



RESEARCH CENTER  
**Bordeaux - Sud-Ouest**

FIELD

Activity Report 2015

# Section Popularization

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## **CAGIRE Team**

### **10.3. Popularization**

- « Simulation d'écoulements turbulents : retour d'expérience de partenariats de recherche », Meeting "Nature & Technology" organized by the "Conseil départemental des Pyrénées Atlantiques", devoted to « La recherche scientifique au service de l'aéronautique », Parlement de Navarre, Pau, France, 12 November 2015. [PB]
- « Carrefour des Métiers» organized by the "Zone d'Activité Pédagogique d'Orthez", gymnase Blazy, Mourenx(64), France, 4 April 2015 (a stand was manned by [PB] during one day with the objective of explaining the activity of researcher to an audience of schoolboys/girls and high school students).

## **CARDAMOM Team**

### **10.3. Popularization**

- P.M. Congedo, "Houston, YOU have a problem !", Unithé ou café Seminar, Inria Bordeaux Sud-Ouest, Avril 2015.
- M. Ricchiuto has contributed to the organisation of the Solutions Cop21 <sup>0</sup>, and represented Inria representatives at the research stand on the opening day.

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<sup>0</sup><http://www.inria.fr/institut/strategie/inria-a-la-cop21>

## **CARMEN Team**

### **9.3. Popularization**

- G. Ravon and Y. Coudière obtained a financial support from Cap' Math for the game: "Heart Attack". It is destined to middle and high school students to introduce mathematical modelling.
- Poster price at the CNIC 2015 for A. Djokovic.

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

## FLOWERS Project-Team

### 10.3. Popularization

IniRobot: Development, evaluation and dissemination of the IniRobot program for initiating young kids (primary schools) to computer science and robotics. This has been used and deployed in several major towns in France, including Lille, Talence and Lormont. It is now used by more than **7000** primary school children. Several days of formation for teachers have been organized to foster dissemination. The kit is Creative Commons, and available on the dedicated web site created: <https://dm1r.inria.fr/c/kits-pedagogiques/inirobot>

The Flowers team was a partner of several art/science projects studying various dimensions of the role and evolution of robots and society, and in particular

- The Comacina project exploring the role of movements and light in expressing emotions: <http://comacina.org>. This project was implemented through several residencies during the year, and several performances at various cultural places in Aquitaine, including at Pole Evasion in Ambares-et-Lagrave. a report is available at <https://flowers.inria.fr/RencontreAutourDuGeste.pdf>. It benefitted from funding from the Art/Science Idex call for project.
- The Marionnettes Electriques project studies animation techniques allowing to express fast and rich interaction in real-time on the stage. Various realizations can be seen from <https://www.poppy-project.org/project/marionnettes-electriques/>.
- The School of Moon project, from the Shonen dance company (headed by Eric Minh Cuong Castaing), is working on the design of a dance show about robots and posthumanity. It is using multiple robots, including the Poppy Humanoid robot in dynamic physical interaction with dancers. The premiere will happen in january 2016 at Ballet de Marseille. Web site: <http://shonen.info/schoolofmoon/>.

PY Oudeyer published a milestone popular science book together with astrophysicists Jean Audouze, biologist Georges Chapouthier, architect Denis Laming, on the common threads related to the origins of complexity at different scales in the universe. The title is “Mondes Mosaïques, Astres, Villes, Vivant et Robots”.

PY Oudeyer wrote a popular science article about developmental robotics in “Pour la Science” (the french version of Scientific American), entitled: “L’éveil des bébés robots”, available here: <http://www.pyoudeyer.com/eveilRobotsPourLaScienceOudeyer15.pdf>

PY Oudeyer gave several interviews in the general press and at radio and TV programs (e.g. Le Monde, Les Echos, Sciences et Avenir, RFI, Nova/PBS, Arte) to explain societal issues of robotics, <http://www.pyoudeyer.com/press/>

January 29, 2015: Pierre Rouanet, Matthieu Lapeyre and Nicolas Rabault presented the Poppy Project in the TTFX conference in Bordeaux.

Robots Makers’day (january) : First Lego League, Poppy and Thymio workshops

January 31, 2015: Aquitec 2015, Yoan Mollard presented the Poppy platform to students and visitors

February 11, 2015: Benjamin Clément, Manuel Lopes, Pierre Rouanet, and Pierre-Yves Oudeyer were invited to present the Kidlearn and Poppy projects to the French senate in Paris.

May 28 to 29, 2015: William Schueller, Baptiste Busch and Yoan Mollard participated to the jury of students option "Informatique et Sciences du numérique", Lycée Saint Genes, Bordeaux

June 03 to 06, 2015: Didier Roy, Sébastien Forestier and William Schueller participated to the event “Science and You” in Nancy, by presenting Poppy and Inirobot projects.



June 13, 2015: Thibault Desprez, Antoine Darfeuil, Amandine Spriet, Theo Segonds and Pierre Rouanet participated to the Robot Makers Day where they organized a half day workshop on how to program Poppy Torso in Bordeaux.

August 08, 2015 : David Filliat gave a Talk at "Festival de Fleurance", a science festival in Fleurance (south of France) : Les robots, bientôt nos egaux ?

August 11-14, 2015: Theo Segonds and Pierre Rouanet were invited to present their work on the connection between Snap and Poppy robots to the 2015 Scratch conference in Amsterdam.

August 25, 2015 : David Filliat gave a Talk at "Rencontre enseignant-entreprises" at Ecole Polytechnique : Remplacer les hommes par les robots : jusqu'ou ira-t-on ?

September 28 to October 2, 2015: Baptiste Busch, Yoan Mollard, and other participants of the 3rd hand consortium presented the project on a booth among other EU projects at the IROS conference, Hamburg, Germany

October 13, 2015: Rencontre Inria Industrie: Baptiste Busch, Benjamin Clément and Alexandra Delmas presented respectively the projects 3rdHand, KidLearn and 5APC on a booth, Bordeaux

October, 16, 2015: Pierre Rouanet and Yoan Mollard presented the Poppy robots to the Bdx I/O Conference in Bordeaux.

October 20 to 22, 2015: Baptiste Busch, Pierre Rouanet, Yoan Mollard and Manuel Lopes showcased 3rd hand and Poppy robots to the ICT Forum in Lisbon, Portugal

November 16, 2015: Yoan Mollard gave a talk to the ESAC Alumni meeting 2015 about the 3rd hand project, European Space Agency, Madrid, Spain

October, 5, 2015: Nicolas Rabault presented the Poppy platform at the developer day from orange lab, Bordeaux.

March, 30 to 31, 2015: Nicolas Rabault presented "what is robotics" to primary school children for the "Festival jeune public du documentaire scientifique"

May, 29 to 30, 2015 : Matthieu Lapeyre and Nicolas Rabault : participated to the "open bidouille camp", Aix en Provence

## **GEOSTAT Project-Team**

### **10.3. Popularization**

Geostat has participated to the Inria initiative for thge preparation of the COP21 international conference: *Our common future under climate change*.

## **HIEPACS Project-Team**

### **10.3. Popularization**

In the context of HPC-PME initiative, we started a collaboration with ALGO'TECH INFORMATIQUE and we have organised one of the first PhD-consultant action implemented by Xavier Lacoste led by Pierre Ramet. ALGO'TECH is one of the most innovative SMEs (small and medium sized enterprises) in the field of cabling embedded systems, and more broadly, automatic devices. The main target of the project is to validate the possibility to use the sparse linear solvers of our team in the area of electromagnetic simulation tools developed by ALGO'TECH.

The **HIEPACS** members have organized the PATC training session on Parallel Linear algebra at CINES in Montpellier April 9-10, 2015.

## **LFANT Project-Team**

### **8.3. Popularization**

Damien Robert participated in a CinémaScience event to discuss with the public after a projection of the film “Imitation Game” on Alan Turing. The theme of the intervention was “The contributions of Alan Turing from computer science to cryptography”.

**MAGIQUE-3D Project-Team (section vide)**

## **MANAO Project-Team**

### **10.3. Popularization**

February 2015: Journée numérique au Sénat on the showroom "Modèles 3D, réalité augmentée et sauvegarde du patrimoine", [http://www.senat.fr/evenement/journee\\_numerique\\_inria.html](http://www.senat.fr/evenement/journee_numerique_inria.html).

## **MEMPHIS Team**

### **10.3. Popularization**

One member of the team (Lisl Weynans) is in charge of the communication with secondary degree for the Mathematics Institute.

Participation popularization operations, such as: "Fête de la Science", "Des enseignants dans les labos", "Le printemps de la mixité", and several talks in high schools to popularize scientific computing.

Pedagogic project with an high in rural area about statistics: the PARADOX project, awarded by a grant from the fundation "Sciences à l'école".

## 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 80% of his time involved in popularization actions [35], both at a concrete level (including on Mnemosyne subjects [23]) and at the methodological level [34], [19]. This explains the amount of references to these external subjects in this document.
- Nicolas Rougier: Question/answers about Artificial Intelligence (AI) with the general public (NODE, Bordeaux); popularized article about AI on Interstices; invited talk for the “Pint of Science” festival; interview about AI in the #Thinoverly magazine; two articles in “The Conversation (FR)” about neurosciences and AI; “Unithé ou Café” at Inria BSO; Blog posts in “Binaires” (36 15 EULA) and “Scilogs” (“L’intelligence artificielle n’aura pas lieu.”)
- Frédéric Alexandre: Blog post in Scilogs: “Rien de neuf sous le soleil de l’IA” ([www.scilogs.fr/intelligence-mecanique/rien-de-neuf-sous-le-soleil-de-lia/](http://www.scilogs.fr/intelligence-mecanique/rien-de-neuf-sous-le-soleil-de-lia/)); Conference at the Bordeaux museum of science (Cap Sciences, March 5th) “Modeling the brain to better understand neurodegenerative diseases”; Article in the french scientific magazine Pour la Science: “Where are the real dangers of Artificial Intelligence” ([http://www.pourlascience.fr/ewb\\_pages/a/article-ou-sont-les-vrais-dangers-de-l-apos-intelligence-artificielle-35148.php](http://www.pourlascience.fr/ewb_pages/a/article-ou-sont-les-vrais-dangers-de-l-apos-intelligence-artificielle-35148.php)); Conference at the Multimedia Library of Tulle “Modeling emotions to better understand neurodegenerative diseases” (March 28th); Participation to the french radio broadcast 3D on the national channel France Inter (<http://www.franceinter.fr/emission-3d-le-journal-robots-cops>, May 31st); Interview in the french scientific magazine Science et Vie Junior (“Must we fear super intelligences”, issue of August); Interview in Inriality “Who is afraid about Artificial Intelligence” (<http://www.inriality.fr/communication/intelligence-artificielle/qui-peur-de/>); Responsible for the Masterclass “Think different” to the Biznext conference (december17th, Bordeaux, cf interview <http://objectifaquitaine.latribune.fr/innovation/2015-11-20/les-robots-intelligents-nous-poussent-ils-a-penser-le-monde-autrement.html> and announcement on TV <http://france3-regions.francetvinfo.fr/aquitaine/emissions/jt-1213-aquitaine>);
- PhD students participated to the regional exhibition Aquitec (C. Héricé and Maxime Carrere), to “Fête de la Science” (I. Chraïbi Kaadoud and C. Héricé), to “Printemps des filles” (I. Chraïbi Kaadoud and C. Héricé) and to the organizing committee of Pint of Science Bordeaux (C. Héricé).



## Monc Team

### 9.3. Popularization

- C. Poignard gave a lecture at IREM "Des décharges électriques contre le cancer" (April 2015)
- O. Saut is a regular speaker at Entretien de l'Excellence (<http://www.lesentretiens.org>)
- O. Gallinato gave a lecture at "la nuit des chercheurs" (Sep 2015)
- P. Berment is participating at a "Math en jean" project with the "collège Chambéry" of Villenave d'Ornon since December 2015
- A. Perreti and C. Perier represented Inria to the Aquitec forum (Jan 2015)
- S. Benzekry gave an interview to "radio campus" in June 2015 (<http://www.c-yourmag.net/article/2015-06-03/il-modelise-levolution-des-tumeurs-avec-les-mathematiques-16763>)

## **PHOENIX Project-Team**

### **9.3. Popularization**

- Hélène Sauzéon. " Assistance numérique pour soutenir les activités quotidiennes des personnes âgées et/ou avec handicap cognitif." Journée de Lancement du Living Lab e-santé Aquitain. March 5, 2015, Bordeaux.
- Hélène Sauzéon. " Quels outils numériques pour les élèves avec handicap cognitif ?" Congrès FNAREN. June 24-27, 2015, Cenon.
- Hélène Sauzéon. "DomAssist : perspectives d'application en EPHAD." Congrès EHPAD et Innovations. July 2, 2015, Bordeaux.
- Phoenix members. Présentation de DomAssist et College+. Les rencontres Inria-Industrie sur le thème de la santé. Novembre 13, 2015, Bordeaux.
- Benjamin Bertran. Présentation de DomAssist. Colloque sur la Silver Economy. October 19, 2015, Bordeaux (200 personnes).
- Benjamin Bertran. Présentation de DomAssist / HomeAttendant, Rencontre médico-social. October 1, Limoges (80 personnes).

## **PLEIADE Team**

### **8.3. Popularization**

David Sherman participated in popularization activities based on Thymio-II mobile robots for education, coordinated by the Mobsya association and EPFL (Switzerland). He contributed code to the Aseba project for piloting Thymio-IIs from the Scratch programming language, assisted in teaching at the Flornoy elementary school, and organized a team in the R2T2 event (<http://r2t2.org>) on November 4, 2015.

**POSET Team (section vide)**

## POTIOC Project-Team

### 10.3. Popularization

#### 10.3.1. Job Fairs

- Salon Aquitec (Regional Career Fair), Bordeaux, January 2015 (Anke Brock & Camille Jeunet)

#### 10.3.2. Science Festivals

- Fête de la Science, Talence, September 2015 (Julia Chatain)
- TechFest 2015, Mumbai, India. January. (Jérémy Frey, Jérémy Laviole)

#### 10.3.3. Popularization Talks

- "Ma Thèse en 180s", Public Prize of the University of Bordeaux Final and regional final, April 2015 (Camille Jeunet)
- "Rencontres Numériques", Cultures scientifiques et techniques, Créteil, October 2015 (Martin Hachet)
- "Peut-on tout contrôler par la pensée", DocForum, Lyon, Lavoisier Public, November 2015 (Fabien Lotte, with Jérémie Mattout and Emmanuel Maby, Inserm Lyon)

#### 10.3.4. Popularization Articles

- "Publication : du papier au numérique", Blog Binaire - Le Monde (Pascal Guitton) [45]
- "Publication : le temps des dérives", Blog Binaire - Le Monde (Pascal Guitton), [46]

#### 10.3.5. Demonstrations

- Augmented Michelson Interferometer, ETOP, June 2015 (David Furio, Martin Hachet).
- Fête du centre: virtual reality demo (Inria), June 2015

#### 10.3.6. Women In Science

- Printemps de la Mixité (Event for High-School Students with the aim to increase the interest in science, specifically in girls), Université de Bordeaux, Mai 2015 (Anke Brock: Organisation for Inria and Panel Talk & Potioc team: Demos)
- Panelist "Témoignages de femmes dans des professions scientifiques des secteurs public et privé et à différents niveaux de carrière" at the Colloque femmes & sciences (women in science annual meeting), Toulouse, November 2015 (Anke Brock)
- Panelist at the "Journées Femmes et Informatique" (women in computing conference) of the Société Informatique de France (French association on computing), Orléans, February 2015 (Anke Brock)
- Panelist "Out of the ordinary jobs in Computer Science" at the ACM womENCourage conference, Uppsala, Sweden, September 2015 (Anke Brock)
- Django Girls, Bordeaux, November 2015 (Julia Chatain)

#### 10.3.7. Inria Media Channels

- Inside Inria Video <https://www.youtube.com/watch?v=8bNS6JHmCwo> (Anke Brock + the whole Potioc team)
- Podcast "Comment améliorer l'accès aux cartographies pour les déficients visuels ?" for Interstices, April 2015 [https://interstices.info/jcms/ni\\_78646/comment-ameliorer-lacces-aux-cartographies-pour-les-deficients-visuels](https://interstices.info/jcms/ni_78646/comment-ameliorer-lacces-aux-cartographies-pour-les-deficients-visuels) (Anke Brock)

## **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.

## **SISTM Project-Team**

### **9.3. Popularization**

MA and Perrine Soret animate "Les maths sont bonnes pour la santé" for high school students through the "Fête de la Science" organized at Inria, Oct 2015.

## **STORM Team**

### **10.3. Popularization**

- Olivier Aumage gave a tutorial on task-based runtime systems at the HiPEAC conference in Amsterdam in January 2015.
- Olivier Aumage participated to the Inria Booth at the SuperComputing conference in Austin in November 2015.
- Samuel Thibault gave a talk at the ELCI Workshop in Paris.
- Samuel Thibault published a paper « L'accessibilité partout ! Retour d'expérience sous Debian » in the professional « Programmez ! » journal.



## **TADAAM Team**

### **9.3. Popularization**

Brice GOGLIN is in charge of the diffusion of the scientific culture for the Inria Research Center of Bordeaux. He gave numerous talks about high performance computing and research careers to general public audience and school student. He is also involved in the popularization of computer programming and robotics programming and gave several wide audience seminar on these topics.

François PELLEGRINI was invited to give a talk about privacy and information security by the students of ENS Bretagne at Rennes, in the context of their “EntretiENS” conference program.

François PELLEGRINI was a member of the jury of the Student Demo Cup at the Paris Open-Source Summit.