

Last updated: 14th June 2023



Sunny Sood

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Education

University of Warwick

October 2020-present

Ph.D. student in Mathematics.

Working under the supervision of Dr Marco Schlichting. Supported by funding from the Warwick Mathematics Institute.

University of Warwick

October 2016-October 2020

Master of Mathematics (with honours), First class.

The Bramcote College Sixth Form

September 2014 – September 2016

A levels: Maths (A*), Further Maths (A*), Chemistry (A*), Physics (A), AS Biology (A)

Research Interests

My primary mathematical interests are related to K-theory, Algebraic Topology and Algebraic Geometry.

Articles

On the Homological Stability for Orthogonal and Spin Groups.

with Marco Schlichting, in preparation (update of the previous preprint).

Homological stability for $O_{\{n,n\}}$ over a local ring with infinite residue field

Preprint, available at [arXiv:2206.00981](https://arxiv.org/abs/2206.00981).

with Marco Schlichting, 2022.

Teaching Experience

Graduate teaching assistant

Introduction to topology (MA3F1), first term of academic year 2022-23.

This included face to face teaching.

Cohomology and Poincare Duality (MA4J7), second term of academic year 2021-22.

This included face to face teaching and online marking of assignments.

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Introduction to topology (MA3F1), first term of academic year 2021-22.

This included a mixture of face to face and online teaching, as was necessary during the Covid-19 pandemic.

Introduction to topology (MA3F1), first term of academic year 2020-21.

This included a mixture of face to face and online teaching, as was necessary during the Covid-19 pandemic.

Grants and Awards

EPSRC 4-Year PhD scholarship

October 2020-October 2024

LMS undergraduate research bursary

Summer 2018

For an undergraduate research project studying the mathematics of metal ring rolling.
Supervised by Dr Ed Brambley.

Talks Given

On the Homological Stability of Orthogonal and Spin Groups

June 2023

Isaac Newton Institute for Mathematical Sciences, Gong Show.

I participated in the 'Gong Show', which involved me giving a 10-minute talk about the progress made during my PhD.

Adjoint Functors in Infinity Categories

November 2022

University of Warwick, Reading Group.

This talk was for a reading group on Infinity Categories, based on the book by Markus Land Introduction to Infinity Categories.

Homological Stability for $O_{\{n,n\}}$

October 2022

University of Warwick, Postgraduate Seminar.

This talk was based on a paper written jointly with my supervisor Dr Marco Schlichting.

Implicit Function Theorems for Lipschitz Functions

December 2020

University of Warwick, Postgraduate Seminar.

This talk was based on my MMath dissertation supervised by Professor David Mond.

Conferences Attended

A Festival Remembering Victor Snaith: Topology, Number Theory, and Interactions

10th-

14th July 2023

University of Bristol.

Homotopy: Fruit of the Fertile Furrow

12th -16th June 2023

Isaac Newton Institute for Mathematical Sciences, Cambridge.

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A Panorama of Homotopy Theory - A Conference in Honour of Mike Hopkins *5th-9th June 2023*

University of Oxford.

Conference on Motivic and Equivariant Topology *15th-17th May 2023*

Swansea University.

During this conference, I presented a poster entitled “On the Homological Stability of Orthogonal and Spin Groups” based on my PhD dissertation work.

Service

Co-organizer of the Warwick Mathematics Postgraduate Seminar *October 2021-July 2022*

Language Skills

Fluent in English and Punjabi. In addition, I can speak Hindi and Urdu at a basic level.