

Jenny Roberts

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Fields of interest

Modular forms, Eisenstein congruences, Lattices, Algebraic Number Theory.

Publications and preprints

1. *Newform Eisenstein congruences of Local Origin* (with Dan Fretwell) (preprint)
2. *Symmetric bilinear forms, superalgebras and integer matrix factorization* (with Dan Fretwell) (in preparation)

Education

University of Bristol

PhD Student (2021-Present)

Funded by the Heilbronn Doctoral Partnership.
Advised by Dan Fretwell.

University of Durham

MMath Degree, 1st Class (2016-2020)

Master's project: "A pathway from the Game of Nim to Monstrous Moonshine passing through Codes, Lattices and Modular Forms".
Advised by Sam Fearn.

Work Experience

University of Bristol

Graduate Teacher (2021-Present)

Perspectives in Mathematics moderator (2021)
Intro to Group Theory exam marker (2022)
Linear Algebra exam marker (2023)

Heilbronn Institute

Summer Workshop participant (2022, 2023)

Seminar Talks

University of Bristol

Linfoot Seminar (February 2023)

Newform Eisenstein Congruences of Local Origin

University of Warwick

Warwick Junior Number Theory Seminar (January 2023)

Newform Eisenstein Congruences of Local Origin

Conference Talks

University of Cambridge

Young Researchers in Algebraic Number Theory (Y-RANT) (September 2023)

Newform Eisenstein Congruences of Local Origin

Louisiana State University

35th Automorphic Forms Workshop (June 2023)

Newform Eisenstein Congruences of Local Origin

Chesterfield, Derbyshire

Women in Number Theory and Geometry Spring Retreat (WINGs) (April 2023)

Matrix superalgebras and lattice isometry

University of Glasgow

Young Researchers in Algebraic Number Theory (Y-RANT) (August 2022)

Newform Eisenstein Congruences of Local Origin

Other talks

University of Bristol

Mathematics Subgroup of the Heilbronn Institute visit (November 2022)

Ramanujan-style Congruences of Local Origin

Conferences Attended

Louisiana State University

35th Automorphic Forms Workshop (June 2023)

CIRM, Luminy

Spring School in Arithmetic Statistics (May 2023)

Chesterfield, Derbyshire

Women in Number Theory and Geometry Spring Retreat (WINGs) (April 2023)

University of Oxford

The Great Western Number Theory Seminar (January 2023)

University of Bristol

The Great Western Number Theory Seminar (November 2022)

King's College London

Warwick-Oxbridge-Manchester-Bristol-London (WOMBL) (September 2022)

University of Glasgow

Young Researchers in Algebraic Number Theory (Y-RANT) (August 2022)

University College London

Early Careers Researchers in Mathematics (June 2022)

West Lexham, Norfolk

Women in Number Theory and Geometry Spring Retreat (WINGs) (June 2022)

Virtual Conference

34th Automorphic Forms Workshop (March 2022)

Miscellaneous

Programming: Experience using MAGMA, Python, C and LaTeX.

Event Co-Organiser: Co-organiser of Linfoot Seminar (April 2022 - present), Number Theory Day 2023 (a one day internal conference at held at the University of Bristol).