

SHENGXUAN LIU

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Email: Shengxuan.Liu.1@warwick.ac.uk **Citizenship:** Chinese

WORKING EXPERIENCE

Hausdorff Institute for Mathematics
Researcher in Junior Trimester Program

Sep. 2023 - Current

EDUCATION

University of Warwick
PhD in Mathematics

Sep. 2019 - Aug. 2023

Supervisor: Dr. Weiyi Zhang and Dr. Chunyi Li

Thesis: Stability condition on Calabi-Yau threefold of complete intersection of quadratic and quartic hypersurfaces

Université Paris-Saclay
Research Visit

Sep. 2022 - Dec. 2022

Host: Prof. Emanuele Macrì

ETH Zürich
MSc in Mathematics

Sep. 2017 - Sep. 2019

Thesis supervisor: Prof. Rahul Pandharipande

Thesis: Gromov-Witten Theory, Quantum Cohomology, and Cohomological Field Theory

University of Hong Kong

Sep. 2013 - Jun. 2017

BSc in Mathematics & Chemistry with First Class Honours

King's College London
Exchange Student

Jan. 2017 - Jun. 2017

RESEARCH INTEREST

Algebraic geometry and complex geometry, in particular, derived category method with application in birational geometry and hyperkähler varieties

PUBLICATION AND PREPRINT

Stability condition on Calabi-Yau threefold of complete intersection of quadratic and quartic hypersurfaces, (S. Liu), Forum of Mathematics, Sigma, 10, E106. doi:10.1017/fms.2022.96

Kernels of Categorical Resolutions of Nodal Singularities, (W. Cattani, F. Giovenzana, S. Liu, P. Magni, L. Martinelli, L. Pertusi, J. Song), Rendiconti del Circolo Matematico di Palermo (Special issue in Fano varieties), Ser 72, 30773105 (2023)

Notes on spherical bundles on K3 surfaces, (C. Li, S. Liu), in preparation

Existence of Mukai bundles on prime Fano threefolds, (S. Liu), in preparation

TALK

Kernels of Categorical Resolutions of Nodal Singularities

Categorical methods in moduli theory, University of Pennsylvania

8.Apr.2023

University of Luxembourg

9.Nov.2022

Stronger Bogomolov-Gieseker inequality and Bridgeland stability conditions

LMS meeting and 3M in Midlands, University of Birmingham

4.Apr.2022

Stability condition on Calabi-Yau threefold of complete intersection of quadratic and quartic hypersurfaces

Moduli Across the Pandemic, Online

20.Nov.2021

Hodge Seminar (Pretalk and talk), University of Edinburgh	13.Oct.2021
3CinG annual congress, University of Warwick	21.Sep.2021
D-equivalence and K-equivalence and Perverse Coherent Sheaves (Second Half)	
Perverse Sheaves Reading Seminar, Online	7.July.2021
Introduction to the Grothendieck-Teichmuller Group	
Algebraic Geometry and Moduli Space Seminar, ETH Zürich	19.Dec.2018

TEACHING EXPERIENCE

Commutative Algebra (Teaching Assistant)	
University of Warwick	2020 Spring, 2021 Autumn
Riemann Surfaces (Teaching Assistant)	
University of Warwick	2020 Spring
Supervisor	
University of Warwick	2021 Spring
Mathematical Methods of Physics II (Teaching Assistant)	
ETH Zürich	2019 Spring

CONFERENCE CO-ORGANIZED

Local organizer for the GAeL XXX (<https://sites.google.com/view/gaelxxx/home>) in the University of Warwick.

SERVICE

Referee for *Épjournal de Géométrie Algébrique*, *Mathematische Zeitschrift*. Reviewer for *zbMATH*.

HONOURS AND AWARDS

Birkigt Scholarship Fonds	2018 - 2019
Dean's Honors List	2013 - 2016
Mr Armin and Mrs Lillian Kitchell Scholarships	2013 - 2017
Philip K. H. Wong Scholarships for Student Enrichment	2016 - 2017
Rayson Huang Scholarship in Chemistry	2014 - 2016

LANGUAGES

Chinese	Native
English	Advanced
French	Intermediate
German	Basic
Italian	Basic