

Timothée Mathieu – CV

Address 17 Rue Charles de Gaulle
91400 Orsay
Date of Birth 26th November 1993
Nationality French
Phone 06 51 22 87 12
Email timothee.mathieu@universite-paris-saclay.fr
Website www.imo.universite-paris-saclay.fr/~mathieu/

Education

- 2018-2020** PhD at Paris-Saclay University.
Subject: M-estimators and Median of Means applied to statistical learning.
Under the supervision of Matthieu Lerasle and Guillaume Lécué.
- 2015-2017** Master degree.
First year: master degree at ENS Cachan
Second year: master MVA (Mathematics for Vision and Learning) at the ENS Cachan
- 2014-2018** ENS Cachan.
Bachelor and Master degrees at the department of mathematics of the ENS Cachan

Professional experience

- 2018-2021** Member of the INRIA CELESTE team
- 2018-2020** Teaching assistant
- Statistics course of the first year Master degree "Applied Mathematics" at ENSTA (2018 - 2020)
 - Statistics course of 3rd year Bachelor degree MINT (Mathematics in INTeraction) at Paris-Saclay University (2018 - 2020)
 - Statistics course for the computer-sciences first year Master degree Stat-Ai at the University Paris Saclay
- 2017-2018** Internship at Geneva University
Subject: Robust statistics and their applications to the Median of Means
Under the supervision of Elvezio Ronchetti
Duration: 9 months
- 2017-2018** Internship at Orsay University
Subject: Median of Means risk minimization, a robust version of empirical risk minimization methods
Under the supervision of Matthieu Lerasle
Duration: 4 months
- 2015-2016** Internship at Toulouse University, at the IMT (Mathematics institute of Toulouse)
Subject: Study of a clustering criterion
Under the supervision of Sébastien Gerchinovitz and Aurélien Garivier
Duration: 4 months
- 2015-2016** Internship at ENS Cachan, CMLA (Center of mathematics and their applications)
Subject: Analysis of time-frequency physiological signals
Under the supervision of Thomas Moreau
Duration: 4 months

Software Engineering

- Python** Contributions to library scikit-learn-extra
 <https://github.com/scikit-learn-contrib/scikit-learn-extra>
- Other** R, L^AT_EX, Matlab, Maple and Linux

Summer schools and conferences

- 2020** International Conference on Machine Learning (ICML)
- 2019** Saint-Flour Statistics and Probability Summer School
- 2019** StatMathAppli statistics summer school at Fréjus

Other scientific activities

Seminars

- 2019** Presentation on Robust Machine Learning
 StatMathAppli statistics summer school at Fréjus
- 2018** Presentation on Robust Machine Learning
 Machine Learning and Massive Data Analysis (MLMDA) research group, ENS Cachan.

Review for journals

- 2019** Journal of the American Statistical Association (JASA)

Review for conferences

- 2021** International Conference on Learning Representations (ICLR)

References

- [LML20] Matthieu Lerasle, Timothée Mathieu, and Guillaume Lecue. Robust classification via MOM minimization. *Machine Learning*, 109(8):1635–1665, 2020.
- [LSML19] Matthieu Lerasle, Zoltan Szabo, Timothée Mathieu, and Guillaume Lecue. MONK outlier-robust mean embedding estimation by median-of-means. In *Proceedings of the 36th International Conference on Machine Learning*, volume 97 of *Proceedings of Machine Learning Research*, pages 3782–3793, Long Beach, California, USA, 09–15 Jun 2019. PMLR.
- [Mat20a] Timothée Mathieu. Robustness to outliers and concentration of M-estimators by means of influence function. *To appear on arXiv*, 2020.
- [Mat20b] Timothée Mathieu. Tractable robust mean estimation using M-estimators. *To appear on arXiv*, 2020.
- [MM20] Stanislav Minsker and Timothée Mathieu. Excess risk bounds in robust empirical risk minimization. *To appear in Information and Inference: A Journal of the IMA*. *arXiv link* : <https://arxiv.org/abs/1910.07485>, 2020.