

# Curriculum Vitae

## Shangjie Yang

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## Positions

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

## Education

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

## Research interest

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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

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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

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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

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

## Talks

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- 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

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Mandarin (native)	Cantonese (native)	English (fluent)	Portuguese (fluent)
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## Programming

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Mathematica	MATLAB
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## Visit

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| • May 2021- February 2022<br>Visiting fellow | Instituto de Matemática Pura e Aplicada<br>Host: Hubert Lacoin |
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## Referee for the journal

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Annals of applied probability	Electronic Journal of Probability
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## Award

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Kolman-Soref scholarship (2023, Israel)

## Miscellanies

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Volunteers ICM 2018