



RESEARCH CENTER  
**Bordeaux - Sud-Ouest**

FIELD

Activity Report 2014

# Section Popularization

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## **LFANT Project-Team**

### **7.3. Popularization**

K. Belabas gave a lecture to present Bhargava's works (2014 Fields medal) to high school teachers during the "Journée de l'IREM d'Aquitaine" (11/2014, about 100 attendants).

A. Enge has presented "Les maths au service du secret (et de sa découverte!)" during the Math en Jeans congress held in Bordeaux in April 2014, for an audience of highschool pupils aged 12 to 17.

He has spoken on "Mathematik für (und gegen!) das Geheimnis" in an event in July at Gymnasium Leopoldinum, Detmold, Germany, to an audience comprised of pupils aged 12 to 18 and of mathematics teachers.

At the GNU Hacker's Meeting 2014 in München, Germany, he has presented a tutorial on "GnuPG key signing".

**BACCHUS Team (section vide)**

## **CAGIRE Team**

### **9.3. Popularization**

- Opération Forum des Métiers organisée par la Zone d'Activité Pédagogique d'Oloron Sainte Marie (64) , Salle Pierre Scohy, Oloron Sainte Marie (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).

## **CQFD Project-Team**

### **9.3. Popularization**

M Chavent and J. Saracco are elected members of CNU 26.

B. de Saporta was an elected member of CNU 26 until sept. 2014.

J. Saracco is vice president of the french statistical society (SFdS).

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



## **MC2 Team**

### **9.3. Popularization**

- C. Poignard "Des décharges électriques contre le cancer" (Journée IREM Mai 2014).
- C. Poignard, A. Silve. Différence de potentiel induite par un champ électrique sur la membrane d'une cellule biologique . La Revue 3EI, N°75, Jan 2014.
- O. Saut participates to the "excellence interviews" ( <http://www.lesentretiens.org>)
- Lisl Weynans and Michel Bergmann held a stand at the "Fete de la science".
- Lisl Weynans is "chargee de mission" from the IMB for relations with high schools and gave talks to students and teachers to introduce scientific calculus.

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

## **CARMEN Team**

### **8.3. 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.
- S. Labarthe presented the work of the team at the June session of the Inria Bordeaux-Sud Ouest "Unithé ou café" scientific diffusion presentation.

## **MAGIQUE-3D Project-Team**

### **9.3. Popularization**

Juliette Chabassier has written a contribution for interstices, “Le piano rêvé des mathématiciens” (see [https://interstices.info/jcms/ni\\_76925/le-piano-reve-des-mathematiciens](https://interstices.info/jcms/ni_76925/le-piano-reve-des-mathematiciens))

Juliette Chabassier has contributed to “Visages des Sciences”, a series of postcards which are portraits of scientists.

## MAGNOME Project-Team

### 9.3. Popularization

David Sherman works with Didier Roy and Pierre-Yves Oudeyer of the Flowers project-team to develop tools and courseware for helping elementary school students explore robotics. David has developed software for communicating between the Scratch 2 visual programming language and the Thymio-II educational robot, and examples for use in the classroom.

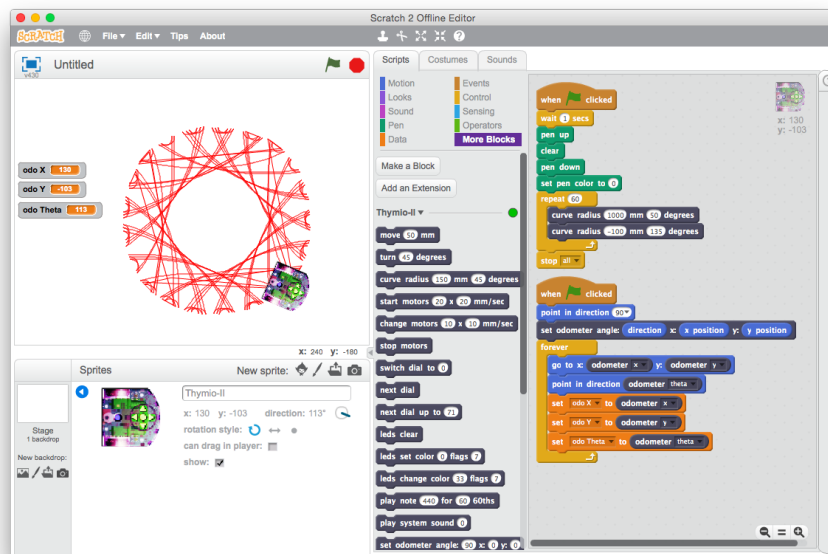


Figure 4. Piloting the Thymio-II robot with Scratch 2

## **MNEMOSYNE Project-Team**

### **8.3. Popularization**

For a multi-disciplinary team as Mnemosyne, science popularization is not 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 half-time involved in popularization actions both at a concrete level (including on Mnemosyne subjects) and at the methodological level. This explains the amount of references to these external subjects in this document.
- Nicolas Rougier: Invited talk on “The role of the body in human cognition” in the 13<sup>th</sup> Forum des Sciences Cognitives, Paris, March 2014; Participation to a round-table meeting on the digital society at the Futur en Seine festival; Article in Linux Mag on scientific visualization [21]
- PhD students participated to the regional exhibition Aquitec (C. Héricé and Maxime Carrere ) and to “Fête de la Science” C. Héricé).

**SISTM Team (section vide)**

## **HIEPACS Project-Team**

### **9.3. 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 "Maison de la simulation" in Saclay from March 26th to March 28th.



## PHOENIX Project-Team

### 8.3. Popularization

Various members of the Phoenix Inria project team participated in the following events:

- Charles Consel. "Presentation of the DomAssist project". Journée du Numérique organisé par Inria à l'Assemblée Nationale, Paris, France, January 21, 2014.
- Charles Consel. "Presentation of the DomAssist project". Journée de lancement de la Silver Economie Aquitaine, Bordeaux, France, February 17 2014.
- Loïc Caroux. "Des besoins de la personne âgée pour son maintien à domicile à la solution DomAssist". Semaine Nationale des Retraités et des Personnes Agées, Carbon-Blanc, France. October 2014.
- Loïc Caroux, Alexandre Spriet. "DomAssist : Plate-forme d'assistance domiciliaire pour la personne âgée et son aidant formel". Journée de la Santé Connectée en Aquitaine, Bordeaux, France. October 2014.
- Charles Consel, Hélène Sauzéon. "Assistance numérique pour compenser les déficiences cognitives à tous les âges de la vie". 2e Assises nationales de la médiation numérique : le numérique dans votre quotidien. October 16-17, 2014, Bordeaux.
- Lucile Dupuy. "Presentation of the DomAssist project". Fêtes de la science, Bordeaux, France, September-October 2014.
- Charles Fage. Production of a video-presentation of the School+ assistive platform with the Inria Communication Service. <http://vimeo.com/93262450>.

In addition to the following popularization actions, the DomAssist project has been presented during 2014 in two french newspapers (Sud Ouest, La Croix), and in one television report on France 3 TV.

## **RUNTIME Team**

### **9.3. Popularization**

Brice GOGLIN is in charge of the diffusion of the scientific culture for the Inria Research Center of Bordeaux. He is also a member of the national Inria committee on Scientific Mediation. He gave numerous talks about high performance computing and research careers to general public audience and school student, as well as several radio and paper interviews about Inria's activities. He is also involved in the popularization of computer programming and robotics programming and gave several wide audience seminar on these topics.

Brice GOGLIN gave talks about Software releases and Source version control with GIT in internal Inria seminars.

Samuel THIBAUT gave a talk about the structure of Internet and questions of security at "Unithé ou Café"

Olivier AUMAGE gave a talk at Seminar Modeling, at the Maison de la Simulation on the StarPU Runtime System.

Runtime organized a 2-days PRACE Advanced Training Center session where several member of the team gave talks about programming heterogeneous parallel architectures with tools such as StarPU and hwloc.

## FLOWERS Project-Team

### 9.3. 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. 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>

PY Oudeyer gave a TedX talk in Cannes, explaining open-source developmental robotics, <https://www.youtube.com/watch?x-yt-ts=1421828030&x-yt-cl=84411374&v=AP8i435ztwE>

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

PY Oudeyer wrote three popular science articles to explain societal issues of robotics:

- "What can we learn about development from baby robot" <http://www.pyoudeyer.com/WhatDoWeLearnFromBabyRobotsOudeyer2015.pdf>
- Oudeyer, P-Y. (2014) Robotique: les grands défis à venir, Futuribles, Mars 2014 <http://www.pyoudeyer.com/PYOudeyerRobotFuturibles14.pdf>.
- Oudeyer, P-Y. (2014) Des abeilles aux sources de la parole, in Breve de Maths, Mathématiques pour la planète terre, Nouveau monde editions, <http://www.breves-de-maths.fr/des-abeilles-aux-sources-de-la-parole/>.

06/02/2014 : "Developmental Robotics - Learning objects by interaction", David Filliat, Invited conference, Institut Bull, Réunion du groupe de réflexion CEM "Cerveaux et machines"

6-8/02/2014 : Aquitec, Yoan Mollard presented the Poppy platform to students and visitors

18-20/03/2014 : Innorobo 2014, Yoan Mollard and Steve N'guyen presentend the projects Poppy and 3rd hand

11/04/2014 : "Semantic Mapping", David Filliat, Invited Conference, Laboratoire Imagine, Ecole Nationale Supérieure des Ponts et Chaussées

20-22/06/2014: Poppy has been presented in the Paris Makerfair and obtained a "maker of merit" award.

2-8/07/2014: Demonstrations of Poppy took place at the FAB10 conference in Barcelona, the biggest conference about the maker revolution. Poppy was among the ten finalists for the Fablab award.

4-5/09/2014: Clement Moulin-Frier, Steve N'Guyen and Pierre Rouanet participated to a Hackathon in "cité des sciences" about programming the Poppy humanoid platform.

11/10/2014: Robotics animations for the "Fete de la science" at ENSTA ParisTech,

17/10/2014 : "Robots and Social Interaction Decisions - Developmental robotics", David Filliat, Invited presentation for the ITechLaw 2014 conference.

25-28/10/2014: Clement Moulin-Frier and Pierre Rouanet presented the Poppy platform and the associated libraries - pypot and explauto - to the PyConFR2014 conference and organised of a Hackathon.

19-21/11/2014: Clement Moulin-Frier, Nicolas Rabault, and Pierre Rouanet presented the Poppy platform to the fossa 2014 conference.

10/12/2014: Robotics demonstration for "Science Break" organised by Diagonale Paris Saclay : <http://sciencebreak.ladiagonale-paris-saclay.fr>

Clément Moulin-Frier contributed to a scientific diffusion paper in the French journal *Biofutur* about the use of robotics in the study of language evolution and acquisition: <http://www.biofutur.com/anciens-numeros>. <https://hal.archives-ouvertes.fr/hal-01100048>

Fabien Benureau supervised two students in 3rd year of the Cognitive Science major at the University of Bordeaux on their TER project. The project used Poppy, exploring how the attitude towards robots influences how humans recognise the emotion they try to express. Poppy having no facial expression — or face — yet, the students expressed the five expressions they selected (anger, surprise, joy, sadness, disgust) with body movements alone. They videotaped the sequences of movements (videos are available here [http://python.sm.u-bordeaux2.fr/ter/2014/sc/desprez-zerdoumi/?page\\_id=289](http://python.sm.u-bordeaux2.fr/ter/2014/sc/desprez-zerdoumi/?page_id=289)) and created an experiment asking volunteers to guess which emotion was displayed. The form also included the Negative Attitude towards Robots Scale (NARS), to investigate the possible correlation between fear of robot and the ability to identify their emotional attitude. The results showed no correlation between the two, although it was admitted that the experiment would have to be improved and ran again before any conclusion could be made.

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

## POTIOC Project-Team

### 9.3. Popularization

#### Popularization talks

- Presentation about Inria to High School Students during Aquitec, January (C. Jeunet)
- Presentation about Cognitive Sciences and Inria to High School Students at a local high school, March (C. Jeunet)
- Tangible and Gestural Interaction Forum (<http://fitg.lille.inria.fr/>), presentation (20mins) in Tourcoing, France, May 14th (J. Laviolle)
- Talk about Brain Computer Interfaces at "Café de la Connaissance", May (A. Cellard and C. Jeunet)
- New European Media Summit, Brussels, Belgium , September 30th (J. Laviolle, F. Lotte)
- Presentation on "How to design the computers of the future" and speedmeeting during "Filles et mathématiques: une équation lumineuse" (event to raise interest in mathematics in female high school students), University Toulouse, December 10th (A. Brock)