Xiaoyu Chen

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Research Interests

Theoretical computer science, Markov chains

Education

Ph.D. in Computer Science (2020 — **Present**)   Nanjing University
Advisor: Professor Yitong Yin

B.Eng. in Computer Science (2016 — 2020)   University of Electronic Science and Technology of China
Advisor: Professor Mingyu Xiao

Honors and Awards

National Scholarship	MOE of PRC	2021
Outstanding Graduate Student	UESTC	2020
Rank 8 of IEEEXtreme 12.0 Programming Competition	IEEE	2018
Silver Medal of The ACM-ICPC Asia Regional Contest, Beijing Site	ACM	2017

Publications

5   A near-linear time sampler for the Ising model with external field   SODA 2023
     with Xinyuan Zhang

4   Optimal mixing for two-state anti-ferromagnetic spin systems   FOCS 2022
     with Weiming Feng, Yitong Yin and Xinyuan Zhang

3   Rapid mixing of Glauber dynamics via spectral independence for all degrees   FOCS 2021
     with Weiming Feng, Yitong Yin and Xinyuan Zhang   **Invited to SICOMP Special Issue**

2   Exact algorithms for maximum weighted independent set on sparse graphs   COCOON 2021
     with Sen Huang and Mingyu Xiao

1   Computing maximum k-defective cliques in massive graphs   Comput. Oper. Res. 127 (2021)
     with Yi Zhou, Jin-Kao Hao and Mingyu Xiao

Talks

Field dynamics: A new algorithmic tool for fast Gibbs sampling without degree restriction.
     CCF TCS PhD Forum, online, 2022

Teaching Assistantships

Computation Method   Nanjing University   Spring 2022
Instructor: Jingcheng Liu

Advanced Algorithms   Nanjing University   Fall 2021
Instructor: Yitong Yin

Service

External reviewer for: RANDOM 2022