

Xiaochuan YANG

Université du Luxembourg
Unité de Recherche en Mathématiques
6, avenue de la Fonte
L-4364 Esch-sur-Alzette
Grand Duchy of Luxembourg
Phone: (+352) 466-644-5393
Email: xiaochuan.yang@uni.lu
URL: <http://xiaochuanyang.com/>

Nationality: Chinese
Language: English, French (C1), Chinese (native)

Appointments

- 2018- now *Bilateral Postdoc*
[Université du Luxembourg](#), in the research group of [Ivan Nourdin](#) & [Giovanni Peccati](#)
[National University of Singapore](#), in the research group of [Louis Chen](#) & [Adrian Roellin](#)
- 2016-2018 *Visiting assistant professor* (Postdoc), [Dep. of statistics & probability](#), Michigan State University, USA. Mentor: [Yimin Xiao](#).
- 2012-2016 *Teaching assistant*, [Laboratoire d'Analyse et de Mathématiques Appliquées](#), Université Paris-Est, France

Research interests

Random spatial networks
Distributional approximation by Stein's method
Malliavin calculus on Wiener space and point configuration spaces
Path regularity of Gaussian, Markov and point processes
(Multi)fractal analysis of random structure
Local times and isomorphism theorems

Education

- 2016 PhD in Mathematics, Université Paris-Est, France
Topic: “*Various dimension properties of the regularity of jump diffusion processes*”. Advisors: [Stéphane Jaffard](#) & [Stéphane Seuret](#).
- 2013 MSc in Mathematics, Université Paris-Est, France
- 2009 BSc in Mathematics, Jilin University, China

Publications

- [10] Ivan Nourdin; Giovanni Peccati; **Xiaochuan Yang** *Restricted hypercontractivity on the Poisson space*. PAMS, to appear. [article](#).
- [9] Hyunchul Park; Yimin Xiao; **Xiaochuan Yang** *Uniform dimension results for the inverse images of symmetric Lévy processes*. J. Theoret. Probab., to appear. [article](#).
- [8] Ivan Nourdin; Giovanni Peccati; **Xiaochuan Yang** *Berry-Esseen bounds in the Breuer-Major CLT and Gebelein's inequality*. Electron. Commun. Probab. Volume 24 (2019), paper no. 34, 12 pp. [article](#).
- [7] Bo Li; Yimin Xiao; **Xiaochuan Yang** *On the favorite points of symmetric Lévy processes*. J. Theoret. Probab. 32(2019), No.4, 1943-1972. [article](#).
- [6] Jozsef Lorinczi; **Xiaochuan Yang** *Multifractal properties of sample paths of ground state-transformed jump processes*. Chaos Solitons Fractals 120 (2019) 83–94. [article](#).
- [5] Stéphane Seuret; **Xiaochuan Yang** *On sojourn of Brownian motion inside moving boundaries*. Stochastic Process. Appl. 129 (2019) 978–994 . [article](#).
- [4] Renming Song; Yimin Xiao; **Xiaochuan Yang** *Uniform Hausdorff dimension result for the inverse images of stable Lévy processes*. Electron. Commun. Probab., Volume 23 (2018), paper no. 75, 10 pp. [article](#).
- [3] **Xiaochuan Yang** *Multifractality of jump diffusion processes*. Ann. Inst. Henri Poincaré Probab. Stat. 54 (2018), no. 4, 2042-2074. [article](#).
- [2] **Xiaochuan Yang** *Hausdorff dimension of the range and the graph of stable-like processes*. J. Theoret. Probab. 31 (2018), no. 4, 2412-2431. [article](#).
- [1] Stéphane Seuret; **Xiaochuan Yang** *Multifractal analysis for the occupation measure of stable-like processes*. Electron. J. Probab. 22 (2017), Paper No. 47, 36 pp. [article](#).

Teaching

- Sample • [video](#) (recorded within iPad) • [notes](#) for an undergraduate probability course.
- 2019 March Mini-course “ [Stochastic analysis of Poisson point processes](#)”, 5 hours of lectures (= $2h + 2 \times 1.5h$) for 60+ PhD students/junior researchers, University of Saida, Algeria.
- 2018 Summer [Normal approximations with Malliavin Calculus](#), 20 hours of lectures (= $10 \times 2h$), Michigan State University, USA
- 2016–2018 130 hours of lectures (incl. exams) per year, Michigan State University, USA
 - [STT351 Probability and statistics for engineers](#) , junior/senior engineering students, 60+ students per section, 5 sections over two years
 - [STT441 Probability theory](#), junior/senior math/statistics/actuarial science students, 40+ students per section, 3 sections over two years
- 2012–2016 64 hours exercise classes per year, Université Paris-Est, France
 - Probability theory, Licence 3 math (third and final year of a typical french university bachelor program), 20+ students
 - Linear algebra, Licence 1 math/CS, 30+ students
 - Calculus of one variable, Licence 1 math/CS/physics, 30+ students
 - Multivariate calculus, Licence 2 math/CS/physics, 30+ students
 - Mathematics for physics, Licence 1 physics, 30+ students
 - Mathematics for biology, Licence 1 biology, 30+ students

Last updated: December 7, 2019 • <http://xiaochuanyang.com/>