

Curriculum Vitae

Shangjie Yang

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Positions

- February 2022 -present
Postdoc Bar-Ilan University
Host: Gidi Amir and Naomi Feldheim
- November 2021- February 2022
Postdoc (online) Universidade Federal de Bahia
Host: Tertuliano Franco
- July 2021- October 2021
Postdoc (online) Bar-Ilan University
Host: Gidi Amir

Education

- March 2017-April 2021
Ph.D. student Instituto de Matemática Pura e Aplicada
Adviser: Hubert Lacoin
- March 2015-February 2017
Master student Instituto de Matemática Pura e Aplicada
Adviser: Vladas Sidoravicius
- September 2013-December 2014
Master student Nankai University
Adviser: Kainan Xiang
- September 2009-June 2013
Undergraduate student Sun Yat-sen University

Research interest

My research focuses on the intersection between probability theory and statistical mechanics: Markov chains and mixing times, random polymer models, interacting particle systems, random walks in random environments, Gaussian random functions.

Publications and preprints

5. **N. Feldheim and S. Yang**, Typical height of the $(2+1)$ -D Solid-on-Solid surface with pinning above a wall in the delocalized phase
[Arxiv: 2301.09197](#) submitted.
4. **G. Amir, S. Yang**, The branching number of intermediate growth trees
[Arxiv: 2205.14238](#) submitted.
3. **H. Lacoin, S. Yang**, Mixing time of the asymmetric simple exclusion process in a random environment
[Arxiv: 2102.02606](#) Accepted by Annals of Applied Probability
2. **H. Lacoin, S. Yang**, Metastability for expanding bubbles on a sticky substrate
[Arxiv: 2007.07832](#) *Ann. Appl. Probab.* 32(5): 3408-3449 (October 2022).
1. **S. Yang**, Cutoff for polymer pinning dynamics in the repulsive phase
[Arxiv: 1909.04635](#) *Ann. Inst. H. Poincaré Probab. Statist.* 57(3): 1306-1335 (2021).

Teaching assistants at Instituto de Matemática Pura e Aplicada

1. Probability 1 (03/2018-06/2018)
2. Stochastic process (the second half) (10/2019-11/2019)
(The first half was given by Leandro Chiarini, 8/2019-9/2019)
3. Markov chains and mixing times (01/2020-02/2020)

Teaching in Universidade Federal da Bahia

1. Minicourse: mixing time for interface models and particle system (11/2021-01/2022)

Talks

- Weizmann: Students Probability Day IX *May 2023*
Short talk: Typical height of the (2+1)-D Solid-on-Solid surface with pinning above a wall in the delocalized phase
- Bar-Ilan University *March 2023*
Talk: Typical height of the (2+1)-D Solid-on-Solid surface with pinning above a wall in the delocalized phase
- Technion *March 2023*
Talk: Typical height of the (2+1)-D Solid-on-Solid surface with pinning above a wall in the delocalized phase
- Bar-Ilan University *Dec 2022*
Talk: The branching number of intermediate growth trees
- Tsinghua U.-Peking U.-BKU Webminar *Sep 2022*
Talk: Mixing time of ASEP in a random environment
- Sichuan University *May 2022*
Talk: mixing time for interface models and particle system
- Xiangtan University *May 2022*
Talk: mixing time for interface models and particle system
- Bar-Ilan University *March 2022*
Talk: mixing time for interface models and particle system
- Oberwolfach workshop *November 2021*
Short talk: mixing time for ASEP in random environment
- Ningbo University *March 2021*
Talk: metastability for expanding bubbles on a sticky substrate
- Xiangtan University *November 2020*
Talk: metastability for expanding bubbles on a sticky substrate
- Bernoulli-IMS One World Symposium *August 2020*
short talk: metastability for expanding bubbles on a sticky substrate
- XXIII Brazilian School of Probability *July 2019*
poster: Cutoff for polymer pinning dynamics in the repulsive phase
- Probability Summer School Saint-Flour (France), *July 2019*
short talk: Cutoff for polymer pinning dynamics in the repulsive phase

Language

Mandarin (native) Cantonese (native) English (fluent) Portuguese (advance) French (basic)

Programming

Mathematica MATLAB

Visit

- May 2021- February 2022 Instituto de Matemática Pura e Aplicada
Visiting fellow Host: Hubert Lacoin

Referee for journals

Annals of applied probability Electronic Journal of Probability
Communications in Mathematical Physics

Award

Colman-Soref scholarship (outstanding postdoc fellowship, 2023 Israel)

Miscellanies

Volunteers ICM 2018 (Rio de Janeiro)