

Céline MOUCER

PhD student at INRIA Paris - PSL University

✉ celine.moucer@inria.fr

EDUCATION

- 2021- **INRIA/ENS Paris - SIERRA**, *PhD in Optimization and Machine Learning*, Paris, Convex optimization, first-order methods, computer-aided analysis, continuous-time models. *Supervisors* : Francis Bach, Adrien Taylor.
- 2020-2021 **Ecole des Ponts ParisTech**, *Master on national policies for sustainable development (MSPA-PDD)*, Paris, Part of the training for civil servants at French ministry for Environment (élève-ingénieure du corps des Ponts, Eaux et Forêts). *Courses* : Law, Economy, Digital transformation, Population dynamics, Sociology.
- 2019-2020 **ENS Paris Saclay**, *Master of Science*, Paris, *Courses* : Convex optimization, Statistical Learning, Probabilistic Graphical Models, Kernel Methods, Theory of Deep learning.
- 2016-2020 **Ecole Polytechnique**, *One of France's top ranking universities for science and engineering*, Paris, (rank : 50/430), *Major coursework includes* : Operations Research, Monte Carlo Methods, ML.
- 2013-2016 **Lycée Louis le Grand**, *Preparatory Program MPSI-MP**, Lycée Hélène Boucher, Paris.
- 2013 **Baccalaureate in sciences (A-levels)**, Paris, specializing in mathematics, with highest honors.

WORK EXPERIENCE

- 2021 **Ministry of Economy (IGF, Bercy)**, Paris, Data Scientist Junior : evaluation of public policies and recommendations for decision making. Report : <https://www.economie.gouv.fr/cge/territoires>. *Supervisors* : Paul-Armand Veillon, Alice Schoenauer-Sebag.
- (6 mois)
- 2020 **Intern at Inria, équipe SIERRA**, Paris, Interplay between optimization and integration methods through worst-case analysis. *Supervisors* : Francis Bach, Adrien Taylor.
- (6 mois)
- 2019 **Intern at GERAD (Polytechnique Montréal)**, Montréal, Canada, A heuristic for language tight constraint in airline crew rostering. *Supervisors* : Issmael El Hallaoui, François Soumis.
- (5 mois)
- 2018 **Intern at EIFFAGE (ECLAIR6) : new ELA4 launch complex for Ariane6**, Toulouse, Analysed the risk of the "déluge", which limits the thermic and accoustic impact of the take-off.
- (3 mois)
- 2016-2017 **Officer Cadet in the Paris Fire Brigade, Blanche fire station**, Paris, Part of Polytechnique's first year curriculum - Managed a 3-person EMS vehicle team in emergency situations.
- (6 mois)

ARTICLES AND PROJECTS

- 2023 **A systematic approach to Lyapunov analyses of continuous-time models in convex optimization**, C. Moucer, A. Taylor, F. Bach, To appear in SIAM Journal on Optimization: <https://arxiv.org/abs/2205.12772>.
- 2022 **PEPit: computer-assisted worst-case analyses of first-order optimization methods in Python**, B. Goujaud, C. Moucer, F. Glineur, J. Hendricks, A. Taylor, A. Dieuleveut, Article : <https://arxiv.org/pdf/2201.04040.pdf>, Documentation for the python package (13k downloads): <https://pepit.readthedocs.io/en/latest/>.
- 2018 **Optimization of the Police's and Fire Brigade's call center**, Préfecture de Police, Paris, Modeled the callers' behavior based on statistical analysis - drafted recommendations for the organization of the call center.
- (6 mois)

SKILLS

- IT Python, R, Mathematica, Matlab, Java, LaTeX
- Language French (native), English (C1, TOEFL 103), German (C1/C2, Voltaire Exchange Program 2011)

OUTSIDE INTERESTS

- Volunteering Protection Civile Paris Seine : Vice president of the association in Paris 8-9, first-aid volunteering and marauding. Website : <https://www.protectioncivile-paris8.org>
- Sports Climbing, Running, Yoga