Activity Report 2013

Section Popularization

ACES Project-Team (section vide)

ADAM Project-Team

9.3. Popularization

Christophe Ribeiro gave several demonstrations of the APISENSE platform (see Section 5.1), especially for the Recherche, Innovation, Creation (RIC) day that was held on 1 October 2013 in Lille and that targets graduate students from the M.Sc and Computer Engineering programs. He also participated to the Forum des PME innovantes organized the PICOM competitivity cluster on 16 October 2013. The APISENSE platform has been the subject of some popularization articles in ERCIM News [24] and L'Usine Nouvelle [51].

The PowerAPI library (see Section 5.3) has been the subject of some popularization articles in ERCIM News [23], GreenIT.fr [49] and 01 Business & Technologies [50].

ARLES Project-Team

8.3. Popularization

- Benjamin Billet was invited to speak at a one-day Android tutorial event organized by the ARAMIS business network at Lyon.

- Animesh Pathak attended the "India-France Technology Summit" in New Delhi, India as part of the Inria delegation, where he was part of a panel on urban rail, and also presented a technology showcase of "TravelDashboard: Smart Mobility for Urban Travelers".

- Animesh Pathak was invited to be part of a panel on the "Chronique marché des applications mobiles" television programme on the French TV channel TVFIL78.

- Emil Andriescu, Sara Hachem, Kim Hwa Khoo, Georgos Mathioudakis Animesh Pathak, and George Rosca represented Inria at the "Futur en Seine" technology expo in Paris.

LOGNET Team

9.3. Popularization

The LogNet team has conducted two 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.).

ASAP Project-Team (section vide)

<p style="text-align:center; color:red; font-weight:bold; font-size:large;">ATLANMOD Project-Team</p>

9.3. Popularization

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

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

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

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

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

CIDRE Project-Team

9.3. Popularization

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

MYRIADS Project-Team

REGAL Project-Team

8.3. Popularization

- Marc Shapiro presented a tutorial on "From strong to eventual consistency: getting it right" at OPODIS 2014.

- Marc Shapiro organized the Dagstuhl workshop on "Consistency in Distributed Systems," in February 2013 [24].

SCORE Team (section vide)

ALGORILLE Project-Team

8.3. 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.

L. Nussbaum currently serves as the (elected) Debian Project Leader since April 2013.

M. Quinson develops a pedagogic platform in collaboration with G. 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.

M. Quinson is co-leading a working group on the teaching of computer science in the LORIA laboratory. He served both as a program chair and a local chair for a nation-wide two-days workshop gathering about hundred people involved in the introduction of computer science in the French secondary education: university lecturers in charge of teaching to the prospective CS teachers, regional heads of the Education minister accompanying this reform and producer of teaching resources. He also served both as a program chair and local chair for a regional gathering of CS teachers of the secondary wanting to exchange their good practices. This initiative, initiated in Nancy, will spread in several other French cities in 2014.

M. Quinson participated to several events toward the popularization of computer science (either as a speaker or as a co-organizer), targeting either kids and pupils (Telecom Nancy in November), students (Inria in March), maths teachers (APMEP Lorraine in March), CS teachers (SIF-ISN day in June), or all public (Fête de la science in November).

M. Quinson serves on the editorial board of the Interstices website of Inria for the popularization of computer science.

ALPINES Team

9.3. Popularization

Xavier Claeys dedicated an afternoon to participation to the "fête de la science".

AVALON Team

8.3. Popularization

- Laurent Lefèvre
    - Interview extract in Blog "Web developpement durable" : Internet & Data Center : bilan énergétique positif ou négatif , July 17, 2013
    - Interview for La Vie Journal, "Using Internet with less energy", June 13, 2013
    - Interview for Liberation News Paper, "Datacenters : la donnée écolo", April 15, 2013
    - Participant in the Panel on Green Computing, GDR GPL, Nancy, April 2013
    - Co-Editor for the Future Internet Assembly (FIA) Book 2013 : Validated Results and New Horizons, Alex Galis editor, LNCS, Volume 7858, Spinger, May 2013
- Jean-Patrick Gelas :
    - Invited speaker to Ecocity 2013, "Greening Clouds and High Performance Computing: Challenges and Initiatives", Nantes, France, September 23, 2013
    - Invited speaker to JDN2013 (Journe´e sur le de´cisionnel dans le Nuage), "Energy monitoring framework for high-performance cloud infrastructure", Bron, France, May 16, 2013
    - Invited speaker to JSF2013 (Journée Scientifique) about Energy, "Propositions to improve Data Centers and Clouds Energy Efficiency", Lyon, France, June 26, 2013

CEPAGE Project-Team (section vide)

GRAND-LARGE Project-Team

7.3. Popularization

Christine Eisenbeis est membre du conseil scientifique des programmes du centre d'Alembert, Centre Interdisciplinaire d'Étude de l'Évolution des Idées, des Sciences et des Techniques (CIEEIST), de l'université Paris-Sud.

HIEPACS Project-Team

9.3. Popularization

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

The HIEPACS members have organized the PATC training session on Parallel Linear algebra at "Maison de la simulation" in Saclay from March 26th to March 28th. Mathieu Faverge also gave a full day lecture on dense linear algebra libraries at the PRACE Summer School at CINECA.

KERDATA Project-Team (section vide)

<p style="text-align:center;color:red;font-weight:bold;font-size:large;">MESCAL Project-Team</p>

9.3. Popularization

9.3.1. Popular Science

- MESCAL actively promotes science to young and non-scientific audience. This year Corinne Touati participated the *Fête de la science* and animated a workshop on game theory. theory [48].

- Jean-Marc Vincent contributed to the national initiative for introducing computer science to high school professors in mathematics. He was responsible of the high school professors training, of the corresponding university diploma and of the online training provided by the rectorat. Jean-Marc also participated to the steering committee of CERVIN (http://flet.fr/cervin/) for Inria.

- Olivier Richard is involved in training *Classe Préparatoires* professors to Python. He is also responsible of the Polytech fablab, which he presented at the Toulouse Hacker Space Factory.

MOAIS Project-Team (section vide)

ROMA Team (section vide)

RUNTIME Project-Team

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 general public audience and school student, as well as several radio and paper interviews about Inria's activities.

Brice GOGLIN and Bertrand PUTIGNY wrote two popularization papers about High-Performance Computing in the Interstices online journal.

Brice GOGLIN and François TESSIER presented research careers at the Aquitec student exhibition.

Paul-Antoine ARRAS, Sylvain HENRY, Bertrand PUTIGNY and François TESSIER gave a hands-on introduction to programming to 30 teenagers at the *Fete de la Science*. Brice GOGLIN was in charge of a numeric science popularization game during that same event.

Samuel THIBAULT presented his research work in a local elementary school.

ASCOLA Project-Team (section vide)

FOCUS Project-Team

8.3. Popularization

Simone Martini has carried out extended work of scientific divulgation:

- member of the technical committee of Olimpiadi del Problem Solving (at Italian Ministry of Education), http://www.olimpiadiproblemsolving.com;

- the talks "Calcolo e simboli: la scienza digitale. A.M. Turing a cent'anni dalla nascita", Accademia di Agricoltura Scienze e Lettere di Verona; "Problem solving tra linguaggio e competizione", Workshop 'Olimpiadi e Informatica', Verona, 22 novembre 2013.

In addition, **S. Martini** and **U. Dal Lago** gave a series of lectures (20 hours altogether) to the students of "Collegio Superiore", a college of excellence at the University of Bologna (general students, not limited to Computer Science). The course was about algorithms, computational complexity, and cryptography.

OASIS Project-Team

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). Since 2013, she is in charge of the AVOSTII-STI2D program implementation for Polytech'Nice Sophia, requiring adverstising high-school pupils for engineering studies, in particular in ICT.

- Rencontres Inria Industrie:
  The 11th of June 2013, we took advantage of the Inria-Industry national meeting to expose our works on the American basket option pricing. Our strategy relies on a two-level CPU/GPU parallelization of the Picazo algorithm, combining dynamic strategies to fully exploit distributed resources. During the event, we presented the difficulty to price such instruments in reasonable time, and highlight our solution through multiple tests on Grid'5000, of our pricing engine.
  A Video is available here: http://www.inria.fr/centre/saclay/innovation/rii-modelisation-simulation-calcul-intensif/demos/pricing-d-options-sur-panier-de-type-americain-en-utilisant-des-clusters-equipes-de-gpus

- This year, 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.

PHOENIX Project-Team

8.3. Popularization

Participation of the Phoenix Inria project team in the following events:

- Salon Aquitec, February 2013

- Accueil d'étudiants de terminale S option ISN, February 2013

- "Fête de la science" (national popular science event), October 2013

- Emilie Balland and Milan Kabac, Metro'Num, talk and demonstration of the HomeAssist project, September 2013

- Héléne Sauzéon, "Conférence prospective : Demain les objets sont connectés !", presentation of the HomeAssist project, 3ème Semaine digitale organized by the Bordeaux city hall, March 2013

- Hélène Sauzéon and Charles Fage, "Autisme et Numérique : Mise en place d'un assistant scolaire pour collégiens porteurs d'autisme", « Journée mondiale de sensibilisation à l'autisme » organized by Collectif Girondin des Associations Autour de l'Autisme, April 2013

- Hélène Sauzéon and Charles Fage, "Mise en place d'un assistant solaire Collège + pour les collègiens porteurs d'autisme", « Journée mondiale de sensibilisation à l'autisme » organized by Centre Ressource Autisme, CHU Poitiers, April 2013

- Hélène Sauzéon, presentation of the School+ project to Vincent Peillon, Point d'étape de l'entrée de l'École dans l'ère du numérique, Ministère de l'éducation Nationale, June 2013

RMOD Project-Team

9.3. Popularization

- Marcus Denker gave a presentation about Pharo at the open source conference FOSDEM 2013.
- *Web with Pharo* Conference was held 6 June 2013 @ Euratechnologies, Lille.
- Camille Teruel and Damien Cassou gave a Pharo tutorial at ECOOP 2013 Montpellier. Slides got >16000 hits after a mention on ycombinator news (http://www.lirmm.fr/ecoop13/?id=158#tutorial13)
- *RIC Day* was held 2 October 2013 @ University of Lille 1, Lille, Anne Etien gave a presentation about Moose and software maintenance.
- Tutorials at ESUG 2013, Annecy, France in September.
- Esteban Lorenzano and Guillermo Polito gave multiple Presentations at Smalltalks 2013 (Argentina):
- Guillermo Polito gave a lecture about *Pharo Ninja Tricks* at Universidad de Quilmes / Argentina in November (a hands-on showing how to use the IDE and explore the system, open classes, extension methods...).
- Marcus Denker gave a lecture and a public talk at *Universitat Politecnica de Catalunya*, Barcelona, Spain.
- Software Maintenance Courses (Nicolas Anquetil):
  – IJDs Inria Lille Nord Europe, with Guillaume Larcheveque, 1 day
  – Thales, 1 day
- Stéphane Ducasse gave multiple lectures and talks at University of Prag in December 2013.
- Organization of the MooseDay in Lille on the 19th December with around 25 persons from all around the world. (http://www.lifl.fr/~etien/MooseDay.html).
- Multiple public Pharo Sprints in Lille, Santiago/Chile, Buenos Aires/Argentina and other places.

TRISKELL Project-Team (section vide)

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

9.4. Popularization

Attractiveness: J-C. Bermond is in charge of the attractiveness of the center Inria Sophia Antipolis Méditerannée. Among other activities he corganized The "Mediterranean days" (January 23-25) (25 foreign students invited) and co-organized the valorization afternoon on February 2, 2013 (100 students);

Fête de la Science: F. Giroire presented the stand "Magie et jeux mathématiques" at the Centre International de Valbonne, France (October 8, 2013); F. Moataz assisted the stand "Drone/Unmanned Aerial Vehicle" at Sophia Antipolis, France (October 12-13, 2013);

Formation EDSTIC: J. Aráujo has given lectures on Graph Theory and Algorithms to PhD students, 20h;

Mathématiques et Internet: J-C. Bermond gave a vulgarization talk at the Centre Culturel of La Grande Motte, Hérault France (April 16, 2013);

Optimisation dans les réseaux: J-C. Bermond gave 3 talks to investors on the future of optimization in networks, Paris (March 28, 2013);

Science culture au lycée, Inria/PACA: N. Nisse explains graph to a Lycée class at Marseille, France (December 19th, 2013);

DANTE Team (section vide)

DIANA Team

9.3. Popularization

Arnaud Legout made a presentation on "Exploration macroscopique du graphe social de Twitter"to a user group interested in network security called OSSIR. See http://www.ossir.org/paris/supports/index/2013.shtml.

DIONYSOS Project-Team

9.3. Popularization

- G. Rubino makes regular presentations to high school students about the research work in general, and specific technical topics in particular. Titles of 2013:

    – Using randomness for solving deterministic problems

    – Internet as a research problem

    – Great challenges in maths: Riemann Hypothesis

    – Great challenges in math/computer science: the "P versus NP" problem

DYOGENE Project-Team (section vide)

FUN Project-Team

8.3. Popularization

- Tahiry Razafindralambo gave a popularization talk "Introduction to Wireless Sensor Networks" at Distributed Computing Department / Universidad de Chile.

- Nathalie Mitton gave a talk on "Introduction to RFID" to Terminales ES and S and "Introduction to Wireless Sensor Networks" to 4e and 3e in the framework of "Journées de la Science".

- Ibrahim Amadou gave a talk on "Introduction to Wireless Sensor Networks" in the framework of "Journées de la Science".

GANG Project-Team

8.3. Popularization

8.3.1. scientific popularization

Participant: Laurent Viennot.

Laurent Viennot is correspondent for the Inria Paris-Rocquencourt center concerning scientific popularization. In that context, he has participated to a document describing how scientific popularization actions could take place at Inria [26]

HIPERCOM2 Team

9.3. Popularization

- **Futur en Seine**, in Paris, June 2013. The HIPERCOM2 team was very active and presented demonstrations of Wireless Sensor Networks with a focus on the context of Smart Cities. The demonstration prepared by Cédric Adjih, Ichrak Amdouni, Hana Baccouch, Ridha Soua and Ala-Edin Weslati concerned the principles of wireless sensor networks, the energy-efficient routing protocol, the node coloring algorithm running in the OCARI network to maximize network lifetime; along with application of wireless sensor networks to Smart Cities. The open testbeds for wireless sensor networks, Senslab and Equipex-FIT were also presented: what do they offer and how to use them.

- Nadjib Achir, Cédric Adjih, Hana Baccouch, Ichrak Amdouni and Ridha Soua explained the principles of communication and routing in wireless sensor networks and organized several demonstrations for undergraduates and students who visited Inria in February 2013.

MADYNES Project-Team (section vide)

MAESTRO Project-Team

8.3. Popularization

Activities are presented in chronological order:

- The article titled "Internet" (interview of S. Alouf by E. Kuntzelmann, as reported in the 2012 activity report) has appeared in Savoirs Jeunes (14 January 2013). It is available here: http://www.savoirs.essonne.fr/sections/ressources/questions-a/resource/internet/.

- E. Altman and A. Reiffers participated in a round-table on the network economy in France, organized at the National Assembly in Paris (28 February 2013).

- A short publication [80] by M. Cosnard and E. Altman has appeared in 01Business on the network neutrality debate in France (11 July 2013). It is intended for a large audience and presents advantages in legislating on this topic.

- E. Altman presented a talk at the 9th Mediterranean rendez-vous entitled: "The new networks - Cradle of globalized culture in the Mediterranean Area" at Marseille, with the participation of leading political and economical figures from Mediterranean and Middle Eastern countries (9 November 2013).

- S. Alouf delivered a conference titled "Internet ou Web ?" at Inria, Sophia Antipolis, for a group of high school students (22 November 2013).

S. Alouf is a member of MASTIC, a commission in charge of popularization and regional and internal scientific animation (since November 2011).

RAP Project-Team (section vide)

SOCRATE Project-Team (section vide)

URBANET Team

9.3. Popularization

- Khaled Boussetta gave a keynote talk entitled "Cloud gaming: state of the art and open challenges", organized by the International Cloud Computing School (ICCS 2013), Hammamet Tunisia, in Dec 2013.

- Fabrice Valois gave an 8h course on ISN (Informatique et Sciences du Numérique). These lectures are made for the Rectorat of Lyon, the public is high school teachers.

- Trista Lin participated to *Fête de la science 2013*, between Oct 8-11. She was responsible for the animation "Best Route - Intelligent Mobility", at La Mache Highschool.

- Hervé Rivano gave a keynote talk entitled "Column Generation for optimization of wireless mesh networks", in the Optimization days of University of Paris XIII.