

# Curriculum Vitae

## Shangjie Yang

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## Positions

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

## Education

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| • March 2017-April 2021<br>Ph.D. student                   | Instituto de Matemática Pura e Aplicada<br>Adviser: Hubert Lacoin       |
| • March 2015-February 2017<br>Master student               | Instituto de Matemática Pura e Aplicada<br>Adviser: Vladas Sidoravicius |
| • September 2013-December 2014<br>Master student (dropout) | Nankai University<br>Adviser: Kainan Xiang                              |
| • September 2009-June 2013<br>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](#)  
[Stochastic Processes and their Applications](#). 165 (2023), Pages 168-182.
4. **G. Amir and S. Yang**, The branching number of intermediate growth trees  
[Arxiv: 2205.14238](#) submitted.
3. **H. Lacoin and 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 and 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

- Southern University of Science and Technology (SUSTech) *Nov 2023*  
Talk: Metastability for expanding bubbles on a sticky substrate
- Sichuan University *Nov 2023*  
Talk: Cutoff for polymer pinning dynamics in the repulsive phase
- Academy of mathematics and system science *Nov 2023*  
Talk: Cutoff for polymer pinning dynamics in the repulsive phase
- Nankai University *Nov 2023*  
Talk: Cutoff for polymer pinning dynamics in the repulsive phase
- Tsinghua University *Nov 2023*  
Talk: Cutoff for polymer pinning dynamics in the repulsive phase
- Harbin Institute of Technology *Oct 2023*  
Talk: Cutoff for polymer pinning dynamics in the repulsive phase
- 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 Webinar *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)

## Programming

Mathematica   MATLAB

## Referee for journals

Annals of applied probability  
Electronic Journal of Probability

Annals of probability  
Communications in Mathematical Physics

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**Award**

Colman-Soref scholarship

2023, Israel

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**Miscellanies**

2018 ICM Volunteer (Rio de Janeiro)