Chuanqi Zhang

(+61) 422 606 561

Education

University of Technology Sydney   Sydney, Australia
Doctor of Philosophy in Theoretical Computer Science   *Nov. 2021 – Present*
Supervisors: Prof. Youming Qiao and Prof. Troy Lee

University of Wisconsin-Madison   Madison, United States
Master of Arts in Mathematics   [1]*Sep. 2018 – May. 2020*
Mentors: Prof. Sam Stechmann and Prof. Reed Ogrosky

Wuhan University   Wuhan, China
Bachelor of Science in Mathematics and Applied Mathematics   *Sep. 2015 – June. 2019*
Thesis Advisor: Prof. Huijiang Zhao

Research Interests

Mathematics

Preprints and Publications

1. **An improvement on faster Isomorphism for p-Groups of Class 2 and Exponent p**

   with Gábor Ivanyos, Euan Mendoza, Youming Qiao, and Xiaorui Sun

   In preparation, 2024

2. **On the complexity of isomorphism problems for tensors, groups, and polynomials III: actions by classical groups**

   with Zhili Chen, Joshua A. Grochow, Youming Qiao, and Gang Tang   arXiv: 2306.03135

   ITCS 2024

3. **Connections between graphs and matrix spaces**

   with Yinan Li, Youming Qiao, Avi Wigderson, and Yuval Wigderson   arXiv: 2206.04815

   Israel Journal of Mathematics, 2023

4. **On linear-algebraic notions of expansion**

   with Yinan Li, Youming Qiao, Avi Wigderson, and Yuval Wigderson   arXiv: 2212.13154

   Submitted, 2022

Presentations

1. Contributed talk at Australasian Combinatorics Conference, Perth, December 2023.

2. Contributed talk at Annual Meeting of the Australian Mathematical Society, Brisbane, December 2023.

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[1]I was admitted to a '3+2' accelerated program, which allowed students to pursue their bachelor's degree and master's degree simultaneously after the third year of undergraduate.

3. Poster presentation at Theory of Quantum Computation, Communication and Cryptography, online, July 2023.

4. Poster presentation at Quantum Australia Conference, Sydney, February 2023.

5. Seminar talk at QuSoft, Centrum Wiskunde & Informatica, Amsterdam, January 2023.

6. Contributed talk at ACM-SIAM Symposium on Discrete Algorithms, Florence, January 2023.

7. Contributed talk at Australasian Combinatorics Conference, online, December 2022.

Honours and Awards

SQA Supplementary Scholarship *2023-2025*
Top-up scholarship supported by Sydney Quantum Academy

AMSI Scholarship *2022*
Tuition waiver for summer school supported by Australian Mathematical Sciences Institute

ARC Discovery Project Scholarship *2021-2025*
Tax-free stipend supported by Australian Research Council

International Research Scholarship *2021-2025*
Tuition waiver supported by University of Technology Sydney

Special Scholarship for Studying Abroad *2018-2019*
One-off scholarship supported by Wuhan University

3rd/2nd Academic Excellence Award *2016-2017*
Annual academic excellence award in Mathematics Base Class at Wuhan University

3rd/2nd Provincial Mathematical Olympiad Prize *2014-2015*
29th/30th Chinese Mathematical Olympiad in Senior (Jilin Division)

Programming Skills

Proficient: **Python**, **MATLAB**, **LaTeX**; Familiar: **C/C++**, **SQL**, **R**; Basic: **HTML/CSS**

Professional Services

Teaching Assistant *Spring 2023*
Theory of Computing Science (41080)
School of Computer Science, University of Technology Sydney

Teaching Assistant *Spring 2022*
Theory of Computing Science (41080)
School of Computer Science, University of Technology Sydney

Homework Grader *Spring 2020*
Methods of Applied Math II (Math 704)
Department of Mathematics, University of Wisconsin-Madison

Homework Grader *Fall 2019*
Analysis I (Math 521)
Department of Mathematics, University of Wisconsin-Madison