

Baptiste HUGUET

Position

2021 - **AGPR**, ENS Rennes

2021 **Postdoctoral position**, University of Luxembourg

Advisor: Anton Thalmaier

2020 - 2021 **ATER**, Université de Bordeaux

Education

2017 - 2020 **PhD in Mathematics**, Université de Bordeaux

Thesis : Stochastic calculus on manifold and applications to functional inequalities

Advisors : Marc Arnaudon and Michel Bonnefont

Date of defense : 17th December 2020

Comitee : Jürgen Angst, Ana Bela Cruzeiro, Arnaud Guillin, Christian Léonard,

Xue-Mei Li, Adrien Richou

2013 - 2017 **Magistère of Mathematics**, ENS Rennes & Université de Rennes 1

Master in Mathematics (with highest honours)

Master MEEF (with highest honours)

Agrégation externe de Mathématiques (national french teaching competitive exam)
(rank: 25th)

Bachelor in Physics (with highest honours)

Bachelor in Mathematics (with honours)

Preprints et publications

- [1] B. Huguet, Intertwining relations for diffusions in manifolds and applications to functional inequalities, *Stochastic processes and their applications*, vol. 28, 2022
- [2] D. García-Zelada, B. Huguet, Brenier-Schrödinger problem on compact manifold with boundary, *Stochastic Analysis and Applications*, vol. 40(3), 2022
- [3] B. Huguet, Poincaré inequality and curvature -dimension criterion for generalised Cauchy and convex measures, *Bernoulli*, vol. 30(3) 2024
- [4] R. Herry, B. Huguet, The Brenier-Schrödinger problem with respect to Feller semimartingales and non-local Hamilton-Jacobi-Bellman equations, 2024 (preprint)

- [5] B. Huguet, Logarithmic Sobolev inequalities for generalised Cauchy measures, 2024(preprint)
- [6] E.Bronasco, A. Busnot Laurent, B. Huguet, High order integration of stochastic dynamics on Riemannian manifolds with frozen flow methods, 2025 (preprint)
- [7] B. Huguet, Strong approximation theorems for multi-scale jump process, 2025 (preprint)

Talks

- 06/2025 GFMUL Probability seminar, Lisboa (soon)
- 06/2024 Journées de probabilités 2024, Bordeaux
- 04/2024 Space seminar, Tours
- 03/2024 Probability seminar, Rennes
- 06/2023 Sobolev inequalities in the Alps conference, Grenoble
- 01/2023 Journée ANR RAGE 2023, Bordeaux
- 10/2021 Probability seminar, Rennes
- 09/2021 SchröMoka Conference, Lisboa
- 06/2021 Journées de probabilités 2021, Guidel
- 05/2021 Stochastic analysis workgroup, Leipzig
- 12/2020 Journée ANR RAGE 2020, Bordeaux
- 05/2019 Journées de probabilités 2019, Dourdan

Teachings

- 2021 - **AGPR**, *ENS Rennes*
- 2020 - 2021 **ATER**, *Université de Bordeaux*
- 2017 - 2020 **Teaching assignment**, *Université de Bordeaux*
- 2016 - 2017 **Khôlleur**, *lycée Chateaubriand*, Rennes
Oral examinations in preparatory classes MP*
- Exercices session** , *INSA Rennes*
Analysis (1st year)

Other research experiences

- 2017 **Research internship**, *Université de Bordeaux*
Calcul stochastique dans les variétés
Supervisors : Marc Arnaudon and Michel Bonnefont.
- 2015 **Research internship**, *Yerevan State University*, Yerevan
Stochastic Geometry, namely recognition of bounded convex bodies by k-sections
Supervisor : Victor K. Ohanyan.

2014 **Research internship**, *Université de Nantes*
Empirical distribution function and its applications
Supervisor : Anne Philippe

Responsibilities

2019 - 2020 Vice-secretary of the association Lambda of PhD students in mathematics of Bordeaux
2018 - 2019 Organization comity of the colloquium "Inter'Actions en Mathématiques 2019" at Bordeaux

Computer skills

Programmation Scilab, Python
Others \LaTeX and usual OpenOffice tools

Languages

French Mothertongue
English Intermediate
Spanish Basic
Luxembourgish Basic

Interests

- Folk music. Banjo, mandolin and diato accordion player
- Inveterate reader - Dancer