

Emanuel Roth

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Date of Birth | October 9 1998

Place of Birth | Jerudong, Brunei Darussalam

Address | Edinburgh, United Kingdom

Languages | Fluent in English and German, basic command in Tagalog and Chinese

Citizenship | German, Filipino

Education

University of Edinburgh | PhD Student in Mathematics

2024 - 2028

- Mathematics PhD supervised by Johan Martens

2024 - 2028

Topic: A symplectic approach to global Springer theory (the symplectic geometry of moduli spaces of parahoric Higgs bundles)

University of Heidelberg | Bachelors and Masters Student in Mathematics

2017 - 2024

- Mathematics Master supervised by Florent Schaffhauser: *Note 1,7*

2022 - 2024

Topic: “Harder-Narasimhan filtrations of decorated vector bundles”. Preprint to appear on the arXiv

- Mathematics Master Erasmus exchange student: *University of Vienna*

Winter Semester 2022 - 2023

- Mathematics Bachelor: *Note 2,1*

2017 - 2022

Topic: “The Mitchell embedding theorem”

Teaching

Further Complex Variables | University of Edinburgh

Winter Semester 2025

General Topology | University of Edinburgh

Winter Semester 2025

Honours Analysis - Skills | University of Edinburgh

Winter Semester 2025

Proofs and Problem Solving | University of Edinburgh

Summer Semester 2025

Fundamentals of Pure Mathematics | University of Edinburgh

Winter Semester 2024

Mathematics for Physicists 3 | University of Heidelberg

Winter Semester 2023 - 2024

Mathematics for Physicists 2 | University of Heidelberg

Summer Semester 2023

Linear Algebra 2 | University of Heidelberg

Summer Semester 2022

Linear Algebra 1 | University of Heidelberg

Winter Semester 2021 - 2022

Preliminary Courses | University of Heidelberg

October 2021

Preliminary Courses | University of Heidelberg

October 2020

Selection of Conferences and Visits

Enumerative Geometry and Geometric Representation Theory | Università di Pisa

June 2025

Spring School: Group Actions and Symplectic Singularities | University of Lille

June 2025

Stratifications of Higgs bundle moduli spaces | Universidade de Santiago de Compostela

May 2025

Research Visit, meeting Florent Schaffhauser | University of Heidelberg

February 2025

Winter School on Algebraic Geometry | Lancaster University

16 - 20 December 2024

Moduli Spaces of Vector Bundles and Curves | Université de Cergy-Pontoise

11 - 13 December 2023

Talks and Seminars

Organized AGQ reading group on stacks.

Given talks in AGQ reading groups: Geometric invariant theory, Enumerative geometry, Geometric representation theory, stacks.

Talk in AGQ Conference and GEARS (Glasgow Edinburgh Algebra Research Student Seminar) December 2025.