Isabel Longbottom

CONTACT: ilongbottom (at) math (dot) harvard (dot) edu

RESEARCH INTERESTS

I am interested in homotopy theory and algebraic K-theory.

EDUCATION

2022-27 (expected) PhD in Mathematics, supervised by Michael Hopkins

Harvard University

2018-21 Bachelor of Philosophy - Science (Honours), Mathematics major

The Australian National University

GPA of 7.00 (out of 7.00), First Class Honours

AWARDS AND SCHOLARSHIPS

2022 Attended the IAS/PCMI Undergraduate Summ	r Sc	hool
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2020 Hanna Neumann Prize for third year mathematics, ANU

2020 Priscilla Fairfield Bok Prize for women in third year science courses, ANU

2020 Invited to the IAS/PCMI Undergraduate Summer School subsequently cancelled due to COVID-19

2019 Hanna Neumann Prize for second year mathematics, ANU

2019 Priscilla Fairfield Bok Prize for women in third year science courses, ANU

2018 Hanna Neumann Prize for first year mathematics, ANU

2018 Mavis Prater Prize for women in mathematics, ANU

2018, 2019, 2020, 2021 Dean's Science Education Commendation

2018, 2019, 2020, 2021 Chancellor's Letter of Commendation

JULY 2017 Tuckwell Scholarship for an undergraduate degree at the ANU

TALKS

MARCH 2023 Abouzaid-Blumberg flow categories. Given for the MIT Juvitop seminar.

NOVEMBER 2022 A proof of the Pontryagin-Thom theorem. Given for the MIT Kan seminar.

OCTOBER 2022 On the cobordism ring and a complex analogue, after Milnor. Given for the MIT Kan seminar.

COMPUTER SKILLS

(alphabetically) Ada, Haskell, Java, LTFX, Lean, Macaulay2, Magma, Python, Sage

EMPLOYMENT

2020 AND 2021 Demonstrator for MATH1115, MATH1116, MATH2222, and MATH2322, ANU

Ran (online and in-person) workshops, and marked assignments and exams. This position is equivalent to a TA .

2019 | Drop-in tutor, ANU

Drop-in tutor for first year courses during the exam preparation period.

2019 | Peer-Assisted Learning Mentor for MATH1115 and MATH1116, ANU

The Peer-Assisted Learning program at the ANU employs second-year maths students to prepare activities for and teach tutorials to first-year students.

SERVICE

JANUARY 2020, 2021, 2022 | Tutor at the National Maths Summer School

Tutored at a two-week-long summer program for mathematically able high school students.

DECEMBER 2020 | Maths tutor for the Curious Minds STEM Program, Online

Ran maths problem-solving sessions for rural female-identifying high school students.

2020 | Vice President of the ANU MATHEMATICS SOCIETY