Jingyuan Zhu

Yongzhong Street Longxiang Road No. 2988 \$\infty\$ Wenzhou \$\infty\$ China +33 7 44 88 65 54 \$\infty\$ jingyuan.zhu@universite-paris-saclay.fr \$\infty\$ zhujy19@gmail.com Personal webpage (under construction): https://jingyuan-zhu.com/

EDUCATION

Master Mathématiques et Appilcations

September 2023 - September 2024

Faculté des Sciences, Orsay, France

Université Paris-Saclay, Note: 17.62/20.00, with highest honor

Bachelor of Science August 2019 - June 2023

Department of Mathematical Sciences, Beijing, China

Tsinghua University, CGPA: 3.76/4.00

HSC September 2016 - June 2019

Yueqing Zhilin High School, Wenzhou, China

SSC September 2013 - June 2016

Yuecheng Public Boarding School, Wenzhou, China

RESEARCH INTERESTS

higher category, higher algebra and their parametrised or equivariant variants; equivariant and nonequivariant stable homotopy theory;

algebraic K-theory and Hermitian K-Theory;

also homotopical algebra, easpecially model category.

INTERNSHIP/TRAININGS

Equivariant ∞ -Category and Real Topological Hochschild Homology

March 2024 - June 2024

Master thesis

· This thesis generalised THR to the case of \mathbb{E}_{σ} algebra in C_2 - ∞ -category, using equivariant factorisation homology, with also a tentative trial to give an equivariant analogue of the fibre sequence relating THH and André–Quillen cohomology.

Nielsen Realisation Problem

October 2022 - June 2023

 $Under graduate\ Dissertation$

· Investigated Teichmüller theory and Teichmüller geometry, mapping class group, and MMM classes; derived several representational results regarding Nielsen realisation problem

Morse Theory and its Applications

April 2022 - January 2023

Major Project as a part of a curriculum named Research Training Program

- · A research training project in collaboration with Zhongxian Cao
- · Explored the major content of Morse theory, deriving a proof of Bott periodicity theorem for U and O

A Report on Removable Singularities in Yang-Mills Fields

December 2022 - January 2023

Minor Project as a part of curriculum

· A Report of an article by Karen K. Uhlenbeck

A Report on the Existence of Harmonic Diffeomorphism from \mathbb{C} to \mathbb{D} November 2021 - December 2021 Minor Project as a part of curriculum

- · A Report of an article by P. Collin and H. Rosenberg, in collaboration with Jianqiao Shang et al.
- · Disproved Schoen's conjecture that there does not exist a harmonic diffeomorphism from $\mathbb C$ to $\mathbb D$

HONORS/AWARDS

Sophie Germain Scholarship	2023-2024
Tsinghua XueTang Mathematics Program Scholarship	2021-2023
ST. Yau College Student Mathematics Contest 2022, Geometry and Topology,	
reward of excellence	2022
ST. Yau College Student Mathematics Contest 2022, Algebra and Number Theory,	
reward of excellence	2022
ST. Yau College Student Mathematics Contest 2021, Algebra and Number Theory,	
reward of excellence	2021

LANGUAGES

Chinese (mother tongue), English (C1), French (A2), Japanese (N4)

DECLARATION

I hereby declare that all the details furnished above are true to the best of my knowledge and belief.