

Lawrence Hollom

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Current Position

PhD in Pure Mathematics

Supervisor: Professor Béla Bollobás

2022 – Present

University of Cambridge

Research Interests

- Extremal and Probabilistic Combinatorics
- Graph Theory
- Infinitary Combinatorics

Education

Part III of the Mathematical Tripos

Master's degree

September 2019 – July 2020

University of Cambridge

Bachelor's degree in Mathematics

Ranked 2nd in year

September 2016 – July 2019

University of Cambridge

Professional experience

Jane Street Capital

Quantitative Trader

September 2020 – January 2022

London, UK

Publications

A resolution of the Aharoni–Korman conjecture

arXiv preprint (submitted)

2024

A note on high-dimensional discrepancy of subtrees

arXiv preprint (submitted)

2024

with L. Lichev, A. Mond, and J. Portier

Discrepancies of spanning trees in dense graphs

arXiv preprint (submitted)

2024

with L. Lichev, A. Mond, and J. Portier

A uniform bound on almost colour-balanced perfect matchings in colour-balanced cliques

arXiv preprint (submitted)

2024

Almost colour-balanced spanning forests in complete graphs

arXiv preprint (submitted)

2024

with A. Mond and J. Portier

The bunkbed conjecture is not robust to generalisation

arXiv preprint (submitted)

2024

On conjectures concerning the graph grabbing game

2023

arXiv preprint

On graphs with maximum difference between game chromatic number and chromatic number 2025

Discrete Mathematics

On monotonicity in Maker-Breaker graph colouring games 2024

Discrete Applied Mathematics

Tight lower bounds for anti-concentration of Rademacher sums and Tomaszewski's counterpart problem 2023

arXiv preprint (submitted)

with J. Portier

A note on interval colourings of graphs 2024

European Journal of Combinatorics

with M. Axenovich, A. Girão, J. Portier, E. Powierski, M. Savery, Y. Tamitegama, and L. Versteegen

A new proof of the bunkbed conjecture in the $p \uparrow 1$ limit 2024

Discrete Mathematics

Conference and Seminar Talks

2023 March	<i>Postgraduate Combinatorial Conference</i> , University of Birmingham
2024 May	<i>Combinatorics Seminar</i> , University of Cambridge
2025 January	<i>Combinatorics Seminar</i> , University College London

Teaching

Supervisions	Part IB Analysis and Topology, Michaelmas term	<i>University of Cambridge, 2022</i>
Supervisions	Part IA Numbers and Sets, Michaelmas term	<i>University of Cambridge, 2023</i>
Supervisions	Part II Logic and Set Theory, Lent term	<i>University of Cambridge, 2024</i>
Supervisions	Part IA Numbers and Sets, Michaelmas term	<i>University of Cambridge, 2024</i>

Technical skills

Programming Languages/Tools	Rust, OCaml, Java, Python, C#, L ^A T _E X
Languages	English (native), French (intermediate)