# **Lauritz Streck**

University of Edinburgh. LSTRECK@ed.ac.uk.

# **Education**

University of Edinburgh

Edinburgh, UK

Gordon Seggie Brown Fellow

2024-2027

2020-2024

2018-2020

Postdoctoral Position.

University of Cambridge

Cambridge, UK

PhD in Mathematics
Title: On the Fourier decay and the dimension of self-similar measures. Advisor: Péter Varjú.

**Hebrew University** 

Jerusalem, Israel

MSc Mathematics

Master's thesis: Non-concentration of primes along horocycle orbits in  $\Gamma \backslash PSL_2(\mathbb{R})$ . Advisor: Tamar Ziegler.

Rheinische Friedrich-Wilhelms-Universität

Bonn, Germany

BSc Mathematics

2014-2018

Bachelor's Thesis (2017): On the Delta Calculus. Advisor: Christoph Thiele.

# **Publications**

- 1. On absolute continuity and maximal Garsia entropy for self-similar measures with algebraic contraction ratio. *To appear in:* Mathematical Proceedings of the Cambridge Philosophical Society.
- 2. Non-Concentration of Primes in  $\Gamma \backslash PSL_2(\mathbb{R})$ . To appear in: Israel Journal of Mathematics.
- 3. On equidistribution of polynomial sequences in quotients of  $PSL_2(\mathbb{R})$ . To appear in: Ergodic Theory and Dynamical Systems.
- 4. Low-degree learning and the metric entropy of polynomials (with A. Eskenazis and P. Ivanisvili). *Discrete Analysis*, November 2023.

# **Invited Talks**

#### **Entropy Rates in Fractal Geometry (1h)**

University of Warwick, UK

February 2023

Dynamics and Group Geometry Early Researchers Seminar

### **Entropy Rates in Fractal Geometry (30 min)**

Oberwolfach, Germany

June 2023

Oberwolfach workshop 2323: Incidence Problems in Harmonic Analysis, Geometric Measure Theory, and Ergodic Theory

## On the Fourier decay of inhomogeneous self-similar measures (1h)

Manchester, UK

September 2024

Dynamical Systems, Number Theory, and Quantum Chaos: New connections and directions

#### The dimension of random subsets of Cantor sets defined by tree branching (1h)

Edinburgh, UK

October 2024

Analysis Seminar

#### Sparse Equidistribution of horocycle orbits on quotients of $PSL_2(\mathbb{R})$ (1h)

York, UK

April 2025

Number Theory Seminar

#### Sparse Equidistribution of horocycle orbits on quotients of $PSL_2(\mathbb{R})$ (1h)

Warwick, UK

May 2025

Analysis Seminar