Si Ying Lee

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RESEARCH INTERESTS

My research interests lie in the fields of number theory and algebraic geometry, with a particular focus on the geometry and cohomology of Shimura varieties, and applications to the Langlands program.

EMPLOYMENT Stanford University

2023 - present

Szego Assistant Professor

Max Planck Institut für Mathematik

2022 - 2023

Postdoctoral Fellow

EDUCATION Harvard University

2017 - 2022

Ph.D. in Mathematics

• Thesis: Eichler-Shimura relations

• Advisor: Mark Kisin

National University of Singapore

2013 - 2017

Bachelor of Science (Honours) in Mathematics

• Honours with Highest Distinction

PREPRINTS & PUBLICATIONS

Si Ying, Lee & Keerthi Madapusi *p-isogenies with G-structure*, in preparation

Si Ying, Lee. Unramifiedness of weight 1 Galois representations associated to Hilbert modular varieties

Thomas L. Browning, Pavel Čoupek, Ellen Eischen, Claire Frechette, Serin Hong, Si Ying Lee & David Marcil. Constructing vector-valued automorphic forms on unitary groups,

https://arxiv.org/abs/2408.05198

Linus, Hamann & Si Ying, Lee. Torsion vanishing for some Shimura varieties, https://arxiv.org/abs/2309.08705

Si Ying, Lee. Semisimplicity of étale cohomology of certain Shimura varieties, http://arxiv.org/abs/2206.07283

Si Ying, Lee. Eichler-Shimura relations for Shimura varieties of Hodge type, http://arxiv.org/abs/2006.11745

Heng Huat, Chan & Si Ying, Lee. Congruences associated with the modular j-invariant, INTEGERS (2017)

AWARDS AND SCHOLARSHIPS	2019 2017 2017 2017 2016 2015 2013–2017	Raphael and Daniel Salem Fellowship Medal of Excellence in Mathematics Lijen Industrial Development Medal Special Programme in Mathematics Prize Tan Teck Chwee Prize Lim Soo Peng Prize Kent Ridge Undergraduate Merit Scholarship
Invited Talks	March 2024 March 2024 Feb 2024 Nov 2023 Aug 2023 Mar 2023 Mar 2023 Feb 2023 Jan 2023 Oct 2022 Cot 2022 Feb 2022 Jan 2022 Jan 2022 Jan 2022 Dec 2021 Oct 2021 Nov 2020 Nov 2020 Sep 2020	Johns Hopkins Number Theory Seminar Simons Annual Meeting Perfection Berkeley Number Theory Seminar Stanford Number Theory Seminar Hausdorff Trimester Global Langlands Universite Lille MSRI Shimura Varieties and L-functions Oberwolfach Arithmetic of Shimura Varieties Workshop MSRI Connections Workshop MPIM Arbeitsgemeinschaft Arithmetische Geometrie (2 talks) London Number Theory Seminar Boston College Number Theory Seminar Stanford Number Theory Seminar National University of Singapore Number Theory and Representation Theory Seminar Johns Hopkins Junior Number Theory Days 2021 Berkeley Number Theory Seminar Harvard Number Theory Seminar University of Wisconsin - Madison Number Theory Seminar University of Maryland - College Park Number Theory Seminar
TEACHING	Stanford:	
TEACHING EXPERIENCE	Spring 2024 Fall 2023 Harvard:	, , , , , , , , , , , , , , , , , , , ,
	Fall 2021	Teaching Fellow, Math 22a (Vector Calculus and Linear Algebra I)
	Fall 2020	0 /
	Fall 2019	O Teaching Fellow, Math 23a (Linear Algebra and Real Analysis I) Awarded the Certificate for Distinction in Teaching
	Fall 2018	· ·
Seminars Organized	Learning seminar on Uniform Mordell Fall 2021	
SERVICE	Teaching Assistant, Women+ and Mathematics 2024	
CITIZENSHIP	Singapore	
Languages	English (Native) Chinese	