



RESEARCH CENTER
Saclay - Île-de-France

FIELD

Activity Report 2015

Section Popularization

Edition: 2016-03-21

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COMETE Project-Team (section vide)

GEOMETRICA Project-Team (section vide)

GRACE Project-Team

10.3. Popularization

- D. Augot gave a lecture about bits, exclusive-or, coding and digital pictures, at Lycée de la vallée de Chevreuse (Jan 22)
- D. Augot, N. Duhamel, A. Guillevic, J. Lavauzelle, D. Lucas, and B. Smith participated in the Fête la Science at École polytechnique (Oct 12)
- A. Couvreur gave a conference “Les mathématiques pour protéger l’information” for the pupils of Collège Moreau in Monthléry (91).

MEXICO Project-Team (section vide)

PARSIFAL Project-Team

9.3. Popularization

K. Chaudhuri organized a half-day tutorial on Abella as a satellite event of CADE 2015 in Berlin. The slides from the talk are available as [40], and the tutorial web-site is: <http://abella-prover.org/tutorial>. This event was co-organized with Gopalan Nadathur, professor of Computer Science at the University of Minnesota, USA.

G. Reis participated in “Fête de la Science” as an assistant to the programming activities.

POSTALE Team

9.3. 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. À ce titre, elle a fait partie du comité d'organisation du colloque "Les métiers du travail scientifique : images et valeurs, réalités et défis", 20-21 mai 2015, Orsay, (<http://www.centre-dalembert.u-psud.fr/2015-les-metiers-du-travail-scientifique-images-et-valeurs-realites-et-defis/>).

SPECFUN Project-Team

9.3. Popularization

- A. Bostan has published, together with Kilian Raschel, a popularization article titled *Compter les excursions sur un échiquier* in the popular science magazine *Pour la Science*, the French version of the *Scientific American*.

TOCCATA Project-Team

10.3. Popularization

- A. Charguéraud and S. Boldo contributed to the preparation of the exercises of the *Concours Castor informatique* <http://castor-informatique.fr/>. A. Charguéraud is also one of the three organizers of this contest. The purpose of the Concours Castor is to introduce pupils (from *CM1* to *Terminale*) to computer sciences. More than 345,000 teenagers played with the interactive exercises in November 2015.
- C. Marché, together with J. Kanig from AdaCore company, wrote an article in the ERCIM news journal [17] to advertise on the work done in the ProofInUse joint laboratory for the popularization of formal methods in the development of safety-critical Ada programs.
- S. Boldo, with T. Vieville (Mnemosyne team, Inria Bordeaux - Sud-Ouest), F. Maseglier (Zenith team, Inria Sophia Antipolis - Méditerranée) and P. Bernhard (INRA) wrote a text about the TIPE 2016 (personal work before the competitive entrance in engineering schools). The topic was “Structures: organization, complexity, dynamic”. This was published on the popularization website <http://pixees.fr> [31].
- S. Boldo co-organized popularization talks for the administrative staff of Inria Saclay - Île-de-France. She gave a talk on January 29th about a scientific article [21] and led a coding session (with Scratch) on February 12th with A. Imperiale (M3DISIM team).
- S. Boldo co-organized the coming of teenagers from the collège Flemming in Orsay to the laboratory on May 28th and gave talks to several groups all day long.
- S. Boldo co-organized the Inria Saclay - Île-de-France *Fête de la science*. She created two stands (about programming) and run one on October 9th.
- S. Boldo gave a talk to the winners of the Mathematics Olympiads on June 10th in Rocquencourt.
- S. Boldo gave a talk at the “Girls can code” week on August 27th, in Paris.
- S. Boldo gave a talk to high school teenagers in Angers on October 12th.
- S. Boldo gave a talk to “Classes Préparatoires” at l’Essouriau, Les Ulis on September 24th.
- S. Boldo gave a talk at “Futur en Seine” a popularization festival in Paris and Paris area, in Orsay, on June 18th.
- C. Paulin together with I. Glas from labex DigiCosme is proposing an introduction to computer science (various activities on programming, data representation, algorithms during 6 sessions of 1 hour) as an extracurricular activity in schools for pupils in *CM1-CM2*.
- C. Paulin organised in 2015 the third edition of the Concours ISN of the Labex DigiCosme, supported by the Rectorat de l’Académie de Versailles. Selected projects developed by the high school pupils (*Terminale*) as part of their curricula in Computer Science are submitted to this contest. The best projects are selected and presented during a general event.
- C. Paulin, I. Glas, and A. Paskevich run a stand (introduction to information technologies and programming) during the “Fête de la science” Île-de-France on October 9 and 10.

COMMANDS Project-Team

10.3. Popularization

- F. Bonnans: article on 'Optimal Control' for the Encyclopédie des sciences de l'ingénieur [30].
- F. Bonnans and P. Martinon: Inria-industry day on energetic transition, June 12, 2015. Common stand with Safety Line on energy savings by optimization aircraft trajectories.
- B. Heymann: talk at the Workshop on open power systems (WOPS), Oct. 16, 2015, Institut des systèmes complexes, Paris .

DEFI Project-Team (section vide)

DISCO Project-Team (section vide)

GECO Project-Team

8.3. Popularization

Ugo Boscain gave a popularization conference at the “Rencontres Mathématiques de Rouen” with a general introduction to sub-Riemannian geometry and its applications, Jun 2015.

Maxplus Team

10.3. Popularization

- J.P. Quadrat :
 - Administre le site d'intérêt général <http://www.maxplus.org>, dédié à l'algèbre max-plus.
- V. Boeuf
 - Article dans la brochure "La recherche en mathématiques appliquées" diffusée à des lycéens d'Île de France, exposant la plateforme téléphonique pompiers + police.
- N. Stott
 - Finaliste Paris-Saclay du concours MT180 "Ma thèse en 180 secondes".

POEMS Project-Team (section vide)

SELECT Project-Team

9.3. Popularization

Emilie Devijver:

- Organisation of a spring school for high school students about probability, Pristina, Kosovo
- Organisation of the “Séminaire de Vulgarisation des Doctorants” at Université Paris Sud
- Several talks in high schools to give tools to students to understand conferences: “Un texte, un mathématicien” organized at BNF.

TAO Project-Team

10.3. Popularization

- **Odalric-Ambrym Maillard** May, participation to day "Petits débrouillards", during which secondary schools students come and visit a lab.
- **Aurélien Decelle** May, participation to day "Petits débrouillards", during which secondary schools students come and visit a lab.
- **Yann Ollivier** co-organizes the European Union Contest for Young Scientists (science fair for high school students from 30+ countries organized by the European Commission).
- **Michele Sebag**, participation to IHP debate on AI and society; panel at Technion Research Day.

AMIB Project-Team

8.3. Popularization

AMIB animated the *Construisons les ARN* booth at *Fête de la Science*, October 2015, <http://www.inria.fr/centre/saclay/agenda/fete-de-la-science-2015> with the participation of Y. Ponty, M. Régnier, A. Héliou, A. Héliou and A. Saaidi.

GALEN Project-Team

9.3. Popularization

- **Blaschko, Matthew**
 - **Presentations:** V Argentina Applied Maths Conference (MACI 2015)
- **Kokkinos, Iasonas**
 - **Presentations:** University of California at Los Angeles, Imperial College, Boston University, Xerox Research Center Europe

M3DISIM Team

10.3. Popularization

D. Chapelle, Febr. 9th, article in “Le Figaro”: “A quoi sert de modéliser le fonctionnement du cœur ?”

P. Moireau, May 20th 2015, keynote entitled “The heart forecasting” at Créteil District Academy “Olympiade de Mathématiques” award ceremony.

PARIETAL Project-Team

10.3. Popularization

Gaël Varoquaux: La tête au carré, on Junarury 13th, 2015: <http://www.franceinter.fr/emission-la-tete-au-carre-big-data-quand-les-donnees-servent-a-predire>

Stand à la Fete de la science CRI Saclay, 9 octobre (Alexandre Abraham, Arthur Mensch, Bertrand Thirion).

POPIX Team (section vide)

INFINE Team

9.3. Popularization

1. An interview from Laurent Massoulie was published in «La Recherche », concerning our work on community detection.
2. Cedric Adjih participated to the "Inria-Industry Meeting" dedicated to energy transition, with a demo of RIOT, an open-source OS for the Internet of Things. Among different uses of the RIOT, RIOT enables IoT devices and embedded systems to easily participate in an interoperable, IP-based, communication infrastructure. Such a standard-based infrastructure is essential for data collection (e.g. sensors) providing the information feeding smart energy systems (big data analytics).
3. Emmanuel Baccelli was the editor (with Dave Raggett) of ERCIM News Special Issue on Internet of Things and Web of Things (ERCIM News No 101).

AVIZ Project-Team

9.3. Popularization

Aviz members have been involved in several popularization activities:

- Romain di Vozzo: invitation of Richard Stallman to give a Digiteo conference on Free Software.
- Jeremy Boy wrote a chapter for “Le kit Serie graphique : Connaître et pratiquer le design graphique au collège” published by Le Centre National des Arts Plastiques (CNAP) .
- Jeremy Boy’s *Is the World a Better Place Today* online visualization platform was mentioned in Le Monde <http://data.blog.lemonde.fr/2015/10/21/la-journee-de-la-statistique-un-evenement-francais-pas-celebre-en-france/>
- Jeremy Boy gave an interview on his *Is the World a Better Place Today* online visualization platform to the NYU News and Publications Department <http://engineering.nyu.edu/news/2015/11/23/when-united-nations-puts-call-out-data-pros>
- Mathieu Le Goc, Pierre Dragicevic, Samuel Huron, Jeremy Boy, Jean-Daniel Fekete: [SmartTokens: Embedding Motion and Grip Sensing in Small Tangible Objects - Extended Material](#).
- Pierre Dragicevic and Yvonne Jansen: the [Curated List of Physical Visualizations](#) is continuously being updated.

DAHU Project-Team

9.3. Popularization

For the last couple of years, Serge Abiteboul has initiated and is coordinating an invited blog for Le Monde newspaper, namely Binaire, <http://binaire.blog.lemonde.fr>. He is the initiator of “The Cabale Informatique de France”, a joint action between the Société Informatique de France and Wikipédia France to improve the quality of Wikipédia pages about Computer Science in France.

Serge Abiteboul participated in a documentary "Nos ordinateurs ont-ils la mémoire courte" (directed by Vincent Amouroux, Zed production) that was showed on Arte in September 2015. He wrote popularization articles, in particular, [13] (on Personal information systems), [28] (on the Responsibility of algorithms, and notably data analysis algorithms; short version in French in Le Monde) and [27] (on Digital humanities).

Serge Abiteboul gave talks to Congrès National des Profs de Physique Chimie (La Rochelle), Forum Big Data (La Vilette), Congrès APLCPCGE ("prépas", Paris), UPMC Colloquium (Paris)... He was audited for the French Parliament (OPECST, Big data and Agriculture).

In 2015, Serge Abiteboul was a member of the "Conseil national du numérique".

EX-SITU Team

10.3. Popularization

BD Interactive: 2101 Sciences et science-fiction, Chromatiques (Web documentaire) April 2015: Wendy Mackay (interview) <http://www.chroma-tv.com>

Journée d'étude robots/travail/intelligence : La Chaire des Bernadins -- L'Humain au défi du numérique, FING, 8 Oct 2015 *Table Ronde: Les robots : substitution ou complément ?*: Wendy Mackay (panel member)

Lindau, Film on the Attractivity of Research in France, Ministère de Recherche, June 2015: Wendy Mackay (interview)

Ableton Loop Summit, 1 November 2015 *Panel: New Instruments and Evolving Performance Practices*: Joseph Malloch (panel member)

Fête de la Science, LRI, 9 October 2015, *Wilder*: Olivier Gladin, Rémi Hellequin, Amani Kooli, and Jonathan Thorpe

ILDA Team

9.3. Popularization

- Publication in Bits de Ciencia about our research and development activities on wall-sized displays [18].
- *Antenna Dance at ALMA* movie, in collaboration with Denis Barkats (ALMA). <http://almaobservatory.org/en/press-room/announcements-events/790-antenna-dance-at-alma>

OAK Project-Team

9.3. Popularization

- I. Manolescu has given a conférence “Big Data and the Internet” in January in the *UniverCité Ouverte* conference series organized by the city of Gif sur Yvette for the general public .
- R. Bonaque, D. Bursztyn, S. Cebiric and I. Manolescu have presented a game based on RDF graphs and social networks as part of Fête de la Science in Inria Saclay, in October.
- I. Manolescu has presented a vision of data management techniques for journalistic fact-checking at the congress of the french Association of the Information Press Journalists (Association des Journalistes de la Presse d’Information) in October. The same topic has lead to articles in the general press, in Ouest France (<http://www.ouest-france.fr/leditiondusoir/data/569/reader/reader.html#!preferred/1/package/569/pub/570/page/8>), the canadian Le Devoir (<http://www.ledevoir.com/politique/canada/450937/sur-la-piste-du-mensonge>), Le Monde (<http://data.blog.lemonde.fr/2015/10/23/le-fact-checking-peut-il-sautomatiser/>), Rue89 (<http://rue89.nouvelobs.com/2015/10/26/algorithmes-antimensonge-fin-bobards-politique-261827>), as well as in the Journal du CNRS (<https://lejournel.cnrs.fr/articles/un-logiciel-qui-decrypte-la-politique>) and Inria’s national Web site (<http://www.inria.fr/centre/saclay/actualites/un-logiciel-de-fact-checking-pour-comprendre-le-monde-qui-nous-entoure>).
- I. Manolescu has presented a database management vision for Data Science in the Big Data Business Convention in November, attended by 600 participants among which half were academics and half from the industry. S. Zampetakis has presented CliqueSquare at the Business Convention.