

CONTACT INFORMATION	School of Mathematical Sciences Queen Mary University of London London E1 4NS United Kingdom <a href="mailto:robin.bartlett.math@gmail.com">robin.bartlett.math@gmail.com</a> <a href="https://robin-bartlett.github.io/">https://robin-bartlett.github.io/</a>
RESEARCH INTERESTS	Algebraic number theory, the $p$ -adic Langlands program, and links to geometric representation theory. I am particularly interested in combining tools from integral $p$ -adic Hodge theory and algebraic geometry to study of moduli spaces of $p$ -adic Galois representations.
EMPLOYMENT	<b>Queen Mary University of London</b> Marie Skłodowska-Curie (MSCA) Postdoctoral Fellow, since 2025  <b>University of Glasgow</b> Rankin-Sneddon fellow, 2023-2025  <b>University of Münster</b> Postdoctoral researcher, 2020-2023  <b>Max Planck Institute for Mathematics (Bonn)</b> Postdoctoral researcher, 2018-2020
EDUCATION	<b>Kings College London and the London School of Geometry and Number Theory</b> Ph.D. in Mathematics, 01/12/2018 Thesis: <i>On the reduction modulo <math>p</math> of crystalline representations</i> . Supervisor: Fred Diamond  <b>University of Warwick</b> MMath 2010-2014. Awarded first class degree.
GRANTS AND AWARDS	<ol style="list-style-type: none"><li>1. Marie Skłodowska-Curie (MSCA) Postdoctoral research fellowship. 2025. Value: EU 260,000</li><li>2. Funding for 1 month visit to the Max Planck Institute for mathematics, Bonn. 2024. Value: EU 2500.</li><li>3. King's College London Global research grant. 2016. Value: GBP 2000.</li></ol>
PAPERS	<ol style="list-style-type: none"><li>1. GKLO representations of twisted Yangians in type AI and quantizations of symmetric quotients of the affine Grassmannian, (with Tomasz Przezdziecki and Lukas Tappeiner), <a href="https://arxiv.org/abs/2510.12706">arXiv:2510.12706</a>, 2025</li><li>2. <i>Hodge types degenerate according to the strong linkage principle</i> In preparation 2024</li><li>3. <i>Irreducibility of some crystalline loci with irregular Hodge–Tate weights</i> Proc. Amer. Math. Soc. 153 (2025), 15-30</li></ol>

4. *Cycles relations in the affine grassmannian and applications to Breuil–Mézard for  $G$ -crystalline representations*  
To appear Compositio Mathematica
5. *Explicit Serre weights for  $GL_2$*  (with Misja Steinmetz)  
Submitted 2022.
6. *Degenerating products of flag varieties and applications to the Breuil–Mézard conjecture*  
Selecta. Math. 30, 17 (2024)
7. *Potential diagonalisability of pseudo-Barsotti–Tate representations*  
Journal de Théorie des Nombres de Bordeaux, Volume 35 (2023) no. 2, pp. 335-371.
8. *On the irreducible components of some crystalline deformation rings*  
Forum of Mathematics Sigma, Volume 8, 2020, e22.
9. *Potentially diagonalisable crystalline lifts with controlled Hodge–Tate weights*  
Documenta Mathematica, 26, 795-827, 2021.
10. *Inertial and Hodge–Tate weights of crystalline representations*  
Mathematische Annalen, 376(1), 645-681.

#### SERVICES

- Organised the Summer semester 2022 Oberseminar (study group) in Münster on Modularity lifting theorems.
- Co-organised (with Eugen Hellmann) Münster number theory seminar (Summer semester 2021).
- Co-founded London junior number theory seminar (2016-2017)
- Referee for journals including J. Reine Angew. Math., Algebra and Number theory, Forum of Math Pi, Ann. Sci. de l'ENS, J. de l'Ecole Poly. Math, J. Théor. Nombres Bordeaux, Documenta Mathematica, and Math. Res. Lett.

#### CONFERENCE TALKS

- Journées Arithmétiques 2023, Nancy (July 2023)
- Banff International Research Station, Modularity and Moduli Spaces, CMO Oaxaca (Oct. 2019)

#### SEMINAR TALKS

- Imperial College London number theory seminar (Nov. 2025)
- University of Durham algebra and number theory seminar (November 2025)
- Queen Mary Algebra and Number theory seminar (Oct. 2025)
- University of Bath, Number theory seminar (April 2025)
- University of Warwick, Number theory Seminar (Jan. 2025)
- University of Edinburgh, Algebra seminar (Jan. 2024)
- University of Cambridge, Number theory seminar (Jan. 2024)
- Jussieu, Séminaire Groupes Réductifs et Formes Automorphes (Nov. 2023)
- University of Glasgow, Algebra and Number theory seminar (Nov. 2023)
- Queen Mary Number theory seminar (July 2023)
- University of Münster (Sep. 2022)
- SUSTech, China (Mar. 2022)
- Université Paris 13 (Feb. 2022)
- University of Chicago Number theory seminar (Oct. 2021)
- 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, Bonn, Number Theory Seminar (Apr. 2019)
- Max Planck Institute for Mathematics, Bonn, 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)

TEACHING  
EXPERIENCE

**University of Glasgow**

Calculus side of Maths 1C, Winter term 2024-25

- Lecturer for first year undergraduate course aimed at non-mathematics students.

Calculus side of Maths 1, Winter term 2023-24

- Lecturer for first year undergraduate mathematics course.

Further complex analysis, Winter term 2023-24 and 2024-2025

- Course head for fourth year undergraduate course on complex analysis.

**University of Münster**

Masters course: Deformation theory of Galois representations (Winter semester 2021/22)

- Course aimed at masters and Phd students.

**King's College London Mathematics School**

Class tutor (2017-2018)

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

REFERENCES

Prof. Fred Diamond  
Department of Mathematics  
King's College London  
London  
WC2R 2LS  
United Kingdom  
`fred.diamond@kcl.ac.uk`

Prof. Toby Gee  
Department of Mathematics  
Imperial College London  
London  
SW7 2AZ  
United Kingdom  
`toby.gee@imperial.ac.uk`

Dr. Shu Sasaki  
Department of Mathematics  
Queen Mary University of London  
London  
E1 4NS  
United Kingdom  
`s.sasaki@qmul.ac.uk`

LANGUAGES

English (native), French (reading), German (intermediate).