Yier Lin

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Education

Ph.D. in mathematics, Columbia University; Advisor: Ivan Corwin — Sep 2016-Apr 2021
B.S. in mathematics, Tsinghua University — Sep 2012 -Jun 2016

Employments

Postdoctoral Researcher Mathematical Sciences Research Institute — Aug 2021-Dec 2021
William H. Kruskal Instructor University of Chicago, Department of Statistics — Jan 2022 -

Research Interest

Probability theory and Mathematical Physics, Stochastic PDE, Vertex model

Publications

1. Lyapunov exponents of the half-line SHE, *To appear in Journal of statistical Physics 2021+*

2. Short time large deviations of the KPZ equation (with Li-Cheng Tsai), *Communications in Mathematical Physics (2021), no. 386, 359–393*

3. The stochastic telegraph equation limit of the stochastic higher spin six vertex model. *Electronic Journal of Probability (2020), Vol 25, no. 148, 1-30*

4. KPZ equation limit of stochastic higher spin six vertex model. *Mathematical Physics, Analysis and Geometry* (2020), Vol 23, no. 1, 1-118

5. Markov duality for stochastic six vertex model. *Electronic Communications in Probability (2019), Vol 24, no. 67, 1-17*

6. Second order behavior of the block counting process of beta coalescents (with Bastien Mallein). *Electronic Communications in Probability (2017), Vol 22, no. 61, 1-8*

Preprints

1. KPZ equation with a small noise, deep upper tail and limit shape (with Pierre Yves Gaudreau Lamarre and Li-Cheng Tsai), 2021, *arXiv:2106.13313*

2. Lyapunov exponents of the SHE for general initial data (with Promit Ghosal), 2020, *arxiv:2007.06505*

Talks

Invited talk, Conference on Algebraic duality methods in probability	Jun 2021
Invited talk, Probability and Statisics Seminar, University of Kansas	Mar 2021
Contributed talk, 19th Northeast Probability Seminar	Nov 2020
Invited talk, Utah Stochastic Seminar (joint with the University of Arizona)	Nov 2020
Invited talk, Columbia SPDE seminar	Oct 2020
Invited talk, Seminar from a Safe Distance (MIT)	Oct 2020
Invited talk, Purdue probability seminar	Sep 2020
Contributed talk, Bernoulli-IMS One World Symposium	Aug 2020
Invited talk, Junior integrable probability seminar	Aug 2020
Invited talk, Tsinghua University probability seminar	Jan 2020

Invited talk, NYC Integrable Probability working group	Oct 2019
Invited talk, Virginia Integrable Probability Summer School	May 2019

Teaching Experience

Instructor for Calculus II	2021 Spring
Instructor for College Algebra-Analytic Geometry	2020 Spring
TA for Intro Modern Analysis I	2018, 2019 Fall
TA for Topics in Stochastic Analysis	2019 Spring
TA for Analysis and Optimization	2017 Fall, 2019 Spring
TA for Analysis Probability I	2018 Fall
TA for Probability Theory	2018 Spring
TA for Stochastic methods in Finance	2017 Fall

Miscellaneous

Selected Awards

MSRI Postdoctoral Fellowship	Aug 2021-Dec 2021
Summer Minerva research fellowship	2018-2020

Visiting

École normale supérieure, visiting student, mentored by Bastien Mallein	Jan 2016 - Jun 2016
UCLA, Visiting student, mentored by Thomas M. Liggett	Jul 2015 - Sep 2015

Academic service

Referee for *Annales de l'Institut Henri Poincaré, Communications in Mathematical Physics, Electronic Communication in Probability, Journal of Functional Analysis, Journal of Statistical Physics, Probability Theory and Related Fields.*

Skills

Language: English (fluent), Mandarin (native), Japanese (intermediate)

Coding: Python, C++, Matlab, Mathematica.