

Chao-Ming LIN

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Interests

Differential Geometry / Complex Geometry / Geometric Analysis.

Education

Sep 2017–June 2023

Ph.D. Candidate in Mathematics

University of California, Irvine

Advisors: [Zhiqin Lu](#) and [Xiangwen Zhang](#)

Thesis: [Class of Curvature Equations, Convexity, and Real Algebraic Geometry](#)

Sep 2014–July 2016

M.S. in Mathematics

National Taiwan University

Advisor: [Chung-Jun Tsai](#)

Thesis: Survey on G_2 manifolds and further applications

Sep 2010–May 2014

B.S. in Mathematics

National Taiwan University

Work Experience

Nov 2022–Dec 2022, Dec 2020–April 2021

Visitor in Mathematics

[National Center for Theoretical Sciences](#)

Mentor: [Chung-Jun Tsai](#)

Aug 2016–June 2017

R.A. in Mathematics

[National Center for Theoretical Sciences](#)

Mentor: [Chung-Jun Tsai](#)

Papers

Sep 2022

On the Convexity of General Inverse σ_k Equations

Journal of Functional Analysis, 2023

<https://arxiv.org/abs/2209.11370>

Jan 2022

The deformed Hermitian–Yang–Mills Equation, the Positivstellensatz, and the Solvability

<https://arxiv.org/abs/2201.01438>

Dec 2020

Deformed Hermitian–Yang–Mills equation on Compact Hermitian Manifolds

Mathematical Research Letters, [accepted](#) (2022)

<https://arxiv.org/abs/2012.00487>

Conference and Colloquium Talks

Dec 2021

Recent Developments in Complex Geometry and Geometric Analysis

Canadian Mathematical Society Winter Meeting

<https://www2.cms.math.ca/Events/winter21/abs/rdc#cml>

Invited Seminar Talks

May 2023

Differential Geometry Seminar

Ohio State University

<https://math.osu.edu/events/convexity-general-inverse-sigmak-equations-and-some-applications>

April 2023

UCR Geometry-Topology seminar

University of California, Riverside

<https://sites.google.com/view/brian-collier/ucr-geometry-topology-seminar>

Feb 2023

Algebraic Geometry in String Theory Seminar

Center Of Mathematical Sciences And Applications at Harvard University

<https://cmsa.fas.harvard.edu/event/agst-22423/>

Feb 2023

Informal Complex Geometry and PDE Seminar
Columbia University
<http://math.columbia.edu/~kjs/seminar>

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Jan 2023

Joint Geometric Analysis Seminar

Chinese University of Hong Kong

<https://www.math.cuhk.edu.hk/seminars/convexity-general-inverse-k-equations-and-some-applications>

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Apr 2022

The Mathematics Colloquium at Rutgers-Newark

Rutgers University

<https://sites.rutgers.edu/chen-wan/colloquium/>

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Mar 2022

Geometric Analysis Seminar

Beijing International Center for Mathematical Research

<https://bicmr.pku.edu.cn/content/show/43-2663.html>

<https://www.math.pku.edu.cn/teachers/jianchunchu/seminar.html>

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Feb 2022

Geometry and Topology Seminar

McMaster University

https://www.math.mcmaster.ca/news-events/events/g-1-4r0bt9198d8j7q501kob4lbt5v_202202032030.html

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Oct 2021

Differential Geometry Seminar

University of California, Irvine

<https://www.math.uci.edu/node/37181>

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Dec 2022, Nov 2022, Mar 2021, Dec 2018, Apr 2017

NCTS Differential Geometry Seminar

National Center for Theoretical Sciences

https://ncts.ntu.edu.tw/events_1_detail.php?nid=2389

https://ncts.ntu.edu.tw/events_1_detail.php?nid=2367

https://ncts.ntu.edu.tw/events_1_detail.php?nid=1917

https://www.math.sinica.edu.tw/www/seminar/abstract_view.jsp?seminar_id=2689

https://140.112.36.108/events_1_detail.php?nid=889

_____ II _____	Apr 2021, Dec 2020 NCTS Postdoc Seminar on Differential Geometry National Center for Theoretical Sciences
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Teaching Experience

Lecturer

_____ I _____	Summer II 2022 Math 3A Introduction to Linear Algebra
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Teaching Assistant

_____ I _____	Spring 2023 Math 2A Calculus
_____ II _____	Winter 2019, Summer II 2018 Math 2B Calculus
_____ I I _____	Summer I 2021, Fall 2019 Math 3A Introduction to Linear Algebra
_____ IIII _____	Winter 2020, Summer I 2020, Summer I 2019, Spring 2019, and Fall 2018 Math 3D Elementary Differential Equations
_____ II _____	Spring 2022, Fall 2021 Math 5A Calculus for Life Sciences
_____ I _____	Fall 2020 Math 5B BioCalculus
_____ I I _____	Fall 2020, Fall 2019 Math 118 Theory of Differential Equations
_____ II I _____	Winter 2022, Spring 2021, Winter 2021 Math 134B Financial Derivatives
_____ I I _____	Spring 2023, Spring 2021 Math 134C Financial Models
_____ I I _____	Summer I 2022, Summer I 2020 Math 175 Combinatorics
_____ I _____	Spring 2020 Math 205C Introduction to Graduate Analysis

Honors and Awards

_____	Spring 2021 Von Neumann Outstanding Performance as a Graduate Student Award
_____	Spring 2016 Phi Tau Phi Scholastic Honor
_____	Fall 2015 Excellent TA Award Tsai Wang-Lin Scholarship Hu Dun-Fu Scholarship
_____	Fall 2011 High GPA Award Li Bung-Fung Scholarship

Misc Experience

_____	June 2018–April 2023 Treasurer of Taiwanese Graduate Student Association University of California, Irvine
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Last updated: June 03, 2023.