Curriculum Vitae

Siddharth Setlur

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Personal Information

E-Mail S.Setlur@sms.ed.ac.uk Name Siddharth Setlur Personal Website siddharthsetlur.github.io 28/3 Wardlaw Place, EH11 1UQ Edin-Address $+44\ 0735\ 609\ 38\ 90$

Phone burgh, Scotland, UK

English (first language) and German Languages Date of Birth 18. Dec 2000

(fluent)

Education

Sept 2024 -PhD at CDT in Algebra, Geometry and Quantum Fields, University of Edinburgh

supervised by Dr. Darrick Lee & Dr. Sjoerd Beentjes. Fully funded by the UKRI

Sept 2022 - August 2024 Master of Science (with distinction) at ETH Zürich in Mathematics.

> MSc Thesis Optimizing Functions Based on Signed Barcodes supervised by Dr. Sara Kališnik & Dr.

Sept 2019 - Aug 2022 Bachelor of Science at ETH Zürich in Mathematics.

> BSc Thesis Different Theoretical Perspectives on Persistent Homology supervised by Dr. Sara

> > Kališnik.

Work Experience

Sept 2023 - Dec 2023 Teaching Assistant, Department of Mathematics ETH Zürich

Teaching a twice-weekly exercise class for first year Math and Physics students taking Dr.

Alessio Figalli's Single Variable Analysis course.

Oct 2022 - Feb 2023Research Intern, Inria Saclay (France) supervised by Dr. Steve Oudot.

Research in theoretical foundations of topological data analysis, namely the differentiability

of new invariants for multiparameter persistence.

June 2021 - Sep 2022 Library Assistant, Mathematics Library ETH Zürich

> Responsibilities included helping select new books to purchase for the collection, opening and closing the library once a week, processing book returns, answering customer queries

and conducting inventory.

Publications

†= first or joint first authorship.

• {Luis Scoccola, Siddharth Setlur}[†], David Loiseaux, Mathieu Carrière, and Steve Oudot. **Differentiability and** Convergence of Filtration Learning with Multiparameter Persistence. International Conference on Machine Learning (ICML) 2024 (to appear).

Workshops and Conferences Attended

Twentieth Meeting of the Applied Algebra and Geometry Research Network November 2024

August 2024 Spires 2024, Oxford University.

> Poster Session for Differentiability and Convergence of Filtration Learning with Multiparameter Persistence (based on joint work with Luis Scoccola, David Loiseaux, Mathieu

Carrière, and Steve Oudot).

July 2024 The Forty-first International Conference on Machine Learning, Vienna.

> Poster Session for Differentiability and Convergence of Filtration Learning with Multiparameter Persistence (based on joint work with Luis Scoccola, David Loiseaux, Mathieu

Carrière, and Steve Oudot).

August 2023 BIREP Summer School on persistence modules—The Interplay of Representation Theory and

Topological Data Analysis

Contributed Talk - Signed Barcodes for Multiparameter Persistence

Service & Volunteering

October 2024 - Organizer - BioTop Reading Group

Organize a hybrid seminar at the University of Edinburgh that focuses on applications of

topology, geometry, and algebra to biology.

Feb. 2022 - July 2022 Organizer - Zurich Undergraduate Colloquium in Math and Physics

Organized a weekly colloquium, where undergraduates were given the opportunity to hold

talks about their semester/bachelor/master theses.