



Presentation of the Hi! PARIS interdisciplinary center in AI & Data Science

Stephan Cléménçon, **Télécom Paris**

Hi! PARIS is a multidisciplinary center dedicated to AI
and Data Science
at the service of **Science**, **Business** and **Society**.

Created in **September 2020** by two leading institutions



...joined in **2021** by



Thanks to the exceptional support of our **corporate donors**:

L'ORÉAL

Capgemini



KERING



VINCI



Schneider
Electric

Hi! PARIS: Who are we ?

- A **multi-disciplinary** center on **Data Analytics** and **Artificial Intelligence** for **Science, Business** and **Society**.
- **250+ affiliated research fellows with:**
 - From **2021** to july **2023**:
 - 140+ publications in 3 top conferences (ICLR, NeurIPs, ICML)
 - 5 new ERC grants in AI
- **With the vision and support of our corporate donors**
 - **7** corporate donors since **2020**
- **As an interdisciplinary hub, the center promotes awareness and hands-on experiences through diverse activities: Summer School, Hi!ckathon, Data Bootcamp, Symposium...**

ACHIEVEMENTS SINCE THE LAUNCH IN SEPT 2020

Discover the flyer of achievements (2023)



RESEARCH



Eric MOULINES
Scientific Co-director



Gaël RICHARD
Scientific Co-director



Nicolas VIEILLE
Scientific Co-director

MAIN ACHIEVEMENTS – RESEARCH

- **2/3 of the budget dedicated to two flagship programs**
 - **Recruitment of new professors:** 11 Chairs holders (5 professors at HEC Paris; 6 professors at IP Paris).
 - **Creation of a 3-year “Hi! PARIS fellow program”** to retain researchers from HEC and IP Paris. In 2021: 6 internal Fellowships grants (2 at HEC Paris; 4 at IP Paris). Corporate donors’ key themes of interest are shared for each call for proposal. The objective: create connection with professors.
- **Other major programs**
 - **34 PhD scholars** (full or partial funding)
 - **32 collaborative academic projects** for 3-year funding (smaller projects)
 - Regular reading groups and scientific events (symposium, seminars, ...)

11 CHAIR HOLDERS



Pablo BAQUERO
HEC Paris



Marylou GABRIE
École polytechnique



**Julien GRAND-
CLEMENT**
HEC Paris



Klaus MILLER
HEC Paris



Aluna WANG
HEC Paris



**Enzo
TARTAGLIONE**
Télécom Paris



**Matthew
YEATON**
HEC Paris



**Roland
RATHELOT**
ENSAE Paris



**Radu-Alexandre
DRAGOMIR**
École polytechnique



**Austin
STROMME**
ENSAE Paris



Damien ERNST
Télécom Paris

6 FELLOWS

[More info on Hi!
PARIS website](#)



Marie-Paule CANI
École polytechnique



Xitong LI
HEC Paris



Arnak DALALYAN
CREST-ENSAE Paris



**David RESTREPO-
AMARILES**
HEC Paris

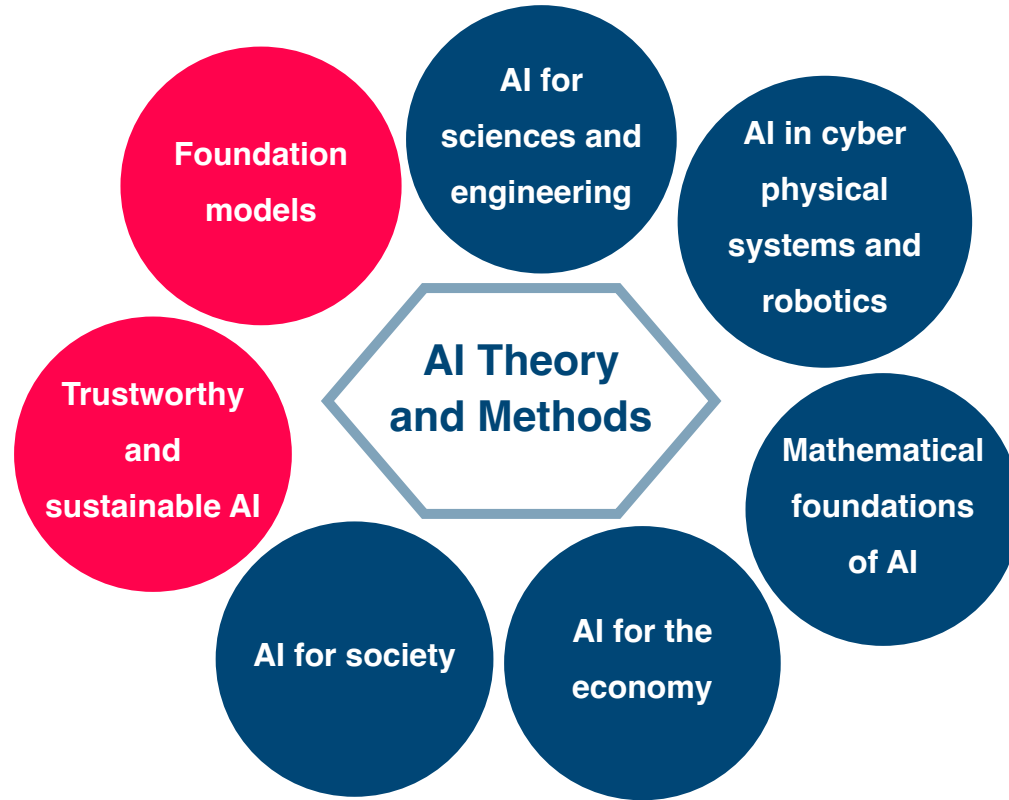


Anna SIMONI
CREST-ENSAE Paris



Aymeric DIEULEVEUT
École polytechnique

OUR STRATEGIC RESEARCH THEMES...



Hi! PARIS SCIENTIFIC EVENTS

Hi! Tuesdays Reading groups:

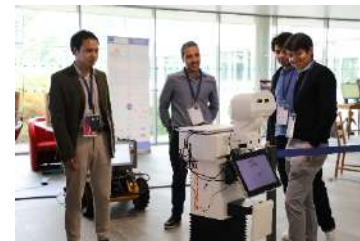
Technical event on a scientific concept composed of 3 sessions.

- 1- [“Transformers”](#) (Oct 2021-Jan 2022)
- 2- [“Uncertainty”](#) (Feb-April 2022)
- 3- [“Graph Neural Networks”](#) (Nov-Dec 2022)
- 4- [“Reinforcement Learning”](#) (Feb-Mar 2023)
- 5- [“Federated Learning”](#) (April-June 2023)
- 6- “Generative AI models” (Oct-Dec 2023)
- 7- “Diffusion Models” (Jan-Apr 2024)

Scientific Symposium:

A **multidisciplinary topic** every 2-year (1st edition’s topic: ”Computer Science and Economics”, 2024 edition on “AI & Robotics”)

Featuring **20+ plenary talks by prominent researchers and younger stars** (e.g., in 2022 speakers came from MIT, Princeton, Chicago, Berkeley, Caltech and top European universities).



AND MANY OTHER **SCIENTIFIC EVENTS** TO BUILD THE **ECOSYSTEM ...**



6 Research Seminars

Invited professors and researchers present these sessions, bringing their wealth of knowledge and expertise to the forefront.



ELLIS unConference

A 3-day scientific conference co-organized with ELLIS, the European AI network of excellence, mirroring the International Conference on Machine Learning in Hawaii.

OUR RESEARCH ECOSYSTEM TO PUT FRANCE ON THE MAP

- We are already actively interacting with the French AI centers, in particular within the DIM project “AI4IDF” with other centers from the Paris Region:



- And, we have initiated collaboration with European and International hubs:



MAIN ACHIEVEMENTS – TEACHING (1/2)




Objectives:

- Create new research and educational programs with a unique combination of skill and mindset in science, technology, business and societal issues.
- Reach **500** students in **2025**, in the Master and PhD programs.

Achievements - Our Double Degree X-HEC Data Science for Business

- Ranked **#3 worldwide** and **#1 in Europe**.

Students come from **HEC** and **Ecole polytechnique** for 50%;
the other 50% come from International leading institutions
(McGill, Imperial College...).

1		MIT (Sloan) 📍 Cambridge (MA), United States
2		UCLA (Anderson) 📍 Los Angeles (CA), United States
3		Ecole Polytechnique/ HEC Paris 📍 Jouy en Josas, Palaiseau, France

[*QS Business Masters Rankings: Business Analytics 2022*](#)

MAIN ACHIEVEMENTS – TEACHING (2/2)

Achievements – new formats created to sensitize and accelerate outreach:

- **Annual Hi!ckathon: ~250 students from 10+ schools & universities** (including HEC Paris and IP-Paris) **representing 7 countries** composing 20+ interdisciplinary teams competing to win prizes awarded by the Corporate Donors. .
- **Hi! PARIS 3-day Summer School: ~180 participants every year**, composed of students (PhD-track and students, M2 students), Post-Docs, Researchers, Engineers / Research Engineers from our schools and corporate donors. Free tickets for the corporate donors' teams.
- **Hi! PARIS “back-to-school” Data Boot Camp: ~200 Master students** from HEC Paris and IP-Paris. The objective of this 2 times 1-week program - integrating theory sessions, practical applications and group coaching - is to sensitize about AI-Data science, raise passion and bring out talent.

MAIN ACHIEVEMENTS – INNOVATION (1/2)

Objectives:

- Develop **entrepreneurships** in **AI**: launch a startup program in AI, attract the best start-ups.
- Foster synergies between our entrepreneurial ecosystems (focusing on AI) and corporate donors.

Achievements:

- **Launch of the HFactory**: HFactory helps educators create engaging active learning experiences in **Data Science & AI**. With its SaaS application to run data innovation challenges, machine learning courses and AI research projects, the startup is the natural partner of higher education institutions and enterprise customers willing to step up their Data & AI training and pedagogy.



<https://hfactory.io>

MAIN ACHIEVEMENTS – INNOVATION (2/2)



Creation of the Engineering Team dedicated to facilitate and foster research while helping to develop computer code in specific research projects and teaching activities.



- **The Team in numbers:**
 - **+ 25 projects delivered in very varied domains:** Natural Language Processing, social sciences, anomaly detection, image or video processing, graph analysis, econometrics, deep learning... The applications of projects were equally distributed in “**AI & Data for Business**”, “**AI & Data for Society**” and in “**AI Development**”.
 - **48 GitHub repositories** and six packages to contribute to the open-source community.
 - **10+ datasets collected**, and an open-source database is currently under development.
 - Creation of an **Engineer Toolbox**, which offers valuable scripts for machine learning projects to the AI community.
 - **+ 400 students** benefited from **Data Science** events all year round.

MAIN ACHIEVEMENTS – EVENTS – VISIBILITY

- **Meet-up with industry:** An open event to give the opportunity to build bridges between Hi! PARIS scientific academic experts and the economic communities.
- **#Women in Science event:** An annual event to contribute to the global topic of gender balance in scientific research and business careers, as part of the International Day of Women and Girls in Science (UNESCO)
- **Career Fair,** that gives the opportunity for students to discover and better understand the fantastic job opportunities our corporate donors have to offer in AI and Data science.



MAIN ACHIEVEMENTS – WHITE BOOKS

1- Visions of Research

The 'Visions of Research' shines a spotlight on specific research topics that all represent major challenges for the future and that hold great promise. It emphasizes on the research carried out by our chair holders and fellows.

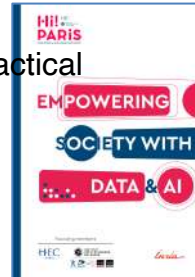


Download it here:



2- Visions of Business

The 'Visions of Business' white book focuses on practical use cases from our corporate donors' companies.



Download it here:





Hi! **PARIS**, an interdisciplinary center devoted to **AI** and **Data Science**, designed to better serve the interests of **Science**, **Economy**, and **Society**.

The Center sets a standard of excellence with its interdisciplinary approach to **educational** programs, high level **research** projects and **innovation**, which benefits science, the economy, public decision makers and society.

Thanks to seven corporate donors, **L'Oréal**, **Capgemini**, **TotalEnergies**, **KERING**, **Rexel**, **VINCI** and **Schneider Electric**, the Center conducts breakthrough multidisciplinary research, provides the economy with the best talent and foster a vibrant eco-system for innovation.