

# Chao-Ming LIN

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## Interests

Differential Geometry / Complex Geometry / Geometric Analysis.

## Education

- Sep 2017–May 2023 (expected)  
Ph.D. Candidate in Mathematics  
University of California-Irvine  
Advisors: [Zhiqin Lu](#) and [Xiangwen Zhang](#)
- Sep 2014–July 2016  
M.S. in Mathematics  
National Taiwan University  
Advisor: [Chung-Jun Tsai](#)
- Sep 2010–May 2014  
B.S. in Mathematics  
National Taiwan University

## Work Experience

- Dec 2020–April 2021, Aug 2016–June 2017  
R.A. in Mathematics  
[National Center for Theoretical Sciences](#)  
Advisor: [Chung-Jun Tsai](#)

## Papers

- Sep 2022  
*On the Convexity of general inverse  $\sigma_k$  equations*  
<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

\_\_\_\_\_ | 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

\_\_\_\_\_ | 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](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>

\_\_\_\_\_ | | | 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=1917](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://www.math.sinica.edu.tw/www/seminar/abstract_view.jsp?seminar_id=2689)  
[https://140.112.36.108/events\\_1\\_detail.php?nid=889](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

## Teaching Experience

\_\_\_\_\_ 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

\_\_\_\_\_ I \_\_\_\_\_ 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 \_\_\_\_\_ Spring 2021  
 Math 134C Financial Models

\_\_\_\_\_ I \_\_\_\_\_ 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

Fall 2011

High GPA Award

Li Bung-Fung Scholarship

## Misc Experience

June 2018–present

Treasurer of Taiwanese Graduate Student Association

University of California-Irvine

Last updated: September 25, 2022.