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- EMPLOYMENT** University of Bristol and Heilbronn Institute of Mathematical Research,
Bristol, UK, Autumn 2017–present
Heilbronn Research Fellow
- University of Michigan, Ann Arbor, MI, Autumn 2011–Spring 2017
Graduate Student Instructor (7 semesters)
NSF RTG Fellow (2 semesters)
Graduate Student Research Assistant (3 semesters)
- EDUCATION** University of Michigan, Ann Arbor, MI
PhD, Mathematics, 2017
Advisor: Jeffrey C. Lagarias
PhD thesis: **Indefinite Theta Functions and Zeta Functions**
- University of Chicago, Chicago, IL
B.S., Mathematics, with honors, 2011
- Budapest Semesters in Mathematics, Budapest, Hungary
Mathematics coursework, Sept.–Dec. 2009
- PRIZES** **SIAM Student Paper Prize** (\$1000 cash, plus travel to SIAM annual
conference), awarded annually to up to three “student author(s) of the
most outstanding paper(s) accepted by SIAM journals within three years
of the nomination deadline”, 2018.
- Third Prize, Outstanding Presentation Competition**, Young Mathe-
maticians Conference, The Ohio State University, August 29, 2010.
- GRANTS** Heilbronn Grant for Focused Research Workshop on “Zauner’s Conjec-
ture” (£2000), Spring 2019.
- Heilbronn Referral Initiative for successful recruitment of a female job
candidate (£1000), 2018–2019.
- Heilbronn Focused Research Grant for number-theoretic methods in dis-
persive PDE (£2000), 2017–2018.
- ACCEPTED
PAPERS** **SIC-POVMs and the Stark conjectures.** arXiv:1807.05877. Posted
Jul 2018. Accepted for publication in the *International Mathematics Re-
search Notices*, 2019.

PUBLISHED
PAPERS

Generating weights for the Weil representation of cyclic quadratic modules of even order (with Luca Candelori and Cameron Franc). *Journal of Number Theory*, 180:474–497, 2017.

The arithmetic geometry of resonant Rossby wave triads. *SIAM J. Appl. Algebra Geometry*, 1(1):352–373, 2017.

The limiting spectral measure for ensembles of symmetric block circulant matrices (with Murat Koloğlu and Steven J. Miller; appendices with Frederick W. Strauch and Wentao Xiong). *Journal of Theoretical Probability*, 26(4):1020–1060, 2013.

Robust coin flipping (with John D. Wiltshire-Gordon). In *Advances in Cryptology—EUROCRYPT 2012*, pages 172–194. Springer Berlin Heidelberg, 2012.

On the number of summands in Zeckendorf decompositions (with Murat Koloğlu, Steven J. Miller, and Yinghui Wang). *Fibonacci Quarterly* 49(2):116–131, 2011.

PAPERS IN
PREPARATION

Superirreducible polynomials (with Jonathan Bober, Lara Du, Dan Fretwell, and Trevor Wooley).

Kronecker limit formulas for indefinite zeta functions.

The theory of indefinite zeta functions.

UNPUBLISHED/
OTHER

Indefinite Theta Functions and Zeta Functions. Ph.D. thesis (University of Michigan), 2017. Advisor: Jeffrey C. Lagarias.

Word-induced measures on compact groups (with John D. Wiltshire-Gordon). arXiv:1102.4353. Posted Feb 2011.

TEACHING

Topics in Modern Geometry, University of Bristol, co-instructor, Autumn 2018.

Calculus II, University of Michigan, principal instructor, Autumn 2015.

Calculus II, University of Michigan, principal instructor, Winter 2014.

Foundations of Computer Science, University of Michigan, teaching assistant, Autumn 2013.

Calculus I, University of Michigan, principal instructor, Winter 2013.

Differential Equations, University of Michigan, teaching assistant, Autumn 2012.

Calculus I, University of Michigan, principal instructor, Winter 2012.

Data, Functions & Graphs, University of Michigan, principal instructor, Autumn 2011.

RESEARCH
TALKS

Talks on **Complex Equiangular Lines and the Stark Conjectures**

SIAM Conference on Applied Algebraic Geometry, Bern, Switzerland, Summer 2019.

Algebra and Number Theory Seminar, University of Kentucky, Winter 2019.

Number Theory Seminar, The Ohio State University, Winter 2019.

Quebec-Vermont Number Theory Seminar, McGill University, Autumn 2018.

Seminar talk to quantum physics group, University of Massachusetts Boston, Autumn 2018.

Bristol-Oxbridge-Warwick-London (BOWL) 1-day meeting, Oxford, UK, Autumn 2018.

Talks on **The Arithmetic Geometry of Resonant Rossby Wave Triads**

SIAM Annual Meeting (prize lecture), Portland, Oregon, Summer 2018.

Pure Institute Meeting, University of Bristol, Fall 2017.

University of Saskatchewan, Fall 2017.

PDE Seminar, Georgia Institute of Technology, Fall 2016.

Central AMS Sectional Meeting, Fall 2016.

Chicago Number Theory Day, University of Illinois Chicago, Spring 2015.

Talks on **Generating Weights of Modules of Vector-Valued Modular Forms for the Weil Representation**

Building Bridges: 4th EU/US Workshop on Automorphic Forms and Related Topics, Budapest, Hungary, Summer 2018.

Central AMS Sectional Meeting, Fall 2016.

Indefinite Theta Functions and Zeta Functions. Linfoot Number Theory Seminar, University of Bristol, Fall 2017.

Eigenvalue Statistics for Toeplitz and Circulant Ensembles (with Murat Koloğlu, Steven J. Miller, and Karen Shen). The 2nd Institute of Mathematical Statistics Asia Pacific Rim Meeting, Tsukuba, Japan, Summer 2012.

Talks on **Robust Coin Flipping**

EECS Theory Seminar, University of Michigan, Winter 2012.

CRYPTO, University of California, Santa Barbara, Summer 2011.

Distributions of Eigenvalues of Real Symmetric m -Circulant Matrices. Young Mathematicians Conference, Ohio State University, Fall 2010.

- OUTREACH** Led and facilitated three Michigan Math Circles for high school and middle school students, 2012–15.
- Course assistant for Knot Theory course for high school students at the Young Scholars Program, University of Chicago, Summer 2009.
- Co-instructor of Number Theory Seminar for high school students at the Ross Mathematics Program, The Ohio State University, Summer 2008.
- Counselor at the Ross Mathematics Program, The Ohio State University, Summers 2007 and 2008.
- LEADERSHIP
AND SERVICE** Heilbronn number theory seminar organiser, University of Bristol, 2017–present.
- Referee for:
- Journal of Number Theory** (1 paper)
- Journal of Mathematical Physics** (2 papers)
- Communications in Nonlinear Science and Numerical Simulation** (1 paper)
- COMPUTER
SKILLS** LaTeX, Mathematica, Magma, GAP, PARI/GP, C, Python, Scheme, HTML, UNIX shell.