

# Chunyang Wang

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Last updated: Oct. 2025

## WORK EXPERIENCE

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### Project Researcher

11/2025 - Now

National Institute of Informatics

- Host: Yuichi Yoshida

## EDUCATION

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### Ph.D in Computer Science

09/2020 - 07/2025

Nanjing University

- Field: Theoretical Computer Science
- Advisor: Yitong Yin

### B.Sc in Computer Science

09/2016 - 07/2020

Nanjing University

## RESEARCH INTERESTS

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- Counting and sampling algorithms
- Discrete probability
- Algorithmic stability

## SELECTED AWARDS & HONORS

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### The 45th International Collegiate Programming Contest, Shenyang Regional

2021-07-18

2nd Place, Gold Medal

Liaoning, China

### The 47th International Collegiate Programming Contest, Nanjing Regional

2022-12-18

2nd Place, Gold Medal

Jiangsu, China

### The 47th International Collegiate Programming Contest, World Finals

2024-04-15

6th Place, Silver Medal

Luxor, Egypt

### National Scholarship (2023)

2023-10-12

## PUBLICATIONS

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1. Kun He, Chunyang Wang, Yitong Yin.  
*Sampling Lovász local lemma for general constraint satisfaction solutions in near-linear time.*  
In **FOCS** 2022: 147-158.
2. Kun He, Chunyang Wang, Yitong Yin.  
*Deterministic counting Lovász local lemma beyond linear programming.*  
In **SODA** 2023: 3388-3425.
3. Weiming Feng, Heng Guo, Chunyang Wang, Jiaheng Wang, Yitong Yin.  
*Towards derandomising Markov chain Monte Carlo.*  
in **SICOMP** 2025: 775-813 (preliminary version in **FOCS** 2023: 1963-1990)
4. Chunyang Wang, Yitong Yin.  
*A Sampling Lovász Local Lemma for Large Domain Sizes.*  
in **FOCS** 2024: 129-150
5. Aditya Lonkar, Zongchen Chen, Chunyang Wang, Kuan Yang, Yitong Yin.  
*Counting random  $k$ -SAT near the satisfiability threshold.*  
in **STOC** 2025: 867-878
6. Jingcheng Liu, Chunyang Wang, Yixiao Yu, Yitong Yin.  
*Phase Transitions via Complex Extensions of Markov Chains.*  
in **STOC** 2025: 903-914

7. Konrad Anand, Graham Freifeld, Heng Guo, Chunyang Wang, Jiaheng Wang.  
*Sink-free orientations: a local sampler with applications*  
in **RANDOM** 2025: 60:1–60:19

## PREPRINTS

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1. Hongyang Liu, Chunyang Wang, Yitong Yin.  
*Local Gibbs sampling beyond local uniformity.*  
arXiv:2502.10795, to appear in **SODA** 2026

## TALKS

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*Counting random  $k$ -SAT near the satisfiability threshold.*

LFCS Seminar, University of Edinburgh, Edinburgh, UK, 2024

Complexity & Algorithms Workshop, Sun Yat-sen University, Guangzhou, Guangdong, China, 2025

STOC, Prague, Czech Republic, 2025

*A Sampling Lovász Local Lemma for Large Domain Sizes.*

ACO Seminar, Georgia Institute of Technology, Atlanta, USA, 2024

FOCS, Chicago, Illinois, USA, 2024

Theory Student Day, University of Science and Technology of China, Hefei, Anhui, China, 2025

*Towards derandomising Markov chain Monte Carlo.*

MCMC 2.0 Workshop, NII Shonan Meeting, Shonan, Japan, 2023

FOCS, Santa Cruz, California, USA, 2023

*Deterministic counting Lovász local lemma beyond linear programming.*

SODA, Online, 2023

*A sampling Lovász local lemma.*

2023 CCF Forum for Distinguished Ph.D. Candidates in Theoretical Computer Science, Hong Kong, China, 2023

## TEACHING ASSISTANTSHIPS

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*Advanced Algorithms (Fall 2020)*

Nanjing University

Instructor: Yitong Yin

*Advanced Algorithms (Fall 2022)*

Nanjing University

Instructor: Yitong Yin

*Combinatorics (Spring 2023)*

Nanjing University

Instructor: Yitong Yin

*Combinatorics (Spring 2024)*

Nanjing University

Instructor: Yitong Yin

## SERVICES

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### Reviewing:

Conference: TAMC 2024, ITCS 2025, STOC 2025

Journal: TALG 2024