

Alexandre Lecestre

Curriculum vitæ

EDUCATION

- 2019–2023 **PhD in Mathematics and Applications**, *University of Luxembourg*
Supervisor: Yannick Baraud
Subject: Robust estimation in finite mixture models and hidden Markov models.
- 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.

ACADEMIC EXPERIENCE

- From 02/2021 **PhD Representative**
to 01/2023 I was one of the PhD representatives that are in charge, among other things, of the organization of the PhD Away Days (see below).
- From 03/2019 **Projet Long de Recherche 2**, *Laboratoire de Mathématiques d'Avignon*
to 07/2019 Supervisor: Edith Gabriel.
Object of Study: Estimation of the conditional intensity of a point process.
- From 10/2018 **Projet Long de Recherche 1**, *Laboratoire J.A. Dieudonné de Nice*
to 02/2019 Supervisor: Yannick Baraud.
Object of Study: ρ -estimation in a dependent framework.
- From 04/2018 **Master thesis**, *UMR MISTEA - INRA Montpellier*
to 07/2018 Supervisor: Nicolas Verzelen.
Object of study: Statistical analysis of inventory data.

From 05/2017 **12 Week Internship, Lancaster University**
to 07/2017 Supervisor: Paul Fearnhead.
Object of Study: Quasi-stationary distributions.

From 05/2016 **6 Week Internship, Institut de Mathématiques de Toulouse**
to 06/2016 Supervisor: Jean-Michel Loubes.
Object of Study: A convergence theorem with the Wasserstein metric.

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.
<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".
- 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).

TEACHING EXPERIENCE

- 2023–2024 **Teaching Assistant**
Algebra (1st semester of the BSc in mathematics).
- 2022–2023 **Teaching Assistant**
Algebra (1st semester of the BSc in mathematics).
- 2021–2022 **Teaching Assistant**
Analysis 1 (1st semester of the BSc in mathematics).
- 2020–2021 **Teaching Assistant**
Analysis 1 (1st semester of the BSc in mathematics).
- 2019–2020 **Teaching Assistant**
Analysis 2 (2nd semester of the BSc in mathematics).
- 2019–2020 **Tutoring**
I took part in the “Math Forge” program of the University of Luxembourg during the winter semester.
- 2015–2016 **Volunteer Tutoring**
I assisted a freshman in mathematics.

LANGUAGES

French Mother Tongue.

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

Spanish Level B2.