

Chao-Ming LIN

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Interests

Differential Geometry / Complex Geometry / Geometric Analysis / Real Algebraic Geometry.

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–Present
Zassenhaus Assistant Professor
[Ohio State University](#)
Mentor: [Bo Guan](#)
- _____ Aug 02 2023–Aug 07 2023
Visitor in Mathematics
[Chinese University of Hong Kong](#)
Mentor: [Man Chun Lee](#)
- _____ July 2023–Aug 2023
Visitor in Mathematics
[National Taiwan University](#)
Mentor: [Chung-Jun Tsai](#)

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 Talks

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

- 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>

- 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>

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

Apr 2021, Dec 2020

NCTS Postdoc Seminar on Differential Geometry

National Center for Theoretical Sciences

Teaching Experience

Lecturer

Summer II 2022

Math 3A Introduction to Linear Algebra

Teaching Assistant

Spring 2023

Math 2A Calculus

Winter 2019, Summer II 2018

Math 2B Calculus

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
_____ II	Fall 2020, Fall 2019 Math 118 Theory of Differential Equations
_____ III	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

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

Misc Experience

_____	June 2018–April 2023 Treasurer of Taiwanese Graduate Student Association
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University of California, Irvine

Last updated: August 19, 2023.