

Hongxiang Zhao

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Citizenship: China

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Education

Bachelor in Science

2019.9-present

Southern University of Science and Technology (SUSTech), China

Major in Mathematics. Completed the Undergraduate Mathematics Honors Program

Undergraduate Advisor: Yifei Zhu

Concurrent Enrollment

2022.1-2022.5

University of California-Berkeley (UCB), USA

Research Interests

Algebraic number theory, algebraic topology, and related fields. I am now learning connections between local class field theory and stable homotopy theory via Lubin-Tate formal group laws.

Academic Activities

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|-------------|---|
| Spring 2022 | Attended Berkeley Mathematics Directed Reading Program organized by the Berkeley Math Department. Read Chapter I, II, III, IV, VI of Silverman's <i>The Arithmetic of Elliptic Curves</i> under the direction of Mark Macerato, a PhD student of Prof. David Nadler at the UCB. |
| Summer 2022 | Attended a summer project with students at Berkeley under the supervision of Prof. Nadler. Read materials about loop groups, topological quantum field theory, Yang-Mills theory and Chern-Simons theory. |
| Fall 2022 | Attending Graduate Topology Seminar, SUSTech seminar on modular forms. Gave a talk on formal group laws and formal groups. |
| Fall 2022 | Attending Undergraduate Topology Seminar, SUSTech on modular forms. Gave two talks on elliptic curve and modular curves. |

Graduate Courses

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| Topics in Algebra and Number Theory | A+ | Taken at SUSTech |
| Algebraic Topology (Part I) | A+ | Taken at SUSTech |
| Algebraic Topology (Part II) | A+ | Taken at UCB |
| Differential Manifolds | A+ | Taken at UCB |
| Commutative Algebra | A | Taken at UCB |

GPA

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|-----------------------------------|-----------|
| Major GPA at SUSTech | 3.95/4.00 |
| Major Ranking at SUSTech | 1/35 |
| GPA at UCB | 4.00/4.00 |
| Overall Cumulative GPA at SUSTech | 3.93/4.00 |

Awards

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

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 |