

EDUCATION

- **Imperial College London** London, UK
*Master of Science (MSc) in Pure Mathematics with **Distinction** (79.6/100 (A)).* Oct. 2021 – Oct. 2022
 - **MSc Thesis:** Toric Varieties. Supervisor: Dr Jonathan Lai. Mark: 71.8/100 (A).
 - **Courses:** *Algebraic Curves (A), Manifolds (A+), Commutative Algebra (A+), Group Representation Theory (A+), Algebraic Geometry (A+), Complex Manifolds (A), Differential Topology (A+) and Riemannian Geometry (A+).*
- **The Chinese University of Hong Kong, Shenzhen** Shenzhen, China
*Bachelor of Science in Mathematics and Applied Mathematics with Honours, **First Class**.* Aug. 2017 – July. 2021
 - **Grade:** GPA 3.5/4, major GPA 3.8/4 (rank 1st).
 - **Selected Courses:** *Differential Geometry, Introduction to Geometry and Topology, Advanced Linear Algebra, Abstract Algebra, Complex Variables, Real Analysis, Partial Differential Equations, Probability Theory, Functional Analysis.*
 - **Awards:** AY2019-20/2020-21 Dean's List Award of School of Science and Engineering.
- **University of California, Berkeley** Berkeley, CA, US
Summer Session Visiting Student Jun. 2018 – Aug. 2018
 - **Courses:** *Abstract Algebra and Research & Data Analysis*

ACADEMIC ACTIVITIES

- **MSc Project**
Toric Varieties Nov. 2021 – Sep. 2022
 - Studied the theory of normal toric varieties and wrote a thesis under the supervision of Dr Lai.
 - **Topics:** *toric monoids, affine and projective toric varieties; lattices, cones, fans, and polytopes; classical constructions of toric varieties: product, blow-ups, curves and divisors, resolution of singularities and torus fibration; and toric surfaces.*
- **Study Group**
Birational Geometry Oct. 2022 – Apr. 2023
 - Attending a weekly reading group supervised by Professor Paolo Cascini at Imperial College London.
 - **Topics:** *Discrepancies of log pairs and positive characteristic geometry.**Algebraic Topology* Aug. 2021 – Sept. 2021
 - Co-organized a weekly reading group with two graduates at CUHK(SZ).
 - **Topics:** *Singular homology (Jan. 2021), Bott periodicity of spheres and higher homotopy groups.**Representation Theory* May. 2020 – Jan. 2021
 - Co-organized a weekly reading group supervised by Professor Daniel Wong at CUHK(SZ).
 - **Topics:** *Lie algebras and matrix Lie groups, and classification of semisimple Lie algebras.*
- **Summer Programme at Girton College, Cambridge**
Engineering Summer Programme July 2019 – Aug. 2019
 - **Courses:** *Renewable Energy, The Jet Engine, Nanotechnology, and Quantum Technologies.*

OTHER PERSONAL INTERESTS RELATED TO MATHEMATICS

- **Physics and Mathematical Physics**
Applying my Math knowledge to Theoretical Physics
 - I learnt Quantum Mechanics and Hamiltonian Mechanics in the Summer of 2021. My knowledge in representation theory and elementary symplectic geometry was useful.
 - I learnt causal properties of General Relativity in the Spring of 2023. My knowledge in Riemannian geometry was useful.