



RESEARCH CENTER
Rennes - Bretagne-Atlantique

FIELD

Activity Report 2018

Section Popularization

Edition: 2019-03-07

ALGORITHMICS, PROGRAMMING, SOFTWARE AND ARCHITECTURE

1. CAIRN Project-Team	4
2. CELTIQUE Project-Team	5
3. CIDRE Project-Team	6
4. GALLINETTE Project-Team	7
5. HYCOMES Project-Team (section vide)	8
6. PACAP Project-Team	9
7. SUMO Project-Team	10
8. TAMIS Project-Team (section vide)	11
9. TEA Project-Team (section vide)	12

APPLIED MATHEMATICS, COMPUTATION AND SIMULATION

10. I4S Project-Team	13
11. MINGUS Project-Team	14
12. SIMSMART Team (section vide)	15

DIGITAL HEALTH, BIOLOGY AND EARTH

13. DYLISS Project-Team	16
14. FLUMINANCE Project-Team	17
15. GENSCALE Project-Team	18
16. SERPICO Project-Team (section vide)	19
17. VISAGES Project-Team	20

NETWORKS, SYSTEMS AND SERVICES, DISTRIBUTED COMPUTING

18. DIONYSOS Project-Team	22
19. DIVERSE Project-Team	23
20. EASE Team (section vide)	24
21. KERDATA Project-Team	25
22. MYRIADS Project-Team	26
23. STACK Team	27
24. WIDE Project-Team	28

PERCEPTION, COGNITION AND INTERACTION

25. HYBRID Project-Team	29
26. LACODAM Project-Team	30
27. LINKMEDIA Project-Team	31
28. MIMETIC Project-Team	32
29. PANAMA Project-Team	33
30. RAINBOW Project-Team	34
31. SIROCCO Project-Team	35

CAIRN Project-Team

10.3. Popularization

10.3.1. Articles and contents

Article (in French) about the Embrace project in *Le Mag numérique*: <http://www.lemag-numerique.com/2018/01/embrace-vers-radio-hf-numerique-10653>

Article in Emergences on “durcir les multi-cœurs contre les rayonnements ionisants”: <http://emergences.inria.fr/2018/newsletter-n51/L51-FLODAM>

CELTIQUE Project-Team

7.3. Popularization

7.3.1. Interventions

- Thomas Genet gave a talk “Bug, Virus, Intrusion, Pirates... So many threats and no defense? Yes... maths.” in high schools close to Rennes. 2018.
- David Cachera contributed to the animation of “École Médiation scientifique en informatique ”, Société Informatique de France, June 2018.

CIDRE Project-Team

9.3. Popularization

9.3.1. Articles and contents

- Emmanuelle Anceaume was interviewed by Jean-Michel Prima. This gave rise to an article: "Améliorer le Bitcoin ... à coup de fourches", Emergences Inria, 2018.
- Jean François Lalande and Valérie Viet Triem Tong were interviewed by Jean-Michel Prima. This gave rise to an article: "Disséquer automatiquement les malware sous Android", Emergences Inria, 2018.
- Emmanuelle Anceaume belonged to the working group "Blockchains challenges" organized by the french governmental group "France Strategie". This gave rise to a report accessible here: <https://www.strategie.gouv.fr/sites/strategie.gouv.fr/files/atoms/files/fs-rapport-blockchain-21-juin-2018.pdf>.

9.3.2. Interventions

Interviews, videos and podcasts :

Emmanuelle Anceaume was interviewed by Joanna Jongwane for a <https://interstices.info/le-potentiel-revolutionnaire-de-la-technologie-blockchain/> podcast in online Interstice journal, 2018. (Talk is in french).

Emmanuelle Anceaume was interviewed by the Parliamentary Office For Scientific and Technological Assessment (OPECST) in 2018. The OPECST acts as an intermediary between the political world and the world of research. The goal of this interview was to describe the Bitcoin cryptocurrency system and its associated blockchain, and to discuss on the different vulnerabilities Bitcoin is confronted with.

Emmanuelle Anceaume was interviewed by the *mission d'information sur l'usage des blockchains*, by the French National Assembly in 2018.

Demos : Practical results concerning malware analysis issued from the Kharon project were presented during:

Forum International de la Cybersécurité at Lille in 2018

Fête de la science at Inria in 2018

These works also regularly presented during the visits of the *Laboratoire Haute Sécurité* in the Inria Rennes Bretagne Atlantique center.

9.3.3. Internal action

- Emmanuelle Anceaume was invited to join the internal meetings at La Cordée Rennes on "Blockchain focus: Cinéma: Quel potentiel d'innovation", November the 8th, 2018.

GALLINETTE Project-Team

8.3. Popularization

8.3.1. Interventions

- A. Mahboubi is working with composer Alessandro Bossetti and students of the professional high-school Lycée Michelet, on a project “Art and Mathematics”, supported by the **Athenor** theater.

HYCOMES Project-Team (section vide)

PACAP Project-Team

10.3. Popularization

10.3.1. Internal or external Inria responsibilities

Erven Rohou is “correspondant scientifique des relations internationales” for Inria Rennes Bretagne Atlantique. As such he is a member of the Inria COST GTRI (Groupe de Travail “Relations Internationales”).

10.3.2. Articles and contents

PACAP contributed to Inria’s white book on cybersecurity.

10.3.3. Education

Erven Rohou was invited to present the life of a researcher in computer science to middle school students (*Collège de Cesson-Sévigné*)

10.3.4. Interventions

We welcomed a student, grade of 3e (middle-school), for her 3-day observation stay to discover the daily life of researchers in computer science.

SUMO Project-Team

10.3. Popularization

10.3.1. Internal or external Inria responsibilities

Éric Badouel is the co-director (with Moussa Lo, UGB, Saint-Louis du Sénégal) of LIRIMA, the Inria International Lab for Africa. He is scientific officer for the African and Middle-East region at Inria DPEI (European and International Partnership Department). He is member of the executive board of GIS SARIMA.

10.3.2. Articles and contents

- Ocan Sankur published an article on formal verification for the Turkish Academy of Sciences: “**How to verify computer systems on which our lives depend**” on Nov. 2018.

TAMIS Project-Team (section vide)

TEA Project-Team (section vide)

I4S Project-Team

8.3. Popularization

J. Dumoulin presented a talk on "Surveillance thermique long terme" at Blue Day event organized by the Pole Mer Bretagne Atlantique on "Maintenance des infrastructures / Instrumentation / Suivi en service / durée de vie et prolongation / nouvelles agressions" , Brest, November 14th, France.

J. Dumoulin presented the COP21 solar hybrid road demonstrator at Loire- Atlantique event : "Inventons la route de demain", journées enseignements et perspectives, Fay de Bretagne, November 5th, France.

J. Dumoulin presented a talk "Routes à énergie positive" at Escales Génie Civil, Saint-Nazaire, November 22nd, France.

8.3.1. Internal or external Inria responsibilities

L. Mevel is member of CLHSCT committee in Rennes.

L. Mevel is member of Comité de centre committee in Rennes.

M. Doehler is member of Comité de centre committee in Rennes.

8.3.2. Interventions

M. Doehler participated to Journée de la science on October 5th 2018.

8.3.3. Creation of media or tools for science outreach

A damage localization mockup has been developed and installed in the showroom of Inria Rennes [43]. It has been the support of I4S presence during the Fête de la Science on october 5th, where several highschool classes were introduced to physics and statistics by means of our demonstration mock-up.

MINGUS Project-Team

10.3. Popularization

10.3.1. Interventions

- A. Crestetto: talks on "traffic flows" in several educational institutions within the framework of "Essentielles", university of Nantes.
- N. Crouseilles: welcoming of two schoolchildren at IRMAR laboratory.
- N. Crouseilles: welcoming of a student within the framework of the modulus "visit a researcher" (3 meetings).

10.3.2. Internal action

- P. Navaro: Python training (3 days) at the CNRS delegation of Lille, april 2018.
- P. Navaro: Python training (3 days) for the Rennes DSI, june 2018.

SIMSMART Team (section vide)

DYLISS Project-Team

10.3. Popularization

10.3.1. Internal or external Inria responsibilities

Science en Cour[t]s (<http://sciences-en-courts.fr/>) Many of our on-going and former Ph-D students (M. Wery, L. Bourneuf, A. Antoine-Lorquin, C. Bettembourg, J. Coquet, V. Delannée, G. Garet, S. Prigent) have been heavily involved in the 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 [\[More details\]](#)

10.3.2. Interventions

- "J'peux pas j'ai informatique", Welcoming of high-school students to leverage stereotypes about computer sciences, Apr. 2018 [A. Siegel]
- Atelier Google Numerics, Rennes, table ronde *Enseigner le code dès le plus jeune âge*, Oct. 2018 [A. Siegel]
- "Rencontre des jeunes mathématiciennes", ENS Rennes, 2-days workshop for high-school girl students in mathematics. Introduction to gender stereotypes in mathematics, Nov. 2018 [A. Siegel]

10.3.3. Creation of media or tools for science outreach

- Le Language comme inspiration [\[youtube link\]](#) [H. Talibart]
- Les aventuriers du remède perdu [\[youtube link\]](#) [M. Louarn and M. Wery]

FLUMINANCE Project-Team

9.3. Popularization

9.3.1. Internal or external Inria responsibilities

Jocelyne Erhel

- member of the Inria local committee for health and safety (réfèrent chercheur) 2016-2018.
- member of the Inria administrative commission (CAP) for researchers, from January 2016.
- member of the Inria national committee for secondment, 2016.

Etienne Mémin

- Responsible of the "Commission Développement Technologique" Inria Rennes
- Member of the "Commission Personnel" Inria-IRISA Rennes

9.3.2. Education

Jocelyne Erhel

- présidente du jury du rallye de mathématiques du CNED, since 2017.

9.3.3. Interventions

Jocelyne Erhel

- talk about melting ice caps, general public, Musée des Arts et Métiers, March 2018.
- talk about spreading epidemics, stage de collégiens, January and February 2018.
- contribution to website redesign of Interstices, 2017-2018.

9.3.4. Creation of media or tools for science outreach

Jocelyne Erhel

- scientific coordinator of the website Interstices (since June 2012).
- contribution to website redesign of Interstices, 2017-2018.

GENSCALE Project-Team

10.3. Popularization

10.3.1. Internal or external Inria responsibilities

- Member of the Interstice editorial board [P. Peterlongo]

10.3.2. Interventions

- In educational institutions : Participation to operation "A la découverte de la recherche" in high schools [P. Peterlongo]

10.3.3. Creation of media or tools for science outreach

- Short Movie "Les mutations génétiques, des événements spontanés à la thérapie génique", presented at Sciences en Courts, a local contest of popularization short movies made by PhD students (<http://sciences-en-courts.fr/>) [L. Lecompte, W. Delage].

SERPICO Project-Team (section vide)

VISAGES Project-Team

10.3. Popularization

10.3.1. Press

- Isabelle Bonan and Christian Barillot did present the activity of Neurofeedback in Visages during a press conference in Paris on November 14th, 2018 organized by Inria. Press reports have been issued from this conference : France Inter morning news, Usbek et Rica (<https://usbeketrica.com/article/le-xxieme-siecle-sera-celui-du-cerveau>), and Egora (<https://www.egora.fr/actus-medicales/neurologie/43575-1-interface-cerveau-ordinateur-efficace-dans-le-traitement-de>).
- Article in "Sciences Ouest" on "*Un miroir intelligent pour entraîner son cerveau*" <https://www.espace-sciences.org/sciences-ouest/366/dossier/un-miroir-intelligent-pour-entraîner-son-cerveau>, Nov. 2018

10.3.2. Film

A film presenting the Neurinfo imaging facility was recorded by Inria for the official launching ceremony of the new 3T Prisma scanner and further use for general communication about Neurinfo. Reports on local press: Ouest-france (<https://www.ouest-france.fr/bretagne/rennes-35000/video-une-irm-ultra-puissante-pour-faire-avancer-la-recherche-rennes-6095044>) and TV-Rennes (<https://www.tvr.bzh/programmes/tvr-soir-1543339500>).

10.3.3. Articles and contents

- Camille Maumet: Blog post “Open science working group on scientific software” <http://blog.camillemaumet.com/posts/12>, November, personal website.
- Elise Bannier: Blog post “Village des sciences 2018” <https://team.inria.fr/visages/village-des-sciences-2018/>, October, VisAGeS blog.
- Camille Maumet: Blog post “Extending BIDS to fMRI analyses” <http://blog.camillemaumet.com/posts/11>, October, personal website.
- Olivier Commowick: Blog post: “Anima scripts release” <https://team.inria.fr/visages/anima-scripts-release/>, September, VisAGeS blog.
- Camille Maumet: Blog post “Collaborative AFNI projects at DC code convergence” <http://blog.camillemaumet.com/posts/10>, September, personal website.
- Camille Maumet: Blog post “Meeting Montreal neuroinformatics community at the INCF congress and hackathon” <http://blog.camillemaumet.com/posts/9>, August, personal website.
- Camille Maumet: Blog post “Mentoring for Mozilla Open Leaders” <http://blog.camillemaumet.com/posts/8>, August, personal website.
- Camille Maumet with Claire Cury: Blog post “Interview: Let’s organise a Brainhack!” <https://team.inria.fr/visages/interview-lets-organise-a-brainhack/>, July, VisAGeS blog.
- Camille Maumet with Elise Bannier: Blog post “Interview: Participating in my first hackathon at Brainhack Rennes 2018” <https://team.inria.fr/visages/participating-in-my-first-hackathon-at-brainhack-rennes-2018/>, July, VisAGeS blog.
- Camille Maumet: Blog post “OHBM 2018: first remotely-attended conference” <http://blog.camillemaumet.com/posts/7>, June, personal website.
- Camille Maumet: Blog post “Sprinting with bio-imagers and how I learnt about NEUBIAS, EuBI, Elixir and tried out myBinder!” <http://blog.camillemaumet.com/posts/6>, May, personal website.
- Olivier Commowick: Blog post “Anima v3.0 release” <https://team.inria.fr/visages/anima-v3-0-release/>, March, VisAGeS blog.

- Claire Cury: Blog post “Workshop Multiple Sclerosis 2018 (UCL, Inria)” <https://team.inria.fr/visages/workshop-multiple-sclerosis-2018-ucl-inria/>, April, VisAGeS blog.
- Olivier Commowick: Blog post “Brainhack Rennes 2018 (April 25-26)” <https://team.inria.fr/visages/brainhack-rennes-2018-april-25-26/>, March, VisAGeS blog.
- Olivier Commowick: Blog post “medInria 3.0 available” <https://team.inria.fr/visages/medinria-3-0-available/>, March, VisAGeS blog.

10.3.4. Education

- L codent L créent - An outreach program to send PhD students to teach Python to middle school students in 8 sessions of 45 minutes. Tassadit Bouadi (Univ. Rennes 1), Camille Maumet (VisAGeS) and Anne-Cecile Orgerie (Myriads) are coordinating the local version of this program, initiated in Lille. The first session in Rennes is planned for April 2019. The program is currently supported by: Fondation Blaise Pascal, ED MathSTIC, Inria and Fondation Rennes 1.

10.3.5. Interventions

10.3.5.1. National brain week: “Semaine du Cerveau”

- Giulia Lioi: Talk “Lire dans son cerveau grâce au neurofeedback EEG, c’est mieux bouger”, March 14, Warpzone, Rennes, France.
- Mathis Fleury: Bar en (neuro) sciences; May 14-16; Presentation of the Neurofeedback and demonstration of a EEG based Neurofeedback with a motor imagery paradigm.

10.3.5.2. National science week: “Village des sciences”

Visages took part in the Village des Sciences 2018, opening the Neurinfo platform to 45 middle school students (Oct 5) and 120 visitors from the general public (Oct 6-7), Oct 5-7, Rennes, France. <https://www.univ-rennes1.fr/evenements/20072018/village-des-sciences-2018-visites-guidees-de-laboratoires-pour-les-scolaires>, <https://team.inria.fr/visages/members-area/projects/village-des-science-2018/>. The event was coordinated by Julien Le Bonheur from the University of Rennes, and Elise Bannier coordinated the contribution of Neurinfo/Visages. We covered 4 themes:

- Giulia Lioi, Mathis Fleury, Simon Butet, Pauline Rolland: Neurofeedback EEG
- Pierre Maurel, Charlélie Erhart, Antoine Legouhy, Corentin Vallée, Francesca Galassi, Julie Coloigner: Image processing with MedInria
- Isabelle Corouge, Catherine Guillemot, Emmanuel Caruyer, Elise Bannier, Benjamin Parat: Brain and MRI
- Quentin Duché, Florian Chapelain, Virginie Dardier: Functional MRI

10.3.5.3. Other interventions

- Pierre-Yves Jonin: Series of 6 talks on neuropsychology, Universités du Temps Libre de Bretagne, Jan-Dec, Rennes, France.
- Pierre-Yves Jonin: Talk “La mémoire humaine, comment la conserver, quand s’inquiéter”, Bien Vieillir en Ille-et-Vilaine, June, Rennes, France.
- Mathis Fleury: Talk “Qu’est ce qu’un doctorant ?” Journée des métiers IUT rennes - , Nov 16, IUT Rennes, France.
- Camille Maumet: Talk to middle school students (around 100) “La neuroinformatique”, PRNB, April, Rennes, France.
- Olivier Commowick: Presentation of research done in VisAGeS on medical image processing and of the MedInria software, Journée LOGIN, Nov 27, Grenoble, France.

10.3.6. Creation of media or tools for science outreach

- Launching of a Twitter account for the VisAGeS team (Camille Maumet) and setup on the VisAGeS website (Olivier Commowick) http://twitter.com/visages_inria. Tweets by lab members (Quentin Duché, Christian Barillot)
- Development of the VisAGeS blog and writing of blog posts (Camille Maumet, Olivier Commowick, Claire Cury, Elise Bannier).

DIONYSOS Project-Team

10.3. Popularization

Yann Busnel is a member of Development Council of Computer Sciences Master at Université de Nantes (2017–*).

10.3.1. Internal or external Inria responsibilities

- Bruno Tuffin was a member of Inria-MITACS selection committee

10.3.2. Interventions

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

DIVERSE Project-Team

9.3. Popularization

- Exhibitions to Open Cloud Forum, Paris 21/03/2018
- Exhibitions to EclipsCon Toulouse 13-14/04 2018
- Exhibitions to Paris Open Source Submit 05-06/12/2018

9.3.1. Internal or external Inria responsibilities

- Olivier Barais was in charge of the recruitment committee for the position of associate professor at the University of Rennes 1 in cyber security.
- Olivier Barais was a member the recruitment committee for the position of associate professor at the University of Nantes in Software Engineering.
- Olivier Barais was a member of the recruitment committee for the position of associate professor at the University of Bordeaux in Software Engineering.

9.3.2. Interventions

- Exhibitions to the Lycée Sévigné to present career paths in Research
- Exhibitions to the "forum des métiers du collège Bourguevreuil"

9.3.3. Internal action

- Olivier Barais provide one day course on Modern Web Engineering to SED Engineer.

EASE Team (section vide)

KERDATA Project-Team

8.3. Popularization

8.3.1. Internal or external Inria responsibilities

Gabriel Antoniu:

Big Data Value Association: Inria representative in the working group on HPC-Big Data convergence since 2018.

ETP4HPC: Inria representative in the working group on HPC-Big Data convergence since 2018.

Luc Bougé: Co-ordinator between ENS Rennes and the Inria Research Center and the IRISA laboratory.

Alexandru Costan:

- In charge of internships at the Computer Science Department of INSA Rennes.
- In charge of the organization of the IRISA D1 Department Seminars.

8.3.2. Articles and contents

HDF5 Blog: Invited blog article explaining how Damaris can support HDF5-based storage.

MYRIADS Project-Team

10.3. Popularization

10.3.1. Internal or external Inria responsibilities

Martin Quinson is on the scientific board of the Blaise Pascal foundation, boosting the scientific outreach in the domains of Maths and Computer Science.

10.3.2. Articles and contents

- Anne-Cécile Orgerie participated to the radio program La methode scientifique by Nicolas Martin with Jean-Marc Jancovici, France Culture, October 17, 2018.
- Anne-Cécile Orgerie was interviewed by Agnes Rougier, Radio France Internationale, September 26, 2018.
- Anne-Cécile Orgerie was interviewed by Laure Cailloce for the Journal of CNRS, May 2018.

10.3.3. Education

- L codent L créent - An outreach program to send PhD students to teach Python to middle school students in 8 sessions of 45 minutes. Tassadit Bouadi (Univ. Rennes 1), Camille Maumet (VisAGeS) and Anne-Cécile Orgerie (Myriads) are coordinating the local version of this program, initiated in Lille. The first session in Rennes is planned for April 2019. The program is currently supported by: Fondation Blaise Pascal, ED MathSTIC, Inria and Fondation Rennes 1.
- Anne-Cécile is a member of the Jury for the Agrégation de Sciences Industrielles, an examination for future secondary teachers of engineering
- Martin Quinson is a trainer for the Agrégation de Sciences Industrielles.
- Martin Quinson is in charge of a M2 lecture on scientific vulgarization at ENS Rennes. The students are asked to come up with new activities (or improve existing ones) on their research field.
- Martin Quinson was a trainer during the SIF summer school on “Scientific Vulgarization in Computer Science”, held in Toulouse, June 6th-8th 2018.

10.3.4. Interventions

- Anne-Cécile Orgerie and Martin Quinson participated in the organization of a day for middle school student to deconstruct computer science-related stereotypes <http://emergences.inria.fr/2018/newsletter-n53/153-informatiennes>.
- Martin Quinson presented various unplugged activities to primary and secondary students over the year.
- Anne-Cécile Orgerie and Martin Quinson hosted 2 secondary students during one week (17th-21th december 2018).

10.3.5. Creation of media or tools for science outreach

- Martin Quinson initiated a new unplugged activity with Philippe Marquet (EPI Dreampal – Lille) and Corentin Ferry (student at ENS Rennes) called M999 to explain the internal behavior of a CPU. This activity is still to be tested live with pupils.
- Martin Quinson helped the M2 students of ENS Rennes to create or improve unplugged activities on their research topics. Activities on Classification, Image Reconstruction, Modeling, Cryptographic Protocols, Map-Reduce or Verifications are still incubating at this point.

STACK Team

10.3. Popularization

- J.-M. Menaud, Online publication <http://www.lemondeinformatique.fr>: *L'IMT Atlantique veut réduire le coût des calculs lourds.*
- J.-M. Menaud, Online publication <http://www.mtom-mag.com>: *Le projet HYDDA, développer une plateforme innovante, associant Cloud et HPC.*
- J.-M. Menaud, Online publication <http://www.agence-api.fr>: *L'Institut Mines-Telecom Atlantique monte une plateforme cloud et HPC.*

WIDE Project-Team

9.3. Popularization

Pierre-Louis Roman gave an invited talk at the E-novation Convention organized by The Notaries of Brittany, Rennes, 12 November 2018. Title: Blockchains, Distributed Ledgers, and their Utility for Notaries (talk in French).

HYBRID Project-Team

10.3. Popularization

As a salient action in 2018, Hybrid could organize a **press conference** on the topic of "Neurofeedback" in Paris (November 14th), which ended up with numerous media coverages (radio, press, etc).

10.3.1. Articles and contents

- "Autour de la question" (07/18) Radio France International: interview of Valérie Gouranton, Ronan Gagne and Théophile Nicolas on "cultural heritage applications in VR/AR"
- "Sciences Ouest" (11/18) : interview of Anatole Lécuyer about "Neurofeedback"
- "Journal de 7h30" (11/18) France Inter radio : interview of Anatole Lécuyer about "Neurofeedback"
- "Sciences Ouest" (10/18): interview of Maud Marchal for "Epreuve par 7".

10.3.2. Interventions

- Technoférence du Pôle Images et Réseaux (Rennes, 02/18): co-organization by Ronan Gagne, presentation from Maud Marchal on haptic in VR, demonstrations in Immersia.
- "Journées Science et Musique 2018" (Rennes, 10/18): co-organization of this event, and presentation of several demos of the team.
- Press Conference on "Neurofeedback" (Paris, 11/18): co-organization of this event, and presentation from Anatole Lécuyer, followed by several media coverages.

LACODAM Project-Team

10.3. Popularization

10.3.1. Interventions

- Public debate on Artificial Intelligence at Café des Champs-Libres, Rennes (E. Fromont)
- Radio C-LAB, invited to the "Mars 2081" show on AI. (E. Fromont)
- Invited member to the focus group "Transition numérique et pratiques de recherche et d'enseignement en agriculture, alimentation, environnement et sciences vétérinaires à l'échéance 2040" (T. Guyet)
- Intervention at the Pint of Science 2018 event, topic: Artificial Intelligence and Data Science (A. Termier)
- Invited talk at "Matinale Rennes Atalante", Rennes (A. Termier, 22/12/2018) ⁰.
- Invited talk at Lacroix-Sofrel industrial group (A. Termier)
- Invited talk at the kickoff the OpenLab PSA-Inria, where Lacodam is actively involved (A. Termier)
- Invited talk at the conference *IN'Sciences "Big data : comment combiner intelligence artificielle et gestion de données ?"* (L. Galárraga, chaired by L. Rozé)

⁰Video: <http://www.rennes-atalante.fr/actualites-technopole/captations-matinales-rennes-atalante/2018/visionnez-la-matinale.html>

LINKMEDIA Project-Team

9.3. Popularization

9.3.1. Articles and contents

- Interviews in order to popularize: Guillaume Gravier was interviewed on AI technology for Sciences Ouest
- Vincent Claveau gave interviews about Fake News detection in the following journals: *Stratégies* 06/06/2018 and 12/10/2018, *LCI.fr* 8/06/2018, *Le Monde.fr* 24/05/2018, *Sciences Ouest* n363, *Sciences et Avenir* 30/05/2018 and xx/12/2018, *01net* n894
- Ewa Kijak was interviewed by *LeTemps.ch*

9.3.2. Interventions

- Public exhibitions: Vincent Claveau and Guillaume Gravier presented at *Futur.e.s*
- Vincent Claveau participated in a press conference organized by the CNRS in May 2018
- Vincent Claveau gave an invited talk about NLP and fake news at the Forum des sciences cognitives in Nancy
- Vincent Claveau was heard at the French National Assembly by the parliamentary group *Économie numérique de la donnée, de la connaissance et de l'intelligence artificielle*
- Miaojing Shi was invited for a panel discussion about *China is AI: perspective on the booming Chinese AI ecosystem* at *FranceIsAI*, Oct 2018, Paris.
- Miaojing Shi was invited to the 2nd Edition of the Purple Night organized by the France China Committee in order to value the Franco-Chinese cooperation.

9.3.3. Internal action

- Regional events: Guillaume Gravier was invited conferencer on AI for *Café des Sciences* (general public audience, ~100 pers.)

9.3.4. Creation of media or tools for science outreach

- Cédric Maigrot and Vincent Claveau participated to the educational video from *Cité des Sciences* about Fake News detection <https://bit.ly/2Rz7MAp>

MIMETIC Project-Team

10.3. Popularization

10.3.1. Internal or external Inria responsibilities

Franck Multon is coordinator of Inria national initiative "Sport Inria" in relation with the French Ministry of Sports, and the French Ministry of Research, for Olympic Games 2024

10.3.2. Articles and contents

Co-author of a book dedicated to undergraduate STAPS students, Elsevier Health Sciences, Sept. 2018. « STAPS: anatomie, physiologie, neurosciences et biomécanique » (P Delamarche, F Multon, T Horrut, V Nougier). Author of the chapter entitled « Biomécanique de la performance motrice » (47 pages).

Book chapter "Réalité virtuelle au service du sport" in a book "Corps et Sport" dedicated to general public, pages 148–164, Editions de la Martinière, 2018.

Book chapter "The democratization of VR-AR" in a book "Virtual Reality and Augmented Reality: Myths and Realities" dedicated to general public, pages 73-123, ISTE Ltd, 2018.

Book chapter "Vers une démocratisation de la RV-RA ?" in a book "Réalité virtuelle et réalité augmentée" dedicated to general public, pages 95-141, ISTE Ltd, 2018.

10.3.3. Interventions

Richard Kulpa was member of the scientific committee for temporary exhibition (1000m²) entitled "Corps et Sport" in "Cité des sciences et de l'industrie", Octobre 16th 2018 to January 5th 2019. The idea is to propose a new approach of sports to the wide public audience.

PANAMA Project-Team

10.3. Popularization

10.3.1. *Journée Science et Musique (JSM 2018)*

Participants: Valentin Gillot, Romain Lebarbenchon, Rémi Gribonval, Nancy Bertin, Frédéric Bimbot, Ewen Camberlein, Stéphanie Lemaile, Corentin Louboutin, Antoine Chatalic, Clément Gaultier, Cássio Fraga Dantas, Diego Di Carlo.

with contributions and support from: Valérie Gouranton, Ronan Gaugne, Florian Nouviale, 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 2018 hosted approximately 500 visitors and was a partner of the “Festival des Sciences” and “Festival Maintenant” in Rennes.

10.3.2. *250th Anniversary of Joseph Fourier’s birth*

Participants: Nancy Bertin, Frédéric Bimbot, Antoine Deleforge, Rémi Gribonval.

PANAMA has been involved in the *Comité Fourier 250* by participating to, and triggering interest for the 250th Anniversary of Joseph Fourier’s birth, in the framework of *Commémorations Nationales* for the year 2018. In particular, Frédéric Bimbot has been invited to give a talk at the JEP 2018 on Fourier’s heritage in Speech Processing, and the *Journée Science et Musique 2018* (see above) has included a conference where Fourier’s Transform was introduced and called for to explain concepts relating to music perception.

10.3.3. *Articles and contents*

Rémi Gribonval wrote an article published online on Interstices [47]

RAINBOW 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>).
- In October Firas Abi Farraj, Marco Aggravi, Claudio Pacchierotti and Fabien Spindler attended to the “Maker Fair” even in Rome (<https://2018.makerfairerome.eu/it/>) presenting various vision-based and shared control robotic demonstrations with Viper and Franka arms and haptic devices.
- Eric Marchand is an editor for Interstices)i(

10.3.1. Interventions

- Marie Babel participated to the Science Festival in October 2018 and animated an interactive animation session for general public organized in Acigné, France
- Solenne Fortun participated to the Tech’in Vitré forum with an interview in March 2018.
- Marie Babel animated an interactive session organized in INSA Rennes about "Women in Sciences" on December 19th, 2018 for female students.

SIROCCO Project-Team

10.3. Popularization

- C. Guillemot and A. Roumy participated in the editorial board of a series of articles, towards a general audience, on Fourier, in the context of his 250th birth anniversary (2018)