Curriculum Vitae, Robin Bartlett

CONTACT INFORMATION

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RESEARCH INTERESTS

Algebraic number theory, with a particular emphasis on integral p-adic Hodge theory and geometric aspects of moduli spaces of p-adic Galois representations.

EMPLOYMENT

University of Münster

Postdoctoral researcher, 2020-2023

Max Planck Institute for Mathematics (Bonn)

Postdoctoral researcher, 2018-2020

EDUCATION

Kings College London and the London School of Geometry and Number Theory

Ph.D. in Mathematics, 2014-2018
Thesis: *On the reduction modulo p of crystalline representations*

- Supervised by Fred Diamond.

University of Warwick

MMath 2010-2014

- Awarded first class degree.

PAPERS

1. *Degenerating products of flag varieties and applications to the Breuil–Mézard conjecture*
   Submitted 2021.
2. *Potential diagonalisability of pseudo-Barsotti–Tate representations*
   Submitted 2020.
3. *Explicit Serre weights for* GL_2 (with Misja Steinmetz)
   In preparation.
4. *On the irreducible components of some crystalline deformation rings*
   Forum of Mathematics Sigma, Volume 8, 2020, e22.
5. *Potentially diagonalisable crystalline lifts with controlled Hodge–Tate weights*
   Documenta Mathematica (to appear).
6. *Inertial and Hodge–Tate weights of crystalline representation*
   Mathematische Annalen, 376(1), 645-681.

SERVICES

- Co-organised (with Eugen Hellmann) Münster number theory seminar (Summer 2021).
- Co-founded London junion number theory seminar (2016-2017)
- Referee for journals including Ann. Sci. de l'ENS, J. de l'Ecole Poly. Math, J. Théor. Nombres Bordeaux, and Math. Res. Lett.

INVITED CONFERENCE TALKS

- Banff International Research Station, Modularity and Moduli Spaces, CMO Oaxaca (Oct. 2019)

Invited seminar talks

- Queen Mary University London (Mar. 2021)
- University of Arizona (Feb. 2021)
- University of Münster (Nov. 2020)
- University of Rennes (cancelled) (Jan. 2020)
- University of Leiden (Dec. 2019)
- Essen Arithmetic Geometry Research Seminar (Apr. 2019)
- Max Planck Institute for Mathematics Number Theory Seminar (Apr. 2019)
- Max Planck Institute for Mathematics Oberseminar (Nov. 2018)
- University of Purdue Automorphic Forms and Representation Theory Seminar (May 2018)
- University of Chicago Number Theory Seminar (May 2018)
- Junior London Number Theory seminar (Jan. 2018)
- Junior London Number Theory seminar (Oct. 2016)
- London Number Theory Study groups (2015 - 2018, at least one talk a term)

Awards

2016 Awarded funding by King's College London Global research grant to support a visit to Professor Frank Calegari and Professor Matthew Emerton at University of Chicago. Value: GBP 2000.

2013 Awarded funding from the University of Warwick for a summer research project supervised by Dr. Damiano Testa. Project Title: Galois conjugate polynomials. Value: GBP 1000.

2012 Awarded funding from the University of Warwick for a summer research project supervised by Dr. Daan Krammer. Project Title: The Braid group of $\mathbb{Z}^n$. Value: GBP 1000.

Teaching Experience

King's College London

Teaching Assistant (2016-2018)

- Ran tutorials for classes of 10-20 first and second year undergraduates (Elementary Number Theory, Linear Methods, Geometry, Curves and Surfaces, Introduction to abstract algebra).

University of Warwick

First year tutor (2013-2014)

- Tutored a group of 5 first year mathematics students over the course of a year. Graded their assignments for analysis, linear algebra, number theory and abstract algebra courses.

King's College London Mathematics School

Class tutor (2017-2018)

- Taught two groups of 16-17 year old students mathematical problem solving classes.

Conferences attended

Fall	2015	Motives and Automorphic Forms (Clay research conference), Oxford
Spring	2016	Recent developments in integral p-adic cohomology theories, Bonn
Spring	2016	Recent trends in p-adic Cohomology, London
Summer	2016	Fundamental groups in arithmetic geometry, Paris
Summer	2016	London-Paris Number Theory Seminar on p-adic groups and arithmetic geometry, Paris
Fall	2016	Automorphic Forms: theory and computation, London
Fall	2016	London-Paris Number Theory Seminar on perfectoid spaces, Paris
Winter	2017	p-adic methods for modular forms and Galois representations, Barcelona
Spring	2017	Arizona Winter School on perfectoid spaces, Arizona
Summer	2017	London-Paris Number Theory Seminar on the trace formula, automorphic forms, and arithmetic manifolds, London
Summer	2017	Journées Arithémiques 2017, Caen
Summer	2017	BICRM p-adic Hodge theory and automorphic forms, Beijing
Spring	2018	Arizona Winter School on Iwasawa theory, Arizona
Summer	2018	A celebration of Barry Mazur, Cambridge MA
Summer	2018	Geometerisation of the Langlands program, Lyon
Summer	2018	Workshop on Galois representations, Heidelberg
Fall	2018	Conference on Arithmetic Algebraic Geometry, Bonn
Spring	2019	p-adic Langlands correspondence and Iwasawa theory, Lille
Spring	2019	The p-adic Langlands programme and related topics, London
Summer	2019	The geometry and arithmetic of algebraic varieties, Bonn
Summer	2019	Arithmetic geometry in Carthage, Tunisia
Fall	2019	The Emerton–Gee stacks and related topics, Bonn

LANGUAGES English (native), French (reading), German (beginner).