

Tian Lan

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PERSONAL INFORMATION

Name: Tian Lan
Citizenship: Chinese.
Born: June 26th, 1998.
Language: Mandarin (native), English (fluent), Cantonese (intermediate), German (elementary).

RESEARCH INTEREST

I'm interested in geometric analysis and partial differential equations.

My recent research concentrates on geometric variational problems (specifically on energies depending on the first and second fundamental forms) and the properties of weak immersions, including local injectivity and approximation by smooth immersions with control of conformal classes.

EDUCATION

PhD in Mathematics	Sep. 2023–
ETH Zürich	Zürich
Advisor: Prof. Tristan Rivière.	

MSc in Mathematics	Sep. 2020–Mar. 2023
ETH Zürich	Zürich
Thesis: Analysis of surface energies depending on the first and second fundamental form, supervised by Prof. Tristan Rivière.	
Grade: 5.913/6.000.	

BSc in Mathematics	Aug. 2016–Jul. 2020
The Chinese University of Hong Kong	Hong Kong
Major GPA: 4.000/4.000.	
GRE Math Subject: 970 (Percentile: 99), 2018.	

PUBLICATION

3. *The analysis of Willmore surfaces and its generalizations in higher dimensions*, with Dorian Martino and Tristan Rivière. Preprint (2025), arXiv:2511.01777.
2. *The regularity of critical points to the Dirichlet energy of the mean curvature in dimension 4*, with Yann Bernard, Dorian Martino, and Tristan Rivière. Preprint (2025), arxiv: 2511.01765.
1. *Sobolev orthogonal polynomials on the Sierpinski gasket*, with Qingxuan Jiang, Kasso A. Okoudjou, Robert S. Strichartz, Shashank Sule, Sreeram Venkat and Xiaoduo Wang. **J. Fourier Anal. Appl.** 27 (2021), no. 3, Paper No. 38, 38 pp.

TALKS

- 2025
— Dec. *Analysis seminar*, ETH Zürich, Zürich.

AWARDS & HONORS

- 2019: *Simon Marais Mathematics Competition* (with Chen Qian), the Best Pair in Hong Kong, the 4th Among All Pairs (A\$ 1000).
- 2019–2020: HKSAR Government Scholarship (HK\$ 80000).
- 2019: Professor Charles K. Kao Research Exchange Scholarship (HK\$ 50000).

POSTERS

- 2019 Aug.: *Young Mathematicians Conference*, the Ohio State University, Columbus.

TEACHING EXPERIENCE

ETH Zürich, Zürich

- Course Coordinator
— Fall 2024: *Differential Geometry I* (401-3531-00L), taught by Prof. Urs Lang.