

Inria

RESEARCH CENTER
Sophia Antipolis - Méditerranée

FIELD

Activity Report 2019

Section Popularization

Edition: 2020-03-21

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AROMATH Project-Team

8.3. Popularization

8.3.1. Interventions

Ioannis Emiris was an invited speaker at “From Open Access to Science”, Athens, May 2019. and “30 years celebration of ATHENA Research Center”, Athens, November 2019.

DATASHAPE Project-Team

8.3. Popularization

8.3.1. Interventions

- Frédéric Chazal, Un exemple de dispositif dédié aux études cliniques. Seminar on AI, Haute Autorité de Santé, September 2019.

Kairos Project-Team

10.3. Popularization

10.3.1. Interventions

Luigi Liquori. Table ronde: “Journée Internationale du m-Tourisme 2019. Blockchain for Tourism”, M-Tourism Day, Telecom Valley, Panel, Cannes, 2019.

PRIVATICS Project-Team

8.3. Popularization

8.3.1. Hearings

- Claude Castelluccia: *audition at the Council of Europe on AI & Human Rights*, European Parliament, 05/2019, Paris, France.

8.3.2. Internal or external Inria responsibilities

- Claude Castelluccia is co-leader of the Workpackage 5 (data governance and privacy) of the Grenoble Data Institute.
- Claude Castelluccia is co-leader of Grenoble CyberAlps (cybersecurity institute of Grenoble).
- Claude Castelluccia is a member of the Grenoble AI institute (MIAI)
- Daniel Le Métayer is a member of the European Commission Multistakeholder expert group to support the application of General Data Protection Regulation (GDPR).
- Daniel Le Métayer is Chair of the CNIL-Inria privacy award.
- Daniel Le Métayer is a member of the steering committee of APVP (Atelier Protection de la Vie Privée).
- Daniel Le Métayer is a member of the steering committee of the chair « Transformation de l'action publique » of Sciences Po Lyon.
- Antoine Boutet is the communication manager of CITI laboratory.
- Antoine Boutet is the manager the Cybersecurity and privacy option of the 5th year of computer science at INSA-Lyon.
- Cédric Lauradoux is a representative of Inria ethical committee COERLE at Inria Grenoble Rhone-Alpes.
- Cédric Lauradoux is a member of the scientific committee of the research action "Cyber-Physical System" of Labex Persyval (Grenoble).
- Cédric Lauradoux is a member of the ethics committee of ComUE Université Grenoble Alpes.
- Cédric Lauradoux is a member of Inria Grenoble Rhône-Alpes committee for technological development.
- Vincent Roca is the PRIVATICS Team Leader (since Nov. 2020).
- Vincent Roca is the co-chair of the NWCRCG ("Coding for Efficient Network Communications" Research Group), Internet Research Task Force (IRTF) / IETF.
- Vincent Roca is the ANR 2017 DAPCODS/IOTics project leader.
- Vincent Roca is the chair of the CUMI ("Commission des Utilisateurs des Moyens Informatiques") of Inria Grenoble Rhone-Alpes.
- Vincent Roca is a member of Inria ethical committee COERLE.
- Vincent Roca is co-editor (with Ludovic Mé and Steve Kremer) of a series of articles dedicated to cybersecurity on the Blog Binaire, Le Monde.

8.3.3. Articles and contents

- Antoine Boutet et Mathieu Cunche: *Souriez, vous êtes géolocalisés !*, "Tout compte fait", 06/05/2019
- Antoine Boutet: *L'algorithme : cette formule arbitraire, miroir de l'intention humaine*, En Vue (INSA Lyon newsletter), 18/12/2019 .

- Claude Castelluccia: *Manipulation informationnelle et psychologique*, Le blog binaire du Monde, 05/2018.
- Mathieu Cunche: *Des chercheurs français découvrent des fuites d'informations sensibles sur les appareils Apple*, Science et Avenir.fr, 16/12/2019.
- Mathieu Cunche, *Vers une reconnaissance faciale généralisée*, Techniques de l'ingénieur, 05/12/2019.
- Cédric Lauradoux, *Bientôt un identifiant numérique pour tous*, Les Echos, 07/05/2019.
- Cédric Lauradoux, *Facebook, mon fil d'actu, ma bataille*, Mediapart, 05/12/2019.
- Daniel Le Métayer and Claude Castelluccia: *Algorithmic decision making : risks and opportunities for society*, Inria Interview, 25/06/2019.
- Daniel Le Métayer: *Interview about algorithmic decision systems.*, Atlantico, 21/09/2019.
- Vincent Roca and Cédric Lauradoux: *Prêts à tout pour protéger leurs données*, 01NET, 02/10/2019.
- Vincent Roca: *Suite au Livre Blanc Inria sur la cybersécurité : L'ordinateur quantique est une menace pour une partie des techniques de chiffrement actuellement utilisée*, L'Hebdo, BFM Business, 09/02/2019.
- Vincent Roca: *Les objets connectés nous espionnent-ils ?*, "Les Idées Claires", France Culture, 12/03/2019.
- Vincent Roca: *Rencontre Sciences et Politique : Cybersécurité*, Académie des sciences - Académie nationale de médecine - Office parlementaire d'évaluation des choix scientifiques et technologiques (OPECST), Sénat, 19/06/2019.
- Vincent Roca: *Objets connectés et vie privée*, Les Echos, 20/03/2019.
- Vincent Roca: *Nouvelles technologies : tous espionnés*, Journal de 20 Heures, France 2, 12/04/2019.
- Vincent Roca: *Vie privée et maison intelligente*, Café des Sciences, 14/05/2019, Grenoble, France.

8.3.4. Education

- Nataliia Bielova: *Animation du forum du MOOC Protection de la vie privée dans le monde numérique*, May-June 2019.
- Antoine Boutet: *Contest of data anonymization between three different groups of INSA students (from Lyon and Bourges)*, 25-26/11/19.
- Cédric Lauradoux: *Action vie privée*, Maison pour la science, 14/02/2019, Grenoble, France.
- Cédric Lauradoux: *Protéger sa vie privée*, DIU EIL (enseignant d'informatique au lycée), 12/04/2019, Grenoble, France.
- Cédric Lauradoux: *Animation du forum du MOOC Protection de la vie privée dans le monde numérique*, May-June 2019.
- Vincent Roca: *Animation du forum du MOOC Protection de la vie privée dans le monde numérique*, May-June 2019.

8.3.5. Interventions

- Mathieu Cunche: *Cybersécurité: Protéger ses objets physiques*, Pint of science, 22/05/2019, Lyon, France.
- Cédric Lauradoux: *Procès du robot 42*, Festival TRANSFO, 24/01/2019, Grenoble, France.
- Cédric Lauradoux: *Challenges de cryptologie*, Printemps du numérique, 08/04/19, Die, France.
- Cédric Lauradoux: *Challenges de cryptologie*, MathC2+ internship, 25/06/19, Grenoble, France.
- Cédric Lauradoux: *Atelier cryptographie*, Fête de la Science, 10/10/2019, Grenoble, France.
- Cédric Lauradoux: *Procès du robot 42*, Fête de la Science, 12/10/2019, Grenoble, France.
- Cédric Lauradoux: *Les données en question*, Festival Imaginascience, 16/10/2019, Annecy, France.

- Cédric Lauradoux: *Le Numérique nous menace-t-il ?*, Telecom Saint Etienne, 03/12/2019, Saint Etienne, France.
- Cédric Lauradoux: *Vie privée et Liberté dans le monde numérique*, Collège Les Dauphins, 03/12/2019, Saint Jean de Soudain, France.
- Cédric Lauradoux: *Challenges de cryptologie*, Cité scolaire Jean PREVOST, 12/12/2019, Villard de Lans, France.
- Cédric Lauradoux: *Avoir un usage Internet éclairé*, UIAD, 18/12/2019, Grenoble, France.
- Vincent Roca: *Maison intelligente : le point de vue du respect de la vie privée*, Café des Sciences, 14/05/2019, Grenoble, France.
- Vincent Roca: *Habitat intelligent, service de vélo partagé et vie privée*, Fête de la Science, 12/10/2019, Grenoble, France.

8.3.6. Internal action

- Cédric Lauradoux: *Formation Éthique*, Inria Paris, 26/01/2019, Paris, France.
- Cédric Lauradoux: *Formation Éthique*, Inria Saclay, 25/04/2019, Saclay, France.
- Cédric Lauradoux: *Formation Éthique*, Inria Grenoble - Rhône-Alpes, 13/05/2019, Lyon, France.
- Cédric Lauradoux: *Rules of Cyber Engagement*, Inria JSI, 07/06/2019, Lyon, France.
- Cédric Lauradoux: *Privacy: Understanding the GDPR*, Inria Grenoble - Rhône-Alpes, 15/10/2019, Grenoble, France.
- Vincent Roca: *Sécurité numérique : technique, éthique, juridique : qui s'y frotte s'y pique (moderator)*, Inria JSI, 07/06/2019, Lyon, France.

STAMP Project-Team

8.3. Popularization

8.3.1. Internal action

- Yves Bertot gave a talk on Coq in the *Café-In* series of seminars for all publics of Inria personnel.
- Yves Bertot gave a general presentation on Coq in the *Doctoral seminar* of Inria Sophia Antipolis Méditerranée.

ACUMES Project-Team

9.3. Popularization

9.3.1. Articles and contents

- "On the optimal shape of a wing", R. Duvigneau, *Interstices*, September 2019.
- A.S. Ackleh, R.M. Colombo, P. Goatin, S. Hille and A. Muntean, *Mathematical modeling with measures*, *Nieuw Archief voor Wiskunde*, Part 20 n. 3, September 2019.

9.3.2. Interventions

- R. Duvigneau gave three talks on "Modeling and simulation: when engineering becomes numerical" at Lycée Jules Ferry, Cannes, March 2019.
- P. Goatin gave the talk "*Le trafic routier en équations*" in Biot (Alpes Maritimes, France) on January 31, 2019, as part of the conference cycle "Science pour Tous 06".
- A. Habbal contributed to Cafe'In talks on "*Tumoral Angiogenesis*", June 2019.

ECUADOR Project-Team (section vide)

FACTAS Project-Team

9.3. Popularization

9.3.1. Internal or external Inria responsibilities

M. Olivi was responsible for Scientific Mediation and president of the Committee MASTIC (Commission d'Animation et de Médiation Scientifique) <https://project.inria.fr/mastic/> until October 30.

9.3.2. Articles and contents

M. Olivi wrote a review of the book “Algorithms: la bombe à retardement” by C. O’Neil for Interstice <https://interstices.info/sciences-du-numerique-et-impact-sur-la-societe/>

9.3.3. Education

“La fête des Maths de l’ESPE Nice-Liégeard” (March 5 and 26): M. Olivi animated two half-day workshop sessions “jouons avec des expériences scientifiques” <https://pixees.fr/jouons-avec-des-experiences-scientifiques/> for primary school students.

9.3.4. Interventions

- “Fête de la science: Mouans-Sartoux fête les sciences du quotidien” (October 10-11 for scholars: 8 classes, October 12 for public: 1000 people): M. Olivi animated the activity “jouer à transmettre des images” in collaboration with the “espace de l’art concret” <https://www.espacedelartconcret.fr/>.
- “Stage MathC2+” (June 19-22): M. Olivi animated a workshop session on “How to analyze sounds with mathematical functions”.
- V. L. Coli gave a talk “Archéologie et mathématiques : algorithmes pour l’identification des gestes des premiers potiers”, and participated to the organization of the exhibition of the ANR project CIMO, Forum des Sciences, 80 years of CNRS, October, CIV, Valbonne.
- Fabien Seyfert gave a pitch on Factas activities during the visit of the company SICAME (March 27) and Martine Olivi gave a pitch on Factas activities for the celebration of InriaTech 10th birthday (April 3)

9.3.5. Internal action

- S. Chevillard gave a talk “Réchauffement climatique : où en est-on ? où va-t-on ?” at the c@fé-in of the Research Center, November.
- V. L. Coli gave a talk “Archéologie et mathématiques : algorithmes pour l’identification des gestes des premiers potiers” at the c@fé-in of the Research Center, October. She also participated to the organization of the “1er Colloque doctoral préhistoire, paléoenvironnement, archéosciences”, November, MSHS, Nice, <https://www.cepam.cnrs.fr/evenement/1er-colloque-doctoral-prehistoire-paleoenvironnement-archeosciences/>, where she gave a talk “Approches mathématiques pour la caractérisation des poteries néolithiques”.
- M. Olivi co-organized about 10 “cafés scientifiques” (c@fé-in’s and cafés Techno, 30 to 80 participants each) <https://project.inria.fr/mastic/category/cafein/>

9.3.6. Creation of media or tools for science outreach

M. Olivi co-supervised the creation of new scientific wooden objects by SNJ AZUR (funds from APOCS region): pixel art and transmission of images <https://pixees.fr/jouer-a-transmettre-des-images/>, IA machine. She also co-supervised the creation of videos by Thibaut Ehlinger (internship) and Gregory Casala (apprenti), funds from Class’Code and the national network, see <https://pixees.fr/pause-ta-science-une-chaine-pour-decrypter-les-objets-scientifiques/>.

MCTAO Project-Team

10.3. Popularization

10.3.1. Internal or external Inria responsibilities

J.-B. Caillau belongs to the MASTIC initiative at Inria Sophia.

10.3.2. Interventions

Lamberto Dell'Elce is involved in the PoBot challenge promoted by MEDITES. Specifically he supervises a class in the College Emile Roux in Cannes.

J.-B. Caillau has given several talks at high-school level in Nice and Sophia on application of mathematics in social choice.

NACHOS Project-Team (section vide)

TOSCA Team

9.4. Popularization

9.4.1. Interventions

C. Henry gave a presentation at the Inria Café In on the topic of breakup of elongated particles such as spaghettis.

9.4.2. Creation of media or tools for science outreach

- A. Lejay is editor of the project *Success Stories* (AMIES and FSMP) dedicated to create 2-page sheets to present successful interactions between industry and academia.

ABS Project-Team

7.3. Popularization

This part mainly concerns Dorian Mazauric.

7.3.1. Internal or external Inria responsibilities

- 2019-.... Head of *Commission Mastic* (Médiation et Animation des MATHématiques, des Sciences et Techniques Informatiques et des Communications), Inria Sophia Antipolis - Méditerranée.
- 2019-.... Coordinator of *Terra Numerica – vers une Cité du Numérique*.
- 2018-2019. Member of the *Conseil d'Administration de l'association les Petits Débrouillards*.
- 2018-2019. Coordinator of *projet de médiation Galéjade : Graphes et ALgorithmes : Ensemble de Jeux À Destination des Ecoliers...* (mais pas que).

7.3.2. Articles and contents

See <https://galejade.inria.fr> and <http://terra-numerica.org/>.

7.3.3. Education

- 26/10/2019. Animation d'ateliers de GALEJADE au weekend d'initiation à la culture numérique organisé par Class'Code MED. Graphes, algorithmes et magie des mathématiques et de l'informatique.
- 03/06/2019. Formation d'enseignants à Draguignan (ÉSPÉ de l'Académie de Nice). Graphes et algorithmes.
- 05/04/2019. Coordination d'ateliers Galejade animés par des enseignants et des parents d'élèves de l'école Pasteur du Cannet (suite à une formation Galejade quelques mois plus tôt). Ateliers Galejade.
- 22/03/2019. Formation d'enseignants de REP+ à l'ÉSPÉ de l'Académie de Nice (site de Stéphen Liégeois).
- 26/02/2019. Formation des étudiants de l'ÉSPÉ de l'Académie de Nice (site de Stéphen Liégeois) à l'animation d'activités informatiques et mathématiques. En collaboration avec l'Inspection Académique. Dans le cadre de la semaine des mathématiques. Graphes, algorithmes, jeux et magie des mathématiques.

7.3.4. Interventions

- National events:
 - 19-20/10/2019. Ateliers au village des sciences et de l'innovation au Palais des Congrès d'Antibes Juan-les-Pins. Voyage en train au pays des graphes, des algorithmes et de l'intelligence artificielle.
 - 06/10/2019. Atelier au village des sciences de Nice. Fête de la Science 2019. Le plus grand réseau de tri humain du monde.
 - 05/10/2019. Ateliers et conférence au village des sciences de Villeneuve-Loubet. Fête de la Science 2019. Algorithmes grandeur nature ? La magie des graphes et du binaire.
 - 4/10/2019. Conférence à la maison des associations de Nice (114 élèves de première et terminal). Fête de la Science 2019. Pas besoin de réfléchir, les ordinateurs calculent tellement vite ?
 - 03/10/2019. Deux conférences et ateliers au collège de la Vesubie-Jean Salines à Roquebilleire. Fête de la Science 2019. La magie des graphes et du binaire ? Algorithmes grandeur nature ? Pas besoin de réfléchir, les ordinateurs calculent tellement vite ? Théorie des graphes et algorithmique pour les réseaux.

- 26/03/2019. Fête des maths à l'ÉSPÉ de l'Académie de Nice (site de Stéphen Liégeard). Graphes et Algorithmes.
- 26/02/2019. Formation des étudiants de l'ÉSPÉ de l'Académie de Nice (site de Stéphen Liégeard) à l'animation d'activités informatiques et mathématiques. En collaboration avec l'Inspection Académique. Dans le cadre de la semaine des mathématiques. Graphes, algorithmes, jeux et magie des mathématiques.
- Public exhibitions (Futurs en Seine,...)
 - 24/05/2019. Présentation du projet Galéjade à l'AFINEF'Tour Sophia Antipolis (avec EducAzur).
 - 18/05/2019. Semaine du Numérique à Valbonne. Algorithmes pour toute la famille.
 - 27-28/04/2019. Atelier et conférences au festival Les Souffleurs d'Avenir. La magie des graphes, des algorithmes et du binaire.
- In educational institutions
 - 11/01/2019. Conférence au lycée Léonard de Vinci d'Antibes (deux classes de terminale). Pas besoin de réfléchir, les ordinateurs calculent tellement vite ? Théorie des graphes et algorithmique pour les réseaux ? Présentation du métier de chercheur.
 - 11/10/2019. Deux conférences au collège la Chênaie à Mouans Sartoux. La magie des graphes et du binaire ? Jeux combinatoires.
 - Année scolaire 2019/2020. Projets dans le cadre de MATH.en.JEANS au collège Jean Rostand de Nice. Avec Olivier Ginola.
 - 03/10/2019. Deux conférences et ateliers au collège de la Vesubie-Jean Salines à Roquebillière. Fête de la Science 2019. La magie des graphes et du binaire ? Algorithmes grandeur nature ? Pas besoin de réfléchir, les ordinateurs calculent tellement vite ? Théorie des graphes et algorithmique pour les réseaux.
 - 26/03/2019. Conférence au collège Jules Romains de Nice (classes de sixième). La magie des graphes, des algorithmes et du binaire.
 - 13/03/2019. Conférences et ateliers au collège Alphonse Daudet de Nice (deux classes de sixième et deux classes de cinquième). Magie mathématique et jeux combinatoires.
 - 05/04/2019. Coordination d'ateliers Galejade animés par des enseignants et des parents d'élèves de l'école Pasteur du Cannet (suite à une formation Galéjade quelques mois plus tôt). Ateliers Galejade.
- Welcoming of schoolchildren or the general public in an Inria center: MathC2+ internship, open days,...
 - Semaine du 16 décembre 2019. Accueil de 12 stagiaires de troisième à Inria Sophia Antipolis - Méditerranée.
 - 28/06/2019. Activité pour une quarantaine d'étudiants de classes préparatoires scientifiques de Sophia Antipolis. Algorithmes de tri.
 - 14/06/2019. Activité pour une quarantaine de lycéens des Alpes-Maritimes (accueillis à Inria Sophia Antipolis - Méditerranée durant 4 jours dans le cadre du stage MathC2+). Algorithmes grandeur nature.
 - 26/04/2019. Visite d'une dizaine de jeunes de la mission locale de Grasse à Inria Sophia Antipolis - Méditerranée. La magie des graphes, des algorithmes et du binaire.

7.3.5. Internal action

- Internal meetings such as Café des sciences
 - 29/04/2019. Café-in à Inria Sophia Antipolis - Méditerranée (séminaire interne pour tous les membres du centre de recherche : chercheurs, ingénieurs, administratifs...). Ateliers Galejade.

- Training of colleagues on new contents or media (activités débranchées, Poppy Ergo, Tensor-Flow,...)
- Training follow-up (Media Training, new media such as Poppy ergo, with SIF, etc.)
- Science outreach towards services (DPEI, STIP...)

7.3.6. Creation of media or tools for science outreach

See <https://galejade.inria.fr> and <http://terra-numerica.org/>.

ATHENA Project-Team

9.3. Popularization

- Demonstration of the P300 speller and of the subject adapted dry EEG cap to the local and national instances, M. Clerc, T. Papadopoulo, F. Turi, S. Guebba.
- Participation to the Cybathlon BCI Series, Graz. September 2019 [36].

9.3.1. Articles and contents

- An article mentioned the BCI projects of Athena in a special issue from magazine Le Point https://www.lepoint.fr/sante/connecter-son-cerveau-a-un-ordinateur-pour-quoi-faire-18-03-2019-2301895_40.php

9.3.2. Interventions

- National events: Brain Awareness Week, two wide audience talks in Biot, Mouans Sartoux, and demonstration of Brain-Computer interfaces, M. Clerc, T. Papadopoulo.

BIOCORE Project-Team

10.3. Popularization

10.3.1. Articles and contents

- A popularization article has been published in the book " "Chimie verte et IAA - Vers une bioéconomie durable" [69].

10.3.2. Interventions

- O. Bernard gave two general public conferences on the topic "Will we drive cars powered by microalgae in 2030" (Saint Etienne de Tinée, 21st September and MAMAC, Nice, November, 13th).
- P. Bernhard did several interventions for a general audience in the Alpes-Maritimes (at Biot, Saint-Vallier and Sospel).
- L. Chambon participated in MASTIC activities in the school Emile Roux (5 June 2019).
- Several members of Biocore hosted schoolchildren to show them the team's research topics.

10.3.3. Internal action

- M. Chaves gave a presentation at the local PhD Seminars organized by the students, on modeling the interactions between mammalian cell cycle and circadian clock.

BIOVISION Project-Team (section vide)

CAMIN Project-Team

9.3. Popularization

- Christine Azevedo presented FREEWHEELS project at Sport Unlimitech event in Lyon <https://sportunlimitech.com/> (September 2019)
- CAMIN team was present (demonstration and masterclass lecture) at FUTURES festival in Paris <https://futures.paris/> (June 13th 2019)
- CAMIN team was present (demonstration and lecture) during the visit of the Secretary of State for Persons with Disabilities at Inria Paris Center (November 19th 2019)

9.3.1. Education

- Christine Azevedo was mentor (2018-2019) for one Savanturiers project with Saussan school (CM1/CM2 level) <https://savanturiersdelahightech.wordpress.com/category/projets-2018-2019/ecole-elementaire-joseph-delteil/>
- Christine Azevedo is mentor (2019-2020) for one Savanturiers project with Montbazin school (CE1/CE2 level) <https://savanturiers-projects.cri-paris.org/projects/NhbsL7Uz/blogentries>
- Christine Azevedo organized initiation sessions to informatics using Thymio robot at École Valfalis (Montbazin, France) in CP, CE1, CE2, CM1 and CM2 levels, 5 sessions of 1 hours per level (March-June 2019).
- Christine Azevedo participated to a 1-day of training future trainers in robotics at school (DANE) (March 2019).

9.3.2. Interventions

- CAMIN team welcomed 1 week internships of 3 schoolchildren this year (4e, 3e)

CASTOR Project-Team (section vide)

COFFEE Project-Team (section vide)

EPIONE Project-Team

9.3. Popularization

9.3.1. Interventions

- Maxime Sermesant did three 45 minutes interventions on Mathematics and Healthcare at the Jules Ferry High School in Cannes.
- Tania Bacoyannis and Nicolas Cedilnik presented AI for high school teachers and interacted with them on this topic during a day.

LEMON Project-Team

9.3. Popularization

9.3.1. Internal or external Inria responsibilities

Gwladys Toulemonde is involved in the board of the CFEM (commission française pour l'enseignement des mathématiques) since october, 2019, representing the SFdS.

Gwladys Toulemonde is involved in the board of Animath since october, 2019, representing the SFdS.

Gwladys Toulemonde is a member of the organizing committee of the Forum Emploi Math (FEM 2019, Paris).

Antoine Rousseau is member of the scientific board of [Fondation Blaise Pascal](#)

Antoine Rousseau is member of the *MakeSEnS* group at Inria, instructed by Inria's management to make proposals for the institute to tackle current environmental issues: see [7]

Antoine Rousseau is co-editor of the national blog [binaire](#), published by [Le Monde](#)

9.3.2. Articles and contents

- *Pour une écologie numérique* (in french), [blog post on binaire](#), Antoine Rousseau, 2019.
- *Ces océans qu'on modélise* (in french), [blog post on binaire](#), Antoine Rousseau and coauthors, 2019.

9.3.3. Education

In 2019, Antoine Rousseau gave public lectures in the junior school of Aubais, France (30 kids, 10 years old): 2.5 days of introduction to coding.

9.3.4. Interventions

Antoine Rousseau gave a 2h lecture in Lycée Joffre (high school), Montpellier, France (60 students, 18-20 years old). The conference was linked to the 2019-2020 topic for the french engineering schools competition (TIPE): mathematical modelling for oceans. Antoine Rousseau also dedicated one full day to help young students to design their TIPE project.

MATHNEURO Project-Team (section vide)

MORPHEME Project-Team

9.3. Popularization

9.3.1. Education

Luca Calatroni participates to the Italian project “Penne amiche della scienza” to promote scientific research in Primary Schools.

9.3.2. Interventions

Laure Blanc-Féraud gave a conference in high school CIV during "la fête de la science".

National events: Village des Sciences et de l’Innovation d’Antibes Juan les Pins 2019.

The Morpheme team took part in "La fête de la Science" during the "Village de la Science" in Juan-Les-Pins. Somia Rahmoun, Cedric Dubois and Arne Bechensteen were present at the Inria stand for this event.

COATI Project-Team

10.3. Popularization

10.3.1. Internal or external Inria responsibilities

- Jean-Claude Bermond, Frédéric Havet, Joanna Moulierac, and Nicolas Nisse are involved in Terra Numerica which brings together several popularization groups in order to create a museum of digital sciences.
- Frédéric Havet: Vice-president and member of the scientific committee of the association Institut Esope 21 (<https://lewebpedagogique.com/institutesope21/>).

10.3.2. Education

- Frédéric Havet, Joanna Moulierac and Nicolas Nisse (responsable) : Participation to Galejade project “Graphes et ALgorithmes : Ensemble de Jeux À Destination des Ecoliers... (mais pas que)” <https://galejade.inria.fr/>.
Design of pedagogical resources introducing graphs and algorithms to primary school students.
Training of primary school teachers, ESPE, Nice (March 22, 2019), Lyon (April 10th, 2019).
Intervention Lycée Carnot (Cannes, March 14, 2019), Lycée Sydney Bechet (Antibes, March 13, 2019), Lycée au Cannet (April 5, 2019)
- Frédéric Havet :
Training of secondary school teachers on graphs and algorithms. April 23, 2019.

10.3.3. Interventions

- Fête de la Science (Frédéric Havet, Nicolas Nisse, Ali Al Zoobi) :
Villeneuve-Loubet, October 5, 2019;
Colline du Château de Nice (stands Inria and I3S laboratory), October 4-6, 2019;
Collège Lycée Vinon-sur-Verdon, October 8-11, 2019;
Palais des Congrès de Juan-Les-Pins, October 19-20, 2019.
- Ali Al Zoobi :
Presentation of posters and combinatorial games during the "Fête des Sciences", Collège Emile Roux, June 5, 2019.
- David Coudert :
Presentation of the *Flinders Hamiltonian Cycle Problem Challenge* to a group of students from classe préparatoire MPSI, Lycée International de Valbonne, June 24, 2019.
- Frédéric Giroire :
Accueil de la mission locale de Grasse pour une session de médiation scientifique, 26 avril 2019.
- Frédéric Havet :
Animation of the exhibition “Animals of the Mediterranean sea” 6 classes, Ecole la Tauriac, Toulon, January 24, 2019.
Conferences “Birds of Var”, 6 classes, Ecole élémentaire de Rians, February 1, 2019.
Conference “Be a mathematician”, Ecole des Pallières, February 2, 2019.
Animation “Birds of Var”, 6 classes Ecole de la Tauriac and 2 classes Ecole de la Beaucaire, Toulon, Mars 07 2019.

3 conferences “Les pavages”, “La science du ballon de football”, “Mathémagie” for 10 classes in total. Collège Daudet Nice, April 15, 2019.

“La magie du binaire”. Conference for six classes in Manosque for the “Jeux fabriqués” day organised by DANE 04. April 2, 2019.

Training of primary school teachers.

- Frédéric Havet, Joanna Moulhierac, and Nicolas Nisse participated to the supervision of twelve schoolchildren (3ème) in internship.
- Nicolas Nisse :
MathC2+, Sophia Antipolis, June 14, 2019
- Michel Syska :
Member of the organization of the code competition "*Retro Gaming pico-8*" (55 teams of 3 students), April, 2019.
Organization and supervision of the local site IUT for the national code competition "*La nuit de l'info*" (156 students = 3.7% of participants), December 5-6, 2019.

10.3.4. Internal action

- Frédéric Havet and Nicolas Nisse participated to the Cafe'In presenting Galejade. April 29, 2019.

DIANA Project-Team

9.3. Popularization

9.3.1. Internal or external Inria responsibilities

Damien Saucez is part of the MASTIC (<https://project.inria.fr/mastic>) group at Inria. MASTIC groups all the activities for scientific dissemination for Inria Sophia Antipolis.

9.3.2. Articles and contents

Walid Dabbous wrote an Interstices article [37] on the occasion of the 50th anniversary of the Internet. The article recalls the story of the first France-ARPAnet connection that was established by Christian Huitema's team in July 1988.

FOCUS Project-Team

10.3. 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>; this involves preparation of material and supervision and jury during the finals.
- Simone Martini has given the following talks, among others:
 - De la création d’une “théorie mathématique du calcul” à la “pensée informatique”. Quatrième journée académique sur l’enseignement de l’informatique, Marseille (avril 2019)
 - To code or not to code: the school curriculum facing the digital revolution. Collegium—Lyon Institute for Advanced Studies (Juin 2019)
 - Logic and computing in Italy at the birth of the Italian Computer Science, Roma Tre, September 2019

INDES Project-Team

9.3. Popularization

9.3.1. Internal or external Inria responsibilities

Tamara Rezk was member of the editorial board of Interstices (<https://interstices.info/>) and Blog Binaire Le Monde (<https://www.lemonde.fr/blog/binaire/>).

9.3.2. Articles and contents

- Nataliia Bielova has been interviewed by the Usine Digitale on 22 November 2019, title "Fuite massive de données à AccorHotels : ce que risque l'entreprise", <https://www.usine-digitale.fr/article/fuite-massive-de-donnees-a-accorhotels-que-risque-l-entreprise.N906279>.
- Nataliia Bielova has been interviewed by the L'OBS on 29 November 2019, title "Entre réalité augmentée et reconnaissance faciale, on a parcouru le supermarché de demain", <https://www.nouvelobs.com/economie/20191129.OBS21725/entre-realite-augmentee-et-reconnaissance-faciale-on-a-parcouru-le-supermarche-de-demain.html>.
- Nataliia Bielova and Tamara Rezk have contributed to the Inria white book on CyberSecurity, published in January 2019: <https://hal.inria.fr/hal-01993308>.
- The browser extension "Cookie Glasses" developed by Celestin Matte and Nataliia Bielova has been extensively discussed on the general public media due to a complaint made by NOYB to the CNIL on the GDPR and ePrivacy violations of several e-commerce websites: <https://noyb.eu/say-no-to-cookies-yet-see-your-privacy-crumble/>.

9.3.3. Education

- Nataliia Bielova: *Moderation and Animation of the MOOC Protection de la vie privée dans le monde numérique*, 05/2019-06/2019.

9.3.4. Interventions

- Nataliia Bielova made an intervention with high school students during Semaine De La Science with Cinesciences at the cinémathèque of Nice on 4 October 2019.
- Celestin Matte presented his work on "Tracage Wifi et Bluetooth" at the public event called "Pas Sage en Seine" in June 2019, <https://programme.passageenseine.fr/>.
- Nataliia Bielova made a presentation with BSc and MSc students during the ACM-W Ukrainian Chapter celebration on December 5, 2019, <https://women.acm.org/2019-2020-celebrations/>.
- Imane Fouad presented her work on "detection of third-party trackers" at Inria PhD Seminars in December 2019.

NEO Project-Team

10.3. Popularization

10.3.1. Interventions

- Sara Alouf presented the Researcher profession at the *Forum des Métiers*, Collège Emile Roux, Le Cannet, on 15 March 2019, to a total of 62 students in 6 groups, aging 12-14 years.

CHORALE Team

9.3. Popularization

9.3.1. Articles and contents

Philippe Martinet and Renato Martins have been interviewed in December 2019 by France 3 Côte d'Azur in order to popularize the work of CHORALE in the field of Connected Autonomous Vehicles. Real demonstrations of autonomous driving have been done at Inria Sophia Antipolis, and another one at CASA experimental site. An FR3 magazine will be launched in february 2020.

9.3.2. Interventions

- Patrick Rives has presented the topic of Autonomous vehicle during the day "Formation IA pour les professeurs des lycées", Sophia Antipolis, 14/11/2019

GRAPHDECO Project-Team

9.3. Popularization

9.3.1. Internal or external Inria responsibilities

- George Drettakis chairs the local “Jacques Morgenstern” Colloquium organizing committee and was elected a member of the Inria Scientific Council.

9.3.2. Articles and contents

J. Philip participated in the Youtube video interview: Intelligences artificielles: créatives mais perverses ? - Macroscopie La chaine - [Video link](#) - July 2019.

The work of J. Philip was the topic of a press release: L’algorithme d’apprentissage profond qui permet de changer l’éclairage des photos et de vidéos. [Link to inria Press release](#) and other media coverage [Link to Pix Fan press release](#)

The work Multi-view relighting using a geometry-aware network was presented at Adobe Max - November 2019. The project was part of the 11 projects selected out of 200 to be presented at Adobe MAX under the name project #LightRightSneak [Link to the event](#).

Some press coverage of this event regarding the project : [Link to Tech cafe](#) listen starting at 32’00". [Link to srlouge](#). [Link to petapixel](#).

GRAPHIK Project-Team

9.3. Popularization

Michel Chein gave two talks on Artificial Intelligence: a public conference in the context of the Academy of the Sciences and Humanities of Montpellier and a radio interview (RCF) - both in March 2019.

HEPHAISTOS Project-Team

9.3. Popularization

- J-P. Merlet gives 3 talks in the Alpes-Maritimes in the framework of the *Science pour Tous* association. He has also participated in a seminar on *robotics and media* involving 6 robotics experts and 6 journalists for a reflexion on the bias of the presentation of robotics to a general audience. He was also a member of the scientific committee for the permanent exhibition *Robot* 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 is developing several pedagogical resources based on small robotics devices at high-school level.
- 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.
- O. Pourtallier is corresponding researcher for two MATH.en.JEANS workshops, an initiative for Mathematics teaching for undergraduate students.
- E. Wajnberg gives 5 talks in the Alpes-Maritimes in the framework of the *Science pour Tous* association

9.3.1. Interventions

- the HEPHAISTOS project has on average about 100 visitors per year, either young students or teachers, to which we present our robotics and assistance activities

9.3.2. Internal action

- the HEPHAISTOS project has developed a set of cable-driven parallel robots, the MARIONET-SCHOOL series, that is used to illustrate visually scientific concepts in various domains

Stars Project-Team

9.3. Popularization

9.3.1. Articles and contents

- François Brémond was interviewed for *Web Interview* on Facial recognition: limits and challenges for society, 16 Oct 2019.
- François Brémond was interviewed for *Graphical novel* about the challenges of AI, 29 Oct 2019.
- Antitza Dantcheva was interviewed for an article in *Science et Vie* on facial analysis in October 2019.
- Antitza Dantcheva was interviewed for an article in *Charlie Hebdo* on facial recognition in February 2019.

9.3.2. Interventions

- François Brémond, Thibaud L'Yvonnet, David Anghelone and Sandrine Boute represented STARS on the 19 October at the *La fête de la science* in Palais des Congrès d'Antibes Juan-les-Pins.
- STARS presented demos for Unlimitech Sport, Lyon, 18-21 September 2019.

TITANE Project-Team

10.3. Popularization

10.3.1. Interventions

- Pierre Alliez gave a talk on geometric modeling in a high school in Cannes, April 26th.

WIMMICS Project-Team

10.3. Popularization

10.3.1. Education

Artificial Intelligence training course for high school teachers (Inria Sophia Antipolis) - “Qu’est-ce que l’IA ?” by Jérôme Delobelle.

10.3.2. Interventions

Science Festival (“Fête de la Science”) 2019, presentation of the WASABI project by Michel Buffa during “Journées Science et Musique” organized by IRISA in Rennes, October 2019.

10.3.3. Internal action

Presentation of Artificial Intelligence to college students by Jérôme Delobelle during their week-long visit to Inria Sophia Antipolis.

ZENITH Project-Team

10.3. Popularization

10.3.1. Internal or external Inria responsibilities

F. Masegla is "Chargé de mission auprès de la DGD-S Inria pour la médiation scientifique" (50% of his time) and heads Inria's national network of colleagues involved in science popularization.

10.3.2. Articles and contents

- F. Masegla is co-author of [21], [40] on the feedback of Class'Code after 3 years of project and on a vision about future work for computational thinking education and computer science popularisation.
- A. Joly has given several interviews to different media giving rise to web articles about Pl@ntNet (see e.g. Google news with keyword Pl@ntNet).

10.3.3. Education

Computer science is, for the first time in France, an official discipline taught in high school (Lycée) with the common course about "Sciences Numériques et Technologie". As written by Inria's CEO Bruno Sportisse: *"For over a decade, the institute has carried out actions that have paved the way with the firm conviction that "training in and through digital technology" is strategic: I am thinking here, in particular, of the Class'Code project."*

F. Masegla is the initiator, with Serge Abiteboul, of the program called "1 scientifique — 1 classe : Chiche !" with the goal of reaching *all* the students of a specific level. This massive plan should concern all scientists at Inria and our partners in France.

F. Masegla was ambassador of Inria for the Science Celebration Day (Fête de la science):

- <https://www.youtube.com/watch?v=13957C9FxVg>
- <https://www.youtube.com/watch?v=yqnQe91Pztc>

F. Masegla gave a one day training on the Thymio robot for education in the media library network professionals. February 1. Montpellier. 18 attendees.

F. Masegla gave a one day training to teachers of French National Education on computational thinking. March 12. Montpellier. 20 attendees.

F. Masegla gave a one day training to teachers in pediatric hospitals (CHU Arnaud de Villeneuve). February 2. Montpellier. 10 attendees.

F. Masegla gave two days of training to computer science, robotics and computational thinking to reference teachers ("conseillers pédagogiques"). April 15 & 16. Montpellier. 20 attendees.

F. Masegla gave two days of training to the media library network professionals on Poppy Ergo Jr. June 28 & September 6. Montpellier. 11 attendees.

F. Masegla is a member of the scientific committee of a conference cycle on "Science and Society" organised with MSHSud.

P. Valdrieux gave an invited talk on "Succeed in your Ph.D. Thesis: good practices and return of experience" at the Ph.D. meeting at LIRIS, Lyon, on Dec 11.

A. Joly was a member of the scientific advisory board of the **AI Family Challenge** organized by the NGO **Iridescent** that "supports girls, children, and their families to identify problems in their communities and find technology based solutions".

He organized an educational outing at the Montpellier Botanical Garden as part of the summer school organized each year by Polytech Montpellier (June 11). He participated in the organization and animation of the **"wild salad"** training organized by the association "Les écologistes de l'Euzière" 13-15 March.

10.3.4. Interventions

F. Massegli participated in the LIRMM events on science popularisation ("Fête de la science" on Feb 19, "accueil de stagiaires" on Oct 11), Montpellier.

A. Joly participated in: the animation of the Inria stand at the SIDO exhibition (April 10-11, Lyon); the PI@ntNet launch ceremony in Costa Rica in the presence of the Minister of Research and decision-makers (April 20).

E. Pacitti participated in Polytech'Montpellier International Summer School (Flow) on the subject of Data Science - Plant Phenotyping.

A. Joly participated in the day "**Ramène ta science**" co-organized by TelaBotanica and "Sciences Avenir" associations at the Halle Tropisme in Montpellier (as part of the Labbota initiative). He co-facilitated a participatory workshop and a debate with citizens on the theme of participatory science.

10.3.5. Creation of media or tools for science outreach

In the context of the Floris'tic project, A. Joly participates regularly to popularization, educational and citizen science actions in France (with schools, cities, parks, associations, etc.). The softwares developed within the project (PI@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. PI@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 Czech republic and Slovakia (with a total of 100 classrooms involved in the program). An impact study of the PI@ntNet application did show that 6% of the respondents use it for educational purposes in the context of their professional activity.

F. Massegli participated in the work group on "Jeu des 7 familles de l'informatique". This card game provides support for education to computer science from the history point of view.

A. Joly actively participates to the design and development of all PI@ntNet dissemination tools in particular **PI@ntNet web site** that contains contents for the press, articles for the general public, tutorials of PI@ntNet tools, guidelines for users of the API, etc.