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Citizenship: French

Scientific interests

Probability theory and mathematical physics: Integrable probability, KPZ universality class and equation, interacting particle systems, growth processes, directed polymers, random walks in random environment, symmetric functions, random matrix theory.

Education

- 2015 **PhD in Applied Mathematics**, Université Paris Diderot – Paris 7. Advisor: Sandrine Péché.
- 2012 **MSc in Applied Mathematics** (Probability theory), Université Pierre et Marie Curie – Paris 6.
- 2008 – 2012 **École Polytechnique**, Paris.
- 2006 – 2008 “Classes préparatoires aux grandes écoles”, **Lycée Henri IV**, Paris.

Academic positions

- 2016 – 2018 **Ritt assistant professor**, Columbia University.
- 2015 – 2016 Postdoctoral researcher, Columbia University (funded by Ivan Corwin’s Packard fellowship).
- 2012 – 2015 PhD student and Teaching assistant, Université Paris Diderot – Paris 7.

Publications

Preprints

- Facilitated exclusion process, with Jinho Baik, Ivan Corwin and Toufic Suidan. [ArXiv:1707.01923](https://arxiv.org/abs/1707.01923)
- Stochastic six-vertex model in a half-quadrant and half-line open ASEP, with Alexei Borodin, Ivan Corwin and Michael Wheeler. [ArXiv:1704.04309](https://arxiv.org/abs/1704.04309)

Journal articles

- Pfaffian Schur processes and last passage percolation in a half-quadrant, with Jinho Baik, Ivan Corwin and Toufic Suidan, *to appear in Annals of Probability*. [ArXiv:1605.00525](https://arxiv.org/abs/1605.00525)
- Random walks in Beta-distributed random environment, with Ivan Corwin, *Probability Theory and Related Fields*, (2017) 167: 1057. [Arxiv:1503.04117](https://arxiv.org/abs/1503.04117).

- The q -Hahn asymmetric exclusion process, with Ivan Corwin, *Annals of Applied Probability*, 2016, Vol. 26, No. 4, 2304-2356. [ArXiv:1501.03445](#).
- A phase transition for q -TASEP with a few slower particles. *Stochastic Processes and their Applications*, 125 (2015), pp. 2674–2699. [ArXiv:1404.7409](#)
- A short proof of a symmetry identity for the q -Hahn distribution. *Electronic Communications in Probability*, 2014, 19:1-3.

PhD Thesis

[Some integrable models in the KPZ universality class](#), Université Paris Diderot – Paris 7, June 2015. Committee: Philippe Biane, Francis Comets, Ivan Corwin, Pierre Le Doussal, Sandrine Péché and Ellen Saada.

Talks

Conferences

- Jul. 2017 27th Annual PCMI Summer Session, Random Matrices, Park city, USA. Title: *ASEP and KPZ equation in a half- space with open boundary*.
- Jun. 2017 Stochastic dynamics out of equilibrium, Institut Henri Poincaré, France. Title: *ASEP and the KPZ equation in a half space*.
- Apr. 2017 Qualitative Methods in KPZ Universality, CIRM, Marseille, France. Title: *ASEP on the positive integers with an open boundary and the KPZ equation in a half space*.
- Jan. 2017 Joint mathematics meeting American Mathematical Society-Mathematical Association of America, Atlanta, USA. Title: *Facilitated TASEP and half-space KPZ growth*.
- Apr. 2016 Columbia-Princeton Probability Day, New York, USA. Title: *Random walks in Beta random environment*.
- Jan. 2016 New approaches to non-equilibrium and random systems, Kävli institute, Santa Barbara, USA. Title: *Fluctuations of the first particle in exclusion processes*.
- Dec. 2015 *Master Lectures in Mathematics* around the work of Horng-Tzer Yau, Tsinghua Sanya International Mathematics Forum, China. Title: *Fluctuations of the first particle in exclusion processes*.
- May 2015 Clay Mathematics Institute workshop “Random Polymers and Algebraic Combinatorics”, Oxford, UK. Title: *Random walks in Beta random environment*.

Seminars

- Mar. 2017 **CUNY** Title: *ASEP on the positive integers with an open boundary*.
- Feb. 2017 **New York University** Title: *KPZ random growth in a half space*.
- Sept. 2016 **NYC Integrable Probability Working Group** Title: *Stochastic spin models and symmetric functions (after Borodin-Petrov)*.
- Mar. 2016 **University of Virginia** Title: *Fluctuations of the first particle in exclusion processes*.
- Feb. 2016 **UCLA**. Title : *Random walks in Beta random environment*.
- Dec. 2015 **Harvard**. Title : *Random walks in Beta random environment*.
- Nov. 2015 **MIT**. Title : *Random walks in Beta random environment*.
- Nov. 2015 **MIT**. Title : *Facilitated TASEP and Pfaffian Schur processes*.
- Nov. 2015 **New York University**. Title : *Random walks in Beta random environment*.
- Oct. 2015 **University of Michigan**. Title : *Random walks in Beta random environment*.

- Oct. 2015 **UC Berkeley**. Title : *Random walks in Beta random environment*.
- Oct. 2015 **UC Davis**. Title : *Random walks in Beta random environment*.
- Oct. 2015 **Stanford University**. Title : *Random walks in Beta random environment*.
- May 2015 **Institut Henri Poincaré**, Groupe de travail "Matrices Et Graphes Aléatoires". Title: *Marches aléatoires en environnement Bêta*.
- Apr. 2015 **Université Paris 6**. Title: *Marches aléatoires en environnement Bêta*.
- Feb. 2015 **Université d'Angers**. Title: *Théorèmes limites pour les processus d'exclusion intégrables dans la classe d'universalité KPZ*.
- Nov. 2014 **Budapest University of Technology** Title: *KPZ scaling theory for integrable exclusion processes*.
- Oct. 2014 **Columbia University**. Title : *KPZ scaling theory for integrable exclusion processes*.

Teaching

Columbia University

- Spring 2018 Linear algebra (two sections).
- Fall 2017 Ordinary differential equations.
- Spring 2017 Linear algebra.
- Fall 2016 Calculus III (two sections).

Université Paris-Diderot– Paris 7

- Spring 2015 Preparation to oral exams.
- Fall 2014 Probability theory, Chargé de TD (recitations).
- Fall 2013 Calculus, Chargé de TD.
- Fall 2012 Calculus, Chargé de TD.

Organization of seminars/conferences

- Apr. 2017 Organizer of the Spring Columbia-Courant probability seminar.
- 2015 – ... Co-organizer of the Columbia Probability Seminar.
- 2013 – 2014 Co-organizer of the PhD students probability seminar, Paris 6 and Paris 7 (LPMA).

Other

- 2012 & 2014 Team Leader (mentoring high-school students) for the *French Tournament of Young Mathematicians* organized by Animath.
- 2011 Research internship in mathematical analysis of communication networks, Télécom Paristech.
- 2008 – 2009 Military service in the French Navy (part of the École Polytechnique curriculum).

Last updated: August 21, 2017