Terry Dekun Song

Department of Pure Mathematics and Mathematical Statistics Wilberforce Road Cambridge, UK ds2016@cam.ac.uk www.dpmms.cam.ac.uk/~ds2016/

Research Interests

Topology of moduli spaces in algebraic geometry, weight filtration, Grothendieck ring of varieties, logarithmic and tropical geometry

Education

2022-present PhD in Mathematics, Trinity College, University of Cambridge, UK

Advisor: Prof Dhruv Ranganathan

2018-2022 MMath in Mathematics, St Peter's College, University of Oxford, UK

Advisor: Prof Balázs Szendrői

Part C Dissertation: Borel equivariant Morava E-theory, supervised by Dr Lukas Brantner

Preprints

The S_n -equivariant Euler characteristics of genus one stable maps with Siddarth Kannan. [arXiv]

The dual complex of $\mathcal{M}_{1,n}(\mathbb{P}^r,d)$ via the geometry of the Vakil–Zinger moduli space with Siddarth Kannan. [arXiv]

Teaching

2024-25 Examples classes for Part III Intersection Theory

Supervisions for Part IB Groups, Rings, and Modules, and Part II Riemann Surfaces

Total teaching time: 40 hr

2023-24 Supervisions for Part II Algebraic Topology, Algebraic Geometry, and Riemann Surfaces

Support sessions for Part IA Groups and Part III Algebraic Topology

Total teaching time: 60 hr

2022-23 Supervisions for Part II Algebraic Topology and Algebraic Geometry

Total teaching time: 30 hr

Talks

Apr 2025 ETH Zürich

Jan 2025 Calf meeting, Cambridge

Nov 2024 Queen Mary, University of London

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Nov 2024	Mini-talk at AGNES, Dartmouth
Sep 2024	Mini-talk at Tübingen summer school on tropical linear spaces
Apr 2024	Fanosearch group meeting at Imperial
Prizes and Scholarships	

2024 Smith-Knight & Rayleigh-Knight Prize Essay Award

- 2022 Cambridge Trust International Scholarship Full funding for PhD at Cambridge.
- 2022 Gibbs Prize, Mathematical Institute, Oxford Second place at Part C Mathematics examinations.
- Junior Mathematical Prize, Mathematical Institute, Oxford *Third place at Part B Mathematics examinations.*