

Rebecca Bellovin

Curriculum vitae

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🌐 <https://rmbellovin.github.io>

Employment

- 2023–2024 **Member**, *Institute for Advanced Study*
- 2022–present **Rankin–Sneddon Fellow**, *University of Glasgow*
- June–August 2023 **Visitor**, *Hausdorff Research Institute for Mathematics*, Arithmetic of the Langlands Program
- 2019–2021 **Distributed systems engineer**, *Ably Realtime*
- 2018–2019 **Research Associate**, *Imperial College London*
- 2015–2018 **Junior Research Fellow**, *Imperial College London*
- 2014–2015 **NSF Mathematical Sciences Postdoctoral Research Fellow**, *University of California, Berkeley*
- 2013–2014 **Research Associate**, *Imperial College London*

Education

- 2013 **Ph. D.**, *Stanford University*
Advisor: Brian Conrad
Thesis: p -adic Hodge theory in rigid analytic families
- 2008 **B.A.**, *Columbia University*
Summa cum laude, with honors in mathematics

Preprints and Publications

- [1] R. Bellovin. “Trianguline lifts in positive characteristic”. Preprint. 2024. URL: <https://rmbellovin.github.io/tri-lift.pdf>.
- [2] R. Bellovin, N. Borade, A. Hilado, K. Kansal, H. Lee, B. Levin, D. Savitt, and H. Wiersema. “Irregular loci in the Emerton–Gee stack for GL_2 ”. Submitted. 2023. URL: <https://arxiv.org/abs/2309.13665>.
- [3] R. Bellovin. “Modularity of trianguline Galois representations”. In: *Forum of Mathematics, Sigma* 12 (2024), e3.
- [4] R. Bellovin. “Cohomology of (φ, Γ) -modules over pseudorigid spaces”. In: *Int. Math. Res. Not.* (May 2023).
- [5] R. Bellovin. “Galois representations over pseudorigid spaces”. In: *J. de Théor. Nombres Bordeaux* 35.1 (2023), pp. 283–334.

- [6] R. Bellovin and O. Venjakob. “Wach modules, regulator maps, and ε -isomorphisms in families”. In: *Int. Math. Res. Not.* 16 (2019), pp. 5127–5204.
- [7] R. Bellovin and T. Gee. “ G -valued local deformation rings and global lifts”. In: *Algebra Number Theory* 13.2 (2019), pp. 333–378.
- [8] R. Bellovin. “Generic smoothness for G -valued potentially semi-stable deformation rings”. In: *Ann. Inst. Fourier (Grenoble)* 66.6 (2016), pp. 2565–2620.
- [9] R. Bellovin. “ p -adic Hodge theory in rigid analytic families”. In: *Algebra Number Theory* 9.2 (2015), pp. 371–433.
- [10] R. Bellovin, S. A. Garthwaite, E. Ozman, R. Pries, C. Williams, and H. J. Zhu. “Newton polygons for a variant of the Kloosterman family”. In: *Women in Numbers 2: Research Directions in Number Theory*. Vol. 606. Contemp. Math. Amer. Math. Soc., Providence, RI, 2013, pp. 47–63.

Fellowships

- 2014–2015 **NSF Mathematical Sciences Postdoctoral Research Fellowship**,
University of California, Berkeley
- 2010–2012 **NSF Graduate Research Fellowship**, *Stanford University*
- 2008–2010 **RTG Fellowship**, *Stanford University*

Professional Service

Conferences

- August 2021 Project co-leader *A Pair of Automorphic Workshops*
- October 2019 Co-organizer *Modularity and Moduli Spaces, Casa Matematica Oaxaca (CMO), Mexico*
- July 2017 Teaching assistant *Automorphic Forms and the Langlands Program, MSRI*
- March 2017 Project assistant *Perfectoid Spaces, Arizona Winter School*
- October 2016 Co-organizer *Oberwolfach seminar on perfectoid spaces*

Departmental service

- Fall 2016 Co-organizer *London Number Theory Seminar*
- 2015–2016 London School of Geometry and Number Theory (Ph.D. program) admissions committee

Refereeing

- *Algebra & Number Theory*
- *Mathematische Zeitschrift*
- *Commentarii Mathematici Helvetici*
- *Journal of Number Theory*
- *Compositio Mathematica*
- *Acta Arithmetica*

Invited Talks

- 2024 British Mathematical Colloquium
- 2024 Columbia University *Automorphic Forms and Arithmetic*
- 2023 Princeton/IAS Joint Number Theory Seminar
- 2023 Johns Hopkins University *Number Theory Seminar*
- 2023 Universität Heidelberg *Non-archimedean geometry and eigenvarieties*
- 2022 Simons Symposium on p -adic Hodge Theory
- 2021 Canadian Mathematical Society Winter Meeting
- 2021 Zoom *Recent Advances in Modern p -Adic Geometry*
- 2019 Durham University *Algebra and Number Theory Seminar*
- 2018 University of Exeter *Workshop on Stark's conjectures, Iwasawa theory and related topics*
- 2017 Cambridge University *Number Theory Seminar*
- 2017 University of Amsterdam *Arithmetic and Algebraic Geometry seminar*
- 2017 Oxford University *Number Theory Seminar*
- 2017 Warwick University *Number Theory Seminar*
- 2016 Indiana University *Conference on the p -adic Langlands programme and related topics*
- 2016 Universität Duisburg-Essen *Essener Seminar für Algebraische Geometrie und Arithmetik*
- 2016 Universität Heidelberg *Seminar der Forschergruppe 'Symmetrie, Geometrie und Arithmetik'*
- 2015 University of Bristol *Heilbronn Number Theory Seminar*
- 2015 AMS Summer Institute in Algebraic Geometry
- 2015 Northwestern University *Number Theory Seminar*
- 2015 University of Chicago *Number Theory Seminar*
- 2015 University of California, Los Angeles *Number Theory Seminar*
- 2014 Universität Heidelberg *Seminar der Forschergruppe 'Symmetrie, Geometrie und Arithmetik'*
- 2014 British Mathematical Colloquium
- 2014 Cambridge University *Number Theory Seminar*
- 2013 London Number Theory Seminar
- 2013 University of California, Berkeley *Number Theory Seminar*
- 2013 Boston University *Number Theory Seminar*
- 2013 University of California, San Diego *Number Theory Seminar*

Teaching

- Spring 2023 **Instructor**
Teaching ‘Maths 1’ (Introduction to pure mathematics) to first-year undergraduates at the University of Glasgow
- Fall 2022 **Instructor**
Teaching ‘Introduction to Real Analysis’ to second-year undergraduates at the University of Glasgow.
- Spring 2022 **Instructor**
Taught ‘Galois Theory’ to fourth-year undergraduates at the University of Glasgow.
- July 2017 **Teaching assistant**
Teaching assistant for graduate course given by Kevin Buzzard at MSRI.
- Spring 2017 **Instructor**
Taught ‘Group Representation Theory’ to third- and fourth-year undergraduates at Imperial College.
- March 2017 **Project assistant**
Project assistant for graduate course given by Jared Weinstein at Arizona Winter School.
- Spring 2013 **Teaching assistant**
Administrative teaching assistant for Math 51 at Stanford. Organized other TAs and students’ extensions, absences, and accommodations.
- Fall 2010 **Teaching assistant**
Teaching assistant for Math 51 at Stanford. Taught section, held office hours, and graded exams.
- Summer 2005, 2008 **Counselor**
Counselor at PROMYS. Supervised students, helped with problem sets, and gave lectures to high school students and college students.
- 2006–2008 **Course assistant**
Undergraduate course assistant at Columbia University. Responsible for grading problem sets, holding office hours, and sometimes leading discussion section for the following courses:
- Math W4045: Algebraic Curves
 - Math W4042: Introduction to Modern Algebra II (Galois theory)
 - Math V3025: Making and Breaking Codes
 - Math V1207: Honors Mathematics A (calculus and linear algebra)

Supervision

- 2017 David Nielsen-Scott, ‘Weil Conjectures for Algebraic Curves’ *M4R*
essay,
Imperial
College

References

- Prof. Tara Brendle
School of Mathematics and Statistics
University of Glasgow
`tara.brendle@glasgow.ac.uk`
(teaching)
- Prof. Brian Conrad
Department of Mathematics
Stanford University
`conrad@math.stanford.edu`
- Prof. Toby Gee
Department of Mathematics
Imperial College London
`toby.gee@imperial.ac.uk`
- Prof. David Savitt
Department of Mathematics
Johns Hopkins University
`savitt@math.jhu.edu`