Ling Zhou

https://sites.google.com/view/lingzhou-math/home

Math Building 332,
The Ohio State University,
Columbus, Ohio
(614)-966-1088
zhou.2568@osu.edu

RESEARCH INTEREST

Applied algebraic topology, topological data analysis, computational topology

EDUCATION

The Ohio State University, Columbus, Ohio, USA — *Ph.D. in Mathematics*
Sep 2017 - Now, GPA 4.0/4.0

Hong Kong University of Science and Technology, Hong Kong — *M.Phil. in Mathematics*
Sep 2015 - July 2017, GPA 4.0/4.3

Sichuan University, Chengdu, Sichuan China — *B.S. in Mathematics and Applied Mathematics*
Sep 2010 - July 2015, GPA 3.86/4.0

PREPRINTS AND PUBLICATIONS

- Contessoto, M., Mémoli, F., Stefanou, A. and **Zhou, L.** (2021) Persistent cup-length. arXiv preprint arXiv:2107.01553. [Link]
- Mémoli, F. & **Zhou, L.** (2019) Persistent Homotopy Groups of Metric Spaces. arXiv preprint arXiv:1912.12399. [Link]
- Qin, T., **Zhou, L.**, & Xiu, D. (2020). Reducing Parameter Space for Neural Network Training. *Theoretical and Applied Mechanics Letters*, 10(3), 170-181. [Link]
- Huang, J. S., & **Zhou, L.** (2019). Generalized Fourier Transforms Associated with the Oscillator Representation. *Journal of Fourier Analysis and Applications*, 25(5), 2782-2800. [Link]

PAPERS IN PREPARATION

- Mémoli, F. & **Zhou, L.** Filtered Chain Complexes.
- Lim, S., Mémoli, F., Wan, Z., Wang, Q. & **Zhou, L.** The Tight Span of Spheres.

TALKS

- Other Persistence Invariants: homotopy and the cohomology ring. Online workshop "Beyond TDA -- Persistent topology and its applications in data sciences" (Aug 2021). [Video]
- Persistent homotopy groups of metric spaces. AATRN (Jan 2021). [Video]
- Persistent homotopy groups of metric spaces. MBI Seminar Series (Sep 2020).

PYTHON PROJECTS

- Casella, A., Leung, W.H., Medina, E., Jain, K., Satija, R. and **Zhou, L.** Python project about classification, prediction and survival analysis of Steam game data. *Data Science Boot Camp by The Erdős Institute*, May 2021. [GitHub]
- Leung, W. H., Martinez, F., Sun J. & **Zhou, L.** Python project to recognize Van Gogh's paintings. *Data Science Boot Camp by The Erdős Institute*, May 2020. [GitHub]

AWARDS

Special Graduate Assignment, Spring 2020 (OSU)

Tibor Radó Graduate Fellowship, 2017–18 (OSU)

The 12th Epsilon Fund Award to Top Students, 2016–17 (HKUST)

Din-Yu Hsieh Teaching Award, 2016–17 (HKUST)

Scholarship of the Pilot Project for Fostering Top-Notch Students in Basic Science, 2013–14

First Class Comprehensive Scholarship, 2010–11, 2011–12 (Sichuan University, top 2%)

National Endeavor Fellowship, 2012–13, 2013–14 (top 5%)

National Scholarship, 2010–11, 2011–12 (top 2%)

SKILLS

Python, Mathematica, C