

Thomas Jiang

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tsjiang02.github.io

Department of Mathematics,
Duke University,
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Durham, NC 27708-0320

Research Interests

Differential geometry, geometric analysis (geometric measure theory, Riemannian convergence theory), special holonomy metrics (G_2 , $\text{Spin}(7)$, Calabi-Yau, hyper-Kähler, etc.), gauge theory.

Education

Duke University

PhD, 2023--

Advisor: Mark Haskins

Stony Brook University

Honors B.S., Mathematics, GPA: 3.97/4.00, *summa cum laude*, 2020-2023

Thesis: "The Kummer Construction of Ricci-flat Kähler Metrics on $K3$ via Weighted Analysis", url:

tsjiang02.github.io/papers.html

Advisor: Simon Donaldson

Research Experience

Current work: constructing new complete non-compact torsion-free G_2 manifolds with full holonomy G_2 .

Past work: reproved a conjecture of physicists Page and Gibbons and Pope on the construction of Ricci-flat Kähler metrics on the $K3$ surface using modern weighted analysis/singular perturbation theory.

Awards & Honors

Michael and Jane Fasullo Scholarship in Math

Stony Brook University College of Arts and Sciences, 2021-2022

Kuga-Sah Memorial Award: Freshman (math department award for best freshman)

Stony Brook University Department of Mathematics 2020-2021

Kuga-Sah Memorial Award: Sophomore (math department award for best sophomore)

Stony Brook University Department of Mathematics 2021-2022

Stony Brook Foundation Award for Excellence in Mathematics

(math department award for best undergraduate)

Stony Brook University Department of Mathematics 2022-2023

Talks

Geometric Analysis Learning Seminar, November 9th 2022
"Connections with L^p -bounds on curvature"

Conferences Attended

SLMath summer school on geometric analysis, June 16-29th, 2024
SCSHGAP meeting, May 13-17th, 2024
Simons/IMPA workshop, March 11-15th, 2024
SCSHGAP meeting, September 7-13th, 2023
PCMI 2019 Graduate Summer School, June 30-July 20th, 2019

Languages and Skills

English (native), Mandarin (conversational)
 \LaTeX

Last updated: October 14, 2024