

AJ Fong

Department of Pure Mathematics – University of Waterloo

* 28 October 2000 • ✉ aj.fong@uwaterloo.ca

🌐 math.uwaterloo.ca/~a24fong

Personal

Biographical.....

Born in Hong Kong – Hong Kong citizen

Interests.....

Algebraic geometry and number theory

Education

University of Waterloo

PhD in Pure Mathematics

2023–

Advisor: Prof David McKinnon

University of Warwick

Master of Mathematics (with Honours)

2018–22

Research Experience

University of Waterloo

Doctoral Research

2023–

University of Warwick

Fourth Year Project

2021–22

Points at rational distances from the vertices of a rectangle, supervised by Dr Damiano Testa.

University of Warwick

Undergraduate Research

2019

Uniformisation of Riemann surfaces, supervised by Dr Christopher Lazda.

Awards

Croucher Foundation

Croucher Scholarship

2024–26

University of Waterloo

Pure Mathematics Excellence Entrance Award

2023–24

Teaching

University of Waterloo

Teaching Assistant

2023–24

MATH 237 Calculus 3 for Honours Mathematics

MATH 136 Linear Algebra 1 for Honours Mathematics

Tutoring Centre

MATH 135 Algebra for Honours Mathematics

ECE 206 Adv Calculus 2 for Electrical Engineers

University of Warwick

Supervisor

2021–22

- Met with a group of first-year mathematics undergraduates twice a week.
- Provided support for all core first-year modules, including Analysis I and II, Foundations, Differential Equations, Introduction to Abstract Algebra and Linear Algebra, and marked their assignments.

Service

- Mentor for one student for Twoples, 2024
- Pure Mathematics Departmental Director of Mathematics Graduate Student Association, Waterloo 2024
- Council member of Graduate Student Association, Waterloo 2024
- President of Pride Factors, Waterloo 2024
- Marker for high school mathematics contests, Waterloo 2024
- Mentor for two students for Directed Reading Programme, Waterloo 2024
- Organiser for a student reading group on schemes and cohomology, Waterloo 2024
- Outreach and Communications Chair of Spectra, 2024
- Assistant for problem solving classes, Warwick 2022
- Mentor for eight students at Problem Solving Matters 2021

Talks and Conferences

2024, 4–8 November: Instructional workshop on rational points, Groningen, the Netherlands.

2024, 7–9 June: *Galois representations on the Picard groups of surfaces*, Ontario Graduate Mathematics Conference, Waterloo, Canada.

2024: Several talks in graduate student seminars at Waterloo, including *The mathematics of juggling*, *The combinatorics of toric varieties*, etc.

2021, 25–28 August: Talking Maths in Public Conference, online.

Professional Affiliations

- Canadian Mathematical Society, 2024–
- American Mathematical Society, 2024–

Technical Skills

Web Development and Platforms: HTML, CSS, Git, GitHub

Programming Languages: \LaTeX , Python, Matlab, Java

Activities and Interests

Bridge, Jazz and ballet dance, Piano, Puzzles