, « Protection des données utilisateur dans les web services », Telecom Bretagne, started in September 2008, supervised by Eric Totel (50%) and Valérie Viet Triem Tong (50%).

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

> PhD in progress: Ahmed Gmati, « Redefining the concept of privacy in privacy-preserving data mining », started in December 2010, supervised by Michel Hurfin (50%) and Sébastien Gambs (50%).

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

> PhD in progress: Geoffroy Guéguen, « Métamorphisme viral et grammaires formelles », université de Rennes 1, started in March 2011, supervised by Sébastien Josse (50% - DGA-MI) and Ludovic Mé (50%).

> PhD in progress: Christophe Hauser, « Détection d'intrusions dans les systèmes distribués », started in October 2009, in coordination with Queensland University of Technology, Brisbane, Australia, supervised by Ludovic Mé (20%) and Frédéric Tronel (80%).

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

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

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

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

Some members of the team also participate to the supervision of external PhD students. Sébastien Gambs is co-supervising Ai Thanh Ho (PhD student from the Université de Montréal, Canada), Mohammad Nabil Al-Aggan (PhD student from ASAP, Inria Rennes), Miguel Nunez del Prado Cortez (PhD student from LAAS-CNRS, Toulouse), and Moussa Traore (PhD student from LAAS-CNRS, Toulouse). Emmanuelle Anceaume is co-supervising Romaric Ludinard (PhD student from the Inria project Dionysos, Rennes).

9.2.3. *Juries*

Some members of the team have participated to PhD committees:

- Ludovic Mé was a member of the mid-term PhD committees for 3 PhD students of Télécom Sud Paris (Olivier Levillain, Nabil Hacem, and Gustavo Gonzales Granavillo). Télécom SudParis, April 2012.

- Ludovic Mé was a member of the HDR committee (reviewer) for the HDR of Carlos Aguilar entitled « Sécurité, protection de la vie privée et cryptographie : quelques contributions », Université de Limoges, XLIM, June 2012.

- Christophe Bidan was a member of the PhD committee (reviewer) for the PhD of Aymen Boudguiga entitled « Authentification dans les réseaux maillés sans-fils avec la cryptographie basée sur l'identité », Télécom SudParis, September 2012.

- Ludovic Mé was a member of the PhD committee (reviewer) for the PhD of Sheila Becker entitled « Conceptual Approaches for Securing Networks and Systems », Université du Luxembourg and Institut National Polytechnique de Lorraine, October 2012.

- Christophe Bidan was a member of the PhD committee (reviewer) for the PhD of Rim AKROUT entitled « Analyse de vulnérabilités et évaluation de systèmes de détection d'intrusions pour les applications Web », Université de Toulouse, October 2012.

- Emmanuelle Anceaume was a member of the PhD committee for the PhD of Cyril Cassagnes entitled « Architecture Autonome et Distribuée d'Adressage et de Routage pour la Flexibilité des Communications dans l'Internet », Université de Bordeaux - LaBRI, November 2012.

- Christophe Bidan was a member of the PhD committee (reviewer) for the PhD of Nassima KAMEL entitled « Sécurité des cartes à puce à serveur Web embarqué », Université de Limoges, December 2012.

9.3. Popularization

Sébastion Gambs has participated to the following activities:

- High schools: course on the security topic for the high-school professors involved in the new INS option in Bac S, École Normale Supérieure Cachan antenne de Kerlann, France.

- High schools: 5 presentations in high schools in the context of the event « à la découverte de la recherche ».

- High schools: under the supervision of the association « Math.en.Jeans », a presentation about « Definition and quantification of anonymity » has been done in Rennes and Auray.

Nicolas Prigent has participated to:

- the training of some high-school professors involved in the new INS option in Bac S, École Normale Supérieure Cachan antenne de Kerlann, France.

Guillaume Piolle has participated to:

- the training of some high-school professors involved in the new INS option in Bac S, École Normale Supérieure Cachan antenne de Kerlann, France.

<p style="text-align:center">**FOCUS Project-Team**</p>

8. Dissemination

8.1. Scientific Animation

M. Bravetti: Program Committee member of the following conferences: ESOCC 2012: European Conference on Service-Oriented and Cloud Computing; SITIS 2012 (IBCS): The 8th International Conference On Signal-Image Technology and Internet-Based Systems, Track on Internet-Based Computing and Systems; WS-FMDS 12: 2nd Workshop on Formal Methods in the Development of Software; CLOUD 2012: 5th IEEE International Conference on Cloud Computing; ICST 2012: 5th IEEE International Conference on Software Testing, Verification, and Validation; IADIS: International Conference on Applied Computing 2012; PLACES 2012: 5th Int. Workshop on Programming Language Approaches to Concurrency and Communication-cEntric Software; WS-FM 2012: 9th International Workshop on Web Services and Formal Methods.

Member of the editorial board of the journal J.UCS Journal of Universal Computer Science.

M. Dalla Preda: Program Committee member of the following conferences: 5th IEEE international conference Malware 2012; Software Security and Protection Workshop 2012; Workshop on Program Protection and Reverse Engineering 2012.

U. Dal Lago: Program Committee member of the following conferences: 39th International Colloquium on Automata, Languages and Programming (ICALP 2012); Third International Workshop on Developments in Implicit Complexity (DICE 2012).

Invited speaker at Second International Workshop on Linearity, Tallin, Estonia, 1 April, 2012. Guest Editors of a special number of Theoretical Computer Science devoted to DICE 2012.

Member of the organising committee of the "Logic and interactions 2012" weeks, Marseille 30 January – 2 March 2012.

M. Gaboardi: Program Committee member for the Third Workshop on Developments in Implicit Computational Complexity

Invited speaker at the ASL meeting special session on Structural Proof Theory and Computing April 2-3, 2012, Madison, USA.

I. Lanese: Program Committee member of the following conferences: 9th International Workshop on Web Services and Formal Methods (WS-FM 2012); 5th Interaction and Concurrency Experience (ICE 2012).

Co-chair of the Service Oriented Architectures and Programming track of the 27th Annual ACM Symposium on Applied Computing (SAC 2012). Workshop Co-Chair of ESOCC 2012, the European Conference on Service-Oriented and Cloud Computing 19-21 September 2012, Bertinoro, Italy.

Member of the organising committee of the 5th Interaction and Concurrency Experience (ICE 2012).

C. Laneve: Program Committee member of the following conferences: 23rd International Conference on Concurrency Theory (CONCUR); 22nd European Symposium on Programming (ESOP).

Invited speaker at 7th International Symposium on Trustworthy Global Computing Newcastle upon Tyne, UK, 7-8 September 2012.

M.Gabbrielli: Member of the editorial board of the Int'l Journal Theory and Practice of Logic Programming. Member of the program committee of the 9th International Workshop on Constraint Handling Rules; Fifteenth International Symposium on Practical Aspects of Declarative Languages (PADL'13).

Expert Committee member for 2012 EAPLS Best Ph.D. Dissertation award.

Organizer of the 2012 Bertinoro school for Ph.D. students in computer science (BISS 2012).

S. Martini: Program Committee member of the Second International Workshop on Linearity (FOPARA), Tallinn, Estonia.

Invited speaker at Pisa Summer Workshop on Proof Theory, Pisa, Italy.

D. Sangiorgi: Member of the editorial board of the journals: Logical Methods in Computer Science, Acta Informatica, and Distributed Computing, Foundations and Trends in Programming Languages.

Program Committee member of the conferences: 38th International Conference on Current Trends in Theory and Practice of Computer Science (SOFSEM); Twenty-Seventh Annual ACM/IEEE Symposium on Logic in Computer Science (LICS 2012); 39th International Colloquium on Automata, Languages and Programming (ICALP 2012),

Invited speaker at the Milner Symposium, 15-18 April 2012, Edimburgh UK, 2012 Microsoft Summer School on Concurrency, August 22-29 2012, St. Petersburg, Russia.

Co-director of the International School HATS-FMCO on Formal Models for Components and Objects, 24-28 September 2012 University Residential Center of Bertinoro, Italy.

G. Zavattaro: Program Committee member of the following conferences: 6th International Workshop on Reachability Problems; 9th International Symposium on Formal Aspects of Component Software (FACS); 4th Fourth International Conferences on Advanced Service Computing (SERVICE COMPUTATION 2012); 6th IEEE International Symposium on Theoretical Aspects of Software Engineering (TASE); 5th IEEE International Conference on Cloud Computing (CLOUD 2012).

Invited speaker at 3rd International Workshop on Interactions between Computer Science and Biology (CS2Bio'12), 16 June 2012, Stockholm, Sweden.

Member of the Editorial Board of the Journal of Software (JSW), Academy Publisher.

General Chair of ESOCC 2012, the European Conference on Service-Oriented and Cloud Computing 19-21 September 2012, Bertinoro, Italy.

8.2. 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);
- consultant of the Minister of Education on admission tests for high school professorship admission;
- the talks "Quello che i calcolatori possono e non possono fare", MassaScienza, Massa Carrara; Lingua universalis: Calcolo, informatica e linguaggio, workshop T4T, Turin; Alan Turing pioniere dell'era digitale, ScienzaGiovane, Bologna; Calcolo e simboli: la scienza digitale, Accademia delle Scienze di Bologna and Accademia di Agricoltura Scienze e Lettere di Verona;
- the paper [21].

Ugo Dal Lago and Simone Martini have given short presentations at "Scienzagiovane", a forum of science popularisation in Bologna mainly targeting high-school students.

8.3. Teaching - Supervision

8.3.1. Teaching

Below are the teaching activities of the Focus members during 2011.

- Mario Bravetti

    Undergraduate: "Tecnologie Web", 46 hours, 3rd year, University of Bologna, Italy.

    Master: "Tecnologie Web Avanzate", 46 hours, 1st or 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.

- Maurizio Gabbrielli

  Undergraduate: "Programming languages", 40 hours, 2nd year, University of Bologna, Italy.

  Master: "Artificial Intelligence", 60 hours, 2nd year, University of Bologna, Italy.

- Marco Gaboardi

  Master: "Advanced Programming", 40 hours. 1st or 2nd year. University of Pennsylvania, USA.

- Ivan Lanese

  Undergraduate: "Programmazione", 40 hours, 1st year, University of Bologna, Italy.

- Cosimo Laneve

  Undergraduate: "Programmazione", 90 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: "Types and programming languages", 40 hours, 1st year, University of Bologna, Italy.

  Master: "Basic Computability", 12 hours, 1st year and 2nd year, University of Bologna, Italy.

  Master: "Logical foundations of computer science", 40 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.

- Gianluigi Zavattaro

  Master: "Informatica Teorica", 72 hours, 1st year, University of Bologna, Italy.

  Master: "Linguaggi di Programmazione", 48 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: "Laboratorio di Operating Systems", 40 hours, 2nd year, University of Bologna, Italy.

  Undergraduate: "Attivita' di supporto alla didattica universitaria di Informatica nell'ambito della Piattaforma di e-learning A3", 130 hours, 1st year, University of Bologna, Italy.

  Undergraduate: "Laboratorio Informatica 1", 60 hours, 1st year, University of Bologna, Italy.

- Elena Giachino

  Undergraduate: "Programmazione", 40 hours, 1st year, University of Bologna, Italy.

8.3.2. *Supervision*

Completed Phd thesis:

- Jacopo Mauro, "Constraints meet concurrency". Dottorato di Ricerca in Informatica, University of Bologna, April 2012 Supervisors: M. Gabbrielli. [10]
- Claudio Mezzina, "Réversibilité dans le pi calcul d'ordre supérieur", April 2012, University of Grenoble and University of Bologna, Supervisors: Jean-Bernard Stefani and Davide Sangiorgi. [11]

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.

- Ornela Dardha, january 2011, Types for processes, D. Sangiorgi.
- Ferdinanda Camporesi, january 2009, Analysis of system biology, R. Cousot (Ecole Normale, Paris) and M. Gabbrielli
- Tudor Alexandru Lascu, january 2011, Formal methods for modelling and analyzing concurrent systems, C. Laneve and G. Zavattaro
- Jean-Marie Madiot, september 2011, Types, proofs and proof techniques for process calculi, D. Hirschkoff and D. Sangiorgi.
- Giulio Pellitta, january 2011, Implementations of geometry of interaction, S. Martini.
- Paolo Parisen Toldin, january 2010, Implicit computational complexity for probabilistic classes, S. Martini.
- Michele Alberti, december 20111; Separation results in the algebraic lambda-calculus; L. Regnier (Marseille) and S. Martini
- Marco Solieri, december 20111; Complexity of reduction in sharing graphs, S. Guerrini (Paris Nord) and S. Martini.

A few other PhD students are (co)-supervised by members of Focus, but currently are not in the Focus team (some of them might be added in 2013):

- Sara Zuppiroli (Bologna), january 2010; models for quantum computing; U. Dal Lago.
- Roberto Amadini (Bologna), january 2012, Constraint Programming, M. Gabbrielli.
- Alessandro Rioli (Bologna), january 2012; bisimulation equivalence in quantum lambda calculi; U. Dal Lago.

8.3.3. *Juries*

D. Sangiorgi has been rapporteur and member of the evaluation committee of the "Habilitation a Diriger des Recherche" (HDR) of Ludovic Henrio, Université de Nice, and Daniele Varacca, Université Paris 7.

U. Dal Lago has been rapporteur and member of the PhD jury for Antoine Madet, Université Paris 7.

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

9. Dissemination

9.1. Seminars and conferences

- **Pejman Attar** gave a talk about "Safe and Secure Concurrency" at Paris 6 University. In November 2012, he presented the work "A CPS definition of Esterel" by B. Serpette at the workshop Synchron'12 at Le Croisic.

- **Gérard Berry** gave an invited talk in April 2012, at Edinburgh, "Reconciling Semantics and Implementation", for the Milner Symposium. He gave the talk "Informatique et art, quel avenir?" at the Villa Medicis, Rome, in February. He gave an invited conference at IRCAM "Parler du temps, mais de manière formelle", in Paris in June, and "Turing et ses contemporains: machines, langages, logiques" a talk at ENS Lyon in July.

- **Ilaria Castellani** participated in the workshop CoTiCo (Contracts and Behavioural Types), in Lucca, Italy, where she presented her current work on session types for security. In October 2012, she participated in the kick-off management committee meeting of the BETTY european Action, in Brussels.

- **Cyprien Nicolas** gave a talk about Hop at a Free and Open Source Software event named *Journées Méditerranéennes du Logiciel Libre* (JM2L). JM2L are a small local event, proposing around 30 conferences over two days, and targetting general public. It welcomed around 250 participants.

- **José Santos** gave a talk about his work on information flow in the CREST Open Workshop on Interference and Dependence organized by the Department of Computer Science of the University College of London in May 2012. In June 2012, he presented the article [12] in the Programming Languages and Analysis for Security (PLAS) Workshop in Beijing, China.

- **Tamara Rezk**, presented the work on the Mashic compiler in the Computer Security Foundations conference in Harvard, Boston, June 2012. In June 2012, she chaired the PLAS workshop, Beijing. In October 2012, she was invited to the Dagstuhl Seminar *Web Application Security* where she also participated to the *JavaScript sessions*.

- **Manuel Serrano** participated in a one-week seminar in Dagstuhl on Dynamic Languages, where he gave a talk on HipHop. He also participated in a one-week IFIP seminar which took place in Austin, Texas. He gave a talk on diffuse computing.

9.2. Animation

- **Gérard Berry** is a member of the *Académie des sciences*, of the *Académie des technologies*, and the *Academia Europaea*. He is member of the steering committee of the *ANR*.

- **Ilaria Castellani** is member of the editorial board of *Technique et Science Informatiques*. She was a member of the programme committee of EXPRESS'12.

- **Tamara Rezk** was a member of the programme committees of Bytecode, PLAS (co-chair with Sergio Maffeis), ARES, and LatinCrypt. She is is a member of the programme committee of JAIIO'13. She was a reviewer for CSF'12, Crypto'12, CCS'12, and the QIF journal.

- **Manuel Serrano** is the coordinator of the ANR DEFIS project PWD. He served on the program committees of the following conferences:
    - TFP'12, Symposium on Trends in Functional Programming.
    - COORDINATION'12, 7th International Federated Conferences on Distributed Computing Techniques.

9.3. Teaching - Supervision - Juries

9.3.1. Teaching

Licence: **Johan Grande**, *Structures de données et programmation*, 6 ETD, L1, University of Nice. **Vincent Prunet**, *Algorithms and Data Structures*, 42 ETD, L2, Lycée International de Valbonne (24 hours in 2012), (Inria action to promote early CS courses in all scientific curricula).

Master: **Ilaria Castellani**, *Programmation et sécurité des applications du web*, 13.5 ETD, M2, University of Nice Sophia Antipolis. **Tamara Rezk**, *Programmation et sécurité des applications du web*, M2, University of Nice. *Programming the Diffuse Web*, 13.5 ETD, M2, University Paris 6 (UPMC), France. **Manuel Serrano**, *Programming the Diffuse Web*, 13.5 ETD, M2, University Paris 6 (UPMC), France.

PhD: **Pejman Attar** gave a 3 hour open course for PhD students on "Multi- core Languages and their problems" at the University of Eindhoven, Netherlands.

9.3.2. Supervision

PhD in progress: **Pejman Attar**, *Safe and secure reactive programming for multicore architectures*, University of Nice, 1/10/2010, **Frédéric Boussinot** and **Ilaria Castellani**.

PhD in progress: **Cyprien Nicolas**, *Orchestrating multi-tier programming languages*, University of Nice, 1/09/2010, **Gérard Berry** and **Manuel Serrano**.

PhD in progress: **Johan Grande**, *Conception et implantation d'un langage de programmation concurrente modulaire*, University of Nice, 1/10/2010, **Gérard Boudol** and **Manuel Serrano**.

PhD in progress: **Yoann Couillec**, *Langages de programmation et données ouvertes*, University of Nice, 1/10/2012, **Manuel Serrano** and **Patrick Valduriez**.

PhD in progress: **José Santos**, *Language based approach for information flow analysis in distributed mobile code*, University of Nice, 1/12/2010, **Gérard Boudol** and **Tamara Rezk**.

9.3.3. Juries

Manuel Serrano was a member of the jury of the PhD Thesis of Luca Saiu (Universities Paris 13). He was a member of the selection committee of PPS (Paris 6).

9.4. Popularization

The Web is becoming the richest platform on which to create computer applications. Its power comes from three elements: modern Web browsers enable highly sophisticated graphical user interfaces (GUIs) with 3D, multimedia, fancy typesetting, among others; calling existing services through Web APIs makes it possible to develop sophisticated applications from independently available components; and open-data availability allows access to a wide set of information that was unreachable or that simply did not exist before. The combination of these three elements has already given birth to revolutionary applications such as GoogleMaps, radio podcasts, and social networks.

The next step is likely to be incorporating the physical environment into the Web. Recent electronic devices are equipped with various sensors (GPS, cameras, microphones, metal detectors, speech commands, thermometers, motion detection, and so on) and communication means (IP stack, telephony, SMS, Bluetooth), which enable applications to interact with the real world. Web browsers integrate these features one after the other, making the Web runtime environment richer every day. The future is appealing, but one difficulty remains: current programming methods and languages are not ideally suited for implementing rich Web applications. This is not surprising as most have been invented in the 20th century, before the Web became what it is now.

Traditional programming languages have trouble dealing with the asymmetric client-server architecture of Web applications. Ensuring the semantic coherence of distributed client-server execution is challenging, and traditional languages have no transparent support for physical distribution. Thus, programmers need to master a complex gymnastics for handling distributed applications, most often using different languages for clients and servers. JavaScript is the dominant Web language but was conceived as a browser only client language. Servers are usually programmed with quite different languages such as Java, PHP, Ruby, etc. Recent experiments such as Node.js propose using JavaScript on the server, which makes the development more coherent; however, harmonious composition of independent components is still not ensured.

In 2006, three different projects, namely, GWT from Google, Links from the University of Edinburgh, and HOP from Inria (http://www.inria.fr) [4], offered alternative methods for programming Web applications. They all proposed that a Web application should be programmed as a single code for the server and client, written in a single unified language. This principle is known as multitier programming.

Links is an experimental languages in which the server holds no state and functions can be symmetrically called from both sides, allowing them to be declared on either the server or the client. These features are definitely interesting for exploring new programming ideas, but they are difficult to implement efficiently, making the platform difficult to use for realistic applications.

GWT is more pragmatic. It maps traditional Java programming into the Web. A GWT program looks like a traditional Java/Swing program compiled to Java bytecode for the server side and to JavaScript for the client side. Java cannot be considered as the unique language of GWT, however. Calling external APIs relies on Javascipt inclusion in Java extensions. GUIs are based on static components declared in external HTML files and on dynamic parts generated by the client-side execution. Thus, at least Java, Javascript, and HTML are directly involved.

The HOP language takes another path relying on a different idea: incorporating all the required Web-related features into a single language with a single homogeneous development and execution platform, thus uniformly covering all the aspects of a Web application: client-side, server-side, communication, and access to third-party resources. HOP embodies and generalizes both HTML and JavaScript functionalities in a Scheme-based platform that also provides the user with a fully general algorithmic language. Web services and APIs can be used as easily as standard library functions, whether on the server side or client side.

In order to popularize HOP, we have written a paper for targeting engineers which presents on overview of the HOP language and its development environment. It has been simultaneously published in ACM Queue and Communications of the ACM [16]. We have also given several demonstrations of the system. In particular, Cyprien Nicolas has co-developed application software for an educational cable robot (Coprin) presented at the Fête de la Science, in November. The demo consisted in a Cable bot built by a Coprin student and piloted by Hop, the software being written by a Indes student. The demo took place in front of four classes of High School students.

9.5. Transfer

9.5.1. Diffuse Robotics

Dissemination of the HOP technology has become a priority for the team now that HOP is actually used to develop large projects. In 2012, a further step was taken with the allocation of dedicated resources missioned to develop and transfer the application portfolio to the industry. The team has focused on bringing web awareness to personal assistance robots developed by the Coprin team, also at Inria CRISAM, in line with one of the top strategic orientations of Inria. Using web protocols as a native framework greatly simplifies the integration of the robot as a web entity, and the use of remote web services to manage, monitor or extend the features of the robot. The behavior of a HOP robot is specified in HOP and orchestrated within diffuse HOP run time agents embedded within the robot elements, in charge of handling communication and control between platforms and with remote web services. The project, code-named *Diffuse Robotics*, builds on the experience gained in using HOP for home automation over the recent years, adding in 2012 the support of versatile robotic computing platforms and associated mechanics and sensor hardware and a state of the art plug and play framework for

automatic device and service discovery. Among the direct benefits of relying on a web framework are the ability to use any web enabled device such as a smartphone or tablet to drive the robot. Also, it is much simpler to put in place remote diagnostic and monitoring services by leveraging on existing robot sensors and the HOP framework.

<div align="center">

LOGNET Team

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8. Dissemination

8.1. Scientific Animation

Members of the LogNet team commonly participate in the reviewing of conference and journal papers.

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

Master : Luigi Liquori, Peer-to-peer 1, 31.5hTD, M2, Université of Nice Sophia-Antipolis;

8.2.2. Supervision

PhD: Petar Maksimovic, "Development and Verification of Probability Logics and Logical Frameworks", Faculty of Technical Sciences, University of Novi Sad, Serbia and the University of Nice Sophia Antipolis, end of June 2012, Silvia Ghilezan and Luigi Liquori

PhD: Vincenzo Ciancaglini, "Extending the reach of overlay networks through distributed gateways: design, modeling and applications", Université de Nice-Sophia Antipolis, Juin 2013, Luigi Liquori, Jean-Christophe Pazzaglia (SAP).

PhD in progress: Thao Nguyen, "Trust and reputation management in online marketplaces", Université de Nice-Sophia Antipolis, November 2010, Luigi Liquori and Bruno Martin (UNICE).

PhD in progress: Riccardo Loti, "Modeling and evaluation of protocols for Delay Tolerant Networks exploiting DHT, Content driven routing, and rateless codes", Université de Nice-Sophia Antipolis and University of Turin Italy, January 2011, Luigi Liquori and Rossano Gaeta (UNITO).

PhD in progress: Giang Ngo, "Inter-heterogeneous overlay co-operation", Université de Nice-Sophia Antipolis and HUST, Hanoi Institute of Science and Technology, Vietnam, October 2011, Luigi Liquori and Nguyen Chan Hung (HUST).

8.2.3. Juries

- Referee of the Claudia Tavares Ph.d., "Un système de types pour la programmation par réécriture embarquée", Loria, 2012.

8.3. Popularization

The LogNet team has conducted a dozen circa of sessions of popularization of the myMed software (typically an "atelier de formation au réseau social myMed"). Public are typically students, administration people of many town or institutions (CG06, Mairies, Hospital, etc.).

MYRIADS Project-Team

9. Dissemination

9.1. Scientific Animation

9.1.1. Leadership, Steering Committees and community service

C. Morin is general co-chair for IEEE ISPA 2013, co-chair of track 4 on Storage, Big Data, and Cloud Computing of IEEE GreenCom 2013, tutorial chair for IEEE Cluster 2014 and the organizer of a BOF session on interoperability in cloud federations for scientific applications at SC'12 (November 2012).

A.-C. Orgerie is publication co-chair for ICPP 2013, demonstration chair for EE-LSDS 2013 (http://www.irit.fr/~Georges.Da-Costa/ee-lsds2013/) and general co-chair for ExtremeGreen 2013 (workshop in conjunction with CCGrid 2013 http://www.ens-lyon.fr/LIP/RESO/extremegreen/).

T. Priol is a member of the Editorial Board of the *International Journal of Intelligent Engineering Informatics* and of the *International Journal of Web Services Research*. He chaired the organization committee the *Let's imagine the Future* seminar organized for Jean-Pierre Banâtre's retirement celebration, November 8-9, Rennes, France.

J.-L. Pazat is the chairman of the Steering Committee of RenPar (http://www.renpar.org/).

C. Tedeschi is a member of the steering committee of the ComPAS (RenPar/SympA/CFSE) joint conference series.

9.1.2. Program Committees

R. Cascella is a program committee member of Q2SWinet 2012 (8th ACM International Symposium on QoS and Security for Wireless and Mobile Networks), IEEE VTC 2013 spring track "Wireless Networks, Access Control, and Resource Management", IEEE VTC 2013 fall track "Wireless Networks and Security".

Y. Jégou is a program committee member of IEEE TrustCom 2013 conference, and ORMaCloud workshop co-located with ACM HPDC 2013.

C. Morin is a program committee member of IEEE CC-GRID 2012, EuroPar 2012, IEEE CloudCom 2012, the International Symposium on Parallel and Distributed Computing (ISPDC) 2012 and 2013, the 4th workshop on scientific computing (ScienceCloud) and of the 4th workshop on Virtualization Technologies in Distributed Computing (VTDC) co-located with ACM HPDC in 2013, CFSE 2013, CLOSER 2013, and IEEE CC-GRID 2013.

A.-C. Orgerie is a program committee member of E2HPC2 2013, HSNCE 2013 and EE-LSDS 2013.

J.-L. Pazat is a program committee member of RenPar'21, GPC2012, CPC2012.

G. Pierre is a program committee member of CCGrid 2013, CFSE 2013, IC2E 2013, SAC 2013, DAIS 2013, CSCS19, CloudDP 2013 and ISPDC 2013.

T. Priol is a program committee member of CCGRID12, CLOUD12, CloudCom12, HPCS12, ICPP12, SC12 and VECPAR12. He will act as one of the co-chairs of the "Grids and Clouds" track of SC13.

C. Tedeschi is a program committee member of ICCS 2013, CloSer 2013 and RenPar'21

9.1.3. Evaluation committees, consulting

J.-P. Banâtre was the INRIA representative in the Contrail General Assembly until September 2012. Since October 2012, he has been a member of the Contrail Scientific Advisory Board.

Y. Jégou is a member of the Grid 5000 executive committee;

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

C. Morin acted as an expert to review proposals for the French Research Agency (ANR). She is a member of the cloud computing expert group in the Software & Service Architectures and Infrastructures unit of the European Commission. She was a member of the committee for the Inria Boost Your Code competition. She is a member of the ModaCloud European project Advisory Board.

J.-L. Pazat is the coordinator for the evaluation of submissions to international bilateral programs in the Information technology domain at Ministry of Higher Education and Research (MESR).

T. Priol has been the INRIA representative in the Contrail General Assembly since October 2012. He was a member of the Contrail Scientific Advisory Board until September 2012.

9.1.4. Conferences, seminars, invitations

Roberto Cascella gave presentation *Leveraging Contrail to support reliable IoT based applications* at the 4th EU-Japan Symposium on the "New Generation Network" and the "Future Internet", January 19, 2012, Tokyo Japan;

Roberto Cascella gave talk *Contrail: A reliable and trustworthy cloud platform* at the 1st European Workshop on Dependable Cloud Computing, EWDCC'2012, May 8 2012, Sibiu, Romania;

Roberto Cascella gave talk *The future of the Cloud* at the Contrail Summerschool, July 23, 2012, Almere, The Netherlands;

Roberto Cascella was invited to give talk *The Cloud and the Contrail project: open computing infrastructures for elastic services* at Politecnico di Bari, September 5, 2012, Bari, Italy;

Roberto Cascella and Yvon Jégou presented the Contrail project on the Contrail booth during the *Journée professionnelle Cloud Computing - MEITO*, INRIA-Rennes, december 11;

Roberto Cascella was invited to give talk *Contrail: A trustworthy cloud platform providing interoperability* at Seconda Università di Napoli, December 19, 2012, Aversa, Italy;

Eugen Feller presented a demonstration entitled *Snooze : un système auto-organisant pour la gestion de l'énergie dans les clouds* at the *Sciences Numériques et efficacité énergétique* Inria industry meeting, Grenoble, France, March 2012.

Eugen Feller gave a talk entitled *Scalable, Autonomic, and Energy-Aware Management of Large-Scale Cloud Infrastructures*, at COST IC0804 Energy and QoS-aware Workload Management in Clouds focus group meeting, Rennes, France, March 2012.

Eugen Feller gave a talk entitled *Energy Management in IaaS Clouds: A Holistic Approach* at EDF R&D (SINETICS department), Paris, France, April 2012.

Eugen Feller gave a talk entitled *Autonomic and Energy-Efficient Management of Large-Scale Virtualized Infrastructures* in the Lawrence Berkeley National Laboratory CS seminar, Berkeley California, USA, August 2012.

Piyush Harsh and Yvon Jégou presented the Contrail VEP on the INRIA booth during the "Solutions Linux" event in Paris, June 19-21, 2012;

Ancuta Iordache presented a talk entitle *Elastic MapReduce on multiple clouds* at the EIT ICT Labs RMAC kick-off meeting in Delft, February 20, 2012;

Ancuta Iordache gave a talk entitled *Elastic MapReduce on Cloud Federations* at the EIT Cloud workshop in Paris, November 29, 2012;

Yvon Jégou gave a talk *The benefits of mixing grid and cloud workloads for genomics* at the "Workshop on Science Applications and Infrastructure in Clouds and Grids" held in conjunction with OGF 34, March 15-16, 2012, Oxford, UK;

Yvon Jégou gave a talk about Contrail Virtual Execution Platform at the "EIT ICT Labs - Contrail workshop", March 19, Paris;

Yvon Jégou gave a talk on *Interoperability in Cloud Federations* and participated to the panel discussion during the "Future Internet Assembly" meeting, May 10-11 2012, Aalborg, Denmark;

Yvon Jégou gave a talk entitled *The Need of Interoperability between Clouds* during the "2nd FIA roadmapping workshop", June 26, 2012, Bruxelles;

Yvon Jégou gave talk *Contrail: Open Computing Infrastructures for Elastic Services* during the "IoS Collaboration Days", October 16-18, 2012, Bruxelles;

Yvon Jégou gave a talk *Interoperability support in cloud federations: Contrail approach based on Virtual Execution Platforms* at the "Interoperability in Scientific Cloud Federations" Birds-of-a-Feather Sessions, SC'12, Salt Lake City, November 13, 2012;

Yvon Jégou, Piyush Harsh and Christine Morin presented Contrail software stack on Contrail European project booth at SC'12, Salt Lake City, November 12-15, 2012.

Christine Morin gave a talk *Contrail: Elastic PaaS Services over Federated IaaS Clouds* by visio-conference for participants in the ATLAS experiment at CERN, February 2, 2012.

Christine Morin gave a talk by visio-conference on Cloud Computing research activities in Rennes at the EIT ICT Labs meeting organized for W. Jonker's visit in Rennes, February 28, 2013.

Christine Morin was invited to give a seminar entitled *Elastic Services on top of Cloud Federations: Contrail Approach* at ORNL and at the Tennessee Technical University in March 2012.

Christine Morin gave a talk entitled *Elastic Services on top of Cloud Federations: Contrail Approach* at Google, Mountain View, April 23, 2012.

Christine Morin presented Myriads project-team research activities at the Inria evaluatio seminar for the "Distributed Systems and Services" theme, October 9, 2012.

Christine Morin gave a talk entitled *Cloud in San Francisco Bay Area* at the CLASS conference, Bled, Slovenia, October 24, 2012.

Christine Morin gave a talk entitled *Work in Progress on Cloud Computing in Myriads Team and Contrail European Project* at the the eighth workshop of the Joint Laboratory for Petascale Computing, Argonne National Laboratory, November 20, 2012.

Christine Morin gave a talk entitled *Destination Inria for researchers!* at the Destination Europe conference, San Francisco, December 7, 2013.

Anne-Cécile Orgerie gave a talk *Energy-efficiency in Cloud infrastructures in Myriads team* at the COST IC0804-IC0805 joint meeting in Cork, Ireland, October 18, 2012;

Anne-Cécile Orgerie gave a talk *ECOFEN: an End-to-end energy Cost mOdel and simulator For Evaluating power consumption in large-scale Networks* at the COST IC0804 meeting in Istanbul, Turkey, November 6;

9.1.5. Administrative Responsibilities

Christine Morin is a member of the Project-Team Committee of INRIA RENNES – BRETAGNE ATLANTIQUE (Comité des projets), *Référent Chercheur* for INRIA RENNES – BRETAGNE ATLANTIQUE, Coordinator of the Inria@Silicon Valley program (in collaboration with Inria DRI), member of the scientific council of ENS Cachan. She is the coordinator of Contrail European project.

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

Jean-Louis Pazat is the leader of the "Large Scale Systems" department of IRISA. He is member of the Steering committee (conseil d'administration) of Insa Rennes. He is a member of the Computer Science Department committee and member of the IRISA-INSA Lab committe. He is the local coordinator for the international exchange of students at the computer science department of Insa.

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

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

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Christine Morin is responsible for a graduate teaching Module *Internet of Services: Programming Models & Infrastructures* of the Master Program in Computer Science (research), UNIVERSITY RENNES 1.

Christine Morin:

> Master : Internet of Services: Programming Models & Infrastructures, 12 hours ETD, M2RI, University of Rennes 1, France

> Master : Cluster single system image operating systems, 4.5 hours ETD, M2, Institut Telcecom Sud Paris, France

> Master : Energy management in computing infrastructures (as part of the Eco-STIC module), 4.5 hours ETD, M1, Supelec, France

Nikos Parlavantzas (at INSA Rennes):

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

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

Jean-Louis Pazat (at INSA Rennes):

- 4th year: Advanced Operating Systems (31 hours ETD)
- 4th year: Parallel Programming (39 hours ETD)
- 4th year: Networking and SOA (39 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'exloitation 2 (67 hours ETC)
- Master 2: Techniques de développement logiciel dans le Cloud (39 ETD)
- Master 2: Approche algorithmique des applications et systèmes répartis (32 ETD)

Cédric Tedeschi (at the University of Rennes 1):

- Licence 3: Organization of Operating System (38 hours ETD)
- Licence 3: Algorithmic methods (22 hours ETD)
- Master 1: Multitask Operating Systems (65 hours ETD)
- Master 1: Concurrency in Systems and Networks (56 hours ETD)
- Master 2: Muti-users systems (50 hours ETD)
- Master 2 (research): Internet of Services (6 hours ETD)

9.2.2. Supervision

> PhD : André Lage, Dynamic Adaptation of Services on Distributed Infrastructures, March 29, 2012, Nikos Parlavantzas, Jean-Louis Pazat

> PhD : Héctor Fernández, Flexible Coordination Through the Chemical Programming Model for Service Infrastructures, Université de Rennes 1, June, 20 2012, Thierry Priol, Cédric Tedeschi

> PhD : Eugen Feller, Energy aware resource management in IaaS clouds, Université de Rennes 1, December 17, 2012, Christine Morin

> PhD in progress : Erwan Daubert, Environmental adaptation of services in large scale distributed architectures, October 2009, Françoise André, Jean-Louis Pazat, Olivier Barais (Triskell)

PhD discontinued : Guillaume Gauvrit, Distributed Dynamic Adaptation of SBAs, October 2008, Françoise André, Jean-Louis Pazat

PhD in progress : Chen Wang, Using Chemical Metaphor to Express Workflow and Service Orchestration October 2009, Jean-Louis Pazat

PhD in progress : Marko Obrovac, Large Scale Runtime of the Chemical Programming Model for Service Orchestration, January 2010, Thierry Priol, Cédric Tedeschi

PhD in progress : Stefania Costache, An economical approach for resource management in private clouds, May 2010, Christine Morin, Nikos Parlavantzas

PhD in progress : Djawida Dib, Dynamic adaptation in distributed systems, October 2010, Christine Morin, Nikos Parlavantzas

9.2.3. Juries

- Christine Morin is a reviewer for the PhD thesis of Marco Meoni, EPFL (January 8, 2013)
- Christine Morin is a member of the PhD defense committee of Flavien Quesnel, Ecole des Mines de Nantes (defense planned in February, 2013)
- Christine Morin is a reviewer for the PhD thesis of Damien Borghetto, Université de Toulouse 1 (defense planned in Spring 2013)

9.3. Popularization

Contrail summer school (Almere, the Netherlands, July 2012):

- Piyush Harsh gave a talk about the Contrail Virtual Execution Platform and organized a hand-on session on VEP;
- Roberto Cascella gave a presentation entitled *The Future of the Cloud* during the summer school.

Grid'5000 winter school (Nantes, France, December 2012):

- David Margery gave a talk about Grid'5000 and a tutorial about accessing Grid'5000
- Alexandra Carpen-Amarie gave a tutorial on deploying IaaS stacks on Grid'5000, as well as a challenge entry to demonstrate the deployment of CloudStack.
- Marko Obrovac took part in the challenge to demonstrate his experimental approach for his work on chemical computing entitled *Large-scale chemical computing on Grid'5000*

OASIS Project-Team

8. Dissemination

8.1. Scientific Animation

- Eric Madelaine is member of the steering committees of the FACS and FMCO symposia, and has acted as a program committee of FACS'12, FMCO'12, and of the Sciance of Computer Programming (SCP) journal.

- Françoise Baude is member of the editorial board of the Techniques et Sciences Informatique French journal from Feb. 2011, was program committee member of ISPA 2012, of RenPar'21 to be held in January 2013. She is University of Nice official representative within the KIC EIT ICT Labs, including the Master school, from 2012.

- Ludovic Henrio: program committee member of FESCA'12, FOCLASA'12, FESCA'13 and reviewer for the journal SCP (Science of Computer Programming) and MSCS.

- Fabien Hermenier: program committee member of VTDC 2012 and PDP 2012 (energy efficiency track) and reviewer for IEEE Transactions on Network and Service Management and the Journal of System Architecture. He also presented `btrPlace` during the OW2Con, the OW2 Annual Conference.

- Fabrice Huet : program committee member of HPDC 2012, AP2PS 2012, reviewer for Transactions on Services Computing, Concurrency and Computation: Practice and Experience.

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

Licence : Olivier Dalle, Introduction à la Programmation Objet, 15 H eqTD, niveau L1, Département Informatique, UNS, France

Licence : Olivier Dalle, Introduction à la Programmation Objet, 15 H eqTD, niveau L1, Département Informatique, UNS, France

Licence : Fabrice Huet, Informatique Générale, 48 H eqTD, niveau L1, Département Informatique, UNS, France

Licence : Françoise Baude, 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 : Olivier Dalle, Algorithmes et Structures de Données, 36 H eqTD, niveau L3, Département Informatique, UNS, France

Licence : Olivier Dalle, Harmonisation Informatique, 36 H eqTD, niveau L3, IUP Miage, UNS, France

Licence : Fabien Hermenier, Outils pour le Génie Logiciel, 26 H eqTD, niveau L3, Polytech'Nice Sophia, UNS, France

Licence : Fabrice Huet, Outils de Génie Logiciel, 24 H eqTD, niveau L3, IUT, UNS, France

Licence : Fabrice Huet, Programmation de Jeux Réseau, 18 H eqTD, niveau L3, IUT, UNS, France

Master : Françoise Baude, Applications Réparties, 45 H eqTD, niveau M1, Polytech'Nice Sophia, UNS, France

Master : Olivier Dalle, Ingénierie des Protocoles, 21 H eqTD, niveau M1, Département Informatique, UNS, France

Master : Fabrice Huet, Distribution et parallélisme, 49H eqTD, niveau M1, Département Informatique, UNS, France

Master : Fabrice Huet, Syst èmes Distribués, 42H eqTD, niveau M1, IUP Miage, UNS, France

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

Master: Ludovic Henrio, Sémantique des Systèmes Distribués et Embarqués, 11 H eqTD, niveau M1, Département Informatique, UNS, France

8.2.2. Supervision

PhD in progress : Laurent Pellegrino "Pushing dynamic and ubiquitous event-based interaction in the Internet of services: a middleware for event clouds", since Sept 2010, advisor Françoise Baude.

PhD in progress : Nuno Gaspar "Integrated, Autonomic, and Reliable Deployment and Management for SaaS composite applications", since Nov 2011, advisor: Eric Madeleine

PhD in progress : Michaël Benguigui, "Modèles de programmation pour l'analyse de données sur machines multi-cœurs, grilles et clouds", since Dec 2011, advisor Françoise Baude.

PhD in progress : Yanwen Chen, "Formal model and Scheduling for cyberphysical systems", since Dec 2011, advisors Eric Madelaine and Yixiang Chen (ECNU Shanghai)

PhD in progress : Alexandra Savu, "Design, specification, and verification of parameterized topologies of distributed components", since Oct. 2012, advisor Eric Madelaine

PhD in progress : Maeva Antoine, "Plateforme élastique pour le stockage et la notification d'Evènements", since Oct. 2012, advisors Eric Madelaine, Fabrice Huet

8.2.3. Juries

Françoise Baude participated in PhD evaluations as

- jury supervisor for the PhD of Marcela Rivera held on December 15th 2011, UNS; PhD of Imen Ben Lhamar, on November 15th 2012, at Telecom Sud-Paris / Univ. Evry Val d'Essone
- PhD reviewer and jury member for the PhD of Gabriel Hermosilio on 5th June 2012, University of Lille (ADAM EPI); PhD of Xavier Etchevers on December 12th 2012, at LIG / FranceTelecom R&D (SARDES EPI)

She participated in the recruitment committees for

- Maitre assistant position at Ecole des Mines Albi-Carnaux, in January 2012
- Professor at Univ. of Henri Poincaré, Ecole Supérieure d'Informatique et Applications de Lorraine, in May 2012

Fabrice Huet participated to the mid-term evaluation jury of Giuseppe Reina (April 2012) and Mario Pastorelli (October 2012), Eurecom PhD students.

8.3. Popularization

Françoise Baude is in charge since September 2011 of the set up and animation of an educational program *Cordées de la Réussite*. She leads as Polytech'Nice Sophia member, and in connection with MASTIC activities at Sophia-Antipolis, two *Cordées pour la Science à Sophia* groups (one with Lycée Vinci Antibes, the other with Lycée Tocqueville Grasse).

Fabrice Huet gave a seminar to high school students about the inner working of computers. He also leads the ISN *Informatiques et Sciences du Numérique* courses for the academia of Nice. These courses were given to high school teachers who volunteered to offer a Computer Science option to their students.

<p align="center">**PHOENIX Project-Team**</p>

9. Dissemination

9.1. Scientific Animation

Charles Consel has been involved in the following events as

- Program Committee member of
    - NIER track of ICSE 2012 (co-chair): New Ideas and Emerging Results track of the 34th International Conference on Software Engineering.
    - IEEE ICWS 2012: the 19th International Conference on Web Services
    - WEH 2012: ICSE International Workshop on Exception Handling
- Invited speaker at
    - Programming Language Mentoring Workshop, POPL 2012
    - Colloquium series of the department of computer science of Halmstad University, Sweden, June 2012.
    - Colloquium series of the department of Computer Science, University of Montreal, Canada, October 2012.
    - Colloquium series of the department of Computer Science, Mc Gill University, Canada, December 2012.
    - Colloquium series of the department of Computer Science, University of Sherbrooke, Canada, December 2012.

Charles Consel has participated in the following thesis defense committees:

- Julien Bruneau, May 16, University of Bordeaux, France
- Hongyu Guan, June 1, University of Bordeaux, France

Emilie Balland has been involved in the following events as

- Program Committee member of
    - SLE 2012: 5th International Conference on Software Language Engineering
    - WRLA 2012: 9th International Workshop on Rewriting Logic and its Applications (Co-located with ETAPS 2012)
    - PEPM 2012: ACM SIGPLAN 2012 Workshop on Partial Evaluation and Program Manipulation (Co-located with POPL 2012)
    - LDTA 2012 (local chair): 12th Workshop on Language Descriptions, Tools and Applications (Co-located with ETAPS 2012)
- Member of the thesis defense committee of Julien Bruneau, May 16, University of Bordeaux

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Master level courses:

> Master : Charles Consel, Domain-Specific Languages, 13 hours (M2 level), ENSEIRB engineering school, France.

> Master : Charles Consel, Telephony over IP, 10 hours (M2 level), ENSEIRB engineering school, France.

> Master : Charles Consel, Domain-Specific Languages for Telephony Services, 15 hours (M2 level), ENSEIRB engineering school, France.

> Master : Charles Consel, Architecture Description Languages, 12 hours (M2 level), ENSEIRB engineering school, France.

> Master : Emilie Balland, Software Development guided by modeling and verification, 20 hours (M2 level), ENSEIRB engineering school, France.

> Master : Emilie Balland, Software Development Methodologies, 40 hours (M2 level), Ho Chi Minh University, Vietnam.

9.2.2. Supervision

> PhD : Julien Bruneau, "Plateforme d'exécution paramétrable de systèmes communicants", University of Bordeaux, May 16, 2012, supervised by Charles Consel

> PhD : Hongyu Guan, "Gestion de l'hétérogénéité des environnements ubiquitaires et de la consommation d'énergie des environnements mobiles", University of Bordeaux,June 1, 2012, supervised by Charles Consel

> PhD in progress : Pengfei Liu, "Politiques de securité pour les environnements ubiquitaires", started in October 2009, supervised by Charles Consel

> PhD in progress : Stéphanie Gatti, "Architecture en composants et qualification incrémentale", started in February 2010, supervised by Charles Consel and Emilie Balland

> PhD in progress : Quentin Enard, "Intégration de concepts de sûreté de fonctionnement dans un langage de description d'architecture et son support d'exécution", started in February 2010, supervised by Charles Consel

9.2.3. Juries

Charles Consel was a member of the selection committee for a professor position at Rennes University (section 27).

9.3. Popularization

- Demonstration of DiaSuiteBox during Rencontre Inria Industries "Sciences Numériques et Efficacité Énergétique" (digital technologies for efficient energy use), March 2012
- General audience article in the Sud-Ouest newspaper, 15/03/12

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

8. Dissemination

8.1. Scientific Animation

Luciana Arantes is:

- co-chair of P2PDep: 1st Workshop on dependability on P2P systems in conjunction with EDCC 2012.
- PC member of ICPADS 2012, LADC 2013, P2P-DEP 2012, GPC 2013.
- Reviewer for Journal of Parallel and Distributed Computing (JPDC) and Future Generation Computer System

Bertil Folliot is:

- Member of the "Executive Comittee" of GdR ASR (Hardware, System and Network), CNRS.
- Elected member of the IFIP WG10.3 working group (International Federation for Information Processing - Concurrent systems).
- Member of the "Advisory Board" of EuroPar (International European Conference on Parallel and Distributed Computing), IFIP/ACM.
- Member of the "Steering Committee" of the International Symposium on Parallel and Distributed Computing" (ISPDC).
- PC member of ISPDC 2011, ISPDC 2012, ISPDC 2013.

Maria Potop-Butucaru is:

- Member of PC of ICDCS 2012 (IEEE 32nd International Conference on Distributed Computing Systems)
- Member of PC of SSS 2012(13th International Symposium on Stabilization, Safety, and Security of Distributed Systems), co-chair track Self-Stabilization

Olivier Marin is:

- Reviewer for Distributed Computing, and Techniques et Sciences Informatiques.
- Member of the scientific committee of LIP6.

Sébastien Monnet is:

- Elected member of the administrative committee of LIP6.
- Member of the program commitee of the 1st IEEE International Conference on Cloud Networking, CloudNet, Paris, November 2012.

Gilles Muller is:

- Distributed OS and Middleware track co-chair of ICDCS 2012
- Poster chair of DSN 2012
- PC member of SYSTOR 2012
- PC member of ICDCN 2013
- PC member of EuroSys 2013
- Member of "Comité de selection" of INSA de Lyon (Professeur) and University of Rennes (Professeur)
- Management Committee Substitute Member for the COST action "Transactional Memories: Foundations, Algorithms, Tools, and Applications (Euro-TM)" and leader of the working group on "Hardware's and Operating System's Supports"
- Reviewer for the Flanders Research Foundation
- Reviewer for the Swiss National Science Foundation
- Member of IFIP WG 10.4 (Dependability)

Julia Lawall is:

- Chair of the steering committee of Generative Programming and Component Engineering (2011, 2012)
- Secretary of IFIP TC2 (since 2011)
- Member-at-large of the SIGPLAN Executive Committee
- Member of the editorial board of Science of Computer Programming
- Associate editor of Higher Order and Symbolic Computation
- PC member of 21st International Conference on Compiler Construction (CC 2012)
- PC member of Modularity: AOSD 2012
- PC member of OOPSLA 2012
- PC member of OBT: Underrepresented Problems for PL Researchers, with POPL 2012
- PC member of PPDP 2012
- Invited reviewer for PLDI 2012
- Member of IFIP WG 2.11 (Program Generation)

Franck Petit is:

- Vice Chair for the Special Journal Issue (TCS) of Track "Distributed Computing" of ICDCN 2013, IEEE 33nd International Conference on Distributed Computing and Networking, Mumbai, India, janvier 2013.
- PC Member of Renpar'21, 21st Rencontres francophones du Parallélisme, Grenoble, France, janvier 2013.
- PC Member of SSS 2012, 14th International Symposium on Stabilization, Safety, and Security of Distributed Systems, ed. LNCS, Toronto.
- PC Member of ICDCN 2012, 32nd International Conference on Distributed Computing and Networking, Hong Kong, China.
- Invited Editor for TCS, Theoretical Computer Science Special Issue on Stabilization, Safety, and Security of Distributed Systems 2011.
- Invited Editor for TCS, Theoretical Computer Science Special Issue on Stabilization, Safety, and Security of Distributed Systems 2011.
- Co-chair of Department "Networks and Distributed Systems" of LIP6 Laboratory.
- Member of "Vivier d'experts" and member of "Comité de selection" of UPMC Paris 6.

Pierre Sens is:

- co-Chair of P2P-Dep 2012 (1st Workshop on P2P and Dependability in conjonction with EDCC 2012)
- Member of PC of ICDCS 2012 (IEEE 32nd International Conference on Distributed Computing Systems)
- Member of PC of of EDCC'2012 (9th European Dependable Computing Conference)
- Member of PC of of IPDPS'2013 (IEEE International Parallel & Distributed Processing Symposium)
- Member of "Directoire de la recherche" of University Pierre et Marie Curie.
- vice-chair of LIP6 Laboratory.
- Member of the scientific council of AFNIC.
- Member of the scientific committee of LIP6.
- Member of the evaluation committee of the Digiteo DIM LSC program.
- Member of "Comité de selection" of Universities of Grenoble and Paris XI.

Marc Shapiro is:
- Member of Advisory Board for CITI, the Research Center for Informatics and Information Technologies of UNL, the New University of Lisbon (Portugal).
- Member of the steering committee for the LADIS workshop (Large-Scale Distributed Systems and Middleware).
- Promotion reviewer for various European universities (names confidential).
- Reviewer for European Research Council.
- Reviewer for ANR (Agence Nationale de la Recherche), France.
- Reviewer for National Science Foundation, Switzerland.
- Reviewer for USA-Israel Binational Science Foundation.
- Reviewer for Swedish Research Council .
- Reviewer for Springer Distributed Computing.
- Reviewer for IEEE Transactions on Parallel and Distributed Systems (TPDS).
- Member, ACM Distinguished Service Award Committee 2010.
- Member, ACM Europe Council. Co-chair, ACM Europe Council subcommittee on Members and Awards.

Gaël Thomas is :
- DAIS 2012: IFIP 12th conference on Distributed Applications and Interoperable Systems, Stockholm, Sweden.
- Elected member of the administrative committee of LIP6.

8.2. Teaching - Supervision - Juries

8.2.1. *Teaching*

Licence : Gaël Thomas, Introduction to the C programming language, L1, Université Paris 6

Licence : Gaël Thomas, Introduction to computer architecture, L2, Université Paris 6

Licence : Luciana Arantes, Bertil Folliot, Maria Potop-Butucaru, Julien Sopena, Franck Petit, Principles of operating systems, L3, Université Paris 6

Licence : Mesaac Makpangou, Client/server architecture, L3 professionelle, Université Paris 6

Licence : Sébastien Monnet, System and Internet programmation, L2, Université Paris 6

Licence : Sébastien Monnet, Computer science initiation, L1, Université Paris 6

Master : Luciana Arantes, Sébastien Monnet, Pierre Sens, Julien Sopena, Gaël Thomas, Operating systems kernel, M1, Université Paris 6

Master : Luciana Arantes, O. Marin, Maria Potop-Butucaru, Distributed algorithms, M1, Université Paris 6

Master : Luciana Arantes, Oliver Marin, Pierre Sens, Advanced distributed algorithms, M2, Université Paris 6

Licence : Luciana Arantes, Bertil Folliot, Olivier Marin, POSIX Advanced C system programming, M1 d'Informatique, Université Paris 6

Master : Bertil Folliot, Julien Sopena, Distributed systems and client/serveur, M1 , Université Paris 6

Licence : Bertil Folliot, C programming & systems, L2, Université Paris 6

Licence : Bertil Folliot, Directed projects, L2, Université Paris 6

Licence : Bertil Folliot, Head of the Computer Courses "Applications of Computer Technology and Communication", L2, Université Paris 6

Master : Franck Petit, Maria Potop-Butucaru, Resistance of Distributed Attacks, M2, Université Paris 6,

Master : Luciana Arantes, Sébastien Monnet, Julien Sopena, Gaël Thomas, Middleware for advanced computing systems, M2, Université Paris 6"

Master : Marc Shapiro, Julien Sopena, Gaël Thomas, multicore kernels and virtualisation, M2, Université Paris 6

8.2.2. *Supervision*

HdR : Gaël Thomas, Amélioration du design et des performances des machines virtuelles langage, UPMC, 09/29/2012

PhD : S. Legtchenko, Exploiting player behavior in distributed architectures for online games, UPMC, 10/25/2012, Sébastien Monnet, Pierre Sens

8.2.3. *Juries*

Gilles Muller was the reviewer of:

- Maxime Lastera. PhD. INSA Toulouse, (Advisor : J. Arlat)
- Nicolas Berthier. PhD. University of Grenoble, (Advisor : F. Maraninchi)

Pierre Sens was the reviewer of:

- Kiril Georgiev. PhD. LIG, (Advisor : J-F Méhaut)
- Heverson Borba Ribeiro. PhD. IRISA, (Advisor : E. Ancaume)
- Khanh-Toan Tran. PhD. Evry, (Advisor: N. Agoulmine)

Franck Petit was the reviewer of:

- Thomas Morsellino, PhD LaBRI, Bordeaux (Advisor: Y. Métivier)
- Damien Imbs, PhD IRISA, Rennes (Advisor: M. Raynal)

Gaë Thomas was the reviewer of:

- Geoffroy Cogniaux, PhD LIFL, Lilles (Advisor: G. Grimaud)

Julia Lawall was member of the jury of:

- Veronica Uquillas Gomez. PhD. VUB-Univ. Lille, (Advisors : Theo D'Hondt, Stephane Ducasse)

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

8. Dissemination

8.1. Scientific Animation

8.1.1. Examination Committees

Stéphane Ducasse was in the examination committee of the following PhD theses:

- *Supporting Integration Activities in Object-Oriented Applications*, Veronica Uquillas-Gomez, Vrije Universiteit Brussel, Belgium. 04/10/12 (advisor)
- *Application-Level Virtual Memory for Object-Oriented Systems*, Mariano Martinez-Peck. Ecole des Mines de Douai. October 29th (advisor).
- *Analyse statique et dynamique de code et visualisation des logiciels via la m ´etaphore de la ville*, Pierre Caserta, Université de Nancy, France. 7/12/12.
- *Efficient Object Versioning for Object-Oriented Languages from Model to Language Integration*, Frédéric Pluquet, Université Libre de Bruxelles, Belgium France. 3/07/12. (referee)

Stéphane Ducasse was in the examination committee of the following HDR:

- *Faciliter la vérification et la validation des méta-modèles : une approche agile, outillée et orientée données*, Dr. Alain Plantec, Université de Bretagne Occidentale, Brest, 28/11/12.
- *MDE 2.0:Pragmatic formal model verification and other challenges*, Jordi Cabot, Université de Rennes, France. 12/10/12.

Nicolas Anquetil was in the examination committee of the following PhD theses:

- *Supporting Integration Activities in Object-Oriented Applications*, Veronica Uquillas-Gomez, Vrije Universiteit Brussel, Belgium. 04/10/12 (advisor)
- *Analyse et conception d'un modèle de qualité logiciel*, Karine Mordal, Université Vincennes – Saint-Denis – Paris 8, France. 03/12/2012 (reviewer)

Marcus Denker was in the examination committee of the following PhD theses:

- *Bridging the Gap between Machine and Language using First-Class Building Blocks*, Toon Verwaest. University of Bern, Switzerland. 12/03/2012 (reviewer).
- *Application-Level Virtual Memory for Object-Oriented Systems*, Mariano Martinez-Peck. Ecole des Mines de Douai. October 29th (reviewer).

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

Licence : Simon Allier, Programmation d'interface graphique, 46 hours, L2, Université Lille 1 (IUT-A), France

Licence : Nicolas Anquetil, Programmation d'interface graphique, 64 hours, L2, Université Lille 1 (IUT-A), France

Licence : Nicolas Anquetil, Projet final, 16 hours, L2, Université Lille 1 (IUT-A), France

Licence : Damien Cassou, conception orientée objet, 42 hours, L3 Miage, Université Lille 1, France

Master : Damien Cassou, conception objet avancée, 42 hours, M1, Université Lille 1, France

Master : Damien Cassou, maintenance de grands logiciels, 8 hours, M2, Université Lille 1, France

Master : Damien Cassou, Metaprogramming and Reflection in Common Lisp, 2 hours, M2, University of Potsdam, Germany

Master : Christophe Demarey, Architectures Logicielles, 30 hours, GIS4, Polytech'Lille, France

Master : Marcus Denker, Reflection and Context, 1.5 hours, M2, Universite catholique de Louvain, Belgique

Master : Stéphane Ducasse, MetaModeling, 16 hours, M2, Ecole des Mines de Douai, France

Licence : Stéphane Ducasse, MetaModeling, 6 hours, L3, Université de Lille, France

Employed Engineers : Stéphane Ducasse, Advanced Object-Oriented Design, 9 hours, engineers, Inria engineer formation, France

Master : Stéphane Ducasse, Advanced Object-Oriented Design, 21 hours, M1, Université de Savoie, France

Licence : Stéphane Ducasse, Object-Oriented Design, 4.5 hours, L2, Université de Lille (IUT-A), France

Licence : Anne Etien, Bases de données et Analyse Informatique, 60 hours, L3, Polytech Lille, France

Licence : Anne Etien, Structures de données, 14 hours, L3, Polytech Lille, France

Master : Anne Etien, Programmation par objets, 35 hours, M1, Polytech Lille, France

Master : Anne Etien, Systèmes d'information objets, 10 hours, M1, Polytech Lille, France

Master : Anne Etien, Bases de données, 30 hours, M1, Polytech Lille, France

Master : Anne Etien, Ingénierie Logicielle, 20 hours, M2, Polytech Lille, France

Licence : Damien Pollet, Challenge création entreprise, 8 hours, M1, Telecom Lille 1, France

Licence : Damien Pollet, Technologies des systèmes d'information ouverts, 27 hours, L3, Telecom Lille 1, France

Licence : Damien Pollet, Introduction à l'algorithmique, 9 hours, L1, Telecom Lille 1, France

Licence : Damien Pollet, Conception et programmation orientée objet, 166 hours, L3, Telecom Lille 1, France

Licence : Damien Pollet, Architecture des ordinateurs, 4.5 hours, L3, Telecom Lille 1, France

Master : Damien Pollet, Ingénierie logicielle, 2 hours, M1, Telecom Lille 1, France

Licence : Igor Stasenko, Vector graphics, 1 hour, L3, Argentina

8.2.2. Supervision

PhD & HdR

PhD : Mariano Martinez-Peck, Application-Level Virtual Memory for Object-Oriented Systems, Ecole des Mines de Douai, October 29th 2012, Stéphane Ducasse, Marcus Denker

PhD : Veronica Uquillas-Gomez, Supporting Integration Activities in Object-Oriented Applications, Vrije Universiteit Brussel, October 4th 2012, Stéphane Ducasse, Nicolas Anquetil

PhD in progress : Camillo Bruni, no title yet, 2011-03-01, Stéphane Ducasse, Marcus Denker

PhD in progress : Andre Hora, Improving Static Analysis with Domain-Specific Rules, 01/12/2011, Nicolas Anquetil, Stéphane Ducasse

PhD in progress : Camille Teruel, Security for dynamic languages, 01/12/2012, Stéphane Ducasse, Damien Cassou

PhD in progress : Nick Papoylias, Languages and Development Environments for Mobile Autonomous Robots, October 1st 2010, Marcus Denker, Stéphane Ducasse

PhD in progress : Jean Baptiste Arnaud, Towards First Class References as a Security Infrastructure in Dynamic Languages, September 1st 2009, Marcus Denker, Stéphane Ducasse

PhD in progress : Martin Dias, Supporting Merging, December 3rd 2012, Damien Cassou, Stéphane Ducasse

PhD in progress : Guillermo Polito, Isolation and Reflection in Dynamic Object Oriented Languages, 01-04-2012, Noury Bouraqadi, Luc Fabrese, Marcus Denker, Stéphane Ducasse

8.3. Popularization

- Nicolas Anquetil presented SourceCity (an integrated environment for software analysis, in which software systems are visualized as interactive, navigable 3D cities) at several occasions.

- Nicolas Anquetil presented Moose during the RIC days, which introduce research to master students.

- Muhammad Bhatti discussed about how to create a startup company during the RIC days.

- Muhammad Bhatti presented to PhD students how to promote research results.

- Damien Cassou received a student from *Collège (3ème)* to present research activities and software development.

- Marcus Denker, Esteban Lorenzano and Stéphane Ducasse will present at fOSSa 2012 in December.

- Marcus Denker and Stéphane Ducasse gave presentations about Pharo at the open source conference FOSDEM 2012.

SARDES Project-Team

8. Dissemination

8.1. Scientific Animation

S. Bouchenak : Co-General Chair of the CFSE/Renpar/SympA conferences in 2013.

F. Boyer : Member of the Programme Committee of ICAS 2012.

N. De Palma : Chair of the GCM (Green and Cloud Management) 2012 workshop.

Vivien Quema : Organizer of the Winter School on Hot Topics in Distributed Systems (each year since 2008).

E. Rutten : Member of the Programme Committe of APRES (Adaptive and Reconfigurable Embedded Systems workshop) 2012. Member of the IFAC Technical Committee 1.3 on Discrete Event and Hybrid Systems.

J.B. Stefani : Chairman of IFIP WG6.1 on Architectures and Protocols for Distributed Systems. Chairman of the Steering Committee of the FMOODS/FORTE conference series. Member of the Programme Committee of ACM SAC 2012. Member of the editorial board of the journal Annals of Telecommunications. Member of the Technology Council of the company STMicroelectronics.

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

V. Quéma is a full-time professor at Grenoble INP.

Noël de Palma is a full-time professor at Grenoble University.

Olivier Gruber is a full-time professor at Grenoble University.

Olivier Gruber is the head of the Parallel, Distributed, and Embedded Systems track in the international Master of Science in Informatics at Grenoble (MOSIG).

Renaud Lachaize is a full-time assistant-professor at Grenoble University.

Sara Bouchenak is a full-time assistant-professor at Grenoble University.

Fabienne Boyer is a full-time assistant-professor at Grenoble University.

Fabienne Boyer is the head of the M2PGI (Master Professionnel Génie Informatique) Alternance at Grenoble.

<p style="text-align:center">**SCORE Team**</p>

8. Dissemination

8.1. Scientific Animation

- Khalid Benali has been PC member of french conferences (INFORSID'2012 (Montpellier, France)), international conferences (I-ESA'12 (Valencia, Spain), COLLA 2012 (Venice, Italy), SAINT 2012 (Izmir, Turkey), IWEI 2012 (Harbin, China), SYSCO 2012 (Sousse, Tunisie)), and workshops (MEDES 2012 (Addis Ababa, Ethiopia)).

- Nacer Boudjlida is a member of the *prime board* of the program committee of I-ESA'2010 and I-ESA'2012 (International Conference on Interoperability of Enterprise Systems and Applications). He regularly acts for several years as a PC member for many international conferences and workshops (CAiSE, COOP'IS, EMMSAD, SIIE, INFORSID, WWS, etc.).

- Nacer Boudjlida addressed a keynote at the 2011 Join-Med Workshop, Rabat, Morocco.

- Nacer Boudjlida performed an invited tutorial at the second IEEE Intern'l Workshop on Advanced Information Systems for Entreprises, IWAISE'2012, Contantantine, Algeria.

- Gérôme Canals is the co-chair of the "Mobilité et Ubiquité" french national working group (GDR I3).

- François Charoy has been PC member of ICEBE (International Conference on Business Engineering) 2012, CTS 2012 (International Symposium on Collaborative Technologies and Systems), DG.O (International Conference on Digital Government Research) 2012, CEC 2012 (IEEE Conference on Commerce and Electronic Computing), ACIS (Australasian Conference in Information Systems) 2012 and of several workshops. He is member of the editorial board of the Service Oriented Computing and Applications Journal (Springer). He was co-chair of the Second Collaborative Technology for Coordinating Crisis Management Track at WETICE 2012

- Claude Godart is member of the editorial board of "Advance in enterprise systems" and "International Journal of E-adoption" journals, and member of the review board of the International Journal of Next Generation Computing. He has been or is program committee member of BPM (Business Process Management) 2012, BPMDS (Business Process Modelling, Development and Support) 2012, IEEE EDOC (The enterprise computing conference) 2012, CEC (IEEE Conference on Commerce and Enterprise Computing) 2012, IEEE CLOUD Computing 2012, IEEE ICWS (International Conference on Web Services) 2012, IEEE SCC (IEEE International Conference on Services Computing) 2012.

- Claudia-Lavinia Ignat is member of the editorial board of Journal of CSCW (Computer Supported Cooperative Work). She was part of the Reviewing Committee of the CTS 2011 (International Symposium on Collaborative Technologies and Systems) special issue of FGCS (Future Generation Computer Systems) journal. She has been or is PC member of GROUP (International Conference on Supporting Group Work) 2012, CDVE (International Conference on Cooperative Design, Visualization and Engineering) 2012 and 2013, ICEBE (International Conference on Business Engineering) 2012, AINA (International Conference on Advanced Information Networking and Applications) 2012 and the workshop IWCES (International Workshop on Collaborative Editing Systems) in 2012 and 2013.

- Gérald Oster was a PC member of CoopIS 2012 (International Conference on Cooperative Information Systems) and MSOP2P 2013 (7th International Workshop on Modeling, Simulation, and Optimization of Peer-to-peer Environments).

- Olivier Perrin has been Co-Chair of the ICSOC PhD symposium, and Program Committee member of ICSOC 2012, WCE (Workshop on Capability based Engineering) workshop at WISE 2012, GRCIS workshop 2012. He was reviewer for BPM 2012. He reviewed in 2012 papers for IEEE Transactions on Services Computing, IEEE Transactions on Software Engineering, IEEE Transactions on the Web, Web Services Handbook, Journal of Intelligent Information Systems, and Software and Systems Modelling journals.

- François Charoy was member of the Administration Council of University de Lorraine until August 2012.

- Claudia-Lavinia Ignat is member of the Inria Nancy-Grand Est COMIPERS researchers committee. She is member of the Inria Nancy - Grand Est center committee. She is in charge of European affairs for Inria Nancy Grand-Est.

- Gérald Oster is member of the Administration Council of TELECOM Nancy.

- Gérôme Canals is invited to the Administration Council of Lorraine University Institute of Technology (IUT Nancy Charlemagne) as head of department.

- Boudjlida Nacer is a member of the Council ("Conseil") of the Scientific and Technology Faculty (FST) of the University of Lorraine, a member of the directorial board of council of the scientific sector MIAE (Mathematics, Informatics, Automatic, Electronic), as he is a member of the council of the Science and Technology collegium of that FST.

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

Permanent members of the Score 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 Score team accounts for more than 2500 hours of teaching.

- Nacer Boudjlida was the head until June 2012 of the Computer Science department of the Faculty of Sciences and Technologies, University of Lorraine.

- Gérôme Canals is the head of the Computer science department of the Nancy University Institute of Technology (IUT Nancy Charlemagne), and is responsible for the professional licence degree "Web application programming" since sept. 2011.

- Jacques Lonchamp is responsible for the professional licence degree "Free and Open Source Software".

- Claude Godart is head of the Computer Science department of the engineering school ESSTIN of the *Ecoles d'ingénieurs er Cycles préparatoire* at University of Lorraine. He is study director of the master degree *Distributed Services, Security and Networks* of the *Sciences and Technologies Collegium* at University of Lorraine.

- Khalid Benali is responsible for the professional Master degree speciality "Distributed Information Systems" of MIAGE and of its international branch in Morocco.

- Olivier Perrin is responsible of the Certificat Informatique et Internet (C2I) course for DEG collegium of University of Lorraine.

- François Charoy is responsible of the Software Engineering specialisation at the TELECOM Nancy Engineering School of University of Lorraine.

- Gérald Oster is responsible of the 3rd year internship program at the TELECOM Nancy Engineering School of University of Lorraine.

We detail next the teaching activities for our permanent researchers in the tema:

Master: Claudia-Lavinia Ignat, Data replication and consistency maintenance, 15h lectures, M2, University of Lorraine

Master: Claudia-Lavinia Ignat, Java and distributed systems, 12h lectures and 24h exercise classes (Travaux dirigés), M1, ESSTIN, University of Lorraine

8.2.2. Supervision

PhD : Karim Dahman, Gouvernance et étude de l'impact du changement des processus métiers sur les architectures orientées services : une approche dirigée par les modèles, Université de Lorraine, 10/2012, François Charoy et Claude Godart

PhD : Hien Thi Thu Truong, Contract-based and Trust-aware Collaboration Model , Université de Lorraine, 12/2012, Pascal Molli et Claudia-Lavinia Ignat

PhD in progress : Luc André, Réplication et Maintien de la Cohérence en Temps Réel dans les Réseaux Pair-à-pair, started in 9/2011, François Charoy et Gérald Oster

PhD in progress : Mehdi Ahmed Nacer, complex CRDT for optimistic replication, started in 9/2011, François Charoy et Pascal Urso

PhD in progress : Elio Goettelman, Exécution en confiance de processsus dans le cloud, started in 9/2011, Claude Godart

PhD in progress : Aymen Baouab, Gouvernance et supervision décentralisée des chorégraphies inter-organisationnelles, started in 9/2009, Claude Godart, Olivier Perrin

PhD in progress : Ahmed Bouchami , Sécurité des données 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 : Yongxin Liao, Title: Semantic annotations for systems interoperability in a PLM environment, University of Lorraine, started in November 2010, Advisors: Nacer Boudjlida (LORIA) and Hervé Panetto (CRAN).

PhD in progress : Badrina Gasmi, Title: Distributed Competence Management, Béjaïa University, Algeria, started in January 2011, Advisors: Nacer Boudjlida and Hassina Talantikite (U. of Béjaïa).

PhD in progress : Faïza Bouchaib, Title: Toward a Generic Model for Competence Management, Béjaïa University, Algeria, started in January 2011, Advisors: Nacer Boudjlida and Hassina Talantikite.

8.2.3. Juries

SCORE members were member of the following PhD defense committees:

- Hien Thi Thu Truong, PhD, Université de Lorraine, December 2012 (Claudia-Lavinia Ignat)
- Karim Benouaret, PhD, Université Claude Bernard Lyon 1, October 2012 (Claude Godart)
- Karim Dahman, PhD, Université de Lorraine, October 2012 (François Charoy and Claude Godart)
- Ahmed Gater, PhD, Université de Versailles St Quentin, June 2012 (Claude Godart)
- François Hantry, PhD, Université Claude Bernard Lyon 1, September 2012 (Claude Godart)
- Nguyen Ngoc Chan, PhD, Telecom Sud Paris, December 2012 (François Charoy)
- Issac Garcia Garza, PhD, Université de Grenoble, June 2012 (Olivier Perrin)
- Samir Sebahi, PhD, Université Claude Bernard Lyon 1, March 2012 (Olivier Perrin)
- Nicolas Boissel, PhD, Université de Toulouse, November 2012 (Olivier Perrin)
- M Mohamed Amine CHAABANE, PhD, Université de toulouse, september 2012 (Khalid Benali)

- M. Omar SAKA, PhD, Institut National des Sciences Appliquées de Lyon (INSA-Lyon), March 2012 (Khalid Benali)
- M. PENG Yong, PhD, Institut National des Sciences Appliquées de Lyon (INSA-Lyon), March 2012 (Khalid Benali)
- M. SU Ziyi, PhD, Institut National des Sciences Appliquées de Lyon (INSA-Lyon), March 2012 (Khalid Benali)
- Mr Brahim BATOUCHE, University of Le Havre (F) and Henri Tudor Public Research Center (CRPHT, Luxembourg) (Nacer Boudjlida)
- Khaled Aslan Almoubayed, University of Nantes, November 2012 (Gérald Oster)

SCORE members were members of the following Habilitation defense committee:

- Mme Selmin NURCAN, HDR, Université Paris 1 Panthéon Sorbonne, december 2012 (Khalid Benali)
- Mme Frédérick BENABEN, HDR, Institut National Polytechnique de Toulouse, October 2012 (Khalid Benali)
- HU (Habilitation Universitaire, equivalent to the French HDR) of Salah Baïna, December 2012, EN-SIAS, University Mohammed V- Souissi, Rabat, Morroco (Nacer Boudjlida, reviewer and member of the defense committee)

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

9. Dissemination

9.1. Scientific Animation

9.1.1. Journals

9.1.1.1. Jean-Marc Jézéquel

is an Associate Editor of the following journals:

- IEEE Computer
- Journal on Software and System Modeling: SoSyM
- Journal of Systems and Software: JSS
- Journal of Object Technology: JOT

9.1.1.2. Benoit Baudry

is an Associate Editor of the following journal:

- Journal on Software and System Modeling: SoSyM

9.1.2. Conferences

9.1.2.1. Benoit Baudry

has been a member of the program committee of the following conferences:

- MODELS 2012 The 15th International Conference on Model Driven Engineering Languages and Systems Innsbruck, Austria, October 2012
- IEEE ICST'12 The 5th International Conference on Software Testing Verification and Validation, Montreal, Canada, April 2012
- GECCO'12, The International Conference on Genetic and Evolutionary Computation Conference, Philadelphia, USA? July 2012
- GPCE'12, The International Conference on Generative Programming and Components Engineering
- NIER'12, The New Ideas and Emerging Results track at ICSE'12, Zurich, Switzerland, May 2011.
- AST workshop on Automated Software Testing, at ICSE'11, Honolulu, USA, May 2011
- Mutation'12 workshop at ICST'12, Montreal, Canada, April 2012

9.1.2.2. Jean-Marc Jézéquel

has been a member of the program board of the following conferences:

- MODELS 2012 The 15th International Conference on Model Driven Engineering Languages and Systems Innsbruck, Austria, October 2012

9.1.2.3. Jean-Marc Jézéquel

has been a member of the program committee of the following conferences:

- Models@run.time 7th International Workshop on Models at Run-Time, associated to MODELS 2012, Innsbruck, Austria, October 2012

9.1.2.4. Benoit Combemale

has been a member of the program committee of the following conferences:

- APSEC'12, The 19th Asia-Pacific Software Engineering Conference, Hong Kong, 2012.
- SEFM'12, The 9th International Conference on Software Engineering and Formal Methods, 2012.
- AMT workshop on Analysis of Model Transformations (AMT), at MODELS'12, Innsbruck, Austria, 2012.
- ICMT'12, The 5th International Conference on Model Transformation, 2012.
- ECMFA'12, The 8th European Conference on Modelling Foundations and Applications, Lyngby, Denmark, july 2012.
- PMDE workshop at ECMFA'12, Lyngby, Denmark, july 2012.
- CSP track at WETICE'12, Toulouse, France, 2012.

9.1.2.5. Olivier Barais

has been a member of the program committee of the following conferences:

- CIEL'12, The 1st french Conference on Software Engineering, Rennes, 2012.
- SEAA'12, The 38th Euromicro Conference on Software Engineering and Advanced Applications, 2012.
- VARYCOMP'12, The 3rd International Workshop on Variability & Composition @Modularity·AOSD.
- SAC'12 The the 27th Symposium On Applied Computing, Trento, Italy, 2012.

9.1.2.6. Noël Plouzeau

has been a member of the program committee of the following conferences:

- CBSE 2012, Component Based Software Engineering, Bertinoro, Italy, june 2012,.

9.1.3. Workshops, Tutorials and Keynotes

9.1.3.1. Jean-Marc Jézéquel

has co-organized VARY'12 (Variability for You) a workshop of MODELS 2012, Innsbruck, Austria, October 2012.

9.1.3.2. Mathieu Acher

gave a tutorial "Next-Generation Model-based Variability Management: Languages and Tools" at MODELS 2012 (15th International Conference on Model Driven Engineering Languages and Systems Innsbruck).

9.2. Miscellaneous

9.2.1. Benoit Baudry

is on the steering committee of the IEEE International Conference on Software Testing Verification and Validation.

He is program committee chair for ICST'13.

9.2.2. Jean-Marc Jézéquel

is on the steering committee of the IEEE/ACM Conference on Aspect Oriented Software Development

9.3. Teaching - Supervision - Juries

9.3.1. Teaching

The Triskell team bears the bulk of the teaching on Software Engineering at the University of Rennes 1 and at INSA Rennes, at the levels M1 (Project Management, Object-Oriented Analysis and Design with UML, Design Patterns, Component Architectures and Frameworks, Validation & Verification, Human-Computer Interaction) and M2 (Model driven Engineering, Aspect-Oriented Software Development, Software Product Lines, Component Based Software Development, Validation & Verification *etc.*).

Each of Jean-Marc Jézéquel, Noël Plouzeau, Olivier Barais, Benoit Combemale, Johann Bourcier, Arnaud Blouin and Mathieu Acher teaches about 200h in these domains, with Benoit Baudry teaching about 50h, for a grand total of about 1400 hours, including several courses at ENSTB, Supelec and ENSAI Rennes.

Olivier Barais is the overall responsible for the Master2 Pro in Computer Science at the University of Rennes.

Benoit Combemale was co-chair of the 8th Educators' Symposium at MODELS 2012.

The Triskell team also receives several Master and summer trainees every year.

9.3.2. Supervision

PhD : Juan Cadavid, *Analyse formelle pour l'assistance à la méta-modélisation*, thèse 12 décembre 2012, J.-M. Jézéquel and B. Baudry

PhD in progress : 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 in progress : Suresh Pillay, *Variability Management in Modeling Languages*, thèse, 2011-2014, B. Baudry and B. Combemale

PhD in progress : Julien Richard-Foy, *A DSL factory for modular Web oriented architecture*, thèse CIFRE avec Zenexity, 2011-2014, J.-M. Jézéquel and O. Barais

PhD in progress : Olivier-Nathanael Ben David, *Secure Service Architectures and Design*, thèse 2010-2013, J.-M. Jézéquel and B. Baudry

PhD in progress : Clément Guy, *Generic Definition of Domain Specific Analysis using MDE*, thèse 2010-2013, J.-M. Jézéquel and B. Combemale

PhD in progress : Tam Le Nhan, *Model-Driven Software Engineering for Cloud Computing*, thèse 2010-2013, J.-M. Jézéquel and G. Sunye

PhD in progress : Emmanuelle Rouillé, *Processus Logiciels dirigés par les intentions*, thèse CIFRE avec SodiFrance, 2010-2013, J.-M. Jézéquel, B. Combemale and O. Barais

PhD in progress : Nicolas Sannier, *IDM pour l'ingénierie des exigences*, thèse CIFRE avec EDF 2010-2013, B. Baudry

PhD in progress : Stephen Creff, *Hierarchical Product Lines*, thèse 2009-2012, J.-M. Jézéquel and J. Champeau

PhD in progress : Francois Fouquet, *Contracts for Enterprise Service Bus*, thèse 2009-2012, J.-M. Jézéquel and N. Plouzeau

PhD in progress : Paul Istoan, *SOA Product Lines*, thèse en co-tutuelle avec l'université du Luxembourg, 2009-2012, J.-M. Jézéquel and N. Guelfi

PhD in progress : Viet-Hoa Nguyen, *Model Driven Design Methodology for Trusted Real-Time Components*, thèse 2009-2012, J.-M. Jézéquel and N. Plouzeau

PhD in progress : Valéria Lelli, *On Testing Interactive Systems*, thèse 2012-2015, B. Baudry and A. Blouin

PhD in progress : Antonio Mattos Junior, *On Validating Models at Runtime adaptation*, thèse 2012-2014, N. Plouzeau and O. Barais

9.3.3. Juries

9.3.3.1. Benoit Baudry

was in the examination committee of the following PhD thesis:

- Ahmed Turki, Mars 2012, Université d'Orléans (Referee)
- María Francisca Rosique Contereras, June 2012, Universidad Politécnica de Cartagena (Referee)
- Rajwinder Kaur Panesar-Walawege, August 2012, University of Oslo (Referee)
- Amine Raji, March 2012, ENSTA-Bretagne (Referee)
- Florian Noyrit, October 2012, Université de Paris XI (Referee)
- Marie Pelleau, November 2012, Université de Nantes (Referee)
- Marc Palyart, December 2012, Université de Toulouse (Member)
- Thang Pham, December 2012, Telecom Bretagne (Member)

9.3.3.2. Jean-Marc Jézéquel

was in the examination committee of the following HDR and PhD thesis:

- Cédric Fleury, June 2012, Université Rennes 1 (President)
- Eduardo Mazza, June 2012, University of Grenoble (Referee)
- Marcos Aurelio Almeida da Silva, June 2012, University of Paris 6 (Referee)
- Ajay Kattepur, November 2012, Université Rennes 1 (President)
- Thierry Duval (HDR), November 2012, Université Rennes 1 (President)
- Bertrand Couasnon (HDR), December 2012, Université Rennes 1 (President)

9.3.3.3. Olivier Barais

was in the examination committee of the Ali Hassan PhD (Member).

<p align="center">ALGORILLE Project-Team</p>

9. Dissemination

9.1. Scientific Animation

Since October 2001, J. Gustedt is Editor-in-Chief of the journal *Discrete Mathematics and Theoretical Computer Science* (DMTCS). He is member of the recruiting committee for PhDs and postdocs of that center and has been member in three recruitment committees for university positions in 2012.

In 2011 and 2012, J. Gustedt also served as head of the *Networks, Systems and Services* department of the LORIA computer science lab and through that as a member of the directory of LORIA and of several recruiting commissions of Université de Lorraine.

Since 2005, S. Vialle is head of the RGE action ("Réseau Grand Est") of the GDR ASR of CNRS. For SUPÉLEC, S. Vialle served as head of the IMS research team (2010–2012), and is now leader of the IDMaD research group (focussed on distributed computing and big data) inside the IMS team.

Since 2010, J. Gossa serves as expert for the French ministry of science and education and is in charge of reviewing industrial R&D expenses and *Credit Impôt Recherche* reports.

Since 2011, S. Contassot-Vivier serves as an expert for the French ministry of education and research in the DGRI/MEI mission and is in charge of reviewing academic projects between french and foreign teams.

L. Nussbaum was member of the organization and program committee for the Grid'5000 Winter School 2012.

M. Quinson has served as program committee member of the 27th ACM/IEEE International Parallel & Distributed Processing Symposium (IPDPS'13).

We organized the first Realis event this year. Associated to the Compas'13 conference, this workshop aims at providing a place to discuss the reproducibility of the experiments basing the publications submitted to the main conference. L. Nussbaum was PC chair (with O. Richard) while M. Quinson was PC member.

L. Nussbaum is appointed as an expert on research grids by the direction of the Inria Nancy–Grand Est center.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

IUT Charlemagne: Lucas Nussbaum, Systems, 40 ETD, 1ère année (L1), Université de Lorraine, France

IUT Charlemagne: Lucas Nussbaum, Networks, 70 ETD, année spéciale (L1/2), Université de Lorraine, France

IUT Charlemagne: Lucas Nussbaum, Installation of Linux, 20 ETD, Licence pro ASRALL (L3), Université de Lorraine, France

IUT Charlemagne: Lucas Nussbaum, Administration of applications, 24 ETD, Licence pro ASRALL (L3), Université de Lorraine, France

IUT Charlemagne: Sylvain Contassot-Vivier, "Algorithmique", 42 ETD, année spéciale (L1), université de Lorraine, France

Licence: Jens Gustedt, "algorithmique et programmation", 20 TD, niveau (L1), Université de Lorraine, France

Licence, Stephane Vialle, "modèle de programmation", 21 TD, L1, SUPELEC, France

MIAGE Nancy: Marion Guthmuller, "Réseaux", 50 ETD, M1, Université de Lorraine, France

Master: Sylvain Contassot-Vivier, "Algorithmique répartie et systèmes distribués", 45 ETD, M1, université de Lorraine, France

Master: Sylvain Contassot-Vivier, "Systèmes communicants", 24 ETD, M2, université de Lorraine, France

Telecom Nancy: Sylvain Contassot-Vivier, "Algorithmique des systèmes parallèles et distribués", 32 ETD, 2ème année (M1), université de Lorraine, France

Telecom Nancy: Lucas Nussbaum, Networks and systems, Systems part (40h), 2éme année (M1), Université de Lorraine, France

ESSTIN Nancy: Sylvain Contassot-Vivier, "Calcul haute performance", 42 ETD, 4ème année (M1), université de Lorraine, France

Master, Stephane Vialle, "systèmes d'information", 39 TD, M1, SUPELEC, France

Master, Stephane Vialle, "calcul haute performance", 62 TD, M2, SUPELEC, France

Engineering School, Stéphane Genaud, "systèmes informatiques et réseaux", 72 TD, niveau L3, ENSIIE, France

Engineering School, Stéphane Genaud, "middleware", 32 TD, niveau M1, ENSIIE, France

Master, Stéphane Genaud, "parallélisme, systèmes distribués et grilles", 21 TD, M2, University of Strasbourg, France

Master, Stephane Vialle, "parallélisme, systèmes distribués et grilles", 21 TD, M2, University of Strasbourg, France

Master, Stephane Vialle, "systèmes distribués et grilles", 28 TD, M2, University of Strasbourg, France

In addition, Martin Quinson authored a pedagogic platform in collaboration with Gérald Oster (Score team of Inria Nancy Grand Est). This tool aims at providing an environment that is both appealing for the student, easy to use for the teacher, and efficient for the learning process. It is available from its page. Its advantages for the learning process are described in [11].

9.2.2. *Supervision*

PhD: Wilfried Kirschenmann, *Towards sustainable intensive computing kernels*, University of Lorraine, October 17, 2012, Stephane Vialle & Laurent Plagne (EDF)

PhD in progress: Tomasz Buchert, *Orchestration of experiments on distributed systems*, since Oct 2011, Jens Gustedt & Lucas Nussbaum

PhD in progress: Marion Guthmuller, *Dynamic verification of distributed applications, using a model-checking approach*, since Oct 2011, Sylvain Contassot-Vivier & Martin Quinson

PhD in progress: Thomas Jost, *Solveurs linéaires creux sur GPU*, since Jan 2010, Bruno Lèvy & Sylvain Contassot-Vivier

PhD in progress: Soumeya Hernane, *Models and algorithms for consistent data sharing in high performance parallel and distributed computing*, since Oct 2007, Jens Gustedt & Mohamad Benyettou

9.2.3. *Juries*

In 2012, our team members participated to following thesis and habilitation committees:

Stéphane Genaud, rapporteur, Adrian Muresan, University of Lyon - École Normale Supérieure, France.

Jens Gustedt, member, Jean-Loup Guillaume (HDR), University Paris 6.

Martin Quinson, rapporteur, Silas De Munck, University of Antwerp, Belgium.

Martin Quinson, member, Sabina Akhtar, University de Lorraine, France.

Martin Quinson, member, Bogdan Cornea, University de Franche-Comté, France.

Stephane Vialle, member, Lokman Abbas-Turki, University of Paris-Est, France.

Stephane Vialle, rapporteur, Jonathan Caux, University Blaise Pascal of Clermont-Ferrand, France.

Sylvain Contassot-Vivier, member, Karim Dahman, université de Lorraine, France

Sylvain Contassot-Vivier, member, Tomás Navarrete Gutiérrez, université de Lorraine, France

Sylvain Contassot-Vivier, member, Wahiba Taouali, université de Lorraine, France

9.3. Popularization

Jens Gustedt is regularly blogging about efficient programming in particular the C programming language. He also is an active member of the stack**overflow** community a technical Q&A site for programming and related subjects.

Martin Quinson acts as a member to the Inria-Nancy Grand Est committee for Scientific Mediation. He works on several activities to demonstrate the *algorithmic thinking* at the core of the Computer Science without requiring any computer or even electric devices. An intern was funded for two months by the national Inria fund toward science popularization on this topic. These activities were demonstrated several times this year by Thomas Jost, Marion Guthmuller, Sébastien Badia and Martin Quinson to during popularization events welcoming the public within our laboratory. They were also shown during the national APMEP days, a nation-wide gathering of maths teachers at the secondary level. Martin Quinson was involved in popularization activities with Interstice [1] by writing short debunking articles ("Idées reçues") for non computer scientists about the Church thesis and Turing's work.

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[1] http://interstices.info

AVALON Team

8. Dissemination

8.1. Scientific Animation

Eddy Caron

- – Program Committee Membership (international conferences and workshops): SOAC 2012 (International Workshop on Service-Oriented Architecture and Cloud Computing within ICACCI2013), Cloud & Grid2012 (The 2012 International Workshop on Cloud and Grid Interoperability (Cloud&Grid 2012)), CLOSER 2012 (2nd International Conference on Cloud Computing and Services Science), HCW 2012 (21st International Heterogeneity in Computing Workshop in conjunction with IPDPS 2012), SC12 Tutorials
- – Program Committee Membership (national conferences and workshops): Realis (Reproductibilité expérimentale pour l'informatique en parallélisme, architecture et système – 1ère édition within ComPAS'2013)

Frédéric Desprez

- – Program Committee Membership (international conferences and workshops): BDMC (1st Workshop on Big Data Management in Clouds held in conjunction with the EuroPar 2012 conference), Federatedclouds (Workshop on Cloud Services and the 8th Open Cirrus Summit), CGWS'2012 within EuroPAR, CLOSER 2012 (2nd International Conference on Cloud Computing and Services Science), ICA CON 2012 (1st International Conference of the IBM Cloud Academy), CCGRID 2012 (12th IEEE International Symposium on Cluster, Cloud and Grid Computing), HPGC 2012 (FTRA International Workshop on Human centric computing, P2P, Grid and Cloud computing), VTDC Workshop (5th International Workshop on Virtualization Technologies in Distributed Computing (within HPDC 2012)), LaSCoG'2012 (8th Workshop on Large Scale Computations on Grids), 3PGCIC (7th International Conference on P2P, Parallel, Grid, Cloud, and Internet Computing, Victoria, Canada, Nov.2012), ICPADS 2012 (18th IEEE International Conference on Parallel and Distributed Systems), CFSE (Conférence Française en Systèmes d'Exploitation), Cloud-Com 2012 (Services and Applications track of IEEE CloudCom 2012), Grid'12 (The 13th ACM/IEEE International Conference on Grid Computing)
- – Program Committee Membership (national conferences and workshops): CFSE (Conférence Française en Systèmes d'Exploitation)

Gilles Fedak

- – Publicity Chair 13th IEEE/ACM International Conference on Grid Computing Grid'12, Beijing, China, 2012
- – Co-chair Third International Workshop on the MapReduce Programing Model and its Application (MapReduce 2012), in conjunction with HPDC'12, Delft, Nederlands, 2012
- – Program Committee Membership: 13th IEEE/ACM International Conference on Grid Computing (Grid'12), ACM Symposium on High-Performance Parallel and Distributed Computing (HPDC'2012), International Conference on Computer Communication Networks(ICCCN), track on Grid and Cloud Computing (GCC), 8th IEEE International Conference on eScience (eScience 2012), 4th IEEE International Conference on Cloud Computing Technology and Science (CloudCom 2012), 12th IEEE International Conference on Scalable Computing and Communications (ScalCom-12), 20th Euromicro International Conference on Parallel, Distributed and Network-Based Processing (PDP'12),

Jean-Patrick Gelas

- Reviewing committee: CCGrid2012
- University committee: Master (M2 CCI) jury

Olivier Glück

- Reviewing committee: CCGrid2012
- University committee: Member of the CEVU (Conseil des Etudes et de la Vie Universitaire) of University Lyon 1, Member of the UFR Faculté des Sciences et Technologies faculty council of University Lyon 1, Member of the computer science department council of University Lyon 1

Laurent Lefevre

- Program Vice-Chair of the track "Cluster, Grid and Cloud Computing" in the The 12th IEEE International Conference on Scalable Computing and Communications (ScalCom 2012), Changzhou, China, December 17-20, 2012
- Program Chair of the The IEEE International Conference on Green Computing and Communications (GreenCom 2012) , Besancon, France, November 20-23, 2012
- Co-organizer of Entretiens Jacques Cartier : Colloquium on "Towards ecological and energy efficient Information and Communication Technology - Vers des Technologies de l'Information écologiques et efficaces en consommation énergétique", Lyon, France, November 19-20, 2012
- Co-Organization of Inria Booth in SuperComputing 2012, Salt Lake City, USA, November 10-16, 2012
- Co PC Chair of Cloud&Grid 2012 : The Second International Workshop on Cloud and Grid Interoperability, Gwangju, Korea, 6-8 September 2012
- Co PC Chair of the 14th IEEE International Conference on High Performance Computing and Communications (HPCC-2012), Liverpool, UK, 25-27 June, 2012
- Steering Comittee Member of : IEEE TCSC Technical Area in Green Computing, CCGrid 2012 : 12th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing
- Program Committee Member of the following international conferences : The 6th International Conference on Network and System Security (NSS 2012), 5th IEEE/ACM International Conference on Utility and Cloud Computing (UCC 2012), Third International Conference on Energy-Aware High Performance Computing, ICT-GLOW 2012: 2nd International Conference on ICT as Key Technology for the Fight against Global Warming, HP-PAC2012: The Eight Workshop on High-Performance, Power-Aware Computing, CCGrid 2012 : 12th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing, E-Energy 2012 : the third International Conference on Future Energy System, PMAM 2012 : The 2012 International Workshop on Programming Models and Applications for Multicores and Manycores, The 10th Australasian Symposium on Parallel and Distributed Computing (AusPDC2012)
- Program Committee Member of the following national conference : NOTERE / CFIP : Nouvelles technologies de la répartition / Colloque francophone sur l'ingénierie des protocoles,

Christian Pérez

- Program Committee Membership: 20th High Performance Computing Symposium (HPC 2012), 10th International Conference on Service Oriented Computing (ICSOC 2012), Conference for Young Scientists "Facing the Multicore-Challenge III".
- Reviewer for the 12th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing (CCGrid 2012), 5th International Conference on Cloud Computing (IEEE Cloud 2012).

Frédéric Suter

– Program Committee Membership (international conferences and workshops): CLOSER 2012 (2nd International Conference on Cloud Computing and Services Science), VTDC Workshop (5th International Workshop on Virtualization Technologies in Distributed Computing (within HPDC 2012)), LaSCoG'2012 (8th Workshop on Large Scale Computations on Grids), Vecpar 2012 (10th International Meeting on High-Performance Computing for Computational Science), MAPREDUCE2012 (Third International Workshop on MapReduce and its Applications).

– Program Committee Membership (national conferences and workshops): Realis (Reproductibilité expérimentale pour l'informatique en parallélisme, architecture et système – 1ère édition within ComPAS'2013)

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

Master: Eddy Caron, Grid and Cloud Computing, 14 hours, M2, ENS Lyon, France

Master: Eddy Caron, Distributed System, 39 hours, M1, ENS Lyon, France

Master: Eddy Caron, Engineering Software, 39 hours, M1, ENS Lyon, France

Master: Eddy Caron, Grids, 8 hours, M2 RTS, INSA, France

Master: Frd´éric Desprez, Parallel Computing, 30h, M1, Université Lyon 1, France

Master : Jean-Patick Gelas, Réseaux avancés : IPv6 and IP routing, 40h, niveau M2, Université Lyon 1, France

Master : Jean-Patick Gelas, Architecture des réseaux : Router under the hood, 6h, niveau M2, Université Lyon 1, France

Master : Jean-Patick Gelas, Systèmes d'exploitation, 24h, niveau M2, Université Lyon 1, France

Master : Jean-Patick Gelas, Réseaux, 35h, niveau M2, Université Lyon 1, France

Master : Jean-Patick Gelas, Systèmes et logiciels embarqués, 45h, niveau M2, Université Lyon 1, France

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

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

Licence : Olivier Glück, Réseaux, 60h, niveau L3, Université des Sciences de Ho Chi Minh ville, Vietnam

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

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

Master : Laurent Lefevre, Green Networking, 16h, M2, Ecole Normale Supérieure de Lyon, France

Master : Laurent Lefevre, Operating Systems, 39h, MASTER Informatique Spćialité Compétence Complémentaire en Informatique, Université Claude Bernard, Lyon1, France

Master : Christian Pérez, Grid and Cloud Computing, 14h, M2, Ecole Normale Supérieure de Lyon, France

8.2.2. Supervision

PhD & HdR

- Vincent Pichon, PhD defended October 5th, 2012, *Contribution à la conception à base de composants logiciels d'applications scientifiques parallèle*, André Ribes (EDF R&D, co-dir), C. Pérez (dir), [3].

- Cristian Klein, PhD defended November 29th, 2012, *Cooperative Resource Management for Parallel and Distributed Systems*, C. Pérez, [1].

- Adrian Muresan, PhD defended December 10th, 2012, *Scheduling and deployment of large-scale applications on Cloud platforms*, E. Caron (co-dir), F. Desprez (dir), [2].

- Mohammed Diouri , PhD in progress, *Performances and low energy consumption for distributed applications executed on exascale systems*, Oct. 1, 2010, I. Guérin Lassous (Dir.) and L. Lefèvre and O. Glück

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

- Sylvan Gault, PhD in progress, *Ordonnancement de tâches avec le modèle MapReduce*, F. Suter (co-dir), F. Desprez (dir)

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

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

- Anthony Simonet , PhD in progress, *Large scale data management in hybrid distributed computing infrastructures* G. Fedak

- Ghislain Tsafack Chetsa, PhD in progress, *Energy profile and green levers for applications and services over large scale and distributed infrastructures*, (2011-2014), L. Lefèvre (Dir.) and J.-M. Pierson (IRIT, co-dir.)

- Georges Markomanolis, PhD in progress, *Environnement de simulation pour l'aide au dimensionnement de grilles de calcul* , F. Suter (co-dir), F. Desprez (dir)

8.2.3. Juries

- Frédéric Desprez, HDR reviewer of Marc Baboulin, *Fast and reliable solutions for numerical linear algebra solvers in high-performance computing*, LRI, November 2012; PhD reviewer of Simplice Donfack, *Methods and algorithms for solving linear systems of equations on massively parallel computers*, LRI, June 2012; of Rodrigue Chakode, *Environnement d'excution pour des services de calcul à la demande sur des grappes mutualisées*, Grenoble, June 2012; of Lamiel Toch, *Contributions aux techniques d'ordonnancementsur plates-formes parallèles ou distribuées*, Besançon, November 2012; of Yrjö Raivio, *Techno-Economic Analysis of Novel Opportunities for Mobile Networks – Open Innovation and Cloud Computing*, Helsinki, December 2012; PhD defense committee member of Xavier Etchevers, *Déploiement d'applications patrimoniales en environnements de type informatique dans le nuage*, Grenoble, December 2012.

- Gilles Fedak, PhD external reviewer of Ian Kelley, *Data Management in Dynamic Distributed Computing Environment* UK, November 2012

- Laurent Lefevre, PhD reviewer of Marco Guazzone *Power and Performance Management in Cloud Computing Systems*, University of Torino, Italy, February 2012

- Christian Pérez, PhD reviewerof Ahmed Turki, *Un modèle pour la composition d'applications de visualisation et d'interaction continue avec des simulations scientifiques*, University of Orleans, March 2012; of André Lage Freitas, *Autonomous Service Execution Driven by Service Level Agreements*, INSA Rennes, March 2012; of Javier Rojas Balderrama, *Gestion du cycle de vie de services déployés sur une infrastructure de calcul distribué en neuroinformatique*, University of Nice Sophia Antipolis, April 2012; of Jérmˆe Clet-Ortega, *Exploitation efficace des architectures parallèles de type grappes de NUMA à l'aide de modèles hybrides de programmation*, University of Bordeaux I, April 2012; of Héctor Fernández, *Flexible Coordination through the Chemical Methaphor for Services Infrastructure*, University of Rennes I, June 2012; of Mihai Alexandru, *Efficient large electromagnetic simulation based on hybrid TLM and modal approach on grid computing and supercomputer*, University of Toulouse, December 2012.

8.3. Popularization

Laurent Lefevre :

- Co-organizer of the Rencontres Inria Industrie : Sciences Numériques et efficacité énergétique - Numerical Sciences and energy efficiency, Inria Montbonnot, France, March 8, 2012

- Co-organizer of the Second Half day on "Public procurement of Energy efficient datacenters - Achats publics de datacentres efficaces du point de vue énergétique", within the PrimeEnergyIt Project, with BIO Intelligence Service company, Paris, France, February, 10, 2012

- Co-organizer of the Green Days @ Lyon event: "Energy efficiency : how to monitor and impact on applications ?", Lyon, France, January 19-20, 2012

- Member of "Comité de Pilotage" for the collaborative writing of a Ademe Book on "Guide Sectoriel 2012 : Réalisation d'un bilan des émissions de gaz à effet de serre", 146 pages, January 2012

- "L'émergence du Green-IT, pour une informatique plus verte" : Article and Interview for 20 ans Inria Rhone Alpes, Laurent Lefevre and Bel Dumé, November 15, 2012

- "Le Green IT se réfugie au Nord !" : Brève Inria; "Le saviez-vous ?", Laurent Lefevre and Christophe Castro, May 10, 2012

- Interview for the paper "Comment se chauffer avec les *data centers*", Les Echos, April 2012

CEPAGE Project-Team

8. Dissemination

8.1. Scientific Animation

8.1.1. Editorial Work

- Ralf Klasing is Associate Editor for
  - Algorithmic Operations Research (since May 2007),
  - Parallel Processing Letters (since August 2007),
  - Networks (since September 2007),
  - Computing and Informatics (since January 2008),
  - **Theoretical Computer Science (since December 2009),**
  - Fundamenta Informaticae (since January 2010),
  - Discrete Applied Mathematics (since February 2010),
  - Wireless Networks (since May 2010),
  - Journal of Interconnection Networks (since November 2010).
- Olivier Beaumont is Associate Editor for
  - **IEEE Transactions on Parallel and Distributed Systems (since June 2010).**

8.1.2. Steering Committees

- Ralf Klasing is a member of the Steering Commitee of the *International Colloquium on Structural Information and Communication Complexity (SIROCCO)*.

8.1.3. Organizing Commitees

- Ralf Klasing was a member of the organization committee of the *Bordeaux Graph Workshop*, Bordeaux, France, November 21-24, 2012.

8.1.4. Program Committees – Chair

- Nicolas Hanusse was the Conference Chair of *14th French Conference of Communications in Network (Algotel 2012)*
- Nicolas Hanusse was the Conference Chair of *International Conference on Algorithm (FUN 2012)*
- Ralf Klasing was the Conference Chair of the *11th International Symposium on Experimental Algorithms (SEA 2012)*, Bordeaux, France, June 7-9, 2012.
- Philippe Duchon was the Conference Chair of the *The 8th edition of the conference GASCom on random generation of combinatorial structures*, Bordeaux, France, June 7-9, 2012.
- Sofian Maabout was the conference Chair of *8th French Conference on Data Warehouses and OLAP (EDA2012)*, Bordeaux, June 12-13, 2012.
- Olivier Beaumont will be the Conference Chair (Algorithms Track) of the *42th International Conference on Parallel Processing*, ICPP 2013, Lyon, France, 2013

8.1.5. Program Committees

- Olivier Beaumont
  - ICPP 2012, 41st International Conference on Parallel Processing, Pittsburgh, PA, USA, September 10-13, 2012

- IPDPS 2012, 26th IEEE International Parallel & Distributed Processing Symposium, May 21-25, 2012, Shanghai, China
- HCW 2012, 20th International Heterogeneity in Computing Workshop, May 21-25, 2012, Shanghai, China
- ISCIS 2012, 27th International Symposium on Computer and Information Sciences, Paris, France
- CSE 2012, 15th IEE International Conference on Computational Science and Engineering, Paphos, Cyprus

- Nicolas Bonichon
  - AlgoTel 2012 (May 29- June 1, La Grande Motte, France) Rencontres Francophones sur les aspects Algorithmiques des Télécommunications

- Cyril Gavoille
  - DISC 2012 (Oct. 16-18, Salvador, Brazil), International Symposium on Distributed Computing
  - ISAAC 2012 (Dec. 19-21, Taipei, Taiwan), International Symposium on Algorithms and Computation
  - ICDCN 2012 (Jan. 3-6, Hong-Kong), International Conference on Distributed Computing and Networking

- David Ilcinkas
  - FOMC 2012 (8$^{\text{th}}$ ACM SIGACT/SIGMOBILE International Workshop on Foundations of Mobile Computing)
  - **OPODIS 2012 (16$^{\text{th}}$ International Conference On Principles Of DIstributed Systems)**

- Ralf Klasing
  - SEA 2012, 11th International Symposium on Experimental Algorithms, Bordeaux, France, June 7-9, 2012
  - ADHOC-NOW 2012, 11th International Conference on Ad Hoc Networks and Wireless, July 9-11, 2012, Belgrade, Serbia
  - FOMC 2012, 8th ACM SIGACT/SIGMOBILE International Workshop on Foundations of Mobile Computing (formerly known as DIALM-POMC), July 19, 2012, Madeira, Portugal
  - IWOCA 2012, 23rd International Workshop on Combinatorial Algorithms, July 19-21, 2012, Kalasalingam University, Anand Nagar, Krishnankoil, Tamil Nadu, India

- Lionel Eyraud-Dubois
  - Cluster 2012, *IEEE Conference on Cluster Comuting*, September 24-28, Beijing, China.

- Adrian Kosowski
  - SEA 2012, 11th International Symposium on Experimental Algorithms, Bordeaux, France, June 7-9, 2012.
  - SSS 2012, 14th International Symposium on Stabilization, Safety, and Security of Distributed Systems, Toronto, September 24-27, 2012 .
  - ICDCN 2012, 13th International Conference on Distributed Computing and Networking, January 3-6, 2012, Hong Kong, China.
  - MFCS 2012, 37th International Symposium on Mathematical Foundations of Computer Science, August 27-31, 2012, Bratislava, Slovakia.

- Sofian Maabout

– ICWIT 2012, 4th Int. Conf. on Web and Information Technologies, Sidi Bel Abbes, Algeria, April 29-30, 2012.

8.1.6. Research Administration

8.1.6.1. Main Administrative Duties

- Olivier Beaumont is the Scientific Deputy of Inria Bordeaux Sud-Ouest (since September 2011)
- Nicolas Hanusse is the Head of the Doctoral School (Computer Science) of the University of Bordeaux (since 2010)
- Cyril Gavoille was a Deputy Director of LaBRI laboratory (2008–2011)
- Ralf Klasing is responsible of the "Combinatorics and Algorithms" Team of the LaBRI. (since November 2010)
- Nicolas Hanusse is responsible of the "Distributed Algorithms" Group in LaBRI. (since November 2010)
- Philippe Duchon is the Head of the University Bordeaux 1 Computer Science Master program (since 2010)
- Ralf Klasing is responsible for the International Relations of the LaBRI. (since January 2009)
- Sofian Maabout is responsible of the second year of the "Information Systems for Health Care" Master (since 2010).
- Ralf Klasing is a member of the Evaluation Committee of the programme "ANR DEFIS".
- David Ilcinkas is a member of the *Conseil de Laboratoire* of the LaBRI.

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

Master : Communication and Routing (last year of engineering school ENSEIRB, 2012) O. Beaumont, N. Bonichon, L. Eyraud, N. Hanusse, R. Klasing, A. Kosowski (16h)

Master : Communication Algorithms in Networks (2nd year MASTER "Algorithms and Formal Methods", University of Bordeaux, 2012) R. Klasing (24h)

Master : Search Engines (2nd year of engineering school ENSEIRB, 2012) O. Beaumont (20h)

Master : Distributed Computing (2nd year MASTER "Réseaux, Systèmes et Mobilité"), (24h)

8.2.2. Supervision

PhD :

- Florent Foucaud, Aspects combinatoires et algorithmiques des codes identifiants dans les graphes, Ralf Klasing, André Raspaud, Université Bordeaux 1, 10.12.2012
- Godfroy Quentin, From spanners to multipath spanners, Cyril Gavoille, Université Bordeaux 1, dec. 2012.

PhD in progress :

- Przemyslaw Uznanski, Communication modeling on large scale platforms, November 2010, Olivier Beaumont, Nicolas Bonichon, Lionel Eyraud-Dubois, Université Bordeaux 1.
- Ahmed Wade, Mobile agent protocols for dynamic networks, February 2011, David Ilcinkas, Ralf Klasing, Université Bordeaux 1.
- Dominik Pajak, Multi-agent protocols for efficient graph exploration, October 2011, Adrian Kosowski, Ralf Klasing, Université Bordeaux 1.
- Pierre Halftermeyer, Structuration des graphes et étiquetages compacts, October 2010, Cyril Gavoille, Université Bordeaux 1.

8.2.3. *Juries*

- Ralf Klasing was examinateur and president of the PhD committee of Thomas Morsellino (University Bordeaux 1, 25.9.2012)

- Ralf Klasing was external PhD reviewer and member of the PhD committee in the Ph.D. defense of Aline Parreau (University of Grenoble, 5.7.2012)

- Ralf Klasing was external PhD reviewer and member of the PhD committee in the Ph.D. defense of Marwane Bouznif (University of Grenoble, 4.7.2012)

- Cyril Gavoille was external reviewer for the PhD thesis of Mikaila Toko Worou, Université Nice Sophia-Antipolis, Outils algorithmiques pour la détection des communautés dans les réseaux (12/2012).

- Cyril Gavoille was was external reviewer for the PhD thesis of Jean-François Couturier, Université Paul Verlaine (Metz), LITA, Algorithmes exacts et exponentiels sur les graphes: énumération, comptage et optimisation (12/2012).

- Cyril Gavoille was (anonymous) external reviewer for the PhD thesis of Université des Sciences et de la Technologie Houari Boumédiène in Algeria (11/2012).

- Cyril Gavoille was president of the committee and examinator for the PhD thesis of Nicolas Delfosse, Université de Bordeaux, IMB, Constructions et performances de codes LDPC quantiques (12/2012).

- Nicolas Hanusse was examinator for the PhD thesis of Dominique Dion, Dyname d'évolution de graphes de cooccurences lexicales: application à l'analyse de comptes-rendus en prévention spécialisée entre 1972 et 2010.

- Nicolas Hanusse was president of the committee and examinator for the PhD thesis of Quention Godfroy, Multipath Spanners, Université de Bordeaux (11/2012)

- Nicolas Hanusse was external reviewer and examinator for the "Habilitation of Research Direction" of Jean-Loup Guillaume, Déterminisme et non-déterminisme au service de la détection de communautés dynamiques, Paris 6 University (11/2012)

- Nicolas Hanusse was president of the committee and examinator for the PhD thesis of Asma Ben Zakour, Extraction des utilisations typiques à partir de données hétérogènes historisées en vue d'optimiser la maintenance d'une flotte de véhicules , Université de Bordeaux (06/2012)

<p style="text-align:center">**GRAND-LARGE Project-Team**</p>

7. Dissemination

7.1. Scientific Animation

Christine Eisenbeis
- NPC 2012, the 9th Ifip International Conference on Network and Parallel Computing, Gwangju, Korea, September 6-8, 2012, program committee;
- UCNC 2012, 11th International Conference on Unconventional Computation and Natural Computation, Orléans, September 3-7, 2012, program committee;
- member of IFIP WG 10.3;
- IJPP (International Journal on Parallel Programming) editorial board.

Laura Grigori
- Member of Program Committee of IEEE International Parallel and Distributed Processing Symposium IPDPS 2012.
- Member of Program Committee of IEEE/ACM SuperComputing SC12 Conference, 2012.
- Member of the Best Paper Awards and Best Student Paper Award Jury, IEEE/ACM Supercomputing 2012, Conflict Chair for Algorithms, Supercomputing 2012.
- Member of Program Committee of HiPC 2012, 19th IEEE Int'l Conference on High Performance Computing.

7.2. Teaching - Supervision - Juries

7.2.1. Teaching

Licence : Cédric Bastoul, Réseaux niveau licence, IUT d'Orsay (60h), Système niveau licence, IUT d'Orsay (40h).

Master : Christine Eisenbeis, coordinatrice du module "Optimisations et compilation" du M2 recherche NSI ("Nouveaux systèmes informatiques") de l'université Paris-Sud 11. 6 heures de cours.

Master: L. Grigori teaches in "Calcul Haute Performance" of M2 recherche NSI of University Paris Sud 11.

Polytech 5th year: L. Grigori teaches the "Parallel Computing" class.

7.2.2. Supervision

HdR : Marc Baboulin, "Fast and reliable solutions for numerical linear algebra solvers in high-performance computing", université Paris-Sud 11, 5 décembre 2012.

HdR : Cédric Bastoul, "Contributions à l'optimisation des programmes de haut niveau", université Paris-Sud 11, 12 décembre 2012.

PhD: Simplice Donfack, Solving Systems of Equations on Petascale Machines, University Paris Sud 11, 7 March 2012, PhD Supervisor: L. Grigori

PhD in progress: Amal Khabou, Dense matrix computations: communication cost and numerical stability, University Paris Sud 11, 11 February 2013, PhD Supervisor: L. Grigori

PhD in progress: Sophie Moufawad, Communication Avoiding preconditioners, University Paris Sud 11, Supervisor: L. Grigori

7.3. Popularization

Christine Eisenbeis a contribué au manuel scolaire d'enseignement de l'informatique en terminale S [39]. Elle est intervenue à la table ronde "Qu'en disent les femmes scientifiques" du colloque "Effets de genre dans les sciences et les technologies", organisé par le Centre Interdisciplinaire d'Étude de l'Évolution des Idées, des Sciences et des Techniques (CIEEIST, Centre d'Alembert) à Orsay les 9 et 10 mai 2012.

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

9. Dissemination

9.1. Scientific Animation

Olivier Coulaud is member of the Inria COST GTAI committe (in charge of incentive actions), of the C3I GENCI committe and of the scientific board of the regional computing mesocentre. Moreover, he is the leader of the Inria PlaFRIM computing plateform.

Luc Giraud has been member of the scientific committee of the international conferences SuperComputing'12, PDSEC'12 and VecPar'12. He was member of the selection committee for the ANR MN programme. He is also member of the editorial board of the SIAM Journal on Matrix Analysis and Applications (SIMAX), expert for the Dutch FWO programme and for the Italian VQR 2004-2010 programme.

Jean Roman 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. He is member of the "Strategic Comity for Intensive Computation" of the French Research Ministry, of the the GENCI WP2 - FRANCE for PRACE and is member of the "Scientific Board" of the CEA-DAM. He has been member of the scientific committee of the international conference EuroMicro PDP'12 (IEEE).

Finally, the HiePACS members have contributed to the reviewing process of several international journals (Applied Numerical Mathematics, Numerical Linear Algebra with Applications, Parallel Computing, SIAM J. Numer. Analysis , SIAM J. Scient. Comp., ...), to the reviewing process of international conferences (IEEE IPDPS 2013, Supercomputing 2012, vecPar 2012, ...), and have acted as experts for the research agency ANR-MN.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

In the following are listed the lectures given by the HiePACS members.

Undergraduate level
1. A. Esnard: Operating system programming, 36h, University Bordeaux I; Using network, 23h, University Bordeaux I.
2. A. Esnard: in charge of the computer science certificate for Internet (C2i) at the University Bordeaux I.

Post graduate level
1. O. Coulaud: Paradigms for parallel computing, 28h, ENSEIRB-MatMeca, Talence; Code coupling, 6h, ENSEIRB-MatMeca, Talence.
2. A. Esnard: Network management, 27h, University Bordeaux I; Programming distributed applications, 60h, ENSEIRB-MatMeca, Talence.
3. 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, ENSEEIHT Toulouse; Parallel sparse linear algebra, 11h, ENSEIRB-MatMeca, Talence.
4. A. Guermouche: Network management, 92h, University Bordeaux I; Network security, 64h, University Bordeaux I; Operating system, 24h, University Bordeaux I.
5. J. Roman: Parallel sparse linear algebra, 10h, ENSEIRB-MatMeca, Talence; Parallel algorithms, 22h, ENSEIRB-MatMeca, Talence.
6. X. Vasseur: Solution of PDE, 16 h, ENSEEIHT Toulouse; Linear Algebra and Optimization, 25 h, ISEA-ENSICA, Toulouse; Introduction to MPI, 11 h, ENM, Toulouse; Introduction to Fortran 90, 5 h, CERFACS, Toulouse.

9.2.2. Supervision

Defended PhD thesis

1. Jérôme Soumagne, *"An In-situ Visualization Approach for Parallel Coupling and Steering of HPC Applications using Files in Distributed Shared Memory"*, Université Bordeaux I, defended on 14 Dec. 2012, advisors: J. Bidiscombe (CSCS), A. Esnard and J. Roman.

PhD in progress :

1. Rached Abdelkhalek, *"Modélisation et imagerie sismique sur accélérateurs matériels"* , starting Jan. 2008, advisors: O. Coulaud, G. Latu (CEA) and J. Roman.

2. Yohann Dudouit, *"Scalable parallel elastodynamic solver with local refinment in geophysics"*, starting Oct. 2010, advisors: L. Giraud and S. Pernet (CERFACS).

3. Arnaud Etcheverry, *"Toward large scale dynamic dislocation simulation on petaflop computers"*, starting Oct. 2011, advisors: O. Coulaud and J. Roman.

4. Andra Hugo *"Composabilité de codes parallèles sur plateformes hétérogènes"*, starting Oct. 2011, advisors: A. Guermouche, R. Namyst and P-A. Wacrenier.

5. Alexis Praga, *"Parallel atmospheric chemistry and transport model solver for massivelly platforms"*, starting Oct. 2011, advisors: D. Cariolle (CERFACS) and L. Giraud.

6. Stojce Nakov, *"Parallel hybrid solver for heterogenous manycores: application to geophysics"*, starting Oct. 2011, advisors: E. Agullo and J. Roman.

7. Fabien Rozar, *"Peta and exaflop algorithms for turbulence simulations of fusion plasmas"*, starting Nov. 2012, advisors: Guillaume Latu (CEA) and Jean Roman.

8. Pablo Salas Medina, *"Parallel eigensolvers for large scale combustion chamber simulations"*, starting June 2010, advisors: L. Giraud and X. Vasseur (CERFACS).

9. Moustapha Salli, *"Design of a massively parallel version of the SN method for neutronic simulations"*, starting Oct. 2012, advisors: Laurent Plagne (EDF), Pierre Ramet and Jean Roman.

10. Clément Vuchener, *"Algorithmique de l'équilibrage de charges pour des couplages de codes complexes"*, starting Sept. 2010, advisors: A. Esnard and J. Roman.

11. Mawussi Zounon, *"Numerical resilient algorithms for exascale"*, starting Oct. 2011, advisors: E. Agullo and L. Giraud.

9.2.3. Juries

PhD thesis defences

1. J. Charles, Amélioration des performances de méthodes Galerkin discintinues d'ordre élevé pour la résolution numérique des équations de Maxwell instationnaires sur des maillages simplexes, Université de Nice-Sophia Antipolis, spécialité Mathématiques, April 26, Referee: L. Giraud.

2. S. Duminil, Extrapolation vectorielle et applications aux équations aux dérivées partielles, Université du Littoral Côte d'Opale, spécialité Mathématiques Appliquées, July 6, Referee: L. Giraud.

3. S. Detournay, Multigrid methods for zero-sum two player stochastic games, Ecole Polytechnique and Inria, September 25th, Member: X. Vasseur.

4. C. Obrecht, High Performance Lattice Boltzmann Solvers on Massively Parallel Architectures with Applications to Building Aeraulics, INSA de Lyon, spécialité Mécanique - Energétique - Génie Civil - Acoustique, December 11, Referee: J. Roman.

5. S. Jauré, Methodology for conjugate heat transfer simulations relying on Large Eddy Simulations in massively parallel environments, Institut National Polytechnique de Toulouse, spécialité Dynamique des Fluides, December 14, Member: L. Giraud.

HdR defences

1. N. Raveu, Contribution à la modélisation de dispositifs hyperfréquences par méthode modale, Institut National Polytechnique de Toulouse, spécialité Electronique, November 29, Member: L. Giraud.

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

9. Dissemination

9.1. Scientific Animation

Gabriel Antoniu:

- General Co-Chair of the ScienceCloud 2012 International workshop held in conjunction with the ACM HPDC 2012 conference.
- Local Chair of the 7th International Workshop of the Joint Inria-UIUC-ANL Lab for Petascale Computing, Rennes, June 2012.
- Track chair at IEEE CloudCom 2012 international conference.
- Editor for a Special Issue of Concurrency and Computation: Practice and Experience Journal on Cloud Computing for Data-driven Science and Engineering, 2012.
- Program Committee member (selection): ACM HPDC 2012, ACM/IEEE SC 2013, IEEE/ACM CCGRID 2013, ICCCN 2012, IEEE HPCC 2012, IEEE AINA 2012, IEEE CloudCom 2012, ICPADS 2012.
- Coordinator for the MapReduce ANR project (see Section 8.1).
- G. Antoniu and B. Thirion (PARIETAL Project-Team, INRIA SACLAY – ÎLE-DE-FRANCE) co-lead the AzureBrain Microsoft-Inria Project (2010-2013).
- Coordinator for the DataCloud@work Associate Team, a project involving the KerData and MYR-IADS Inria Teams in Rennes and the Distributed Systems Group from Politehnica University of Bucharest (2010–2012).
- Local coordinator for Inria Rennes – Bretagne Atlantique Research Center in the SCALUS Project of the Marie-Curie Initial Training Networks Programme (ITN), call FP7-PEOPLE-ITN-2008 (2009-2013).

Alexandru Costan:

- Organizer of the 1st Workshop on Big Data Management in Clouds BDMC2012 in conjunction with EuroPar 2012, see http://www.irisa.fr/kerdata/bdmc/
- Program Committee member: CloudCom 2012, ScienceClouds 2012, EIDWT 2012
- Reviewer: J. of Parallel and Distributed Computing, IEEE Internet Computing, Concurrency and Computation: Practice and Experience, Intl. J. of Grid and Utility Computing, Innovative Studies Intl. J., Scalable Computing: Practice and Experience, Simulation Modelling Practice and Theory, HPDC 2012, AINA 2012, RenPar 2012

Luc Bougé:

- Since September 2012: Scientific coordinator for the Information & Communication Science & Technology Department of the National Research Agency (ANR).

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Gabriel Antoniu:

Master (Engineering Degree, 5th year): Grid and cloud computing, 18 hours (lectures), M2 level, Ecole Supérieure d'Informatique, Electronique, Automatique, Paris, France.

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

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

Alexandru Costan

- Object-oriented programming, 18h, L3, ENS Cachan - Antenne de Bretagne
- Databases, 28h, L2, INSA Rennes, France
- Object-oriented design, 28h, M1, INSA de Rennes
- Practical case studies, 16h, L3, INSA de Rennes

Matthieu Dorier:

- Java programming (lectures, seminars, practical sessions), L1 level, INSA de Rennes, 56h.
- Programming techniques (seminars, practical sessions), L3 level, ENS Cachan - Antenne de Bretagne 42h

9.2.2. Supervision

PhD & HdR :

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

PhD in progress : Houssem Chihoub, Consistency issues in cloud storage systems, thesis started in October 2010 co-advised by Maria Pérez (UPM - Madrid) and Gabriel Antoniu.

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

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

9.2.3. Juries

Gabriel Antoniu served as a member of Inria's national Jury for hiring researchers (junior positions, confirmed positions and starting research positions).

Gabriel Antoniu served as a Referee and as a Chair for a PhD Jury at the University of Bordeaux; as a Chair for a PhD Jury at the University of Nantes.

9.2.4. Miscellaneous

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

Luc Bougé serves as Head of the Computer Science Department of ENS Cachan - Brittany.

<p style="text-align:center;color:red;font-weight:bold;">MESCAL Project-Team</p>

9. Dissemination

9.1. Animation of the scientific community

- Brigitte Plateau is the president of Grenoble-INP.
- Yves Denneulin is the director of Grenoble-INP ENSIMAG.
- Corinne Touati is the Grenoble INP correspondent for international relations with Japan.
- Yves Denneulin and Jean-Marc Vincent are co-directors of the LICIA (Franco-Brazilian Laboratory).
- Bruno Gaujal has been a member of selection committees in Grenoble.

9.1.1. Invited Talks

- Bruno Gaujal gave an invited talk at *Piecewise Deterministic Markov Process Days*, Marne la Vallée, 2012. He was invited to give a series of lectures at the Workshop *Weak Kam Dynamics and mean field games and control*, Warwick Mathematics Dept., 2012. He wa also invited to give a talk at the *Complex systems workshop*,Rescom, Paris, Nov. 2012.
- Bruno Gaujal and Corinne Touati are invited to give a one hour lecture each at the autumn school on *Analyse D'Algorithmes et Modèles Aléatoires* (ADAMA), Monastir, October 2012 on game theory for networks.
- Panayotis Mertikopoulos was invited to give talks at ENSEA, Wireless Networks Seminar, March 2012, Ecole Polytechnique, Economic Theory Seminar, March 2012, Games and Strategy in Paris (International Conference for Sylvain Sorin's 60th birthday), June 2012, Paris Game Theory Seminar, May 2012, University of Athens, Wireless Systems Seminar, October 2012.
- Arnaud Legrand has given an invited talk at JLPC (Argone), November 2012, at the workshop *New challenges in scheduling theory*, Frejus, Oct. 2012, and invited seminars at the PUC Rio and at UFRGDS, Brazil.

9.1.2. Journal, Conference and Workshop Organization

- Panayotis Mertikopoulos is the publications chair of Valuetools 2012 (the 6th International ICST Conference on Performance Evaluation Methodologies and Tools). He is also the co-organizer of the Paris Working Group on Evolutionary Games.
- Jean-Marc Vincent has been the general chair of the ASMTA conference, June 2012.
- Corinne Touati has been the general chair of ValueTools 2012, Cargese, Oct. 2012.
- Bruno Gaujal, Panayotis Mertikopoulos and Corinne Touati organized the Rescom summer school on Game Theory for networks, Vittel, June 2012.
- Panayotis Mertikopoulos was a publicity chair of the 11th International Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks.
- Arnaud Legrand has organized the *simgrid user days* in Lyon.

9.1.3. Program Committees

- Bruno Gaujal was the Technical Program Committee Chair of ValueTools 2012.
- Bruno Gaujal was program committee member of Wodes 2012.
- Panayotis Mertikopoulos was program committee member of ValueTools 2012.
- Arnaud Legrand was program committee member of IPDPS 2012.

9.1.4. Thesis Defense

- Marcio Bastos Castro, *Improving the Performance of Transactional Memory Applications on Multi-cores: A Machine Learning-based Approach*, Dec. 3, 2012.
- Kiril Geogiev, *Débogage des systèmes embarqués multiprocesseur basé sur la ré-exécution déterministe et partielle*, Dec. 4, 2012 [5].
- Slim Bouguerra, *Tolérance aux pannes dans des environnements de calcul parèlles et distribués: optimisation des stratégies de sauvegarde/reprise et ordonnancement*, Apr. 12, 2012 [4].

9.1.5. Thesis Committees

Members of the MESCAL project-team have served on the following PhD thesis committees

- Bruno Gaujal served on the thesis commitees of Laurent Jouhet (president), Adrien Brandejsky (reviewer), Xavier Koegler (reviewer).

9.1.6. Popular Science

- MESCAL actively promotes science to young and non-scientific audience. This year, Corinne Touati participated to the "stage Maths C2+" and the bi-annual "semaine de l'ingénieur" to promote the use of mathematics to junior high and high school students in Rhône-Alpes.
- Jean-Marc Vincent contributed to the national initiative for introducing computer science to high school professors in mathematics.

9.2. Teaching

Several members of mescal are university professors and comply with their recurrent teaching duties. In addition, here are more details on new lectures that were initiated by MESCAL members in 2012.

- Performance evaluation. Two new lectures on system modeling and performance evaluation started in Ensimag in 2012 at M1 and M2 levels.
- Game Theory and Applications, 24 hours, M2R, ENS de Lyon, France.
- Stochastic System Optimisation, 36 hours, MPRI, Paris.
- "Research School" (open to M1, M2 and PhD students) on Game Theory for Networks, Rescom Summer School, Vittel, France.
- Olivier Richard was involved in the creation of a new "fab lab" in the University Joseph Fourier.
- Arnaud Legrand is responsible of the Parallel systems track at the MOSIG.

MOAIS Project-Team

9. Dissemination

9.1. Scientific Animation

ISSAC 2012 : Treasurer and Local Arrangements committee (the coference held in Grenoble in July 2012)

ComPAS/Renpar 2013 : Chair of the Program Committee for the next edition of ComPAS/Renpar that will be held at Grenoble in January 2013.

ComPAS/Renpar 2013 : local organization of ComPAS/Renpar.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ROMA Team

7. Dissemination

7.1. Scientific Animation

Anne Benoit is an associate editor of the *Journal of Parallel and Distributed Computing (JPDC)*. She was program vice co-chair of IEEE Cluster 2012; program vice-chair of IEEE AINA 2012; member of the organizing committee of SIAM PP 2012, and organizer of a mini-symposium in SIAM PP12. She is workshops co-chair of ICPP 2013. She is or was a member of the program committees of of the following conferences and workshops: CCGrid 2012, HPDC 2012, IPDPS 2012, IPCE 2013, CCGrid 2013, IPDPS 2013, CLOSER 2013, HCW 2013, IGCC 2013.

Jean-Yves L'Excellent was a member of the program committees of Vecpar'12, Renpar'13.

Loris Marchal was a member of the program committees of IPDPS'2012, ICPP 2012 and IPDPS'2013.

Yves Robert is an associate editor of *IJHPCA*, *IJGUC* and *JOCS*. He is Program Chair of ICPP 2013 (Int. Conference on Parallel Processing) and of HiPC 2013 (Int. Conference on High Performance Computing). He was Program vice-chair of HiPC 2012. He is a Steering committee member of IPDPS and HCW. He is or was a member of the program committees of of the following conferences and workshops: EduPar 2012, FTXS 2012, ISC 2012, ISCIS 2012, EduPar 2013, FTXS 2013, ICCS 2013, IGCC 2013, ISC 2013 and SC 2013.

Bora Uçar was a member of the program committee for six conferences/workshops in 2012 (HiPC12, IEEE Cluster 12, EuroPart 2012, PCO'12, PMAA2012, TCPP PhD Forum). He was an organizer of a mini-symposium in SIAM PP12. He is in the program committee of IPDPS 2013.

Frédéric Vivien is an associate editor of *Parallel Computing*. Frédéric Vivien is program vice-chair, for the algorithms track, of IPDPS 2013. He is or was a member of the program committee of the following conferences and workshops: EuroPDP 2013, RenPar 2013, ROADEF 2013, SC 13, CCGrid 2012, Cluster 2012, ROADEF 2012, AHPAA 2012.

7.2. Teaching - Supervision - Juries

7.2.1. Teaching

Loris Marchal, Ordonnancement, 36h, M2, École normale supérieure de Lyon, France.

Bora Uçar has given a mini course in Parallel Computing Group at the University of Murcia, 28 and 29 November 2011.

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

Frédéric Vivien, Ordonnancement, 3 h, M2, École normale supérieure de Lyon, France.

7.2.2. Supervision

PhD: Paul Renaud-Goud, Energy-aware scheduling: complexity and algorithms, École Normale Supérieure de Lyon, July 5, 2012, Anne Benoit and Yves Robert.

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

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

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

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

<p align="center">**RUNTIME Project-Team**</p>

9. Dissemination

9.1. Scientific Animation

Raymond NAMYST is vice-chair of the Research and Training Department in Mathematics and Computer Science (UFR Math-Info) of the University of Bordeaux 1. He is also a member of the Scientific Committee of the University of Bordeaux 1

Raymond NAMYST is the head of the LaBRI-CNRS "SATANAS" (*Runtime systems and algorithms for high performance numerical applications*) research team (about. 50 people) that includes the BACCHUS, HIEPACS, PHOENIX and RUNTIME Inria groups.

Raymond NAMYST chairs the scientific committee of the ANR "Numerical Models" program for the 2011-2013 period.

Raymond NAMYST was the coordinator of the chapter about runtime systems within the "Software Eco-System" Workgroup of EESI (*European Exascale Software Initiative*).

Raymond NAMYST serves as an expert for the following initiatives/institutions:

- EESI (*European Exascale Software Initiative*, since 2010) ;
- CEA/DAM (as a "scientific expert" for the 2008-2012 period) ;
- CEA-EDF-Inria School technical committee (since 2009) ;
- GENCI (http://www.genci.fr/?lang=en, since 2009) ;

Raymond NAMYST was a program committee member of the following international conferences: SC'12, MSEPT 2012, ROSS 2012, ISPA 2012, CASS 2012.

Raymond NAMYST gave invited talks at the following international workshops: CCDSC'12 (Dareizé), COMPEEF'12 (Grenoble), Torrents'12 (Toulouse), FGPS'175 (Mons).

Samuel THIBAULT was a program committee member of the following conferences: IPDPS 2013, Renpar 2013

Brice GOGLIN was a program committee member of SC'12 technical program and posters, Hot Interconnect 2012 and EuroMPI 2012. He was also a member of the SC'12 ACM Student Research Competition jury.

Guillaume MERCIER was program committee member of EuroMPI 2012, ICPADS 2012 and CCGrid 2012. He was also a reviewer for the IEEE TPDS and FGCS journals.

Olivier AUMAGE was reviewer for the IEEE TPDS journal and for the SC12, IPDPS 2012, ROSS, DATE 2013 and RenPar/Compas conference and workshops. He is part of the Inria Bordeaux – Sud-Ouest committee for scientific event fundings.

Emmanuel JEANNOT was program committee member for: ISPA 2012, HPDC 2012, PDGC 2012, HiPC 2012, Heteropar 2012, renpar 21, Realis-01, CCGrid2013 and IPDPS 2013.

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

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

Emmanuel JEANNOT was reviewer for the following journals: JPDC, IEEE TPDS, CEJCS.

Emmanuel JEANNOT has given an invited talk and CCDSC 2012 (Darize, France), the 7th scheduling workshop (Pittsburgh USA), CCMSE 2012 (La Manga, Spain), and the Inria-Joint-Lab meeting at Argonne National Lab.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Members of Runtime project gave thousands of hours of teaching at University of Bordeaux and ENSEIRB-MATMECA engineering schools, covering a wide range of topics from basic use of computers and C programming to advance topics such as operating systems, parallel programming and high-performance runtime systems.

9.2.2. Supervision

PhD & HdR :

PhD: Jérôme CLET-ORTEGA, Exploitation efficace des architectures parallèles de type grappes de NUMA à l'aide de modèles hybrides de programmation, 2012/04, Raymond NAMYST and Guillaume MERCIER

PhD: Andres CHARIF-RUBIAL, On code performance analysis and optimization for multicore architectures, 2012/02, Denis BARTHOU and William JALBY (Université de Versailles Saint Quentin en Yvelines)

PhD in progress : Julien JAEGER, Source-to-source transformations for irregular and multithreaded code optimization, 2012/02, Denis BARTHOU

PhD in progress : Bertrand PUTIGNY, Modèles de performance pour l'ordonnancement sur architectures multicoeurs hétérogènes, 2010/11, Brice GOGLIN and Denis BARTHOU

PhD in progress : François TESSIER, Placement d'applications hybrides sur machine non-uniformes multicœurs, 2011/10 Emmanuel JEANNOT and Guillaume MERCIER

PhD in progress : Paul-Antoine ARRAS, Development of a Flexible Heterogeneous System-On-Chip Platform using a mix of programmable Processing Elements and harware accelerators. 2011/10, Emmanuel JEANNOT and Samuel THIBAULT

PhD in progress : Sylvain HENRY, Modèles de programmation et systèmes d'exécution pour architectures hétérogènes, 2009/10, Denis BARTHOU and Alexandre DENIS

PhD in progress: Andra HUGO, Composability of parallel codes over heterogeneous platforms, 2013/10, Abdou GUERMOUCHE and Pierre-André WACRENIER and Raymond NAMYST

PhD in progress: Cyril BORDAGE, Parallélisation de la méthode multipôle sur architecture hybride, 2012/10, Raymond NAMYST and David GOUDIN (CEA CESTA)

PhD in progress: Corentin ROSSIGNON, Design of an object-oriented runtime system for oil reserve simulations on heterogeneous architectures, 2012/04, Olivier AUMAGE and Pascal HÉNON (TOTAL) and Raymond NAMYST and Samuel THIBAULT

9.2.3. Juries

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

- Marcio CASTRO (University of Grenoble, reviewer)
- Vincent PICHON (University of Lyon, reviewer)
- Marc PALYART (CEA-CESTA, Bordeaux, reviewer)
- Andres CHARIF RUBIAL (University of Versailles, president)

Samuel THIBAULT was member of the PhD defense jury for the following candidates:

- Vincent BOULOS (University of Grenoble, examinator)

Emmanuel JEANNOT was member of the PhD defense jury for the following candidates:

- Mohamed Slim BOUGUERRA (University of Grenoble, reviewer)
- Cristian KLEIN (ENS Lyon, reviewer)
- Jan-Christian MEYER (NTNU, Trondhiem, Norway, opponent)

9.3. Popularization

Brice GOGLIN is in charge of the diffusion of the scientific culture for the Inria Research Center of Bordeaux. He is also a member of the national Inria committee on Scientific Mediation. He gave numerous talks about high performance computing and research careers to generac public audience and school student, as well as several radio and paper interviews about Inria's activities.

Brice GOGLIN, François TESSIER and Bertrand PUTIGNY presented the team's research work to one hundred high-school students at the "Fête de la Science".

Brice GOGLIN and Bertrand PUTIGNY presented research careers at the Aquitec student exhibition.

Samuel THIBAULT was an invited speaker for a public round table about Author rights and HADOPI.

DANTE Team

9. Dissemination

9.1. Scientific Animation

- Eric Fleury is President of the expert committee for the ANR INFRA call
- Eric 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.
- Eric Fleury is in the in the steering committee of the IXXI – Rhône-Alpes Complex Systems Institute.
- Eric Fleury has been an expert for the Fund for Scientific Research - FNRS.
- Eric Fleury was PC member of ASE/IEEE International Conference on Social Computing (Social-Com)
- Eric Fleury was PC member of 3rd Workshop on Complex Networks
- Thomas Begin was PC member of ACM International Symposium on Performance Evaluation of Wireless Ad Hoc, Sensor, and Ubiquitous Networks (PE-WASUN 2012).
- Thomas Begin was PC member of Nouvelles Technologies de la Répartition / Colloque Francophone sur l'Ingénierie des Protocoles (NOTERE/CFIP 2012).
- Paulo Gonçalves is officer of the local liaison board of EURASIP
- Paulo Gonçalves was PC member of the 3rd Workshop on High Speed Network and Computing Environments (SAINT 2012)
- Paulo Gonçalves is organiser of the 4th Workshop on High Speed Network and Computing Environments (COMPSAC 2013, Kyoto)
- Christophe Crespelle was co-chair of the Discrete Mathematics Session of the SMF-VMS Joint Congress of Mathematics, August 2012, Huê, Vietnam.
- Christophe Crespelle was co-organiser of the 14èmes Rencontres Francophones sur les Aspects Algorithmiques des Télécommunications (AlgoTel 2012).
- Isabelle Guérin Lassous was vice-chair of the expert committee for the ANR Blanc call
- Isabelle Guérin Lassous is a member of the National Committee - Section 06 of the CNRS
- Isabelle Guérin Lassous was general chair of the 9th ACM International Symposium on Performance Evaluation of Wireless Ad Hoc, Sensor, and Ubiquitous Networks (PE-WASUN 2012).
- Isabelle Guérin Lassous is PC member of international conferences as ITC 2013, IWCMC 2013, ICC 2013, MedHocNet 2013, IPDPS 2013, ICC 2012, Globecom 2012.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

9.2.1.1. Teaching by Eric Fleury

Eric Fleury is a professor at ENS Lyon in the Computer Science Department since 2007. Since 2009 he is the head of the department of computer science. ENS de Lyon is one of the four Écoles normales supérieures in France.

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

Licence : "Architecture, System and Networking" (L3), ENS de Lyon, France

9.2.1.2. Teaching by Thomas Begin

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

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

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

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

Master : "Performance Evaluation of Green Networks" (M2), ENS de Lyon, France

9.2.1.3. Teaching by Paulo Gonçalves

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

Eng. school : "Introduction to Compressive Sensing" (5th year), CPE Lyon, France

9.2.1.4. Teaching by Christophe Crespelle

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

Licence : "Programming" (L2), UCBL, France

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

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

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

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

9.2.1.5. Teaching by Isabelle Guérin Lassous

Isabelle Guérin Lassous is an Professor at Université Claude Bernard Lyon 1 in the Computer Science since 2006. She mostly lectures at the University, though she has a teaching activity at ENS Lyon as well. Isabelle Guérin Lassous also heads the Networking speciality of the Master in computer science of University Lyon 1.

Master : "QoS and multimedia networking applications" (M2), University Lyon 1, France

Master : "Networking" (M2), University Lyon 1, France

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

Master : "Ad Hoc Networks" (M1), University Lyon 1, France

Master : "Network Algorithms" (M1), ENS de Lyon, France

9.2.2. Supervision

PhD : Adrien Friggeri, A Quantitative Theory of Social Cohesion, ENS de Lyon, August 2012, Éric Fleury & Guillaume Chelius

PhD : Qinna Wang, Overlapping community detection in dynamic networks , ENS de Lyon, April 2012, Éric Fleury

PhD : Doreid Ammar, Knowledge Plane for Semantic Networks: Application to Admission Control, University Lyon 1, December 2012, Isabelle Guérin-Lassous & Thomas Begin

PhD : Van Nam Nguyen, Evaluation and improvment of the bandwidth use in 802.11-based multihop wireless networks, University Lyon 1, December 2012, Isabelle Guérin-Lassous & Victor Moraru (IFI, Vietnam)

PhD : Andreea Chis, Méthodes et outils pour la compilation et l'optimisation logicielles des systèmes embarqués sans fils dédiés à des applications, ENS de Lyon, January 2012, Éric Fleury & Antoine Fraboulet

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

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

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

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

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

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

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

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

9.2.3. Juries

- Eric Fleury was president of the HDR jury of Emmanuel Baccelli (UPMC, France).
- Eric Fleury was president of the Ph. D. jury of Mikaila Toko Worou (Université de Nice - Inria Sophia Antipolis, France).
- Eric Fleury was member of the Ph.D. jury and reviewer of DIANA Rémi (Université de Toulouse, France).
- Eric Fleury was member of the Ph.D. jury of Afshin Moin (Université de Rennes, France).
- Eric Fleury was member of the Ph.D. jury of Fabio Rocha-Jimenez-Vieira (UPMC, France).
- Eric Fleury was member of the Ph.D. jury of Thomas Ferrandiz (ISAE, France).
- Thomas Begin was member of the Ph.D. jury of El Hachemi Bendahmane (University of Grenoble, France).n
- Paulo Gonçalves was member of the HDR jury of Sandrine Vaton (Telecom Bretagne, France).
- Paulo Gonçalves was member of the Ph.D. jury of Jerôme Van Zaen (EPFL, Switzerland).
- Christophe Crespelle was member of the Ph.D. jury of Massoud Seifi (UPMC, France).
- Isabelle Guérin Lassous was the member of the jury of the second competition of ENS Cachan.
- Isabelle Guérin Lassous was president of the HdR jury of Anne Fladenmuller (UPMC) and of the PhD juries of Bilel Romdhani (INSA Lyon) and Aruna Bianzino (Telecom ParisTech).
- Isabelle Guérin Lassous was reviewer of the PhD juries of Giorgio Corbellini (Grenoble), Mauricio Ituralde (Toulouse), Scott McKenzie Raynel (University of Waikato, New Zealand) and Bafing Sambou (Toulouse).

9.3. Popularization

Eric Fleury was the co-chair of the conference "Alan Turing's Heritage". This Turing Centenary Conference has been be held in Lyon on July 2-4, 2012. At this occasion, a short movie The Turing Machine Comes True was released on the "Real Turing Machine" built from a student team from the Computer Science Department of ENS de Lyon. We do not mean to simulate a Turing machine as it is indeed very easy to simulate a Turing machine on a modern computer. The challenge was really to build a purely mechanical Turing's machine y using only LEGO bricks, gear, rod, pneumatic jack...

DIONYSOS Project-Team

8. Dissemination

8.1. Scientific Animation

8.1.1. International memberships

- R. Marie and G. Rubino are members of the IFIP WG 7.3 (Working Group in Computer Performance Modeling and Analysis).
- Gerardo Rubino is a member of the Technical Committee on Multimedia Communications of IEEE.

8.1.2. Seminar presentations

- B. Tuffin. Title: "Adword auctions: impact of ranking strategies and competition on search engines revenues". Vrije Universiteit Amsterdam, The Netherlands, January 2012.
- B. Tuffin (joint work with P. Maillé and P. Coucheney). Title: "Introduction to the Network Neutrality Debate. Description of a related model of ISP Inter-Relations: Traffic Exchange, Revenue Sharing, and Disconnection Threat". Université de Montréal, Canada, Nov. 2012.
- B. Tuffin (joint work with P. Maillé and P. Coucheney). Title: "Introduction to the Network Neutrality Debate. Description of a related model of ISP Inter-Relations: Traffic Exchange, Revenue Sharing, and Disconnection Threat". The Chinese University of Hong-Kong, Nov. 2012.
- G. Rubino. Title: "Introduction to Quality of Experience". D2 Department, IRISA, Rennes, France. June 2012.
- G. Rubino. Title: "Time-dependent behavior of Markovian queues". Electrical Engineering, Engineering School, University of the Republic, Montevideo, Uruguay. Oct. 2012.
- G. Rubino. Title: "Time-dependent behavior of Markovian queues". Université de Montréal, Canada. Nov. 2012.

8.1.3. Editorial activity

- Raymond Marie is Associate Editor for Performance Evaluation.
- Bruno Tuffin is associate Editor for INFORMS Journal on Computing.
- Bruno Tuffin is associate Editor for Mathematical Methods of Operations Research.
- Bruno Tuffin is associate Editor for ACM Transactions on Modeling and Computer Simulation.
- Bruno Tuffin was the co-coordinator of the "Analysis" track at the Winter Simulation Conference (WSC'12), Berlin, Germany, December 9-12, 2012. It will be the first time this event leaves North America.
- Bruno Sericola is associate editor for The Open Operational Research Journal.
- Bruno Sericola is associate editor for International Journal of Stochastic Analysis.
- Bruno Sericola is associate editor for ISRN Probability and Statistics.
- Adlen Ksentini is Associate Editor of Hindawei International Journal of Digital Multimedia Broadcasting
- Yassine Hadjadj-Aoul is a member of the editorial board of the International Journal of Computer Networks (IJCN)

8.1.4. Program committees

Bruno Tuffin served as TPC member for

- 2nd International Conference on Simulation and Modeling Methodologies, Technologies and Applications (SIMULTECH), Roma, Italy, 28-31 July 2012.
- 8th Euro-NF Conference on Next Generation Internet (NGI 2012), Blekinge Institute of Technology, Karlskrona, Sweden, June 25-27, 2012.
- First Workshop on Pricing and Incentive in Networks (W-PIN 2012), in conjunction with ACM SIGMETRICS/Performance 2012 , London, England, 11 June 2012.
- 9th International Workshop on Economics of Grids, Clouds, Systems and Services (GECON'2012), Berlin, Germany, 27-28 November 2012.
- Track on Simulation Methods and Tools, Winter Simulation Conference (WSC'12), Berlin, Germany, December 9-12, 2012.

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

- ASMTA 2012, 19th International Conference on Analytical and Stochastic Modelling Techniques and Applications, Grenoble, France, 4–6 June 2012.
- ACCESS 2012, 3rd International Conference on Access Networks, Venice, Italy, 24-29 June 2012.
- NOTERE/CFIP 2012 : Colloque Francophone sur l'Ingénierie des Protocoles - Nouvelles technologies de la répartition, Anglet, France, 29–31 October 2012.

Adlen Ksentini served as TPC member for

- IEEE Global Communication Conference, GLOBECOM 2012 Wireless Network Symposium, December 2012, Anaheim, California, USA
- IEEE International Conference on Communication, ICC 2012 Wireless Network Symposium, June 2012, Ottawa, Canada
- IEEE Wireless Communication and Networking Conference, April 2012, Paris, France

César Viho served as TPC member for

- 3rd International Conference on the Internet of Things (IoT2012), Oct 2012, Wuxi, China.
- 11th African Conference on Research in Computer Science and Applied Mathematics, Oct 2012, Algiers, Algeria.
- TTCN-3 User Conference June 2012, Bangalore, India

Yassine Hadjadj-Aoul served as TPC member for

- IEEE Global Communication Conference, GLOBECOM 2012 Wireless Network Symposium, December 2012, Anaheim, California, USA
- IEEE International Conference on Communication, ICC 2012 Wireless Network Symposium, June 2012, Ottawa, Canada
- IEEE Wireless Communication and Networking Conference, April 2012, Paris, France

Gerardo Rubino served as TPC member of

- CLEI 2012, XXXVIII Conferencia Latinoamericana de Informática (Latin-American Informatics Conference), Medellín, Colombia, October 1–5, 2012.
- RESIM (9th International Workshop on Rare Event Simulation) 2012, Trondheim, Norway, June 25–27, 2012.

8.1.5. Managing research activities

- G. Rubino is a member of the Steering Committee of the international conference QEST (Quantitative Evaluation of SysTems).
- G. Rubino is a member of the Steering Committee of the International Workshop on Rare Event Simulation (RESIM).
- B. Tuffin is a member of the Steering Committee of the International Workshop on Rare Event Simulation (RESIM).
- G. Rubino has been appointed as the Inria representative at the Scientific Committee of the IFCAM (Indo-French Center for Applied Mathematics), a joint international unit between Indian Ministry of Science and Technology and several French partners including the CNRS, the École Polytechnique, the École normale supérieure, Inria, Nice Sophia Antipolis University and the University of Toulouse III - Paul Sabatier.
- Bruno Sericola is responsible for the Inria Rennes - Bretagne Atlantique budget.
- Bruno Sericola is a member of the Inria Evaluation Committee which role is to assess the calibre of research conducted at Inria and to guarantee the quality of its hiring and internal promotions.
- Bruno Sericola is the leader of the research group MAPI (Math Appli Pour l'Info) the goal of which is to improve the collaboration between computer scientists and mathematicians.
- Adlen Ksentini is vice-chair of the Interest Group on QoE of the Technical Committee on Multimedia (IEEE Communication Society).
- César VIHO is responsible of the "Network, Telecommunication and Services" department of Irisa composed of 7 research teams. He is member of the Scientific advisory board (Conseil scientifique) of Irisa. He is now deputy-director of the MATISSE Doctoral school of Electronics, Computer Sciences and Mathematics. In the context of international relations of Irisa, he is responsible of relations with Africa area universities and research centers.
- 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 is the Inria representative at the GIS SISCOM, an association composed of the four main academic institutions in Western France in the area of information and communication sciences: the European University of Brittany-UEB, the Institut TELECOM, the CNRS and Inria, to promote the excellence of the ICT research in Brittany.

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

8.2.2. Supervision

PhDs

- Sebastián Basterrech, title: "Learning with Random Neural Networks and Reservoir Computing models"; advisor: G. Rubino; date: November 15, 2012.

- Tran Hoang-Hai, title: " Auctions for competitive network providers "; advisor: B. Tuffin; date: April 2012.

PhD in progress:

- Romaric Ludinard; title: "Data-aggregation for large-scale distributed networks"; PhD started in April 2011; advisors: B. Sericola from Inria/Dionysos and E. Anceaume from Inria/Cidre

- Damien Le Queré; Cifre Grant, Orange Labs; title: "Conception et étude des performances d'une solution auto-configurable pour les réseaux de transport du futur"; PhD sarted in January 2012; advisors: B. Sericola and A. Ksentini

- Samira Saggadi; title: "Rare event simulation with application to telecommunications"; PhD started in November 2008; advisor: Bruno Tuffin

- Pablo Sartor; title: "Diameter-constrained reliability: exact analysis and simulation techniques"; PhD started on October 2012; advisors: G. Rubino from Dionysos, P. Robledo from the university of the Republic, Uruguay (joint PhD between this university and the university of Rennes 1, France)

- Laura Aspirot; title: "Fluid limits in performance evaluation"; thesis started in 2010; advisors: Gerardo Rubino from Dionysos, and Ernesto Mordecki from the university of the Republic, Uruguay (PhD of the university of the Republic, Uruguay)

- Leslie Murray; title: "Monte Carlo methods for rare event analysis"; thesis started in 2009; advisors: Gerardo Rubino from Dionysos, and Pablo Robledo from the university of the Republic, Uruguay (PhD of the PEDECIBA, Uruguay)

- Leila Ghazzai, title: "Replication and caching strategies for adaptive video streaming in future information centric networks"; PhD started on October 2012; advisors: G. Rubino, Y. Hadjadj-Aoul

- Nanxing Chen; title: "On passive approach for interoperability testing"; PhD started on October 2009; advisor: C. Viho

8.2.3. Juries

- B. Tuffin was a member of the Jury of HDR of Sandrine Vaton, from Telecom Bretagne; title: "Mesure et Analyse du Trafic de Réseaux : Théorie et Pratiques"; date: July 13, 2012.
- B. Tuffin was a member of the jury of PhD of Bahar Kaynar, from Vrije University, The Netherlands; title: "Rare Event Simulation Techniques for Stochastic Design Problems in Markovian Settings"; date: January 2012.
- B. Tuffin was a member of the jury of PhD of Lorenzo Maggi, from Eurecom, France; title: "Cooperative games for Markov decision processes with applications to telecommunications"; date: October 2012.
- B. Tuffin was a member of the jury of PhD (rapporteur) of Pablo Gabriel Romero Rodriguez from Universidad de la República, Montevideo, Uruguay; title: "Mathematical Analysis of Scheduling Policies in Peer-to-Peer Video Streaming Networks"; date: November 2012.
- G. Rubino was a member of the Jury of HDR of Sandrine Vaton, from Telecom Bretagne; title: "Mesure et Analyse du Trafic de Réseaux : Théorie et Pratiques"; date: July 13, 2012.
- G. Rubino was the President of the Jury of PhD of Oscar Olvera Irigoyen, from Telecom Bretagne; title: "Hybrid Home Networks Links Quality Supervision"; date: December 20, 2012.
- C. Viho was the President of the Jury of HDR of Frederic Weis, from University of Rennes 1; title: "Exploiting system approaches in wireless networks"; date: June 6, 2012.
- C. Viho was the President of the Jury of HDR of Laurent Toutain, from Telecom Bretagne; title: "Towards a polymorphic Internet"; date: December 17, 2012.
- C. Viho was the President of the Jury of PhD of Tran Hoang Hai, from the University of Rennes 1; title: "Auctions for competitive Network providers"; date: April 2, 2012.
- C. Viho was a member/reviewer of the Jury of PhD of Ubaid Abbassi, from University of Bordeaux I; title: "Quality-Aware Live and on-Demand Video Streaming in P2P Networks"; date: April 25, 2012.
- C. Viho was the President of the Jury of PhD of Ahmed Ayadi, from Telecom Bretagne; title: "Energy-efficient reliable transport protocols for IP-based low power wireless networks"; date: June 25, 2012.
- C. Viho was a member/reviewer of the Jury of PhD of Jean-Michel Combes, from Telecom Sud Paris; title: "Utilisation d'identifiants cryptographiques pour la sécurisation IPv6"; date: September 28, 2012.
- C. Viho was the President of the Jury of PhD of Heverson Ribeiro, from the University of Rennes 1; title: "Exploiting Rateless Coding in Structured Overlays to Achieve Persistent Storage"; date: October 12, 2012.
- C. Viho was the President of the Jury of PhD of German Castignani, from Telecom Bretagne; title: "Exploiting network diversity"; date: November 7, 2012.
- C. Viho was the President of the Jury of PhD of Sebastian Basterrech, from University of Rennes 1; title: "Learning with Random Neural Networks and Reservoir Computing Models"; date: November 15, 2012.
- C. Viho was a member of the Jury of PhD of Kheira Bekara, from Telecom Sud Paris; title: "Protection des données personnelles côté utilisateur dans le E-commerce"; date: December 18, 2012.

8.3. Popularization

- G. Rubino makes regular presentations to high school students about the research work in general, and specific technical topics in particular. Titles of 2012:
    - "Utilisation du hasard pour résoudre des problèmes déterministes"
    - "Internet comme problème de recherche"
    - "Grands défis en mathématiques : la conjecture de Riemann"
    - "Grands défis en mathématiques : la conjecture P $\neq$ NP"

8.4. Standardization activities

Participants: Anthony Baire, Arulnambi Nandagoban, César Viho.

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

8.4.1. *IPv6 Ready Logo Program*

Participants: Anthony Baire, César Viho.

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

In 2010 we started a collaboration with the IPSO alliance in order to address the usage of IPv6 on smart objects based on the IEEE 802.15.4 link layer (for instance, sensor networks). These network have special constraints (limited power, packet loss, ...) and new protocols are designed at IETF (6LowPAN, RPL) to allow using IPv6 with these constraints. We are on the way to provide a certification program for 6LoWPAN.

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

9. Dissemination

9.1. Scientific Animation

A. Benveniste is the Scientific Director of the CominLabs Excellence Center (Laboratoire d'Excellence, part of the program *Investissements d'Avenir* of the french government). He is member of the Strategic Advisory Council of the Institute for Systems Research, Univ. of Maryland, College Park, USA. He is president of the Scientific Committee of the *Common Bell Labs Inria Laboratory*. He is member of the Scientific Council of France Telecom. [4] Albert Benveniste is a member of the French Academy of Technologies.

Loïc Hélouët co-organizes the 68NQRT weekly seminar on formal methods. This seminar proposes around 40 talks each year. For more details, see http://68nqrt.inria.fr.

Claude Jard was the scientific director of the research of the Brittany extension of the ENS Cachan. He recently moved to Nantes, where he is the director of the CNRS cluster Atlanstic, gathering the public laboratories in ITCS in Pays de la Loire.

Eric Fabre leads the High Manageability joint team of Inria and Alcatel Lucent.

Axel Legay Co-organized the quantitative methods workshop at formal methods days. He also co-organized the winter school on quantitative methods at IT Copenhagen.

Guillaume Aucher was a PC member of AAMAS 2013, an auxiliary reviewer of TARK 2013, and served as a reviewer for the Logic Journal of the IGPL. He has been elected a member of the scientific council of the University of Rennes 1.

François Schwarzentruber was an auxiliary reviewer of TARK 2013 and AAMAS 2013.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Licence : Guillaume Aucher, Programmation Impérative 1, 40h eq. TD, L1, University of Rennes 1, France

Licence : Guillaume Aucher, Algorithms for graphs, 20h eq. TD, L3, University of Rennes 1, France

Doctorat : Enseignant, titre du cours, nombre d'heures en $\sqrt{©}$quivalent TD, universit$\sqrt{©}$, pays

Licence : Loïc Hélouët, JAVA courses, 32 h eq TD, L1, INSA, France

Master : Loïc Hélouët, Algorithms courses to students at the aggregation level, 16 h eq TD, aggregation, ENS Cachan-Antenne de Bretagne, France

Master : Eric Fabre, Distributed Algorithms and Distributed Systems, 12h eq. TD, M2 Rech. Comp. Sc., Univ. Rennes 1, France

Master : Eric Fabre, Information Theory, 15h eq. TD, M1, ENS Cachan (Rennes), France

Licence : Claude Jard, Formal languages, Distributed Computing, 44 h eq TD, L1, ENS Cachan-antenne de Bretagne, France

Master : Claude Jard, Algorithms courses to students at the aggregation level, 16 eq TD, aggregation, ENS Cachan-antenne de Bretagne, France

Licence: François Schwarzentruber, Introduction to algorithms (ALGO1), 32h eq TD, L3, ENS Cachan-antenne de Bretagne, France

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[4]Only facts related to the activities of DistribCom team are mentioned. Other roles or duties concern the S4 team, to which A. Benveniste also belongs.

Master: François Schwarzentruber, Software design and verification (CVFP), 32h eq TD, M1, ENS Cachan-antenne de Bretagne, France

Licence and master: François Schwarzentruber, Seminars for students (SEMIN1, SEMIN2), 36h eq TD, L3, M1, ENS Cachan-antenne de Bretagne, France

Master: François Schwarzentruber, Complexity theory, 6h eq TD, agrégation, ENS Cachan-antenne de Bretagne, France

Master: François Schwarzentruber, Introduction to discrete mathematics. 9 eq TD, University of Rennes 1, France

Master: François Schwarzentruber, Practical sessions in algorithmics. 6 eq TD, agrégation, ENS Cachan-antenne de Bretagne, France

9.2.2. Supervision

PhD : Ajay Kattepur, Flexible Quality of Service Management of Web Services Orchestrations, Université de Rennes 1, Nov. 8, 2012, Albert Benveniste, Claude Jard

PhD in progress : Rouwaida Abdallah, Synthèse à partir de scénarios, February 2010, Loïc Hélouët, Claude Jard

PhD in progress : Aurore Junier, Network calculus applied to network stability analysis, sept. 2010, C. Jard, A. Bouillard.

PhD in progress : Carole Hounkonou, A methodology for joint network and service self-diagnosis, Oct. 2009, Eric Fabre.

PhD in progress: Cyril Jegourel, statistical model checking for rare-event systems, Axel Legay.

PhD in progress : Bastien Maubert, Logical Foundations of Games with Imperfect Information, University of Rennes 1, 09/2010, Guillaume Aucher and Sophie Pinchinat (S4, Irisa)

PhD : Loig Jezequel, Distributed Optimal Planning in Large Distributed systems, ENS Cachan, Dec. 2012, Eric Fabre

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

8. Dissemination

8.1. Scientific Animation

8.1.1. Conference organization

Program (co-)chairs

- Nathalie Mitton is/was program chair or co-program chair for iThings 2012, EPRA 2012 and AdHocNets 2012.

Program committee members

- Nathalie Mitton is/was in the Technical Program Committee (TPC) for LoGASN 2012, WPMC 2012, iThings 2012, WWASN 2012, CMC 2012.
- Tahiry Razafindralambo is/was a TPC member for BIONETICS 2012, ALGOTEL 2012, MSWIM 2012, DCOSS 2012, PE-WASUN 2012, MASS 2012.

8.1.2. Editorial activity

- Nathalie Mitton and Xu Li are editorial board members of AHSWN since 2011
- Nathalie Mitton is editorial board member of AdhocNetworks since 2012
- Xu Li is editorial board member of Parallel and Distributed Computing and Networks since 2010
- Xu Li is associate editor, European Transactions on Telecommunications since 2011
- Nathalie Mitton is guest editor for special issues in Eurasip journal (2012)
- Nathalie Mitton and Xu Li are guest editors of special issue in Springer PPNA (2012)
- Xu Li is guest editor of special issues in Elsevier's COMCOM, JCM and AHSWN (2011)

8.1.3. Misc

- + Nathalie Mitton is member of the ANR programme blanc SIMI3.
- + Nathalie Mitton is a member of the Inria COST-GTAI, Technological development committee (CDT) and Building User committee (CUB).
- + Tahiry Razafindralambo is a member of the Inria Lille Nord Europe Research Center committee and a member of CNU section 27 of Université de La Réunion (2012).

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

Master : Tahiry Razafindralambo, Wireless networks, 40h eqTD, Université de la Réunion, France

Master : Nathalie Mitton, Wireless sensor networks, 30h eqTD, Université Lille 1, France

Master : Nathalie Mitton, RFID Middlewares, 16h eqTD, Institut Telecom and Université Lille 1, France

8.2.2. Juries

Nathalie Mitton was committee member of the following PhD thesis:

- Yacine Mezali, UPMC, Paris, France, March 2012
- Oscar Botero, Institut Telecom, France, May 2012
- Nazim Abdeddaim, Université de Grenoble, France, October 2012
- Gilles Fritz, ESISAR, INP, France, December 2012

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

7. Dissemination

7.1. Teaching - Supervision - Juries

7.1.1. Teaching

Master MPRI University of Paris Diderot:

- M. Habib, graph algorithms, 12 hours;
- P. Fraigniaud, "Algorithmique distribuée pour les réseaux", 12 hours;
- C. Delporte and H. Fauconnier, "Algorithmique distribuée avec mémoire partagée"; C. Delporte, 12 hours and H. Fauconnier, 12 hours;
- L. Viennot, "Structures de données distribuées et routage", 12 hours.

Master Professional University of Paris Diderot:

- M. Habib, Search Engines, 50 hours;
- M. Habib, Parallelism and mobility which includes peer-to-peer overlay networks, 50 hours;
- C. Delporte, Distributed programming, 85 hours;
- H. Fauconnier, Internet Protocols and Distributed algorithms, 85 hours.

Master: F. Mathieu, Peer-to-Peer Techniques, 30 hours, University of Paris 6;

D.U.T. : Y. Boufkhad, computer science and networks, 192 hours, University of Paris Diderot;

U.F.R.: F. de Montgolfier,foundation of computer science, algorithmics, and computer architecture, 192 hours, University of Paris Diderot;

Master: F. de Montgolfier, Peer-to-Peer theory and application, M2, University of Marne-la-Vallée.

7.1.2. Supervision

PhD : Hervé Baumann,"Diffusion décentralisée d'information dans les systèmes distribués", University of Paris Diderot, september 24, 2012

Xavier Koegler,"Protocoles de population, jeux et grandes populations", University of Paris Diderot, september 13, 2012

PhD in progress : François Durand, "Manipulabilité des systèmes de vote et applications aux réseaux", since 2012, supervised by Fabien Mathieu and Ludovic Noirie

Jérémie Dusart,"Parcours de graphes de cocomparabilité", since 2011, supervised by Michel Habib

Antoine Mamcarz,"Algorithmes de décomposition de graphes", since 2010, supervised by Michel Habib

The-Dang Huynh , "Extensions de PageRank et Applications aux Réseaux Sociaux", since 2012, supervised by Fabien Mathieu and Dohy Hong

Hung Tran, Failure detection with Byzantine adversary, since 2010, supervised by Hugues Fauconnier and Carole Delporte

7.1.3. Juries

HdR review: L. Viennot reviews Arnaud Legout's HDR thesis on "Efficacité et vie privée : de BitTorrent à Skype";

PhD review: L. Viennot reviews Bio Mikaila Toko Worou's PhD thesis on "Outils algorithmiques de détection des communautés dans les réseaux";

PhD thesis : L. Viennot was examinator of Quentin Godfroy's thesis on "From spanners to multipath spanners"

F. Mathieu was examinator of Claudio Testa's thesis "On the congestion control of Peer-to-peer applications: the LEDBAT case".

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

8. Dissemination

8.1. Scientific Animation

Pascale Minet took an active part in the dissemination of the results obtained in the OCARI project, dealing with energy efficient industrial wireless sensor networks.

Pascale Minet was member of the program committee of:

- AdHocNets 2012, Fourth International ICST Conference on Ad Hoc Networks, October 2012.
- DCNET 2012, International Conference on Data Communication Networking, July 2012,
- ECRTS 2012, 24th EUROMICRO Conference on Real-Time Systems, July 2012.
- ETFA 2012, 17th IEEE International Conference on Emerging Technologies & Factory Automation, September 2012.
- ICN 2012, the 11th International Conference on Networks, February 2012.
- ICWCUCA 2012, the third International Conference on Wireless Communications in Unusual and Confined Areas, August 2012.
- IFIP Wireless Days 2012, November 2012.
- IUCC 2012, the 11th IEEE International Conference on Ubiquitous Computing and Communications, August 2012.
- IWCMC 2012, the 8th International Wireless Communications and Mobile Computing Conference, July 2012.
- PAEWN 2012, International workshop on Performance Analysis and Enhancement of Wireless Networks, April 2012.
- PIMRC 2012, 23rd International Symposium on Personal, Indoor and Mobile Radio Communications, September 2012.
- RTNS 2012, 19th International Conference on Real-Time and Network Systems, September 2012.
- SNPD 2012, 11th International Conference on Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing, June 2012.
- WINSYS 2012, International Conference on Wireless Information Networks and Systems, July 2012.

Pascale Minet was also reviewer for the following journals:

- IEEE Transactions on Industrial Informatics,
- IEEE Transactions on Vehicular Technology,
- IEEE Communication Letters,
- Real-Time Systems,
- International Journal of Communications,
- International Journal of Distributed Sensor Networks,
- Computer Communications Journal.

Paul Muhlethaler was reviewer for:

- the call 8 of the European commission : "Networks of the future".
- the European MONET project "Mechanims for Optimization of hybrid ad-hoc networks and satellite NETworks".

He was also member of:

- the Steering commitee of MobileHealth 2012. 2nd ACM MobiHoc Workshop on Pervasive Wireless Healthcare In Conjunction With MobiHoc 2012 Conference. June 11th. Hilton Head Island, South Carolina, USA,

- the Technical committee of The First International Workshop on Performance Evaluation and Modeling in Wireless Networks. PEMWN 2012. November 22, Tunis, Tunisia.

C'edric Adjih was member of the program committee of:

- AINTEC 2012, ACM Asian Internet Engineering Conference, November 2012.

- MILCOM 2012, IEEE Military Communications Conference, October 2012.

- VTC 2012 Fall, IEEE 76th Vehicular Technology Conference, September 2012.

- PEMWN 2012,First International Workshop on Performance Evaluation and Modeling in Wireless Networks, November 2012.

He was also reviewer for the Journal: Transactions on Sensor Networks.

Aline Carneiro Viana has been performing remote reviews of short proposals for the FET-Open program of the European Commission since January 2011. **Aline Carneiro Viana** was the general and TPC co-chair of the 4th ACM International Workshop on Hot Topics in Planet-Scale Measurement (HotPlanet 2012), together with Ahmed Helmy.

She was the Publicity Chair of:

SECON'12 *9th Annual IEEE Communications Society Conference on Sensor, Mesh and Ad Hoc Communications and Networks*, Seoul, Korea, June 2012

ExtremeCom'12 *4th Extreme Conference on Communication*, Zurich, Switzerland, March 2012.

Aline Carneiro Viana has also served in the program committee for the [SECON'12] *9th Annual IEEE Communications Society Conference on Sensor, Mesh and Ad Hoc Communications and Networks*, Seoul, Korea, June 2012.

Emmanuel Baccelli is TPC for IEEE SECON, IEEE Globecom PerGroup, IEEE ICC NovaEnEv, ACM Mobihoc Mobile Health. Co-organizer of international conferences ACM SESP.

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

Master : **Pascale Minet** taught:

- Networks and quality of service in Master Systèmes Electroniques et Traitement de l'Information, at INSTN (Saclay).

- Mobile ad-hoc networks: medium access, routing and quality of service in Master Ingénierie informatique of the university of Marne-la-Vallée.

- 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.

8.2.2. Supervision

HdR : **Emmanuel Baccelli**, "IP-Disruptive Wireless Networking: Integration in the Internet", University Pierre et Marie Curie - Paris VI, December 2012.

PhD :

- **Salman Malik**, "Evaluation et Optimisation des Réseaux Sans Fil Denses", University Pierre et Marie Curie - Paris VI, November 2012, Philippe Jacquet, adviser.

- **Yacine Mezali**, "Algorithme de Géolocalisation Intérieure par Différenciation de Signaux WiFi", University Pierre et Marie Curie - Paris VI, March 2012, Philippe Jacquet, adviser.

- **Iskander Banaouas**, "Analyse et Optimisation des Protoocles d'Accès dans les Réseaux sans fil Ad Hoc", University Pierre et Marie Curie - Paris VI, February 2012, Paul Muhlethaler, adviser.

- **Ana Cristina B. Kochem Vendramin**, "Cultural GrAnt: um protocolo de roteamento baseado em inteligência coletiva para redes tolerantes a atrasos", Federal Technological University of Paraná, June 2012, Anelise Munaretto Fonseca, Myriam R. De B. da Silva Delgado, and Aline Carneiro Viana.

8.2.3. *Juries*

Pascale Minet was member of the Gilles Kahn 2012 jury awarding an excellent 2011 PhD thesis in Computer Science.

PhD :

- Michael Lauer, "Une Méthode Globale pour la Vérification d'Exigences Temps Réel - Application à l'Avionique Modulaire intégrée", University of Toulouse, June 2012, Pascale Minet, reviewer.

- Geovanny Mauricio Itturalde Ruiz, "Performances des Réseaux LTE", University of Toulouse, October 2012, Pascale Minet, reviewer.

- Mohamed-Haykel Zayani, "La Prédiction de Liens dans les Réseaux Sans-fil Dynamiques Centrés sur l'Etre Humain", Telecom SudParis and University Pierre et Marie Curie - Paris VI, October 2012, Pascale Minet, reviewer.

- Yasir Faheem, "Energy Efficient Routing In Wireless Sensor Networks", University Paris XIII, November 2012, Paul Muhlethaler, president.

- Youghourta Benfatttoum, "Network Coding for Quality of Service in Wireless Multi-hop Networks", University Orsay, November 2012, Paul Muhlethaler, examinator.

- Ibrahim Amadou, INSA Lyon, France, September 2012, Aline Carneiro Viana, reviewer.

8.3. Popularization

- **Fête de la Science organized by Inria**, in Rocquencourt, October 2012. The HIPERCOM team was very active and presented several demonstrations coordinated by Cédric Adjih. The demonstration prepared by Cédric Adjih, Nadjib Achir, Ichrak Amdouni, Hana Baccouch, Ines Khoufi, Erwan Livolant, Ridha Soua and Ala-Edin Weslati concerned the principles of wireless sensor networks, the energy-efficient routing protocol and the node coloring algorithm running in the OCARI network to maximize network lifetime.

- Cédric Adjih with the help of Ridha Soua and Ines Khoufi organized several demonstrations of wireless sensor networks for undergraduates and students who visited Inria in March, October and December 2012, respectively.

<p style="text-align:center">**MADYNES Project-Team**</p>

9. Dissemination

9.1. Scientific Animation

Olivier Festor is the Co-Chair together with Aiko Pras from University of Twente 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 is the 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 since march 2011. We organized a Flow management workshop at the Inria premises in Paris during IETF 83.

Olivier Festor served as a TPC Member of the following 2012 events: IEEE/IFIP Network Operations and Management Symposium (NOMS'2012); IFIP IEEE in conjunction with ACM CNSM'2012; ICCVE'2012; Globecom CSSM'2012; PST 2012, AFRICOMM 2012 and Policy 2012.

Olivier Festor was Student Travel Grants co-chair for the IEEE/IFIP Network Operations and Management Symposium (IEEE NOMS'2012).

Olivier Festor is member of the board of editors of the Springer Journal of Network and Systems Management. He is member of the editorial board of the IEEE Transactions on Network and Service Management.

Olivier Festor server as a TPC Co-chair of the IEEE International Conference on Communications (IEEE ICC), Communication and Information System Security Symposium 2012. He also serves as a TPC member of the 2012 ICC Communication Software Services and Multimedia Applications Symposium (CSSMA).

Olivier Festor is the Research Director of EIT ICT Labs.

Isabelle Chrisment the Co-Chair together with Ahmed Serhrouchni from Telecom ParisTech of the IFIP Task Force 6.5 on Secure Networking This Task Force provides a framework for the organization of activities within the scope of secure networking. It facilitates international cooperation activities and exchanges in this area.

Isabelle Chrisment served as a TPC member of : the 6th International IFIP Conference on Autonomous Infrastructure, Management and Security (IFIP AIMS'2012); the 13th joint TC6 and TC11 International IFIP Conference on Communications and Multimedia Security (IFIP CMS'2012) ; the Communication and Information Systems Security Symposium in the IEEE International Conference on Communications (IEEE ICC'12); the 14th french-speaking workshop on Algorithms in Telecommunications (Algotel'2012).

Remi Badonnel served as a TPC member of : the IFIP International Conference on Autonomous Infrastructure, Management and Security (IFIP AIMS'2012, PhD Symposium); the IEEE International Conference on Communications (IEEE ICC'12, CISS); the IEEE/IFIP Network Operations and Management Symposium (IEEE/IFIP NOMS'2012); the IEEE/IFIP International Workshop on Management of the Future Internet (IEEE/IFIP MANFI'2012); the International Conference on Cloud Computing and Services Science (CLOSER'2012).

Remi Badonnel chaired sessions at the following conferences:

- the IEEE International Conference on Communications (IEEE ICC'12, CISS),
- the IEEE/IFIP Network Operations and Management Symposium (IEEE/IFIP NOMS'2012),
- the IEEE/IFIP International Workshop on Management of the Future Internet (IEEE/IFIP MANFI'2012),
- the IEEE/IFIP/In Assoc. with ACM SIGCOMM International Conference on Network and Service Management (IEEE/IFIP/In Assoc. with ACM SIGCOMM CNSM'2012).

Ye-Qiong Song served as a TPC Member of the following 2012 events: the 17th IEEE international conference on Emerging Technologies & Factory Automation (ETFA'2012) ; the 9th IEEE international conference on Embedded Software and Systems (ICESS 2012) ; the 9th IEEE international workshop on Factory Communication Systems (WFCS 2012) ; the 10th International Conference On Smart homes and health Telematics (ICOST 2012); Workshop on Assistance and Service robotics in a human environment at IROS 2012; the International Workshop on Cooperative Robots and Sensor Networks (RoboSense 2012) in conjunction with the 3rd International Conference on Ambient Systems, Networks and Technologies (ANT-2012) ; the IEEE International Conference on Internet of Things (iThings 2012) ; the 11th International Workshop on Real-Time Networks (RTN 2012).

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

There is a high demand on networking courses in the various universities in which LORIA takes part. This puts high pressure on MADYNES members which are all in charge of numerous courses in this domain. Especially the team professors and associate professors ensure more than the required amount of teaching obligation in their respective institutions: IUT, bachelor, master, ESIAL/TELECOM Nancy and École des Mines de Nancy engineering schools. In this section, we only enumerate the courses that are directly related to our research activity.

Laurent Andrey is the Head of Department of the Charlemagne IUT specialization on multimedia networking.

André Schaff is the Director of the ESIAL/TELECOM Nancy Engineering School. Isabelle Chrisment is co-directing the school and is in charge of the students recruitement process. Remi Badonnel is heading the Telecommunications and Networks specialization of the 2nd and 3rd years at the ESIAL/TELECOM Nancy engineering school, and is also in charge of the 2nd year design and development projects at the same school. They teach the networking related courses in this cursus.

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). He is most notably in charge of Advanced Networking, Middleware, Component-based software development, Pervasive Computing, Networking and Systems courses at the Ecole des Mines de Nancy. Notably, within the ARTEM alliance (ICN - Business School, Mines Nancy, Ecole d'Art / School of Art), he is a member of the Research Comitee, more specifically with the "Smart Working Spaces" research theme, and he is co-responsible for the "Businesses: the digital challenge *CORP 3.0, Entreprises : le défi numérique* and the *Imagineries and the Workspaces*, 2 classes within the ARTEM alliance (over 90 hours).

Team members are teaching the following courses:

> Licence : Laurent Andrey, Introduction to networks, 56, niveau L1 (DUT), IUT nancy-Charlemagne, France

> Licence : Laurent Andrey, Introduction to network services, 38, niveau L2 (DUT), IUT nancy-Charlemagne, France

> Ecole Ingénieur : Rémi Badonnel, Networks and Services Management, 24, niveau M2 Ingénieur, TELECOM Nancy, France

> Ecole Ingénieur : Rémi Badonnel, Industrial Project, 25, niveau M2 Ingénieur, TELECOM Nancy, France

> Ecole Ingénieur : Rémi Badonnel, Networks and Systems, 32, niveau M1 Ingénieur, TELECOM Nancy, France

> Ecole Ingénieur : Rémi Badonnel, Advanced Courses on Networks and Systems, 34, niveau M1 Ingénieur, TELECOM Nancy, France

> Ecole Ingénieur : Rémi Badonnel, Algorithmics, Data Structures and Algebra, 32, niveau L3 Ingénieur, TELECOM Nancy, France

Ecole Ingénieur : Rémi Badonnel, Design and Development Project, 16, niveau M1 Ingénieur, TELECOM Nancy, France

Ecole Ingénieur : Rémi Badonnel, Initiation to Research Project, 18, niveau M1 Ingénieur, TELECOM Nancy, France

Ecole Ingénieur : Rémi Badonnel, Object-Oriented Programming, 32, niveau L3 Ingénieur, TELECOM Nancy, France

Ecole Ingénieur : Rémi Badonnel, XML Design and Development, 20, niveau L3 Ingénieur, TELECOM Nancy, France

Ecole Ingénieur : Laurent Ciarletta, Networking and Information System, 5, niveau L3 Ingénieur, Mines Nancy, France

Ecole Ingénieur : Laurent Ciarletta, Bootcamp (programming bootcamp), 16, niveau M1 Ingénieur, Mines Nancy, France

Ecole Ingénieur : Laurent Ciarletta, Operating Systems, 16, niveau M1 Ingénieur, Mines Nancy, France

Ecole Ingénieur : Laurent Ciarletta, Networking, 27, niveau M1 Ingénieur, Mines Nancy, France

Ecole Ingénieur : Laurent Ciarletta, Advanced Networking and Ambiant Systems, 18, niveau M1 Ingénieur, Mines Nancy, France

Ecole Ingénieur : Laurent Ciarletta, Embedded Systems, 14, niveau M1 Ingénieur, Mines Nancy, France

Ecole Ingénieur : Laurent Ciarletta, Advanced Software Engineering, 18, niveau M1 Ingénieur, Mines Nancy, France

Ecole Ingénieur : Laurent Ciarletta, Middleware, 6, niveau M2 Ingénieur, Mines Nancy, France

Ecole Ingénieur : Laurent Ciarletta, Android development, 12, niveau M1 and M2 Ingénieur, Collegium Ingenieur and Mines Nancy, France

Master : Isabelle Chrisment, Sécurité des Réseaux et des Services, 12hTD, niveau M2, université de Lorraine, France

Ecole Ingénieur : Isabelle Chrisment, Langage C et Shell, 42hTD, niveau L3 Ingénieur, Telecom Nancy

Ecole Ingénieur : Isabelle Chrisment, Réseaux et Systèmes, 60hTD, niveau M1 Ingénieur, Telecom Nancy

Ecole Ingénieur : Isabelle Chrisment, Réseaux et Systèmes AvancÃ©s, 30hTD, niveau M1 Ingénieur, Telecom Nancy

Ecole Ingénieur : Isabelle Chrisment, , Routage Internet, 50hTD, niveau M2 Ingénieur, Telecom Nancy

Master : Isabelle Chrisment, Sécurité des Réseaux et des Applications, 18hTD, niveau M2, université de Lorraine, France

Ecole Ingénieur : Olivier Festor, P2P Algorithms, Protocols and Applications, 12, niveau M2 Ingénieur, Telecom Nancy & ENSEM, France

Ecole Ingénieur : Olivier Festor, Voix sur IP, Protocols and Applications, 9, niveau M2 Ingénieur, Telecom Nancy, France

Ecole Ingénieur : Abdelkader Lahmadi, Elements of Distributed Computing: algorithms and systems, 12, niveau M2 Ingénieur, ENSEM, France

Ecole Ingénieur : Abdelkader Lahmadi, Internet Protocols and Applications, 15, niveau M2 Ingénieur, ENSEM, France

Ecole Ingénieur : Abdelkader Lahmadi, Wireless Sensor Network Programming, 12, niveau M2 Ingénieur, ENSEM, France

Ecole Ingénieur : Abdelkader Lahmadi, Operating Systems and C language programming, 30, niveau M1 Ingénieur, ENSEM & Ecole des Mines de Nancy, France

Ecole Ingénieur : Abdelkader Lahmadi, Real time systems: concepts and programming, 30, niveau M1 Ingénieur, ENSEM & Ecole des Mines de Nancy, France

Ecole Ingénieur : Abdelkader Lahmadi, Relational Database, 20, niveau M1 Ingénieur, ENSEM, France

Ecole Ingénieur : Abdelkader Lahmadi, Java Programming, 50, niveau L1 Ingénieur, ENSEM, France

Ecole Ingénieur : Abdelkader Lahmadi, Computer Architecture ,50, niveau L1 Ingénieur, ENSEM, France

Ecole Ingénieur : Abdelkader Lahmadi, Techniques and Tools for Programming, 50, niveau L1 Ingénieur, Telecom Nancy, France

Licence : Thomas Silverston, De la Puce á l'Internet, 60, niveau L1, université de Lorraine, France

Master : Thomas Silverston, Réseaux Avancés, 87, niveau M2, université de Lorraine, France

Master : Thomas Silverston, Introduction aux Réseaux, 26, niveau M2, université de Lorraine, France

Master : Thomas Silverston, Voix sur IP, Contenu Multimédia, 38, M2, université de Lorraine, France

Licence : Thomas Silverston, Introduction aux Réseaux, 8, L3, université de Lorraine, France

Master : Ye-Qiong Song, Performance evaluation, 20, niveau M2, Université de Lorraine, France

Ecole Ingénieur : Ye-Qiong Song, Networking, 40, niveau M2, ENSEM - Universitd´e Lorraine, France

Ecole Ingénieur : Ye-Qiong Song, Database, 10, niveau M1, ENSEM - Universitd´e Lorraine, France

Ecole Ingénieur : Ye-Qiong Song, Algorithmic and progamming (Java), 120, niveau L3, ENSEM - Université de Lorraine, France

9.2.2. Supervision

PhD : Sheila Becker, Conceptual Approaches for Securing Networks and Systems, University of Luxembourg and Université de Lorraine, 10/2012, Thomas Engel, Olivier Festor, Radu State.

PhD in progress : Oussema Dabebbi,Dynamic risk management in Voice over IP services,oct., 2009, Supervised by Remi Badonnel and Olivier Festor

PhD in progress : Martin Barrere, Cooperative Vulnerability Management ,oct., 2010, Supervised by Remi Badonnel and Olivier Festor

PhD in progress : Monitoring and Security in P2P file sharing networks. Juan Pablo Timpanaro, May 2010, Isabelle Chrisment

PhD in progress : César Bernardini, Réseau orienté-contenu basé sur les communautés d'utilisateurs, 01/11/2011, Olivier Festor et Thomas Silverston

PhD in progress : Patrick Olivier Kamgueu, Energy management in WSNs, juin, 2012, Supervised by Emmanuel Nataf and Olivier Festor in France, Thomas Djotio in Cameroun

PhD in progress : Jamila Ben Slimane, Joint allocation of time slot and frenquency channels in wireless sensor networks, oct., 2008, Supervised by Ye-Qiong Song and Mounir Frikha

PhD in progress : François Despaux, Delay evaluation in wireless sensor networks for providing QoS, November 2011, Supervised by Ye-Qiong Song and Abdelkader Lahmadi

PhD in progress : Kevin Roussel : Dynamic management of QoS and energy in heterogenous sensor and actuator networks for e-health applications, December 2012, Supervised by Ye-Qiong Song

9.2.3. *Juries*

Team members participated to the following Ph.D. defense committees :

- Rafik Makhloufi, Ph.D. in Computer Science from Université Technologique de Troyes. Title: *Vers une gestion adaptative des réseaux complexes: cas de la surveillance de données agrégées*, February 2012. (Olivier Festor)

- Fernando Menezes Matos, Ph.D. in Computer Science from University of Coimbra. Title: *QoS for Multi-Domain Services in Next Generation Networks*, June 2012. (Olivier Festor)

- Sivasothy Shanmugalingam, Ph.D. in Computer Science from Telecom et Management Sud Paris. Title: *Convergence of Web and Communication Services*, April 2012. (Olivier Festor)

- Sabina Akhtar, Ph.D. in Computer Science from from Université de Lorraine. Title: *Verification of Distributed Algorithms using PlusCal-2*, May 2012. (Isabelle Chrisment)

- Tomas Navarrete Gutierrez, Ph.D in computer Science from Université de Lorraine. Title: *Une architecture de contrôle de systèmes complexes basée sur la simulation multi-agent*, October 2012. (Laurent Ciarletta)

- Fernand Lone Sang, Ph.D. in Computer Science from Université de Toulouse. Title: *Protection des systèmes informatiques contre les attaques par entrées-sorties*, November 2012. (Olivier Festor)

- Damien Roth, Ph.D. in Computer Science from Université de Strasbourg. Title: *Gestion de la mobilité dans les réseaux de capteurs sans fil*, Novembre 2012. (Isabelle Chrisment)

- Raphael Fournier-S'niehotta, Ph.D. in Computer Science from Université Pierre et Marie Curie - Sorbonne Universités. Title: *Détection et analyse d'une thématique rare dans de grands ensembles de requêtes : l'activité pédophile dans le P2P.*, December 2012. (Olivier Festor)

- Hai Anh Tran, Ph.D. in Computer Science from Université Paris Est. Title: *QoE-based Content Distribution Network Architecture*, December 2012. (Olivier Festor)

- Hien Thi Thu Truong, Ph.D. in Computer Science from Université de Lorraine. Title: *Un modèle de collaboration basée sur les contrats et la confiance*, December 2012. (Isabelle Chrisment)

- Aruna Jamdagni In, Ph.D. in Computer Science from University of Technology, Sydney Australia. Title: *Payload-based Anomaly Detection in HTTP Traffic,*. (Isabelle Chrisment)

Team members participated to the following Habilitation Degree defense committees :

- Pascal Anelli, Habilitation Degree in Computer Science from Université de la Réunion. Title: *Des aléas de la communication: de la transmission au transport*, April 2012. (Olivier Festor)

- Frédéric Weis, Habilitation Degree in Computer Science from Université de Rennes 1. Title: *Exploitation d'approches système dans les réseaux sans fil*, June 2012. (Olivier Festor)

- Ludovic Apvrille , Habilitation Degree in Computer Science from Université de Nice-Sophia Antipolis. Title: *Model-Based Design of Complex Embedded Systems*, December 2012. (Olivier Festor)

- Eric Totel, Habilitation Degree in Computer Science from Université de Rennes 1. Title: *Techniques de Détection d'Erreur Appliquées à la Détection d Intrusion*, Novembre 2012. (Isabelle Chrisment)

- Laurent Toutain, Habilitation Degree in Computer Science from Université Européenne de Bretagne. Title: *Vers un Internet Polymorphe*, December 2012. (Olivier Festor)

MAESTRO Project-Team

8. Dissemination

8.1. Scientific Animation

8.1.1. Editorial activities

MAESTRO members are

Editor-in-Chief of

– *Performance Evaluation* (PEVA) (**P. Nain** since January 1st, 2008);

Associate Editors of (in alphabetical order)

– *Computer Communications* (COMCOM) (**E. Altman** since 2010);
– *Dynamic Games and Applications* (DGAA) (**E. Altman** since 2011);
– *Journal of Economic Dynamics and Control* (JEDC) (**E. Altman** since 2001);
– *Performance Evaluation* (PEVA) (**K. Avrachenkov** since 2008);

Guest editor of Special Issues of

– *IEEE Journal of Selected Areas in Communications* (JSAC) on "The economics of communication networks and systems" [77] (**E. Altman**).

8.1.2. Conferences, meetings and tutorial organization

MAESTRO members were

in the Steering Committee of

– 10th Intl. Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks (WiOpt 2012, Paderborn, Germany) (**E. Altman** as chair);
– 6th Intl. Conference on Performance Evaluation Methodologies and Tools (VALUE-TOOLS, Cargèse, France) (**E. Altman** as co-chair);
– 6th Intl. Conference on Network Games, Control and Optimization (NETGCOOP 2012, Avignon, France) (**E. Altman**);
– Workshop on Telecom Economics, Engineering and Policy (co-located with ITC 2012, Kraków, Poland) (**E. Altman**);

TPC co-chair of

– 6th Intl. Conference on Performance Evaluation Methodologies and Tools (VALUE-TOOLS 2012, Cargèse, France) (**A. Jean-Marie**);
– Workshop "Networking games & resource allocation" (Petrozavodsk, Russia) (**E. Altman**).

8.1.3. Participation in technical program committees (TPC)

MAESTRO members were in the TPC of

1. ACM 3rd Intl. Workshop on Mobile Opportunistic Networks (MobiOpp 2012, Zurich, Switzerland) (**G. Neglia**);
2. ACM SIGMETRICS/Performance 2012 (London, UK) (**A. Jean-Marie**);
3. 8th Advanced International Conference on Telecommunications (AICT 2012, Stuttgart, Germany) (**K. Avrachenkov**);
4. IADIS Multi Conference on Computer Science and Information Systems (MCCSIS 2012, Lisbon, Portugal) (**M. Haddad**);
5. 32nd IEEE Intl. Conference on Computer Communications (IEEE INFOCOM 2013, Turin, Italy) (**G. Neglia**);
6. IEEE 77th Vehicular Technology Conference (VTC2013-Spring, Dresden, Germany) (**S. Alouf**, **D. Ciullo**);
7. 3rd Intl. Conference on Access Networks (ACCESS 2012, Venice, Italy) (**K. Avrachenkov**);
8. 19th Intl. Conference on Analytical and Stochastic Modelling Techniques and Applications (ASMTA 2012, Grenoble, France) (**K. Avrachenkov**);
9. Intl. Conference on Computer Communication Networks (ICCCN 2012, Munich, Germany) Network Science and Social Networks Track (**G. Neglia**);
10. 6th Intl. Conference on Game Theory and Management (GTM 2012, St. Petersburg, Russia) (**E. Altman**);
11. 3rd Intl. Conference on Game Theory for Networks (Gamenets 2012, Vancouver, Canada) (**E. Altman**);
12. 6th Intl. Conference on Network Games, Control and Optimization (NETGCOOP 2012, Avignon, France) (**K. Avrachenkov**);
13. 11th Intl. Conference on Next Generation Wired/Wireless Networking (NEW2AN 2012, St. Petersburg, Russia) (**K. Avrachenkov**);
14. 6th Intl. Conference on Performance Evaluation Methodologies and Tools (VALUETOOLS 2012, Cargèse, France) (**S. Alouf**, **K. Avrachenkov**, **A. Jean-Marie**, **P. Nain**, **G. Neglia**);
15. 2nd Intl. Conference on Smart Grids and Green IT Systems (SMARTGREENS 2013, Aachen, Germany) (**D. Ciullo**);
16. 3rd Intl. Conference on Smart Grids, Green Communications and IT Energy-aware Technologies (Energy 2013, Lisbon, Portugal) (**D. Ciullo**);
17. 27th Intl. Symposium on Computer and Information Sciences (ISCIS 2012, Paris, France) (**A. Jean-Marie**);
18. 14th Intl. Symposium on Dynamic Games and Applications (ISDGA 2012, Byšice, Czech Republic) (**E. Altman**);
19. 10th Intl. Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks (WiOpt 2012, Paderborn, Germany) (**S. Alouf**);
20. 24th Intl. Teletraffic Conference (ITC 2012, Kraków, Poland) (**S. Alouf**);
21. 5th Intl. Workshop on Multiple Access Communications (MACOM 2012, Dublin, Ireland) (**K. Avrachenkov**);
22. Intl. Workshop "Networking Games and Management" (Petrozavodsk, Russia) (**K. Avrachenkov**);
23. 14èmes Rencontres Francophones sur les Aspects Algorithmiques des Télécommunications (AlgoTel 2012, La Grande Motte, France) (**A. Jean-Marie**);
24. 8th Spain, Italy and Netherlands Meeting on Game Theory (SING 8, Budapest, Hungary) (**E. Altman**);
25. 9th Workshop on Algorithms and Models for the Web Graph (WAW 2012, Halifax, Nova Scotia, Canada) (**K. Avrachenkov**);
26. 14th Workshop on Mathematical Performance Modeling and Analysis (MAMA 2011, London, UK) (**A. Jean-Marie**, **P. Nain**);
27. First Workshop on Pricing and Incentives in Networks (W-PIN 2012, London, UK) (**E. Altman**).

8.1.4. Leadership within the scientific community

- E. Altman was one of the two recipients of the France Telecom Prize delivered by the Académie des Sciences.
- 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".
- P. Nain is the vice-Chair of the IFIP WG7.3 working group on "Computer System Modeling" (since June 30, 2007).

8.1.5. 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."

K. Avrachenkov   (together with A. Legout and F. Gandon) 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);
- is member of the managing sub-committee of the Project-Team Committee of the INRIA Sophia Antipolis - Méditerranée research center (since July 2010);
- is a member of the Steering Committee of the GDR RO, a national research initiative on Operations Research sponsored by the CNRS;
- was a member of the Recruiting Committee of INRIA engineers and technicians (IT) at Inria Sophia Antipolis - Méditerranée;
- was a member of the Selection Committee of the 2012 Robert Faure prize of the French Society for Operations Research and Decision Support (ROADEF).

P. Nain

- is Chairman of INRIA's Evaluation Committee since September 1st, 2012 (http://www.inria.fr/en/institute/organisation/committees/evaluation-committee);
- is Head of project-team MAESTRO;
- is a member of the INRIA steering group (13 people including 6 researchers) in charge of producing of the INRIA 2013-2017 strategic plan;
- has represented INRIA/ at the Scientific Council of the Univ. of Nice-Sophia Antipolis from July 2011 to June 2012.

MAESTRO members are in the following committees of INRIA Sophia Antipolis - Méditerranée

- CC: General Information Commission (**N. Choungmo Fofack** as PhD Student Representative, since 2011);
- ComRes: Commission Restauration (**N. Choungmo Fofack** as PhD Student Representative, since 2011);
- CSD: Doctoral Committee (**S. Alouf**, since February 2006);
- MASTIC: a commission in charge of internal and regional scientific animation and popularization (**S. Alouf**, since November 2011);
- NICE: Invited Researchers Committee (**K. Avrachenkov**, since 2010);

and in charge of the following tasks

- Validation of Teams yearly activity reports (**K. Avrachenkov**, since 2010);
- Accounting for the monthly Project-Team Committee meetings (**S. Alouf**);
- Organizing MAESTRO internal meetings (**N. Choungmo Fofack**).

8.2. Teaching - Supervision - Juries

8.2.1. Teaching

Licence : S. Alouf, "Probability and Statistics", 36H ETD, 1st year Water Engineering degree (L3), Univ. of Nice Sophia Antipolis (UNS), France.

Licence : N. Choungmo Fofack, "Stochastic processes for Signal Processing", 64H ETD, 1st year Electronic Engineering degree (L3), Univ. of Nice Sophia Antipolis (UNS), France.

Licence : M. El Chamie, "Database", 20H ETD, Computer Science Program (L2), Univ. of Nice Sophia Antipolis (UNS), France.

Master : S. Alouf, "Performance Evaluation of Networks", 32.5H ETD, M2 IFI Ubinet, Univ. of Nice Sophia Antipolis (UNS), France.

Master : K. Avrachenkov, "Probability and Statistics", 27H ETD, M1 EuroAquae, Univ. of Nice Sophia Antipolis (UNS), France.

Master : A. Jean-Marie, "Metrology and Quality of Service for Networks", 18H ETD, M2, Univ. of Montpellier 2, France.

Master : G. Neglia, "Performance Evaluation of Networks", 22.5H ETD, M2 IFI Ubinet, Univ. of Nice Sophia Antipolis (UNS), France.

Doctorat : E. Altman, "Competition for popularity in social networks", 4H ETD, 2nd Intl. Summer School on Cognitive Wireless Communications (COST Action IC0902), France.

Doctorat : A. Jean-Marie, "Advanced Markov Modeling", 18H ETD, Univ. of Montpellier 2, France.

Doctorat : G. Neglia, "Complex Networks", 4.5H ETD, Univ. of Palermo, Italy.

Doctorat : G. Neglia, "Perron Frobenius Theory", 20H ETD, Univ. of Nice Sophia Antipolis (UNS), France.

8.2.2. Supervision

PhD: Lorenzo Maggi, "Markovian Competitive and Cooperative Games with applications to Communications," Univ. of Nice Sophia Antipolis, October 9 2012, advisors: Konstantin Avrachenkov and Laura Cottatellucci (INSTITUT EURECOM).

PhD in progress: Ilaria Brunetti, "Cooperative and competitive content dissemination in social networks," October 1 2012, advisor: Eitan Altman.

PhD in progress: Nicaise Choungmo Fofack, "Performance Evaluation of TTL-based resource networks," October 1 2010, advisors: Sara Alouf and Philippe Nain.

PhD in progress: Richard Combes, "Self-organizing functionalities in radio networks," October 1 2009, advisors: Eitan Altman and Zwi Altman (France Telecom) and Sylvain Sorin (Univ. Pierre and Marie Curie).

PhD in progress: Eugenio Della Vecchia, "Contribution to the solution of problems in stochastic control and games", October 1 2008, advisors: Silvia Di Marco (National Univ. of Rosario, Argentina) and Alain Jean-Marie.

PhD in progress: Mahmoud El Chamie, "Belief propagation in complex networks," October 1 2011, advisors: Konstantin Avrachenkov and Giovanni Neglia.

PhD in progress: Julien Gaillard, "Creation, simulation and multidiscipline evaluation of dynamic mobility models in complex systems," October 1 2011, advisors: Eitan Altman, Marc El-Bèze (Univ. of Avignon) and Emmanuel Ethis (Univ. of Avignon).

PhD in progress: Manjesh Kumar Hanawal, "Resource allocation and learning algorithms in small cells wireless networks," January 1 2010, advisors: Eitan Altman and Rachid El-Azouzi (Univ. of Avignon).

PhD in progress: Cengis Hasan, "Optimization of resource allocation for small cells networks," January 1 2010, advisors: Eitan Altman and Jean-Marie Gorce (INRIA project-team SWING).

PhD in progress: Alexandre Reiffers, "Modelling competition and cooperation in telecommunication networks," October 15 2012, advisor: Eitan Altman.

PhD in progress: Marina Sokol, "Clustering and learning tecnhiques for traffic/user classification," October 1 2009, advisors: Paulo Gonçalves (INRIA project-team RESO) and Philippe Nain.

8.2.3. *Juries*

MAESTRO members participated in the Habilitation (HDR) thesis committees of (in alphabetical order):

- Olivier Brun: February 6, 2012, LAAS-CNRS (**K. Avrachenkov** as jury member);

and in the PhD thesis committees of (in alphabetical order):

- Ali Arshad: November 12, 2012, Telecom SudParis (**K. Avrachenkov** as reviewer, **E. Altman** as jury member);
- Olivier Fercoq: September 17, 2012, Ecole Polytechnique (**K. Avrachenkov** as reviewer);
- Oussama Habachi: September 28, 2012, Univ. of Avignon (UAPV) (**E. Altman** as jury member);
- Lorenzo Maggi: October 9, 2012, INSTITUT EURECOM (**K. Avrachenkov** as co-advisor);
- Marco Rosa: March 6, 2012, Univ. of Milano, Italy (**K. Avrachenkov** as reviewer);
- Cristiano Tapparello: March 14, 2012, Univ. of Padua, Italy (**G. Neglia** as reviewer);
- Cheng Wan: September 26, 2012, Univ. Pierre et Marie Curie (Paris 6) (**E. Altman** as reviewer).

8.3. Popularization

Activities are presented in chronological order:

- M. El Chamie presented the topic "Belief propagation and classification in complex networks" at the *Salon du Numérique*, Inria stand, held in parallel with the World Wide Web 2012 (www2012) conference, April 16–20, 2012, Lyon, France.
- A. Reiffers delivered a conference titled "Competition over popularity in social networks" organized by the association "Les petits débrouillards" in Carpentras on October 16, 2012.
- S. Alouf delivered two conferences titled "Comment marche le Web ?" at the Henri Matisse High School of Vence (December 6, 2012), and at the Aix-Valabre High School at Gardanne (December 13, 2012).
- An article portraying N. Choungmo Fofack has appeared in *LISA* (December 7, 2012), available here: https://lisa.sophia.inria.fr/nicaise-choungmo-fofack-doctorant-dans-lequipe-maestro-797.html).
- E. Altman made a presentation on "Des points de rencontre entre la technologie de l'information et les sciences humaines et sociales" in the *Café-in* series of popular content at the INRIA Sophia Antipolis - Méditerrannée Center on December 17, 2012.
- An article titled "Internet" has appeared in *Savoirs Jeunes* (December 17, 2012) (interview of S. Alouf by E. Kuntzelmann, available here: http://juniors.savoirs.essonne.fr/questions-a).

8.4. Participation in scientific events

8.4.1. *Keynotes, tutorials and invited talks*

MAESTRO members gave the following keynote lectures (in alphabetical order):

- *The mathematics of file dissemination*, at the 6th Young European Queueing Theorist (YEQT-VI) workshop on "Analytic Methods in Queueing Systems", November 1–3, 2012, Eindhoven, The Netherland (**P. Nain**);

the following tutorials (in alphabetical order):

- *Competition over popularity of content in social networks*, at the 6th Intl. Conference on Performance Evaluation Methodologies and Tools (VALUETOOLS), October 8, 2012, Cargèse, France (**E. Altman**);
- *Game theoretic modeling of competition over popularity in social networks*, at the 6th Intl. Conference on Network Games, Control and Optimization (NetGCoop), November 28, 2012, Avignon, France (**E. Altman**);
- *Socio-economic and legal Issues in the Internet: game theoretical models*, at the 6th Intl. Conference on Performance Evaluation Methodologies and Tools (VALUETOOLS), October 8, 2012, Cargèse, France (**E. Altman**, **M. K. Hanawal**);

and the following invited talks (in alphabetical order):

- *Analysis of power saving in cellular networks with continuous connectivity*, at the Basque Center for Applied Mathematics (BCAM), June 20, 2012, Bilbao, Spain (**S. Alouf**);
- *Competition over popularity in social networks*, at Imperial college, December 7, 2012, London, UK, and at the Institut Supérieur d'Informatique et des Techniques de Communication, December 15, 2012, Hammam Sousse, Tunisia, (**E. Altman**);
- *Distributed weight selection in consensus protocols by Schatten norm minimization*, at Fordham university, November 20, 2012, Rose Hill Campus Bronx, NY 10458 (**G. Neglia**);
- *Optimal control of carbon sequestration: the case of leaky reservoirs*, at the Univ. of Valladolid, Dept. Applied Maths, February 29, 2012, Valladolid, Spain (**A. Jean-Marie**);
- *Quick detection of large degree nodes in complex networks*, at the Univ. of Liverpool, May 17, 2012, Liverpool, UK (**K. Avrachenkov**).

8.4.2. Conferences and workshops

MAESTRO members gave presentations at the following scientific events (in alphabetical order):

- 31st IEEE Intl. Conference on Computer Communications (IEEE INFOCOM 2012), March 25–30, Orlando, Florida, USA (**J. Gaillard**);
- 6th Intl. Conference on Network Games, Control and Optimization (NetGCoop 2012), November 28–30, 2012, Avignon, France (**E. Altman**, **K. Avrachenkov**);
- 6th Intl. Conference on Performance Evaluation Methodologies and Tools (VALUETOOLS 2012), October 9–12, Cargèse, France (**E. Altman**, **N. Choungmo Fofack**, **M. Haddad**);
- 10th Intl. Symposium on Modeling and Optimization in Mobile, Ad hoc and Wireless Networks (WiOpt), May 14–18, Padeborn, Germany (**E. Altman**);
- 3rd Intl. Workshop on Traffic Analysis and Classification (TRAC 2012), August 27–31, Limassol, Cyprus (**K. Avrachenkov**);
- Optimization Days 2012, May 7–9, Montreal, Canada (**A. Jean-Marie**);
- 12th Viennese Workshop on Optimal Control, Dynamic Games and Nonlinear Dynamics, May 30 - June 2, Vienna, Austria (**A. Jean-Marie**);
- Workshop on Network Science in Electrical Engineering and Computer Science, January 09–13, 2012, Bangalore, India (**E. Altman**);
- BiCi Workshop: Sinergic Investigations in Network Science (SINS), October 14–19, 2012, Bertinoro, Italy (**K. Avrachenkov**).

8.4.3. Technical program committee meetings

MAESTRO members have participated in the following TPC meetings:

- 32nd IEEE Intl. Conference on Computer Communications (IEEE INFOCOM 2013), November 10, 2012, Phoenix, Arizona, USA (**G. Neglia**);
- 24th Intl. Teletraffic Conference (ITC 2012), May 11, 2012, Paris, France (**S. Alouf**).

8.4.4. Schools and students workshops

MAESTRO members have attended the following courses:

- Course in "Scaling methods for stochastic networks" (10H) at the Basque Center for Applied Mathematics (BCAM), January 16–20, 2012, Bilbao, Spain (**N. Choungmo Fofack**);

- Euro-NF PhD Course in "Information Centric Networking" (30H) at Athens Univ. of Economics and Business (AUEB), May 14–18, 2012, Athens, Greece (**N. Choungmo Fofack**);

- Tutorials on "Performance Evaluation Methodologies and Tools" (20H) at VALUETOOLS 2012 Conference, October 9–12, 2012, Cargèse, France (**I. Brunetti**, **M. El Chamie**, **J. Gaillard**, **O. Habachi**, **A. Reiffers**).

MASCOTTE Project-Team

9. Dissemination

9.1. Scientific Animation

9.1.1. Participation in Committees

J.-C. Bermond: Expert for DRTT, and various projects outside France (Canada, Italy,...); Member of the Ph.D. committee of the University of Marseille;

D. Coudert: Member of the *comité du suivi doctoral* of Inria Sophia Antipolis (since January 2009); Member of *comité de sélection 27e section* of UJF, Grenoble, 2012; Member of the scientific board of the GIS ENSL-UNS (CNRS, ENSL, Inria, UNS) since 2011; Expert for the National Sciences and Engineering Research Council of Canada (NSERC), the Future and Emerging Technologies Open Scheme (FET-Open) European program, and the ANR;

J. Moulierac: Member of the *comité de sélection 27e section* of University of Versailles St-Quentin; Member of the CDL (Commission for software development) at Inria Sophia Antipolis since 2009; Member of the *Conseil de Département* (Department Committee) of IUT Nice since 2007;

M. Syska: Member of the commission ad-hoc ATER 27 UNS, IUT PAST 27 and ATER 11; Member of *Comité Permanent de Ressources Humaines (CPRH) UNS 27e*; Member of the *Conseil de Département* (Department Committee) of IUT Nice; Expert for DRTT PACA.

9.1.2. Editorial Boards

J.-C. Bermond: Combinatorics Probability and Computing, Computer Science Reviews, Discrete Mathematics, Discrete Applied Mathematics, Journal of Graph Theory, Journal of Interconnection Networks (Advisory Board), Mathématiques et Sciences Humaines, Networks, Parallel Processing Letters, SIAM book series on Discrete Mathematics, Transactions on Network Optimization and Control, Discrete Mathematics, Algorithms and Applications;

D. Coudert Discrete Applied Mathematics (Elsevier); Networks (Wiley);

F. Havet: Discrete Mathematics and Theoretical Computer Science.

9.1.3. Steering Committees

D. Coudert: Pôle ResCom du GDR ASR du CNRS (since 2005); Rencontres francophones sur les aspects algorithmiques des télécommunications (AlgoTel);

F. Havet: Journées Graphes et Algorithmes (JGA); Journées Combinatoires et Algorithmes du Littoral Méditerranéen (JCALM).

9.1.4. Conference Organization

JCALM: 11èmes Journées Combinatoire et Algorithmes du Littoral Méditerranéen, Sophia Antipolis, France (February 16-17, 2012). Organizers: J. Araujo, F. Havet, A. Kodjo, A. Lancin, L. Sampaio;

ResCom: 10th Journées du Pôle ResCom du GDR ASR, Paris, France (November 28-29, 2012). Organizer: C. Caillouet (co-chair).

9.1.5. Workshop Organization

GOC 12: Workshop Franco-brésilien de Graphes et Optimisation Combinatoire, Redonda, Brasil, April 16-20, 2012. Organizers: F. Havet (co-chair), J. Araujo, A.-K. Maia, L. Sampaio and R. Soares.

9.1.6. Participation in Program Committees

J.-C. Bermond: 6th International Conference on FUN with Algorithms, Venice, Italy (June 4-6, 2012);

D. Coudert: 11th International Symposium on Experimental Algorithms (SEA'12), Bordeaux, France (June 7-9, 2012); IEEE GLOBECOM – Track on Green Communication Systems and Networks, Anaheim, CA, USA (December 3-7, 2012);

F. Havet: 14emes Journées Graphes et Algorithmes (JGA 2012);

J. Moulierac: 14e Rencontres Francophones sur les Aspects Algorithmiques des Télécommunications (Algotel'12), La Grande Motte, France, May 29- June 1st, 2012.

9.2. Participation in Conferences and Workshops

9.2.1. Invited Talks

D. Coudert Presentation on *Energy efficiency in backbone and backhaul networks* at Journées du pôle Systèmes de Communications Sécurisées, Sophia Antipolis, January 24, 2012;

F. Giroire: Workshop Franco-brésilien de Graphes et Optimisation Combinatoire, Redonda, Brazil (April 16-20, 2012);

F.Havet: Birmingham workshop on Probabilistic methods in Graph theory, Birmingham, U. K. (March 25-29, 2012); Workshop Franco-brésilien de Graphes et Optimisation Combinatoire, Redonda, Brazil (April 16-20); SIAM Discrete Mathematics Conference, Halifax, Canada (June 18-21, 2012); Bordeaux Graph Workshop, Bordeaux, France (November 21-24, 2012) (Plenary Speaker);

N. Nisse: GRASTA'12, Banff, Canada (October 8-12, 2012); IMSA seminar, Univ. Adolfo Ibanez, Santiago, Chile (August 10th, 2012).

9.2.2. Participation in Scientific Meetings

COA: first meeting of GT Complexité et Algorithmes, Paris (November 21-22, 2012). Attended by N. Nisse and S. Pérennes;

EULER: First year review meeting, Bruxelles, Belgium (January 13, 2012). Attended by A. Lancin, D.Coudert; WP2 technical meeting, Bordeaux, France (March 8-9, 2012). Attended by A. Lancin, B. Li, N. Nisse; Plenary meeting and Technical Advisory Board meeting, Ghent, Belgium (June 5-8, 2012). Attended by D. Coudert, A. Lancin, and N. Nisse; 2nd year review meeting, Sophia Antipolis, France (October 19, 2012). Attended by D. Coudert, A. Lancin, and N. Nisse; Plenary meeting and Technical Advisory Board meeting, Louvain-la-Neuve, Belgium (December 10-12, 2012). Attended by A. Lancin and N. Nisse;

Evaluation seminar: Evaluation of the Mascotte project-team at the evaluation seminar of the research theme Networks and Telecommunications of Inria, Paris, France (March 21-23, 2012). Attended by most of the MASCOTTE permanent members (speakers: D. Coudert, F. Havet, J. Moulierac, N. Nisse);

FET: Meeting to prepare a FET2012 "Mobilizing the Cloud: Enabling Multi-User Mobile Outsourcing in the Cloud", Geneva, Switzerland (Januay 12-13, 2012). Attended by J.-C. Bermond and S. Pérennes;

GRATEL: ANR Gratel meeting, Bordeaux, France (November 20, 2012). Attended by J. Araujo (speaker), A. K. Maia and F. Havet (speaker);

Lip6: Networks Optimization Days, Paris, France (November 30, 2012). Attended by A. Kodjo;

Mascotte Days: Mascotte project annual seminar, Lac de Sainte-Croix, France (May 10-11, 2012). Attended by most of the Mascotte members;

ResCom: 10th Journées du Pôle ResCom du GDR ASR, Paris, France (November 28-29, 2012). Attended by D. Coudert, A. Kodjo, A. Lancin (speaker), F. Z. Moataz (speaker) and I. Tahiri (speaker);

SPREAD End of project assessment meeting, Paris, France (July 12, 2012). Attended by S. Pérennes;

TREND: TREND Network of Excellence meeting, Volos, Greece (October 1-5, 2012). Attended by L. Chiaraviglio and F. Giroire.

9.2.3. Participation in Conferences

Alan Turing's Heritage: Special event on How Turing's machine changed the world, Lyon, France, July 2-4, 2012. Attended by D. Coudert;

AlgoTel: 14th Rencontres Francophones sur les Aspects Algorithmiques des Télécommunications, La grande Motte, France (May 29th - June 1st, 2012). Attended by C. Caillouet, D. Coudert, A. Lancin, N. Nisse (speaker);

BGW: Bordeaux Graph Workshop, Bordeaux, France (November 21-24, 2012). Attended by J. Araujo (speaker), F. Havet (invited speaker), A. K. Maia and R. P. Soares (speaker);

CoNEXT-SW: 8th ACM International Conference on emerging Networking Experiments and Technologies (ACM CoNEXT) Student Workshop, Nice, France (December 10-13, 2012). Attended by F. Z. Moataz (speaker) and T. K. Phan (speaker);

ECT: ECT Workshop spectral properties of complex networks, Trento, Italy (July 23-27, 2012). Attended by J. Galtier and M. Toko Worou (speaker);

EULER: Workshop at Fire, Aalborg, Denmark (May 9, 2012). Attended by A. Lancin;

FUN: 6th International Conference on FUN with Algorithms, Venice, Italy (June 4-6, 2012). Attended by J.-C. Bermond and F. Giroire (speaker);

GOC: Workshop Franco-brésilien de Graphes et Optimisation Combinatoire, Plage Redonda, Ceará, Brésil (April 16-20 2012). Attended by J. Araujo, F. Giroire (speaker), F. Havet (speaker), A.K. Maia, N. Nisse, R. Pardo Soares and L. Sampaio Rocha;

GRASTA: 5th Workshop on GRAph Searching, Theory and Applications, Banff, Canada (October 8-12, 2012); Attended by N. Nisse (speaker) and R. Pardo Soares;

ICALP: 39th International Colloquium Automata, Languages and Programming, University of Warwick, UK (July 9-12, 2012). Attended by B. Li (speaker);

JDG: Journée Thématique "Dynamique des Graphes", Paris, France (July 10th, 2012). Attended by J. Araujo and M. Toko Worou;

JGA: 14èmes Journées des Graphes et Algorithmes, Clemont-Ferrand, France (November 14-16, 2012). Attended by J. Araujo (speaker), B. Li (speaker), A. K. Maia (speaker), F. Z. Moataz and R. P. Soares (speaker);

LIRMM en fête pour ses 20 ans: Scientific event for celebrating the 20 years of the LIRMM, Montpellier, France, July 12. Attended by D. Coudert;

Networking: IFIP TC6 Networking, Prague, Czech Republic (May 21-25, 2012). Attended by T. K. Phan (speaker);

PADS: 26th ACM/IEEE/SCS Workshop on Principles of Advanced and Distributed Simulation, Zhangjiajie, China (July 15-19, 2012). Attended by A. Lancin (speaker).

9.2.4. Participation in Schools

11ème JCALM: 11èmes Journées Combinatoire et Algorithmes du Littoral Méditerranéen, Sophia Antipolis, France (February 16th - 17th, 2012). Attended by most of the Mascotte members (speakers: J. Araujo, F. Havet, A. Kodjo, A. Lancin, L. Sampaio);

12ème JCALM: 12èmes Journées Combinatoire et Algorithmes du Littoral Méditerranéen, Montpellier, France (October 11th - 12th, 2012). Attended by J. Araujo and A. K. Maia;

Ecole management Inria Paris, France (March 28-30 and June 13-14, 2012). Attended by D. Coudert;

EPIT: L'Ecole de Printemps d'Informatique Théorique, Ile de Ré, France (Mars 26-30, 2012). Attended by A. Lancin, R. Modrzejewski, L. Sampaio and I. Tahiri;

NASSSO: Numerical Analysis Summer School 2012 Stochastic Optimization, Cadarache, France (June 25th- July 6th, 2012). Attended by B. Li.

SSMS: Summer School on Social Media Modeling and Search, Fira, Santorini, Greece (September 10-14, 2012). Attended by M. Toko Worou;

9.3. Teaching - Supervision - Juries

9.3.1. Teaching

Licence:

J. Araujo, Algorithmique et Programmation, 30h ETD, Cycle Initial Polytechnique 2, École Polytech'Nice, UNS;

C. Caillouet, Introduction to Operating Systems, 30h ETD, Level L1, IT Tools, 31h, Level L1, Database and advanced information system, 98h, Level L2, IUT Nice Côte d'Azur, UNS;

A. Kodjo, Algorithme-Programmation Objet-Python, 40h ETD, Level L2, UNS;

J. Moulierac and A. Lancin, ASR5 - Networks, 130h ETD, Level L1, IUT Nice Côte d'Azur, UNS;

N. Nisse, informatique, 60h ETD, 1re année classes préparatoires (L1), Lycée International de Valbonne;

M. Syska, Introduction to Operating Systems, 40h ETD, Level L1, Operating Systems : Advanced Programming, 63h ETD, Level L2, Bash Scripting, 15h ETD, Level L3, Introduction to Algorithms, 36h ETD, Level L3, Linux Systems Administration, 24h ETD, Level L3, IUT Nice Côte d'Azur, UNS.

Master:

D. Coudert, Algorithm for Telecom 2, 32h ETD, M2 Ubinet/PENSUNS, UNS;

F. Giroire and N. Nisse, Combinatoire des graphes, 31h ETD, master MDFI, Univ. d'Aix-Marseille, France;

F. Giroire, 16h ETD, Introduction to Probabilities and Statistics, International track of the Master 1 IFI, UNS;

F. Giroire and N. Nisse, Algorithms for Telecommunications, 31h ETD, parcours Ubinet master 2 IFI, UNS.

F. Giroire, F. Havet and N. Nisse, Programmation linéaire et combinatoire, school at ENS Lyon (January 23-27, 2012).

9.3.1.1. Administration

Collaboration Inria-Lycée International de Valbonne: N. Nisse is co-responsible of the Computer Science course of MPSI;

IUT Nice Côte d'Azur: M. Syska is responsible of the Computer Science Department of IUT since september 2011;

Ubinet, Master IFI: J.-C. Bermond is member of the scientific committee;
F. Giroire is responsible of the Internships within international stream Ubinet, Master IFI (http://ubinet.unice.fr), since October 2011;

International Master 1: J.-C. Bermond is member of the scientific committee of the international track of the M1 (http://computerscience.unice.fr/master1).

9.3.2. Supervision

PhD:

J. Araújo, *Coloration et convexité dans les graphes*, September 13, 2012, J.-C. Bermond, C. Linhares Sales and F. Giroire.

L. Sampaio, *Aspects algorithmiques d'heuristiques de coloration de graphes*, November 19, 2012, F. Havet.

M. Toko Worou, *Outils algorithmiques pour la détection des communautés dans les réseaux*, December 7, 2012, J.-C. Bermond and J. Galtier.

PhD in progress:

4th year:

I. Tahiri, *Optimisation dans les réseaux de collecte IP sans fils*, since November 2009, D. Coudert.

3rd year:

S. Félix, *Smart transports : optimisation du trafic dans les villes*, since January 2011, J.-C. Bermond and J. Galtier.

A. Lancin, *Study of network properties for efficient routing algorithms*, since January 2011, D. Coudert.

R. Modrzejewski, *Systèmes pair-à-pair de partage de données*, since November 2010, S. Pérennes and F. Giroire.

R. Pardo Soares, *Routing reconfiguration in WDM networks*, since November 2010, D. Coudert and N. Nisse.

2nd year:

T. Al Fares, *Trees in digraphs*, since September 2011, F. Havet and A. El Sahili (Lebanese University, Beyruth, Lebanon).

M. A. Bergach, *GPGPU Graphics Processing Units for signal processing*, since September 2011, M. Syska.

A. Kodjo, *Design and optimization of multi-operators wireless backhaul networks*, since October 2011, D. Coudert.

B. Li, *Study of Internet model and its properties for efficient routing algorithms*, since October 2011, D. Coudert and N. Nisse.

A. K. Maia, *Partitions of directed graphs*, since September 2011, F. Havet.

T. K. Phan, *Design and Management of networks with low-power Consumption*, since October 2011, D. Coudert and J. Moulierac.

1st year:

F. Z. Moataz, *Conception et optimisation de réseaux robustes aux pannes et variations de capacités*, since October 2012, D. Coudert.

9.3.2.1. Internships

J. Araujo, J.-C. Bermond and N. Nisse: supervised the internship of Guillain Potron (ENS Paris) on sorting algorithms and hull number, June-July 2012 (2 months);

J.-C. Bermond and D. Coudert: supervised the internship of Fatima Zahra Moataz (M2 Ubinet, Sophia Antipolis) on the diverse routing problem with SRLGs, March-August 2012 (6 months);

D. Coudert and N. Nisse: supervised the internship of Thomas Bellitto (L3 ENS Cachan - antenne de Bretagne) on linear orderings and graphs decompositions, June-July 2012 (2 months);

F. Giroire: supervision of the TIPE of Simon Dorgueil Simon and Yves Barrault on the Analysis of P2P storage system;

N. Nisse: supervised the internship of Mélanie Ducoffe (Univ. Nice-Sophia ANtipolis) on cops and robber games in directed graphs, July-August 2012 (2 months).

9.3.3. Juries

J.-C. Bermond: member of the PhD jury of Julio Araújo (September 13, 2012) and Mikaila Toko Worou (December 7, 2012), University Nice-Sophia Antipolis;

D. Coudert: member of the PhD jury of Ahmed Frikha, Université de Rennes (September 28, 2012); member of the PhD jury of Leornardo Sampaio Rocha, University of Nice Sophia Antipolis (November 19, 2012);

F. Havet: external referee of the PhD of Petru Valicov, University of Bordeaux 1 (July 10, 2012); external referee of the PhD of Petr Skoda, Simon Fraser University, Burnaby, BC, Canada (September 13, 2012); external referee of the PhD of Lino Demasi, Simon Fraser University, Burnaby, BC, Canada (October 2, 2012);

S. Perennes: Referee and member of the PhD jury of Patricia Maatouk-Kaiser, Supelec Université Libanaise (December 21, 2012).

9.4. Popularization

Accueil d'une classe de MPSI: D. Coudert, F. Giroire and N. Nisse participated to the event at Inria (http://www.inria.fr/centre/sophia/actualites/accueil-d-une-classe-de-mpsi-retour-en-images);

Attention grands travaux: Several members of Mascotte participated to the documentary "Attention grands travaux : Sophia Antipolis - L'utopie High Tech" for the Public-Sénat channel (watch it online);

Attractiveness: J.-C. Bermond is in charge of the attractiveness of the center Inria Sophia Antipolis Méditerannée. He organized Inria days with Athens (February 14-15, and May 21-22, 2012);

Fête de la Science: F. Giroire presented the stand "Magie et jeux mathématiques" at Sophia Antipolis, France (October 10, 2012);

Ils débarquent sur votre téléphone: D. Coudert and C. Castro co-signed an article entitle "Ils débarquent sur votre téléphone : 4G, NFC et Li-Fi ?" on Inriality. Originaly prepared for the series « Le saviez-vous » posted on Inria.fr and twitter;

Internet and Smartphones: J.-C. Bermond gave a talk at the evening "Internet et Smartphones" organized at Nice (CUM) on April 10 by SEE Cote d'Azur and la Mairie de Nice Organisation (February 14-15, 2012);

Internet and Graph theory: J.-C. Bermond and J.Moulierac wrote an article on Internet and Graph theory for CDC (a journal destined to teachers and students in high schools) [79];

Plaisirs des Sciences: F. Havet gave the conference "La hasard fait-il bien les choses ? : une gentille introduction au probabilités" at Rians, France (February 14, 2012);

Scientific mediation: J.-C. Bermond supervised a brainstorming on scientific mediation with Inria staff members.

PLANETE Project-Team

9. Dissemination

9.1. Scientific Animation

Walid Dabbous   served in the programme committees of NOMEN'2012, ICC'12 NGN and NoF'12. He is co-editor or a special issue of the PPNA journal on Experimental Evaluation of Peer-to-Peer Applications ([30]). He is member of the scientific council of the Inria Bell-Labs laboratory on Self Organizing Networks.

Claude Castelluccia   served in the program committees of the following international conferences: ACM CCS 2012, ACM Wisec2012 and SESOC2012. He is the co-founder of the ACM WiSec (Wireless Security) conference.

Thierry Turletti   Senior ACM and IEEE member, served in 2012 in the program committees of the following international conferences: 19th International Packet Video Workshop and 5th ACM Workshop on mobile Video Delivery (Movid). He 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.

Chadi Barakat   was the General Co-Chair of the ACM CoNEXT 2012 conference on emerging Networking EXperiments and Technologies that was held in Nice on Dec 10-13, 2012. In 2012, he served on the Technical Program Committee for the TMA 2013 workshop (Turin), the PAM 2013 conference (Hong-Kong), and the CNSM 2012 conference (Las Vegas). He is on the editorial board of the Elsevier Computer Networks journal. 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).

Vincent Roca   is strongly involved at IETF and served as co-chair of the MSEC (Multicast Security) working group in 2010-2011. He is also member of the SecDir group (security directory) of the IETF. He was also member of the program committees of CFIP'09, SPACOMM'09, SPACOMM'10, the Cyber and Physical Security and Privacy symposium at IEEE SmartGridComm'11, CFIP'11, SPACOMM'11, SPACOMM'12.

Arnaud Legout   was PC co-chair of the ICCCN 2009 conference track on P2P networking. He was also reviewer of journals (IEEE/ACM Transactions on Networking, IEEE/ACM Transactions on Computers, IEEE Network, Computer Communications, ACM SIGCOMM CCR), and conferences (IEEE Infocom, ACM Sigmetrics). He also served as an expert to the European Commission to evaluate EC funded projects.

Mohamed Ali Kaafar   In 2012, he has been the program committee chair of ACM SIGMETRICS PADE workshop, and served in the program committees of the following international conferences: Internet Science 2013, Internet, ACM Sigcomm HotPlanet 2013, Interdisciplinarity & Innovation (In3 2013), Eurosys MPM 2013, IWAP2PT-2013, Colloque Jacques Cartier : Security, Inforensics and Cyber Criminality 2013, Eurosys MPM 2012, Sigmetrics PADE 2012, GridCom-2012, ICCSEA 2012, International Workshop on Trust and Privacy in Cyberspace (CyberTrust' 12), IWTMP2PS 2012. He is also member of the Editorial Board of the International Journal of peer-to-peer networks (IJP2P) and IEEE Transactions on Parallel and Distributed Systems TPDS and reviewer in SIGCOMM CCR, Computer Communications, IEEE letters of communications, Computer Networks. He was a panelist in IEEE CCW 2012 and an invited speaker in University of Concordia, UNSW and Polytechnic University of New York seminars.

Daniel Le Le Métayer   served in the program committees of CPDP 2012, APF12, RISE12, FLACOS 2012 and APVP 2012. He organized a panel on privacy for location based services at CPDP 2012 and gave invited talks at the university of Chalmers, at the BDA Summer School, at IRILL (Paris), at CRIDS (Namur), at the ANR Privacy by Design Conference and at the conference organized by CNIL on "Privacy and Data Protection 2020".

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Undergraduate course at IUT-2' (UPMF University), on network Communications, by Vincent Roca (24h).

Undergraduate course on Networking, by Walid Dabbous (36h), Ecole Polytechnique, Palaiseau, France.

Undergraduate course on Networks and Telecommunications, by Mohamed Ali Kaafar (40h), Ensimag Engineering school, France.

Undergraduate course at Polytech' Grenoble, on Wireless Communications, by Vincent Roca (12h).

Undergraduate course at IUT, Nice-Sophia Antipolis University, Local Aarea Networks by Chadi Barakat (28h), France.

Undergraduate course at IUP GMI Avignon on Peer-to-peer networks, by Arnaud Legout (38h), France.

Master Crypto and Security: course on Wireless Security by Claude Castelluccia (20h), Ensimag/University of Grenoble, France.

Master MOSIG: course on Wireless Security by Claude Castelluccia (15h), Ensimag/INPG, France.

Master FST : course on P2P networks: performance and security challenges by Mohamed Ali Kaafar (21h), Tunisia.

Master Phelma: course on Computer Networks by Mohamed Ali Kaafar (12h), INPG , France.

Master Ubinet: course on Evolving Internet - architectural challenges by Walid Dabbous and Chadi Barakat 42 hours, University of Nice-Sophia Antipolis, France.

Master CAR: course on Internet monitoring by Chadi Barakat, 3h, Telecom Paris Tech, France.

Master TSM: course on Voice over IP by Chadi Barakat, (7h),University of Nice-Sophia Antipolis, France.

Master Ubinet: course on Peer-to-peer networks, by Arnaud Legout (21), University of Nice-Sophia Antipolis.

Master SAFE: organization of a Teaching Unit on legal issues of security and privacy (30h) Daniel Le Le Métayer, University of Grenoble, France.

9.2.2. Supervision

PhD : Eduardo Mazza defended his PhD titled "A formal framework for specifying and analyzing liabilities using log as digital evidence" on June 30th, at Grenoble University. His thesis was co-supervised by Daniel Le Le Métayer.

PhD : Amir Krifa defended his PhD titled "Towards better content dissemination applications for Disruption Tolerant Networks" on April 23rd 2012. His thesis was supervised by Chadi Barakat.

PhD: Shafqat Ur-Rehman defended his PhD titled "Benchmarking in Wireless Networks" on January 30th, 2012. His thesis was co-supervised by Thierry Turletti and Walid Dabbous.

PhD: Sana Ben Hamida defended her PhD on "Embedded System Security" on February 27th 2012. Her thesis was supervised by Claude Castelluccia.

PhD in progress : Lukasz Olejnik works on "Internet Tracking and Profiling" since 2011. His thesis is supervised by Claude Castelluccia.

PhD in progress : Min-Dung Tran works on "Privacy-Preserving Ad systems" since 2011. His thesis is co-supervised by Claude Castelluccia and Mohamed Ali Kaafar.

PhD in progress : Abdelberri Chaabane works on "Online Privacy in heterogeneous networks" since September 2010. His thesis is supervised by Mohamed Ali Kaafar.

PhD in progress : Thibaud Antignac works on "A formal framework for privacy by design" since September 2011. His thesis is supervised by Daniel Le Le Métayer.

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.

PhD in progress : Dong Wang works on "Modeling social media and its impact on new digital ecnomy" since September 2011. His thesis is supervised by Mohamed Ali Kaafar.

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: Alina Quereilhac works on "Unified Evaluation environment of Networking Protocols for Simulators and Testbeds", since 2011. Her thesis is co-supervised by Walid Dabbous and Thierry Turletti.

PhD in progress: Ashwin Rao works on "Performance evaluation of communication networks". His thesis is co-supervised by Arnaud Legout and Walid Dabbous.

PhD in progress: Ludovic Jacquin works on "High Bandwidth Secure Communications" since October 2009. His thesis is co-supervised by Vincent Roca and Jean-Louis Roch.

PhD in progress: Ferdaouss Mattoussi works on "Self-configuration and optimization of FEC over wireless protocol layers" since February 2010. Her work is co-supervised by Vincent Roca and Bessem Sayadi.

PhD in progress: Maksym Gabielkov works on "Propagation of data in social networks" since 2012. His work is supervised by Arnaud Legout.

PhD in progress: Wunan Gong works on "Security in content centric networks" since 2012. His work is supervised by Arnaud Legout.

PhD stopped: Anshuman Kalla stopped his PhD "Efficient transmission mechanisms for Information Centric Network Architectures" in june 2012 for personal reasons. His thesis was co-supervised by Thierry Turletti and Walid Dabbous.

RAP Project-Team

7. Dissemination

7.1. Leadership within scientific community

Nicolas Broutin organized a workshop on Models of Sparse Random Graphs and Network Algorithms that was held at the Banff International Research Station, Canada, in February. He organized a session on "probability and statistics on graphs" at the XII Latin American Congress on Probability and Mathematical Statistics (CLAPEM), Vina del Mar, Chile. He has been co-organizer and co-chair of the program committee for the international meeting on Analysis of Algorithms that took place at the CRM in Montreal in June 2012.

Christine Fricker is member of the jury of agrégation.

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". He is member of the scientific council of EURANDOM. He is also associate Professor at the École Polytechnique in the department of applied mathematics where he is in charge of lectures on mathematical modeling of networks. He has been a member of the technical programme committee of the conference ICCCN (2012).

James Roberts is a Fellow (membre émérite) of the SEE. In 2012, he has been a member of the technical programme committee of the following conferences: NOMEN, CoNext, ITC.

7.2. Teaching

Nicolas Broutin has taught at the Master Parisien de Recherche en Informatique (MPRI), in the course 2.15 on Analysis of Algorithms. He also gave a series of tutorials on the continuum random tree at the Adama summer school in Mahdia, Tunisia.

Mathieu Feuillet is teaching assistant for the course "Traffic, Queueing and Networks" given by Thomas Bonald at Telecom ParisTech. He defended his PhD thesis intitled *Bandwidth allocation in large stochastic networs*. He received the Gilles Kahn Award for his thesis.

Emanuele Leoncini is teaching assistant at the University PIerre et Marie Curie.

Philippe Robert gives Master2 lectures in the laboratory of the Probability of the University of Paris VI. He is also giving lectures in the "Programme d'approfondissement de Mathématiques Appliquées et d'Informatique" on Networks and Algorithms at the École Polytechnique. He was a reviewer of the PhD document of S. Malik (UPMC) and P. Keller (Universität Potsdam).

James Roberts was reviewer for the thesis defense of Massimo Gallo (EDITE), Addisu Tadesse Eshete (NTNU, Norway), Pedro Aranda (U. Paderborn, Germany); he was committee member for the HDR of Mai Trang Nguyen (EDITE). He was member of the appointment committee at KTH (Sweden) for the promotion to Assistant Professor of G. Dan.

7.3. Conference and workshop committees, invited conferences

Nicolas Broutin has given lectures at the annual meeting of ANR Boole, the A3 congress at the CIRM, and the invited session on "spatial stochastic models" at the World Congress in Probability and Statistics. He has presented his results at the Probability seminar at McGill, the Séminaire Combinatoire Philippe Flajolet at IHP, and the Algo lunch at UL in Brussels. He has been invited talk at the Oberwolfach Meeting on "scaling limits for models of statistical physics". *Nicolas Broutin* has participated to workshops on "probabilistic combinatorics" at McGill Bellair's intitute, and on "interaction stochastic/computational geometry" organized in Cluny by the ANR Presage. He has visited the computer science department of UL in Brussels. *Nicolas Broutin* has submitted his HDR, the defense will take place in January 2013.

Mathieu Feuillet gave a talk at the conference ALEA 2012 in Marseille (March 2012).

Christine Fricker gave a talk at the conference AofA in Montreal (June 18 2012).

Emanuele Leoncini gave a talk in the RAP team seminar at Inria Rocquencourt (November 2012), an invited talk at the CMAP at Ecole Polytechnique (November 2012). *Mathieu Feuillet* and *Emanuele Leoncini* are in the organizing committee of the "Junior Seminar" at Inria Rocquencourt. *Emanuele Leoncini* participated to the "Journés ALÉA 2012" (March 2012) at CIRM in Marseilles.

James Roberts gave invited talks at Technicolor (April), BCAM Bilbao (June), ATT Labs (Sept), Bell Labs Murray Hill (Sept), KTH Stockholm (Oct), NTNU (Nov). He presented papers at NOMEN 2012 (March) and ITC (Sept).

Philippe Robert gave a set of 5 lectures at BCAM (Bilbao) on fluid limits (January 2012) and a talk at the ICERM, Brown University, Providence (October 2012).

Nada Sbihi presented a paper at Infocom (March).

SOCRATE Team (section vide)

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

9. Dissemination

9.1. Scientific Animation

9.1.1. TREC's seminar

The following scientists gave talks on Trec's seminar in 2012 (see http://www.di.ens.fr/~trec/seminar.html for details)

- **Emilie Coupechoux** (TREC/Lip6), PhD thesis defense /Dec 10, 2012/ Talking on: "Analyse de grands graphes aléatoires";

- **Mir Omid Haji Mirsadeghi** (TREC), PhD thesis defense /Jul 11, 2012/ Talking on: "Routage sur les graphes géométriques aléatoires";

- **Frederic Morlot** (TREC), PhD thesis defense /Jul 2, 2012/ Talking on: "Processus spatio-temporels en géométrie stochastique et application à la modélisation des réseaux de télécommunication";

- **Mathieu Feuillet** /Jun 7, 2012/ Talking on: "Scaling Analysis of a Transient Stochastic Network";

- **D. J. Daley** (The University of Melbourne) /May 24, 2012/ Talking on: "Dimension Walks and Schoenberg Spectral Measures for Isotropic Random Fields";

- **Florian Simatos** (Eindhoven University of Technology) /May 16, 2012/ Talking on: "Scaling limits of regenerative processes via the convergence of their excursions: some applications to queueing theory";

- **Chandramani Singh** (TREC) /Apr 18, 2012/ Talking on: "Optimal Message Forwarding in Delay Tolerant Networks with Multiple Destinations";

- **Holger-Paul Keeler** (Inria TREC) /Apr 5, 2012/ Talking on: "A Greedy Routing Model";

- **Alain Jean-Marie** (Inria MAESTRO) /Apr 3, 2012/ Talking on: "Variations on the Data Placement problem";

- **Hermann Thorisson** (University of Iceland) /Mar 16, 2012/ Talking on: "Unbiased shifts of Brownian motion";

- **Lenka Zdeborova** (Institut de Physique Theorique, CEA) /Mar 8, 2012/ Talking on: "Statistical-physics-based reconstruction in compressed sensing";

- **Gideon Weiss** (Haifa University) /Mar 1, 2012/ Talking on: "Skill based service systems";

- **Francis Comets** (Université Paris Diderot) /Feb 23, 2012/ Talking on: "Transmission d'information sous contraintes du capital d'émission";

- **Guenter Last** (Karlsruhe Institute of Technology) /Feb 21, 2012/ Talking on: "Fock space representation and variational analysis of Poisson functionals";

- **Sergei Zuyev** (Chalmers University of Technology) /Feb 21, 2012/ Talking on: "undefined";

- **Harpreet S. Dhillon** (UT Austin) /Feb 15, 2012/ Talking on: "Analysis of K-tier Heterogeneous Cellular Networks";

- **Bernadette Charron-Bost** (LIX) /Feb 2, 2012/ Talking on: "On the Transience of Linear Max-Plus Dynamical Systems";

- **Christian Hirsch** (University of Ulm, Germany) /Jan 23, 2012/ Talking on: "Connectivity and first-passage percolation of random geometric graphs related to minimal spanning forests";

9.1.2. Reading groups

- The reading group on Random Graphs was animated by A. Bouillard and A. Giovanidis; see http://www.di.ens.fr/~bouillar/GdL/index.html
- The reading group on Graphs, Algorithms and Probability is animated by Marc Lelarge; see http://www.di.ens.fr/~lelarge/GdT-GAP.html

9.2. Teaching – Supervision – Juries

9.2.1. Teaching

ENS Paris

– Undergraduate course (master level, DIENS) by M. Lelarge and M. Leconte, on Information Theory and Coding (24h + 24h of exercise session).

– Course on Communication Networks (master level, DIENS) by F. Baccelli, A. Bouillard and A. Bušić (24h + 24h of exercice sessions).

– Course on Network Modeling (master level, MPRI) by F. Baccelli and A. Bouillard (24h)

– Undergraduate course (master level, DIENS) by A. Bouillard and P. Brémaud, on Random Structures and Algorithms (35h + 28h of exercise session).

– Undergraduate exercise session (master level, DIENS) by A. Bouillard on formal languages, computability and complexity (12h).

ENS Cachan - Antenne de Bretagne

– Preparation to the oral exams of the agregation of mathematics (computer science option) by A. Bouillard (11h).

UPMC, Paris 6

– Graduate Course on point processes, stochastic geometry and random graphs (program "Master de Sciences et Technologies"), B. Błaszczyszyn and L. Massoulié (45h).

– Undergraduate course onconception of algorithms and applications (Licence Informatique, 3rd year), A. Bušić (24h)

Université de Versailles Saint-Quentin-en-Yvelines

– Graduate course on simulation (M2 COSY), A. Bušić (6h).

Université Paris Ouest Nanterre La Défense

– Network half of an undergraduate course (L3 Licence MIAGE) by M. Leconte on Systems and Networks (18h)

9.2.2. Supervision

- PhD: **Emilie Coupechoux**, "Analysis of large random graphs", started in September 2009, defended on December 10, 2012, adviser M. Lelarge, F. Baccelli; see [5].
- PhD: **Mir Omid Haji Mirsadeghi**, "Routing on Point Processes", started in 2009, defended on Julay 11, 2012, adviser F. Baccelli; see [6].
- PhD: **Frédéric Morlot**, "Mobility Models for Communication Networks", started in 2008, defended on Julay 2, 2012; adviser F. Baccelli; see [7].
- PhD in progress: **Tien Viet Nguyen**, "Random Packing Models", started in 2009, adviser F. Baccelli.
- PhD in progress: **Mathieu Leconte**, "Propagation d'information et recommandations dans les réseaux sociaux", started in January 2011, adviser M. Lelarge, F. Baccelli;
- PhD in progress: **Aurore Junier**, "Tuning parameters in routing protocoles" started in September 2010, advisers A. Bouillard and C. Jard;

- PhD in progress: **Kumar Gaurav**, " Convex comparison of network architectures" started in October 2011, adviser B. Błaszczyszyn;
- PhD in progress: **Miodrag Jovanović**, "Evaluation and optimization of the quality perceived by mobile users for new services in cellular networks" started in January 2012, adviser B. Błaszczyszyn;
- PostDoc's: Anastasios Giovanidis, Holger Paul Keeler, Chandramani Singh.

9.2.3. Juries

François Baccelli   *PhD defence* of **Eduardo Ferraz** (Telecom ParisTech, February 2012).

Bartłomiej Błaszczyszyn   *PhD defence* of **Kehao Wang** (Paris Sud, June 2012, reviewer), **Arash Behboodi** (Supelec, June 2012), **Thanh Tung Vu** (Telecom PrisTech, September 2012), **Salman Malik** (Inria/UPMC, November 2012), *associate-professor hiring-committee* at Département Informatique, Faculté des Sciences et Technologies, Université de Lorraine (Section 27, Poste 27 PR 072, May 2012).

Anne Bouillard   *PhD defence* of **Laurent Jouhet** (ENS Lyon, november, 7th), *admission jury* at the ENS Cachan entrance exam.

9.3. Invitations and Participation in Conferences

François Baccelli

- – Keynotes:
  - * Lecture at "Semaine des mathématiques dans l'académie Nancy-Metz, Institut Elie Cartan de Nancy" March 2012 http://www.ac-nancy-metz.fr/semaine-des-mathematiques-du-12-au-18-mars-2012-31219.kjsp?RH=WWW
  - * Lecture on stochastic geometry for the inauguration of the Simons Math+X Chair https://simonsfoundation.org/funding/funding-opportunities/mathematics-physical-sciences/mathx/mathx-encouraging-interactions-2011-chair-recipients/
  - * Keynote Lecture at Stochmod'12, Paris, June 2012, on stochastic geometry http://www.lgi.ecp.fr/StochMod2012/pmwiki.php/Main/HomePage
  - * Lecture at Collège de France, Paris, Dec. 2012, on the mathematics of peer-to-peer networks http://www.college-de-france.fr/site/en-bernard-chazelle/seminar-2012-12-20-15h00.htm
- – Presentations in the following conferences or seminars:
  - * Stochastic Networks, MIT, June-2012, http://stoch-nets-2012.lids.mit.edu/
  - * Séminaire Inria at Silicon Valley, Paris, May 2012, https://project.inria.fr/inria-siliconvalley/
  - * GdR Isis Day, Telecom ParisTech, April 2012 http://gdr-isis.fr/index.php?page=reunion&idreunion=163.
  - * Workshop "Information Theory for Cooperative Networks", Institut Henri Poincaré, March 2012.
  - * GdR Géométrie Stochastique Conference, Rouen, March 2012, http://gdr-geostoch.math.cnrs.fr/workshop_Rouen/index.html
  - * IIT Madras, India, January 2012.
  - * IIS Bangalore, India, January 2012 http://math.iisc.ernet.in/pastevents-conf/invited_speakers.htm.

Bartłomiej Błaszczyszyn

- – Keynotes:
  - * SpaSWiN 2012, Paderborn Germany, May 2012; http://www.spaswin.org/

- – Presentations in the following conferences or seminars:
  - * GdR Géométrie Stochastique Conference, Rouen, March 2012; http://gdr-geostoch.math.cnrs.fr/workshop_Rouen/index.html
  - * WiOpt, Paderborn Germany, May 2012; http://wi-opt.cs.upb.de/WiOpt_2012/Home.html
  - * TREC inria@siliconvalley Seminar "Random Spatial Models in Communication Science" Inria, Paris, June 2012

Anne Bouillard

- – Presentations in the following conferences or seminars:
  - * Valuetools 2012 (invited paper) + regular paper, Cargèse, October, 2012

Ana Bušić

- – Presentations in the following conferences or seminars:
  - * Seminar at Algorithms and Theory group, Google, NY,
  - * C3 Guest Lecture Series, Electrical and Computer Engineering department, University of Florida http://ccc.centers.ufl.edu/?q=Ana_Busic,
  - * IEEE Conference on Decision and Control, Maui, USA http://control.disp.uniroma2.it/cdc2012/,
- – Technical Program Committee member of Sigmetrics 2012. http://www.sigmetrics.org/sigmetrics2012

Emilie Coupechoux

- – Presentations in the following conferences or seminars:
  - * Séminaire RAP, Rocquencourt (France), January 2012, https://team.inria.fr/rap/seminars/
  - * Journées Aléa, Marseille (France), March 2012, http://lipn.univ-paris13.fr/alea2012/index.html
  - * Séminaire LIP6, Paris (France), April 2012, http://www.complexnetworks.fr/events/
  - * Journées Rescom, Paris (France), November 2012, http://rescom.inrialpes.fr/?p=410
  - * Colloque 'Réseaux d'interactions Plantes-Pollinisateurs', Lille (France), December 2012, http://math.univ-lille1.fr/~tran/journeesplantespollinisateursreseaux.html

Anastasios Giovanidis

- – Presentations in the following conferences or seminars:
  - * IEEE Wireless Communications and Networking Conference (WCNC), Paris-France, April, 2012, http://www.ieee-wcnc.org/2012/
  - * 16th International ITG Workshop on Smart Antennas (WSA), Dresden-Germany, March, 2012, http://wsa2012.com/
  - * 21st International Symposium on Mathematical Programming (ISMP), Berlin-Germany, August, 2012, http://ismp2012.mathopt.org/

Mathieu Leconte

- – Presentations in the following conferences or seminars:
  - * workshop Bridging statistical physics and optimization, inference and learning, École de Physique des Houches, February-12, http://www.espci.fr/usr/fk/LESHOUCHES/home.htm

  - * workshop Journées ALÉA, CIRM at Marseille-Luminy, March-12, http://lipn.univ-paris13.fr/alea2012/
  - * conference Sigmetrics, Imperial College London, June-12, http://www.sigmetrics.org/sigmetrics2012/

Marc Lelarge

  - Keynotes:
    - * conference SIGMETRICS, London, UK http://www.sigmetrics.org/sigmetrics2012/program.php
  - Presentations in the following conferences or seminars:
    - * Network Science in Electrical Engineering and Computer Science, Indian Institute of Science, Bangalore. http://www.icts.res.in/program/details/283/
    - * conference SODA, Kyoto, Japan http://www.siam.org/meetings/da12/
    - * Stochastic Analysis Seminar, Oxford, UK http://www.oxford-man.ox.ac.uk/events/past/seminar/all
    - * Models of sparse graphs and network algorithms, Banff, Canada http://www.birs.ca/events/2012/5-day-workshops/12w5004
    - * conference IEEE INFOCOM, Orlando, USA http://www.ieee-infocom.org/2012/
    - * NIPS 2012 Workshop: Algorithmic and Statistical Approaches for Large Social Networks, Lake Tahoe, USA http://www.datalab.uci.edu/nips-workshop-2012/

Frédéric Morlot

  - * Presentations in the following conferences or seminars:
    - + SpaSWiN, Paderborn Germany, May 2012; http://www.spaswin.org

URBANET Team

9. Dissemination

9.1. Scientific Animation

- Marco Fiore organized and co-chaired the First Workshop on Urban Networking (UrbaNe'12), held jointly with the international conference ACM CoNEXT 2012.
- Marco Fiore was co-chair of the "Wireless Networks, Access Control and Resource Management" track at the international conference IEEE VTC'13 Spring.
- Marco Fiore was the keynote speaker at the IEEE WoWMoM VTP workshop in June 2012.
- Marco Fiore is/was TPC member for a number of international conferences, including IEEE SECON 2013, IEEE/IFIP WONS 2012/2013, IEEE WoWMoM 2012/2013, IEEE ICCCN 2012.
- Hervé Rivano is a member of the Section 07 of the CoNRS (scientific committee of CNRS, section ICT).
- Hervé Rivano is a member of the scientific committee of the Rescom pole.
- Hervé Rivano is a member of the CITI laboratory council.
- Razvan Stanica was session chair for the "Energy in Ad Hoc and Sensor Networks" session at the international conference IFIP Wireless Days 2012.
- Fabrice Valois is elected in the CITI laboratory council.
- Fabrice Valois was TPC member for a number of international conferences, including IEEE ICC, IEEE GlobeCom, IEEE WiMob, IEEE PIMRC, IEEE AINA, IEEE WPMC, SensorCom, iCost, IWCMC, GIIS.
- Fabrice Valois is in charge of the foreign affairs of the CITI laboratory.
- Fabrice Valois is correspondent member for the Labex IMU.
- Marco Fiore and Hervé Rivano are members of the Labex IMU.
- Khaled Boussetta was co-chair of the Technology track at the international conference GIIS 2012.

9.2. Teaching - Supervision - Juries

9.2.1. Teaching

Licence :

- Marco Fiore, Introduction to Computer Networking, 30h, L3, INSA Lyon, France
- Razvan Stanica, TC Informatics Passport, 30h, L3, INSA Lyon, France
- Fabrice Valois, IP Networks, 50h, L3, INSA Lyon, France

Master :

- Marco Fiore, Performance evaluation of telecom networks, 80h, M1, INSA Lyon, France
- Marco Fiore, Advanced wireless networking, 20h, M1, INSA Lyon, France
- Marco Fiore, Services and protocols for wide-area networks, 90h, M1, INSA Lyon, France
- Marco Fiore, Future networking, 8h, M2, University of Lyon, France
- Fabrice Valois, Cellular networks, 50h, M1, INSA Lyon, France
- Fabrice Valois, Wireless sensor networks, 10h, M2, University of Lyon, France

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

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 Marco Fiore are elected members of the Telecommunications Department Council at INSA Lyon.

Marco Fiore is the responsible for all Master theses defended in the Telecommunications Department at INSA Lyon, coordinating the related administrative activities.

9.2.2. Supervision

PhD :

- Ibrahim Amadou *Protocoles de routage sans connaissance de voisinage pour réseaux radio multi-saut*, INSA Lyon, 09/2012, Advisor: Fabrice Valois
- Bilel Romdhani *Exploitation de l'hétérogénéité des réseaux de capteurs et d'actionneurs dans la conception des protocoles d'auto-organisation et de routage*, INSA Lyon, 07/2012, Advisor: Fabrice Valois

PhD in progress :

- Jin Cui *Aggregation: From data dynamics to network dynamics*, since 11/2012. Advisor: Fabrice Valois.
- Ochirkhand Erdene-Ochir *Resilient networking security for WSN*, since 10/2009. Advisors: Marine Minier and Fabrice Valois
- Guillaume Gaillard *Multi-topology routing in IP-based wireless sensor networks with SLA support*, since 12/2012. Advisor: Fabrice Valois.
- Rodrigue D. Komguem *Autonomous WSN architectures for road traffic applications*, since 11/2012. Advisors: Fabrice Valois and Maurice Tchuente (Univ. Yaoundé, Cameroun)
- Quentin Lampin *QoS constraints and time constraints in WSN*, since 10/2009. Advisors: Isabelle Augé-Blum and Fabrice Vlaois.
- Trista Lin *Urban mobility measurement and citizen-oriented services cartography*, since 10/2012. Advisors: Frédéric Le Mouel, Hervé Rivano and Fabrice Valois.
- Alexandre Mouradian *Real-time communication protocols for WSNs*, since 10/2010. Advisors: Isabelle Augé-Blum and Fabrice Vlaois.
- Diala Naboulsi *Human mobility - an urban networking perspective*, since 10/2012, Advisors: Marco Fiore, Hervé Rivano and Fabrice Valois.
- Anis Ouni *Study and optimization of capacity and energy consumption trade-off in wireless mesh networks*, since 10/2009. Advisors: Hervé Rivano and Fabrice Valois.
- Sandesh Uppoor *Understanding and exploiting mobility in wireless networks*, since 10/2010, Advisors: Marco Fiore and Fabrice Valois.

9.2.3. Juries

- Fabrice Valois was external reviewer of the following HDR defense:
  - N. Malouch, *Studying and Improving Various Control Mechanisms in Today's and Future Networks*, LIP6, Université de Paris VI, 2012
- Fabrice Valois was external reviewer of the following Ph.D. defenses:
  - B. Pavkovic, *Going towards the future Internet of Things through a cross-layer optimization of the standard protocol suite*, LIG, Universite de Grenoble, 2012
  - S. Bellahsene, *Prédiction de la mobilité pour la gestion des handovers dans les réseaux IP : modèles et algorithmes*, PRiSM, Université de Versailles, 2012
  - G. Corbellini, *Adaptative Medium Access Control for Heterogeneous Wireless Sensor Networks*, LIG, Université Joseph Fourier, 2012

- I. Salhi, *Un codage réseau contraint pour les réseaux de capteurs sans fil*, Institut Gaspard Monge, Université de Paris-Est, 2012
- Y. Mezali, *Algorithme de géolocalisation intérieure par différentiation de signaux WIFI*, Hipercom, Université Paris VI, 2012

- Fabrice Valois was external examiner of the following Ph.D. defense:
  - M. Iturralde, *Performance des réseaux LTE*, IRIT, Université de Toulouse, 2012
- Fabrice Valois was member of a CoS 27MCF for a position of MCF at University of Avignon.
- Fabrice Valois was president of a CoS 27MCF for a position of MCF at INSA Lyon.
- Marco Fiore was member of a CoS 27MCF for a position of MCF at INSA Lyon.

9.2.4. Internships

Florin Avram (L3)

Subject: Networking analysis of metropolitan-scale vehicular mobility

Institution: University of Oradea (Romania)

Advisor: Marco Fiore

Duration: 4 months

Calin Rares Lucaciu (L3)

Subject: Networking analysis of metropolitan-scale vehicular mobility

Institution: University of Oradea (Romania)

Advisor: Marco Fiore

Duration: 4 months

Piotr Mach (L3)

Subject: Vehicular Connectivity Graphs in Urban Environments

Institution: Warsaw University of Technology (Poland)

Advisor: Marco Fiore

Duration: 4 months

Carl Nolan (L3)

Subject: Vehicular Connectivity Graphs in Urban Environments

Institution: Dublin City University (Ireland)

Advisor: Marco Fiore

Duration: 4 months

Egert-Priit Arus (L3)

Subject: Integrating Electric Vehicles with Smart Grids

Institution: Tallin University of Technology (Estonia)

Advisor: Razvan Stanica

Duration: 4 months

Keijiro Nakagawa (L3)

Subject: Multi-commodity flow in delay tolerant networks

Institution: Tokyo University (Japan)

Advisor: Hervé Rivano

Duration: 4 months

Yesser Bouguerra (M2)

Subject: Data aggregation in multi-hop wireless networks

Institution: INSA Lyon (France)

Advisor: Fabrice Valois

Duration: 6 months

Nicolas Gaspard (M2)

Subject: Multi-service routing in urban wireless sensor networks

Institution: INSA Lyon (France)

Advisor: Fabrice Valois

Duration: 6 months

Mickael Lam (L3)

Subject: Large scale vehicular networks

Institution: INSA Lyon (France)

Advisor: Marco Fiore

Duration: 4 months

Trista Lin (M2)

Subject: Optimization of MAC layer protocols for urban wireless sensor networks

Institution: INSA Lyon (France)

Advisor: Fabrice Valois and Hervé Rivano

Duration: 6 months

Iulia Tunaru (M2)

Subject: Applying sensor networks energy efficiency solutions to mesh networks

Institution: INSA Lyon (France)

Advisor: Fabrice Valois and Hervé Rivano

Duration: 6 months

Diala Naboulsi (M2)

Subject: Large scale vehicular networks

Institution: INSA Lyon (France)

Advisor: Marco Fiore

Duration: 6 months

9.3. Popularization

- Fabrice Valois gave a seminar on the Internet of Things entitled *Etat de l'art sur les réseaux de capteurs*, organized by the ASPROM Association in Paris in October 2012.