

*Inria*

RESEARCH CENTER  
**Paris**

FIELD

Activity Report 2019

# Section Popularization

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## ANTIQUE Project-Team

### 10.3. Popularization

#### 10.3.1. Internal or external Inria responsibilities

- Cezara Drăgoi and Xavier Rival are elected members of the Inria Commission of Evaluation
- Jérôme Feret is a member of the jury of the SIF - Gilles Kahn PhD Award.
- Xavier Rival is member of the “Bureau du comité des projets” since October 2018.
- Xavier Rival is Chair of the Hiring Committee for Inria researchers at the center of Paris (CRCN) for 2019.
- Cezara Drăgoi served in the jury for part-time positions at LiX, January 2019.
- Cezara Drăgoi served in the Inria jury for CES - delegations and Phd scholarships in 2019.

#### 10.3.2. Articles and contents

- Xavier Rival has been working with Kwangkeun Yi on the writing of a book that should serve as an introduction to the field of static analysis, for students and engineers, and this book is expected to be released by MIT Press in January 2020 [16].

#### 10.3.3. Creation of media or tools for science outreach

Xavier Rival has given a talk as part of the “Mon équipe en 180 secondes” series at Inria Paris.

## **CAMBIUM Project-Team**

### **9.3. Popularization**

#### **9.3.1. Interventions**

Xavier Leroy was on the committee of the 2019 Sephora Berrebi scholarship for women in mathematics and computer science. At the award ceremony (Paris, France, February 2019), he gave a popular science talk on Grace Hopper and the birth of the compiler.

Xavier Leroy gave popularization talks on deductive software verification at the Aerospace Lab Conferences of ONERA (Palaiseau, France, June 2019) and at the Summer 2019 BOB conference (Berlin, Germany, August 2019).

**CASCADE Project-Team (section vide)**

## **KOPERNIC Team**

### **9.3. Popularization**

#### **9.3.1. Articles and contents**

- Interview with the Statinf co-founders, published on Inria web site (<https://www.inria.fr/centre/paris/actualites/statinf-sonde-les-caeurs-des-systemes-embarques>)

#### **9.3.2. Education**

- Presentation of Adriana Gogonel at a day organized by a Creteil and Versailles Academy for outreaching Computer Science (April 2019, Paris)

#### **9.3.3. Interventions**

- Participation of Adriana Gogonel at a round table entitled "May we innovate within a research institute?" (March 2019, Rocquencourt).

## OURAGAN Project-Team

### 10.3. Popularization

- Alban Quadrat co-edited the book *Le Jeu de rôle sur table : un laboratoire de l'imaginaire*, Carrefour des lettres modernes, n. 7, Classiques Garnier, 2019.
- Fabrice Rouillier is a member of the editorial board of *Interstices*
- Fabrice Rouillier is *chargé de mission médiation* at Inria Paris
- Fabrice Rouillier is a member of the *comité de pilotage de l'année des mathématiques*
- Fabrice Rouillier is a member of the *comité de pilotage de la semaine des mathématiques*
- Fabrice Rouillier is the president of the association *Animath*<sup>0</sup>
- Fabrice Rouillier is member of the scientific board of the SMF <sup>0</sup>conference *Mathématiques étonnantes*<sup>0</sup>

#### 10.3.1. Internal or external Inria responsibilities

- Alban Quadrat is a member of the technical committee *Linear Systems* of the *International Federation of Automatic Control* (IFAC)
- Elias Tsigaridas is a member of the Evaluation committee (Commission d'Évaluation) of Inria.

#### 10.3.2. Interventions

- Fabrice Rouillier participated to the *semaine des mathématiques* for the Paris Inria Paris research center
- Fabrice Rouillier participated to the welcoming of schoolchildren for their *semaine d'observation* at Inria Paris research center.

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<sup>0</sup><http://www.animath.fr>

<sup>0</sup>Société Mathématique de France

<sup>0</sup><https://smf.emath.fr/actualites-smf/mathematiques-etonnantes-programme>



## **PARKAS Project-Team**

### **9.3. Popularization**

#### ***9.3.1. Internal or external Inria responsibilities***

- T. Bourke participated in the *commission d'emplois scientifiques* (postdocs, delegations, and PhDs) for the Inria Paris research centre.
- T. Bourke participated in the PhD progress committees (*suivi doctorale*) for B. Medeiros de Barros and N. Kulatova.
- T. Bourke and M. Pouzet participated in meetings with the *Ministère de la Transition écologique et solidaire* on the validation of autonomous driving systems.

**PL.R2 Project-Team (section vide)**

**POLSYS Project-Team (section vide)**

## **PROSECCO Project-Team**

### **10.3. Popularization**

#### ***10.3.1. Articles and contents***

- Catalin Hritcu contributed an article on Secure Compilation to the SIGPLAN PL Perspectives blog
- Karthikeyan Bhargavan published a paper in Communications of the ACM

## SECRET Project-Team

### 9.3. Popularization

#### 9.3.1. Internal or external Inria responsibilities

- **Association Animath:** M. Lequesne serves on the board of Animath.
- M. Lequesne is also member of the scientific committee of the French Tournament of Young Mathematicians: redaction of the problems for the competition, jury member (chair of a jury) ; member of the scientific committee of the International Tournament of Young Mathematicians: redaction of the problems for the competition, jury member (chair of a jury) ; Member of the scientific committee of the Correspondances des Jeunes Mathématicien.ne.s: redaction of the problems for the competition.

#### 9.3.2. Articles and contents

- *La fragilité inattendue du chiffrement symétrique dans le monde post-quantique*, Gaëtan Leurent and Maria Naya-Plasencia, María, Interstices [63]

#### 9.3.3. Education

- **Alkindi cipher challenge:** Several members of the project-team are involved in the cipher challenge for high-school students "concours Alkindi" <http://www.concours-alkindi.fr/>. Mathieu Lequesne serves as a co-organizer of the challenge, preparing the three rounds and the final. Together with C. Boura, he was also involved in the redaction of the exercises.
- Organization of the event "Rendez-vous des Jeunes Mathématiciennes et Informaticiennes" at Inria Paris (October 28-29) by M. Lequesne, a 2-day camp for 20 high-school girls interested in mathematics and computer science. C. Boura, A. Canteaut and L. Perrin gave talks at this event.
- **Project Algo'scape with a high school (Lycée Anna Judic, Semur en Auxois):** design of an escape game on cryptography (L. Perrin), visit of 15 students at Inria, May 2019 (A. Canteaut and L. Perrin).

## **CAGE Project-Team**

### **9.3. Popularization**

#### **9.3.1. Internal or external Inria responsibilities**

Emmanuel Trélat is member of the Comité d'Honneur du Comité International des Jeux Mathématiques

#### **9.3.2. Articles and contents**

- The work [7] by Pierre Martinon has been popularized in the article “Athlétisme, affaire Dreyfus, itinéraire des éboueurs... Comment les maths irriguent notre monde” by Soline Roy, appeared in *Le Figaro*, 1/1/2019.
- Emmanuel Trélat has been interviewed, as director of the Fondation Sciences Mathématiques de Paris, in *Le Figaro*, 2/1/2019.

#### **9.3.3. Interventions**

- Emmanuel Trélat gave a cycle of lectures at “Sciences et Société”, Nancy
- Emmanuel Trélat gave a lecture at Bibliothèque Nationale de France (BNF) (<https://vimeo.com/313123529>)
- Emmanuel Trélat gave a general public lecture at “Mois de l’optimisation”, Limoges
- Emmanuel Trélat gave a general public lecture in Padua, Italy

## **MATHERIALS Project-Team**

### **9.4. Popularization**

#### ***9.4.1. Internal or external Inria responsibilities***

- A. Levitt is a member of the editorial board of Interstices, Inria's popularization website,
- C. Le Bris has presented the project-team at "Mon équipe en 180 secondes", on November 7, 2019.

#### ***9.4.2. Articles and contents***

- V. Ehrlacher has been interviewed for the online magazine "DigiSchool"
- G. Robin has been interviewed for the online magazine "Usbek et Rica" following her "L'Oréal-UNESCO For Women in Science" prize

#### ***9.4.3. Internal actions***

- C. Le Bris has organized a research day for the students at École des Ponts on November 6, 2019.
- V. Ehrlacher has participated to a meeting "Mathématiques, nom féminin?" organized at Ecole des Ponts with pupils from middle school.

**MATHRISK Project-Team (section vide)**



## **MOKAPLAN Project-Team**

### **7.3. Popularization**

- I. Waldspurger, *Quand les films prennent des couleurs*, exposé au cycle SMAI & Musée des arts des métiers

## **QUANTIC Project-Team**

### **8.3. Popularization**

#### **8.3.1. Articles and contents**

- Zaki Leghtas article in Usbek and Rica (<https://usbeketrica.com/article/aucun-etat-veut-rater-coche-ordinateur-quantique>)

#### **8.3.2. Interventions**

- Zaki Leghtas: Pint of Science on quantum computing

## **SIERRA Project-Team**

### **10.3. Popularization**

- Participation to "Fête de la Science" (with the Apprenti Illustrateur).

## ANGE Project-Team

### 10.3. Popularization

#### 10.3.1. Internal or external Inria responsibilities

- J. Salomon is a member of the "Commission Mentorat" in view of introducing a mentoring procedure in Inria-Paris,
- Y. Penel and C. Guichard belong to the "Groupe de travail Developpement Durable d'Inria Paris",
- J. Sainte-Marie took part of the committe MakeSenSe, that produced the report [14].

#### 10.3.2. Education

- Congrès MATH.en.JEANS (CentraleSupélec, Modélisation de certains écoulements),
- E. Godlewski and J. Salomon dealt with secondary-school pupils in the framework of observation training course at LJLL and Inria, respectively,
- N. Aguillon was in the organizing committe of "Mathematic Park",
- N. Aguillon was in the organizing committe of "Cycle SMAI-Musée des arts et métiers",
- J. Salomon co-organized the stand "Logiciel Libre" at the "Salon Culture et Jeux mathématiques, 2019".

#### 10.3.3. Interventions

- J. Sainte-Marie organized a round-table discussion about "Mathématiques et environnement" at the "Forum Emploi-Math 2019" (14/11).
- J. Sainte-Marie organized a debate "la sobriété numérique" at "cité des Sciences et de l'industrie" (15/11).

## **ARAMIS Project-Team**

### **10.3. Popularization**

#### ***10.3.1. Articles and contents***

- Olivier Colliot gave an interview for the popular science magazine "La Recherche".
- Stéphane Epelbaum participated to multiple events dedicated to general audience outreach including: articles in journals (L'Express, AFP, Pourquoi docteur) Radio shows and podcasts (France inter) and TV shows (BFMTV).
- S. Durrleman participated to several events dedicated to general audience outreach including 2 articles in Le Figaro Santé, 2 keynote lectures at AI for Health conference, and Sommet des start-up Challenges, and an article in Médecine, Cerveau et Cognition.

#### ***10.3.2. Interventions***

- N. Burgos gave a presentation for the Rendez-vous des Jeunes Mathématiciennes (Inria Paris).

## **COMMEDIA Project-Team**

### **10.3. Popularization**

#### ***10.3.1. Interventions***

- Céline Grandmont
  - Meeting with junior high school students, Collège Iqbal Masih, Saint-Denis. Interview: <https://www.youtube.com/watch?v=eJVz8tU&t=12s>

## **MAMBA Project-Team**

### **9.3. Popularization**

Diane Peurichard presented a talk in the framework of the "Remise des prix des Olympiades de mathématiques de Paris" (prize for national mathematics competition for young french students), Wednesday 29th, June 2019.

Diane Peurichard presented her work at the Inria scientific days in Lyon from June 5th- 7th, 2019.

At the occasion of scientific seminars, Pierre-Alexandre Bliman gave interviews to TV channels in Paraguay: Paraguai TV (March 28, 2019); and in Brazil: Globo Amapá (April 16, 2019), Balanço Geral AP (April 17th, 2019).

Marie Doumic gave a presentation of her research for middle-school pupils in internship (December 2019) and for highschool mathematics teachers (March 2019, in Lille), and did "speed-dating interviews" with high school students (February 12th, NGO "Sephora Berrebi").

Benoit Perthame gave public talks at Tamkang university (Taipei) and Nancy.

## REO Team

### 9.3. Popularization

#### 9.3.1. Interventions

- N Golse (MD)
  - conference at Ecole des Mines, 14th October 2019, “Healthcare simulation”
- Irene Vignon-Clementel
  - High school forum on scientific career, 7th December, Lycee Corneille, La Celle St Cloud
  - Junior high school intervention ‘women in engineering’, 22nd February, Ville d’Avray
  - High school forum on scientific career, 19th January, Lycee Corneille, La Celle St Cloud
  - High school intervention, 15th January, Blanche de Castille, Le Chesnay

#### 9.3.2. Internal action

Interviews of Irene Vignon-Clementel by journalist for Inria, 13th March and 25th Nov (see Inria website articles)



## **SERENA Project-Team**

### **10.3. Popularization**

#### ***10.3.1. Internal or external Inria responsibilities***

- + Géraldine Pichot is a member of the editorial committee of Interstices since November 2019.

## **ALPINES Project-Team**

### **10.3. Popularization**

#### ***10.3.1. Internal or external Inria responsibilities***

- Laura Grigori was vice-president of the Evaluation Commission of Inria, March 2018 - August 2019.

## DELYS Project-Team

### 8.3. Popularization

#### 8.3.1. Articles and contents

- Swan Dubois and Franck Petit coauthored the book entitled “*Introduction to Distributed Self-Stabilizing Algorithms*” [35], that aims at being a comprehensive and pedagogical introduction to the concept of *self-stabilization*.
- Marc Shapiro co-authored two entries for the Encyclopedia of Big Data Technologies (published by Springer, 2019):
  - “Database Consistency Models” [38].
  - “Conflict-Free Replicated Data Types CRDTs” [37].
- Marc Shapiro contributed the post “Living at the edge, safely” to the LightKone blog [6].

**DYOGENE Project-Team (section vide)**

## **EVA Project-Team**

### **10.3. Popularization**

#### ***10.3.1. Dans les Medias***

- **Thomas Watteyne**
  - Falco : Des capteurs pour connecter ports et plaisanciers. BoatIndustry, 15 November 2019
  - Agde : le port connecté, une réalité. Midi Libre, 31 October 2019.
  - Gestion portuaire : les ports de Lorient et Cap d'Agde entrent dans l'ère du port connecté, Actu Maritime, 1 August 2019.
  - Port connecté : un nouveau cap franchi grâce à Falco (an interview of our startup's CEO Elsa Nicol), inria.fr, 18 February 2019.

#### ***10.3.2. Creation of media or tools for science outreach***

A video concerning the research on protocols for VANETs by Mohamed Hadded has been made by Inria.

**GANG Project-Team (section vide)**

**GANG Project-Team (section vide)**

**MIMOVE Project-Team (section vide)**



## **WHISPER Project-Team**

### **10.3. Popularization**

#### ***10.3.1. Internal or external Inria responsibilities***

- Julia Lawall: Chair of the Commission des Emplois Scientifiques, with Mazyar Mirrahimi.

#### ***10.3.2. Education***

- Julia Lawall: Coccinelle: Practical program transformation for the Linux kernel. Ecole de Jeunes Chercheurs en Programmation.

#### ***10.3.3. Interventions***

- Julia Lawall: Systèmes d'exploitation. Girls Can Code.

## ALMANACH Project-Team

### 10.3. Popularization

#### 10.3.1. Articles and contents

- BS was interviewed by David Larousserie, from the French daily newspaper Le Monde, about the release of CamemBERT, in October and December 2019. This resulted in an article in the newspaper, accessible [here](#) (subscription required).
- LR was interviewed the radio France Culture about the release of CamemBERT, in October 2019. The interview was aired on the radio.
- AC has taken in charge the content management of the Time Us project's research blog since April 2019, which aims at presenting sources, good practices and results used and elaborated by all the project members.

#### 10.3.2. Interventions

- Welcoming of schoolchildren at Inria Paris (half a day with ALMANACH members within an one-week-long stay; December 2019)
- Clémentine Fourrier co-organised the Young Women Mathematician Days (Inria Paris edition): 2 days of talks, mathematical animations and speed meetings with women scientists or engineers at the Inria Paris center, for high school girls
- Clémentine Fourrier was a speaker at the ESPCI highschool students summer school, to introduce the different jobs of computer science engineer to high school girls, in research and the industry, and animated an introductory software development workshop in Python over an afternoon
- Alix Chagué was the speaker for 6th workshop organised by the Alumni Association of the École nationale des chartes's Masters (ADEMEC), to introduce the software Transkribus and guidelines for text extraction (March 2019).

#### 10.3.3. Internal action

- BS presented the January 2019 edition of the "demi-heure de science" at Inria Paris, whose target audience is researchers from all Inria Paris teams
- BS presented the June 2019 edition of Inria Paris' "my team in 180 seconds" event, whose target audience is both researchers and non-scientific Inria personnel
- CF presented softwares and good practices (Docker, GitLab and version control, Diverting Gitlab to create a small website) at the Inria developer meetup, whose target audience is both researchers and engineers.

## **COML Team**

### **9.3. Popularization**

E. Dupoux presented the startup project BabyCloud at the CNRS innovatives SHS Salon, May 14-16, Lille.

## RITS Project-Team

### 9.3. Popularization

#### 9.3.1. Internal or external Inria responsibilities

- Fawzi Nashashibi was audited by a joint committee from the Parliament-Senat and cited in a OPECST report titled “*End of thermal vehicles in 2040: what realistic scenarios*”. Authors: Mrs. Huguette Tiegna (Parliament Deputy, Vice President) and Mr. Stéphane Piednoir (Senator). ISSN: 1249-3872.
- Participation of several team members to PAC V2X “Forum des acteurs” through oral scientific presentations - Paris, September 11, 2019.
- Participation of several team members in oral presentations and demonstrations with real mobile platforms during the *Journées du Patrimoine (Heritage Days)*, Rocquencourt, September 21, 2019.

#### 9.3.2. Articles and contents

Fawzi Nashashibi was interviewed by Eric Gibory in *Le Monde*<sup>0</sup>: “Flottes d’entreprise : “De nouveaux services pour la voiture connectée vont apparaître avec la 5G””, October 24th 2019.

Fawzi Nashashibi was interviewed by Muriel Jaoën in *Les Echos*<sup>0</sup>: “Le véhicule autonome en site ouvert ? Pas avant 2050”, February 8th 2019.

#### 9.3.3. Interventions

Raoul de Charette: *What is the limitation of artificial intelligence ?*, Arbre des Connaissances, Paris, France, February 12th 2019.

Raoul de Charette: *Dangers de l’intelligence artificielle ?*, Crégy-lès-Meaux, France, March 2019.

Raoul de Charette: *Qu’est-ce que l’intelligence artificielle ?*, Oissery, France, May 28th 2019.

Raoul de Charette: *Intelligence artificielle*, Arbre des Connaissances, Paris, France, June 17th 2019.

Fawzi Nashashibi: panelist, round table on the “Vehicle of the Future”, Maison de la Recherche, Paris, April 2019.

Fawzi Nashashibi: panelist, round table on the “Autonomous Vehicle”, Centrales-Supélec, Paris, September 16, 2019.

<sup>0</sup>([https://www.lemonde.fr/economie/article/2019/10/24/flottes-d-entreprise-de-nouveaux-services-pour-la-voiture-connectee-vont-apparaître-avec-la-5g\\_6016755\\_3234.html](https://www.lemonde.fr/economie/article/2019/10/24/flottes-d-entreprise-de-nouveaux-services-pour-la-voiture-connectee-vont-apparaître-avec-la-5g_6016755_3234.html))

<sup>0</sup>(<https://www.lesechos.fr/tech-medias/intelligence-artificielle/fawzi-nashashibi-le-vehicule-autonome-en-site-ouvert-pas-avant-2050-963047>)

## VALDA Project-Team

### 10.3. Popularization

#### 10.3.1. Internal or external Inria responsibilities

Serge Abiteboul is the president of the strategic committee of the Blaise Pascal foundation for scientific mediation.

Pierre SENELLART is a research fellow within the CERRE (Centre on Regulation in Europe), a European think tank that produces policy papers and organize events about the regulation of network industries. He contributes in particular to reflections on the use of artificial intelligence techniques and on the interoperability of software platforms.

#### 10.3.2. Articles and contents

Serge Abiteboul writes regular columns on popularization of computer science in La Recherche and Le Monde (Économie). He is a founding editor of the *binaire* blog for popularizing computer science. See <https://www.lemonde.fr/blog/binaire/>.

## **WILLOW Team**

### **10.3. Popularization**

#### ***10.3.1. Internal or external Inria responsibilities***

J.P. Laumond is the scientific curator of the permanent exhibition at Cité des Sciences et de l'Industrie. The aim of this exhibition is to help the general audience to understand the concepts of robotics. Indeed, the notion of robotics today is packed with many preconceived notions, phobias, and utopias, all fed by literature and a rich film culture. The real challenge of the exhibition is the presentation of authentic working robots that raises awareness of our relationship to these singular machines. How do they work? What are they for? What are their performances today and what will they be tomorrow? The exhibition lays bare the actual capabilities of robots and provides insight into the current issues.