Activity Report 2017

Section Popularization

ABS Project-Team

7.3. Popularization

This section describes the activities of Dorian Mazauric (member of the popularization committee of Inria Sophia Antipolis - Méditerranée).

– **Founding**.

- Coordinator of the project GALEJADE (*Graphes et ALgorithmes : Ensembles de Jeux À Destination des Écoliers*) founded by Fondation Blaise Pascal (2017 - 2018). We aim at developing an educational kit for primary schools in order to play with the notions of graphs and algorithms. We also propose conferences for the general public.

– **Resources**.

- 13 posters - *Transmission de pensée - La magie du binaire*: [22].
- 2 posters - *Tour de cartes - La magie des graphes et du binaire*: [21].

– **Activities**.

- Training with Laurent Giauffret of 30 teachers (cycle 1) of Académie de Nice (*Jeux avec les graphes et les algorithmes*).
- Stage MathC2+: half day activities for 40 high school students (Boruvka algorithm for the minimum spanning tree problem played on "real" graphs constructed with plastic hoops and slats).
- Fête de la Science 2017
    - Village des sciences et de l'innovation au Palais des Congrès d'Antibes Juan-les-Pins.
    - Conferences (classe préparatoire, 2 classes de seconde, une classe de sixième, 2 classes de CM1).
- 4 conferences in high schools (Aix-en-Provence, Antibes, Grasse, Miramas), dispositif Science Culture PACA.
- One conference in a secondary school (French *college*) (Cagnes-sur-Mer).

ACUMES Project-Team

8.3. Popularization

- J.-M. Loubes and P. Goatin, *"La prédiction dans les transports"*, Les Big Data à découvert, CNRS Editions (2017), pp. 124-125.

- Press article: *Les mathématiciennes ont de plus en plus confiance*, La Tribune, May 2017. Portrait of P. Goatin by L.J. Baudu.

- P. Goatin gave the talk *"Le trafic routier en équations"* at Luxembourg University and at Lycée Aline Mayrisch du Luxembourg on October 5, 2017, as part of the conference cycle *"La Recherche au féminin"* organized by the French Institute of Luxembourg.

- Web Press articles : *On a Collision Course with Game Theory* about the Royal Society Proceedings paper [13] in https://phys.org/news/2017-09-collision-game-theory.html and in http://www.sciencenewsline.com/news/2017092714240040.html

AGORA Team

10.3. Popularization

- Walid Bechkit participated in the "Rencontres Inria Industrie 2017" - https://www.youtube.com/watch?v=qKzubSkpvSk

- Walid Bechkit, Ahmed Boubrima and Hervé Rivano participated in the documentary "Métropole intelligente" projected as part of the 1st edition of "Thematix - Les rencontres de la Métropole Intelligente".

- Walid Bechkit, Ahmed Boubrima and Hervé Rivano participated in the "Forum des interconnectés" - http://www.interconnectes.com/

- Hervé Rivano was interviewed by the press about future of IoT 04/17 and the Sense City EquipEx 08/17

- Hervé Rivano was animating the Twitter account of « En direct du Labo » for a week, 06/17

- Hervé Rivano gave a talk on IoT for sensing the environment at the Entretiens Jacques Cartier, Montreal, 10/17.

- Hervé Rivano gave a talk on Smart Cities to a workshop of sustainable urban spaces, Ministère Enseignement Supérieure, Recherche et Innovation, 10/2017

AIRSEA Project-Team

10.3. Popularization

M. Nodet and J. Erhel won the first prize of the second Imaginary Mathematics for Planet Earth competition with their web module entitled "Simulating the melting of ice caps" [26].

E. Blayo gave several outreach talks, in particular for middle school and high school students, and for more general audiences.

Ch. Kazantsev and E. Blayo are strongly involved in the creation of "La Grange des maths", a science center that will be located in Varces (south of Grenoble), which will offer a huge variety of mathematical hands-on exhibits. See http://www.la-grange-des-maths.fr/.

Ch. Kazantsev leads two IREM groups. One of them works in frames of the center "La Grange des maths" and prepares "The Mathematical box", a set of 23 games and mathematical activities designed to allow children to study mathematics in an original and autonomous way. Since October, these box are available to rent by secondary schools. Another group organizes "The Sunday Math Club" that teaches mathematics in a researchers way by proposing interesting mathematical problems to children from 10 to 17 years old.

M. Nodet and E. Arnaud co-organises a year-round weekly math club in two secondary schools, part of the national network "Math en Jeans", where pupils research open mathematical problems.

M. Nodet takes part in training modelling in mathematics to secondary school maths teachers through the regional "Maison pour la Science"

M. Nodet is in charge of an IREM group about building interdisciplinary projects for secondary school classes. Part of their work has been accepted for publication in the IREM national journal [28].

M. Nodet is a member of "Les Emulateurs", a group of Grenoble University professors meeting once a month around the subjects of innovative pedagogy and its applications to universities.

M. Nodet co-autored, with other Univ. Grenoble Alpes teachers, a paper at the Pedagogy conference QPES [27] and offered a 3h practical work session during this conference about "Peer assessment in education".

ALICE Project-Team

10.3. Popularization

Haichuan Song, Sylvain Lefebvre and Salim Perchy presented IceSL at a booth at the Maker Faire Rome 2017 (http://www.makerfairerome.eu/en/). This is a major event with 100K+ visitors every year. We presented the software to students, general public and 3D printing enthusiasts. We received a Maker of Merit award for our project.

Sylvain Lefebvre participated to the radio program "La méthode scientifique" on France Culture, aired on November 8 2017 (https://www.franceculture.fr/emissions/la-methode-scientifique/la-methode-scientifique-mercredi-8-novembre-2017).

B. Lévy gave an invited talk at "Forum Art Inovation" organized by IRCAM, Paris, Pompidou center (16-03-2017): http://medias.ircam.fr/stream/ext/video/files/2017/04/04/Vertigo_16mars2017_%20BrunoLevy_GB.mov.webm.

ALMANACH Team

10.3. Popularization

- BS, jointly with Emmanuel Dupoux (EHESS & ENS), gave a talk on "NLP and AI" as part of the seminar on AI organised by the Institut de l'École Normale Supérieure (21 June 2017)
- EVdLC and BS presented ALMAnaCH's research (as well as its spin-off opensquare) at the "Rencontres Inria-industries" (forum bringing together Inria and companies) (18 November 2017)
- DSBE and BS: participation to a meeting on Digital Humanities bringing together researchers from the PSL ComUE, the University of Cambridge (UK) and the EPFL (Switzerland) (11 May 2017)
- BS: with Jean Ponce, Isabelle Ryl and Hélène Robak, represented the Inria Paris research center at the forum organised for the 30th anniversary of the DRM (the French Military Intelligence Office) (23 March 2017)
- BS and DSBE: talks during the NLP edition of the "Paris Sciences et Data" conference series.
- EVdLC: talk at the opening of the Math Olympiades 2017 about "Une palette mathématique pour appréhender le langage" (Versailles, January 25 2017)
- EVdLC: talk at the GFII DIXIT Seminar on "IA et Traitement Automatique des Langues (TAL) : Quel panorama ?" (Paris, February 24th 2017); member of the organizing committee of the forum 2017 of the GFII and panelist of the session on"de l'IA washing à la réalité industrielle, quels sont les contours du renouveau actuel de l'IA ?" (December 5th, 2017)
- EVdLC: co-animator of a new GFII Working Group "Technologies de la Connaissance", with a focus on AI
- Loïc Grobol: participation to the 18th meeting on "Culture & Jeux Mathématiques" organized by AMIES
- MP, LR : Webinar on "Humanities and Open Science: Workflows and tools for publishing, licensing, versioning, identifiers, archiving, software..." for the International Open Access Week, 26 October 2017.
- DS gave a talk on "From Noisy Questions to Minecraft Texts: Annotation Challenges in Extreme Syntax Scenarios" at the NLP Paris Meetup, Paris, November 22th, 2017.

ALPINES Project-Team (section vide)

AMIBIO Team

7.3. Popularization

May 2017   Participation to the CURIOSITas art & science festival organized by univ. Paris-Saclay on the CNRS campus (Gif-sur-Yvette, France);

March 2017   Outreach presentation by AMIBio on RNA folding and combinatorial design for a class of high school students (Montmorency, France);

ANGE Project-Team (section vide)

ANTIQUE Project-Team (section vide)

AOSTE2 Team

10.3. Popularization

Popularization video of the probabilistic notions for mixed-criticality systems https://www.youtube.com/watch?v=sSJT4eGhS_A

APICS Project-Team

8.3. Popularization

- M. Olivi is responsible for Scientific Mediation and president of the Committee MASTIC (Commission d'Animation et de Médiation Scientifique) https://project.inria.fr/mastic/. Her main contributions related with this mission were:

    - management of the contract "région PACA: Science Culture Lycée" and organization of about thirty conferences in the high schools of the region (100 students per conference),

    - co-organization of 10 robotics sessions for 2 classes of middle school students (device "MEDITES" http://medites.fr, founded by ANRU, the "Agence Nationale de Rénovation Urbaine"),

    - co-organization of the "stage MathC2+", a four-day internship for 50 high school students ("secondes", about 16 years old) organized by the Commitee MASTIC and its partners (June 14-17),

    - co-organization of Inria participation to the event "Le Village des Sciences et de l'Innovation" in Antibes (October 7 & 8, 10000 people),

    - co-organization of about 10 "cafés scientifiques" (c@fé-in's and cafés Techno, 30 to 80 participants each),

    - supervision of a (2 months) internship, done by Sabrina Ballauris, for the realization of objects to manipulate, in view of illustrating some mathematical results and scientific principles (Pythagora's puzzles, Galton's board, Galileo's experiment, the fastest toboggan, ...)

    She was a member of the scientific committee of the "Forum Mathématiques Vivantes", a national event (initiated by CFEM, the French Commission for Mathematics Education, http://forum-maths-vivantes.fr/) organized in Lille, Lyon, Rennes, Toulouse during the Mathematics Week. She participated into the reviewing process for the book "Panorama Mathématiques et Langages" published in this occasion by CFEM.

- M. Olivi animated two half-day workshop sessions "activités débranchées" at "l'ESPE de Nice" for primary school students (March 16 & 24), 200 students each session). She gave three presentations for high school students in Gap and Marseille. With K. Mavreas, she participates to the event "Le Village des Sciences et de l'Innovation" in Antibes (October 7 & 8, 10000 people).

- A. Cooman gave a presentation at the "stage MathC2+", a four-day internship for high-school students organized by the Committee MASTIC and its partners (June 14-17).

ARAMIS Project-Team

10.3. Popularization

With the precious help of the communication department of the ICM, ARAMIS prepared and presented games on brain data analysis at the "Fête de la Science" 2017.

Fabrizio De Vico Fallani was invited speaker at the Neuroplanete conference held in Nice 2017. In that occasion, a live BCI experiment has been presented to the public. This event has been reported by France 3.

Fabrizio De Vico Fallani was invited speaker at the Palais Decouverte in Paris for the theme "Vers le meilleur des mondes" 2017.

Olivier Colliot was invited speaker at the Palais Decouverte in Paris for the theme "Vers le meilleur des mondes" 2017.

Stanley Durrleman and Stéphane Epelbaum were invited speakers at the "Open Brain Bar: Artificial intelligence and Alzheimer's disease" event orginized by the ICM in Paris 2017.

Olivier Colliot was invited speaker for the "Olympiades académiques de mathématiques", Paris, 2017.

S. Durrleman gave a presentation for the 50th anniversary of Inria featuring 50 ERC laureates

S. Durrleman gave two interviews for the magazine Sciences et Avenir (1 video interview, one article)

S. Durrleman and S. Epelbaum took part in the program "Priorité Santé" of the radio Radio France International

S. Durrleman gave a video interview for FrenchWeb.fr

S. Durrleman gave an talk at the event S3 Odéon (www.s3odeon.fr)

ARAMIS was featured in a video of the Agence France Presse (AFP)

ARIC Project-Team

10.3. Popularization

Nathalie Revol is a member of the steering committee of the MMI: Maison des Mathématiques et de l'Informatique, and in particular she was involved in the creation of the *Magimatique 2* exhibition. She presented some magic tricks at Bibliothèque Municipale de la Part-Dieu and at MMI for 3 classes during the Science Fair. She gave talks for a large audience during "Forum Maths Vivantes" and for "La tournée de Pi" (mathematical musical, around 600 attendees) (March 2017). As an incentive for high-school pupils, and especially girls, to choose scientific careers, she gave talks at Lycée Ella Fitzgerald (Saint-Romain-en-Gal) and Mondial des Métiers (in February 2017) and during "Journée Filles et Sciences" in Musée des Confluences and "Journée Filles" by INSA Lyon (above 550 attendees in total, March 2017). She co-organized for two "Coding gouters" organized by MixTeen. She co-organized two days on "Info Sans Ordinateur" gathering researchers interested in unplugged activities. She is a member of the editorial committee of Interstices: https://interstices.info. She taught how to disseminate (computer) science for PhD students in a 20h module of *Insertion Professionnelle*.

Bruno Salvy will give a talk at the Collège de France in December 2017 on methods of analytic combinatorics in random generation.

Damien Stehlé hosted a visit at ENS de Lyon by the regional winners of the Alkindi competition (midde highschool and highschool).

AROMATH Project-Team (section vide)

ASAP Project-Team

8.3. Popularization

- Davide Frey published an article on the Telecom ParisTech Magazine. Issue 185.
- Pierre-Louis Roman gave an Invited talk at the Regional council of notaries of Brittany, Rennes, France, December 15, 2017. Title "Demystifying the blockchain and its utility for notaries" (talk in French).

ASCLEPIOS Project-Team

9.3. Popularization

M. Lorenzi gave a general audience lecture during the "Semaine du Cerveau" at the CHU of Nice (March 2017).

Nina Miolane participated to the following popularization events:

- Speaker at Unesco France's Ceremony for 70th Anniversary.
- Speaker at the Women Forum Global Meeting 2016. How to bring more women in the sci-tech workforce?
- Speaker at the L'Oreal-Unesco Prizes Ceremony 2016.
- Journal regional de France 3 Azur (Oct. 31 2016)
- Invited on "Le Club de la Tete au Carre". France Inter (National Radio), Oct. 14 2016.

ASCOLA Project-Team (section vide)

ASPI Team (section vide)

ATHENA Project-Team

10.3. Popularization

- The P300 speller enjoyed a large publicity: on French TV *Le Magazine de la Santé* of France 5 in January 2017. It was featured in a newspaper article in La dépêche du midi in February 2017.
- M. Clerc gave interviews for Le Temps (Switzerland), Science et Vie Magazine on the topic of Brain-Computer Interfaces.

AVALON Project-Team

9.3. Popularization

Laurent Lefèvre has been:

- Participating to the "Nuit européenne des chercheurs - European night of researchers" : talk in the dark "Let's talk about Green IT in the dark" - Interview by Lyon Capitale and Radio Brume, Villeurbanne, September 29, 2017

- Interviewed for the paper "Réseaux, data centers et terminaux, sur les traces de notre empreinte environnementale numérique", Inriality, Pierre Guyot, February 14,2017

- Interviewed for the paper "Surfing is bad for the planet / Surfer nuit gravement à la planète", 01 Net, Number 859, February 15, 2017

AVIZ Project-Team

8.3. Popularization

- Jean-Daniel Fekete contributed to the DataVis section of the Terra Data exhibition at La Cité des Sciences, April 4th 2017 to January 7th 2018
- Jean-Daniel Fekete contributed to the exhibition on Jacques Bertin at EHESS Paris, November 14th to December 15th 2017
- Jean-Daniel Fekete and Charles Perin organized a workshop on data visualization for the "retrospective Jacques Bertin" at EHESS Paris on November 23-24 2017
- Pierre Dragicevic and Yvonne Jansen: the Curated List of Physical Visualizations is continuously being updated.
- Pierre Dragicevic and Jean-Daniel Fekete: Demo of Zooids at Inria's 50th anniversary. 7 Nov 2017.
- Jean-Daniel Fekete and Pierre Dragicevic interviewed by France Culture (la méthode scientifique) on Zooids. 21 Dec 2017.
- The Zooids video has been watched 12 million times, shared 65,000 times and liked 86,000 times on Facebook.

BEAGLE Project-Team

8.3. Popularization

The subspace clustering algorithms developed by the team in the context of the EvoEvo project have been included in a software package (EvoMove) enabling real-time monitoring and clustering of a dancer movements. In interaction with the "Desoblique" dance company (Lyon, France), we used this system to interact with the dancers by triggering sounds following the moves of he dancers. This system has been used in the context of the dance performance "Meute" in which three dancers were equipped with inertial measurement units connected to EvoMove (see 2). Meute has been played in public 8 times in the Auvergne-Rhône-Alpes region beween January and July 2017

Figure 2. The EvoMove system has been used in the public performance"Meute" (here in "La Rotonde", INSA Lyon in February 2017). Dancers: Claire Lurin, Jean Boulvert, Maxence D'Hauthuille. Sound: Jonas Abernot. Lights: Laurent Turpin. The EvoMove inertial measurement units are tied to the wrists of the dancers.

G. Beslon, together with Dominique Schneider (UGA, France) published an article entitled "Darwin, bit à bit . . . " in the blog "Binaire" on le-monde.fr (http://binaire.blog.lemonde.fr/2017/11/24/darwin-bit-a-bit/). This article describes the interdisciplinary view of evolution that the two authors are developing.

A. Denizot is member of association Demesures (demesures.jimdo.com). She organized and participation to scientific events: Geek Touch 2017, Pop Sciences 2017, Fete de la Science 2017 and interviewed researchers (https://www.youtube.com/watch?v=qoKAwRYI48Q).

E. Tannier gave a series of lectures (8h) on genetically modified organisms for Universite Populaire de Lyon, for a large audience and gave a talk for the "Tour de science" 2017, in Lyon, a popularization event, for a public of interdisciplinary students.

BIGS Project-Team (section vide)

BIOCORE Project-Team

10.3. Popularization

The activities related to microalgae have generated many articles in national newspapers (Le Monde, Nice Matin, ,...), and broadcasts on national TV (France 3).

O. Bernard gave a popularization conference "Will we drive with fuels brought algae in 2030?" in the framework of the "science for all" cycle of conferences organized by the city of Biot. 30th of March, 2017.

P. Bernhard has been involved in popularization of applied mathematics with two highschool conferences: Lycée Alexandre Dumas, Cavaillon and Centre International de Valbonne, Valbonne-Sophia Antipolis, on January 10 and 11 respectively.

M. Chaves gave a "180s" presentation "A mathematical tool for determining the dynamics of biological modules interconnection", at Journées Scientifiques Inria, Sophia Antipolis (June 2017).

M. Chaves gave a presentation on circadian clocks at Café-in, for all Inria personnel, at Inria Sophia Antipolis (October 2017).

BIOVISION Team

10.3. Popularization

- Dora Karvouniari participated in "Maths C2+" at Inria week 19-23 June 2017. Maths C2+ hosts schoolboys and schoolgirls in a research environment. The goal is to allow young people to imagine the scientific future.

- Selma Souihel participated to the "fête de la science" as part of the scientific animation commission "MASTIC". She was in charge of vulgarizing her PhD research subject in order to make it intelligible by a public of young scholars, and their parents. She also took part in a pedagogical robot training "Poppy Ergo", aimed at introducing robotics and sequential programming to students in primary school.

BIPOP Project-Team

10.3. Popularization

Alejandro Blumentals and Florence Bertails-Descoubes have participated in the new showroom "login", by setting up a fiber demo. The demo allows a user to manipulate a real fiber by moving and twisting the ends, creating self-coiling structures called plectonema. In parallel to real manipulations, a simulation reproduces in real-time the deformations of a rod undergoing the same constraints, which reveals similar patterns compared to the real experiment. The simulation relies upon the optimal control framework set up by Alejandro Blumentals in his PhD thesis, which allows to simulate the quasistatic deformation of a thin elastic rod in the presence of self-contact.

BONSAI Project-Team

9.3. Popularization

- *Recruiting girls to computer science* M. Pupin and T. Rocher are members of the collective *Informatique au féminin* from University of Lille, which was launched three years ago and whose goal is to organize computer science initiatives that reach teenage girls and female students. Among other actions, they were fully involved in the event *L codent, L créent* (she codes, she creates). This action aims to teach code to schoolgirls (13-15 years old), before they amass prejudices against computer science. 35 teenage girls were supervised by 9 female graduate computer science students, to create a proximity link between the young women. To emphasize the fact that coding is a creative and innovative pursuit, we chose to teach *Processing*, a programming language built for visual arts. After eight sessions of creative coding, a public exhibition was organized at the University with inspirational testimonies of women working in the field of computer science. This experiment has been presented at the conference PyParis2017 [30] and at the ACM conference womENcourage2017 [31].

- The team participates to dissemination actions for high school students and high school teachers on a regular basis: multiple presentations on bioinformatics and research in bioinformatics with our dedicated "genome puzzles", practical session at "Day for Programming and Algorithmic Teaching", presentations at "Salon de l'étudiant", visit of high school students in the team (M. Giraud, M. Salson, J.-S. Varré)

- *Explaining big data to a general audience*: H. Touzet was part of the editorial committee and author for the book *"Les big data à découvert"*(368 pages).

CAGIRE Project-Team

10.3. Popularization

- «Forum des Métiers» organized by "Collège Pierre Emmanuel", Pau (64), France, 18 May 2017. A stand was manned during one day with the objective of explaining the activity of researcher to an audience of middle school students. [PB]

CAIRN Project-Team (section vide)

CAMIN Team

9.3. Popularization

CAMIN participed into Fête de la Science at LIRMM with 2 demos (cycling, EMG robotics hand control).

David Andreu presented the job of researcher in secondary school Collège Vincent Badie (Montarnaud)

Christine Azevedo organized Initiation sessions to informatics using Thymio robot at Collège Léon Cordas (Montpellier) in 3 classes (one 5e and two 6e). 3 sessions of 1h30 per class were organized followed by a half day visit at LIRMM robotics hall. One day session was also organized with École primaire Valfalis (Montbazin) in CE2 level.

CAMUS Team

10.3. Popularization

A. Charguéraud is one of the three organizers of the *Concours Castor informatique* http://castor-informatique.fr/. The purpose of the Concours Castor in to introduce pupils (from *CM1* to *Terminale*) to computer sciences. More than 500,000 teenagers played with the interactive exercises in November 2017.

Jens Gustedt is blogging about efficient programming, in particular about the C programming language. He also is an active member of the stackoverflow community a technical Q&A site for programming and related subjects.

Cédric Bastoul prepared activities and participated to *Fête de la Science* at University of Strasbourg in October 2017.

CAPSID Project-Team

9.3. Popularization

The team presented its activities during the Inria Nancy – Grand Est centre's Open Day for the "Fête de la Science 2017" (14 Oct 2017).

CARAMBA Project-Team

10.3. Popularization

- Pierrick Gaudry organized and participated in a debate fed by excerpts from movies on the topic of cryptography and privacy in March 2017. He also gave a podcast interview about electronic voting for Interstices [15].

- Pierre-Jean Spaenlehauer did a short presentation of asymetric cryptography to middle school students who were award winners of the Alkindi competition.

- Paul Zimmermann co-animated a "Math-en-Jeans" atelier with lycée Vauban in Luxembourg city (Luxembourg).

CARDAMOM Project-Team (section vide)

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

9.3. Popularization

L. Weynans:

- Responsible for the communication (*Chargé de communication*) of the IMB
- Organization of the day "Filles et Maths, une équation lumineuse"
- Several presentations for high-school students about scientific computing

CARTE Team

10.3. Popularization

- Nazim Fatès contributed to a booklet on the theme "Mathématiques et langages" edited by the Commission française pour l'enseignement des mathématiques (CFEM) for the forum "Mathématiques vivantes" (see http://forum-maths-vivantes.fr/-Panorama).

- This text appeared in a revised version on the CNRS website "images des mathématiques" [27].

- Nazim Fatès participated to a meeting ("projection-debat") at the Réseau et transport de l'électricité (RTE) at Villers-lès-Nancy on the these "Visages de la robotique", organised by "Sciences en lumière" (formerly Festival du film de chercheur).

- Nazim Fatès participated to a workshop on ethics in the "Forum des Sciences cognitives" organised by the "UFR mathématiques et informatique".

- Simon Perdrix gave an invited talk on quantum algorithms at the event "Mathématiques en mouvement sur l'Ordinateur quantique" organised by the Fondation Sciences Mathématiques de Paris at IHP.

CASCADE Project-Team (section vide)

CASTOR Project-Team (section vide)

CEDAR Team

9.3. Popularization

- M. Buron, I. Manolescu, F. Raimundo and T. Merabti animated a booth at the "Fête de la Science 2017" at Inria Saclay, in October 2017.

- I. Manolescu published an article on computational fact-checking titled "La vérité, rien que la vérité" in the Binaire blog of Le Monde (http://binaire.blog.lemonde.fr/2017/04/05/la-verite-rien-que-la-verite/)

- I. Manolescu participated to a panel on Data Journalism at the Web2Day, a 3000-strong IT and digital conference in Nantes, in June 2017 (https://web2day.co/en/speakers/ioana-manolescu/)

- I. Manolescu gave a talk at the Inria Alumni Jam Session " Fausses informations, post vérité : allons aux faits ! ", presenting our current work on data management for data journalism (http://www.inria-alumni.fr/evenement/session-inria-alumni-fausses-informations-post-verite-allons-aux-faits-25-octobre-2017-cnam-paris/)

CELTIQUE Project-Team

6.3. Popularization

Article "JavaScript, un langage à la croissance organique", Alan Schmitt, blog Binaire Le Monde. http://binaire.blog.lemonde.fr/2017/05/12/javascript-un-langage-a-la-croissance-organique/

Article "L'assistant de preuve Coq", Sandrine Blazy, Pierre Castéran, Hugo Herbelin, Techniques et Sciences de l'ingénieur, août 2017. https://www.techniques-ingenieur.fr/base-documentaire/technologies-de-l-information-th9/programmation-42304210/coq-assistant-de-preuve-h3310/

Talk "Bug, Virus, Intrusion, Pirates... So many threats and no defense? Yes... maths.", Thomas Genet, given three times in high schools close to Rennes.

CHROMA Project-Team

10.3. Popularization

- Laetitia Matignon participated to the « Fête de la Science » with a Turtlebot demonstration workshop (October 12th and 13th, Lyon, 2017).

- Olivier Simonin was invited by Université Populaire de Montelimar to give a talk about Autonomous Vehicles, on December 19.

- January 30, 2017,F. Jumel, Digital Summit, Hotel de Region Auvergne Rhone Alpes, Robotic Show

- February 2017, F. Jumel, FSM 2017, BU Sciences : Robotic Show : Dance with Baxter

- March 7,2017, F. Jumel, J. Saraydaryan FSM 2017, BU Sciences, Robotic show, Baxter and Co. (with R. Leber)

- June 9, 2017, F. Jumel, AGERA, "service robots, review of the state"

- October 10, 2017, F. Jumel , Conference IESF Lyon-RA , Where Artificial Intelligence Is Now (with L. Chen)

- November 9, F. Jumel, 2017 Scientific event of Open University of Lyon : "Intelligent robotics, between myth and reality"

- November 14, 2017, F. Jumel, IA event, IPL, "Presentation of Challenges of robocup", (with P. Dominey, R. Lucazeau)

- November 23, 2017, F. Jumel, "Exposition Hello robots", IUT Lyon 1 , "Smart robotic and Robocup"

CIDRE Project-Team

10.3. Popularization

Valérie Viet Triem Tong has participated to the scientific television show *l'Esprit Sorcier* recorded at *Musée des Sciences et de l'Industrie* during the *Fête de la Science*. She has also participated to the scientific promotion movie about *High Security Laboratory* recorded at Nancy.

Damien Crémilleux has participated to the event "Ma thèse en 180s" and the "RCC challenge: my thesis 3.0" for the popularization of his work's thesis on security visualization.

COAST Project-Team

8.3. Popularization

- In June 2017 Claudia-Lavinia Ignat organised the meeting Research@Inria at Inria Nancy-Grand Est for presenting to internship students, PhD students and postdocs various Inria programs and the main research topics at Inria with a focus on activities of research teams at Inria Nancy-Grand Est. She also presented the main activities of a researcher and briefly described her research work.

COATI Project-Team

9.3. Popularization

Jean-Claude Bermond

> Gave a talk "50 years of passion trying to solve delectable problems about graphs and networks" on March 24 during a seminar C@fé ADSTIC organized by the ADSTIC (Doctoral Association of the SophiaTech campus).

Nathann Cohen and David Coudert

> Article "le défi des 1001 graphes" [61] relating how we addressed (and won) the Flinders Hamiltonian Cycle Project Challenge. Published in Interstices on December 12, 2017.

Frédéric Havet

> Co-organised the "Village des Sciences" of Vinon-sur-Verdon, France, October 9-14, 2017. Gave many talks and animated several stands during the whole week;

> Animated a stand "Mathémagie" at the "Village des Sciences" of Aix-en-Provence, October 8, 2017;

> Organised the "Science Tour" at Rians, January 25-28, 2017. Animated several stands during the four days;

> Gave the conferences "Beauty in Mathematics", "Le métier de chercheur", "La science du ballon de football" to five classes of the International School of Manosque, France, during the "Semaine des Mathématiques", March 13-19, 2017;

> Gave an interactive conference and animated stands about "Becs, pattes et plumes des oiseaux" and " Nids des oiseaux" to four classes at Rians elementary school, France, January 9 and March 23, 2017;

> Gave the conference "Élégance en Mathématiques" at Valgaudemar, France, July 6, 2017;

Frédéric Havet, Joanna Moulierac

> Supervised the one-week internship of two 3eme schoolboys.

Nicolas Nisse

> Co-organized (with "Les petits débrouillards", see http://www.lespetitsdebrouillards.org/) series of animations for a group of schoolboys, Inria Sophia Antipolis, July 20, 2017;

> Animated, during "Fête de la Science", several stands during the "Village des Sciences" at Vinon-sur-Verdon, France, October 10-13, 2017;

> Animated, during "Fête de la Science", several stands in Palais des Congrès de Juan-Les-Pins, October 7-8, 2017;

> Realization of series of posters for scientific popularization [62], [63], [64], [65];

> Member of MASTIC (Médiation et Animation scientifiques Inria, see https://project.inria.fr/mastic/).

Frédéric Havet, Joanna Moulierac, Nicolas Nisse

> Involved in the GALEJADE project supported by Fondation Blaise Pascal. The main objective of this project is to develop a series of games for initiating schoolchildren to graphs and algorithms, and to put them in a pedagogical kit and on the web.

COFFEE Project-Team (section vide)

COMETE Project-Team (section vide)

COML Team

10.3. Popularization

E. Dupoux talked in two general public conferences on speech recognition, one organised par France is AI (oct 17, 2017) and the other by Paris Sciences& Data (dec 7, 2017). The public was composed of entrepreneurs in machine learning. He also gave a training course in speech and language technology organised by the Institut de l'Ecole Normale (june 21) aimed at information technology professionals. He gave three interview on the limits of deep learning in general public outlets (Le Monde, La Recherche [0], Usine Nouvelle).

N. Zeghidour did a high level presentation of AI to 30 students and 8 teachers from Sciences-Po and Ecole 42 during the Policy Innovation Lab [0] following the visit of Facebook's COO. He has been a Mentor (technical advisor) for 9 European start-ups during a pitching event for the IBM Watson AI Xprize [0]. He animated a booth on AI at the Platform Meetup Paris of Facebook. He gave an interview to Libération included in a 100 page special issue on AI [0]. He taught a class on Speech Recognition as part of the Facebook AI Masterclass, a class for developers located at Ecole 42 and broadcasted in developer circles over 25 cities of Europe, Middle-Est and Africa with 850 people attending, followed by a live Q&A session with several of these cities over video-conference.

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[0] http://www.larecherche.fr/lintelligence-artificielle-a-lassaut-des-labos
[0] http://www.sciencespo.fr/public/en/policy-lab/public-policy-incubator
[0] https://ai.xprize.org/
[0] http://www.liberation.fr/voyage-au-coeur-de-lIA/2017/12/20/en-kiosque-notre-hors-serie-voyage-au-coeur-de-l-ia_1617896

COMMANDS Project-Team

10.3. Popularization

The collaboration with startup Safety Line was presented at events "Vivatech" (17/06/2017, https://vivatechnology.com/) and "Rencontre Inria Industrie" (17/10/2017) in Paris.

CONVECS Project-Team

9.3. Popularization

H. Garavel participates to the program committee and organization committee of FMF (*Formal Methods Forum*) [0], a series of industrial conferences on formal methods set up by the competitivity clusters Aerospace Valley and Minalogic, with the support of Inria and many other partners. The 7th FMF conference, devoted to formal methods and cybersecurity, was held on January 31, 2017. The 8th FMF conference, devoted to formal methods and autonomous vehicles, was held on October 10, 2017. Both events gathered a large audience.

L. Marsso, R. Mateescu, and Olivier Clozeau (Innovista Sensors) participated to the "*Forum 5i*" held on June 1st, 2017 at Grenoble (World Trade Center), where they held a stand dedicated to the results of the Bluesky project [0].

R. Mateescu gave a lecture entitled "*Validation d'applications embarquées par des jumeaux numériques formels*" at the *Journée thématique Minalogic sur la modélisation des systèmes cyber-physiques* held in Grenoble on November 16, 2017.

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[0] http://projects.laas.fr/IFSE/FMF
[0] http://www.minalogic.com/en/project/bluesky

CORSE Project-Team (section vide)

CQFD Project-Team (section vide)

CTRL-A Project-Team (section vide)

DANTE Project-Team

10.3. Popularization

Isabelle Guérin Lassous is the managing director of the Foundation Blaise Pascal. The objectives of the foundation are to promote mathematics and computer science and to attract young people to scientific fields like computer science and mathematics. The actions of the FBP focus on:

- a support to actors that promote mathematics and computer science via allocated funding based on call of proposals;
- a structuring of actors to increase the impacts of their actions, to coordinate the efforts and to share experiences;
- a development of innovative experiences via summer camps and clubs of mathematics and computer science.

DATAMOVE Project-Team

10.3. Popularization

Responsible of the workshop *Proof without Words* and participation to the *CS-Unplugged* workshop, Inria, Fête de la Science 2017.

DATASHAPE Project-Team

10.3. Popularization

10.3.1. Inria-Industry Meeting

Marc Glisse, Miro Kramar and Steve Oudot held a booth for half a day.

Marc Glisse played for a small video which is now on the InriaInnovation YouTube channel https://youtu.be/lKNjGk-Z6b4.

DATASPHERE Team (section vide)

DEDUCTEAM Project-Team (section vide)

DEFI Project-Team (section vide)

DEFROST Project-Team

10.3. Popularization

Mario Sanz Lopez, Olivier Goury and Christian Duriez participated in "Fête de la science: Opération Chercheurs itinérants", which involves giving scientific lectures in middle and high schools. Olivier Goury and Bruno Carrez participated in the Numéric'elle event, which involved sensibilising female middle school students to pursue a carreer in the digital world. Mario Sanz Lopez installed a new demonstrator on Soft Robotics at Plateau Euratechnologies.

Our team has been highlighted in the medias this year: https://team.inria.fr/defrost/media/

DIANA Project-Team

9.3. Popularization

Chadi Barakat keeps participating to the organization of the Mediterranean Students Days @ Campus SophiaTech. The fifth edition took place on Feb 28 - March 2, 2017, and the sixth edition will take place on February 12 - 14, 2018. All details on this event can be found at http://univ-cotedazur.fr/events/meddays.

Arnaud Legout and Damien Saucez participated in the "fête de la science" event. They presented the ElectroSmart project and the R2lab Testbed.

Walid Dabbous published a popularization article on Network Architecture for Big Data in the book "Les Big Data à découvert" edited by CNRS editions [29].

Damien Saucez is part of the MASTIC [0] group at Inria. MASTIC groups all the activities for scientific dissemination for Inria Sophia Antipolis. Within this activity we visit schools to make conferences on Internet and privacy related matters and Arnaud Legout made a talk during MathC2+. Within the team, we gave a 3h game-based class to Collège interns that made an internship at Inria in November to introduce them to the fundamental algorithms used in the Internet (shortest-path, longest prefix matching, distance-vector, AIMD). We also served on the Inria stand for "fête de la science" to welcome kids and families and present mathematical games, the R2LAB testbed, and Electrosmart. In December 2017 Damien Saucez made a Café-in in Sophia Antipolis which is a 1h informal talk on the presenter's research with all Inria collaborators (administrative, technical, and scientific). In addition to these regional activities, we also took part in the ICN Fun MOOC [0] where Damien Saucez made a 10 minutes explanations of the fundamentals behind Operating Systems. As of today, the video [35] has been watched more than 9k times on YouTube.

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[0]https://project.inria.fr/mastic
[0]https://www.fun-mooc.fr/courses/inria/41014/session01/about

DIONYSOS Project-Team

10.3. Popularization

- B. Tuffin. La simulation de Monte-Carlo. Interstices. 2017. https://interstices.info/jcms/int_69164/la-simulation-de-monte-carlo

- G. Rubino makes regular presentations to high school students about the research work in general, and specific technical topics in particular. Current talks:
  - Randomness as a tool
  - Internet as a research problem
  - Great challenges in maths: the Riemann Hypothesis
  - Great challenges in math/computer science: the "P versus NP" problem

DISCO Project-Team

10.3. Popularization

Catherine Bonnet gave a talk in the *Promenades Mathématiques* series of the event *Femmes en maths : une équation lumineuse* for female high school students, IHP, Paris, 19 december 2017. She met several groups of female high school students at the event *Femmes en maths : une équation lumineuse* IHP, Paris, january 2017. She met several groups of high school students at the event *Forum des métiers* in Lycée Hoche, Versailles, February 2017.

DIVERSE Project-Team

10.3. Popularization

IT industry forums . Pierre Laperdrix presented his work on the mitigation of browser fingerprinting at the Mozilla Festival [0]. The results of STAMP [0] have been presented at EclipseCon [0], the Paris Open Source Summit [0], OW2'con [0] and the cloud computing world expo [0].

Science festivals . Jean-Marc Jézéquel and Benoit Baudry have presented overviews of research issues in Cybersecurity to general public audiences in several events, such as the 2017 Pint of Science [0] and the science en bobine festival [0].

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[0] https://mozillafestival.org/
[0] https://www.stamp-project.eu
[0] https://www.eclipsecon.org/europe2017/
[0] http://www.opensourcesummit.paris/
[0] https://www.ow2con.org
[0] http://www.cloudcomputing-world.com/
[0] https://pintofscience.fr/
[0] https://sciencesenbobines.org/rennes-35/

DOLPHIN Team

10.3. Popularization

- E-G. Talbi: Organization of a R&D day for all students and lecturers of Polytech'Lille engineering school on "Big data and machine learning" (22/03/2018).

DRACULA Project-Team

8.3. Popularization

- Thomas Lepoutre is coorganizer of the scientific exhibition Mathalyon.

- Samuel Bernard: Conference "L'âge de nos cellules par tests nucle´aires", Université Ouverte Lycée Charles Foucault, Lyon, January 23, 2017.

- Olivier Gandrillon participated in the Declics 2017 activities (Lycée Jean Perrin and Lycée Juliette Récamier).

- Laurent Pujo-Menjouet: Conferences "Les langues en danger: les maths sur le bout de la langue", Lycée Jean Puy, Roanne, March, 16, 2017; "Epidémies, quand les maths viennent en aide" , St Bonnet le château, April, 10, 2017; "Mathématiques et relations amoureuses: les jeux de l'amour sans le hasard, St Bonnet le château, April, 10, 2017; "Espèces en danger: quand les maths viennent à la rescousse", Université ouverte, Lyon, January, 5, 2017; Animation of a stand on the "Salon des jeux mathématiques, Paris, May 27 to 30, 2017.

DYLISS Project-Team

10.3. Popularization

10.3.1. General audience paper

We have written a contribution to the collaborative book edited by CNRS on the main issues of data-mining. Our contribution was specifically related to modeling issues arising in ecology with the development of NGS technologies [32].

10.3.2. Science en Cour[t]s

(*http://sciences-en-courts.fr/*) Many of our on-going and former Ph-D students (A. Antoine-Lorquin, C. Bettembourg, J. Coquet, V. Delannée, G. Garet, S. Prigent) have been heavily involved in organization of a local Popularization Festival where Ph.D. students explain their thesis via short movies. The movies are presented to a professional jury composed of artists and scientists, and of high-school students. Previous years films can be viewed on the festival web-site [0] In this context, the following scientific film has been created by the team members in 2017 *Helene et les cartons*[0].

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[0]*https://www.youtube.com/embed/3DRgLLITKUc*
[0]*https://www.youtube.com/embed/yheO8Y0nWu0*

DYOGENE Project-Team (section vide)

ECUADOR Project-Team (section vide)

ERABLE Project-Team (section vide)

EVA Project-Team

10.3. Popularization

Outreach is very important for Inria-EVA, and it brings enormous visibility to the research done in the team. We use it to target a audience different that the one targetted through purely scientific publications.

10.3.1. Web presence

Within the Inria-EVA team, we are regular Twitter contributor through a dozen Twitter accounts, promoting the activities of Inria and Inria-Paris.

Inria-EVA also maintains the following Inria websites:
- https://team.inria.fr/eva/
- http://www.openwsn.org/
- http://smartmarina.org/
- http://www.savethepeaches.com/
- http://www.snowhow.io/
- http://www.solsystem.io/
- http://www.headsup.tech/

10.3.2. Tradeshows
- **Thomas Watteyne**, Ziran Zhang, Felipe Moran. IoT Solutions World Congress 2017, Barcelona, presenting SolSystem.
- **Thomas Watteyne**, Ziran Zhang. VIVATech 2017, Paris, Inria booth, presenting SolSystem.

10.3.3. In The News
- *(French)* SolSystem : une solution "sensor-to-cloud" clés en main, InriaInnovation, 10 November 2017 (**Thomas Watteyne**).
- Interview by L'Esprit Sorcier about SmartMarina, Fete de la Science, 8 October 2017 (**Thomas Watteyne**).
- Presenting the Smart Marina project at the VIVA Tech trade-show, Inria@Silicon Valley Newsletter, 19 September 2017 (**Thomas Watteyne**).
- *(French, TV)* Cap d'Agde : Une puce innovante pour gérer le port de plaisance, TV Sud, aired 20 June 2017 (**Thomas Watteyne**).
- *(French)* 1ère mondiale au Cap d'Agde, des capteurs détectent les entrées les sorties de bateaux, Atout Nautic, 20 June 2017 (**Thomas Watteyne**).
- *(French)* Le port du Cap d'Agde connecté, une première mondiale, France Bleu, 20 June 2017 (**Thomas Watteyne**).
- Interview with Thomas Watteyne "The new use of marinas requires rethinking their operation and imagining a new offer of services", Marine & Oceans, June 2017 (**Thomas Watteyne**).
- *(Spanish)* Experto en IoT de Inria visita Inria Chile, Inria Chile, 9 May 2017 (**Thomas Watteyne**).
- *(Spanish)* Proyecto SmartMarina reinventa los puertos utilizando IoT, Inria Chile, 5 May 2017 (**Thomas Watteyne**).
- The EVA team reinvents the Smart Marina, Inria.fr, 26 April 2017 (**Thomas Watteyne**).
- FBF supports SmartMarina project in Cap d'Agde, France. France Berkeley Fund new, 21 April 2017 (**Thomas Watteyne**).
- *(French)* Le Cap d'Agde – le Port en Passe d'Etre Connecte ! Herault Tribune, 19 April 2017 (**Thomas Watteyne**).
- *(French, video)* Objets connectés : des capteurs intelligents pour mesurer l'environnement, YouTube InriaChannel, March 2017 (**Thomas Watteyne**).
- *(French)* Le numérique peut-il sauver l'agriculture? Inriality, February 2017 (**Thomas Watteyne**).

10.3.4. Miscellaneous Activities

The Inria-EVA team is running a permanent demo in the Inria-Paris demo showroom.

We worked together with the A/V team on the following videos:

- SmartMarina [English] https://www.youtube.com/watch?v=LUcLE8D0RbM
- SmartMarina [French] https://www.youtube.com/watch?v=CwgyCmJvyuw
- interview [French] https://www.youtube.com/watch?v=zsbS310YVe0
- SolSystem [French] https://www.youtube.com/watch?v=juQGnGX5OGs
- SaveThePeaches [English] https://www.youtube.com/watch?v=_qGSH8l0Vkk
- SaveThePeaches [French] https://www.youtube.com/watch?v=cZvGw7DyIzI
- HeadsUp! [English] https://www.youtube.com/watch?v=51mIibi-tDs

The Inria-EVA team very regularly hosts visiting companies interested in using the technologu developed.

EX-SITU Project-Team

9.3. Popularization

- Interviews on France Culture, LCI, TV5 Monde on the standardization of the AZERTY and BEPO keyboards, June-July 2017, Michel Beaudouin-Lafon

- ACM UIST 17 Demonstration, "*CommandBoard: Creating a General-Purpose Command Gesture Input Space for Soft Keyboard*", Jessalyn Alvina, Carla Griggio, Xiaojun Bi, Wendy Mackay

- Interview à France Culture, 22 Février 2017 @ France Culture *Machines au croisement du design et du numérique*: Nolwenn Maudet

- Demonstration at CEA Digital Days: Data Intelligence, CEA List, "*StickyLines*", March 2017, Marianela Ciolfi Felice & Wendy Mackay

- Demonstration at CEA Digital Days: Data Intelligence, CEA List, "*Expressive Keyboard*", March 2017, Jessalyn Alvina & Wendy Mackay

- ACM SCF 2017 Poster Demonstration *Stretchis: Fabricating Highly Stretchable User Interfaces*: Michael Wessely

- Colloque l'Université Paris-Saclay fête les 10 ans de l'ERC, "*ONE - Unified Principles of Interaction*", 9 June 2017: Michel Beaudouin-Lafon (presentation) and Philip Tchernavskij (poster)

- Presentation of the performance *Radical Choreographic Object*, April 2017 in Theatre de Villeneuve tolosane, September 2017 in Centre de développement Choregraphique, October 2017 in Centre Bellegarde, November 2017 in Le 104 and December 2017 in Centre Bellegarde: Sarah Fdili Alaoui

- Presentation of the Performance *SKIN*, April 2017 in Scene 44 Pole Media, La friche de la belle, May 2017 in festival Curiositas, November 2017 in Attention Travaux, Culture en Essonnes: Sarah Fdili Alaoui

- Scaling up for the Internet of Things, Workshop at Inria Silicon Valley, Berkeley, CA, USA: Wendy Mackay & Theophanis Tsandilas

- Intersections in Music, Movement, and Technology, 17–19 August 2017 *Workshop held at UC Berkeley*: John MacCallum (co-facilitator).

- Relational Listening, 8 July 2017 *Workshop presented at the Conference of Dance and Somatic Practices*: John MacCallum (co-facilitator).

- Relational Listening, 1–30 April 2017 *Workshop*: John MacCallum (co-facilitator).

- Relational Listening, 26 February 2017 *Workshop held at CLOUD/Danslab*: John MacCallum (co-facilitator).

FLOWERS Project-Team

10.3. Popularization

10.3.1. Duties

D. Roy is member of the Class'code team (Inria is member of the consortium of this project) https://pixees.fr/classcode/accueil/. Class'code is a blended formation for teachers and animators who aim to initate young people to computer science and robotics. D. Roy has in charge the robotics module of the project.

D. Roy is adviser of the organization of computer science exhibition in "Palais de la découverte" which will begin on 2018 March. He helps for robotics part.

D. Roy is member of the team "Education en Scène" which organize educational activities with robotics in Bordeaux Digital City.

D. Roy is member of the scientific committee of "Didapro Didastic" Conference which will be held in Lausanne (Switzer on 2018 February.

D. Roy is member of the Robocup Junior French committee, an international robotics challenge http://rcj.robocup.org/.

D. Roy is member of the scientific committee of "Ludovia CH" Conference which will be held in Yverdon (Switzerland) on 2018 March.

D. Roy is project leader of Thymio Simulator for Classcode project. Specifications and coordination of work.

D. Roy is project leader of Thymio Scratch and Thymio Snap! development, with D. Sherman. Inria, EPFL and Mobsya collaboration.

PY. Oudeyer continued to be the PI of the Poppy Education project.

10.3.2. Online content

Stephanie Noirpoudre. Atelier Poppy Ergo Jr au CERN. Description and feedback of a workshop on the construction and programming of the robotic arm Poppy Ergo Jr as part of the Coding Pi Science Event. [83]

Stephanie Noirpoudre. Robotic workshop at CERN. Description and feedback of a workshop on the construction and programming of the robotic arm Poppy Ergo Jr as part of the Coding Pi Science Event. [84]

Stephanie Noirpoudre, Kelian Schindowsky. Poppy Education présent à la journée EIDOS 64 : Le forum des pratiques numériques pour l'éducation. Description and feedback of the 9th edition of the EIDOS64 day (the digital practice forum for education). [85]

Sylvain Soulard, Kelian Schindowsky. Description of activity "Modeling of the Port of Rotterdam" using the robot arm Poppy Ergo Jr and created by Sylvain Soulard, middle school teacher in technology. He started the problem: how to optimize and secure the transport of containers in a commercial port? [88]

Kelian Schindowsky. Un projet étudiant : des mains pour Poppy Torso ! Utilisation de la plateforme Poppy pour un projet étudiant. A use of the Poppy platform for a student project: 4 Poppy Torso robots modified by the students of the Bordeaux-Talence campus clashed in the large amphitheater. A competition of a new kind including free figures and imposed figures. [87]

Kelian Schindowsky. Des roues pour le robot Poppy Torso : New Bachelor of Technology students from ENSAM (Talence) worked on the Poppy Torso robot, the goal this time was to equip it with a mobile platform. [86]

10.3.3. Teaching and Education

10.3.3.1. Poppy Education

January 2017, meeting with partner teachers

March 2017, meeting with partner teachers

March 2017, training day with new teachers partners - Building and programming the robot Poppy Ergo Jr

May 2017, meeting with partner teachers

September 2017, meeting with partner teachers

June 2017, training day with workers from Cap'Metier and Cultures éléctroniques (for scientific mediation purpose) to initiate to robotic - Building and programming the robot Poppy Ergo Jr

10.3.3.2. Inirobot

May 2017, Plan national de formation organisé by La main à la pâte (Paris): D. ROY - Train future trainers to initobot curriculum

April 2017, Training days organized by Main à la pâte for National Education (CEA Saclay): T. Desprez, S. Noiropudre, D. Roy, Théo Segonds - Train a group of teachers to inirobot

10.3.4. Talks and Hands-on

10.3.4.1. KidBreath

Ma Thèse en 180 secondes, March 2017, Bordeaux, France, A. Delmas (oral presentation),

La nuit européenne des chercheurs, September 2017, Bordeaux, France, A. Delmas (oral presentation).

10.3.4.2. Poppy Education

January 2017, Eidos64 event - Le forum des pratiques numériques pour l'éducation (Lons): S. Noirpoudre, K. Schindowsky - Talk to present Poppy Education

Janvier 2017, Visit organized by Le Conseil Départemental des Jeunes (Inria Bordeaux Sud-Ouest): S. Noirpoudre - Programming workshops (for middle school students) to initiate in programmation with Poppy Ergo Jr robot

January 2017, Robotics training day organised by Maison pour la Science (Inria Bordeaux Sud-Ouest): S. Noirpoudre, T. Desprez - Programming workshop (for futur trainers) to initiatie in programmation with Poppy Ergo Jr robot

January 2017, R2T2 AmeriCarabean (island of Martinique) : D. Roy - Co-organization with EPFL and ESPE of Martinique - International event (Mexico, Quebec, Guyane, Sainte Lucie) about robotics for education http://www.reseau-espe.fr/actualites/espe-de-martinique-le-defi-r2t2-americaraibe-ete-releve

March 2017, Education exhibition Eduspot (Paris): S. Noirpoudre - Exhibition stand to present the robotic platform Poppy and the use in Education

March 2017, Le printemps de la mixité event (Inria Bordeaux Sud-Ouest): S. Noirpoudre - Robotics workshops (for high school students) to initiate in programmation with Poppy Ergo Jr robot

April 2017, Training days organized by Main à la pâte for National Education (CEA Saclay): T. Desprez, S. Noiropudre, D. Roy, Théo Segonds - Train a group of teachers to robotics and programmation with Poppy Ergo Jr robot

May 2017, Plan national de formation organisé by La main à la pâte (Paris): S. Noirpoudre - Talk to present Poppy Education project and Poppy Ergo Jr

May 2017, Innorobo (Paris): S. Noirpoudre, K. Schindowsky, T. Segonds, D. Roy: Exhibition stand to present the robotics platform Poppy and the use in Education

May 2017, Innorobo Robotics and Education Forum (Paris): S. Noirpoudre - Talk to present Poppy Education and the robot Poppy Ergo Jr

May 2017, Robot makers'day (Talence): K. Schindowsky - Exhibition stand to present Poppy Education and Poppy robots

May 2017, RII Santiago (Santiago de Chile, Chile): T. Segonds - Exhibition stand to present Poppy Education and Poppy robots - Event organized by Inria Chile

May 2017, Bordeaux Geek Festival (Bordeaux): K. Schindowsky - Workshops to initiate in programming

May 2017, PY. Oudeyer gave an invited presentation on "Robotics and cognitive sciences" at Festival Filosofia, St. Emilion, France

June 2017, Internships: observation Sequence for Grade 3 Students (Inria Bordeaux Sud-Ouest - Welcomed two students from middle-school during a week to discover the working environment and to introduce them to robotics

June 2017, Robotics workshop for a primary class (Inria Bordeaux Sud-Ouest): S. Noirpoudre, T. Desprez - Poppy Education and inirobot workshops

June 2017, EIAH : Environnements informatiques pour l'apprentissage humain (Strasbourg): S. Noirpoudre, T. Desprez - Talk to present the article "Poppy Education : un dispositif robotique open source pour l'enseignement de l'informatique et de la robotique"

June 2017, EIAH : Environnements informatiques pour l'apprentissage humain (Strasbourg): T. Desprez, S. Noirpoudre - Exhibition stand to present the robotics platform Poppy and the use in Education

June 2017, Rencontre avenir numérique alsace (strasbourg): S. Noirpoudre - Talk in videoconference to present Poppy Education and the robot Poppy Ergo Jr

June 2017, Playback of "Poppy entre dans la danse" project (Le Cuvier, Artigues-près-Bordeaux): T. Deprez, T. Segonds - Technical assistance of a secondary school performance melting danse and robotics

July 2017, Symposium Education and Robotics (Bordeaux): D. Roy (coordinator) and Flowers Team Members - Organization of the colloquium

July 2017, Symposium Education and Robotics (Bordeaux): S. Noirpoudre - Talk to present Poppy Education project

July 2017, Symposium Education and Robotics (Bordeaux): PY. Oudeyer - Talk to present Flowers educational robotics projects

July 2017, Symposium Education and Robotics (Bordeaux): S. Noirpoudre - Exhibition stand to present the robotics platform Poppy and the use in Education

July 2017, 10th International Scratch conference (Bordeaux): D. Roy - Member of the Scratch organizing commitee, member of the scientific committee - the conference organization begun on december 2017

July 2017, 10th International Scratch conference (Bordeaux): T. Segonds - Talk to present Poppy Education project

July 2017, 10th International Scratch conference (Bordeaux): S. Noirpoudre - Exhibition stand to present the robotics platform Poppy and the use in Education

August 2017, Fab13 Fabricating Society Conference (Santiago de Chile, Chile): T. Segonds - Talk on Poppy Education - Two days workshop on using and modifing Poppy robots

August 2017, Ludovia Conference (Ax-Les-Thermes): D. Roy - PArtnership with Region Nouvelle Aquitaine and Académie of Bordeaux for an exhibition stand with Poppy Education - Exhibitions, demos, talks

October 2017, Coding Pi Science Days (CERN and Hepia engineering school at Geneva): T. Segonds, T. Desprez - Talk to present the robotics platform Poppy and the use in Education - Three days robotics workshops on building and programming a Poppy Ergo Jr robot

October 2017, Fête de la science (Inria Bordeaux Sud-Ouest): D. Roy - special event with a robotics workshop and several demos at Inria Center, with members of staff of Bordeaux Metropole and polotical actors

October 2017, Fête de la science (Inria Bordeaux Sud-Ouest): T. Segonds, T. Desprez - 8 programming workshop in 2 days (with middle school students) using Snap! and the robot Poppy Ergo Jr

November 2017, JNRR (National Days of Robotics Reseach, Biarritz): D. Roy (moderator), P.-Y. Oudeyer (speaker) - Talk on Educational Robotics -

December 2017, Digital Tech Rennes (Rennes): T. Segonds, B. Busch - Talk on Poppy Education - Poppy Ergo Jr programming workshop

December 2017, Aperobot Bordeaux (Bordeaux): T. Segonds - Poppy Ergo Jr programming workshop

December 2017, Internships: observation Sequence for Grade 3 Students (Inria Bordeaux Sud-Ouest) - Welcomed three students from middle-school during a week to discover the working environment and to introduce them to robotics

10.3.4.3. Other

Members of the Flowers team participated to many interviews and documentaries for the press, the radio and television.

10.3.5. Popularizing inside Inria

- March 2017, training day with Inria workers from scientific mediation - Building and programming the robot Poppy Ergo Jr
- October 2017, DevDays (Inria Bordeaux Sud-Ouest): D. Caselli - Presentation of the hotspot tool used in Poppy Ergo Jr robot
- December 2017, Séminaire de la médiation Inria (CNAM, Paris): T. Segonds, S. Noirpoudre, D. Roy - Poppy Ergo Jr programming workshop for people involving in scientific outreach of Inria

10.3.6. Creation of Material for Popularization

As part of the Poppy Education project, thanks the robotic platform Poppy we created pedagogical kits open-source and low cost for teaching computer science and robotics. It is designed to help young people to take ownership with concepts and technologies of the digital world.

The Pedagogical kits includes robots and pedagogical resources. They have been co-created directly with users (mainly high schools teachers) and evaluated in real life by experiments in classrooms [81].
The activities were designed with the visual programming language Snap! (Scratch like) and Python, but some are in Java / Processing (thanks the robot API you can use the language of your choice).

Most activities are using the robot Poppy Ergo Jr, but some use Poppy Torso (mostly in higher school because of its cost) and Poppy Humanoid (in kinder-garden for dance projects) :

- The Poppy Ergo Jr robot is a small and low cost 6-degree-of-freedom robot arm. It consists of simple shapes which can be easily 3D printed. It has several 3D printed tools extending its capabilities (there are currently the lampshade, the gripper and a pen holder but you can design new ones). They are assembled via rivets which can be removed and added very quickly with the OLLO tool. Each motor has LEDs on (8 different color can be activated). The electronic card (raspberry Pi) is visible next to the robot, that allow to manipulate, and plug extra sensors.

- The Poppy Torso robot is an open-source humanoid robot torso which can be installed easily on tabletops. More affordable than the robot Poppy Humanoid, it is an ideal medium to learn science, technology, engineering and mathematics.

We continued to improve the robots functionalities and you can see below the resources we created :

- A website have been created to present the project and to share all resources and activities.

https://www.poppy-education.org/

- To complete the pedagogical booklet [48] that provides guided activities and small challenges to become familiar with Poppy Ergo Jr robot and the Programming language Snap! (https://drive.google.com/file/d/0B2jV8VX-lQHwTUxXZjF3OGxHVGM/view) we provided a list of Education projects. Educational projects have been written for each activity carried out and tested in class. So each projects have its own web page including resources allowing any other teacher to carry out the activity (description, pedagogical sheet, photos / videos, pupil's sheet, teacher's sheet with correction etc.). Their is now 32 activities documented available on Poppy Education website.

  You can see the activities on this links (in french):
  - Introduction to Ergo Jr and Snap! :
    https://www.poppy-education.org/activites/initiation-ergo-jr-et-snap
  - Ergo Jr and Python tutorials :
    https://www.poppy-education.org/activites/tuto-python-robot-ergojr
  - High-school levels :
    www.poppy-education.org/activites/activites-lycee
  - Middle-school level :
    www.poppy-education.org/activites/activites-college
  - Primary Schools level :
    https://www.poppy-education.org/activites/activites-primaire/
  - Demonstrations (just videos to show the possibilities) :
    https://www.poppy-education.org/activites/demos/

- We continued to improve the documentation of the robotic platform Poppy (https://docs.poppy-project.org/en/) and the documentation has been translated into French (https://docs.poppy-project.org/fr/.

- A FAQ have been written with the most frequents questions to help users: https://www.poppy-education.org/aide/

10.3.7. Innovation and transfer

- Since 1 september 2017 until february 2019, PerPoppy and Poppy Station Projects : D. Roy, P.-Y. Oudeyer. These projects aim to perpetuate the Poppy robot ecosystem by creating an external structure from outside Inria, with various partners. After the Poppy Robot Project, the Poppy Education Project is ending and Inria doesn't

  Many exchanges have already taken place with potential partners such as the EPFL, the ENSAM network, the «Ligue de l'Enseignement», Génération Robots, the French Institute of Education, several academies, the direction of digital education of the Ministry of Education, ... PerPoppy is the project which is building the new structure, and Poppy Station is the name of the new structure. Poppy Station, which will include Poppy robot ecosystem (hardware, software, community) from the beginning, will be a place of excellence to build future educational robots and to design pedagogical activities to teach computer science, robotics and Artificial Intelligence.

FLUMINANCE Project-Team

10.3. Popularization

Jocelyne Erhel

- présidente du jury du rallye de mathématiques du CNED, 2017 and 2018.
- First prize of the second Mathematics of Planet Earth international competition. Module "Simulating the melting of ice caps", authors M. Nodet and J. Erhel.

Dominique Heitz

- Interview dans L'Usine Nouvelle, No 3479, pp. 30-31, 2016

FOCUS Project-Team

9.3. Popularization

Michael Lodi and Simone Martini have carried out extended work of scientific popularization, including the following.

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

- S. Martini has given various talks at institutes and workshops on the teaching methods for Computer Science, including a talk on "Educare all'informatica nella scuola?", working day on "La cultura informatica come fattore di sviluppo" Roma, Camera dei Deputati, December 2017.

- S. Martini is coordinator of some initiatives for the 'Hour of Code' (see e.g., http://www.programmailfuturo.it). M. Lodi is also involved.

- M. Lodi is in charge of preparing material "unplugged" to teach the principles of computational thinking in elementary schools.

- M. Lodi has been involved in meetings aimed at forming teachers of elementary and high schools in the Bologna province. These include a 15-hour course "Coding e robotica: tecnologie e metodologie per una didattica integrata nella scuola secondaria di I grado", and a 12-hour course "Scratch avanzato: funzionalità e applicazione alla didattica", both organised by Fondazione Golinelli (Bologna).

- M. Lodi has given talks on computational thinking and programming languages for teaching computer science to children, including: "Coding - Che cosa è e perché?" and "Coding con Scratch", at Mathesis Piacenza; "CoderDojo: Pensiero computazionale e informatica creativa... anche a scuola?", Convention Diesse; introduction to computer science for high school students, as part of an event of introduction to management ("Giardino delle imprese"), Fondazione Golinelli, Bologna; "L'illusione del coding" and "TeacherDojo", at the contest "CoderDojo Coolest Projects Milano", Milan; "Ragazze, siate coraggiose: la vostra intelligenza puo' crescere (ma il "coding" non basta!)", at "Festival della Cultura Tecnica 2017", Bologna; a talk and youtube video "Quattro domande sul pensiero computazionale" (https://www.youtube.com/watch?v=ANlwOckhcVU).

- M. Lodi has has been member of the evaluation commission for the awards "Programma le Regole", set by Italian Ministry of Education and Research (MIUR) and "Programma il Futuro".

D. Hirschkoff takes part in several popularization activities in schools, in Lyon (association "Maths en Jeans").

9.3.1. *Other duties*

S. Martini is Head of the Department of Computer Science and Engineering, University of Bologna, for the term 2015-2018.

G. Zavattaro is coordinator of undergraduate studies at the Department of Computer Science and Engineering, University of Bologna (Informatica per il Management).

FUN Project-Team

10.3. Popularization

- Simon Duquennoy and Nathalie Mitton gave a talk at "30 min de Sciences" in June and December 2017 resp.

- Valeria Loscri, Antonio Costanzo and Nathalie Mitton gave a talk in the context of Nuneriqu'elle - Euratechnologies, November 2017

- Matthieu Berthome, Jad Nassar, Ibrahim Amadou, Antonio Costanzo, Antoine Gallais, Nathalie Mitton, Farouk Mezghani and Julien Vandaele gave some talks in high schools for the "Fête de la Science" in October 2017

- Nathalie Mitton gave an interview for France Info on connected objects

GALEN Project-Team (section vide)

GALLIUM Project-Team

10.3. Popularization

Xavier Leroy wrote a popularization article describing the hunt for a hardware bug in Intel processors, which was published by the Web news site *The Next Web* [32].

GAMBLE Project-Team

10.3. Popularization

L. Dupont participated to several days of popularization of computerscience: Open Bidouille Camp March, 26th 2017, popularization of programming, general audience ; ISN day March, 30th 2017, popularization of computerscience for high-school teachers ; Fête de la Science 14th October 2017 Inria event, general audience, and Google Day in Nancy 21st October 2017, general audience.

GAMMA3 Project-Team (section vide)

GANG Project-Team

9.3. Popularization

- Amos Korman wrote the atricle "Conseils d'une fourmi: Ne me prenez pas trop au sérieux !" published in the French journal *interstices* in 10.7.2017.

- An article about a paper by Amos Korman, Adrian Kosowski and Lucas Boczkowski was published in *CNRS news* in 10.1.2017.

- An article called "Les fourmis, génies de l'orientation" about a paper by Amos Korman, Adrian Kosowski and Lucas Boczkowski was published in *Le Monde* in 30.1.2017.

- Laurent Viennot is "commissaire d'exposition" for the permanent exposition on "Informatique et sciences du numérique" at Palais de la déécouverte in Paris (opening in February 2018).

GECO Project-Team (section vide)

GENSCALE Project-Team

10.3. Popularization

- Participation to operation "A la découverte de la recherche" in high schools [P. Peterlongo]
- Intervention for "Imagine For Margo" [P. Peterlongo]
- Bioinformatics introduction to secondary school pupils [F. Legeai]

GEOSTAT Project-Team

10.3. Popularization

Diffusion of the GENESIS project in the magazine Inria PLUGIN (published beginnig 2018) and in the Inria website (national and INRIS BSO), see https://www.inria.fr/centre/bordeaux/actualites/lancement-du-projet-genesis.

GRACE Project-Team

9.3. Popularization

- A. Couvreur gave the *Conférence inaugurale* of the *Semaine des mathématiques* in the accadémie de Créteil: *Cryptographie, le langage des secrets*.

GRAPHDECO Project-Team

9.3. Popularization

Theo Thonat gave demos of Image Based Renderings during the 2017 "Fete de la science" at the Inria stand (Oct. 7.) for school children and adults audience.

GRAPHIK Project-Team

10.3. Popularization

- M. Chein, "Sur la science informatique et son installation à Montpellier" Association Française pour l'Avancement des Sciences, Montpellier, April 2017.

- M. Chein, "L'informatique : la science au coeur du numérique", Académie des Sciences et Lettres de Montpellier, May 2017.

- J.-F. Baget, Animation of a panel on "Artificial Intelligence", Lycée Jean Monnet, Montpellier, December 2017.

HEPHAISTOS Project-Team

10.3. Popularization

- J-P. Merlet and A. Coulbois participated to Inorobot and several other events, exhibiting a cable-driven parallel robot for education

- J-P. is a member of the Scientific Committee managing the future permanent exhibition on robotics at the Cité des Sciences, Paris

- Y.Papegay is actively participating to the Math.en.Jeans initiative for Mathematics teaching for undergraduate students.

- Y.Papegay organized and animated summer schools in experimental mathematics and computer sciences. Several one week sessions have been held in Oxford in June, July, August and November gathering more than 70 high-school students - most of them were awardees in Mathematics Olympiads.

HIEPACS Project-Team (section vide)

HYBRID Project-Team

10.3. Popularization

The results of the team have been disseminated in various media coverages in 2017:

- "XENIUS" TV channel Arte (02/17) : presentation of Immersia activity in Cultural Heritage applications
- "Sciences et Avenir" magazine (02/17) : article on "BCI, VR and videogames"
- France-Info radio (07/17) : 4-min interview of Anatole Lécuyer on Virtual Reality
- 20-minutes magazine (10/17) : article on Immersia activity
- Virgin Radio (10/17) : interview of Ronan Gaugne on Immersia
- France 3 Bretagne (10/17) : presentation of "Journée Science et Musique" in Immersia
- France 3 Centre (11/17) : presentation of INTROSPECT project

The team has also participated to several dissemination events in 2017 (chronological order):

- "Ma Thèse en 180 secondes" (Rennes, 03/17) : Lorraine Perronnet presented her PhD.
- "Semaine du Cerveau 2017" (Rennes, 03/17) : presentation and demo of BCI by Nataliya Kosmyna.
- Pint of Science (05/17): presentation on virtual incarnation by Ferran Argelaguet.
- "Journées Science et Musique 2017" (Rennes, 10/17) : co-organization of this event, and presentation of several demos.
- "Journées du Pôle Aerospace Valley" (Agen, 12/17) : presentation by Guillaume Moreau.

HYCOMES Project-Team (section vide)

I4S Project-Team

10.3. Popularization

The Hybrid solar road Mock-up (presented at the French Pavillon during COP21) has been invited and presented at:

- Forum National des Travaux Publics, Carroussel du Louvre (Paris), February 2017
- Innovation day des Travaux Publics, Casino du Lyon Vert (Lyon), December 2017
- Fête de la science, Ecole d'architecture de Nantes, October 2017

IBIS Project-Team (section vide)

ILDA Project-Team

10.3. Popularization

- *Fête de la science*, Université Paris-Sud: Caroline Appert.
- *Science en Direct*, Cité de la Science: Maria Jesus Lobo Gunther.
- *Qu'est-ce qu'un chercheur en IHM ?*, to high-school students visiting Telecom ParisTech: Bruno Fruchard.

IMAGINE Project-Team

9.3. Popularization

Starting in May 2017, our recent work on "3D animation by gesturing and drawing" has been featured in a live demo open to the general public in the new Espace Login at Inria in Montbonnot.

On November 8 and 9, that same demo was presented at Studio 104 in Paris during the celebration of Inria's 50th anniversary, to an audience of several hundred people.

Rémi Ronfard gave presentations on

- Directing virtual worlds, Ministère de la Culture, January 2017.
- Eyetracking and the arts, Institut d'Art Contemporain, Lyon, April 2017.
- Sketch-based character animation, CITIA, Annecy, May 2017.
- Computer science and theatre, ENSATT Lyon, December 2017.

Marie-Paule Cani was invited by France Inter's Dorothée Barba on December 25, 2016 to speak about the Imgine team and the future of cinema. A podcast of the the program (Demain la veille: cinema futurismo) can be obtained from https://www.franceinter.fr/emissions/demain-la-veille/demain-la-veille-25-decembre-2016.

INDES Project-Team

7.3. Popularization

Tamara Rezk and Nataliia Bielova were contributors to the Security White Report of Inria to provide an overview of the research in the area of IoT security and Web Tracking technologies carried out by Inria teams.

Nataliia Bielova has presented a joint work with Privatics team at the EU Parliament meeting dedicated to the analysis of the new EU ePrivacy Regulation in June 2017. https://www.inria.fr/en/centre/sophia/news/nataliia-bielova-at-the-european-parliament.

Nataliia Bielova gave a general audience talk on Web Tracking technologies and protection mechanisms for Web users at Carnegie-Mellon University (remotely) and SKEMA Business school in October and at Cafe-techno organised by Inria in November.

INFINE Project-Team

9.3. Popularization

1. Aline C. Viana gave a scientific talk on "Le smartphone, votre 6e sens ?" and "The research career", December 2017, for college students visiting Inria Saclay

2. Cédric Adjih, Emmanuel Baccelli, Alexandre Abadie, Raul Fuentes participated to the "Inria-Industry Meetings" on 17 and 18 October 2017, with two demonstrations:

   – RIOT, the friendly OS for the Internet of Things - it has shown the various functionalities from RIOT on hardware of the type sensor/actuator to demo a control loop via the cloud. RIOT was used to generate IoT data locally (via sensors), sending them to the cloud where this data is analyzed. This analysis will result in a physical action (via actuators). We highlighted two use-cases: building automation, and low-cost robotics

   – End-to-end IoT with FIT IoT-LAB - this presented the use of FIT IoT-LAB for experimenting with IoT; in particular the end-to-end Over-the-air updates of RIOT.

INOCS Team

10.3. Popularization

L. Brotcorne, Club Logistique et Transport, Lille, September 2017.

IPSO Project-Team (section vide)

KAIROS Team (section vide)

KERDATA Project-Team

9.3. Popularization

Gabriel Antoniu:

> ORAP Forum, Paris: ORAP is a French national forum intended for all stakeholders in the HPC area (industry and academia). Invited talk: *Convergence of HPC and Big Data: a storage-oriented perspective* in March 2017.
>
> Available resources: Video and Slides.

> Plenary Meeting of Inria's Department for International and European Relations:
> *Convergence of HPC and Big Data: Where Are We Going?*, Inria, Rocquencourt, October 2017.

Luc Bougé:

> Doctoral Program, Rennes. Invited presentation to the PhD students about *Preparing your applications after your PhD* (November 2017).

> Master Program, Rennes. Invited presentation to the M2 students about *Informatics as a scientific activity: Toward a responsible research* (November 2017).

LACODAM Project-Team

10.3. Popularization

M.-O. Cordier is editorial board member of Interstices webzine.

C. Largouët and L. Galárraga participated in a science diffusion talk at the educational institution "Assomption" on 20/10/2017.

L. Galárraga participated as AI specialist in a discussion forum at the general election assembly of the "Pôle Images et Reseaux" on 23/11/2017.

T. Guyet gave a public talk about Artificial Intelligence and Data Mining in MDA Rennes (FranceIA events) on 01/03/2017.

A. Termier gave a public talk about Artificial Intelligence at the Esaconnect event on 26/10/2017 https://www.chaire-mutations-agricoles.com/evenements/esaconnect-2017/programme/panorama-de-lintelligence-artificielle-en-2017-alexandre-termier/link.

A. Termier was interviewed for the December podcast of the Interstices webzine.

LAGADIC Project-Team

10.3. Popularization

- Due to the visibility of our experimental platforms, the team is often requested to present its research activities to students, researchers or industry. Our panel of demonstrations allows us to highlight recent results concerning the positioning of an ultrasound probe by visual servoing, grasping and dual arm manipulation by Romeo, vision-based shared control using our haptic device for object manipulation, the control of a fleet of quadrotors, vision-based detection and tracking for space navigation in a rendezvous context, the semi-autonomous navigation of a wheelchair, and augmented reality applications. Some of these demonstrations are available as videos on VispTeam YouTube channel (https://www.youtube.com/user/VispTeam/videos). This year there were among others, demonstrations organized for the new year's lab greetings, for the Inria industry journey focused on data and applications in Paris, for the "Semaine de l'Informatique Graphique et de la Réalité virtuelle", and for the Science and music journey.

- Marie Babel participated as a member in a panel discussion during the Digital Tech Conference organized in Rennes in December 2017.

- Julien Pettré wrote a vulgarization paper [68], explaining how crowd simulation is used in the field of visual effects for the movie and the video-game industries. The crowd simulation topic was presented during the "Pint of Science FR 2017" event, which organizes mini conferences animated by researchers in public places such as cafes and bars.

LARSEN Project-Team

10.3. Popularization

One of the main general audience event of the team has been the "Fête de la Science" on the 13th and 14th of October, 2017. The team hosted about 10 groups of 15-20 persons (150 to 200 visitors) over two days, with the following demonstrations:

- "smart appartment", with the "smart tiles" and the Pepper Robot;

- AnDy project: activity recognition with the "inertial" motion capture suit, muscle sensing with EMG sensors;

- iCub robot: performing squats with the iCub robot and a whole-body motion controller; interactive demonstrations of iCub following a red-ball (given to a child) with the gaze and the head;

- ResiBots project: damage recovery with a damaged 6-legged robot.

The team also presented numerous videos of additional results with the robots. Involved members of the team: François Charpillet, Konstantinos Chatzilygeroudis, Brice Clément, Francis Colas, Oriane Dermy, Dorian Goepp, Waldez Gomes, Aurore Husson, Serena Ivaldi, Yassine El Khadiri, and Adrian Bourgaud, Adrien Malaisé, Jean-Baptiste Mouret, Kazu Otani and Olivier Rochel.

In addition:

- Vincent Thomas gave tutorials on "physics simulation" and "stochastic decision making" for teachers during "journées ISN-EPI" (30th of Mars 2017).

- Vincent Thomas participated in the preparation and reviewing of "Computer Science Exporoute" (conducted by Inria Nancy Grand-Est) presented in 2017.

- Vincent Thomas animated discussions and tutorials on "planning in mazes" for students from 6 to 20 years old during "fetes de la sciences" organized by Univ. Lorraine (13th of October 2017).

- Vincent Thomas presented "Bayesian reasonning" during "journées portes ouvertes" organized by Inria Nancy-Grand Est (14th of October 2017).

- Vincent Thomas accompanied computer science DUT students during the "Nancy acceuille Google" event (20th of October 2017).

- Serena Ivaldi was panelist in public conferences/debates in Futur en Seine and 50 ans of Inria, both in Paris.

- Amine Boumaza is a member of the editorial board of "Interstice".

- Karim Bouyarmane was the academic advisor for the Polytech School of Engineering students team of robotics that particpated to the 2017 Coupe de France de Robotique.

- Francis Colas participated in a Sciences en Lumières event "Visages de la robotique" at RTE (14th of December 2017).

LEMON Team

8.3. Popularization

Antoine ROUSSEAU gave several conferences for highschool students and their teachers, on the topics of mathematical modeling for environmental sciences:

Fête de la Science, Oct. 2017, Genopolys Montpellier (2 days)

Maths au lycée, Apr. 2017, Lycée de Castelnaudary (1 day)

Antoine ROUSSEAU is member of the national Inria network for scientific outreach *Médiation scientifique*

Antoine ROUSSEAU is member of the editorial board of Interstices

Antoine ROUSSEAU is member of the scientific board of Fondaton Blaise Pascal

Antoine ROUSSEAU co-authored the Calendrier Mathématique 2017

LFANT Project-Team

8.3. Popularization

The book Guide to Pairing-Based Cryptography [26] has been published by CHAPMAN and HALL/CRC. D. Robert wrote with Sorina Ionica the chapter "Pairings" of this book. This book aims to help Engineers understand and implement pairing based cryptography; in the Chapter "Pairings", D. Robert give a self contained definition and proof of the Weil and Tate pairing; including how to handle divisors with non disjoint support (this is often skipped in scientific papers but is important for practical implementations).

A. Page gave a popularization talk "À la découverte de la cryptologie : la science du secret" during the Fête de la Science event. Two groups of high school students and one group of Inria agents participated in this activity. Following this talk, three high school students decided to work on the RSA cryptosystem for their TPE essay and came back to the IMB to meet A. Page and talk about this topic in greater detail.

LIFEWARE Project-Team

9.3. Popularization

We participated in seminars for general audiences.

- G. Batt, *"La cybergénétique: piloter des cellules par ordinateur"*, 50 ans d'Inria au Siège, Rocquencourt, Nov 16 2017.

- F. Fages, *"Living with algorithms and algorithms of the living"*, Workshop Shaping Major Transitions in the Digital World. Interdisciplinary Research Center, CRI, Paris, 28-30 June 2017.

- J. Ruess, *"Automating scientific discovery in single cells"*, Unithé ou café, Inria Saclay - Ile de France, Apr 21 2017

Our publications also raised the attention of specialized and non-specialized media. One can mention

- "Piloter le comportement de cellules biologiques par ordinateur, c'est possible" in Science et Avenir

- "Forscher verbinden und kontrollieren Bakterien mit einem Computer", in Wiener Zeitung

- "Forscher steuern Bakterien durch Verbindung mit Computer" in der Standard

- "Forscher verbinden und kontrollieren Bakterien mit einem Computer " and "Virtuelle Realität für Bakterien" in Austria Presse Agentur (APA)

- "Ils parviennent à contrôler des cellules biologiques par ordinateur" in SciencePost

- "Computerized biology, or how to control a population of cells with a computer" and "Virtual reality for bacteria" in Phys.org

- "Computerized biology, or how to control a population of cells with a computer" in EurekAlert.org

- "Scientists Learn to Control Bacteria by Connecting Them to Computers" in Scicasts.com

- "Virtuelle Realität für Bakterien" in Innovations-report.de

- "Virtuelle Realität für Bakterien" in Informationsdienst Wissenschaft

LINKMEDIA Project-Team

10.3. Popularization

Vincent Claveau

participated to the collective book "Les Big Data à découvert", CNRS éditions

got an interview published in CNRS - Le journal about detecting fake news and image forgeries (joint work with C. Maigrot and E. Kijak).

LINKS Project-Team

9.3. Popularization

Joachim Niehren contributed an article in the december issue of "Inria by Lille" titeled "Interroger les bases de données d'une manière plus intélligentes"

M3DISIM Project-Team

10.3. Popularization

J.-M. Allain, Jeudi de la Recherche de l'X: popularisation talk on research with medical application. June 2017

J.-M. Allain, 3 articles in popularisation journals (quotidien du médecin, le concours médical, biotech.info) by journalists

D. Chapelle, interview for "Usine Nouvelle", Dec. 12th

A. Laurin, Inria Saclay inauguration demo and associated news article in "Le Parisien", Jan. 2017

P. Moireau, Créteil district "Olympiades de Mathématiques" award ceremony, May 2017

R. Chabiniok, Review paper promoting Cardiovascular MRI particularly of congenital heart diseases for Czech and Slovak physicians [17]

A. Laurin, P. Moireau, D. Chapelle, demo at 50 ans de l'Inria, Nov. 7th and 8th

MADYNES Team

10.3. Popularization

- Isabelle Chrisment was in charge of the scientific part of the 4th module (connecter le réseau) in the Class'Code project https://project.inria.fr/classcode/classcode-in-english/, aiming at helping teachers and educators for introducing computer science to childrens aged from 8 to 14 years;

MAGIQUE-3D Project-Team

9.3. Popularization

- Juliette Chabassier shared her experience as a scientist in the collège de Lussac in March 2017.
- Juliette Chabassier participated in scientific "speed datings" during the "Filles et Maths" day in April 2017.
- Juliette Chabassier shared her experience as a scientist during "Printemps de la Mixité" in May 2017.
- Juliette Chabassier presented a talk around mathematics in music in Pau in April 2017.
- Juliette Chabassier co-organized a series of three conferences around the theme of women in informatics in 2017.
- Juliette Chabassier gave a talk about mathematics in music in Bordeaux during the "découvreuses anonymes" exposition in November 2017.
- Juliette Chabassier presented a workshop around mathematics in music in November 2017.
- Juliette Chabassier gave a pitch of science during the national event "50 ans Inria" in November 2017.

MAGNET Project-Team

10.3. Popularization

- AURÉLIEN BELLET participated in a discussion on Artificial Intelligence at the Fête de la Science event held at Cité des Sciences (Paris, October 8).

- JAN RAMON presented at the "Pint of Science" series in Lille on the theme of big data and data protection on May 15th.

- JAN RAMON gave a presentation on exploiting traffic data (and the MAGNET work in the MUST project in this domain) in the Inria Meet-up series on December 14th.

MAGRIT Project-Team

10.3. Popularization

Members of the team participate on a regular basis, to scientific awareness and mediation actions.

- Erwan Kerrien is Chargé de Mission for scientific mediation at Inria Nancy-Grand Est. As such, he is a member of the steering committee of "Maison pour la Science de Lorraine, and member of the IREM [0] steering council. He also serves as the academic referent of an IREM working group aiming at introducing computer science in middle and high school curricula. Among other activites, he was also an associate researcher to a MATh.en.JEANS workshop, and he participated in the creation of a MOOC for teachers of the new ICN option (Informatique et Création Numérique - *Computer Science and Digital Creation*) at the beginning of high school curriculum.

- Gilles Simon participated to the "Fête de la science 2017" at the Faculté de Sciences et Technologies of the Université de Lorraine. He presented unplugged activities of computer science.

- Pierre-Frédéric Villard participated to open days and science festival in the IUT of Saint-Dié des Vosges. He presented augmented and virtual reality demos and their link to the high school mathematics program.

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[0]Institut de Recherche sur l'Enseignement des Mathématiques - *Research Institute for Teaching Mathematics*

MAMBA Project-Team (section vide)

MANAO Project-Team

10.3. Popularization

We took part in "FACTS", the art and science festival of Université de Bordeaux, and more precisely in the exhibition "Open Lab", which took place from November 14 to 21 at Espace 29. In collaboration with the artist Maud Mulliez, we presented our ongoing work, "L'empreinte du Geste", which aims at analyzing the connection between the gesture of the artist and the mark that the brush or pen produces on the final art piece. An installation combining videos and projection was allowing the audiance to discover our preliminary results.

Pierre Bénard gave a talk titled *L'art et la science des films d'animation 3D* during the internal Inria BSO seminar "Unithé ou café" in January 2017 (45 minutes + questions) and in front of secondary students (120 split into 5 groups) during "la Fête de la Science" (30 minutes) in September 2017. This talk presents the main steps and ingredients required to create a 3D animated film (3D modeling, animation, lighting, rendering) and, for each of them, it shows the subtle but indispensable mix of physical and mathematical models, computer algorithms and artistic talent that it implies. It also highlights how the work of manao contributes to this field.

MARELLE Project-Team

8.3. Popularization

Laurent Théry gave a talk in high-school (Centre International de Valbonne) in the context of the annual "Fête de la Science".

Damien Rouhling and Cécile Baritel-Ruet participated to the event "My thesis in 180 seconds" at the regional level.

MATHERIALS Project-Team

10.5. Popularization

- G. Ferré gave a talk about statistical physics and its applications to undergraduate students at Lycée Pierre Corneille, Rouen, in November 2017.

- A. Levitt is a member of the editorial board of Interstices, Inria's popularization website.

- P. Monmarché gave a talk about mathematics and music to high school students at lycée Pablo Picasso, Avion, in May 2017.

- P. Monmarché participated to Les Matinales de la Recherche de l'ENPC and presented a poster about his work to the students of ENPC in April 2017.

- G. Stoltz participated to Les Matinales de la Recherche de l'ENPC and gave a talk about his work to the staff of ENPC in April 2017.

- G. Stoltz, together with Gilles Buisson (Ecole des Ponts), published a contribution to the proceedings of QPES 2017 (Questions de Pédagogie dans l'Enseignement Supérieur), on his teaching experience involving flipped classrooms organized at the level of a complete class of first year students at Ecole des Ponts. See G. Buisson and G. Stoltz, La classe inversée à grande échelle en école d'ingénieur, Actes du colloque QPES 2017, 633-640.

MATHNEURO Team (section vide)

MATHRISK Project-Team (section vide)

MAVERICK Project-Team

9.3. Popularization

Every year, "MobiNet" (see section 4.5) classes are conducted with high school pupils of the large Grenoble area to practice initiation and intuition on Computer Science, Maths and Physics. Depending on the year, we have 2 to 4 groups in the scope of INP-Grenoble "Enginneering weeks", and 0 to 2 groups in the scope of Math-C2+ operations.

Fabrice Neyret published a popularization article "Maths in special effects" in the magazine "Tangentes" #178 (sep-oct 2017).

Fabrice Neyret maintains the blog shadertoyunofficial (https://shadertoyunofficial.wordpress.com/) and various shaders examples on Shadertoy site (https://www.shadertoy.com/) to popularize GPU technologies as well as disseminates academic models within computer graphics, computer science, applied math and physics fields.

MCTAO Project-Team

9.3. Popularization

J.-B. Caillau participates in the MASTIC initiative at Inria and has given conferences at the high school level in Sophia (MathC2+ event, June 2017) and Grasse (Lycée Amiral, Sep. 2017).

MEMPHIS Project-Team

10.3. Popularization

Lisl Weynans has co-organized the *Journée Filles et Maths, une équation lumineuse*, April 2017.
Afaf Bouharguane and Lisl Weynans have co-organized the *Journée Emploi Maths de l' Unité de Formation Mathématiques et Interaction*, November 2017.

MEPHYSTO Project-Team

6.3. Popularization

M. Simon participated in the diffusion program *MathenJeans*, in Lille. She followed a group of 4 children (aged 10–11), who presented a project to the national competition named *CGénial*.

MEXICO Project-Team (section vide)

MIMESIS Team

10.3. Popularization

Demonstration at *50 Years Inria* on Nov 10 in Paris, attended by Mr. Mounir Mahjoubi, secrétaire d'état auprès du premier ministre, chargé du numérique.

MIMETIC Project-Team

10.3. Popularization

Ludovic Hoyet, Journées de la Science 2017. Présentation et démo "Ma main à 6 doigts: Avatar et Réalité Virtuelle" à des classes de primaire et lycée.

Ludovic Hoyet, démonstrations pour les 50 ans d'Inria à Paris, "Ma main à 6 doigts: Avatar et Réalité Virtuelle".

MIMOVE Team (section vide)

MINT2 Team (section vide)

MISTIS Project-Team (section vide)

Mjolnir Team

10.3. Popularization

Dashboard software in the Sbarro car: Mojave at the Geneva Motor Show 2017 in Geneva, Julien Decaudin, Christian Frisson, Thomas Pietrzak.

Projet Happiness : ça roule pour le tactile, interview in the Inria official website, Thomas Pietrzak, Christian Frisson, Julien Decaudin.

Dans la peau d'un robot, article in le blog binaire and in the Inria official website, Amira Chalbi.

Banned From the US? There's a Robot for That, interview in WIRED, Amira Chalbi.

Mon Histoire avec l'Informatique, presentation at "L codent L créent": Amira Chalbi, Nicole Pong.

MNEMOSYNE Project-Team

10.3. Popularization

For a multi-disciplinary team as Mnemosyne, science popularization is not only a nice and useful contribution to the dissemination of scientific knowledge but also a necessity since we work with colleagues from bio-sciences with whom sharing profound ideas in computer science is mandatory for a real collaboration.

- Thierry Viéville is for 50% of his time involved in popularization actions, mainly computer science large audience education, and has been promoted Officer of the Order of Academic Palms for the collective contribution of the Inria Science Outreach mission.

- F. Alexandre organized a conference about artificial intelligence with high-school children (Sept. 28, Lormont)

- I. Chraibi Kaadoud participated to the regional challenge: "My PhD in 180 seconds"

- X. Hinaut organized the 1st hackathon of Bordeaux in Cognitive Sciences and Artificial Intelligence, 8-10 December, Cap Sciences, Bordeaux. (https://mindlabdx.github.io/hack1cerveau/); Organization of a workshop on cellular automaton at Le Node, Bordeaux; Meeting groups of high-school students for their projects on Artificial Intelligence topics.

- The team participated to "La semaine du cerveau" on the Bordeaux Neurocampus (March 13-17) (http://www.bordeaux-neurocampus.fr/fr/manifestations-scientifiques/seminaires-2017/semaine-cerveau-2017.html); to the "fête de la science" on the Bordeaux Neurocampus (http://circuit-scientifique-bordelais.cnrs.fr/modules/show/261, Oct. 7-9); to the Declics program for high-schools (http://www.cerclefser.org/fr/declics/, Dec. 12)

MODAL Project-Team

10.3. Popularization

Pascal Germain gave a short talk vulgarizing a research topic for first year university students. Part of the presentation of the Painlevé Mathematic Laboratory (University of Lille), December, 1st 2017.

Christophe Biernacki has given about 10 talks during 2017 for institutions (Inria, universities...), companies and other related events. He organized also a first short meeting in February 2017 in Lille for obtaining a feedback from company and academic users about the MASSICCC platform developed by the Modal and Select teams (https://massiccc.lille.inria.fr/#/).

Alain Celisse gave a talk at the Meetup in Pau in January, 23rd 2017: Change-point detection with structured objects.

Benjamin Guedj gave a Meetup talk in Pau (3/2017) on quasi-Bayesian learning and an application to digits recognition.

MOEX Project-Team

6.3. Popularization

- Jérôme Euzenat gave a talk to the local #FranceIA day "Intelligence artificielle et communication", Grenoble (FR), 2017-03-02

- Manuel Atencia animated the workshop "Modéliser les ontologies: cas d'application d'une ontologie pour l'annotation de photos" at the 4th Journées du développement logiciel (JDEV), Marseille (FR), 2017-07-06

- Jérôme David animated the workshop "Comment faire une application avec des données liées: annotation de photos en utilisant les technos du web sémantique avec Jena" at the 4th Journées du développement logiciel (JDEV), Marseille (FR), 2017-07-06

- Jérôme Euzenat gave an interview "Dans 50 ans, les ordinateurs écriront des succès littéraires?" for the Inria web site, Montbonnot (FR), 2017-10-24

MOKAPLAN Project-Team (section vide)

MONC Project-Team

9.3. Popularization

- Sébastien Benzekry: Interview pour le journal « Sciences et Avenir ».

- A. Collin : Printemps de la mixité (une présentation sur le calcul scientifique devant 2 classes de première), Institut Mathématiques de Bordeaux, 04/04/17, https://www.u-bordeaux.fr/Actualites/De-l-universite/Le-Printemps-de-la-mixite.

- A. Collin: Filles & Maths (table ronde avec des lycéennes autour des études mathématiques et des applications des mathématiques), Université de Bordeaux, 05/06/2017, https://math-interactions.u-bordeaux.fr/Centres-de-ressources/IREM/Actions/Journee-Filles-et-Maths.

- A. Collin: Fête de la Science, Inria Bordeaux, 10/10/2017.

- A. Collin: Nuit des chercheurs, Cap Sciences, Bordeaux.

- A. Collin: Cinéma Sciences (discussion avec le public sur les mathématiques après la projection du film "Les figures de l'ombre"), Cinéma de Mérignac 18/05/2017.

- O. Saut: Les Entretiens de l'Excellence 2017 http://www.lesentretiens.org/.

- O. Saut: Table ronde "Comment l'innovation transforme les métiers de la santé", Journées Nationales de l'Innovation en Santé, 27-29 janvier 2017, cité des Sciences et de l'Industrie / webradio Cnrs.

MORPHEME Project-Team

8.3. Popularization

Anca Grapa, Kévin Giulietti and Gaël Michelin participated as exhibitors to the "Fête de la science 2017" manifestation in Juan-les-Pins (palais des congrès). The objective was to initiate non-scientic audience to the research issues in Morpheme team, and more generally to numerical science.

Laure Blanc-Féraud gave a talk for the PhD students association of the doctoral school STIC of Université Côte d'Azur "Voir l'intérieur d'une cellule vivante : lunettes numériques au secours du microscope" , mai 2017.

MORPHEO Project-Team (section vide)

MULTISPEECH Project-Team

10.3. Popularization

Interview for "Quand les machines apprennent à parler l'humain — Le Zoom de la Rédaction", *France Inter*, February 2, 2017 (E. Vincent)

Interview for "Les prochains défis de la reconnaissance vocale", *Le Figaro*, April 11, 2017 (E. Vincent)

Interview for "2017 : Alexa, la voix d'Amazon", *Les Échos*, August 31, 2017 (E. Vincent)

Interactions vocales, Grand-Est Numérique, September 2017 (R. Serizel)

Demonstrations at Fête de la Science, University of Lorraine, October 13, 2017 (G. Carbajal, L. Perotin, R. Serizel, E. Vincent)

Demonstrations at the Rencontre Inria Industrie "Les données et leurs applications", October 18, 2017 (E. Vincent)

Interview for "Les assistants vocaux vont bousculer la radio", *Le Monde*, October 19, 2017 (E. Vincent)

Interview for *France Culture*, November 2017 (E. Vincent)

Talk at "Fresh from the Labs", Station F, Paris (France), November 30, 2017 (E. Vincent)

Demonstration at Journée des métiers, Collège Péguy, le Chesnay, March 2017 (A. Piquard-Kipffer).

Demonstration of Dynalips at "50 ans Inria", Paris, November, 7-8, 2017 (S. Ouni)

MYCENAE Project-Team

9.3. Popularization

Frédérique Robin participated in a regional committee in the framework of the "Tournoi français des jeunes mathématiciennes et mathématiciens" (TFJM).

Book chapter in the new edition of the Encyclopedia of Endocrine Diseases
D. Monniaux, V. Cadoret, F. Clément, R. Dalbies-Tran, S. Elis, S. Fabre, V. Maillard, P. Monget, and S. Uzbekova
Editors Ilpo Huhtaniemi and Luciano Martini, Section Editor Sophie Christin-Maitre
Folliculogenesis (2017) p1-26.

<h1 style="color:red; text-align:center">MYRIADS Project-Team</h1>

10.3. Popularization

Martin Quinson is a member of the ISO national working group (Info Sans Ordi – CS without computer), that aims at inventing, improving and spread unplug activities. These outreach activities are meant to introduce fundamental concepts of Computer Science in schools without the need of any electrical devices. In 2017, the group produced a special issue to the Tangente magazine (read by maths teachers in France). Martin Quinson authored two articles in this special issue.

Martin Quinson is on the scientific board of the Blaise Pascal foundation, boosting the scientific outreach in the domains of Maths and Computer Science. He participated this year to a working group aiming at the development of an online game that teaches maths to pupils.

Martin Quinson was in the scientific organizing committees for several outreach events toward the popularization of Maths and Computer Science this year: «Maths Vivantes» had a very general audience: a booth on a public space of Rennes for one afternoon (March). «Maths C2+» invited about 20 pupils invited at ENS Rennes for 3 days (March). «Metier en tout Genre» invited several dozen of high-school students for one day on the Rennes university campus (November).

NACHOS Project-Team (section vide)

<h1 style="text-align:center;">NANO-D Project-Team</h1>

7.3. Popularization

- Sergei Grudinin co-advised the team of high-school student "Cantor se Gauss d'un Poincare´" in the team competitions "Tournoi Français Des Jeunes Mathe´maticiens" (TFJM).

- NANO-D was involved in several popularization activities, including a participation to Fete de la Science, and a participation to the GameLab project in Grenoble, where SAMSON modules were developed for high school students.

- Leonard Jaillet was involved in the development of a demonstration of SAMSON in the Inria showroom. Several scenarii were proposed where the user can interact with molecular systems and test different possible applications of the SAMSON software platform.

NECS Project-Team

9.3. Popularization

The GTL webpage (http://gtl.inrialpes.fr/status) is public in November: more generally the traffic activities have been popularized via the following public talk.

- G. Casadei, V. Bertrand, DEMO on the GTL at the "Rencontres Inria Industrie", Inria, Paris, Oct. 2017

NEO Project-Team

10.3. Popularization

- S. Alouf gave a radio interview to journalist J. Colombain; the interview aired on France Info on 6 August 2017 and is available here (audio + abstract): http://www.francetvinfo.fr/replay-radio/nouveau-monde/nouveau-monde-faut-il-dire-le-ou-la-wi-fi_2294141.html;

- D. Politaki participated to the "Fête de la science", Antibes Juan-les-Pins (7-8 October). She animated two games based on the pythagorean theorem and finding the shortest path respectively, Thymio and scratch.

- D. Politaki participated in the organization of MOMI: Le MOnde des Mathématiques Industrielles. This is a two-day event organized by PhD candidates of Inria's center in Sophia-Antipolis, dedicated to discovering how Mathematics are useful in the Industrial world.

- D. Politaki participated to Stage MathC2+ (18-21 Juin 2017) which is organised by Inria (SAM).

NEUROSYS Project-Team

9.3. Popularization

Talk during the National Brain Awareness Week: Brain-Robot interactions, Mar. 14th, 2017, middle school Ernest Bichat, Lunéville (L. Bougrain)

Expert for the MGEN (a French mutual benefit insurance company)'s day about "réparer les vivants", Mar. 15th, 2017, Maisons-Alfort (L. Bougrain)

Scientific education on Information Technologgy with Marie Duflot-Kremer in the Marcel Leroy elementary school (20-22 students per class: CM2, CE2 / CM1, CE1 / CE2), 3h (three times 1h), May 30th 2017 (Tamara Tošić)

Exhibit of the Grasp-IT system to improve motor activity at the Interactions Homme-Machine conference 2017, August 2017, Poitier (Sébastien Rimbert)

Exhibit of the Grasp-IT system to improve motor activity at Inria-Industry Meeting on data and their applications, October 18th 2017, Paris (L. Bougrain & Sébastien Rimbert)

NON-A Project-Team (section vide)

NUMED Project-Team (section vide)

ORPAILLEUR Project-Team (section vide)

PACAP Project-Team

9.3. Popularization

Nicolas Kiss, Damien Hardy and Erven Rohou presented a poster at the "European Cyber Week", organized by the "Pôle d'Excellence Cyber".

Erven Rohou presented a poster at the Teratec Café, describing the ANTAREX H2020 project.

PANAMA Project-Team

10.3. Popularization

10.3.1. Journée Science et Musique

Participants: Antoine Deleforge, Rémi Gribonval, Frédéric Bimbot, Romain Lebarbenchon, Clément Gaultier, Nancy Bertin, Ewen Camberlein, Stéphanie Lemaile, Corentin Louboutin, Corentin Guichaoua, Cássio Fraga Dantas, Valentin Gillot, Antoine Chatalic, Yann Traonmilin.

with contributions and support from: Valérie Gouranton, Ronan Gaugne, Evelyne Orain, Agnès Cottais, Catherine Jacques-Orban and many more.

PANAMA coordinated the organization of a public event called "Journée Science et Musique" ("Music and Science Day"). This yearly event organized by the METISS/ PANAMA Team since 2011 aims at sharing with the wide audience the latest innovations and research projects in music. The motivation for hosting this event is to explain and promote the technology behind audio-processing that people face in their daily lives. The event is free to everyone and people have the possibility to attend talks by selected speakers or meet numerous experts that demonstrate current projects in which people can interactively participate. Edition 2017 hosted more than 800 visitors and was a partner of the "Festival des Sciences" and "Festival Maintenant" in Rennes.

PARIETAL Project-Team

10.3. Popularization

10.3.1. Gaël Varoquaux

Présentation "Démocratisation de l'IA", Station F, (Dec 2017).

Présentation sur les logiciels libres de machine learning aux journées annuelles du groupe de travail sur les logiciels libres (Oct 2017)

Présentation sur scikit-learn au "Paris ML meetup" (Dec 2017)

Présentation sur scikit-learn au "Paris Pydata meetup" (Mars 2017)

10.3.2. Alexandre Gramfort

Présentation sur "L'intelligence artificielle au service de la société" à l'UNESCO dans le cadre des journées des ingénieurs et scientifiques de France (IESF) (Oct 2017). [0].

Présentation sur l'Intelligence Artificielle au conseil d'administration de l'Institut National du Cancer (INCA) (Nov 2017).

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[0]http://home.iesf.fr/752_p_49913/l-intelligence-artificielle.html

PARKAS Project-Team (section vide)

PARSIFAL Project-Team (section vide)

PERCEPTION Project-Team (section vide)

PERVASIVE INTERACTION Project-Team (section vide)

PESTO Project-Team

10.3. Popularization

- How to Explain Modern Security Concepts to your Children [11] (J. Dreier)
- Vote par Internet [41] (V. Cortier and S. Kremer)
- 2 days of debate on privacy at *Moments d'invention 2016*, organized by Grand Nancy (V. Cortier)
- booth at the *Open Government Summit* organized at Sénat (V. Cortier)
- Conference and debate at the *ISN day*, conference for teachers in computer science (V. Cortier)
- Interview for *silicon.fr* on weakening cryptosystems to allow limited access by authorities (S. Kremer)
- France 3 Lorraine radio interview on computer security (S. Kremer)
- Interview for *AFP* on electronic voting (S. Kremer)
- Interview for *AFP* and *Huffington Post* on electronic voting (V. Cortier)

PETRUS Project-Team

9.3. Popularization

MOOC "Défis technologiques des villes intelligentes participatives", du 6 Nov. 2017 au 31 Dec. 2017. Auteur(s): Nicolas Anciaux, Stéphane Grumbach, Valérie Issarny, Nathalie Mitton, Christine Morin, Animesh Pathak, Hervé Rivano. http://www.sup-numerique.gouv.fr/cid94187/mooc-villes-intelligentes-defis-technologiques-et-societaux.html

EIT Digital Professional School course "Technological challenges of participatory Smart Cities". Course for companies and cities. By Nicolas Anciaux, Stéphane Grumbach, Valérie Issarny, Nathalie Mitton, Christine Morin, Animesh Pathak, Hervé Rivano. https://www.eitdigital.eu/newsroom/news/article/eit-digital-professional-school-launches-a-smart-cities-course-for-companies-and-cities/

Nicolas Anciaux: interview pour le magazine La Recherche. Numéro de Juin 2017, dossier "Données personnelles: Notre vie privée est-elle en danger?", pp.81-86, par Vincent Glavieux et Denis Delbecq.

Rencontre Inria - Industrie, Les données et leurs applications, Conférence "Sécurité des données", Philippe Pucheral et Eric Léandri (fondateur et PDG de Qwant), 6 Juin 2017. https://www.inria.fr/centre/paris/innovation/rii-les-donnees-17-18-octobre-2017/programme

Rencontre Inria - Industrie, Les données et leurs applications, Démonstration du projet Domycile, Nicolas Anciaux, , 6 Juin 2017. https://www.inria.fr/centre/paris/innovation/rii-les-donnees-17-18-octobre-2017/demos/domycile

Rencontre Inria - Industrie, Les données et leurs applications, Démonstration du projet Domycile, Paul Tran Van, , 6 Juin 2017.

Round table: Accès aux données et aux compétences, Convention Systematic Paris-Région, Luc Bouganim, June 2017.

Demonstration: PlugDB and the Secure Mobile Laboratory, Turing building inauguration, Luc Bouganim, Iulian Sandu Popa, Riad Ladjel, February 2017.

PHOENIX Project-Team

9.3. Popularization

Nic Volanschi participated on October 12th to the "Science fest" at Inria Bordeaux, where he gave 3 workshop sessions on "Manual digital sciences" for children aged 11 to 15. These workshop sessions were aimed to communicate basic notions of computer science to young students by using puzzles and games.

Antoine Riché and Nic Volanschi presented, to a professional audience coming from various digital-related industries, some of the technologies developed in the team, at the Inria-Industry Meeting on October 17th-18th in Paris centered on "Data and their applications".

Cécile Mazon participated to the following popularization events:

- "1er Salon du livre et du numérique pour les dys", on 3rd may 2017. Representing the research center jointly with P.-A. Cinquin (Potioc team); presenting and demonstrating the Collège+ app for iPad.

- "PubHD Bordeaux", on 24th october 2017. Event consisting in presenting her PhD work "Technologies pour la scolarisation des collégiens avec TSA" without slides nor scientific jargon.

- Guest of the radio show "Que cherchent-ils", on RCF Bordeaux. 25 minutes for presenting her PhD work around autism and technologies. The show was recorded in december 2017 and wiil be broadcast in february – march 2018.

- Largely open congress "ITASD", in july 2017, Valencia, Spain. "Effectiveness and Usability of Technology-based interventions for children and adolescents with ASD: A systematic review of reliability, consistency, durability and generalization related to the effects of interventions". The abstract is available within the conference proceedings.

PI.R2 Project-Team

8.3. Popularization

Hugo Herbelin wrote with Sandrine Blazy and Pierre Castéran an introduction to Coq for engineers edited by Techniques de l'Ingénieur.

PLEIADE Team

8.3. Popularization

David Sherman of PLEIADE coached two teams in Thymio R2T2 Challenges [0], organized by the Mobsya association and the EPFL in Spring and in Summer 2017. An R2T2 challenge brings together 16 teams (for the Mars mission, 4 teams for the Lunar mission) of children who must cooperate to remotely program Thymio robots. The Lunar mission in July was a public demonstration during the Scratch 2017 conference in Bordeaux.

David Sherman contributes open-source software development to the Aseba platform for educational robotics [0], deployed in Thymio II robots used by children as well as in the simulator used by Class'Code [0] to train teachers.

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[0]Remote Rescue Thymio II https://www.thymio.org/en:thymio-r2t2
[0]http://aseba.io/
[0]https://pixees.fr/classcode-la-formation-associee-a-pixees/

POEMS Project-Team (section vide)

POLARIS Team

10.3. Popularization

The POLARIS team is actively involved in various scientific popularization activities. In addition to participating in the Fête de la Science (Guillaume Huard, Florence Perronnin, Jean-Marc Vincent), the POLARIS team also participates in the organization of the "Conference Inria". Jean-Marc Vincent has also organized (and/or participated in) several training courses for computer science teachers (at a high school level) and has supervised several MathC2+ trainees.

- Vincent Danjean and Florence Perronnin have participated to the "fête de la Science" on the *unplugged computer science* stand. Florence Perronnin was involved in the meeting days between industry and education, organized by the "Maison pour la Science".

- E. Veronica Belmega: "Introduction à la theorie des jeux et ses applications en communications", invited talk, Lycee Chrestien de Troyes, France, Nov. 2017.

POLSYS Project-Team

9.3. Popularization

The activity of POLSYS in post-quantum cryptography has been covered in several large audience magazines:

- "Enfin! La révolution quantique", L'Usine Nouvelle, November 2017.
- "QUANTIQUE : THE NEXT BIG THING(K)", L'Informaticien, November 2017.
- "L'ORDINATEUR QUANTIQUE VA-T-IL METTRE À MAL LA CYBERSÉCURITÉ MONDI-ALE?", Bouygues Blog, October 2017.

Ludovic Perret is member of the Cloud Security Alliance (CSA) quantum-safe security working group. In particular, he contributed to the following documents:

- B. Huttner, J. Melia, G. Carter, L. Perret and L. Wilson. "Applied Quantum-Safe Security", Feb. 2017.
- B. Huttner, J. Melia, G. Carter, L. Perret and L. Wilson. "Quantum Safe Security Glossary", January 2017.

Ludovic Perret is also member of the quantum-safe cryptography specification group of the European Telecommunications Standards Institute (ETSI) where is the referee for a document on quantum-safe signatures.

Since May 2010, Daniel Lazard is engaged in a strong edition work on the English Wikipedia (more than 6 000 contributions, including vandalism revert and talk pages). Initially focused on the themes of POLSYS, these contributions were later enlarged to general algebra and algebraic geometry, because many elementary articles require to be expanded to be useful as a background for computer algebra. Examples of articles that have been subject of major editing: "System of polynomial equations" (created), "Computer algebra", "Algebra", "Algebraic geometry", "Polynomial greatest common divisor", "Polynomial factorization", "Finite field", "Hilbert series and Hilbert polynomial",...

For the year 2017, this contribution amounts to about 2, 000 edits on the English Wikipedia.

Mohab Safey El Din was invited by FMJH to present and popularize symbolic and algebraic computation to Master students in Mathematics following the curricula proposed by Univ. Paris-Saclay.

POTIOC Project-Team

10.3. Popularization

Duties

- Member of the Editorial board of Blog Binaire - Le Monde, Pascal Guitton

Teaching and Education

- Participation à la création du MOOC Informatique et Création Numérique, Plate-forme FUN, Anke Brock & Pascal Guitton, https://www.fun-mooc.fr/courses/inria/41014/session01/about

Talks and Hands-on

- Collaborer avec la réalité virtuelle, Pint of Sciences, Bordeaux, May 14th, Damien Clergeaud
- Demonstration of VISTE project at Colloque Robotique et Éducation 2017, Bordeaux, July 2017, Anke Brock & Jérémy Albouys
- Demonstration and presentation of VISTE project at Fête de la science, Oct 2017, Jérémy Albouys
- Demonstration and presentation of VISTE project at Nuits des chercheurs at Cap Sciences, Oct. 2017, Jérémy Albouys
- Collaborative Interaction in Virtual Reality, Airbus PhD's Days, Saint Médard en Jalles, Nov. 8th, Damien Clergeaud
- La Table de Shanghai, Open Lab FACTS Festival, Nov. 14-25th
- Organization of an Hackathon on Cognitive Science and Artificial Intelligence at Bordeaux, Dec 9-10th, Philippe Giraudeau
- Interview, Martin Hachet, Inriality, https://www.inriality.fr/culture-loisirs/se-divertir-en-2067/
- Interview, Martin Hachet, RFI - autour de la question, http://www.rfi.fr/emission/20171113-comment-imaginer-notre-futur
- Interview, Martin Hachet, Libération, http://next.liberation.fr/musique/2017/01/27/un-nouveau-chant-de-vision_1544507

Popularizing inside Inria

- Comment favoriser l'accessibilité numérique, Unithé ou Café, Bordeaux, April 6th, Pascal Guitton
- Teegi, 50th anniversary Inria, Nov 7-8, Paris, Philippe Giraudeau, Martin Hachet

Written, Oral or Video Content

- "Fabien Lotte about his goal to improve BCI usability", g.tec medical engineering blog, http://blog.gtec.at/interview-fabien-lotte/, 2017
- Interview about VISTE project for LUDOVIAMAGAZINE : https://www.youtube.com/watch?v=Hdw5O0myifY, Anke Brock

PRIVATICS Project-Team

9.3. Popularization

9.3.1. Hearings

D. Le Métayer at the French National Assembly about the implementation of the General Data Protection Regulation (Jan. 2017).

D. Le Métayer at the Conseil national du numérique (CNNum) about the regulation of algorithms (Jul. 2017).

M. Cunche at le Comité Consultatif National d'Ethique (CCNE)[0] (Mar. 2017).

9.3.2. Interviews

M. Cunche by Valentine Faure in Glamour, Donner ses données, juin-juillet 2017.

M. Cunche by Martin Untersinger in lemonde.fr, Apple donne à nouveau des gages en matière de vie privée, 27/09/2017, http://www.lemonde.fr/pixels/article/2017/09/27/apple-donne-a-nouveau-des-gages-en-matiere-de-vie-privee_5192469_4408996.html

M. Cunche by Arnaud Devillard in Sciences et Avenir, Même coupé, le Wi-Fi sous Android peut suivre le téléphone, Oct. 2017, https://www.sciencesetavenir.fr/high-tech/meme-coupe-le-wi-fi-sous-android-peut-suivre-le-telephone_116061

M. Cunche by Camille Gruhier in Que-choisir, Smartphones Android Même une fois le Wi-Fi désactivé, vous êtes pisté, Oct. 2017 https://www.quechoisir.org/actualite-smartphones-android-meme-une-fois-le-wi-fi-desactive-vous-etes-piste-n46076/

M. Cunche by Emilie Brouze in Rue89 - L'Obs, Tu es resté 22 minutes chez l'opticien jeudi. Le centre commercial le sait, le 12 juillet 2017, http://tempsreel.nouvelobs.com/rue89/rue89-nos-vies-connectees/20170711.OBS1939/vous-etes-reste-22-minutes-chez-l-opticien-jeudi-et-le-centre-commercial-le-sait.html

M. Cunche by ZDnet.fr, http://www.zdnet.fr/actualites/android-desactiver-le-wi-fi-n-empeche-pas-d-etre-espionne-39856640.htm

M. Cunche by 01Net, http://www.01net.com/actualites/sur-android-le-wi-fi-peut-vous-tracer-meme-s-il-est-desactive-1245292.html

M. Cunche by l'informaticien, https://www.linformaticien.com/actualites/id/44894/desactiver-le-wifi-pour-eviter-le-flicage-une-protection-illusoire.aspx

M. Cunche by Nextinpact, https://m.nextinpact.com/news/105038-suivi-clients-dans-magasins-question-wi-fi-nest-pas-seule-a-se-poser.htm

C. Lauradoux by Sophie Eremian in Inriality, Quand l'énergie devient intelligente, Oct. 2017, https://www.inriality.fr/environnement/quand-lenergie-devient-intelligente/.

9.3.3. Press articles

D. Le Métayer in Slate, *Designing, explaining and controling algorithms*, in Presidential election, 100 proposals from the research community (Mar. 2017).

D. Le Métayer in Le Monde, *Gouverner les algorithmes pour éviter qu'ils nous gouvernent*, (Nov. 2017).

C. Castelluccia and D. Le Métayer in Inria Analysis note, *Secure electronic documents: is the centralisation of biometric data really inevitable?*, (Feb. 2017).

9.3.4. Conferences

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[0]http://www.ccne-ethique.fr/fr

M. Cunche and C. Matte, *le traçage cyberphysique via Wi-Fi*, Exposition Terra Data at Cité des Sciences et de l'Industrie, Apr. 2017.

M. Cunche and C. Matte, *le traçage cyberphysique via Wi-Fi*, Fête de la science at Cité des Sciences et de l'Industrie, Oct. 2017 (broadcasted by Science et Vie TV and animated by l'Esprit Sorcier).

C. Lauradoux, *Email et vie privée: pourquoi utiliser GPG ?*, Cours Master 2, Nov. 2017.

C. Lauradoux, *Mathématiques et la protection de la vie privée*, Olympiades académiques de Mathématiques, May 2017.

C. Lauradoux, *Cryptographie visuelle*, Collège/Lycée Jean Prévost, 01/06/2016.

C. Lauradoux, *Cryptanalyse*, stage MathC2+, 06/2017.

PROSECCO Project-Team

9.3. Popularization

- Karthikeyan Bhargavan, Benjamin Beurdouche, Jean Karim Zinzindohoue published a paper in the Communications of the ACM.

QUANTIC Project-Team

8.3. Popularization

Mazyar Mirrahimi has been interviewed by Le Monde for a dossier on quantum information.

Mazyar Mirrahimi gave an invited talk on "Quantum computing" at the CRiP's ITES Innovation Summit at Deauville, France in Mars 2017.

Mazyar Mirrahimi gave an invited talk on "Quantum computing" at X-Creation (X-Drahi) in May 2017.

Pierre Rouchon was invited to give a talk "Contrôle des systèmes: du classique au quantique", Journée d'inauguration du programme PSL-maths, 19 October 2017 at ENS-Paris.

Alain Sarlette has been speaking at inria-organized dissemination events:
- 03/07 "fresh from the labs" talk about quantum technology hardware (at Boston Consulting Group, Paris – team gamma)
- 06-08/06 Keynote speech at Journées DGDT
- 10/07 presentation at inria-Paris-labs visit by high-level managers and stakeholders

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.

RANDOPT Team (section vide)

RAP2 Team (section vide)

RAP2 Team (section vide)

RAPSODI Project-Team

9.3. Popularization

C. Calgaro is in charge of the communication of "Laboratoire Paul Painlevé" and she is in charge of the relation between the University of Lille 1 and high schools. Accordingly, she organizes various events which promote mathematics among young peoples like:

Les Mathématiques itinérantes (http://mathematiques.univ-lille1.fr/Ouvertures/Mathematiques-itinerantes/)

La semaine des Mathématiques (http://mathematiques.univ-lille1.fr/Ouvertures/Mathematiques-itinerantes/)

Stage en sciences pour les élèves de seconde (http://www.univ-lille1.fr/etudes/stageseconde)

Members of the team participate regularly in theses actions.

REALOPT Project-Team

10.3. Popularization

- François Clautiaux is a member of the board of AMIES, the French Agency for Interaction in Mathematics with Business and Society. AMIES is a national organization that aims to develop relations between academic research teams in mathematics and business, especially SMEs.

- Olivier Beaumont participated to "Unithé ou Café" (May 19, 2017), a local event dedicated to popular science on the topic of online algorithms.

- Olivier Beaumont participated to "La Fête de la Science" (October 3 and 4, 2017) on the computation of PageRank.

REGAL Project-Team

8.3. Popularization

Jonathan Lejeune and Julien Sopena animated an activity during the Science Festival 2017 at UPMC

REO Project-Team

10.3. Popularization

- Céline Grandmont
  - Conference "Métier": Master Maths students, UPMC, Oct 2017
- Irene Vignon Clementel
  - Presentation to celebrate the renewal of UPMC-Inria Paris partnership, June 22nd 2017, Paris, France

RITS Project-Team

9.3. Popularization

RITS team: press article on the research axes of Inria RITS team entitled "RITS Team at Inria", with participation of Fawzi Nashashibi, Anne Verroust-Blondet, Jean-Marc Lasgouttes and Raoul de Charette. IEEE Intelligent Transportation Systems Magazine, Vol 9, Issue 2. April 19th. (http:// ieeexplore.ieee.org/document/7904770/).

Raoul de Charette: participation to the Hackathon round-table in collaboration with approximately 10 journalists and a handful of Inria researchers. Exchange on the implementation of future autonomous transportation in cities. It lead to several press article. June 7th, Paris.

Raoul de Charette: public conference "Voiture Autonomes: Où en est-on ?" at Futur en Seine, Paris, June 8th.

Raoul de Charette: exchange on upcoming challenges for autonomous driving for the web article "Véhicules Autonomes : Où En Est-On en France ?", journalist Mathilde Ragot. T.O.M. June 14th. (http://www.tom.travel/2017/06/14/vehicules-autonomes-ou-en-est-on-en-france/).

Raoul de Charette: exchange on upcoming challenges for autonomous driving for the web article "Véhicules autonomes : où en est-on réellement ?", journalist Benoit Fleuret. Microsoft RSLN. June 22th. (https://rslnmag.fr/cite/vehicules-autonomes-ou-en-est-on-reellement/).

Raoul de Charette: interview on current progress of autonomous driving and real upcoming challenges for the web article "Pourquoi la voiture 100 % autonome n'est pas près de rouler", journalist Reynald Fléchaux. Silicon. June 26th. (https://www.silicon.fr/voiture-autonome-pas-prete-rouler-178787.html?inf_by=5a0c4d80681db858068b471e).

Raoul de Charette: interview on the progress of computer vision and danger of artificial intelligence for the press article "Robots tueurs soudés pour déssouder", journalist Erwan Cario. Libération. August 24th. (http://www.liberation.fr/futurs/2017/08/24/robots-tueurs-soudes-pour-dessouder_1591778).

Gérard Le Lann: Interview published in *Journal of Internet Histories*, vol. 1, issue 1-2, pp. 188-196, (http://tandfonline.com/doi/full/10.1080/24701475.2017.1301132).

Gérard Le Lann: interview for Inria's 50 years "Networks, distributed algorithms and critical cyber-physical systems", (https://50ans.inria.fr/en/gerard-le-lann-networks-distributed-algorithms-and-critical-cyber-physical-systems/]).

Fawzi Nashashibi: participation to the round-table on "L'Intelligence Artificielle pour le transport autonome" during the workshop "Journée de l'IA / Evenement Public ♯FranceIA" organized by SystemX at Nano-INNOV (Palaiseau), March 3rd.

Fawzi Nashashibi: participation to the round-table on "Transports et mobilité" during the workshop "Les Mystères du XXIème siècle" (http://www.mysteres21.org/edition-2017/), November 25th.

Fawzi Nashashibi: participation to the round-table on "les questions éthiques et juridiques en robotique" during the workshop on "Ethique de la recherche en numérique", organized by the CERNA, Paris (Institut Mines-Télécom), June 15th.

Fawzi Nashashibi: interview for "L'Esprit Sorcier" number 29 on "La voiture autonome", journalist: Melvin Martineau (https://www.lespritsorcier.org/dossier-semaine/la-voiture-autonome/).

Fawzi Nashashibi: interviewed by Tiffany Blandin for the book *Un Monde sans travail ?*, Paris: Seuil, 24 August 2017, (Chapter 7: la recherche sur les voitures autonomes).

Fawzi Nashashibi: interviewed by Coralie Baumard for the article "L'Intelligence Artificielle, Nouveau Moteur De l'Industrie Automobile", FORBES France, February 11th. (https://www.forbes.fr/business/lintelligence-artificielle-nouveau-moteur-de-lindustrie-automobile/).

Fawzi Nashashibi: interviewed by Jérôme Bonaldi (Science & Vie TV) for "Le Mag de la Science" on September 2017 (to be broadcasted in 2018).

RMOD Project-Team

10.3. Popularization

- Article in Popular Magazine: Clément Béra and Olivier Auverlot. Au coeur de la VM Pharo. In GNU/Linux Magazine, numéro 210, décembre 2017.
- Book: Pharo by Example 5, Square Bracket Associates, 2017 [37].
  http://books.pharo.org/updated-pharo-by-example/
- RMOD co-organized and participated at ESUG 2017.
  http://www.esug.org/wiki/pier/Conferences/2017
- Multiple public Pharo Sprints in Lille.
  https://association.pharo.org/events
- A MOOC for Pharo is online (Stéphane Ducasse).
  http://mooc.pharo.org
- Thibault Raffaillac: Co-organized the hub at the IUT for the CCC contest.
  https://informatique.univ-lille1.fr/ccc/2017/contest/
- Thibault Raffaillac:Organizing weekly programming trainings (10 students per session).
- Julien Deplanque organized Advent Of Code 2017 for Pharo.
  https://github.com/juliendelplanque/AdventOfCode2017WithPharo
- Christophe Demarey gave a Talk at ncrafts about Pharo.
  http://bordeaux.ncrafts.io

ROMA Project-Team (section vide)

SECRET Project-Team

10.3. Popularization

- **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/. Matthieu Lequesne organized the challenge and created the scientific content of the competition. He also gave a talk during the final of the cipher challege Alkindi on May 17 at the "Cité des Sciences" in Paris. The 2018 edition of the competition has been launched in December 2017 at Lycée de la Vallée de Chevreuse, Gif-sur-Yvette. Matthieu Lequesne, Sébastien Duval and Yann Rotella gave talks on cryptography during the opening ceremony. The best teams from Académies de Dijon and Orléans-Tours have been visiting the SECRET project-team in June 2017 https://www.youtube.com/watch?v=EVLHEOWAORc.

- N. Sendrier, *Code-Based Cryptography: State of the Art and Perspectives*, IEEE Security & Privacy, Special Issue on Post-quantum Cryptography. July/August 2017.

- A. Chailloux *Cryptographie Quantique en théorie* - Journée Maths en Mouvement sur l'ordinateur quantique organized by the FSMP, Paris, France, May 2017

- Matthieu Lequesne co-organized the final of the French Tournament of Young Mathematicians at École polytechnique on May 26-28 and was chaired the jury sessions. He also participated to the elaboration of the problems for the 8th French Tournament of Young Mathematicians (TFJM^2) in December 2017.

- Matthieu Lequesne co-organized the International Tournament of Young Mathematicians (ITYM) in Iasi, Romania in July 2017 and was part of the international jury.

- Matthieu Lequesne taught for one week during a mathematical summer camp for high school students in Bethlehem, Palestine, organized by the Al Khwarizmi Noether Institute in August 2017.

- Matthieu Lequesne co-organized a weekend for female high-school students interested in mathematics (Rendez-vous des Jeunes Mathématiciennes) at ENS Ulm, November 25-26.

- Yann Rotella gave a talk on cryptography at Lycée Théophile Gautier, Tarbes, January 31, 2017.

- Yann Rotella gave a presentation for *Raconte-moi ta thèse !* during Fete de la Science, at IHP, Paris, October 2017.

- Several members of the team (C. Boura, A. Canteaut, M. Lequesne, A. Leverrier, Y. Rotella) have been involved in the *Cinquante ans d'Inria*, November 2017. They hold a stand to present a serious game on cryptography. A. Canteaut has participated on a panel on Cyber-security. A. Leverrier gave a short talk (pitch de science) on quantum computing.

- Matthieu Lequesne was auditioned by the committee in charge of proposing a reform of mathematical education (Mission Maths Villani-Torossian) on November 29.

SELECT Project-Team (section vide)

SEMAGRAMME Project-Team

8.3. Popularization

- Maxime Amblard:
    - Vice head of the editorial board of interstices)i(, a French magazine popularizing computer sciences.
    - Several publication about algorithms, AI and NLP for interstices)i(.
    - Winner of a Blaise Pascal Foundation grant for a project to create a happy families game (*jeu des sept familles*) based on computer science sub-fields and scientists.
- Bruno Guillaume: interviewed by the large audience scientific newspaper *Sciences & Avenir* (January 2017) for the article *Pour aidez la recherche, jouez !*

SEQUEL Project-Team

10.3. Popularization

- CNRS publishes an article about zonotope sampling presented at ICML (see http://www.cnrs.fr/ins2i/spip.php?article2633).

- Julien Seznec publishes an article in *Les Echos* that discusses ML for education (November 2017).

- Émilie Kaufmann gave a popularization talk about bandit algorithms aimed at high school/prepa students at the MathPark seminar, organized at IHP in Paris (April 2017).

- *Avec GuessWhat?! quand l'humain joue, l'ordinateur s'initie au langage*, https://www.inria.fr/centre/lille/actualites/avec-guesswhat-!-quand-l-humain-joue-l-ordinateur-s-initie-au-langage

- Florian Strub and Mathieu Seurin demonstrated guesswhat?! during the celebrations of Inria 50th anniversary (November 2017).

- Philippe Preux:
    - interviewed for an article on *L'intelligence artificielle, est-ce vraiment de l'intelligence ?* in *BioTech.info*, Jan. 2017.
    - participates to a debate about Artificial Intelligence, as part of the franceIA tour (Euratechnologies, Lille).
    - interview by AFP in relation to alphaGo.
    - interviewed for an article on AI and games, published in *Le figaro*.
    - an interview that led to a publication in ATOS Connexion, the ATOS internal journal.
    - a video has been made with him being interviewed on Artificial Intelligence by NordEka (to be available on youtube).
    - has been selected to be protrayed at the "Soirée partenaires de l'université de Lille", Nov.
    - was a member of the organization comittee of the celebrations of the 50th Inria anniversary in Lille.
    - co-organizes a meet-up on big data and machine learning at Inria.

- M. Valko, *Comment maximiser la détection des influenceurs sur les réseaux sociaux ?*, popularization talk, Presented on May 30th, 2017 at 13 France (*Inria 13:45 2017*)

SERENA Project-Team

10.3. Popularization

F. Clément was the coordinator of the Maths-Enterprises booth for AMIES and Labex mathématiques Hadamard at the *18e Salon Culture & Jeux Mathématiques*, held in Paris, 27–30 May, 2017.

F. Clément coordinated an article for AMIES in Interstices ([42]).

SERPICO Project-Team (section vide)

SIERRA Project-Team

9.3. Popularization

- A. d'Aspremont: Paris Science et Data, PSL & Inria.
- A. d'Aspremont: Journée innovation défense
- P. Gaillard: testimony for EDF fellows day

SIROCCO Project-Team (section vide)

SISTM Project-Team

10.3. Popularization

Participation to the Inria magazines "Plug-in" and "So news" (Mélanie Prague).

Participation in "The ou café" in Inria Bordeaux (Mélanie Prague).

Lightning talk to present the NIMROD software in Dev Days at Inria (Mélanie Prague).

Edouard Lhomme, as President of AquitHealth, a non profit organisation for the development of e-Health in south west France organized the When Doctors Meet Hackers (WDMH) Congress 2017. The WDMH Congress is a 3 day event with one day of conference on the futur of health and 50 hours of hackathon. The Hackathon is a human adventure where healthcare professionals, patients, developers, designers and entrepreneurs collaborate over a weekend to develop prototypes of eHealth solutions.Six WDMH meetups were also organised each month from January to June 2017 in Bordeaux to discuss about several e-heath topics (telemedecine, data protection, simulation, ...)

SOCRATE Project-Team (section vide)

SPADES Project-Team (section vide)

SPECFUN Project-Team

8.3. Popularization

- Assia Mahboubi has written an article for the MathExpress journal, at the occasion of the *salon Culture & Jeux Mathématiques*. See the Maths Language express volume at http://www.cijm.org/accueil/productions-cijm/90-maths-express.

SPHINX Project-Team (section vide)

SPIRALS Project-Team

10.3. Popularization

Lionel Seinturier participated in October to the Chercheur itinérant event organized by the Inria Lille Nord Europe research center in the context of La fête de la science. Two classrooms (2nde and terminale) have been visited. The theme of the visit was crowdsensing and data gathering from mobile devices.

Antoine Vastel participated in October to the Chercheur itinérant event organized by the Inria Lille Nord Europe research center in the context of La fête de la science. Two classrooms (2nde and terminale) have been visited. The theme of the visit was browser fingerprinting and user privacy tracking.

STARS Project-Team (section vide)

STEEP Project-Team

9.3. Popularization

9.3.1. Conferences "Understanding and Acting" :

Saving Civilization is not a spectator sport
Lester Brown

Following a dynamics of exponential growth in a finite world, humanity today faces a number of unprecedented and tightly interlinked challenges. With a growing number of environmental limits being largely and irreversibly exceeded (GHG concentrations in the atmosphere, biodiversity loss, soil erosion, freshwater shortages...), social, economic, geopolitical, humanitarian (etc.) consequences are becoming more urgent than ever to address, while the threat of an uncontrolled global collapse is now more than a prospect. It is urgent to initiate deep, structural, socioeconomic changes on virtually all aspects of our increasingly global societies (economics, industrial and agricultural production, consumption, education, all requiring major new local and global policies).

In view of these facts, the STEEP research team has initiated in 2016 a series of conferences-debates entitled "Understanding & Acting" ("Comprendre et agir") that examines these issues in order to help researchers and citizens to increase their awareness of the various issues at stake in order to initiate relevant individual and collective actions. From now on, the scientific community at large must realize that its duty also lies in helping citizens to better understand these issues. If the fraction of people in society whose privilege is to be paid to think about society's problems do not seize this opportunity in the critical times we face, who will? Researchers must become more involved in the search of socioeconomic alternatives and help citizens to implement them. The interactions between researchers and citizens must also to be reinvented.

The presentations of this series of conferences typically last between 30 to 45 minutes; they are followed by a 45 minute public debate with the audience. The presentations are captured on video and then made directly accessible on the YouTube Channel "Comprendre et Agir". At the end of 2017 the YouTube channel reached almost 45,000 views with a rate of integral viewings re¬maining at above 25%.

Examples of conferences given in 2016-2017:

- "Why and how to recognize money as a common good?" by Jean-Michel Servet, Graduate institute of international and development studies (IHEID) at Genève.
- "What alternative to the crisis of representation?" by Loic Blondiaux, University of Paris I Panthéon-Sorbonne.
- "Reinventing agriculture and food in the 21st century?" by Gilles Billen, CNRS.
- "Can the commons movement re-activate democracy? by Christian Laval, University of Paris Ouest Nanterre La Défense.
- "Limiting climate change: Why do we not do it?" by Denis Dupré, University of Grenoble Alpes.
- "Understanding society collapses. What future for ours? " by Emmanuel Prados, Inria.
- "Environment, economy, collapse: squaring the circle?" by Pierre-Yves Longaretti, CNRS.

Link to the web page of the series [program, abstracts, dates, complements etc.]:
https://team.inria.fr/steep/les-conferences-debats-comprendre-et-agir/
Link to the YouTube channel :
https://www.youtube.com/channel/UCJbcXCcOA63M8VMysAbmt_A

9.3.2. Other popularization activities :

- Emmanuel Prados gave a conference entitled "Understanding society collapses. What future for ours?" at the series of conferences "Understanding and Acting" (Grenoble, France, 9th of February, 2017). The video of the conference has been posted on the video-sharing website, YouTube. The conferences received around 30 000 YouTube views in 10 months.
  https://www.youtube.com/watch?v=1dgjIeR5DBY

- Pierre-Yves Longaretti gave a conference entitled "Environment, economy, collapse: squaring the circle?" at the series of conferences "Understanding and Acting" (Grenoble, France, 3rd of March, 2017). The video of the conference available on YouTube. The conferences received around 1700 views in 9 months.
  https://www.youtube.com/watch?v=0T8SP5jb3aI

- Emmanuel Prados participated in the round table "How to manage territories with the help of numerical models" held for the celebrated days for the 50th birthday of Inria (Paris, France, November 7th, 2017).

- Denis Dupré gave a conference entitled "Can ethical finance prevent from our civilization collapse ?" at the department of banking and finance of the University of Zurich (Zurich, Switzerland, the 29th of September 2017). The video of the conference available on YouTube. https://www.youtube.com/watch?v=JhFiks0RbMU

- Denis Dupré gave a conference entitled "How finance can help to manage vital goods in the coming collapse?" at the "Change Finance Forum" organized by Financewatch (Brussels, Belgium, 5th december 2017). The video of the conference available on YouTube. https://www.youtube.com/watch?v=3RyJTn0a-ZA

- Denis Dupré gave an interview at France Info, December 11, 2017. France Info is the radio network operated by the French public service radio broadcaster Radio France which provides continuous live news and information. Interview available online :
  https://team.inria.fr/steep/denis-dupre-dec-11-2017/

STORM Project-Team

9.3. Popularization

- Séminaire Inria Bordeaux Sud-Ouest, Unithé ou Café, septembre 2017 sur la programmation parallèle (D. Barthou)
- Fête de la Science à l'Inria Bordeaux Sud-Ouest, ateliers Datagramme et Digit'elles, octobre 2017 (E. Saillard)
- Fête de la Science, ateliers Datagramme et Sciences Manuelles du Numérique, octobre 2017 (Y. Khorsi et C. Salingue)
- Printemps de la Mixité, atelier Datagramme, avril 2017 (C. Salingue)
- J'ai un bug, qu'est-ce que je peux faire ?, Mars 2017 (S. Thibault)
- Mon code en 180 secondes: StarPU+KStar, Journées SED Bordeaux, October 2017 (O. Aumage)

SUMO Project-Team

10.3. Popularization

- Éric Badouel gave a talk at TEDx Lorient on digital democracy (coordination of citizen debates).

TACOMA Team

9.3. Popularization

Under the leitmotif "testing and learning about digital mobility solutions in Rennes", Rennes Metropole will open the doors of its city from March 14 – 18, 2018 for a new type of inclusive and collaborative event experience, dedicated to transforming mobility services: inOut! Composed of two distinct but complementary parts, inOut will combine debates among professionals from established and incumbent companies, start-ups, academics, students and live experiences on the city territory including the citizens of Rennes and its surroundings. More than just a recurrent annual event, inOut is set to continue throughout the year as a unique incubator on a human scale, where new mobilities are invented [IN]door and are tested [OUT]doors with users in real time. It's a one-of-a-kind co-creation platform providing industrial partners, start-ups, incumbent and new mobility players the opportunity to invent new mobility services, to experiment and test new use cases and business models, in close proximity to and with the citizens. Through a series of controversial debates, the event invites professionals, academics and local authorities from all over the world to separate hype from reality and discuss enablers and potential blocking points of these new mobilities.

We have been strongly involved in the creation of InOut and Jean-Marie Bonnin is responsible of the "Expert Committee" of the event.

This autumn the work done to design the InOut concept provided the basis to build the answer of Rennes Metropole to the AMI "Territoire Innovant de Grande Ambition".

TADaaM Project-Team

10.3. Popularization

10.3.1. Duties

Guillaume AUPY was in charge of hosting the undergraduate students (L3) from ENS Lyon and later ENS Cachan at Inria Bordeaux-Sud Ouest.

Brice GOGLIN is in charge of the diffusion of the scientific culture for the Inria Research Centre of Bordeaux. He organized several popularization activities involving colleagues.

Brice GOGLIN was a member of the *CGenial* contest for science projects in high schools.

François PELLEGRINI is vice-president of université de Bordeaux, in charge of digital issues.

10.3.2. Online Content

François PELLEGRINI wrote a tribune in the Binaire blog run by Inria staff and hosted by Le Monde, on the "loyalty of data processing". See: http://binaire.blog.lemonde.fr/2017/03/27/les-algos-ni-loyaux-ni-ethiques/ .

10.3.3. Teaching and Education

- Brice GOGLIN was involved in the MOOC *Informatique et Création Numérique* which focuses at bringing basics about computer science to high-school teachers. After recording videos, he answered numerous questions on the forum, and during a live hangout about computer architectures and networks. More than 12 000 people registered to the course, and more than 1 200 successfully finished it.

- Brice GOGLIN presented tools for teaching basics of computer science in classes at the teachers' forum at Cap Sciences.

- François PELLEGRINI participated in the creation of video contents for the MOOC *Innov+*, on the economics of innovation, published on the FUN platform. His contribution concerns the software economy and law. See: https://www.fun-mooc.fr/courses/course-v1:ubordeaux+28002+session01/about .

- François PELLEGRINI was offered the chair on digital issues at *Université populaire de Bordeaux*, and gave four lectures on: "The digital revolution", "Liberties in the digital age", "Personal data and big data", "Software law and libre software". See: http://www.upbordeaux.fr/Le-numerique .

10.3.4. Talks and Hands-on

- Guillaume AUPY presented problems revolving around High-Performance Computing to High-School students during *Fête de la Science*.

- Guillaume AUPY gave a talk at the seminar *Convergence des Droits et du Numérique* about differences and common grounds between mathematical logics and juridic logics.

- Brice GOGLIN gave several talks about computer architecture, high performance computing, and research careers to general public audience, school students. He also gave several hands-on sessions about basics of algorithmics and computer science.

- François PELLEGRINI gave many talks on liberties in the digital world, digital sovereignty, software law and economy, artificial intelligence for legal practice, etc., in front of various audiences: Cap Sciences, ESI Brussels, Lycée Borda in Pau, FACTS festival on arts & sciences in Bordeaux, Cinéma Utopia, CURIE congress in Marseille, Observatoire de Nice, the Defense Security Cyber summer school in Bordeaux, the Réseau Cepage of CNRS Aquitaine, etc.

10.3.5. Popularizing inside Inria

Guillaume AUPY presented problems revolving around High-Performance Computing during the seminar *Unithé ou Café*.

TAMIS Team

10.3. Popularization

- Axel Legay participated to the "Forum Cyberstrategia" organized by the ministry of defense, September 2017
- Axel Legay participated to the "Inria Industry days" organized by Inria, October 2017
- Axel Legay participated to the "table ronde sur l'intelligence économique", Rennes November 2017
- Fabrizio Biondi participated to the "Forum International de la Cybersécurité", January 2017
- Fabrizio Biondi participated to the "Forum Cyberstrategia" organized by the ministry of defense, September 2017
- Fabrizio Biondi participated to the "Inria Industry days" organized by Inria, October 2017
- Fabrizio Biondi participated to the "European Cyber Week" organized by IRISA and Bretagne Development Innovation, November 2017

TAPDANCE Team (section vide)

TAU Team

10.3. Popularization

Philippe Caillou, talk on quality of life at work, AFRAME association for ethic management, Paris, 28/11/2017

Isabelle Guyon: press release at NIPS conference (5/12/2015); interview l'Usine Nouvelle (12/12/2017).

Michèle Sebag: interview France 2; interview l'Usine Nouvelle; 2 articles The Conversation France.

Paola Tubaro: interview Pourquoi Docteur (online health magazine, 01/01/2017); article in Journal du CNRS (02/02/2017); op-ed Libération (02/02/2017); interview Le Devoir (daily newspaper, Canada, 29/04/2017); interview Les Echos (19/09/2017); interview Le Monde (09/11/2017); 1 article OuiShare magazine (13/07/2017); 1 article The Conversation France (French version 02/11/2017, English version 11/12/2017); round table on Open data at "Science and You" conference, Montréal (05/05/2017); round table "Cuisine and Performance" at Centre Pompidou, Paris (18/11/2017).

TEA Project-Team (section vide)

THOTH Project-Team

10.3. Popularization

- J. Mairal est intervenu lors du cycle de conférences ISN, à destination des professeurs de lycée.
- J. Mairal a co-publié un article dans ERCIM news, avec Gaël Varoquaux, Bertrand Thirion et Arthur Mensch.
- C. Schmid a co-publié un article "Extraction d'informations à partir des images". Les Big Data à Découvert. Editions du CNRS, 2017

TITANE Project-Team

10.3. Popularization

Pierre Alliez gave two seminars at CIV (olympic internship in mathematics) and for the national olympiads in geosciences (IESO).

TOCCATA Project-Team

10.3. Popularization

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

S. Boldo gave a talk at the Inria Saclay about how to popularize programming.

During the "Fête de la science" on October 13th, S. Boldo demonstrated unplugged computer science to teenagers and F. Faissole run a stand about an introduction to programming with robots. S. Boldo also did this activity to kids from 7 to 17 at the Massy opera on November, 17th.

S. Boldo gave a talk during at a *Girls can code* weekend on August 23rd in Paris.

S. Boldo went to the Arpajon high-school for presenting Women in Science on December 19th.

S. Boldo gave a popularization talk to the administrative staff of Inria at Rocquencourt for the Inria birthday on November 16th.

TONUS Team (section vide)

TOSCA Project-Team (section vide)

TROPICAL Team (section vide)

TYREX Project-Team (section vide)

Valda Team

8.3. Popularization

Serge Abiteboul is involved in several popular science activities. He founded and animates the blog http://binaire.blog.lemonde.fr/ on computer science. He was the scientific curator (*commissaire scientifique*) of the exhibition "Terra Data" at the Cité des Sciences. He published two scientific popularization books in 2017, "Le temps des algorithmes" [26], with Gilles Dowek, and "Terra data" [27], with Valéeie Peugeot.

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

VERIDIS Project-Team (section vide)

VIRTUAL PLANTS Project-Team

8.3. Popularization

- C. Godin gave an invited 2 hours seminar to 4 classes of high-school students for the Math week (March) at the Lyce ´e International de Valbonne, France.

- C. Godin gave a couple of 2h classes at Lyce ´e Pompidou (Montpellier).

- C. Godin participated to the writing of a collective book reviewing the recent discoveries in Biology and dedicated to a wide audience including politicians and medias.

- O. Ali is a member of the Sam & You newsletter (the newsletter of the SAM Inria research center) writing committee.

- H. Oliveri took part in the Class'Code Initiative, a Mooc produced by Inria and OpenClassRoom provinding supports and guidelines for people wanting to teach computer science to young childrens.

VISAGES Project-Team

10.3. Popularization

10.3.1. My thesis in 180 seconds

- Lorraine Perronnet and Cédric Meurée participated in the 2017 edition of the French edition of the Three Minutes Thesis competition" :
  - Lorraine Perronnet : "Combinaison de l'ElectroEncéphaloGraphie et de l'Imagerie par Résonance Magnétique fonctionnelle pour la réducation du cerveau par Neurofeedback"
  - Cédric Meurée : "Amélioration de la résolution d'images d'IRM de perfusion"

10.3.2. La semaine du cerveau (The Brain Week), from 13/03/2017 to 19/03/2017, Rennes

- Antoine Legouhy et Corentin Vallée : "PhD students processing MRI acquisition"
- Christophe Paya : "Discover brain anatomy with 3D models"
- Isabelle Corouge : "Neurinfo: An MRI dedicated to research"
- Pierre Maurel : "Let's play to the brain quizz in 3D immersion (using oculus rift)"
- Emmanuel Caruyer : "Medinria: Computer science serving cerebral imaging"

10.3.3. Journées Française de Radiologie 2017, 13-16 Octobre, Paris

- Stand FLI-IAM (Michael Kain, Yao Chi, Aneta Morawin, Mathieu Simon, Ines Fahkfahk, Arnaud Touboulic, Christian Barillot)
- Journée du Réseau d'Entraide en IRM Multicentrique (REMI) co-organisée par Elise Bannier

10.3.4. 50 ans Inria, Paris

- Stand "MedInria" (Olivier Commowick, Pierre Maurel), Nov 7-8, 2017

10.3.5. Journée du Président de la Société Française de Neurologie, Rennes, 7 Décembre 2017

- Organised by Gilles Edan

WHISPER Project-Team

10.3. Popularization

- Julia Lawall: Coordinator of the Outreachy internship program for the Linux kernel. Outreachy provides remote 3-month internships twice a year for women and other underrepresented minorities on open source projects. Julia Lawall also mentored Bhumika Goyal as part of this program.

- Julia Lawall, "Fast and Precise Retrieval of Forward and Back Porting Information for Linux Device Drivers", Open Source Summit Europe, October 2017.

- Julia Lawall, "JMake: Dependable Compilation for Kernel Janitors", Open Source Summit Europe, October 2017.

- Julia Lawall, "Panel Discussion: Outreachy Kernel Internship Report" (moderator), Open Source Summit Europe, October 2017.

- Julia Lawall, "Overview of Coccinelle", Linux Lund Conference, May 2018.

- Julia Lawall, "Constification of Linux kernel structures", OSADL Networking Day, May 2017.

WILLOW Project-Team

10.3. Popularization

- Interview with Science et Vie, June 2017 (J. Ponce).
- Interview with Forbes Russia, June 2017 (J. Ponce).
- Interview "Science et Vie Junior", July 2017 (J. Ponce).
- Interview for "Le jaune et le rouge", Oct. 2017 (J. Ponce).
- Interview for the "les 100 français de l'IA" dossier of Usine Nouvelle, Dec. 2017 (J. Ponce).
- Two articles in "Binaires" for the newspaper Le Monde (J. Ponce).

WIMMICS Project-Team

10.3. Popularization

Michel Buffa:

- New-York-Times, March 14th: "Let a Robot Be Your Museum Tour Guide" [0].
- Nice-Matin December 8th: "Et si vous visitiez une exposition à l'autre bout de la planète, sans bouger de votre salon" [0].

Catherine Faron Zucker:

- Interview on Artificial Intelligence for Higher Education in *L'Etudiant* online journal [0].

Fabien Gandon:

- Interview for Science et Vie Junior about Semantic Web
- Interview for Survey Magazine about Semantic Web
- SIF article on the history of the Web [62]

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[0]https://www.nytimes.com/2017/03/14/arts/design/museums-experiment-with-robots-as-guides.html
[0]http://www.nicematin.com/sciences/dossier-et-si-vous-visitiez-une-exposition-a-lautre-bout-de-la-planete-sans-bouger-de-votre-salon-190462
[0] http://www.letudiant.fr/educpros/entretiens/intelligence-artificielle-entre-dans-enseignement-superieur.html

XPOP Project-Team

10.3. Popularization

Marc Lavielle developed 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 participated in the jury of the "Speed data scientist" competition organized by Animath and the Société Générale. The students worked on anomaly detection: they have to identify the days of malfunctioning of the web application. They had to figure out how to anticipate breakdowns.

Julie Josse presented "How to manage missing data in R" at the meetup Rladies Paris. This meeting was associated with the Rforwards initiative, which aims to develop women's participation in the R community.

Marc Lavielle participated to the *Jeudis de la recherche de l'X* on June 29th dedicated to "Health challenge: tools for tomorrow's medicine".

ZENITH Project-Team

10.3. Popularization

Zenith has major contributions to science popularization, as follows.

10.3.1. Code Teaching for Kids

Teaching code is now officially in the school programs in France. Class'Code is a PIA project that aims at training the needed 300,000 teachers and professionals of education France. The project is a hybrid MOOC (both online courses and physical meetings). Florent Masseglia is co-author of the first course and scientific referent of the other courses.

Along with Class'Code, the association "La main à la pâte" has coordinated the writing of a school book on the teaching of computer science teaching, with Inria (Gilles Dowek, Pierre-Yves Oudeyer, Florent Masseglia and Didier Roy), France-IOI and the University of Lorraine. The book has been requested by and distributed to 15,000 readers in less than one month. The extension of this book for the French "Collège" has been released this year with new activities and new scientific content.

F. Masseglia is giving a doctoral training at different doctoral schools in Montpellier, in order to train facilitators for helping teachers and people of the education world to better understand the "computational thinking". So far, 14 people have been trained. He is also a member of the management board of "Les Petits Débrouillards" in Languedoc-Roussillon and the scientific responsible for school visits in the LIRMM laboratory.

F. Masseglia is member of the pedagogic committee of "Edu'up", a project from France-IOI on learning code and computational thinking.

10.3.2. Science Outreach

In the context of the Floris'tic project, A. Joly participates regularly to the set up of popularization, educational and citizen science actions in France (with schools, cities, parks, etc.). The softwares developed within the project (Pl@ntNet, Smart'Flore and ThePlantGame) are used in a growing number of formal educational programs and informal educational actions of individual teachers. For instance, Smart'Flore is used by the French National Education in a program for reducing early school leaving. Pl@ntNet app is used in the Reunion island in an educational action called Vegetal riddle organized by the Center for cooperation at school. It is also used in a large-scale program in the Czech republic (with an objective of 40 classrooms in the end). An impact study of the Pl@ntNet application did show that 6% of the respondents use it for educational purposes in the context of their professional activity.

10.3.3. Events

Zenith participated to the following events:

- F. Masseglia co-organized and co-animated the Inria's stand at "La fête de la science", Montpellier, held by Genopolys (a science village).
- F. Masseglia co-organized the regional Code-Week events with the local network of media-library ("réseau des médiathèques de Montpellier Méditerranée Métropole").
- F. Masseglia is member of the project selection committee for "La fête de la science" in Montpellier.
- A. Joly designed/animated several stands and public demos in events: "La fête de la science" (Montpellier, 1 day demo), 50 ans de l'Inria (Paris, 2-days demo), Expomobile Homonumericus (Itinerant expo in France).