

Chao-Ming LIN

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Interests

Differential Geometry / Complex Geometry / Geometric Analysis.

Education

- Sep 2017–June 2023
Ph.D. 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

- Aug 2023–Aug 2025
Zassenhaus Assistant Professor
[Ohio State University](#)
Mentor: [Bo Guan](#)
- 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

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- _____ | 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 Talks

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- _____ | Jul 2023
Recent Progress in special Lagrangian Equations and deformed Hermitian–Yang–Mills Equation
National Center for Theoretical Sciences
https://ncts.ntu.edu.tw/events_2_detail.php?nid=404&fbclid=IwAR3G7E03LkoHbTDJ0vANOzckpibCvn8ZU0s237Gkmwypyv8jEbwoTLPkvwM
-
- _____ | 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

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- _____ | May 2023
Differential Geometry Seminar
Ohio State University
<https://math.osu.edu/events/convexity-general-inverse-sigmak-equations-and-some-applications>
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- _____ | 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>

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>

Apr 2022

The Mathematics Colloquium at Rutgers-Newark
Rutgers University
<https://sites.rutgers.edu/chen-wan/colloquium/>

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>

Feb 2022

Geometry and Topology Seminar
McMaster University
https://www.math.mcmaster.ca/news-events/events/g-1-4r0bt9198d8j7q501kob4lbt5v_202202032030.html

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

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Apr 2021, Dec 2020

NCTS Postdoc Seminar on Differential Geometry

National Center for Theoretical Sciences

Teaching Experience

Lecturer

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Summer II 2022

Math 3A Introduction to Linear Algebra

Teaching Assistant

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Spring 2023

Math 2A Calculus

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Winter 2019, Summer II 2018

Math 2B Calculus

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Summer I 2021, Fall 2019

Math 3A Introduction to Linear Algebra

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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

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Fall 2020, Fall 2019

_____	Math 118 Theory of Differential Equations
_____	Winter 2022, Spring 2021, Winter 2021
_____	Math 134B Financial Derivatives
_____	Spring 2023, Spring 2021
_____	Math 134C Financial Models
_____	Summer I 2022, Summer I 2020
_____	Math 175 Combinatorics
_____	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

Last updated: June 25, 2023.