Alexandre Lecestre

Curriculum vitæ

Postdoctoral researcher in Statistics and Machine Learning

EXPERIENCE

RESEARCH

Since 09/2024	**Postdoctoral Researcher**, *UMR MISTEA - INRAE Montpellier* Advised by Nicolas Verzelen.
09/2019–12/2023	**Doctoral Researcher**, *DMATH - University of Luxembourg* Supervisor: Yannick Baraud Thesis title: Robust estimation for possibly dependent observations: *application to mixture and hidden Marov models*.
03/2019–07/2019	**Research Internship**, *UR BioSP - INRAE Avignon* Supervisor: Edith Gabriel. Object of Study: Estimation of the conditional intensity of a point process.
10/2018–02/2019	**Research Internship**, *LJAD – Université Côte d'Azur* Supervisor: Yannick Baraud. Object of Study: ρ-estimation in a dependent framework.
04/2018–07/2018	**Master thesis**, *UMR MISTEA - INRAE Montpellier* Supervisor: Nicolas Verzelen. Object of study: Statistical analysis of inventory data.
05/2017–07/2017	**Internship**, *STOR-i - Lancaster University* Supervisor: Paul Fearnhead. Object of Study: Quasi-stationary distributions.
05/2016–06/2016	**Internship**, *IMT - Université Paul Sabatier* Supervisor: Jean-Michel Loubes. Object of Study: A convergence theorem with respect to the Wasserstein metric.

TEACHING

Winter semester 2023/2024	**Teaching Assistant**, *Bachelor in Mathematics*, University of Luxembourg *Structures mathématiques* (basic algebra).
Winter semester 2022/2023	**Teaching Assistant**, *Bachelor in Mathematics*, University of Luxembourg *Structures mathématiques* (basic algebra).
Winter semester 2021/2022	**Teaching Assistant**, *Bachelor in Mathematics*, University of Luxembourg Analysis 1.
Winter semester 2020/2021	**Teaching Assistant**, *Bachelor in Mathematics*, University of Luxembourg Analysis 1.
Summer semester 2019/2020	**Teaching Asistant**, *Bachelor in Mathematics*, University of Luxembourg Analysis 2.

OTHER

2021–2023 **PhD Representative**
I was one of the PhD representatives for two years. The representatives are in charge, among other things, of the organization of the PhD Away Days.

Winter semester **Tutoring**
2019/2020 I took part in the "Math Forge" program of the University of Luxembourg.

EDUCATION

2023 **Ph.D. in Mathematics and Applications**
Univeristy of Luxembourg

2019 ***École Normale Supérieure de Lyon* Diploma**

2018 **Master of Science in Mathematics**
Master 2 Mathematics of randomness (probability and statistics).
Université Paris-Saclay, France.

2016 **Bachelor of Science in Mathematics**
Université Claude Bernard Lyon 1, France.

2015–2019 **Student at *École Normale Supérieure de Lyon***

2013–2015 **Prep school (*Classes Préparatoires aux Grandes Écoles*)**
Lycée Chateaubriand, Rennes, France.

2013 **Scientific *Baccalauréat***
Lycée Montesquieu, Le Mans, France.

PUBLICATIONS AND PREPRINTS

- Robust estimation in finite mixture models, A. Lecestre
ESAIM Probability & Statistics, 27 (2023) 402-460.
`https://doi.org/10.1051/ps/2023004`
- Robust estimation for ergodic Markovian processes, A. Lecestre
Preprint arXiv:2307.03666. Submitted to *IEEE Transactions on Information Theory*.
`https://doi.org/10.48550/arXiv.2307.03666`

PRESENTATIONS

12/2023 **2023 IMS International Conference on Statistics and Data Science (ICSDS)**, *Lisbon, Portugal*
Talk: "Robust estimation for mixing Markovian processes".

09/2023 **23rd European Young Statisticians Meeting**, *online*
Talk: "Robust estimation in finite state space hidden Markov models".

05/2023 **International Conference on Robust Statistics - 2023**, *Toulouse, France*
Talk: "Robust estimation for Markovian mixing processes".

10/2022 **PhD Away Days – BiLux 2022**, *Milan, Italy*
Talk: "Introduction to statistical hypothesis testing".

08–09/2022 **StatMathAppli**, *Fréjus, France*
Talk: "Robust estimation in finite state space hidden Markov models".

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06/2022 **IMS Annual Meeting**, *London, UK*
Talk: "Robust estimation in finite state space hidden Markov models".

06/2022 **ISNPS2022**, *Paphos, Cyprus*
Talk: "Robust estimation in finite state space hidden Markov models".

03/2022 **Statistics team seminar**, *LMO, Orsay, France*
Talk: "Robust estimation in hidden Markov models".

06/2021 **MHC2021 (Mixtures, Hidden Markov Models and Clustering)**, *Orsay, France (online)*
Poster: "Robust estimation in finite Mixture models".

10/2020 **SanDAL Winter School on Mathematical Statistics**, *Belval, Luxembourg (online)*
Talk: "Robust Estimation in Finite Mixture Models".

10/2021 **PhD Away Days**, *Strasbourg, France*
Talk: "Central Limit Theorems".

03/2021 **PhD Seminar**, *Belval, Luxembourg (online)*
Talk: Introduction to Robust Statistics

10/2020 **PhD "Away" Days**, *Belval, Luxembourg (online)*
Talk: "Test Theory".

10/2019 **PhD Away Days**, *Bordeaux, France*
Talk: "Maximum Likelihood Estimation".

EVENTS ATTENDED

07/2022 **3-Day Meeting of Statisticians in Paris**, *Institut Henri Poincaré, Paris*

07/2021 **International Conference on Statistics and Related Fields**, *Belval, Luxembourg (online)*

10/2020 **Workshop on Data Science**, *Belval, Luxembourg*

09/2019 **StatMathAppli**, *Fréjus, France*

REFEREE WORK

Referee for *Annales de l'Institut Henri Poincaré, Probabilités et Statistiques* (x1).

LANGUAGES

French   Mother Tongue.

English   Fluent (Grade C at the Cambridge Advanced Exam, equivalent to level C1).

Spanish   Level B2.

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