

You-Cheng Chou

Curriculum Vitae

PERSONAL DETAILS

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EDUCATION

Ph.D. in Mathematics 2017-2022
University of Utah

Bachelor of Science in Mathematics 2010-2014
National Taiwan University

WORK EXPERIENCE

Postdoc July. 2022-Now
Academia Sinica

Research Assistant Mar. 2016-June. 2017
Taida Institute for Mathematical Science (TIMS)

Military Service Dec. 2014-Nov. 2015
One year mandatory service

Research Assistant July. 2014-Nov. 2014
Taida Institute for Mathematical Science

TEACHING EXPERIENCE

Math 1090 Business Algebra (Instructor) 2022 Spring

Math 1090 Business Algebra (Instructor) 2021 Fall

Math 1060 Trigonometry (Instructor) 2020 Fall

Math 1060 Trigonometry (Instructor) 2020 Spring

Math 1090 Business Algebra (Instructor) 2019 Fall

Math 1060 Trigonometry (Instructor)	2018 Fall
Math 2250 Diff Equation and Linear Algebra (TA)	2018 Spring
Math 1210 Calculus I (TA)	2017 Fall

AWARDS

Gold Medal of NWMA (New World Mathematics Award) for Bachelor thesis	2014
Dean's award in National Taiwan University	2014
Honorable Mention of Shing-Tung Yau College Student Mathematics Contest (Team)	2013

INVITED TALK

Special seminar, IPMU Topic: K-theoretic multiple cover formula on Calabi-Yau threefold	Oct 2024
Seoul-Taipei enumerative geometry meeting Topic: K-theoretic multiple cover formula	Oct 2024
Algebraic Geometry in East Asia, KIAS Topic: $QK = GV$ invariants on Calabi-Yau threefolds at genus zero	Nov 2023
Concerto in quantum K theory, IASM Topic: $QK = GV$ invariants on Calabi-Yau threefolds at genus zero	July 2023
Calabi-Yau with small parameters, TIMS Topic: BCOV conjectures on quintic 3-folds	June 2023
FRAGMENT seminar, Colorado State University Topic: Virasoro constraints for moduli of weighted pointed stable curves	2019

PUBLICATIONS

- [1] *Characterization and enumeration on Lamé equation with finite monodromy*, with Chin-Lung Wang and Po-Sheng Wu
Transactions of AMS (2024)
- [2] *Integrality of genus zero Gopakumar-Vafa type invariants of semi-positive varieties*
GLSM@30 proceedings (2024)

- [3] *Higher Genus Quantum K-theory*, with Leo Herr and Y.-P. Lee
Pacific Journal of Mathematics (2024)
- [4] *Gopakumar-Vafa Invariants = Quantum K-invariants on Calabi-Yau threefolds*,
with Y.-P. Lee
Bumsig Kim Memorial Volume (2024)
- [5] *The Log Product Formula in quantum K-theory*, with Leo Herr and Y.-P. Lee
Mathematical Proceedings of the Cambridge Philosophical Society (2023)
- [6] *Virasoro constraints for moduli of weighted pointed stable curves*, with Y.-P. Lee
Journal of the London Mathematical Society (2022)

PREPRINTS

1. *Quantum K-theory and Gopakumar-Vafa Invariants II: Calabi-Yau Threefolds at genus zero*, with Y.-P. Lee
submitted to Geometry & Topology (under final corrections), arXiv:2305.08480
2. *Quantum K-theory and Gopakumar-Vafa Invariants I: The Quintic Threefold*,
with Y.-P. Lee
submitted, arXiv:2211.00788
3. *Generalized Lamé equation with finite monodromy*
Bachelor Thesis, arXiv:1611.06643

PARTICIPATION

Conferences on Gromov-Witten theory and related topics, BICMR-IBSCGP

26-30 August, 2024

Recent developments in Mirror Symmetry on Calabi-Yau varieties, RIMS

05-09 August, 2024

Geometry crossing singularities, TIMS

10-20 July, 2024

Enumerative Geometry in East Asia, Academia Sinica

25-29 December, 2023

Department Seminars in Algebraic Geometry, University of Utah

Fall 2018-Spring 2022

Western Algebraic Geometry Symposium:

- Colorado State University April 22-24, 2022
- University of Utah November 2-3, 2019
- University of California at Berkeley April 13-14, 2019

International Congress of Chinese Mathematicians (ICCM), Beijing

August 6-11, 2016

Flat connections, Higgs bundles and Painleve equations in National Taiwan University

May 1-5, 2016

International Congress of Chinese Mathematicians (ICCM), Beijing

July 14-19, 2013