

CONGRÈS JUNIOR PLURIDISCIPLINAIRE

DE L'UNIVERSITÉ PARIS-SACLAY

JEUDI 23 MAI 2024

PROGRAM

POUSSES DE CHERCHEURS & CHERCHEUSES
Cultivez vos neurones!

université
PARIS-SACLAY

GRADUATE SCHOOL
Métiers de la Recherche
et de l'Enseignement
Supérieur

CONGRÈS JUNIOR PLURIDISCIPLINAIRE

Welcome to the 2023 Université Paris-Saclay Pluridisciplinary Junior Conference!

The conference is organized by the **Graduate School Métiers de la Recherche et de l'Enseignement Supérieur (MRES)** with the help of the organization, the scientific and the junior committees presented below.



Organizing Committee :

- Laure-Lise Chapellet (ENS Paris-Saclay, Chemistry) **Junior Conference Project Manager**
- Stéphanie Nowak (GS MRES) **Administrative assistant**
- Sarah Cohen-Boulakia (UFR Sciences, Computer Science)
- Bich-Liên Doan (CentraleSupélec, Computer Science)
- Pierre Larraufie (AgroParisTech, Life Science)
- Hélène Windish (ENS Paris-Saclay, Humanities and Social Science)
- Christine Duvaux-Ponter (AgroParisTech, Animal Science and Director of Doctoral Studies) **Directrice adjointe recherche de la GS**
- Anne Lafosse (Université Paris-Saclay, Chemistry) **Directrice adjointe formation de la GS**
- David Néron (ENS Paris-Saclay, Mechanics) **Directeur de la GS**

Scientific Committee: The scientific committee is composed of the organization committee and members representing different Graduate Schools or 1st degree College of the Université Paris-Saclay.

- Pascal Aubert (École Universitaire de 1^{er} cycle, Université Paris-Saclay, Physics)
- Arnaud Boutin (GS Sport, Mouvement, Facteurs Humains, Université Paris-Saclay, Neuroscience)
- Maryse Bresson (GS Education, Formation Enseignement, UVSQ, Sociology)
- Eddy Dumas (GS Chimie, Université de Versailles St-Quentin-en-Yvelines, Chemistry)
- Aurélia Fraysse (GS Sciences de l'Ingénierie et des Systèmes, Université Paris-Saclay, Signal Processing)
- Sylvain Gautier (GS Santé Publique, UVSQ, Medical Science)
- Stefan Haar (GS Informatique et sciences du numérique, INRIA/ENS Paris-Saclay, Computer Science)
- Louise Lartigot-Hervier (GS Sociologie et Science Politique, Université de Versailles St-Quentin-en-Yvelines, Political Science)
- Gaël Latour (GS Physique, Université Paris-Saclay, Pedagogical Project Manager)
- Delphine Mika (GS Health and Drug, Université Paris-Saclay, Pharmacy)
- Jean-Marie Mirebeau (GS Mathématiques, ENS Paris-Saclay, Mathematics)
- Sophie Nadot (GS Biosphera, Université Paris-Saclay, Botanical Studies)
- Pascale Rialland (GS Life Sciences and Health, ENS Paris-Saclay, Biology)
- Natalia Zugravu-Soilita (GS Economie et Management, Université de Versailles St-Quentin-en-Yvelines, Economics)

CONGRÈS JUNIOR PLURIDISCIPLINAIRE

Comité Junior : Le comité junior est composé d'étudiants volontaires ayant choisi de participer à l'organisation et au comité de sélection du Congrès Junior.

- Yousna Aboudou (M2 Chemistry, Université Paris-Saclay)
- Laury Batista (PhD Student Physics, Université Paris-Saclay)
- Théo Beguin (PhD Student Chemistry, Université Paris-Saclay)
- Guillaume Blondy (PhD Student Chemistry, Université Paris-Saclay)
- Léa Chocron (PhD Student Chemistry, ENS Paris-Saclay)
- Eloé Dubus (PhD Student Chemistry, ENS-Paris-Saclay)
- Liste Estournet (M1 Chemistry, Université Paris-Saclay)
- Jules Fargier (PhD Student Chemistry, Université Paris-Saclay)
- Guilhem Fontaine (PhD Student Chemistry, ENS Paris-Saclay)
- Agnès Ganet (PhD Student Linguistics, ENS Paris-Saclay)
- Audrey Gosset (PhD Student Linguistics, ENS Paris-Saclay)
- Hélène Lubrano Di Scampamorte (PhD Student Neuroscience, Alumni ENS Paris-Saclay)
- Salomé Nicolas (PhD Student Chemistry, Université Paris-Saclay)
- Mélanie Pietri (PhD Student Physics, ENS Paris-Saclay)
- Audrey Pollien (3rd Year in Chemistry, ENS Paris-Saclay)
- Daniela Torres Diaz (PhD Student Chemistry, Université Paris-Saclay)
- Romane Vinot (PhD Student Chemistry, ENS Paris-Saclay)

école
normale
supérieure
paris-saclay

université
PARIS-SACLAY

The conference takes place at the **ENS Paris-Saclay** that has kindly made available some of its resources (**human, technical and financial**) to help with the organization

The conference is also organized with the **financial support** of the **Institut DATAIA**.



CONGRÈS JUNIOR PLURIDISCIPLINAIRE

You can find all the abstracts corresponding to the oral, poster and video presentation by visiting the conference webpage where you can click on the titles (<https://www.universite-paris-saclay.fr/qs-mres-congres-junior>) or by scanning the following flashcode:



For each category (oral presentation, poster, video) there is a prize awarded by the audience. **Please vote (votes closing at 19h45)** by visiting the conference webpage (<https://www.universite-paris-saclay.fr/qs-mres-congres-junior>) or by scanning the following flashcode:



Some of the videos will be displayed among the oral presentations, other videos are available by scanning the flashcodes that are displayed among the posters. **All videos are eligible for the awards**, be sure to watch them before you vote.

In this program, the oral presentations (5 minutes) are indexed from **O1 to O58** and presented like this:

O1	Student name	Presentation Title	Academic level	Institution	Individual or group presentation
----	--------------	--------------------	----------------	-------------	----------------------------------

Videos are indexed from **V1 to V11** and presented like this:

V1	Student name	Presentation Title	Academic level	Institution	Individual or group presentation
----	--------------	--------------------	----------------	-------------	----------------------------------

Posters are indexed from **P1 to P32** and presented like this:

P1	Student name	Presentation Title	Academic level	Institution	Individual or group presentation
----	--------------	--------------------	----------------	-------------	----------------------------------

CONGRÈS JUNIOR PLURIDISCIPLINAIRE

12h30 – 13h30 Registration and poster session Hall Emmy Noether

Plenary session Lecture Hall Alain Aspect 13h30 – 16h15

13h30 – 14h Opening remarks and introduction

14h – 16h15 Oral presentations and 4 videos

O1	Keyvan Bau	The French rationalist movements of the 1970s-1990s: the case of Afis and its journal Science and Pseudo-Sciences	M1	Université Paris-Saclay	Individual presentation
O2	Chanez Boukra	Study of a protein-protein interaction and its link with amyotrophic lateral sclerosis disease	M1	AgroParisTech	Individual presentation
O3	Liam de Sousa	Representations of the Octopus on Ceramics in Greece and Southern Italy from 1600 to 300 B.C.	M1	Université de Versailles St-Quentin-en-Yvelines	Individual presentation
O4	Raphaël Bordas	The role of neural oscillations and their spatiotemporal dynamics in human time perception	M1	Université Paris-Saclay	Individual presentation
O5	Rania Barka	Suicidal risk among young adults living with perinatally acquired HIV: comparison with their uninfected peers in France	M1	Université Paris-Saclay	Individual presentation
V1	Audrey Pollien	Two-Photon Absorption: Closed Electron Shells Work, But Open... Even Better!	M1	École normale supérieure Paris-Saclay	Individual presentation
O6	Dorian Mendes	Estimation of the Spectral Sensitivity Curve of the Human Eye	L3	Institut d'optique Graduate School	Individual presentation
O7	Livia Labelle, Giúliana Himont	Corporate social responsibility: the new wave of European legislation	L3	Université Paris-Saclay	Group presentation
O8	Victor Dupic-Miquel	Kinematic study of an anguilliform swimmer: the snake	L3	CentraleSupélec	Individual presentation
V4	Charlotte Martres	Queuing dynamics in Kidney Exchange Programs with endogenous participation	M2	École normale supérieure Paris-Saclay	Individual presentation
O9	Lucas Houry	Dynamic of DNA double strand break repair mechanism in single molecule	M2	Université Paris-Saclay	Individual presentation
O10	Flore Baillavoine	Development of antimicrobial and biodegradable packaging using an eco-responsible methodology	M2	Université Paris-Saclay	Individual presentation
O11	Juliette Theureau	Between forms and motifs: Nancy Graves' late paintings and their reception	M2	École normale supérieure Paris-Saclay	Individual presentation
V10	Margaux Lassalle	Canada at the Paris world's fair in 1900: a necessary participation for it international legitimacy ?	M2	Université d'Évry	Individual presentation

CONGRÈS JUNIOR PLURIDISCIPLINAIRE

O12	Sarah Chabert	Analysis of the relationship between dietary diversity and nutritional quality by simulating dietary changes	M2	AgroParisTech	Individual presentation
O13	Pauline Gosset	Renewing observation practices: how the professional world can become a research laboratory	M2	École normale supérieure Paris-Saclay	Individual presentation
O14	Adrien Thomas	Deciphering the therapy-induced cellular plasticity in glioblastoma	M2	Université Paris-Saclay	Individual presentation
V6	Eva Leiros	Fused petals, unraveling the molecular mechanisms of this union	M2	École normale supérieure Paris-Saclay	Individual presentation

16h15 – 17h30 Poster session / Coffee break

Hall Emmy Noether

All the posters will be displayed during the whole session. However, students are expected to be present next to their posters to explain them according to the following schedule:

- **16h30 – 17h Presentation of posters with an even number**
- **17h – 17h30 Presentation of posters with an odd number**

17h30 – 19h30 Oral presentations in three parallel sessions in Lecture Hall Alain Aspect and the two Lecture Halls Simondon 1 and 2

CONGRÈS JUNIOR PLURIDISCIPLINAIRE

Session parallèle en amphi Alain Aspect 17h30 – 19h30

O15	Nina Guesné	Pea-wheat intercropping and spread of wheat diseases	L3	AgroParisTech	Individual presentation
O16	Tianzhe Zhou	Magnetization reconstruction via stray field above the sample	L3	CentraleSupélec	Individual presentation
O17	Madeleine Gautheret, Diane Le Tyrant, Erwin Filloux, Cécile Jolivet, Sarah Lopez, Marie Coutard, Sohane Soumaré, Melissa Roze	Deux nouveaux phages isolés et annotés par des étudiants de Paris-Saclay : <i>Carostasia</i> et <i>Bouleybill</i>	L3	Université Paris-Saclay	Group presentation
V3	Axelle Dacquin--Jullien	Synthesis of a molecular probe for the detection of Atrazine	M1	École normale supérieure Paris-Saclay	Individual presentation
O18	Lucie-Garance Barot	LRRC45 in the ciliation of <i>Paramecium tetraurelia</i>	M1	AgroParisTech	Individual presentation
O19	Vivien Ducros	Drawing the symbolic dynamics	M1	École normale supérieure Paris-Saclay	Individual presentation
O20	Doria Ait Ouarab, Valentine Tulasne	Synthesis and study of the antibiotic properties of compounds in the nitrofurazone family: towards the preparation of a chemical probe	M1	Université Paris-Saclay	Group presentation
V8	Eve Delegue	Diffusion models for image improvement	M1	École normale supérieure Paris-Saclay	Individual presentation
O21	Lucas Jacquier	Monitoring and population study of the Andean Condor during a reintroduction program	M1	École normale supérieure Paris-Saclay	Individual presentation
O22	Maxime Royer	Design of a diagnostic and improvement system of a supply chain service in the construction industry	M1	École normale supérieure Paris-Saclay	Individual presentation
V11	Clara Michielsen-Dumaine	Optimizing sonication parameters of an ultrasonic bath for piezocatalysis	M1	CentraleSupélec	Individual presentation
O23	Rayniene Medougou	Study of the barriers and levers to the implementation of territorial prevention actions	M2	Université de Versailles St-Quentin-en-Yvelines	Individual presentation
O24	Adèle Treuil-Dussouet	Identification of new species of gut bacteria capable of modulating the immune response in human intestinal epithelial cells	M2	Université Paris-Saclay	Individual presentation
O25	Julien Rosenberger	The role of emotions in the emergence of aggressive mobs	M2	CentraleSupélec	Individual presentation
O26	Jean-Baptiste Perraud	The construction of the concept of natural selection in the second year of secondary school: didactic analysis within	M2	Université Paris-Saclay	Individual presentation

CONGRÈS JUNIOR PLURIDISCIPLINAIRE

the framework of the theory of
joint action

Session parallèle en anglais amphi Simondon 1 17h30 – 19h30

O27	Louis Kalis	To model for modeling (but better): study of the birth weight of kids (juvenile goat) for a better modeling of the weight of their mother.	L3	AgroParisTech	Individual presentation
O28	Jules Andrevon-Canut	Mapping molecules in a new space: can atoms be separated in velocity space?	L3	CentraleSupélec	Individual presentation
O29	Nathan Chevalier	The impact of inter-country conflicts on rare earth elements intensive products trade	M1	École normale supérieure Paris-Saclay	Individual presentation
O30	Tawakalit D Abdulyekeen	Radiolytic synthesis of plasmonic nanoparticles stabilized by thermosensitive polymers and applications in (photo-)catalysis	M2	Université Paris-Saclay	Individual presentation
O31	Kenza Hadjar	Microglial and interferon signaling implications on brain development and behavior	M1	Université de Versailles St-Quentin-en-Yvelines	Individual presentation
O32	Oussama ZEKRI	Consistent error bounds: compress faster!	M1	École normale supérieure Paris-Saclay	Individual presentation
V5	Léa Siron, Raphaël Bourgeois	At the heart of glia: Innovative imaging techniques for studying microglial cells in health and disease	M1	Université Paris-Saclay	Group presentation
O33	Alexandre Clausolles	Agile two-photon microscope for fast 5d single-particle translation and orientation tracking for intraneuronal motion studies	M2	École normale supérieure Paris-Saclay	Individual presentation
O34	Moriom Ahmed Karim	Control of dendritic cell migration: identifying the molecular link between glucocorticoids and calcium homeostasis	M2	Université Paris-Saclay	Individual presentation
O35	Mina Chapon	Covariant formulation of electro-magneto-mechanics coupling in the framework of relativity	M2	Université Paris-Saclay	Individual presentation
O36	Aizhamal Aitzhanova	Hypermutability of <i>Mycobacterium tuberculosis</i>	M2	Université Paris-Saclay	Individual presentation
O37	Gabriela Da Cunha Brandão Reis	Impact of a motivational running app: effects on adherence and medium-term performance	M2	Université Paris-Saclay	Individual presentation
O38	Jean-Paul Nohra	Towards atomic boson sampling using metastable helium Bose Einstein condensate	M2	Université Paris-Saclay	Individual presentation

CONGRÈS JUNIOR PLURIDISCIPLINAIRE

Session parallèle amphi Simondon 2 17h30 – 19h30

O39	Lila Pellot	Deciphering aboveground and belowground plant functioning	L3	AgroParisTech	Individual presentation
O40	Abdelkader Tadjj	Study of post-baccalaureate school careers in priority education policies	L3	Université Paris-Saclay	Individual presentation
V9	Erell Masson	Pollination and its impact on the shape of strawberries	M1	AgroParisTech	Individual presentation
O41	Bena Ioana, Aymeric Rivière, Agathe d'Aubenton-Carafa	Modeling of bone and tooth microstructure	M1	CentraleSupélec	Group presentation
O42	Caitline Morais de Moura, Hyannis Dargent	Study of the hydrodynamics of rotating drums	M1	Université Paris-Saclay	Group presentation
O43	Edward Lucyszyn, Nabil Alami, Raphaël Pain Dit Hermier	Parametric study of acoustic liners	M1	CentraleSupélec	Group presentation
O44	Anaëlle Bernard	Use of artificial intelligence to characterize dairy goat behaviors	M1	AgroParisTech	Individual presentation
O45	Rémi Ravet	Doping lead-free piezoelectric ceramics	M1	CentraleSupélec	Individual presentation
V7	Marwane Dalal	Correction of Solar wavelengths measurements	M1	École normale supérieure Paris-Saclay	Présentation individuelle
O46	Orly Petipa	Comparison of suicidal acts among patients of general practitioners in urban and rural areas, in metropolitan France between 2014-2024	M2	Université Paris-Saclay	Individual presentation
O47	Émile Larroque	Quantum bioinformatics for RNA design	M2	École normale supérieure Paris-Saclay	Individual presentation
O48	Clarisse Thouvenot	Contribution to the characterization of hoteliers' oral business English as a Lingua Franca	M2	École normale supérieure Paris-Saclay	Individual presentation
V2	Ophélie Sauzeau	Advances in understanding female fertility: study of FSH response mechanisms in human granulosa cells	M2	Université Paris-Saclay	Individual presentation
O49	Laurie Rolhion	Therapeutic nano-objects by microwave synthesis	M2	Université de Versailles St-Quentin-en-Yvelines	Individual presentation
O50	Elise Foulatier	On a modular coupling strategy for high-performance computing of multiphysics problems	M2	École normale supérieure Paris-Saclay	Individual presentation

CONGRÈS JUNIOR PLURIDISCIPLINAIRE

*Reminder: **Do not forget to vote (vote closing at 19h45)** by visiting the conference webpage (<https://www.universite-paris-saclay.fr/gs-mres-congres-junior>) or by scanning the following flashcode:*



19h30 – 20h30 Cocktail **Hall Emmy Noether**

20h30 – 21h Award ceremony **Hall Emmy Noether**

CONGRÈS JUNIOR PLURIDISCIPLINAIRE

List of posters

P1	Tristan Paul	Structural characterization of an I - motif aptamer	L3	AgroParisTech	Individual presentation
P2	Marie Carlier, Vincent Lefebvre, Jonathan Loué	Optimisation of PET recycling: comparative analysis of chemical processes to reduce environmental impact	L3	École normale supérieure Paris-Saclay	Group presentation
P3	Matteo Monnaert	The link between the transfer of insects' endosymbionts and their geographic proximity	L3	AgroParisTech	Individual presentation
P4	Raphaël Ros, Lucas Gold-Dalg, Augustin Legoupil, Mohamed Taha Afif	Couplage	M1	CentraleSupélec	Group presentation
P5	Apolline Sontot	Search for variables explaining the abundance of common bird species in a defined geographical area	L3	AgroParisTech	Individual presentation
P6	Carnot Sorensen CS Ngoufack Zagoum, Jeffried Nouleho Nouadje, Cisse Mamadou, Yousra Hakane	Participative pollution collection - I'm voluntary provided I remain anonymous!	M1	Université de Versailles St-Quentin-en-Yvelines	Group presentation
P7	Nelly Dey	Role of Orai1 Ca ²⁺ channels in pulmonary vascular remodeling occurring in pulmonary arterial hypertension	M1	Université Paris-Saclay	Individual presentation
P8	Sonia Binali Ali	Colonization kinetics and ecological importance of <i>Cryptomycota</i> , a mycelial endoparasite, in eukaryotic populations of municipal activated sludge	M1	Université d'Évry	Individual presentation
P9	Sanmli Esdras Akaffou	Evaluation, modeling and design of Agro-ecological vegetable crop systems	M1	AgroParisTech	Individual presentation
P10	Lou-Maële Faivre	Disruption of the homeostatic control of neuromuscular synaptic transmission	M1	Université Paris-Saclay	Individual presentation
P11	Alexandre Cochepain	Thérapie génique avec surexpression de la phosphodiesterase de type 3A dans l'insuffisance cardiaque	M1	Université Paris-Saclay	Individual presentation
P12	Stelly-Ann Orsinet	The monoaminergic system of the cerebellum	M1	Université de Versailles St-Quentin-en-Yvelines	Individual presentation
P13	Léa Bibic, Agathe Bajan	Towards green plastic with polyhydroxybutyrate (PHB)	M1	Université Paris-Saclay	Group presentation
P14	Fotios Kapotos, Bowen Zhu, Sida Bastien Li	Learning ODEs with no inner ODE solver	M1	CentraleSupélec	Group presentation

CONGRÈS JUNIOR PLURIDISCIPLINAIRE

P15	Vinod Aera	Unveiling vascular dysfunction in heart failure with preserved ejection fraction: focus on camp-mediated pathways and glp-1 receptor agonists	M2	Université Paris-Saclay	Individual presentation
P16	Christophe Baron	Power supply for systems based on electro-active polymers	M2	École normale supérieure Paris-Saclay	Individual presentation
P17	Romain Jenn	Electronic band structure of strained α -In ₂ Se ₃	M2	École normale supérieure Paris-Saclay	Individual presentation
P18	Marie-Stella Jagou	Phylogenomic analysis of Hiptage benghalensis in the MNHN herbarium: origin and introduction of an invasive liana in the Mascarene Islands and Australia	M2	AgroParisTech	Individual presentation
P19	Flore Baillavoine	Study of the antibacterial activity of photoactivatable lipid-porphyrin liposomal assemblies	M2	Université Paris-Saclay	Individual presentation
P20	Antoine Gufflet	Long term deformation of materials for bio-based buildings	M2	École normale supérieure Paris-Saclay	Individual presentation
P21	Ingrid Valverde Reis Zreik, Adrien Salem, Lucas José Veloso de Souza	Eco-AI: deep learning for satellite image analysis of coastal ecosystems	M2	CentraleSupélec	Group presentation
P22	Yiming Wei	Optimisation of wireless power transfer for a dielectric elastomer augmented aorta	M2	École normale supérieure Paris-Saclay	Individual presentation
P23	Rana Ayash, Tuan Tu Cao	Photogeneration of organic catalysts for controlled polymerization of bio-sourced monomers	M2	Université Paris-Saclay	Individual presentation

List of videos

V1	Audrey Pollien	Two-Photon Absorption: Closed Electron Shells Work, But Open... Even Better !	M1	École normale supérieure Paris-Saclay	Individual presentation
V2	Ophélie Sauzeau	Advances in understanding female fertility: study of FSH response mechanisms in human granulosa cells	M2	Université Paris-Saclay	Individual presentation
V3	Axelle Dacquin--Jullien	Synthesis of a molecular probe for the detection of Atrazine	M1	École normale supérieure Paris-Saclay	Individual presentation
V4	Charlotte Martres	Queuing dynamics in Kidney Exchange Programs with endogenous participation	M2	École normale supérieure Paris-Saclay	Individual presentation
V5	Léa Siron, Raphaël Bourgeois	At the heart of glia: Innovative imaging techniques for studying microglial cells in health and disease	M1	Université Paris-Saclay	Group presentation
V6	Eva Leiros	Fused petals, unraveling the molecular mechanisms of this union	M2	École normale supérieure Paris-Saclay	Individual presentation

CONGRÈS JUNIOR PLURIDISCIPLINAIRE

V7	Marwane Dalal	Correction of Solar wavelengths measurements	M1	École normale supérieure Paris-Saclay	Individual presentation
V8	Eve Delegue	Diffusion models for image improvement	M1	École normale supérieure Paris-Saclay	Individual presentation
V9	Erell Masson	Pollination and its impact on the shape of strawberries	M1	AgroParisTech	Individual presentation
V10	Margaux Lassalle	The national council of women in Canada at the Paris world's fair in 1900: a necessary participation for it international legitimacy ?	M2	Université d'Évry	Individual presentation
V11	Clara Michielsen-Dumaine	Optimizing sonication parameters of an ultrasonic bath for piezocatalysis	M1	CentraleSupélec	Individual presentation

université
PARIS-SACLAY



GRADUATE SCHOOL

Métiers de
la Recherche et
de l'Enseignement
Supérieur