Rebecca Bellovin
Curriculum vitae

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Employment

2023-2024	**Member**, *Institute for Advanced Study*
2022–present	**Rankin–Sneddon Fellow**, *University of Glasgow*
June–August 2023	**Visitor**, *Hausdorff Research Instute 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, 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.

[2] R. Bellovin. "Modularity of trianguline representations". To appear in *Forum of Mathematics, Sigma*. URL: https://arxiv.org/abs/2108.02823.

[3] R. Bellovin. "Cohomology of (φ, Γ)-modules over pseudorigid spaces". In: *International Mathematics Research Notices* (May 2023).

[4] R. Bellovin. "Galois representations over pseudorigid spaces". In: *J. de Théor. Nombres Bordeaux* 35.1 (2023), pp. 283–334.

[5] R. Bellovin and O. Venjakob. "Wach modules, regulator maps, and ε-isomorphisms in families". In: *Int. Math. Res. Not.* 16 (2019), pp. 5127–5204.

[6]   R. Bellovin and T. Gee. "*G*-valued local deformation rings and global lifts". In: *Algebra Number Theory* 13.2 (2019), pp. 333–378.

[7]   R. Bellovin. "Generic smoothness for *G*-valued potentially semi-stable deformation rings". In: *Ann. Inst. Fourier (Grenoble)* 66.6 (2016), pp. 2565–2620.

[8]   R. Bellovin. "*p*-adic Hodge theory in rigid analytic families". In: *Algebra Number Theory* 9.2 (2015), pp. 371–433.

[9]   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*

Invited Talks

2023	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`