Ming Hsiao

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RESEARCH INTERESTS

My research interests are mainly in Ricci flow and its topological applications. During my master's career, I mainly studied recent work on Ricci flow, such as some existence or uniqueness of Ricci flow on noncompact manifolds, and Perelman's theory. In addition, during my undergraduate studies, I studied the Free Probability Theory and Random Matrix Theory and attended some achievements in these fields.

SUPERVISOR

My supervisor is Professor Yng-Ing Lee, who is currently affiliated with the Department of Mathematics at National Taiwan University.

EDUCATION

Master of Science (M.S.) in Mathematics Expected June 2025
National Taiwan University

Bachelor of Science (B.S.) in Mathematics June 2023
National Taiwan University

HONOR

Hu Dun Fu Memorial Scholarship Mar 2024 - June 2024

Undergraduates Student Outstanding Thesis Award *High Distinction Award* 2024
The Mathematical Society of the Republic of China

Dean's Award of College of Science Jun 2023
National Taiwan University

Academic Achievement Award Sep 2021 - June 2023
National Taiwan University

60th International Mathematical Olympiad *Bronze Medal* 2019

TALK AND POSTERS

TMS Annual Meeting *Special Session Speaker* Jan 2024
Analysis and Optimization-Hadamard product of random matrices and their limiting spectral distributions

2023 NCTS-Kyoto Mathematics Symposium *Poster presentation* Dec 2023
2023 NCTS-Kyoto Mathematics Symposium

2023 Symposium for Young Analysts *Invited speaker* Jun 2023
Limit Theorem of Hadamard Product Random Matrices

ACEDMIC EXPERIENCE

NTU | *Project Research Scholarship Recipients* Aug 2023 - Present
- Advisor: Prof. Yng-Ing Lee
- Ricci Flow on Riemannian Manifold.

NCTS | *Teaching Assistant (TA) of Differential Forms in Algebraic Topology* Feb 2024 - Present

NTU | *Teaching Assistant (TA) of Functional Analysis 2* Feb 2024 - Present

NTU | *Teaching Assistant (TA) of Introduction of Geometry* Sep 2023 - Dec 2023

64th International Mathematical Olympiad | *2023 IMO Taiwan team Observer A* July 2023

NTU | *Teaching Assistant (TA) of Geometry (Honor Program)* Sep 2022 - Dec 2022

National Science and Technology Council | *National Science Council Research Scholarship, TW* Mar 2022 - Mar 2023
- Advisor: Prof. Hao-Wei Huang
- Free Probability and Hadamard Random Matrix.

NCTS | *URP* Oct 2021 - Jun 2022

- Advisor: Prof. Hao-Wei Huang
- Free Probability and Hadamard Random Matrix.

NCTS | *USRP* Jul 2021 - Aug 2021

- Advisor: Prof. Hao-Wei Huang
- Free Probability and Hadamard Random Matrix.

COURSES

Teichmuller theory and moduli space of Riemann surfaces	Fall 2023(Present)
Introduction to geometric evolution equations	Fall 2023(Present)
An introduction to Singularities in Nonlinear Parabolic Problems	Fall 2023(Present)
Probability Theory (II)	Spring 2023
Algebraic Geometry (II)	Spring 2023
Introduction to Modular Forms	Spring 2023
Topics in Geometry Analysis	Spring 2023
Algebraic Geometry (I)	Fall 2022
Topics in Minimal Submanifolds	Fall 2022
Lie groups and Lie algebras	Fall 2022
Probability Theory (I)	Fall 2022
Geometry (II)	Spring 2022
Functions of A Complex Variable	Spring 2022
Partial Differential Equations (II)	Spring 2022
Quantum Mechanics (II)	Spring 2022
An Introduction to Nuclear Astrophysics	Fall 2021
Quantum Mechanics (I)	Fall 2021
Geometry (Honor Program)	Fall 2021
Introduction to Computational Mathematics	Fall 2021
Complex Analysis (Honor Program)	Fall 2021
General Physics (a)(1)	Summer 2021
General Physics (a)(2)	Summer 2021
Functional Analysis	Spring 2021
Algebra(Honor Program)(II)	Spring 2021
Introduction to Partial Differential Equations	Spring 2021
Real Analysis (II)	Spring 2021
Algebra(Honor Program)(I)	Fall 2020
Introduction to Ordinary Differential Equations	Fall 2020
Real Analysis (I)	Fall 2020
Analysis(Honor Program)(II)	Spring 2020
Calculus(II)	Spring 2020
Linear Algebra (II)	Spring 2020
Analysis(Honor Program)(I)	Fall 2019
Calculus(I)	Fall 2019
Linear Algebra (I)	Fall 2019