SHING TAK LAM

School of Mathematics and Statistics, University of Glasgow

stl45@cantab.ac.uk

EDUCATION

University of Warwick *2025–28*
Doctor of Philosphy
PhD in Complex Differential Geometry supervised by Ruadhaí Dervan.

University of Glasgow *2024–25*
Doctor of Philosophy (Incomplete)
PhD in Complex Differential Geometry supervised by Ruadhaí Dervan. Aligned student on the Algebra, Geometry and Quantum Fields CDT. Transferring to the University of Warwick.

University of Cambridge *2023–24*
Master of Mathematics *Distinction - 90%, ranked 17 out of 294*
Courses in Algebra, Algebraic Geometry, Differential Geometry and Partial Differential Equations.

Part III essay titled "Quantum cohomology and the Seidel representation" supervised by Jack Smith.

University of Cambridge *2020–23*
Bachelor of Arts *First class honours*

EXPERIENCE

Summer research internship, University of Cambridge Summer 2023
Summer project supervised by Alexei Kovalev, studying hyperkähler metrics on coadjoint orbits.

Summer research internship, University of Cambridge Summer 2022
Summer project supervised by Anders Hansen, studying non-computability of optimisation problems.

CONFERENCE TALKS

Fibrations and Deformations, Brest *Jun 2025*
Title to be confirmed

SEMINAR TALKS

Warwick Junior Algebraic Geometry Seminar, *May 2025*
Canonical Metrics on Families of Vector Bundles

OTHER TALKS

Glasgow Geometry and Topology Pre-Seminar *Mar 2025*
Gauge theory and Floer theory

Reading group on *Positivity in Algebraic Geometry* *Feb 2025*
Big line bundles, Volume and Zariski decomposition

AGQ CDT Reading group on Algebraic Stacks *Feb 2025*
Deformation theory and smoothness

AGQ CDT Reading group on Geometric Invariant Theory *Dec 2024*
Kempf-Ness

AGQ CDT Examples showcase *Nov 2024*
Blowing up and rational elliptic surfaces

Part III Seminar *Mar 2024*
Symplectic Reduction

Part III Seminar *Dec 2023*

Morse theory
Cambridge Summer Research Festival   *Oct 2023*
Hyperkähler structures on nilpotent $\mathrm{SL}(n, \mathbb{C})$ *orbits.*
Cambridge Summer Research Festival   *Oct 2022*
On generalised hardness of approximation in optimisation and data science

ORGANISATION

Reading group on Geometric Invariant Theory   *Autumn 2024*

AWARDS AND SCHOLARSHIPS

Clemmow/B Talbot Prize, K Roth Prize   *2023*
Awarded for highest first in Part II Mathematics at Peterhouse
Senior Burkhill Prize for Mathematics, Routh prize for Mathematics   *2022*
Awarded for highest first in Part IB Mathematics at Peterhouse
Summer Reseach Bursary   *Summer 2022, 2023*
Funding from the Faculty of Mathematics for summer research projects.
Scholarship in Mathematics   *2021-24*
Scholar of Peterhouse, University of Cambridge
College prize   *2021, 2022, 2023, 2024*
College prize for academic achievement

CONFERENCES ATTENDED

Summer Research Institute in Algebraic Geometry, Colorado   *Jul 2025*
Fibrations and Deformations, Brest   *Jun 2025*
Winter School on K-stability, CIRM Marseille   *Mar 2025*
UKAG Network Winter School, Lancaster   *Dec 2024*
GLEN, Glasgow   *Dec 2024*

SKILLS

Programming Languages
Programming: Haskell, Python, Julia, Mathematica, Rust
Formalisation: Lean

Languages
Native: English, Chinese, Cantonese
Basic: French, Spanish

Last updated: May 4, 2025