

# Curriculum Vitae

## Shangjie Yang

Universidade de São Paulo email: yashjie@gmail.com

Web Page: <https://shjyang.github.io>



### Positions

- March 2024 — Present  
Postdoc  
São Paulo Universidade  
Host: Leonardo Rolla
- February 2022 — February 2024  
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 (dropout)  
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](#)  
[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](#)  
[Ann. Appl. Probab.](#) 34(1A): 388-427 (February 2024).
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

---

- Conference: Probability and Statistical Physics *Jan 2024*  
Talk: Mixing Time of ASEP in a random environment
- Beijing Normal University *Jan 2024*  
Talk: Metastability for expanding bubbles on a sticky substrate
- Harbin Institute of Technology *Dec 2023*  
Talk: Metastability for expanding bubbles on a sticky substrate
- 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)   French (basic)

---

**Programming**

Mathematica   MATLAB

---

**Visit**

- 30 December 2023 — 13 January 2024   Academy of Mathematics and Systems Science  
Short visit   Host: Quan Shi
- 11 December 2023 — 29 December 2023   Bimsa  
Short visit   Host: Yuval Peres
- 02 December 2023 — 10 December 2023   Tsinghua University & Peking University  
Short visit   Host: Chenlin Gu, Xinyi Li
- 29 November 2023 — 2 December 2023   Southern University of Science and Technology  
Short visit   Host: Jieliang Hong, Raúl Ures
- 8 November 2023 — 15 November 2023   Sichuan University  
Short visit   Host: Yinshan Chang
- 2 November 2023 — 7 November 2023   Academy of Mathematics and Systems Science  
Short visit   Host: Hui Xiao
- 27 October 2023 — 1 November 2023   Harbin Institute of Technology  
Short visit   Host: Jinghao Huang
- May 2021 — February 2022   Instituto de Matemática Pura e Aplicada  
Visiting fellow   Host: Hubert Lacoin

---

**Referee for journals**

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

---

**Award**

Colman-Soref scholarship	2023, Israel
--------------------------	--------------

---

**Miscellanies**

2018 ICM Volunteer (Rio de Janeiro)