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Employment

2011 – present	Assistant professor ETH Zürich
2008 – 2011	Instructor Courant Institute of Mathematical Sciences, New York University PIRE Fellow Visiting researcher: Université de Genève (January – July 2009), IMPA Rio de Janeiro (January – April 2011), CWI Amsterdam (April – June 2011)

Education

2005 – 2008	PhD in Probability under the supervision of Prof. Wendelin Werner <i>mention Très Honorable (summa cum laude)</i> ENS and Université Paris-Sud 11
2004 – 2005	DEA de Probabilités (MSc) <i>mention Très Bien (summa cum laude)</i> Université Paris-Sud 11 Master Thesis under the supervision of Prof. Wendelin Werner
2003 – 2004	Agrégation de Mathématiques (<i>ranked 22nd</i>) DEA de Probabilités (MSc) (<i>partially</i>) Université Paris 6
2002 – 2003	Maîtrise de Mathématiques (BSc) <i>mention Très Bien</i> ENS Licence de Mathématiques <i>mention Très Bien</i> ENS
2002 – 2006	Student at École Normale Supérieure (Paris)
May – July 2002	Competitive exams to enter French “Grandes Écoles” Admitted to École Normale Supérieure (<i>ranked 5th</i>) and to École Polytechnique (<i>ranked 4th</i>)
2000 – 2002	Preparatory classes for “Grandes Écoles” Lycée Hoche (Versailles)
June 2000	Baccalauréat Lycée Hoche (Versailles)

Awards and honors

March 2009	Prix de thèse Jacques Neveu 2008
July 2000	International Mathematical Olympiad <i>Bronze Medal</i> Taejon, South Korea
June 2000	Concours Général de Mathématiques (French Mathematical Olympiad) (<i>ranked 4th</i>)

Publications

- Boundary rules and breaking of self-organized criticality in 2D frozen percolation (with J. van den Berg), preprint arXiv:1612.07744 (17 pages).
- Two-dimensional volume-frozen percolation: deconcentration and prevalence of mesoscopic clusters (with J. van den Berg and D. Kiss), *Annales Scientifiques de l'École Normale Supérieure*, to appear (68 pages).
- Two-dimensional volume-frozen percolation: exceptional scales (with J. van den Berg), *Annals of Applied Probability* **27**, 91–108 (2017).
- Embedding binary sequences into Bernoulli site percolation on \mathbb{Z}^3 (with M. Hilário, B. de Lima and V. Sidoravicius), *Stochastic Processes and their Applications* **124**, 4171–4181 (2014).
- Percolation on uniform infinite planar maps (with L. Ménard), *Electronic Journal of Probability* **19**, no. 79, 1–27 (2014).
- A percolation process on the binary tree where large finite clusters are frozen (with J. van den Berg and D. Kiss), *Electronic Communications in Probability* **17**, no. 2, 1–11 (2012).
- A percolation process on the square lattice where large finite clusters are frozen (with J. van den Berg and B. de Lima), *Random Structures & Algorithms* **40**, 220–226 (2012).
- Connection probabilities and RSW-type bounds for the FK Ising model (with H. Duminil-Copin and C. Hongler), *Communications on Pure and Applied Mathematics* **64**, 1165–1198 (2011).
- On monochromatic arm exponents for 2D critical percolation (with V. Beffara), *Annals of Probability* **39**, 1286–1304 (2011).
- Near-critical percolation in two dimensions, *Electronic Journal of Probability* **13**, no. 55, 1562–1623 (2008).
- Asymmetry of near-critical percolation interfaces (with W. Werner), *Journal of the American Mathematical Society* **22**, 797–819 (2009).
- Large scale properties of the IIC for 2D percolation (with L. Chayes), *Stochastic Processes and their Applications* **119**, 882–896 (2009).
- Critical exponents of planar gradient percolation, *Annals of Probability* **36**, 1748–1776 (2008).

Teaching experience

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|----------------|---|
| 2011 – present | Assistant professor ETH Zürich “Special Topics in Probability (Conformal Invariance in 2D Statistical Mechanics)” (Fall 2011), “Markov Chains: Mixing Times and Applications” (Spring 2012, Spring 2015), “Probability Theory” (Fall 2012, Fall 2013), “Probability Theory and Statistics” for Electrical Engineering students (Spring 2013 in English, Spring 2014, Spring 2017 in German), “Large Deviations” (Fall 2014), “Percolation Theory” (Fall 2015, Fall 2016), “Brownian Motion and Stochastic Calculus” (Spring 2016), co-organizer of “Student Seminar in Probability” (Fall 2011, Spring 2012, Fall 2012, Spring 2013, Fall 2013, Spring 2014, Spring 2015, Fall 2015, Spring 2016, Fall 2016, Spring 2017), co-organizer of a reading seminar “Random maps” (Spring 2013), supervision of 2 Master theses, 11 Bachelor theses and 6 Semester theses |
| 2008 – 2011 | Instructor New York University “Quantitative Reasoning: Elementary Statistics” (Fall 2008), “Discrete Mathematics” (Fall 2009), “Functions of a Complex Variable” (Spring 2010), “Analysis 1” (Fall 2010), “Advanced Topics in Probability (Conformal Methods in 2D Statistical Mechanics)” (Fall 2010) |
| 2006 – 2008 | Lecturer ENS “Mathematics for Economics: Probability and Statistics” for Economics students (in French) |

Selected Talks

- 2017 *Statistical mechanics in Diablerets* (Les Diablerets, Switzerland), *Probability seminar* (Institut Élie Cartan de Lorraine, Nancy), *Mathematics colloquium* (Université de Fribourg), *Journée en hommage à Jacques Neveu* (Institut Henri Poincaré, Paris), *Mark Kac seminar* (Utrecht), *Probability seminar* (KTH, Stockholm)
- 2016 *XX Brazilian School of Probability* (University of São Paulo at São Carlos, Brazil), *Workshop on Random Processes in Discrete Structures* (University of Warwick), *Probability seminar* (Institut de Mathématiques de Toulouse), *Probability and Statistics seminar* (Institut de Mathématiques de Marseille)
- 2015 *Topics in low dimensional statistical mechanics* (Les Diablerets, Switzerland), *Probability seminar* (Universités Paris 6 and Paris 7), *Loire Valley Workshop on Conformal Methods in Analysis, Random Structures and Dynamics* (Chalès, France), *Probability Theory, Statistical Physics and Applications Workshop* (NYU Abu Dhabi), *Seminar on stochastic calculus* (Université de Strasbourg)
- 2014 *New Zealand Probability Workshop* (Te Anau, New Zealand), *NYUAD Math Symposium* (NYU Abu Dhabi), *Probability seminar* (Uppsala University), *Probability seminar* (VU Amsterdam), *Workshop on Probability and Related Topics* (Tsinghua University, Beijing), *ICM 2014 Satellite Conference: Recent Progress in Random Conformal Geometry* (Seoul)
- 2013 *Tsinghua Sanya International Mathematics Forum* (Sanya, China), *Spatial stochastic seminar* (CWI, Amsterdam), *29th Brazilian Mathematics Colloquium* (IMPA, Rio de Janeiro), *End of summer meeting in mathematical physics* (ETH)
- 2012 *Probability seminar* (Columbia University), *Probability seminar* (Harvard University), *Workshop on forest fires* (Université Toulouse 3), *Mathematical physics seminar* (Université de Genève), *Mini-course on SLE (6h)* and *Workshop on stochastic, dimension and dynamics* (Morningside Center of Mathematics, Chinese Academy of Sciences, Beijing)
- 2011 *Probability seminar* (IMPA, Rio de Janeiro), *Mathematics colloquium* (UFMG, Belo Horizonte), *Probability seminar* (Université Paris 5), *Mark Kac seminar* (Utrecht), *Mathematics colloquium* (Vrije Universiteit, Amsterdam), *Spatial stochastic seminar* (CWI, Amsterdam), *Seminar on stochastic processes* (ETH / Universität Zürich)
- 2010 *Probability seminar* (Vrije Universiteit, Amsterdam), *Probability seminar* (Courant Institute), *Probability seminar* (University of Minnesota), *Mathematical physics seminar* (Université de Genève), *Seminar on stochastic processes* (ETH / Universität Zürich), *CMI 2010 Summer School* (Buzios, Brazil), *ICM Satellite Conference on Probability and Stochastic Processes* (ISI, Bangalore), *Journée Jacques Neveu* (Université Bordeaux 1), *SPA Osaka 2010* (Osaka), *Probability seminar* (CUNY), *Probability seminar* (University of Toronto), *Probability seminar* (University of Chicago)
- 2009 *Conference “Potential Theory and Analysis of Growth Processes”* (Université d’Orléans), *Condensed matter physics seminar* (École Polytechnique), *Workshop “Random Structures, Growth Processes and Conformal Methods”* (University of Helsinki), *Spatial stochastic seminar* (CWI, Amsterdam), *Workshop “Scaling Limits in Models of Statistical Mechanics”* (MFO, Oberwolfach), *Conference “Conformal Structures and Dynamics”* (MRCC, Bedlewo)
- 2008 *Colóquio Inter-Institucional “Modelos Estocásticos e Aplicações”* (IMPA, Rio de Janeiro), *Canada-France Congress 2008* (UQÀM, Montréal), *La Pietra Week in Probability 2008* (Florence), *Workshop “Stochastic Loewner Evolution and Scaling Limits”* (CRM, Montréal), *Probability seminar* (Courant Institute), *Probability seminar* (University of Toronto), *Probability seminar* (Columbia University), *Random Shapes Reunion Conference* (IPAM, UCLA)
- 2007 *Condensed matter physics seminar* (École Polytechnique), *Probability seminar* (Université d’Orléans), *Junior seminar* (IPAM, UCLA), *Congrès SMAI 2007* (Praz-sur-Arly), *IAS / PCMI 2007* (Park City), *Arbeitsgemeinschaft: Percolation* (MFO, Oberwolfach), *Probability seminar* (Weizmann Institute), *Probability seminar* (ENS Lyon)
- 2006 *Probability seminar* (Vrije Universiteit, Amsterdam), *Probability seminar* (Université Paris-Sud 11, Orsay), *Spatial stochastic seminar* (CWI, Amsterdam)

Grants, other research activities

- ETH postdoctoral fellowship of Ron Rosenthal (Some problems in geometric probability theory)
- NCCR SwissMAP (National Centre of Competence in Research “the Mathematics of Physics”), in the sub-project Statistical Mechanics
- NSF Research Grant (Near-critical two-dimensional random systems) DMS-1007626 (PI), 2010–2013
- referee reports: Acta Mathematica, ALEA, Annales de l’Institut Henri Poincaré (B) Probabilités et Statistiques, Annals of Applied Probability, Annals of Mathematics, Annals of Probability, Communications in Mathematical Physics, Communications on Pure and Applied Mathematics, Electronic Communications in Probability, Electronic Journal of Probability, Journal of the American Mathematical Society, Journal of the European Mathematical Society, Journal für die Reine und Angewandte Mathematik, Probability Theory and Related Fields, Stochastic Processes and their Applications
- PhD committees: Tom Alberts (Courant Institute, NYU, advisor: Scott Sheffield), Demeter Kiss (CWI and VU Amsterdam, advisor: Rob van den Berg), Thi Thuy Nga Nguyen (Université d’Orléans, advisors: Michel Zinsmeister and Athanasios Batakis), Marcin Lis (VU Amsterdam, advisors: Federico Camia, Wouter Kager and Ronald Meester), Gabriel Berzunza (Universität Zürich, advisor: Jean Bertoin)
- session organizer (Percolation theory and related processes) at the 37th Conference on Stochastic Processes and their Applications (Buenos Aires, July 28 – August 1, 2014)
- co-organizer (with Nam-Gyu Kang and Fredrik Viklund) of a satellite conference at the International Congress of Mathematicians 2014: Recent Progress in Random Conformal Geometry (Seoul, August 11–12, 2014)
- co-organizer (with Jean-Philippe Bouchaud, Pierluigi Contucci, Cristian Giardinà, Vladas Sidoravicius and Vincent Vargas) of a trimester program: Disordered systems, random spatial processes and some applications (Institut Henri Poincaré, Paris, January 5 – April 3, 2015)
- co-organizer (with Laurent Ménard, Bruno Schapira and Arvind Singh) of a conference: Dynamics on Graphs and Random Maps (Centre International de Rencontres Mathématiques, Marseille, October 23 – 27, 2017)
- co-organizer of the probability seminar (joint between ETH and University of Zürich)