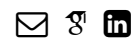


Chuanqi Zhang

<https://chuanqizhang.com>



EDUCATION

University of Technology Sydney

Doctor of Philosophy in Theoretical Computer Science

Advisors: Prof. Youming Qiao, Prof. Mingsheng Ying and Prof. Troy Lee

Sydney, Australia

Nov. 2021 – Present

University of Wisconsin-Madison

Master of Arts in Mathematics

Mentors: Prof. Sam Stechmann and Prof. Reed Ogrosky

Madison, United States

¹Sep. 2018 – May. 2020

Wuhan University

Bachelor of Science in Mathematics and Applied Mathematics

Thesis Advisor: Prof. Huijiang Zhao

Wuhan, China

Sep. 2015 – June. 2019

RESEARCH INTERESTS

Algebraic isomorphism algorithms, multilinear algebra with implications for quantum information, tensor decomposition with applications in quantum machine learning, and group-based cryptography.

PREPRINTS AND PUBLICATIONS

1. Faster isomorphism testing of p -Groups of Frattini class-2

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

Accepted to *The 65th IEEE Annual Symposium on Foundations of Computer Science (FOCS)*, 2024

2. On linear-algebraic notions of expansion

with Yinan Li, Youming Qiao, Avi Wigderson, and Yuval Wigderson

arXiv: 2212.13154

Accepted to *Theory of Computing*, 2024

3. 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

Published in *The 15th Innovations in Theoretical Computer Science (ITCS)*, 2024

4. Connections between graphs and matrix spaces

with Yinan Li, Youming Qiao, Avi Wigderson, and Yuval Wigderson

arXiv: 2206.04815

Published in *Israel Journal of Mathematics*, 2023

ACADEMIC VISITS

1. School of Mathematics and Statistics, Wuhan University, hosted by Dr Yinan Li, January 2024.

2. QuSoft, Centrum Wiskunde & Informatica, hosted by Dr Jop Briët, January 2023.

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.

PRESENTATIONS²

1. Contributed talk at the 65th IEEE Annual Symposium on Foundations of Computer Science (FOCS), Chicago, October 2024.
2. Contributed talk at the 19th Theory of Quantum Computation, Communication and Cryptography (TQC), Okinawa, September 2024.
3. Seminar talk at UTS Groups Analysis Geometry Seminar, Sydney, April 2024.
4. Contributed talk at the 45th Australasian Combinatorics Conference, Perth, December 2023.
5. Contributed talk at the 67th Annual Meeting of the Australian Mathematical Society, Brisbane, December 2023.
6. Poster presentation at the 18th Theory of Quantum Computation, Communication and Cryptography (TQC), online, July 2023.
7. Poster presentation at the 1st Quantum Australia Conference, Sydney, February 2023.
8. Seminar talk at QuSoft, Centrum Wiskunde & Informatica, Amsterdam, January 2023.
9. Contributed talk at the 34th ACM-SIAM Symposium on Discrete Algorithms (SODA), Florence, January 2023.
10. Contributed talk at the 44th Australasian Combinatorics Conference, online, December 2022.

HONORS 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)	

² Some of the conference talks were delivered by coauthors.

PROFESSIONAL SERVICES

Teaching Assistant <i>Theory of Computing Science (41080)</i> School of Computer Science, University of Technology Sydney	<i>Session 2, 2024</i>
Teaching Assistant <i>Discrete Mathematics (37181)</i> School of Mathematical and Physical Sciences, University of Technology Sydney	<i>Session 1, 2024</i>
Teaching Assistant <i>Mathematics 1 (33130)</i> School of Mathematical and Physical Sciences, University of Technology Sydney	<i>Session 1, 2024</i>
Teaching Assistant <i>Theory of Computing Science (41080)</i> School of Computer Science, University of Technology Sydney	<i>Session 2, 2023</i>
Teaching Assistant <i>Theory of Computing Science (41080)</i> School of Computer Science, University of Technology Sydney	<i>Session 2, 2022</i>
Homework Grader <i>Methods of Applied Math II (Math 704)</i> Department of Mathematics, University of Wisconsin-Madison	<i>Spring 2020</i>
Homework Grader <i>Analysis I (Math 521)</i> Department of Mathematics, University of Wisconsin-Madison	<i>Fall 2019</i>
Conference Reviewer <input type="checkbox"/> ACM-SIAM Symposium on Discrete Algorithms (SODA23) <input type="checkbox"/> Foundations of Software Technology and Theoretical Computer Science (FSTTCS 2024)	