Welcome to IASD

`https://masteriasd.eu`

Olivier Cappé, Benjamin Negrevergne, Etienne Decencière, Pierre Senellart
Maxime Florens

Relevant entities:

- Graduate Program for Computer Science at PSL
- MIDO (Computer Science Department) at Université Paris Dauphine
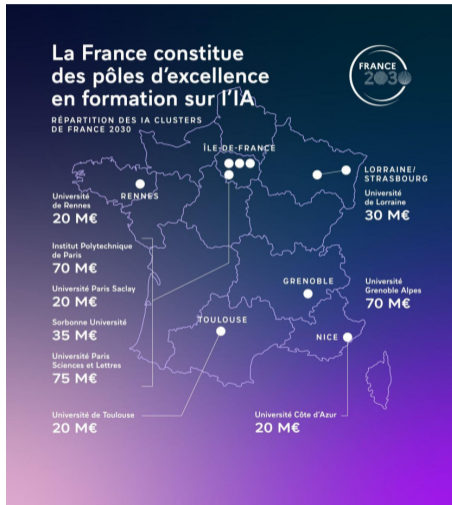- DATA (Data Science) Transverse Program at PSL

PR[AI]RIE (2019–2025) & PSAI (From 2025)

First period: Fundamentals

September – December

■ **7 Mandatory fundamental courses**

- Optimization for Machine Learning   48h – 6 ECTS
- Foundations of Machine Learning   27h – 4 ECTS
- Data acquisition, extraction, and storage   27h – 4 ECTS
- Deep Learning for Image Analysis   27h – 4 ECTS
- Large Language Models   27h – 4 ECTS
- Reinforcement Learning   27h – 4 ECTS
- Data Science Lab   27h – 4 ECTS

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- Data Science Lab   27h – 4 ECTS

▶ First term exams: week of December 16, 2024

Second period: optional courses

January – March

■ **Choose 6 optional courses out of 13 available courses**

- Advanced machine learning
- Computational social choice
- Deep Reinforcement Learning & Applications
- Graph analytics
- Incremental learning, game theory, and applications
- Knowledge graphs, description logics, reasoning on data
- Machine Learning on Big Data
- Data science lectures at Collège de France (FR)

- Mathematics of deep learning
- Monte-Carlo search and games
- NoSQL databases
- Planning, search, and constraint solving
- Point clouds and 3d modeling
- Privacy for machine learning
- Non-convex problems

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▶ Information meeting on November 12, 2024
▶ Second term exams: week of March 24, 2025

PSL Weeks

November 2023, March 2024

■ **Attending one PSL Thematic Week is mandatory**

- Two weeks cleared in the schedule for *PSL Weeks*
  - November 20, 2023 – November 25, 2024
  - March 4, 2024 – March 3, 2025
- Complete list and registration available at:
  `https://psl-week.psl.eu`

You may be interested in PSL Weeks from the <u>Data Science Program</u>

- `https://data-psl.github.io`
- In November: AI for Economics and Finance – Explainability and Interpretability in ANN – Ethic & AI – NLP for Social Sciences – Statistical Phy and ML
- In March: Digital Humanities meet AI – ML for physics and engineering – 'Green' AI – ML in Genomics – NLP for Social Sciences

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▶ You need to register early!

Intership

April - August

■ **An internship in research / R&D**

- 5 months minimum
- Information meeting on January 13, 2025
- Deadline for choosing an internship: March 1, 2025

- Deadline for submitting the master thesis : September 1, 2025
- Internship defense: Week of September 7, 2025

Intership

April - August

■ **An internship in research / R&D**

- 5 months minimum
- Information meeting on January 13, 2025
- Deadline for choosing an internship: March 1, 2025

- Deadline for submitting the master thesis : September 1, 2025
- Internship defense: Week of September 7, 2025

- Final jury for the year: September 23, 2025

Validation

■ **Grade for the 1st period:**
- Weighted average of each grades
- Grades are weighted with the number of ECTS

■ **Grade for 2nd period:**
- Average grade of the 6 optional courses
- Grades are weighted with the number of ECTS

■ **Internship:**
- Defense

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■ **Internship:**
- Defense

▶ **To pass, you need**:
- To attend (and validate) at least one PSL Week
- To obtain a grade $\geq 10/20$ for the first and the second period
- to obtain a grade $\geq 6/20$ for each individual teaching component
- to obtain a grade $\geq 10/20$ for the internship

Validation (Mines Paris)

■ **To pass the IASD master degree, you need:**

- Choose max. 10 ECTS at Mines
- Acquire the required number of ECTS for the year (Mines + IASD)
- Comply with the IASD validation rules, <u>for the teaching components that are graded by Dauphine</u> (see previous slide)

■ **To pass the Mines engineering degree, you need:**

- Choose max. 10 ECTS at IASD
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▶ We recommend that you take at least 4 IASD Mandatory Courses
▶ You must inform us before October 30

Communication and planning

■ **Communication**

- Read your email at *@dauphine.eu* and Teams communications
- Check masteriasd.eu (info-student section) for
    - rules and organization
    - internship offers
    - link to schedule
    - . . .

Communication and planning

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■ Relevant information
- `myplanning.dauphine.eu`
- Check course's website or Teams channel

Courses

All first semester courses and meetings take place at PariSanté Campus
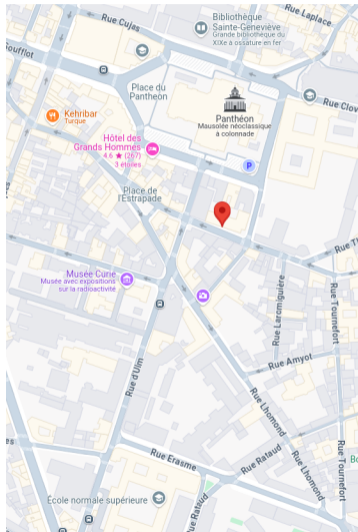
- Courses start at 9 am

Lunch

▶ Lunch trays available at Café contemporain

- Price: 3 to 4€
- 3 options available

PSAI, 16 bis rue de l'Estrapade, 75005 Paris

- Will host the monthly **PSAI Evening Talks : Insights from Industry Innovators** (Tuesday evenings at 18:30, starts on November 5)
- Will be hosting some second semester activities (more news to come later...)

Contact

■ **Pedagogic**

- **Students from ENS**: Pierre Senellart
  pierre.senellart@ens.psl.eu
- **Students from Mines**: Etienne Decencière
  etienne.decenciere@minesparis.psl.eu
- **Dauphine & others**: Olivier Cappé & Benjamin Negrevergne
  olivier.cappe@ens.psl.eu, benjamin.negrevergne@dauphine.psl.eu

■ **Administrative**

- Maxime Florens
  maxime.florens@dauphine.psl.eu