

HAOYANG HE

haoyangh@mun.ca | Academic homepage

Department of Mathematics and Statistics, Memorial University of Newfoundland, St. John's, NL, Canada

EDUCATION

• Memorial University of Newfoundland

Doctor of Philosophy in Mathematics

2024–present

St. John's, NL, Canada

- Supervisor: Prof. Eduardo Martínez-Pedroza

- Research interests: geometric group theory, low-dimensional topology

• University of Warwick

Master of Advanced Study in Mathematical Sciences (MASt)

2023–24

Coventry, England

- MASt research project: Surface homeomorphisms without fixed points, supervised by Dr. Saul Schleimer

• University of Manchester

Master of Mathematics with Honours (MMath (Hons))

2019–23

Manchester, England

- MMath project: Topology and algebra of finite graphs, supervised by Dr. Richard Webb

- Third-year project: Geometric group theory, supervised by Dr. Richard Webb

EXPERIENCE

• Teaching Skills Enhancement Programme

Memorial University of Newfoundland

2025–26

St. John's, NL, Canada

- Attends weekly seminar on teaching strategies and course design during Autumn 2025.

- Teaching apprenticeship scheduled in Winter 2026. This involves teaching, planning and design of the module MATH3331 Projective Geometry with the instructor Dr. Thomas Baird.

• Graduate Teaching Assistant

Department of Mathematics and Statistics, Memorial University of Newfoundland

2024–25

St. John's, NL, Canada

- Tutor at Maths Help Centre

- Invigilator for mid-term and final exams

- Teaching assistant for the following courses: MATH1001 Calculus II in Spring 2025; MATH4300/6332 General Topology/Point-set Topology in Winter 2025; MATH3300 Set Theory in Autumn 2024.

• Peer Assisted Study Sessions Leader

Department of Mathematics, University of Manchester

2020–21

Manchester, England

- Held weekly session across two semesters for a group of first-year undergraduate students in maths

- Answered questions from students about first-year courses in mathematics

PREPRINTS

- [1] Haoyang He and Eduardo Martínez-Pedroza. **The curve complex as a coset intersection complex**, 2025. See <https://arxiv.org/abs/2510.23955> or https://haoyang-he.github.io/files/cc_as_cic.pdf.

AWARDS AND HONOURS

• BP Achievement Award

Department of Mathematics, Faculty of Science and Engineering, University of Manchester

April 2020

GB£1000

- Awarded to two 1st-year undergraduate students in the Department for academic excellence

CONFERENCES ATTENDED

• Focus Programme on Algebraic Topology in memory of Fred Cohen

Fields Institute

23rd–25th July 2025

Toronto, Ontario, Canada

• Thematic Programme in Discrete Group in Topology and Algebraic Geometry

Centre for Mathematics, University of Notre Dame

9th–20th June 2025

Notre Dame, Indiana, United States