# CLÉMENT BERENFELD

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## EXPERIENCES

**Junior professor (Chaire de professeur junior)** - INRIA, PreMeDICaL team. *Montpellier, France*
Interests: meta-analysis, survival analysis, AI evaluation. Oct 2025 - today

**Postdoctoral Researcher** - INRIA, PreMeDICaL team. *Montpellier, France*
In the team of Julie Josse. Topics: causal inference, survival analysis. Apr 2025 - Oct 2025

**Postdoctoral Researcher** - University of Potsdam. *Potsdam, Germany*
In the team of Alexandra Carpentier. Topics: unsupervised learning, manifold learning. 2022 - 2025

**PhD Candidate** - Université Paris-Dauphine. *Paris, France*
Under the supervision of Marc Hoffmann. Topics: manifold learning, nonparametric statistics. 2019 - 2022

**Research Intern** - University of California San Diego. *San Diego, USA.*
Under the supervision of Ery Arias-Castro. Topics: random paths. 2018

**Machine Learning Engineer** - Signactif. *Bagneux, France*
I developed Machine Learning algorithms to analyse and predict crowd motion (using Python). 2017

## TEACHING

**Teaching Assistant** - University of Potsdam. *Potsdam, Germany*
· Statistical Data Analysis - Master course (Lecturer: Alexandra Carpentier). 1st Semester 2024-2025

**Lecturer** - University of Potsdam. *Potsdam, Germany*
· Introduction to Manifold Learning - Master course. 2nd Semester 2023-2024

**Teaching Assistant** - Université Paris-Dauphine. *Paris, France*
· Mathematical Statistics - L3 course (Lecturer: Vincent Rivoirard). 2nd Semesters 2019-2021
· Statistical Learning - M1 course (Lecturer: Angelina Roche).

## HONORS AND AWARDS

**MJLD Award: Best PhD in statistics.** 2023
*Awarded every three years by the French Statistical Society.*

**Humboldt research fellowship** (declined). 2023

## EDUCATION

**Université Paris-Dauphine.** *Paris, France*
PhD in statistics. 2019 - 2022

**Université Paris-Saclay.** *Orsay, France*
Graduate studies, Statistics and Machine Learning. Highest Honor. 2017 - 2018

**École Normale Supérieure de Paris.** *Paris, France*
Undergraduate and graduate studies, Mathematics department. Highest Honor. 2014 - 2019

**Lycée Sainte Geneviève.** *Versailles, France*
Preparatory school in mathematics and physics. Admitted by competitive examination to ENS Paris. 2012 - 2014

## PUBLICATIONS AND PREPRINTS

1. Causal Meta-Analysis: Rethinking the Foundations of Evidence-Based Medicine (2025), with A. Boughdiri, B. Colnet, W. van Amsterdam, A. Bellet, R. Khellaf, E. Scornet and J. Josse. *In revision*.
2. A Unified Framework for the Transportability of Population-Level Causal Measures (2025), with A. Boughdiri, J. Josse and E. Scornet. *To appear in NeurIPS25*.
3. Causal survival analysis and estimation of the average treatment effect: practical recommendations (2025), with C. Voinot, I. Mayer, B. Sebastien and J. Josse. *In revision*.
4. Predictable recovery rates in near-surface materials after earthquake damage (2025), with L. Illien, J.M. Turowski, C. Sens-Schönfelder and N. Hovius. *Nature Communications.*
5. Learning with Hidden Factorial Structure (2025), with C. Arnal, S. Rosenberg and V. Cabannes. *In revision.*
6. Seriation of Tœplitz and latent position matrices (2024), with A. Carpentier and N. Verzelen. *To appear in Bernoulli.*
7. A theory of stratification learning (2024), with E. Aamari. *In revision*.
8. Estimating a density near an unknown manifold: a Bayesian nonparametric approach (2024), with P. Rosa and J. Rousseau. *Annals of Statistics*.
9. Theoretical Foundations of Ordinal Multidimensional Scaling, Including Internal and External Unfolding (2023), with E. Arias-Castro and D. Kane. *SIAM Journal on Mathematics of Data Science*.
10. Optimal reach estimation and metric learning (2023), with E. Aamari and C. Levrard. *Annals of Statistics*.
11. From Graph Centrality to Data Depth (2021), with E. Aamari and E. Arias-Castro. *ALEA*.
12. Estimating the Reach of a Manifold via its Convexity Defect Function (2022), with J. Harvey, M. Hoffmann and K. Shankar. *Discrete & Computational Geometry.*
13. Density Estimation on an Unknown Submanifold (2021), with M. Hoffmann. *Electronic Journal of Statistics*.
14. Some Random Paths with Angle Constraints (2021), with E. Arias-Castro. *Annales de l'Institut Henri Poincaré, Probabilités et Statistiques*.

## TALKS

**Biostatistic seminar**, CIRC, Lyon, 12.10.2025 // **Team seminar**, IDESP, Montpellier, 02.10.2025 // **Research Seminar in Statistics**, WIAS, Berlin, 26.06.2024 // **Statistics Seminar**, LMO, Orsay, 16.05.2024 // **Data Science Conference**, Institut für Mathematik, Heidelberg, 10.07.2023 // **Journée Des Statistiques**, Université de Bruxelles, Bruxelles, 3.07.2023 // **ASCAI Workshop**, TUM, Munich 28.03.2023// **GESDA**, IHP, Paris, 4.10.2022 // **Statmathappli**, Fréjus, 29.08.2022 // **Stochastic models seminar**, LPSM, Paris, 2.06.2022 // **Statistics seminar**, Humboldt-Universität, Berlin, 19.11.2021 // **Séminaire Parisien de Statistique**, IHP, Paris, 18.10.2021 // **Meeting in Mathematical Statistics**, CIRM, Luminy, 6.01.2021 // **Datashape Seminar**, INRIA, Saclay, 21.01.2020 // **Applied Mathematics Seminar**, LMJL, Nantes, 14.11.2019.

## SKILLS

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| **Programming** | Python, R. |
| **Languages** | French (native), English (fluent), German. (notions) |

## REFERENCES

Available on demand.