Hongxiang Zhao

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Citizenship: China Email: slb620@alumni.ku.dk

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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 and its relationship to number theory, especially chromatic homotopy theory, algebraic K-theory and THH.

Preprints

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

Academic Activities

Berkeley Mathematics Directed Reading Program Read Chapter I, II, III, IV, VI of Silverman's <i>The Arithmetic</i> of Elliptic Curves	Feb. 2022 – May. 2022
${\bf Undergraduate\ Topology\ Seminar\ on\ modular\ forms,\ SUSTech}$	Sep. $2022 - Dec. 2022$
Graduate Topology Seminar, SUSTech	Sep. $2022 - May. 2023$
Arithmetic and Topology (online conference), SUSTech	16 Dec. — 17 Dec. 2022
IWoAT 2023	Summer 2023
Mini-workshop on BMS2, SUSTech	7 Aug. — 9 Aug. 2023
Masterclass: Arakelov geometry on Shimura varieties, KU	28 Aug. — 1 Sep. 2023
Masterclass: Homotopical methods in manifold theory, KU	15 Apr. — 19 Apr. 2024

Homotopy theory lunch seminar, KU May. 2024 - present

Course: Eigenvarieties and Block-Kato Selmer Groups, KU 27 May. — 31 May. 2024

Masterclass: Continuous K-theory, 10 Jun. — 14 Jun. 2024

dualizable and rigid categories, KU

IWoAT 2024, Fudan University 23 Jun. — 6 Jul. 2024

GPA

 $\begin{array}{lll} \text{GPA at KU} & 12/12 \\ \text{Major GPA at SUSTech} & 3.95/4.00 \\ \text{Major Ranking at SUSTech} & 1/35 \\ \text{GPA at UCB} & 4.00/4.00 \\ \text{Overall Cumulative GPA at SUSTech} & 3.93/4.00 \\ \end{array}$

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

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, LATEX