LAWRENCE DAVID LEE

Department of Mathematics, University of Manchester, Manchester, M13 9PL

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EMPLOYMENT 2021-2022

University of Manchester, EPSRC Doctoral Prize Fellow

I am currently an EPSRC Doctoral Prize Fellow, working with Dr Tom Kempton. Our work is currently focused on problems that lie at the intersection of fractal geometry and number theory.

EDUCATION

University of St Andrews, PhD 2017- 2021

I completed an EPSRC funded PhD in fractal geometry under the supervision of Regius Professor Kenneth Falconer and Dr Jonathan Fraser. I primarily focused on studying multifractal phenomena. My research led to three papers, each of which has been published in an international journal. Aside from research I gave numerous talks and attended numerous conferences in the UK and abroad. I also provided support teaching for undergraduate courses.

University of York, MMath 2013-2017

Awarded a First Class Degree with Distinction (Average 93%)

I completed an integrated masters in mathematics at the University of York. I was awarded the Annie Curry Williamson Scholarship, which was worth £2000 a year for the first three years of my degree and was based on my academic potential as well as low parental income. I also completed two research projects during the summer holidays which were funded by both EPSRC and the LMS. I was awarded the Kathleen Ryan Project Prize for the best overall MMath final year project performance and the P B Kennedy Prize for outstanding performance in the final degree examination in Mathematics at my graduation. Each of these awards was worth £250.

The Queen Katherine School, Kendal 2006-2013

A Levels in Maths (A*), History (A), General Studies (A), English Literature (B). AS Level Further Mathematics (A)

PUBLICATIONS

Ledrappier-Young formulae for a family of nonlinear attractors (with Natalia Jurga). **Mathematische Zeitschrift (to appear).**

Lq-spectra of measures on planar non-conformal attractors (with Kenneth J. Falconer and Jonathan M. Fraser). **Ergodic Theory and Dynamical Systems, 41, (2021), 3288-3306.**

Lq-spectra of self-affine measures: closed forms, counterexamples, and split binomial sums (with Jonathan M. Fraser, Ian D. Morris and Han Yu). **Nonlinearity, 34, (2021), 6331-6357**.

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Diophantine approximation on manifolds and lower bounds for Hausdorff dimension (with Victor Beresnevich, Robert C. Vaughan and Sanju Velani). **Mathematika**, 63 (2017), 762-779.

AWARDS

- Shared first prize for the best Edinburgh Mathematical Society student presentation at their 2018 postgraduate meeting, Summer 2018
- Kathleen Ryan Project Prize for the best overall MMath final year project performance, Summer 2017
- P B Kennedy Prize for outstanding performance in the final degree examination in Mathematics, Summer 2017
- London Mathematical Society Undergraduate Research Bursary, Summer 2016
- EPSRC Funded Research Project, Summer 2015
- Annie Curry Williamson Scholarship, 2013 – 2016

REFERENCES

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