# Jiacheng Liang

Curriculum Vitae

## Contact

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## Research Interests

The orientation theory from Thom spectra, higher algebra, reformulations of chromatic homotopy theory by formal (spectral) algebraic geometry, spectral moduli problems, and various intersections between homotopy theory and algebraic geometry.

## 🎓 Education

**Southern University of Science and Technology**, Shenzhen, China          2022 – 2024(expected)

*Master* in Mathematics, expected June 2024
Advisor: Yifei Zhu

**Sichuan University**, Chengdu, Sichuan, China          2018 – 2022

*B.S.* in Physics

## Short-term Visits

**Southern University of Science and Technology**, Shenzhen, China          2021.11 – 2022.5

Visiting student
Advisor: Yifei Zhu

## Selected Talks

**An overview of $\infty$-categories and higher algebra**          December 26, 2023

Graduate Topology Seminar at SUSTech

**The σ-orientation and its AHR $E_\infty$-refinement** $Mstring \to tmf$          August 17, 2023

IWoAT Summer School 2023: Operads, spectra, and multiplicative structures
BIMSA, Beijing, China

**Thom spectra, infinite loop spaces, generalized cocycles, and the σ-orientation**          May 23, 2023

Graduate Topology Seminar at SUSTech

**Sites, Sheaves, Formal Groups and Stacks**          December 06, 2022

Graduate Topology Seminar at SUSTech

**Elliptic curves and Abelian varieties**          May 30, 2022

Undergraduate topology seminar, Sichuan University

**Monads, $E_\infty$-spectra and model categories**          December 01, 2021

Graduate Topology Seminar at SUSTech

**The Stable homotopy theory and EKMM framework**          November 18, 2021

Graduate Topology Seminar at SUSTech

**Bousfield Localization and K(n)-local stable homotopy theory**                March 22, 2021

Undergraduate topology seminar, Sichuan University

**Landweber exact theorem and Lubin-Tate spectra**                November 02, 2020

Undergraduate topology seminar, Sichuan University

**Quillen's theorem: complex cobordism and formal groups**                September 30, 2020

Undergraduate topology seminar, Sichuan University

**MO is a graded E-M spectrum by calculating Steenrod operations**                June 21, 2020

Undergraduate topology seminar, Sichuan University

**Characteristic classes from viewpoint of algebraic topology**                March 13, 2020

Undergraduate topology seminar, Sichuan University

**Brown representability theorem and generalized cohomology theories**                December 15, 2019

Undergraduate topology seminar, Sichuan University

**Obstruction theory in algebraic topology**                September 08, 2019

Undergraduate topology seminar, Sichuan University

**Serre spectral sequence and homotopy groups of spheres**                June 25, 2019

Undergraduate topology seminar, Sichuan University

**A proof of Non-embeddability from Klein bottle into $\mathbf{R}^3$**                May 8, 2019

Undergraduate topology seminar, Sichuan University

## 👥 Organization

- **Graduate Topology Seminar** at SUSTech                2021-present
- **Undergraduate topology seminar** at Sichuan University                2019-2022

## Teaching

- Teaching assistant for MA201b(Ordinary Differential Equation), Spring 2023.
- Grader for MAT8021, Spring 2023 (Algebraic topology).

## Miscellaneous

- **Blog** about algebraic topology: *www.zhihu.com/people/liang-jia-cheng-60-11/posts*
- Placed third in *Table Tennis Freshman Competition 2022* at department of mathematics, SUSTech

## References

- **Guozhen Wang**, *Fudan University*, wangguozhen@fudan.edu.cn
- **Zhouli Xu**, *University of California, San Diego*, xuzhouli@ucsd.edu
- **Zhen Huan**, *Huazhong University of Science and Technology*, 2019010151@hust.edu.cn
- **Yifei Zhu** (advisor), *Southern University of Science and Technology*, zyf@umn.edu
- **Jack Davies**, *Universität Bonn*, davies@math.uni-bonn.de