

Harry SPENCER

CONTACT

EMAIL: harry.spencer.22@ucl.ac.uk
URL: hspen99.github.io

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

<i>Current</i>	MOTIVIC PIECES OF CURVES We study factorisations of the L -function associated to a curve with automorphisms; these factorisations correspond to decompositions of the underlying <i>motive</i> with respect to the action of the relevant automorphism groups. We make well-known conjectures on special values of L -functions explicit in this case, and hope to better understand the L -function of the original curve and its quotients through this lens.
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.

TALKS

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

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.