Louis Gass

Post-doctoral position in mathematics

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28 y.o.
French

About me

I am currently a postdoctoral researcher at the University of Luxembourg, under the supervision of Professor Giovanni Peccati. My research focuses primarily on the study of limit theorems related to geometric observables of random fields, particularly their nodal sets. My website is available at the following address: https://louis-gass.github.io/

Preprints

2025 **L. Gass, G. Peccati**, *Functional convergence of the random nodal measure of Gaussian fields*

2025 **M. Ancona, L. Gass, T. Letendre, M. Stecconi**, *The method of moments for linear statistic of Gaussian fields*

2025 **L. Gass**, *Spectral criteria for the asymptotics of local functionals of Gaussian fields and application to the nodal volume*

Publications

2023 **L. Gass, M. Stecconi**, *The number of critical points of a Gaussian field: finiteness of moments, Probability Theory and Related Fields*

2021 **L. Gass**, *Cumulants asymptotics for the zeros counting measure of real Gaussian processes, Electronic Journal of Probability*

2021 **L. Gass**, *Variance of the number of zeros of dependent Gaussian trigonometric polynomials, Proceedings of the American Mathematical Society*

2020 **L. Gass**, *Almost sure asymptotics for Riemannian random waves, Bernoulli Journal*

Main Talks

2024 **Workshop Analysis and Geometry of Random Fields**, *Sapienza Università di Roma*

2023 **Seminaire de Probablités**, *Université Paris Cité*

2023 **Conférence Geometry of random nodal domains 2**, *Université de Rennes 1*

2022 **Seminar "Problèmes Spectraux en Physique Mathématique"**, *Institut Henri Poincaré*

2022 **Séminaire d'Analyse Harmonique**, *Université de Paris-Saclay*

2021 **Confrence Geometry of random nodal domains**, *Université de Rennes 1*

2021 **Séminaire de Probabilités et Statistiques**, *University of Luxembourg*

Education

2022 – **Postdoctoral Researcher**, *University of Luxembourg*, under the supervision of Professor Giovanni Peccati

2019 – 2022 **PhD in Probability**, *University of Rennes 1 (IRMAR)*, under the supervision of Jürgen Angst and Guillaume Poly, "On the geometry of random nodal sets"

2018 – 2019	**Master in Fundamental Mathematics**, *ENS Rennes and University of Rennes 1*, Probability and PDEs
2018	**Agrégé in Mathematics**
2015 – 2017	**Bachelor's Degree in Physics and Mathematics**, *École normale Supérieure de Rennes*

Teaching

2022 –	**Teaching at the University of Luxembourg (mostly in English)** Probability courses for Data Science, Random Walks, Experimental Mathematics, Linear Algebra
2019 – 2022	**Teaching Assistant at the École normale Supérieure de Rennes** Probability courses, Fourier Transform complement, mock oral exams for the Agrégation

Languages Spoken

French : native language

English : fluent

Italian, German : basic knowledge