

Research Interests

Stable homotopy theory, equivariant and motivic stable homotopy theory, computational algebra, noncommutative Gröbner basis.

Employment

2021-present **Instructor**
Peking University

Education

2015-2021 **Doctor of Philosophy in Mathematics**
The University of Chicago
Advisor: J. Peter May

2011-2015 **Bachelor of Science in Mathematics**
Peking University
Advisor: Houhong Fan

Awards and Grants

- 2021 **China Postdoctoral Science Foundation**
Grant No. 021TQ0015
- 2021 **The Fundamental Research Funds for the Central Universities**
Peking University
- 2018, 2019 **Nominated for Physical Sciences Teaching Prize**
The University of Chicago
- 2015-2017 **McCormick Graduate Fellowship**
The University of Chicago

Publications

- *On the May spectral sequence at the prime 2.*
Advances in Mathematics (2022). arXiv:2010.14754
- *Noncommutative Gröbner bases and Ext groups.*
Accepted by **Peking Mathematical Journal** (2023). arXiv:2304.00506

Invited Talks

- Jul 2021 **International Workshop on Algebraic Topology 2023**
Peking University, Beijing, China
- May 2023 **Fudan Topology Seminar**
Fudan University, Shanghai, China
- Jul 2022 **Mid-South Algebraic Topology and Geometry Workshop**
Online
- Feb 2022 **eCHT seminar on machine computation in homotopy theory**
Online
- Jul 2021 **International Workshop on Algebraic Topology 2021**
Fudan University, Shanghai, China
- Jun 2021 **Colloquia & Seminars**
Academy of Mathematics and Systems Science, Chinese Academy of Sciences, China
- Nov 2020 **UCLA algebraic topology seminar**
Online
- Oct 2020 **UChicago-Northwestern topology seminar**
Online
- June 2020 **Stony Brook student topology seminar**
Online
- Jun 2020 **GROOT Summer Seminar**
Online
- Aug 2019 **International Workshop on Algebraic Topology**
Fudan University, Shanghai, China
- Aug 2019 **Summer School on Equivariant Stable Homotopy Theory**
Fudan University, Shanghai, China

Teaching

Lecturer

Responsibilities include conducting lectures, holding problem sessions and office hours, writing assignments, grading exams, and managing TAs.

Winter 2020	MATH 15300, Calculus 2
Fall 2019	MATH 15200, Calculus 1
Spring 2019	MATH 19600, Linear Algebra
Winter 2019	MATH 15300, Calculus 3
Fall 2018	MATH 15200, Calculus 2
Spring 2018	MATH 15300, Calculus 3
Winter 2018	MATH 15200, Calculus 2
Fall 2017	MATH 15100, Calculus 1

College Fellow

Responsibilities include holding problem sessions and office hours, grading assignments and exams.

Spring 2017	Algebraic Number Theory
Winter 2017	Introduction to Commutative Algebra
Fall 2016	Elementary Number Theory

UChicago Mathematics REU

The REU is an eight-week summer program of study and research for undergraduates. Graduate student mentors assist students with choosing a topic, meet with them weekly, and provide feedback on their final papers.

Summer 2020	Joshua Enwright, <i>Some norms for Mackey functors</i>
Summer 2020	Andrew Burke, <i>Hopf Algebras and Exotic Characteristic Classes</i>
Summer 2019	Chris Albert, <i>Physical Applications of Fixed Point Methods in Differential Equations</i>
Summer 2019	Mark Schachner, <i>The Game of Hex: a Study in Graph Theory and Algebraic Topology</i>
Summer 2019	Rafael M. Saavedra, <i>The Hopf invariant one problem</i>
Summer 2018	Indraneel Tambe, <i>Cubical Structures of Multi-Fold Internal Categories</i>
Summer 2018	Eleanor Mcspirit, <i>Homotopy Theory from Subdivisions of A-Space Models</i>
Summer 2018	Doron L Grossman-Naples, <i>Finite Manifolds and Minimal Finite Models of Closed Surfaces</i>
Summer 2017	Parth Sarin, <i>The Cup Length in Cohomology as a Bound on Topological Complexity</i>
Summer 2017	Catherine Wolfram, <i>Persistent Homology on Phonetic Data</i>