

Hongxiang Zhao

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Citizenship: China

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Education

University of Copenhagen (KU), Denmark

Master in Mathematics, Sep. 2023 – present (expected Jun. 2025)

Advisor: Robert Burklund

Southern University of Science and Technology (SUSTech), China

Bachelor in Science, major in Mathematics (Honor program), Sep. 2019 – Jun. 2023

Advisor: Yifei Zhu

University of California-Berkeley (UCB), USA

Concurrent Enrollment, Jan. 2022 – May. 2022

Research Interests

homotopy theory, number theory, and related fields, especially the relationship between the two fields. In particular, I am interested in chromatic homotopy theory, algebraic K-theory and topological cyclic homology.

Preprints

*A proof for Ando's theorem on norm-coherent coordinates
via the Coleman norm operator,*
arXiv:2310.09837

Academic Activities

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| Berkeley Mathematics Directed Reading Program Read Chapter I, II, III, IV, VI of Silverman's <i>The Arithmetic of Elliptic Curves</i> | Feb. 2022 – May. 2022 |
| Undergraduate Topology Seminar on modular forms, SUSTech | Sep. 2022 – Dec. 2022 |
| Graduate Topology Seminar, SUSTech | Sep. 2022 – May. 2023 |
| Arithmetic and Topology (online conference), SUSTech | 16 Dec. – 17 Dec. 2022 |
| Short course: "Mordell-Weil Theorem", Xiamen University, taught by Qing Liu at University of Bordeaux | 15 Jun. – 19 Jun. 2023 |
| IWoAT 2023 | Summer 2023 |
| Mini-workshop on BMS2, SUSTech | 7 Aug. – 9 Aug. 2023 |

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| Masterclass: Arakelov geometry on Shimura varieties, KU | 28 Aug. – 1 Sep. 2023 |
| Masterclass: Homotopical methods in manifold theory, KU | 15 Apr. – 19 Apr. 2024 |
| Course: Eigenvarieties and Block-Kato Selmer Groups, KU | 27 May. – 31 May. 2024 |
| Masterclass: Continuous K-theory, dualizable and rigid categories, KU | 10 Jun. – 14 Jun. 2024 |
| IWoAT 2024, Fudan University | 23 Jun. – 6 Jul. 2024 |
| Homotopy theory lunch seminar, KU | May. 2024 – present |

GPA

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| GPA at KU | 12/12 |
| Major GPA at SUSTech | 3.95/4.00 |
| Major Ranking at SUSTech | 1/47 |
| GPA at UCB | 4.00/4.00 |
| Overall Cumulative GPA at SUSTech | 3.92/4.00 |

Awards

The Danish governmental scholarship, 2023
 The Second Class of the Merit Student Scholarship at SUSTech, 2022
 The Second Class of the Merit Student Scholarship at SUSTech, 2021
 The Second Prize of the Chinese Mathematics Competition, 2021
 The First Class of the Merit Student Scholarship at SUSTech, 2020

Skills

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| Languages | Chinese (native) English (TOEFL 104: Reading 29, Listening 27, Speaking 23, Writing 25, GRE 327+3.5: Verbal 157, Quantitative 170, Writing 3.5) |
| Programming Languages | C++, JAVA, L ^A T _E X |