Alexandre Lecestre

Curriculum vitæ

EDUCATION

2019–Present **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 to 01/2023 **PhD Representative**
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 to 07/2019 **Projet Long de Recherche 2**, *Laboratoire de Mathématiques d'Avignon*
Supervisor: Edith Gabriel.
Object of Study: Estimation of the conditional intensity of a point process.

From 10/2018 to 02/2019 **Projet Long de Recherche 1**, *Laboratoire J.A. Dieudonné de Nice*
Supervisor: Yannick Baraud.
Object of Study: ρ-estimation in a dependent framework.

From 04/2018 to 07/2018 **Master thesis**, *UMR MISTEA - INRA Montpellier*
Supervisor: Nicolas Verzelen.
Object of study: Statistical analysis of inventory data.

6, Avenue de la Fonte – L-4364, Esch-sur-Alzette – Luxembourg
+33 (0)6 80 43 88 73 • (+352) 46 66 44 5935
(+352) 46 66 44 35935 • alexandre.lecestre@uni.lu
alexandre-lecestre.github.io/alexandre-lecestre/ *1/4*

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

From 05/2016 to 06/2016	**6 Week Internship**, *Institut de Mathématiques de Toulouse*
	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`

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*

PRESENTATIONS

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".

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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".

TEACHING EXPERIENCE

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 Asistant**
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.

SKILLS

Languages

French Mother Tongue.
English Fluent (Grade C at the Cambridge Advanced Exam, equivalent to level C1).
Spanish Level B2.

Computer

LaTeX Production of scientific documents and presentations.

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R General knowledge, including the creation of a package for a master course in machine learning.

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