

# Yixiao Yu

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Last update: Feb.2026

## EDUCATION

- **Ph.D in Computer science** September 2023 - Now  
*Nanjing University*
  - Field: Theoretical computer science
  - Advisor: Jingcheng Liu and Yitong Yin
- **B.Sc in Computer science** September 2019 - June 2023  
*Shandong University*
  - Advisor: Haitao Jiang

## INTERNS

- **Research Assistant** May 2025 - July 2025, March 2026 - June 2026  
*The University of Hong Kong*
  - Advisor: Weiming Feng

## RESEARCH INTERESTS

- Approximate counting and sampling
- Zero-freeness of generating polynomial

## PUBLICATIONS

4. Jingcheng Liu, Yixiao Yu  
*Zero-free regions and concentration inequalities for hypergraph colorings in the local lemma regime.*  
In **STOC 2026**.
3. Weiming Feng, Xiongxin Yang, Yixiao Yu, Yiyao Zhang  
*Learning CNF formulas from uniform random solutions in the local lemma regime.*  
In **STOC 2026**.
2. Jingcheng Liu, Chunyang Wang, Yitong Yin, Yixiao Yu  
*Phase Transitions via Complex Extensions of Markov Chains.*  
In **STOC 2025**.
1. Xin Tong, Yixiao Yu, Ziyi Fang, Haitao Jiang, Lusheng Wang, Binhai Zhu and Daming Zhu.  
*Cabbage Can't Always Be Transformed into Turnip: Decision Algorithms for Sorting by Symmetric Reversals.*  
In **COCOON 2023**.

## TALKS

*Phase Transitions via Complex Extensions of Markov Chains.*  
Complexity & Algorithms Workshop, Sun Yat-sen University, Guangzhou, Guangdong, China, 2025  
STOC, Prague, Czech Republic, 2025

## TEACHING ASSISTANTSHIPS

- **Foundations of Data Science (Fall 2025)** Nanjing University
- **Computational method (Spring 2025, Spring 2024)** Nanjing University
- **Advanced algorithm (Fall 2024)** Nanjing University
- **Operating system (Spring 2022)** Shandong University

## SELECTED AWARDS AND HONORS

- **CCF Elite Collegiate Award** 2022
- **Qingdao Bank Scholarship** 2021