



RESEARCH CENTER
Saclay - Île-de-France

FIELD

Activity Report 2018

Section Popularization

Edition: 2019-03-07

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COMETE Project-Team

8.3. Popularization

8.3.1. Education

Konstantinos Chatzikokolakis and Catuscia Palamidessi have designed, and coordinate, a course on the Foundations of Privacy at the **MPRI**, the Master Parisien pour la Recherche en Informatique. University of Paris VII. A.Y. Since 2015.

Catuscia Palamidessi has been:

- Invited speaker at **PLMW@POPL 2019**, the Programming Logic Mentoring Workshop 2019 (affiliated to POPL 2019). This workshop aims at encouraging graduate students and senior undergraduate students to pursue careers in programming language research, and at educating them on the research career.
- A participant in the round table at the **FLOC Women in Logic workshop**, a workshop organized to encourage women's presence in the logic community. Oxford, UK, 8 July 2018.

8.3.2. Interventions

Catuscia Palamidessi and Frank Valencia have supervised a group of high school children in stage d'observation. April 2018.

Catuscia Palamidessi has given an invited talk at:

- **JNIM 2018**. Journées Nationales 2018 du GDR Informatique Mathématique (Journée du 6 Avril en Hommage à Maurice Nivat). Palaiseau, France, 3-6 April 2018.

DATASHAPE Project-Team

10.3. Popularization

10.3.1. Interventions

- Frédéric Chazal: Fujitsu Forum, “Topological Data Analysis: from academic success to industrial innovation”, Tokyo, Japan, May 2018.
- Frédéric Chazal: “TDA and AI for biomedical applications”, Kaohsiung MEDical Technology Expo, Taiwan, May 2018.

DEDUCTEAM Project-Team

9.3. Popularization

9.3.1. Articles and contents

Gilles Dowek writes a monthly column in *Pour la Science* (12 issues) and has started a bi-monthly column in *Le Monde* (3 issues).

Gilles Dowek has given interviews to *France Inter*, *Radio France Internationale*, *France Culture*, *Ouest France*, *Usbek et Rica*, and *Philosophie Magazine*.

9.3.2. Education

Gilles Dowek has participated to meetings on scientific education in Switzerland, Belgium, and Côte d'Ivoire.

He has been heard by a committee of the the *Éducation Nationale* on pedagogical data and privacy.

He has given a talk on job mutations to mathematics inspectors.

9.3.3. Interventions

Gilles Dowek has given popular science talks in Toulouse, Antony, Issoudun, Rueil Malmaison, Saint Louis, Saint-Cloud, Rennes, Nancy, Paris, Nîmes, St Quentin en Yvelines, Montbéliard, Molaix, St Agrève, Rhodes, Marcoule, and Juvisy.

GRACE Project-Team

9.3. Popularization

9.3.1. Internal or external Inria responsibilities

- D. Augot is member of the “comité de pilotage” the “BART” (Blockchain advanced research and technologies) research initiative, with Institut Mines Télécom and System-X.

9.3.2. Interventions

- D. Augot was interviewed on blockchains by three representatives of the French National Assembly.
- D. Augot was interviewed by “France Stratégie”, an institution attached to the Prime Minister to support forward thinking of the French government.
- F. Levy-dit-Vehel demoed our Private Information Retrieval protocol with partitionned locally decodable codes

MEXICO Project-Team

10.3. Popularization

Laurent Fribourg was interviewed by *L'Édition de l' Université Paris-Saclay* in: “La cyberphysique prépare l’usine de demain”, May 2018.

10.3.1. Internal or external Inria responsibilities

- Laurent Fribourg is Head of Institut Farman (FR 3311 CNRS & ENS Paris-Saclay).
- Serge Haddad is Head of the Computer Science Department of ENS Paris-Saclay.
- Stefan Haar is the president of Inria’s COST-GTRI.

PARSIFAL Project-Team

9.3. Popularization

L. Straßburger serves as member of the “commission développement technologique (CDT)” for Inria Saclay–Île-de-France (since June 2012).

F. Lamarche was site co-ordinator for the Activity Report for Inria Saclay–Ile-de-France.

9.3.1. Interventions

G. Scherer and M. Manighetti participated the “Fête de la Science” exhibit at Inria Saclay on the whole day of October 11th, 2018. They manned an activity on sorting algorithms for colored plastic pieces.

9.3.2. Internal action

G. Scherer spoke at the “Unithé ou café” meeting, a Saclay-internal popularization meeting, on February 1st, 2018.

SPECFUN Project-Team

9.3. Popularization

9.3.1. Interventions

- Georges Gonthier testified before the *Mission d'information commune sur les blockchains* of the *Assemblée Nationale* in March.
- Georges Gonthier gave a public lecture and debate on blockchains at the *Institut Diderot* in September, jointly with M. Odonnat (Banque de France).

9.3.2. Internal action

- Georges Gonthier gave a presentation at the *Journées Scientifiques Inria 2018* in Bordeaux.

TOCCATA Project-Team

10.3. Popularization

10.3.1. Internal or external Inria responsibilities

S. Boldo is the scientific head for Saclay for the MECSEI group for networking about computer science popularization inside Inria.

She was also responsible (with M. Quet of the SCM) for the 2018 “Fête de la science” on October 11th 2018. About 260 teenagers were welcomed on 8 activities ranging from unplugged activities with Duplo construction toys to programming, and from applied mathematics to theoretical computer science.

10.3.2. Interventions

S. Boldo animated an activity at the Inria “Fête de la science” on October 11th 2018 the whole day long.

S. Boldo animated an activity and gave talks at the LRI “Fête de la science” on October 12th 2018.

S. Boldo gave a talk during at a *Girls can code* week on August 31st 2018 in Paris.

S. Boldo will give a talk to about 180 teenagers at the Marie Curie high school in Sceaux on February 8th, 2019

J.-C. Filliâtre gave a talk at *Mathematical Summer in Paris* on July 16, 2018.

J.-C. Filliâtre gave a talk *Parcours d'un informaticien* at the seminar “*Info Pour Tous*” (high school and undergraduate students). Video on YouTube. <http://seminairespourtous.ens.fr/ipt>

S. Dailler and C. Marché gave a demonstration of the SPARK environment, at the DigiHall Day (May 22 2018 <https://www.irt-systemx.fr/evenements/digihall-2018/>). DigiHall is a cluster of digital technologies of Paris-Saclay. More than 800 industrial and institutional decision-makers and academic counterparts took part in this first-of-its-kind event.

C. Marché presented the joint laboratory ProofInUse at the LabCom Colloquium (Maison de la Chimie, Paris, Sep. 27 2018 <http://ptolemee.com/colloque-labcom/index.html>) organized by ANR, with participation of numerous actors from both academia and industry.

10.3.3. Internal action

S. Boldo demonstrated popularization by an unplugged activity to all the new Inria staff at the welcome days on June 7th 2018

S. Boldo animated an unplugged activity to the AER service (team assistants) on July 3rd 2018

S. Boldo trained colleagues on unplugged activities for the “Fête de la science” (5 sessions of about 1h30)

S. Dailler and C. Marché gave a presentation of the joint laboratory ProofInUse, together with a demonstration of the SPARK environment, at the Software Day of the DigiCosme Labex (Saclay, June 7 2018 https://digicosme.lri.fr/tiki-read_article.php?articleId=256)

10.3.4. Creation of media or tools for science outreach

S. Boldo is supervising the popularization mission of C. Patte (M3DISIM team) in order to create a new popularization activity for teenagers in 2019.

C. Marché, main contributor of the site for the Why3 tool inside the Inria Saclay Virtual Showroom. Includes a short video introduction of Why3 for beginners using the TryWhy3 Web interface <http://why3.lri.fr/try/>

COMMANDS Project-Team

10.3. Popularization

10.3.1. Internal or external Inria responsibilities

- F. Bonnans: codirection of a joint Allistene-Ancre commission (contribution to the national strategy for research), Numerics and Energy committee (2017-2018).
- F. Bonnans: Dimitrie Pompeiu Prize Committee (Academy of Romanian Scientists).
- P. Martinon is member of the CDT.

10.3.2. Articles and contents

- The work on races on curved tracks was covered in the Sciences page of Le Figaro.

10.3.3. Internal action

- The collaboration with startup Safety Line was presented to the “Journée Nationale des Nouveaux Arrivants”

DEFI Project-Team

10.3. Popularization

10.3.1. Internal or external Inria responsibilities

- P.M. Congedo is Deputy Coordinator of "Maths/Engineering" Program of the Labex Mathématiques Hadamard.
- J.R. Li is Member Elu of Inria Commission d'Evaluation, 2015-present.

10.3.2. Internal action

- L. Chesnel provided some numerical experiments used in the exhibition "Rencontres diffractantes : quand les mathématiques inspirent l'art...". This exhibition was presented at Ensta ParisTech and at Inria Saclay.
- P.M. Congedo presented some research activities in aerospace in the context of UnithéauCafé du centre Inria de Saclay Ile-de-France.
- P.M. Congedo made a presentation in the context of the Fete de la science 2018, to several groups of young students (around 10-12 years old).
- H. Haddar made a joint presentation with O. Bunau from Xenocs on nanoparticle imaging using small angle X-ray diffraction technology in the context of UnithéauCafé at Inria de Saclay Ile-de-France.

DISCO Project-Team

8.3. Popularization

8.3.1. Interventions

Catherine Bonnet awarded the price of Mathematics and Italian et Italien at the *Concours Général des lycées et des métiers du Ministère de l'Éducation nationale*, Grand Amphitêatre de La Sorbonne, July 2018. She welcomed a group of middle school students, 17 December 2018.

GAMMA3 Project-Team (section vide)

RANDOPT Team

10.3. Popularization

10.3.1. Interventions

- National events: Cheikh Touré made an intervention on Poker for "college" students at the Fête de la Science (explaining relation between the game and probability)

SELECT Project-Team (section vide)

TAU Team

10.3. Popularization

10.3.1. Articles and contents

Isabelle Guyon

- Pionnière : Isabelle Guyon, professeur à l'université de Paris-Saclay, 7 Feb. 2018, [Usine Nouvelle](#)
- Isabelle Guyon veut démocratiser l'intelligence artificielle, Apr. 2018, [Le Monde](#)
- Portrait : Isabelle Guyon, sélectionneuse d'algorithmes, 16 May 2018, [Industries et Technologie](#)

Paola Tubaro *Notre vie privée, un concept négociable* [52], Antonio Casilli and Paola Tubaro, in *Le Monde*, Jan. 2018.

10.3.2. Interventions

Guillaume Charpiat Séminaire d'Actualité Critique, *L'intelligence artificielle, entre fantasmes et recherche*, ENS Paris, 5 Apr. 2018.

Isabelle Guyon *Codalab, createur de defis*, UniThe ou Café, Inria Saclay, 5 Apr. 2018

Marc Schoenauer

- Congrès Européen Ethique et Gouvernance 2018, OCDE, Paris, 30 Mar. 2018;
- Audition publique sur l'Intelligence Artificielle et le travail, Comité économique et social européen (CESE), Bruxelles, 30 May 2018;
- Public debate with Jean-Marc David, Convention Systematic, 5 Jun. 2018; Conférence Legrain, ENS Paris, 5 Jul. 2018;
- Prix Design et Science de l'Université Paris-Saclay, 11 Oct. 2018.

Michèle Sebag *Usine Nouvelle*; Podcast *Science et Avenir*, discussion avec Cédric Villani.

TROPICAL Project-Team (section vide)

GALEN-POST Team

10.3. Popularization

10.3.1. Interventions

Enzo Batistella, Marie-Caroline Corbineau, Théo Estienne and Maria Vakalopoulou have participated at the 'Demi-journée Recherche' organised by CentraleSupélec for the first year students of the school.

LIFEWARE Project-Team

9.3. Popularization

9.3.1. Articles and contents

Our publication on distinguishing resistance from resilience to antibiotic treatments [6] has been the object of a press release, institutional communications (at [Inria](#) and at [Institut Pasteur](#)), and some press attention, including notably by the UK daily mail journal.

9.3.2. Interventions

- Eléonore Bellot and Elise Weill participated at Fête de la Science in October 2018 at Inria Saclay île-de-France.
- Eléonore Bellot has received college school students for a visit to our research team on the design of logical gates in synthetic biology and their simulation in BIOCHAM.
- François Fages has received college school students for a visit to our research team with the question “Can we program any function ?”, answered negatively by proving Cantor’s theorem.

9.3.3. Creation of media or tools for science outreach

- François Fages has created several [BIOCHAM notebooks associated to his course at MPRI](#) and available online.
- François Fages and Sylvain Soliman have created one [BIOCHAM tutorial notebook presented at ASSB 2018](#) and available online.

M3DISIM Project-Team

10.3. Popularization

J.M. Allain, Co-authored a popularization paper in the “Reflète de la Physique” journal (january-february 2018)

D. Chapelle, Interview in *Sciences et Avenir* (November issue)

M. Genet, Presentation at JeudiX—Research Days at École Polytechnique

C. Patte, Fête des Sciences day, organized by Inria. October 11th

PARIETAL Project-Team

10.3. Popularization

10.3.1. Internal or external Inria responsibilities

- Philippe Ciuciu has been member of the Inria Saclay scientific commission since 2016
- Alexandre Gramfort is member of the steering committee of the Paris-Saclay Center for Data Science
- Alexandre is a Member of the technical development committee of Inria Saclay since Dec 2018
- Bertrand Thirion is Deputy head of research of Inria Saclay research center
- Bertrand Thirion, Leader of the Datasense research axis of the Digicosme Labex
- Bertrand Thirion, Member of the steering committee of the Dataia Convergence Institute
- Bertrand Thirion, Member of the steering committee of the Computer Science Department of Paris Saclay University.
- Gaël Varoquaux was Member of the technical development committee of Inria Saclay until Dec 2018
- Gaël Varoquaux is member of the doctoral monitoring committee of Inria Saclay
- Gaël Varoquaux is member of the steering committee of the Paris-Saclay Center for Data Science

10.3.2. Articles and contents

- Gaël Varoquaux was interviewed by [ActuIA](#)
- Alexandre Gramfort was interviewed by [ActuIA](#)
- Alexandre Gramfort was interviewed by [Libération](#)
- Alexandre Gramfort, Olivier Grisel Gaël Varoquaux are interviewed by [Les Echos](#)

10.3.3. Interventions

- Olivier Grisel gave an interview at the Paris Open Source Summit

10.3.4. Internal action

- In June 2018, Philippe Ciuciu did a training session on the DRF Impulsion funding mechanism at the seminar of new hired CEA DRF scientists"
- In April 2018, Denis Engemann and Alexandre Gramfort gave a 2-day educational course for cognitive neuroscientists at NeuroSpin on analysis of MEG and EEG data using Python.

10.3.5. Creation of media or tools for science outreach

Philippe Ciuciu made Two videos together with the CEA communication division on COSMIC project (funded by CEA)

- Long version: https://www.youtube.com/watch?v=gQh6D_vpkSo&t=23s&fbclid=IwAR0OcU3JEy4KQmo6DD-iN8otjlowyeXDkEF7ljniuZOkI-aWhGqyHhQzruo
- Short version: https://www.youtube.com/watch?v=p_KMEQGK-WA&fbclid=IwAR3xcf8e98M77IF9mpQSDWfKppjOt7p

Gaël Varoquaux, Olivier Grisel, Alexandre Gramfort, Guillaume Lemaître, Joris van den Bossche participated in a general-public movie about scikit-learn: <https://www.youtube.com/watch?v=twqdXTCkeyk&t=9s>

XPOP Project-Team

10.3. Popularization

10.3.1. Internal or external Inria responsibilities

Eric Moulines is member of the Evaluation Committee of Inria.

10.3.2. Creation of media or tools for science outreach

Marc Lavielle developed and maintains the learning platform [Statistics in Action](#). The purpose of this online learning platform is to show how statistics (and biostatistics) may be efficiently used in practice using R. It is specifically geared towards teaching statistical modelling concepts and applications for self-study. Indeed, most of the available teaching material tends to be quite "static" while statistical modelling is very much subject to "learning by doing".

Julie Josse (with Nicholas Tierney and Nathalie Vialaneix) developed and maintains the website [R-miss-tastic](#), A resource website on missing data.

INFINE-POST Team (section vide)

POEMS-POST Team

10.3. Popularization

10.3.1. Internal or external Inria responsibilities

- M. Kachanovska is a member of the *comité scientifique* of Inria-Saclay.
- A.-S. Bonnet-Ben Dhia is a member of the *bureau du comité des équipes-projets* (BCEP).

10.3.2. Interventions

- POEMS has been involved in the exhibition “*Rencontre diffractante*”, which has been presented successively at ENSTA (*from December 2017 to February 2018*) and at Inria (*in April and May 2018*). The inspiring material of this exhibition was made up of numerical simulations of various diffraction problems studied within by POEMS team. They served as a basis for the creation of artistic objects made by several classes of the Ecole Boule. *Curators of the exhibition : Jérôme Perez, ENSTA, and Virginie Gannac, doctor in art, design and applied arts from Université Paris I Sorbonne, Ecole Boule de Paris*
- POEMS has been involved in the event “*Fête de la science*” at ENSTA-ParisTech in October 2018.
- E. Bécache presented a talk entitled “*Promenade mathématique*” during the day “*Filles et mathématiques, une équation lumineuse*” (March 27, 2018 at Ecole Polytechnique, Palaiseau) and during the awards ceremony of the National Olympiad of Mathematics (May 30, 2018 at Créteil).
- E. Bécache has been involved in a meeting of young female mathematics, organized on November 17-18, 2018 at ENSTA ParisTech.

AVIZ Project-Team

8.3. Popularization

8.3.1. Articles and contents

- [Lonni Besançon's](#) PhD work was featured in [Le Monde's Binaire blog](#).
- Steve Haroz was interviewed on the [Data Stories podcast](#), October 10, 2018

8.3.2. Creation of media or tools for science outreach

- Pierre Dragicevic and Yvonne Jansen: the [data physicalization wiki](#) and the [List of Physical Visualizations and Related Artefacts](#) (500 weekly visits) are continuously being updated.

CEDAR Project-Team

9.3. Popularization

9.3.1. Articles and contents

- In books/journals for the general public: Our research on computational fact-checking has been featured in Le Journal Toulousain in an article titled “La science se met au service de l’information” , in February 2018 (<http://www.lejournaltoulousain.fr/societe/la-science-se-met-au-service-de-linformation-pour-detecter-les-fake-news-54906>). Further, I. Manolescu has been interviewed as an expert for an article in Le Figaro, in March 2018 (<http://www.lefigaro.fr/secteur/high-tech/2018/03/08/32001-20180308ARTFIG00341-sur-twitter-les-fake-news-voyagent-plus-vite-que-les-vraies-informations.php>).

9.3.2. Interventions

- Ioana Manolescu participated to a televised debate on fake news and the media in “Le Grand Barouf Numérique”, a technology/society meet up organised by the city of Lille, in March 2018. The debate was broadcast by France 3 (<https://france3-regions.francetvinfo.fr/hauts-de-france/nord-0/lille/debat-fake-news-medias-sont-ils-malades-1446365.html>).
- Ioana Manolescu has participated to a debate on regulating the news media in “Les Journées de l’Economie”, a national event organized in Lyon, in November 2018 (<http://www.touteconomie.org/index.php?arc=bv1&manif=594>)

9.3.3. Creation of media or tools for science outreach

Our research on computational fact-checking has been featured in a documentary (<http://www.universcience.tv/video-tech-check-des-scientifiques-face-aux-fake-news-19501.html>) by UniverScience.TV, the organization responsible of preparing scientific short movies next to Cité des Sciences. The movie has been featured in an article in Le Monde (https://www.lemonde.fr/sciences/video/2018/01/24/comment-la-science-aide-a-reperer-les-fake-news_5246356_1650684.html).

EX-SITU Project-Team

9.3. Popularization

9.3.1. Articles and contents

- Radio show “Les P’tits Bateaux” on France Inter public radio: Michel Beaudouin-Lafon (interviews in response to children questions on 10 June 2018, 16 September 2018, 7 October 2018)
- Panel at “*La Fabrique de la Danse*”, Centre 104, Paris, 5 Avril 2018: Baptiste Caramiaux (panel member)

9.3.2. Interventions

- Le Plateau des Recherches Infinies: art-science project with photographer Didier Goupy presenting the portraits of 100 researchers of Université Paris-Saclay. Fête de la Science, Gif-sur-Yvette, October 2018
- Workshop on “Rapid Prototyping with Interactive Materials”, Fab14, Toulouse, July 2018: Michael Wessely
- Workshop “*Relational Listening*”, CLOUD/Danslab, Lake Studios, Berlin, 22 July 2018: John MacCallum (co-facilitator).

ILDA Project-Team (section vide)

PETRUS Project-Team

10.3. Popularization

- Nicolas Ancaux: "Respectez les données personnelles de vos clients avec PLUGDB", Inria Tech Talk, French Tech Central - Station F, 12 Dec. 2018. video: https://youtu.be/9y3VdMe_sAQ, slides: <https://french-tech-central.com/events/inria-tech-talk-respectez-les-donnees-personnelles-de-vos-clients-avec-plugdb/>
- Nicolas Ancaux: auditions de la mission de préfiguration du « Health Data Hub », DREES, July 2018. Slides: <http://petrus.inria.fr/~ancaux/papers/D39.pdf>
- Nicolas Ancaux: interview, magazine La Recherche N°535, Mai 2018, "IA : les défis de la stratégie française", pp.14-16, by Gautier Cariou. Link: <https://www.larecherche.fr/parution/mensuel-535>