RESEARCH CENTER
Paris - Rocquencourt

FIELD

Activity Report 2015

Section Popularization

Edition: 2016-03-21

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ANTIQUE Project-Team (section vide)

AOSTE Project-Team (section vide)

CASCADE Project-Team (section vide)

CRYPT Team (section vide)

DEDUCTEAM Team

9.3. Popularization

Gilles Dowek has given various popular science talks.

Gilles Dowek writes a monthy chronicle in Pour la Science.

Gilles Dowek is a a member of the Scientific board of La Main à la Pâte.

GALLIUM Project-Team

10.3. Popularization

Jacques-Henri Jourdan is involved in the organization of the Junior Seminar of Inria Paris-Rocquencourt.

Jacques-Henri Jourdan and Fabrice Le Fessant manned a stand at “Salon Culture & Jeux Mathématiques” in Paris.

Fabrice Le Fessant is one of the main organizers of the OCaml Meetup in Paris.

Xavier Leroy gave a popularization talk on critical software and its formal verification at the computer science colloquium of University Pierre et Marie Curie.

Since 2012, the Gallium team has published a research blog at http://gallium.inria.fr/blog/, edited by Gabriel Scherer. This blog continued its activity in 2015, with 10 posts from 8 different authors.

MUTANT Project-Team

9.3. Popularization

Arshia Cont appeared as expert in BFM Business TV special live event on Music and New Technology.

PARKAS Project-Team (section vide)

PI.R2 Project-Team (section vide)

POLSYS Project-Team

9.3. Popularization

Mohab Safey El Din gave a course at the “Ecole Jeunes Chercheurs 2015” of GDR IM and wrote for it a book chapter [21].

PROSECCO Project-Team

10.3. Popularization

10.3.1. Popular Press and Vulnerability Reports

The FREAK and Logjam attacks discovered by the miTLS team resulted in articles in many newspapers, magazine, and popular websites, including the New York Times, Wall Street Journal, Economist, and Wired. As a result of our discovery of these attacks and their popularization, major changes were made in all web browsers, web servers, and in the TLS protocol itself.

10.3.2. Seminars

- Catalin Hritcu: invited talks at CoqPL Workshop (Jan 2015), HP Labs France (May 2015), Inria Rennes (Jun 2015), PLAS Workshop (Jul 2015), Microsoft Research Redmond (Aug 2015), University of Washington (Aug 2015), ML Workshop (Sep 2015), Alcatel-Lucent Bell Labs (Dec 2015)
- Karthikeyan Bhargavan: invited talks at Real World Crypto (Jan 2015), Inria Nancy (Feb 2015), OSSIR Paris (Jun 2015), DefCon Crypto Village (Aug 2015), Catrel Workshop (Oct 2015)

9.3. Popularization

- André Chailloux published a paper in the general-audience journal *La Recherche*: Calcul quantique sans erreurs.
- Gaëtan Leurent took part to the radio program *Service Public: "Mot de passe partout"*, France Inter, April 2015 http://www.franceinter.fr/emission-service-public-mot-de-passe-partout
- Anne Canteaut gave a talk on cryptography for female students in “Première” and “Terminale” attending the *Girls can code!* week organized at EPITA, August 24-29, 2015 https://gcc.prologin.org/.

GAMMA3 Project-Team (section vide)

MATHERIALS Project-Team (section vide)

MATHRISK Project-Team

10.3. Popularization

- A. Lionnet:

  - article on Financial Mathematics published in the online popularization magazine Interstices https://interstices.info/jcms/p_82123/les-mathematiques-financieres-des-quants

  - Conference given for middle-schoolers at University Paris 8 during the "Week of Mathematics 2015".

  - Participation to the colloquium "Science and You", Nancy, June 1–6.

  - The two entries of A. Lionnet to the contest SIAM Math Matters, Apply It (https://www.siam.org/careers/matters.php were selected to be turned into a poster. One was on financial derivatites (https://www.siam.org/careers/pdf/deriviatives.pdf) the other on systemic risk (https://www.siam.org/careers/pdf/risk.pdf).

- A. Sulem:

  - "Applications of stochastic analysis", (2015), invited contribution for the *Princeton Companion to Applied Mathematics*, http://press.princeton.edu/titles/10592.html

  - Responsible for the partnership of Inria with Institut Henri Poincaré for the creation of a museum of Mathematics.

MOKAPLAN Project-Team

9.3. Popularization

G. Carlier gave a general audience lecture on mathematics of urban traffic at the Consulat de France in Vancouver.

QUANTIC Project-Team

8.3. Popularization

Benjamin Huard gave a talk at Journée X-ENS, Ecole Polytechnique, Palaiseau, France (May 2015) in front of an assembly of professors in “classes prépas”. He also gave a seminar for students at ENS Paris (Jan 2015).

Benjamin Huard, François Mallet and Mazyar Mirrahimi gave interviews for newspapers, magazines and websites (Libération, La Recherche, Phys.org, les Echos, 01net, Silicon).

Benjamin Huard wrote an article for La Recherche: B Huard, Les microprocesseurs du futur, La Recherche 501, 62 (Juillet 2015).

Pierre Rouchon gave a lecture on "Stabilisation par feedback quantique de la boite à photons du LKB" (May 21, 2015) during the "journées de l’école doctorale des Universités de Bourgogne et de Franche Comté".

Alain Sarlette is answering questions about quantum control and quantum computing on the website "ik-heb-een-vraag.be" where Flemish layman can ask questions to scientific experts.

10.3. Popularization

S. Lacoste-Julien, general public talk “Apprentissage automatique et big data", at La Maison des Sciences, Châtenay-Malabry, France, September 2015.

ANGE Project-Team

10.3. Popularization

11/06/15 - Futur en Seine (Cap Digital): B. di Martino, M. Parisot and J. Sainte-Marie were present during the numerical festival

24/09/15 - 6th Plenary Research Data Alliance (Cap Digital): N. Aïssiouene, B. di Martino, Y. Penel and J. Sainte-Marie contributed to the Inria stand

9-11/10/15 - Fête de la Science: all the members of the team run the ANGE stand to present scientific works related to water

07-10/12/15 - Solutions COP21: N. Aïssiouene, E. Nayir, M. Parisot, Y. Penel and J. Sainte-Marie participated to the exhibition at the Grand Palais to show the application of applied mathematics to climate issues

ARAMIS Project-Team

10.3. Popularization

Fabrizio De Vico Fallani was interviewed for the French TV program “Zone Interdite” (M6) about the project on Brain Computer Interfaces. The video of the interview is available at https://www.youtube.com/watch?v=BmGiaPG9cnA

CLIME Project-Team

9.3. Popularization

- Isabelle Herlin made a talk on the careers in image processing at GdR ISIS in November 2015.
- Vivien Mallet took part to a one-day introduction to Inria research at Sénat, in February 2015.
- Vivien Mallet and Raphaël Ventura took part to the UrbanDirtLab organized during the Futur-en-Seine digital festival, in June 2015.
- Vivien Mallet was auditioned by "l'Office parlementaire d'évaluation des choix scientifiques et technologiques" ("Assemblée nationale" and "Sénat") on big data and agriculture, in July 2015.

LIFEWARE Project-Team

9.3. Popularization

Pascal Hersen and Artémis Llamosi are founders of the *OpenLab* at the *Center for Research and Interdisciplanirity* in Paris, and organizers of related events on product industrialization. They provide scientific expertise to hosted startups.

MAMBA Project-Team (section vide)

MYCENAE Project-Team

8.3. Popularization

- *The hipster effect: when anticonformists all look the same*. Popularization on the synchronization of random elements inspired from a simplification of brain dynamics. International press coverage in scientific (Science, AMS news, Science et Vie,...) and general information journals (Washington post, JDD, Le soir,...)
- *La recherche sur la reproduction animale et humaine*. Booklet edited by GdR REPRO, including an interview of Alexandre Vidal and a dedicated chapter on "Reproduction, biomathe´matiques et bioinformatique"

REO Project-Team

10.3. Popularization

- Matteo Aletti
  - presentation, "Raconte-moi ta thèse", Fête de la science, October 10th, 2015, Paris, France
- Chloé Audebert
  - poster session, Journée "Correspondances", Projet PEPS-égalité "Correspondances de Langlands", April 10th, 2015, Paris, France
  - presentation, "Raconte-moi ta thèse", Fête de la science, October 10th, 2015, Paris, France
- Jessica Oakes
  - Tutor and mentor to an under-represented minority student struggling in mathematics (1h per week)
  - SECO: Visit local elementary schools to assist students with hands on science activities (1h per month)
- Irène Vignon-Clementel
  - Intervention at the conference "Research: challenges and adventures", at which the research national strategic plan was presented to the French Prime Minister, in presence of the Minister for Education, Higher Education and Research, Dec 14th., Paris, France https://www.inria.fr/actualite/actualites-inria/la-strategie-nationale-de-recherche-presentee-au-premier-ministre

SERENA Team (section vide)

ALPINES Project-Team (section vide)

DYOGENE Project-Team (section vide)

EVA Team

10.3. Popularization

10.3.1. Web Presence

- https://team.inria.fr/eva/
- https://twitter.com/InriaEVA

10.3.2. Demos

- We deployed a 15-mote network at the SolutionsCOP21 expo at the Grand Palais in Paris, held alongside the COP21 meeting, 4-10 December 2015. French President Francois Hollande and Minister of Research Thierry Mandon came by the demo.
- The EVA team organized several demonstrations of wireless sensor networks for undergraduates who visited Inria in February and December 2015.

10.3.3. Talks

- The Rise of the Industrial IoT! Inria-DGA day, Paris, France, 15 October 2015, **Thomas Watteyne**.
- Wireless In the Woods: Monitoring the Snow Melt Process in the Sierra Nevada. “demi-heure de la science” seminar. 3 September 2015, Rocquencourt, France, **Thomas Watteyne**.
- From Smart Dust to 6TiSCH: building the Industrial Internet of Things. 4th International Symposium on Sensor Science (I3S), 13-15 July 2015, Basel, Switzerland, **Thomas Watteyne**.
- Reaching Industrial-class Reliability with a Converged IPv6 Network in the Smart Building. Joint presentation with Pascal Thubert (Cisco). MEITO day on Smart Buildings, 21 May 2015, Rennes, France, **Thomas Watteyne**.
- OpenWSN: Having FUN with TSCH and the IoT-LAB. FUN research team seminar, Inria-Lille, 3 April 2015, Lille, France, **Thomas Watteyne**.
- Determinism in the IoT: the example of 6TiSCH and OpenWSN. IRTF T2TRG meeting, 22 March 2015, Dallas, TX, USA, **Thomas Watteyne**.

10.3.4. Panels

- **Thomas Watteyne** chair, panel on “Sensing and Networking”, Inria@Silicon Valley annual workshop (BIS), 13 May 2015, Berkeley, CA, USA.

10.3.5. In the News

- Article on IPSO CHALLENGE 2015, Inria-Paris Newsletter, 15 December 2015.
- Interview of **Thomas Watteyne** in Smart Insights on “The Internet of Important Things”, Issue 15, number IV, 14 December 2015.
- “Two Inria technologies rewarded at the IPSO Challenge 2015 in San Jose”, FrenchTechHub newsletter, 10 December 2015.
- “Interview: **Thomas Watteyne**, EVA research team and REALMS associate team, presents his research, his collaboration with California and the IPSO Challenge”. Inria@SiliconValley newsletter, October 2015.
- “Two Inria-EVA projects make it to IPSO CHALLENGE semi-finals”, inria.fr, October 2015.
- IPSO Alliance Announces Semi-Finalists for IPSO Challenge 2015, Reuters, August 2015.

GANG Project-Team

10.3. Popularization

Michel Habib has contributed a text [41] to the “Encyclopedia of Algorithms”, providing a unifying and historical overview of graph searching problems and algorithms.

MIMOVE Team (section vide)

MUSE Team (section vide)

RAP Project-Team (section vide)

REGAL Project-Team

9.3. Popularization

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

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

WHISPER Project-Team

10.3. Popularization

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

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

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

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

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

ALPAGE Project-Team (section vide)

RITS Project-Team

10.3. Popularization

As part of the week of mathematics organized by the Ministry of Education, which theme this year was “les mathématiques nous transportent”, Jean-Marc Lasgouttes presented the transportation-related research at Inria, as well of some simple traffic jam models.

Fawzi Nashashibi participated to the "Rencontres Inria Industrie" organized by Inria@SiliconValley on the topic of "Smart City and Mobility". He gave a speech on "On-demand transportation system for sustainable mobility in smart cities", May 11, San Francisco, USA.

Fawzi Nashashibi participated to a round table organized by La Recherche and Le Monde on "The vehicle of the future: which car in 10 years ?" at Arts-et-Métiers, May 28, Paris, France.

Fawzi Nashashibi participated to the round table on "Ethical and legal questions in robotics" at the 1st National day on "Ethics of digital research" organized by the CERNA at the Mines Telecom Institute, June 15, 2015, Paris, France.

Fawzi Nashashibi organized with Christian Laugier the round table on "Intelligent Mobility" at the joint Innorobo/IEEE ARSO’15 workshop day, July 2, Lyon, France.

Fawzi Nashashibi gave a presentation on "How does the climate change affect mobility and transportation ?" at Solution COP21 exhibition, Paris, December 2015. (Video Link: http://www.dailymotion.com/video/x3h8vpm)

SMIS Project-Team

9.3. Popularization

- Round table: Privacy & Personal Data. Who owns the data? International Conference on Digital Assets, Data Philanthropy, and Public Benefit, CITRIS, Inria, EIT ICT Labs, San Francisco. N. Anciaux, 2015
- General public (large audience magazines, television, videos): Gestion sécurisée de données personnelles. 1024 - Bulletin de la Société Informatique de France, numéro 5, pp. 17-41, N. Anciaux and B. Nguyen, 2015
- Institutions, decision makers and industrials: Présentation du Pôle Vie Privée de l'ISN (DSI), Cabinet de Mme Axelle Lemaire, Secrétaire d'Etat chargée du numérique, Ministère de l'économie, Paris, N. Anciaux and L. Bouganim, May 2015
- Round table: Peut-on être seul maître de son espace numérique ? Comprendre et construire la société numérique. Conférence de l'Institut de la Société Numérique (ISN/DSI), Hôtel Potocki, Paris, N. Anciaux, March 2015
- Round table: P. Pucheral, "Données personnelles, approche interdisciplinaire". Busines Convention on Big Data, Campus HEC, 24-25 Nov. 2015

WILLOW Project-Team (section vide)