

Valentin KILIAN

PhD student, University of Oxford

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Work experience

- 2023-Present **PhD Student**, *University of Oxford*, United Kingdom
Under the supervision of F. Caron and B. Guedj, funded by Clarendon Scholarship. My research interests lie in the development of statistical models for the analysis of real-world networks and of Anytime-valid methods for Statistics and Machine Learning. (Expected graduation in March 2028)
- Apr 2026- **Quantitative Research Intern**, *Citadel*, Paris, France
Oct 2026 Time series foundation models, Portfolio optimisation, Portfolio backtesting
- 2024-2026 **Lecturer in Mathematics and Statistics**, *Balliol College*, Oxford, United Kingdom
- 2023-Present **Tutor in Statistics and Machine Learning**, Oxford, United Kingdom
Department of Statistics, Keble College, Rhodes Trust, and the Oxford Programme for Undergraduate Studies.
- 2022-2024 **Mathematics teacher**, *IPESUP*, Paris, France
Part-time mathematics teacher in business and commercial preparatory classes. Author of maths booklets.

Diploma

- 2023 **Master's degree, Mathematics of Randomness**, *Paris-Saclay University*
- 2022 **Master's degree in Mathematics for teaching**, *ENS Rennes*
- 2021 **Bachelor's degree in Physics**, *University of Rennes 1*
- 2020 **Bachelor's degree in Pure Mathematics**, *ENS Rennes*

Education

- 2022-2023 **Master (M2) Mathematics of Randomness**, *University Paris-Saclay*, Orsay
- 2019-2023 **Trainee civil servant at the Ecole Normale Supérieure de Rennes**
Ranked 39th at the French national competitive exam for teachers ("agrégation")
- 2016-2019 **Classes préparatoires aux grandes écoles**, *Lycée Louis le Grand*, Paris, *CPGE*
Three-year undergraduate intensive course in mathematics, physics and computer science, preparing for a national competitive exam.

Computer skills

Python, R, C++, SQL, OCaml, (LaTeX, Git, AI coding agent).

Languages

French Native

English Fluent

Academic Activity

- 2025-Present **President of the Oxford Young Statisticians Seminars**, *University of Oxford*
Organise seminars for PhD students and postdoctoral researchers in statistics and machine learning across the University of Oxford, with the aim of fostering collaboration. Organise social activities and manage the seminar's social-media presence.

Selected Talks

- 2026 **The 4th BNP Workshop**, *Modelling Extremely Sparse Networks*, Invited talk, Seoul, Korea
- 2026 **ISBA World Meeting**, *Modelling Extremely Sparse Networks*, Invited talk, Nagoya, Japan
- 2026 **MPLS Researcher Conference: AI & Ethics**, *Confidence sequences with informative, bounded-influence priors*, Talk, Oxford, UK
- 2025 **Advances in post-Bayesian methods**, *Confidence sequences with informative, bounded-influence priors*, Contributed talk, London, UK
- 2025 **Bayesian Young Statisticians Meeting**, *Modelling Extremely Sparse Networks*, Talk with discussion, Online

Publications

- 2026 **SPIGM@ICML**, *A Generative Model for Extremely Sparse Edge-Exchangeable Networks*, **Valentin Kilian**
- 2026 **Under review**, *Prediction-Powered Active Testing*, Kianoosh Ashouritaklimi, **Valentin Kilian**, Daolang Huang, Tom Rainforth, François Caron
- 2026 **Under review**, *Asymptotically Log-Optimal Bayes-Assisted Confidence Sequences for Bounded Means*, **Valentin Kilian***, Stefano Cortinovis*, François Caron
- 2025 **NeurIPS**, *Anytime-valid, Bayes-assisted, Prediction-Powered Inference*, **Valentin Kilian***, Stefano Cortinovis*, François Caron
- 2025 **EJS**, *Confidence sequences with informative, bounded-influence priors*, Stefano Cortinovis*, **Valentin Kilian***, François Caron
- 2025 **Under review**, *Rapidly Varying Completely Random Measures for Modeling Extremely Sparse Networks*, **Valentin Kilian**, Benjamin Guedj, François Caron
- 2024 **Under review**, *Enhancing the Power of Gaussian Graphical Model Inference by Modeling the Graph Structure*, **Valentin Kilian**, Tabea Rebafka and Fanny Villers

Equal first authors indicated by *