Yier Lin

ylin10@uchicago.edu http://yierlin.me/

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

William H. Kruskal Instructor University of Chicago, Department of Statistics — Jan 2022 -

Postdoctoral Researcher Mathematical Sciences Research Institute — Aug 2021-Dec 2021

Research Interest

Probability theory, Mathematical Physics

Publications/To appear

1. Lyapunov exponents of the SHE for general initial data (with Promit Ghosal), To appear in Annales de l'Institut Henri Poincaré, Probabilités et Statistiques (2022+)

2. Lyapunov exponents of the half-line SHE, *Journal of Statistical Physics (2021) 183, Article number: 37*

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

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

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

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

7. 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. Long and short time laws of iterated logarithms for the KPZ fixed point (with Sayan Das and Promit Ghosal), 2022, *arXiv:2207.04162*

2. Classification of Stationary distributions for the stochastic vertex models, 2022, *arXiv:2205.10654*

3. Hydrodynamics of the t-PNG model via a colored t-PNG model (with Hindy Drillick), 2022, *arXiv:2204.11158*

4. 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*

Talks

Workshop on Recent Developments in Stochastic Duality, Eurandom — Dec 2022

Workshop on Stochastic PDE and Related Topics, Maryland — Nov 2022

AMS Sectional Meeting at Purdue University — Mar 2022

Utah Stochastics Seminar — Mar 2022

THU-PKU-BNU Probability Webinar — Mar 2022

5th Colloquium on Interacting Particle Systems	Jan 2022
MSRI weekly seminar	Nov 2021
Minicourse at MSRI on Interacting particle systems and SPDEs	Sep 2021
MSRI postdoc seminar	Jun 2021
Conference on Algebraic duality methods in probability	Jun 2021
Probability and Statisics Seminar, University of Kansas	Mar 2021
19th Northeast Probability Seminar	Nov 2020
Utah & Arizona Stochastic Seminar	Nov 2020
Columbia SPDE seminar	Oct 2020
MIT integrable probability seminar	Oct 2020
Purdue probability seminar	Sep 2020
Bernoulli-IMS One World Symposium	Aug 2020
Junior integrable probability seminar	Aug 2020
Tsinghua University probability seminar	Jan 2020
Columbia University Integrable Probability Seminar	Oct 2019
Virginia Integrable Probability Summer School	May 2019

Teaching Experience

University of Chicago:

Instructor for Statistical Models and Methods	2022 Spring
Instructor for Topics course on random growth model	2022 Winter

Columbia University:

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

Awards

MSRI Postdoctoral Fellowship	Aug 2021-Dec 2021
Summer Minerva research fellowship (Columbia University)	Summer 2018-2020

Visiting

École normale supérieure, visiting student	Jan 2016 - Jun 2016

Academic service

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

Skills

Language: English (fluent), Mandarin (native)

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