

# SHUANG-YEN (SEAN) LEE

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## EDUCATION

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**National Taiwan University**

*Bachelor of Science in Mathematics*

Sep 2017 - Aug 2021

- Bachelor's Thesis: *Characterizing algebraic curves using  $p$ -adic norms*

**National Taiwan University**

*Ph.D. in Mathematics*

Sep 2021 - present

## RESEARCH INTERESTS

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**Birational geometry over local fields**

**Gromov–Witten invariants and variation of Hodge structures**

**Transitions between Calabi–Yau threefolds**

## WORKS

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**Preprints**

- Global Igusa zeta function and  $K$ -equivalence, arXiv:2210.06767v2

**Recent work**

- Gromov–Witten invariants under primitive extremal transitions, work in progress.

## GRANTS AND FELLOWSHIPS

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**Royal Palm Elite Doctoral Scholarship**

Sep 2021 - present

## AWARDS

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**International Math Olympiad Silver Medal (2017)**

**Dean's List Award (6 times)**

**Dean's Award of College of Science (2021)**

**K.-S. Shih's Scholarship for Bachelor's Thesis (2021)**

## TALKS AND PRESENTATIONS

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**TIMS Winter School on Riemann Surfaces**

*Torelli Theorem on Riemann surfaces*

Jan 2021

**East Asia Core Doctoral Forum in Mathematics**

*Global Igusa zeta function and  $K$ -equivalence*

Jan 2023

**TIMS Seminar in Algebraic Geometry**

*GKZ systems and the secondary fan moduli*

Jun 2023

## CONFERENCE AND WORKSHOP PARTICIPATION

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**East Asia Core Doctoral Forum in Mathematics**

*National Center for Theoretical Sciences*

Jan 2023

**Enumerative Geometry in East Asia**

*Academia Sinica, Institute of Mathematics, Taiwan*

Dec 2023

**Focus Program on Toric Topology, Geometry and Polyhedral Products**

*The Fields Institute for Research in Mathematical Sciences*

Aug 2024

## TEACHING EXPERIENCE

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**Teaching Assistant**

· Introduction to Mathematical Analysis,	Sep 2018 - Jun 2019
· Algebra (Honor Program),	Sep 2019 - Jun 2020
· International Math Olympiad 2020 Taiwan team Observer A,	May 2020 - Sep 2020
· Calculus,	Sep 2020 - Jun 2021
· Complex Analysis,	Sep 2021 - Jun 2022
· Lie Groups and Lie Algebras,	Sep 2022 - Jan 2023
· Intersection Theory,	Mar 2023 - Jun 2023
· Linear Algebra,	Sep 2023 - Jun 2024
· Introduction to Abstract Algebra,	Sep 2024 - Present

## LANGUAGES & COMPUTER SKILLS

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Chinese (native), English (conversational), Python