



Sihao Ma  
Curriculum Vitae  
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RESEARCH INTERESTS	Computational homotopy theory, especially in equivariant and chromatic aspects, with the tools of motivic homotopy theory and synthetic spectra.	
EDUCATION	<b>University of Notre Dame</b> Ph.D. candidate in Mathematics Advisor: Mark Behrens <b>Peking University</b> B.S. in Mathematics Advisor: Houhong Fan	Indiana, USA 2020-present Beijing, China 2016-2020
PAPERS	<b>Towards the <math>K(2)</math>-local homotopy groups of <math>\mathbb{R}P^2 \wedge \mathbb{C}P^2 \wedge \mathbb{H}P^2</math> at <math>p = 2</math>.</b> <b>A proof of the generalized geometric boundary theorem using filtered spectra.</b> <i>Topology and its Applications</i> 355 (2024): 109006. <b>The Borel and genuine <math>C_2</math>-equivariant Adams spectral sequences.</b> Last updated: 09/10/2024.	In preparations. <a href="https://arxiv.org/abs/2309.14650">arXiv:2309.14650</a> <a href="https://arxiv.org/abs/2208.12883">arXiv:2208.12883</a>
TALKS	<b>Towards the <math>K(2)</math>-local homotopy groups of <math>\mathbb{R}P^2 \wedge \mathbb{C}P^2 \wedge \mathbb{H}P^2</math> at <math>p = 2</math>.</b> AMS JMM Special Session on Homotopy Theory <b>Towards the <math>K(2)</math>-local homotopy groups of <math>\mathbb{R}P^2 \wedge \mathbb{C}P^2 \wedge \mathbb{H}P^2</math> at <math>p = 2</math>.</b> UIUC Topology Seminar <b>The Borel and genuine <math>C_2</math>-equivariant Adams spectral sequences.</b> Notre Dame Graduate Student Topology Seminar <b>The Borel and genuine <math>C_2</math>-equivariant Adams spectral sequences.</b> UCSD Topology Seminar <b>The Borel and genuine <math>C_2</math>-equivariant Adams spectral sequences.</b> AMS Sectional Meeting Special Session on Homotopy Theory	01/2025 12/2024 03/2024 02/2024 10/2023

**The Borel and genuine  $C_2$ -equivariant Adams spectral sequences.**

UCSD Topology Seminar 03/2023

TEACHING	Teaching Assistant, Honor Calculus III, University of Notre Dame	Fall 2023
EXPERIENCE	<b>Instructor</b> , Calculus B, University of Notre Dame	Spring 2023
	Teaching Assistant, Calculus II, University of Notre Dame	Fall 2022
	Teaching Assistant, Linear Algebra and Differential Equations, University of Notre Dame	Spring 2022
	Teaching Assistant, Calculus I, University of Notre Dame	Fall 2021
	Teaching Assistant, Mathematical Analysis II, Peking University	Spring 2020
	Teaching Assistant, Mathematical Analysis I, Peking University	Fall 2019

UNDERGRADUATE RESEARCH	<b>The homotopy of <math>tmf</math> at the prime 2.</b>	<a href="#">PDF</a>
	Advised by Zhouli Xu	Summer 2019