Jonathon Teo Yi Han - Curriculum Vitae

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Personal Profile

While working as a research assistant, I was fascinated with how much theoretical Physics and Mathematics benefited from each other. This led me to be interested in Edward Frenkel's work, and subsequently the paper by Kapustin and Witten. They proposed that the four-dimensional electromagnetic duality can help us understand the geometric Langlands correspondence. In particular, the categorical equivalence that Mathematicians are looking for could be found in the duality between the "A-models" and "B-models" in the moduli space of Higgs bundles. My research interest is in understanding these objects and how they can give us answers to the geometric Langlands correspondence.

Education

2015-Present	Ph.D., Mathematics, University of Singapore
2009–2013	B.Sc., Mathematics, University of Singapore
	Second class honours in Mathematics

Employment History

2013–2015	Research Assistant, SIMTech, A*STAR

Teaching Assistant

2016	MA1101R, Linear Algebra I	University of Singapore
2017	MA1101R, Linear Algebra I	University of Singapore
2018	MA1101R, Linear Algebra I	University of Singapore

Selected Honours and Awards

2017 Department of Mathematics Graduate tutor Awards

Awarded to top 20% of graduate tutors from the department of Mathematics

2018 Facility of Science Teaching Assistant (Part time) Awards AY2016/2017

Awarded to top 10% of all teaching assistants in the faculty of Science

2018 Department of Mathematics Graduate tutor Awards

Awarded to top 20% of graduate tutors from the department of Mathematics

2019 Faculty of Science Teaching Assistant (Part time) Awards AY2017/2018

Awarded to top 10% of all teaching assistants in the faculty of Science

Publications

[1] Teo, J. Y. H., Wong, L. J., Molardi, C., & Genevet, P. (2016). **Controlling electromagnetic fields at boundaries of arbitrary geometries**. Physical Review A, 94(2), 023820.