

Sirine Louati

Ph.D. Student in Applied Mathematics

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Education

- October 2023 – **Ph.D. in Applied Mathematics**, *CREST-ENSAE Paris*, Palaiseau, France
Present **Topic:** Adaptive Optimal Estimation in Heteroscedastic Models.
Directors: Alexandre Tsybakov and Jaouad Mourtada.
- 2022 – 2023 **MSc. in statistics and machine learning**, *Institut Polytechnique de Paris*, Paris, France
Master's degree in Mathematics of Randomness. Master thesis on median estimation in heteroscedastic settings.
- 2021 – 2023 **Engineering Degree**, *ENSAE Paris*, Palaiseau, France
Major in Data Science, Statistics and Learning.
- 2020 – 2021 **Master 1 in Applied Mathematics**, *Université Paris Dauphine PSL*, Paris, France
- 2017 – 2020 **Bachelor's Degree in Applied Mathematics**, *Université Paris Dauphine PSL*, Paris, France

Teaching

- October 2023 – **Teaching Assistant**, *ENSAE*, Paris, France.
Present
 - Mathematical Statistics, Fast track, M2 level, 12h/year (2023-2026).
 - Statistics 1, M1 level, 2*16.5h/year (2023-2026).
 - Statistics 2, M1 level, 10.5h/year (2023-2026).
 - Probability Theory, Fast track, M1 level, 9h/year (2024-2026).
 - Nonparametric Estimation, M2 level, 9h/year (2023-2024).

Publications

- 2025 **Estimation of discrete distributions with high probability under χ^2 -divergence**, *S. Louati*, submitted, 2025.
- 2024 **Performance of the empirical median for location estimation in heteroscedastic settings**, *S. Louati*, arXiv preprint, arXiv:2501.16956

Talks

- 2025 **CREST Students Seminar**, *ENSAE*, Paris, France.
(upcoming)
- 2025 **56^{èmes} journées de statistique**, Marseille, France.
- 2023 **Journées de rentrée du Master "Mathématiques et Applications"**, *IMO*, Orsay, France.

Conferences

- April 2025 **Workshop on “Recent Advances in Statistical Robustness”**, *ESSEC Rabat*, Rabat, Morocco.
- December 2024 **Meeting in Mathematical Statistics**, *CIRM*, Luminy, France.
- September 2024 **11th Heidelberg Laureate Forum**, Heidelberg, Germany.

Distinctions and Awards

- 2023 Maryam Mirzakhani Junior Award 2023 – Jacques Hadamard Mathematical Foundation (FMJH)
- 2022 – 2023 Sophie Germain Master Scholarship – Jacques Hadamard Mathematical Foundation (FMJH)

Skills

- Programming Python, R.
- Other LaTeX, Microsoft Office.

Languages

- French Bilingual
- English Toeic 905/990
- Arabic Native
- German Basic
- Italian Beginner

Miscellaneous

- 2024 – 2025 Doctoral Student Representative, Board of Directors, EDMH.
- 2024 Organizer of the CREST Welcome Day for new members.
- 2023 – 2024 Doctoral Student Representative, Board of Directors, GENES.

Other Interests

Tennis (Regular player since 2009, Tunisian National Tennis Referee), Table Tennis, Hiking, Traveling.