

SHING TAK LAM

Mathematics Institute, University of Warwick
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EDUCATION

University of Warwick 2025–28
Doctor of Philosophy (in progress)
PhD in Complex Differential Geometry supervised by Ruadhaí Dervan.

University of Glasgow 2024–25
First year of PhD in Complex Differential Geometry supervised by Ruadhaí Dervan. Aligned student on the Algebra, Geometry and Quantum Fields CDT. Transferred 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
Canonical Metrics on Families of Vector Bundles

SEMINAR TALKS

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

OTHER TALKS

Reading group on *K-stability of Fano Varieties* Jun 2025
 α - and δ -invariants

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

ORGANISATION

Reading group on Geometric Invariant Theory	<i>Autumn 2024</i>
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AWARDS AND SCHOLARSHIPS

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

CONFERENCES ATTENDED

VII BrAG Meeting, Nottingham	<i>Sep 2025</i>
Singular canonical Kähler metrics on compact and non-compact manifolds, Budapest	<i>Sep 2025</i>
Summer Research Institute in Algebraic Geometry, Colorado	<i>Jul 2025</i>
Fibrations and Deformations, Brest	<i>Jun 2025</i>
Winter School on K-stability, CIRM, Luminy	<i>Mar 2025</i>
UKAG Network Winter School, Lancaster	<i>Dec 2024</i>
GLEN, Glasgow	<i>Dec 2024</i>

SKILLS

Programming Languages
Haskell, Python, Julia, Mathematica, Rust
Languages
Native: English, Chinese, Cantonese
Basic: French, Spanish

Last updated: August 12, 2025