



RESEARCH CENTER  
Lille - Nord Europe

FIELD

Activity Report 2016

# Section Popularization

Edition: 2017-08-25



ALGORITHMICS, PROGRAMMING, SOFTWARE AND ARCHITECTURE	
1. DREAMPAL Project-Team (section vide) .....	4
APPLIED MATHEMATICS, COMPUTATION AND SIMULATION	
2. DOLPHIN Project-Team .....	5
3. INOCS Team .....	6
4. MEPHYSTO Project-Team .....	7
5. MODAL Project-Team .....	8
6. NON-A Project-Team .....	9
7. RAPSODI Team .....	10
8. SEQUEL Project-Team .....	11
DIGITAL HEALTH, BIOLOGY AND EARTH	
9. BONSAI Project-Team .....	12
NETWORKS, SYSTEMS AND SERVICES, DISTRIBUTED COMPUTING	
10. FUN Project-Team .....	13
11. RMOD Project-Team .....	14
12. SPIRALS Project-Team .....	15
PERCEPTION, COGNITION AND INTERACTION	
13. DEFROST Team .....	16
14. LINKS Project-Team .....	17
15. MAGNET Project-Team .....	18
16. MINT Project-Team .....	19
17. Mjolnir Team .....	20

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

## **DOLPHIN Project-Team**

### **10.3. Popularization**

- Clarisse Dhaenens, Fanny Dufossé, Laetitia Jourdan, Marie-Eléonore Marmion: Operational research - for 2nde during integration week (June 2016)
- Laetitia Jourdan, Marie-Eléonore: Computer Unplugged, Numériqu'elle Day (November 2016)
- Laetitia Jourdan: Computer Unplugged, Primary School (December 2016)

## **INOCS Team**

### **9.3. Popularization**

- PICOM workshop on Logistics, May 2016.
- Rendez-vous du Plateau Meetings: Prescriptive analytics for an agile logistics, December 2016.

## **MEPHYSTO Project-Team**

### **9.3. Popularization**

M. Simon gave a talk at ESPE (Ecole Supérieure du Professorat et de l'Education) during the week "Semaine des mathématiques", about the mathematical properties of the official soccer ball. Marielle Simon is part of the program "MathenJeans".

## MODAL Project-Team

### 10.3. Popularization

Christophe Biernacki has given about 10 talks during 2016 for institutions (Inria, universities, Ecole des Mines), companies and other related events. He gave also presentations towards students and industrials to the Xperium platform of the University of Lille about “Intelligence des données” (<https://modal.lille.inria.fr/xperium/>, <http://learningcenters.nordpasdecals.fr/innovation/fr/xperium>). About 1,500 people came to this event during two years. He organized also a first short meeting in April 2016 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/#/>). Here is the link towards this event: [https://modal.lille.inria.fr/wikimodal/lib/exe/fetch.php?media=meeting\\_massiccc\\_7avril2016.pdf](https://modal.lille.inria.fr/wikimodal/lib/exe/fetch.php?media=meeting_massiccc_7avril2016.pdf).

Sophie Dabo-Niang participates in the promotion of research among young children around a day of "Girls and Science, a light equation" organized in Lille (October 2016) and Senegal (Dakar, march 2016).

Benjamin Guedj has given a talk to high school students ("Terminale ISN") at Euratechnologies. The talk consisted in an overview of machine learning impacts our everyday lives and how mathematicians contribute to learning in the big data era.

Vincent Vandewalle has given one presentation towards students to the Xperium platform of the University of Lille about “Intelligence des données” (<https://modal.lille.inria.fr/xperium/>, <http://learningcenters.nordpasdecals.fr/innovation/fr/xperium>). He also has animated a formation on probabilities and statistics for middle School mathematics teachers through the Maison Pour la Science (<http://www.maisons-pour-la-science.org/node/10641>).



## **NON-A Project-Team**

### **10.3. Popularization**

- Mediation: Scientific baccalaureate students. Meeting on the Inria platform EuraTechnologies (23/03/2016, Lille): “SN Lille Académie : À la découverte des sciences numériques !”.
- Mediation: BeyondLab community. A co-working night event within BeyondLabon using “Living sensor” for water quality monitoring, featuring our PhD student Hafiz Ahmed (Lille, 16/03/2016).
- Contribution to the prospective report “Systems & Control for the Future of Humanity” coordinated by F. Lamnabhi-Lagarrigue, Research Agenda Task Force (to appear, special issue of Annual Reviews in Control to be distributed during the IFAC 2017).
- The book “Mathématiques pour l’ingénieur” (2009, ISBN : 978-9973-0-0852-7 (ATAN, 385 pages)) has been downloaded more than 65000 times.

## **RAPSODI Team**

### **10.3. 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 these actions.

Thomas Rey animates a Mathematics workshop (Math en Jeans) in the Adolphe Delégorgue middle school at Courcelles-lès-Lens.

## **SEQUEL Project-Team**

### **10.3. Popularization**

- A. Lazaric was interviewed for Inria-Lille magazine (December issue).
- J. Mary gave a 55 min talk in front of students of Lycée Sainte-Famille at Amiens.
- Ph. Preux gave 2 talks on “Artificial Intelligence” in a high-school in Villeneuve d’Ascq within the “Fête de la science”.
- O. Pietquin was interviewed by France Culture (Supersonic) on March 23rd, 2016

## **BONSAI Project-Team**

### **10.3. Popularization**

The team has always been very active in popularizing computational biology and computer science in general.

- M. Salson participated in an exchange with scientific journalists organized by the French association of scientific journalists (AJSPI). A journalist was hosted during one week in the team and M. Salson spent one week in the newsroom of *La Recherche*, a French science magazine.
- Within a project on skeptical thinking with a popularization association “Les Petits Débrouillards”, M. Salson is part of the monitoring committee and gave lectures to social workers.
- 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”, booth about computer science unplugged for high school girls, booth at Xperium about development of biopesticides (including a demo on the use of Norine), plenary presentations at the “Day for Programming and Algorithmic Teaching”, presentations at “Salon de l’étudiant”, visit of high school students in the team (M. Giraud, M. Pupin, M. Salson, J.-S. Varré, R. Chikhi, V. Leclère)

## **FUN Project-Team**

### **10.3. Popularization**

- Tahiry Razafindralambo and Simon Duquennoy gave a talk for 13-45 in April 2016
- Emilio Compagnone gave a talk for 13-45 in May 2016
- Cristina Cano gave a talk at "30 min de Sciences" in May 2016
- Emilio Compagnone and Valeria Loscri gave a talk and a demo at Robotic Day at Euratechnologies in July 2016
- Nathalie Mitton, Cristina Cano and Viktor Toldov gave talks at IoTWeek by CITC on June 2016
- Nathalie Mitton gave a talk at NormaFret by i-Trans competitiveness cluster in September 2016
- Aziz Mbacke, Jad Nassar and Julien Vandaele gave some talks in high schools for the "Fête de la Science" in October 2016
- Nathalie Mitton co-authored popularization articles in *La main à la pâte* (to be published in January 2017), white paper on e-accessibility for BrailleNet/G3ict and an article in *Big Data à découvert* by CNRS edition.

## **RMOD Project-Team**

### **10.3. Popularization**

- Stéphane Ducasse and Damien Cassou were important contributors of the “Enterprise Pharo” book (<http://files.pharo.org/books/enterprise-pharo/>).
- Brice Govin and Vincent Blondeau participated in the contest “My thesis in 180 seconds”

## **SPIRALS Project-Team**

### **10.3. Popularization**

**Romain Rouvoy** is in charge of a demonstrator of APISENSE<sup>®</sup> as part of the Xperium initiative of the **LILLIAD Learning center Innovation** at the University of Lille 1.

**Lionel Seinturier** has participated in October to the event Chercheur itinérant organized by the Inria Lille Nord Europe research center in the context of La Fête de la science. Two classrooms (3ème) have been visited. The theme of the visit was crowd-sensing and data gathering from mobile devices.

## **DEFROST Team**

### **10.3. Popularization**

- Olivier Goury and Christian Duriez participated in "Fête de la science: Opération Chercheurs itinérants", which involves giving scientific lectures in middle and high schools.
- Christian Duriez and Mario Sanz Lopez participated in the "Bourse aux Technologies" at Bercy, Paris (22 March).
- Popularization session 13:45 on the topic of Arduino by Mario Sanz Lopez.
- Popularization session 13:45 on the topic of Software development good practices by Bruno Carrez.
- Damien Marchal participated in "Chti'Code". Chti'Code is an action of the University of Lille 1, which aims to promoting computer education in primary schools. Damien Marchal intervened with computer science student in 4 CM2 classes for a total of 20h.
- Jeremie Dequidt was jury member of the second robotic competition SI / @ Baggio.



## **LINKS Project-Team**

### **9.3. Popularization**

I. Boneva has supervised second year students from DUT while they conducted activities on introduction to programming to 9-10 years old students in Villeneuve d'Ascq.

## **MAGNET Project-Team**

### **10.3. Popularization**

MARC TOMMASI presented the MAGNET team at the EuraTechnologies ICT innovation ecosystem (<https://www.inria.fr/centre/lille/agenda/r-dv-du-plateau-inria-apprentissage-automatique-et-reseaux-d-information>).

AURÉLIEN BELLET presented some of his work at the popularization seminar “30 minutes de sciences” and at an Assemblée Générale of Inria Lille - Nord Europe.

THIBAUT LIÉTARD has participated to the “chercheur itinérant” initiative (<https://www.inria.fr/centre/lille/recherche/sciences-pour-tous2/mediation/chercheurs-itinerants-au-lycee-2016>).

RÉMI GILLERON has participated at the forum “F O O R <: Forum Ouvert Oeuvres et Recherches” where he presented the research work done with PASCAL DENIS for the artwork “This is Major Tom to Ground Control”

## MINT Project-Team

### 9.3. Popularization

- Futur en Seine (Paris, 9-10 june 2016; <http://www.futur-en-seine.paris/>). Presentation of E-Vita.
- Nuit des bibliothèques (Lille, 15th october 2016, <http://www.bm-lille.fr/nuit-des-bibliotheques.aspx>). Presentation of the haptic book to the readers of the public library.
- Forum du CNRS (Lille, 19th November 2016, <http://leforum.cnrs.fr/>). Presentation of 2 demos.
- Nuit des partenaires (Lille, 29th november 2016, <https://www.univ-lille.fr/soireepartenaires/>). Présentation of the Haptic book.
- Salon Humanités connectées, Toulouse, dec. 2016.
- Rencontres Inria Entreprises (25 novembre 2016), imaginarium.
- journées RV en haut de france, 24 novembre 2016, imaginarium.
- tables ronde journées régionales de l'innovation, amiens, 20 novembre 2016.
- BOEUF project workshops. Introduction to PureData and digital orchestras @ La condition publique (Roubaix) and l'Imaginarium (Tourcoing) <http://www.cristal.univ-lille.fr/oeuvres-et-recherches/2016/11/28/workshop-les-orchestres-numeriques-espace-recherche-scv/>

## Mjolnir Team

### 10.3. Popularization

- “*Vers une meilleure appréciation des algorithmes qui nous entourent*”, talk for **Rencontres Inria Industrie**, Plaine Image, Tourcoing, November: Fanny Chevalier
- Prospective talk on HCI as part of BeyondLab’s “*Aux portes du futur*” evening, November: Nicolas Roussel
- “*Chorégraphie des Transitions animées*”, talk for CRISAL journée Recherche Innovation Création, Lille, October: Amira Chalbi-Neffati
- “*Les objets deviennent intelligents, et nous ?*”, talk at Lycée Diderot (Carvin) as part of Inria Lille’s “**Chercheurs Itinérants**” program, October: Nicolas Roussel
- “*Efficacité et performance des transitions animées*”, talk at EuraTechnologies (plateau Inria), March: Fanny Chevalier
- Presentation of the Mjolnir team, talk at EuraTechnologies (plateau Inria), January: Nicolas Roussel