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Simon Andréys

Education

- 2015–2019 **PhD Student**, *ICJ (Université Lyon 1) and CPT (Marseille)*.
My co-advisors are Stéphane Attal and Claude-Alain Pillet, on the dynamics of open quantum systems
- 2014–2015 **Master 2 of advanced mathematics, specialization in mathematical physics**, *ENS Lyon*.
Research internship of 4 months with Stéphane Attal (Lyon 1) on repeated interactions on quantum fermionic systems
- 2013–2014 **Master 1 of advanced mathematics**, *ENS Lyon*.
Research internship of 6 weeks with Philippe Jaming (Institut de Mathématiques de Bordeaux) on phase reconstruction problems
- 2012–2013 **Licence in fundamental mathematics**, *ENS Lyon*.
Research internship of 6 weeks with Ludovic Rifford (Laboratoire J.A. Dieudonné in Nice) on the isometric immersion theorem of Nash-Kuiper
- 2010-2012 **Preparatory classes to the competitive exam of the ENS**, *Lycée Kléber, Strasbourg*.

Publications

- *Repeated interaction processes applied to quadratic fermionic systems*, Submitted to Annales Henri Poincaré. [arXiv:1903.08223](https://arxiv.org/abs/1903.08223)
- *Quantum measurement and the Open Quantum Brownian Motion*, In preparation
- *Large deviation of entropy exchanges in quasi-free fermionic semigroups*, in preparation
- *Zak Transform and non-uniqueness in an extension of Pauli's phase retrieval problem*, (with Philippe Jaming) Analysis Mathematica (2015)

Talks

- (Feb. 2019) *Cambridge, CQIF seminar*. Energy exchanges in open quantum systems, applied to quasi-free fermions.
- (May 2018) *Toulouse, workshop on quantum functional inequalities*. Presentation of the article : "Hypercontractivity of quasi-free quantum semigroups" (Temme, Pastawski, Kastoryano, 2014).
- (December 2017) *Lyon, PhD seminar*. Brownian motion and rough paths.
- (October 2017), *Toulon, Doctoriades*. Entropic fluctuations for quasi-free fermionic semigroups.
- (October 2016), *Angers, Rencontres doctorales Lebesgue*. Convergence of quantum trajectories.
- (May 2016), *Toulouse, meeting of the MISTEQ project*. Entropic fluctuations for quasi-free fermionic dynamical systems.

Languages

French Mother language

English Fluent

B2

German Elementary

A1

Programing

I have a good knowledge of Wolfram Mathematica and R, and a basic understanding of Scilab, Maple and Caml.