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## 研究领域

Lévy processes and related processes, Wright-Fisher processes, population genetics models, processes in random environment

## 教育背景

- 2014-2017 PhD Student in Mathematics, Université d'Orléans.
- Student in Mathematics, ENS Cachan Antenne de Bretagne (that school became ENS Rennes in 2014).
- Student in CPGE (MPSI-MP) at Lycée Sainte-Anne, Brest.

## 工作经历

- 2022-Now Assistant Professor in Mathematics at Institute of Applied Mathematics, AMSS, Chinese Academy of Sciences, Beijing.
- 2020-2022 Postdoctoral researcher in Mathematics at Hua Loo-Keng Center for Mathematical Sciences, AMSS, Chinese Academy of Sciences, Beijing.
- 2017-2020 Postdoctoral fellow in Mathematics at NYU Shanghai.

## 学术成就

### Published articles

- G. Véchambre (2023). Spectral analysis of a class of Lévy-type processes and connection with some spin systems. *To appear in Annales de l'Institut Henri Poincaré - Probabilités et Statistiques*.
- G. Véchambre (2023). Combinatorics of ancestral lines for a Wright-Fisher diffusion with selection in a Lévy environment. *The Annals of Applied Probability*, Vol. 33, No. 6A, 4875–4935, <https://doi.org/10.1214/23-AAP1936>
- F. Cordero, G. Véchambre (2023). Moran models and Wright–Fisher diffusions with selection and mutation in a one-sided random environment, *Advances in Applied Probability*, Vol. 55(3), pp. 701–767. <https://doi.org/10.1017/apr.2022.54>
- G. Véchambre (2022). Almost Sure Behavior for the Local Time of a Diffusion in a Spectrally Negative Lévy Environment. *Journal of Theoretical Probability*, Vol. 36, 876–925,

<https://doi.org/10.1007/s10959-022-01191-z>

- G. Véchambre (2021). General self-similarity properties for Markov processes and exponential functionals of Lévy processes. *Journal of Theoretical Probability*, Vol. 35, 2083–2144, <https://doi.org/10.1007/s10959-021-01097-2>
- G. Véchambre (2019). Exponential functionals of spectrally one-sided Lévy processes conditioned to stay positive. *Annales de l'Institut Henri Poincaré - Probabilités et Statistique*. Vol. 55, no. 2, 620-660, <https://doi.org/10.1214/18-AIHP892>
- G. Véchambre (2018). Path decomposition of a spectrally negative Lévy process, and local time of a diffusion in this environment. *Markov Processes Relat. Fields* Vol. 24, 563-668, <https://math-mprf.org/journal/articles/id1517/>
- P. Andreoletti, A. Devulder, G. Véchambre (2016). Renewal structure and local time for diffusions in random environment, *ALEA, Latin American Journal of Probability and Mathematical Statistics*, Vol. 13, 863-923, <https://doi.org/10.30757/ALEA.v13-34>

#### Preprints

- F. Cordero, S. Hummel, G. Véchambre (2023).  $\Lambda$ -Wright-Fisher processes with general selection and opposing environmental effects: fixation and coexistence, <https://arxiv.org/abs/2112.10560v3>

#### 联系方式

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