

# ZUYI ZHANG

[zuyzhang@iu.edu](mailto:zuyzhang@iu.edu)

## Research Interests

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Gauge Theory, Low Dimensional Topology, Differential Geometry, Partial Differential Equations

## Employment

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Beijing International Center For Mathematical Research Jan. 2025 – Present

- Postdoctoral Fellow

## Education

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Ph.D., Indiana University, Bloomington Aug. 2017 – July 2024

- Advisor: Paul Kirk

M.S., University of Science and Technology of China, China Sep. 2015 – Jun. 2017

- Advisor: Zuoqin Wang
- M.S. Thesis: Courant Eigenvalues for Dirichlet Laplace Operator and  $k$ -minimal Dividing

B.S., Yangzhou University, China Sep. 2011 – Jun. 2015

## Publications and Preprints

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Singularities of Lagrangian immersions (received by Michigan Math Journal) 2024

- Preprint: <https://arxiv.org/abs/2303.05096>

Construction of holomorphic quilts in Cartesian product of closed surfaces 2024

- Preprint: <https://arxiv.org/abs/2409.19744>

## Research Projects

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Construction of holomorphic quilts in Cartesian product of closed surfaces

Lagrangian Floer theory on tangles and its relation to instantons of knots in  $S^3$ , with Kai Smith

Connected components of cohomologous symplectic forms

## Talks

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Immersed Lagrangian Floer theory, quilts, and bounding cochains Apr. 2024

- Rutgers University

Singularities of Lagrangian immersions and its applications in Symplectic Topology Mar. 2024

- Shanghai Jiaotong University

Singularities of Lagrangian immersions and its applications in Symplectic Topology 2022

- AMS Spring Central Virtual Sectional Meeting.

## Teaching Experience

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Precalculus (NYC College of Technology)	Fall 2024
Algebra for College Students (Hunter College)	Spring 2024
Quantitative Reasoning (NYC College of Technology)	Spring 2024
Basic Structures of Math (Hunter College)	Fall 2023
Algebra for College Students (Hunter College)	Fall 2023
Immersion Workshop (Hunter College)	Summer 2023
Precalculus with Workshop (Hunter College)	Spring 2023
Math of Design and Beauty (Indiana University)	Summer 2022
Introduction to Finite Math II (Indiana University)	Fall 2021 – Spring 2022
Recitation of Brief Survey of Calculus (Indiana University)	Fall 2018 – Spring 2021

## Fellowships and Awards

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Hazel King Thompson Scholarship	2022
College of Arts and Sciences Graduate Fellowship	2018
Robert E. Weber Memorial Award	2018
James P. Williams Memorial Award	2018
2nd Prize, Chinese Mathematics Competition	2015

## Selected Conferences Attended

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Summer School in Geometry and Topology	2023
Columbia Symplectic Geometry and Gauge Theory Seminar	2023
The Western Hemisphere Colloquium on Geometry and Physics	2021
Math-Science Literature Lecture Series	2020
Fall Western Sectional Meeting	2020

## Language Skills

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Chinese, Japanese, French (reading)