Harry SPENCER

CONTACT

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EDUCATION

2022—2026 **PhD**, UNIVERSITY COLLEGE, LONDON SCHOOL OF GEOMETRY AND NUMBER THEORY
Joint PhD programme between Imperial, King's, and University Colleges, London.
Supervisors: Vladimir DOKCHITSER (primary), David BURNS (secondary).

2018—2022 **BA**; **MMath**, CHURCHILL COLLEGE, UNIVERSITY OF CAMBRIDGE
Part III Essay: "Deforming Galois Representations" | Advisor: Jack THORNE

PUBLICATIONS

EVIDENCE FOR AND AGAINST ZAUNER'S MUB CONJECTURE IN $\mathbb{C}^6$
with Gary McConnell and Afaq Tahir
Quantum Inf. Comput. 21 (2021): 721-736.
doi.org/10.26421/QIC21.9-10-1

RESEARCH PROJECTS

Current GALOIS THEORY OF CURVES
We study factorisations of the L-function associated to a curve with automorphisms.
We also use techniques from Galois theory to compute conductors of curves.

2021 & 2022 STARK UNITS OVER REAL QUADRATIC FIELDS
Summer research with Gary McConnell (ICL). We investigate links between explicit
class field theory for real quadratic fields and so-called 'SIC-POVM's arising from
quantum information theory.

TEACHING

2023—2024 Teaching Assistant, UCL Department of Mathematics
Term 1: Algebra I; Term 2: Logic

ORGANISATION

2023—2024 Co-organiser, London Junior Number Theory Seminar
Organising weekly talks aimed at PhD students in number theory.

2022—2023 Chair, LSGNT Student-Staff Liaison Committee
Organising and chairing meetings with senior members of staff at the LSGNT; representing the views of the student body.

TALKS

JAN. 2024 THE BIRCH–SWINNERTON-DYER CONJECTURE OVER FUNCTION FIELDS
London Number Theory Study Group, University College, London.

SEPT. 2023 MOTIVIC PIECES OF CURVES
Y-RANT V, University of Cambridge.