

Angus McAndrew

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Research Areas

Number Theory, Arithmetic Geometry, Algebraic Geometry, Representation Theory, Automorphic Forms, Shimura Varieties, K3 Surfaces

Education

Ph.D. Mathematics, Boston University, 2022 (expected).

M.Phil. Mathematics, The University of Melbourne, 2015.

M.Sc. Mathematics, The University of Melbourne, 2013.

B.Sc. Mathematics, The University of Melbourne, 2011.

Publications and Preprints

CM for K3 surfaces in arbitrary characteristic. (in preparation)

Refined Selmer equations for the thrice-punctured line in depth two, with Alex J Best, L. Alexander Betts, Theresa Kumpitsch, Martin Lüdtkke, Lie Qian, Elie Studnia, Yujie Xu (submitted, 2021) [arXiv copy]

Differential operators mod p : analytic continuation and consequences, with Ellen Eischen, Max Flander, Alex Ghitza, Elena Mantovan, *Algebra & Number Theory* 15-6 (2021), 1469–1504. DOI 10.2140/ant.2021.15.1469 [arXiv copy]

Theta operators on Siegel modular forms and Galois representations, with Alex Ghitza, (preprint, 2016, superceded by “Differential operators...”).

Experimental Evidence for Maeda’s Conjecture on Modular Forms, with Alex Ghitza, *Tbilisi Math. J.* 5(2): 55-69 (2012). DOI: 10.32513/tbilisi/1528768903 [arXiv copy]

Conference / Invited Presentations

Boston University Number Theory Seminar 2021, *K3 Surfaces or: How I Learned to Stop Worrying and Love the Clifford Algebra*

Upstate Number Theory 2021, *CM Motives in Positive Characteristic*

University of Oregon Number Theory Seminar 2019, *Differential operators on automorphic forms and Galois representations*

Boston Graduate Mathematics Colloquium 2017, *Fantastic Galois representations and where to find them*

Capital Number Theory 2016, *Theta Operators on Hecke Eigenvalues*

Number Theory Down Under 2015, *Differentiation of Siegel Modular Forms*

AustMS Annual Meeting 2015, *Galois Representations for Siegel Modular Forms*

Number Theory Down Under 2014, *Theta Operators and Galois Representations for Siegel Modular Forms*

AustMS Annual Meeting 2012, *Experimental Evidence for Maeda’s Conjecture on Modular Forms*

Teaching Roles

Teaching Assistant, Boston University, 2016-2021 (Various)

Lecturer, Boston University, 2019-2020 (Calculus II)

Course Coordinator, Boston University, 2017-2021 (Intensive Summer courses, Various)

Counsellor and T², PROMYS Program, 2016-2021 (PROMYS Math Circle, PROMYS for Teachers)

Other Academic Activities

Boston Graduate Mathematics Colloquium (founder/organiser).

BUNTES, Boston University Number Theory Expository Seminar (founder/organiser).

AMS Boston University Student Chapter (co-president, 2018-2020).

Boston University Community Seminar (organiser).

Boston University Directed Reading Program (mentor).