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Jason Kountouridis

Research Interests

Arithmetic geometry in mixed characteristic and number theory Singularities, K3 surfaces, connections to birational geometry

Education

2018–2024 PhD Candidate, Mathematics, University of Chicago, Advisor: Matthew Emerton

2017–2018 Master of Mathematics, University of Cambridge (Part III), UK

2013-2017 B.A. in Pure Mathematics, Princeton University, USA

Publications

- 1. On simple singularities and Weyl monodromy actions in mixed characteristic. arXiv:2312.09175. *Preprint*.
- 2. Smoothness of components of the Emerton-Gee stack for GL_2 . (with A. Guzman, K. Kansal, B. Savoie and X. Wang) arXiv:2209.09439. To appear in Transactions of the AMS.

Teaching Experience

- Fall 2023 University of Chicago, Instructor: Math 15250 Math Methods for Economic Analysis
- Winter 2023 University of Chicago, Instructor: Math 15300 Calculus III
 - Fall 2022 University of Chicago, Instructor: Math 15250 Math Methods for Economic Analysis
- Winter 2022 University of Chicago, Instructor: Math 15200 Calculus II
 - Fall 2021 University of Chicago, Instructor: Math 15100 Calculus I
 - 2020-2021 University of Chicago, Instructor: Math 13000s Elementary Functions and Calculus I-II-III
 - 2019-2020 **University of Chicago**, **College Fellow** (Teaching Assistant): Linear Algebra, Introduction to Proofs, Algebraic Number Theory

Conferences attended

- August 2023 University of Michigan: Stacks Project Workshop
 - May 2023 Northwestern University: Algebraic Geometry and Cohomology in Mixed Characteristic
 - Oct. 2022 **University of Illinois at Chicago**: Midwest Arithmetic Geometry and Number Theory Seminar
 - Sep. 2022 Scuola Normale Superiore, Pisa: Recent Perspectives in Hodge Theory

- June 2022 **University of Washington, Seattle**: Algebraic Geometry and Singularities Learning Workshop and Conference, *Online*
- March 2022 University of Arizona, Tucson: AWS 2022: Automorphic Forms Beyond GL_2 .
- March 2020 University of Arizona, Tucson: AWS 2020: Nonabelian Chabauty
 - Oct. 2019 Ohio State University: Midwest Arithmetic Geometry and Number Theory Seminar
- Aug. 2019 University of Michigan, Ann Arbor: Conference in Arithmetic and Algebraic Geometry

Awards & Scholarships

- 2017-2018 A.G. Leventis Foundation Fellowship
 - 2017 Middleton Miller Prize for Best Independent Work in Mathematics, Princeton University
 - 2016 Peter A. Greenberg Prize for Outstanding Accomplishments in Mathematics, Princeton University

Service

Seminars organized:

Arithmetic of K3 surfaces (Winter 2022),

Shimura Varieties (Summer 2021),

Deligne-Mumford Stacks (Winter 2021),

Graduate Number Theory Seminar (2020-2021)

Languages

English (fluent), German (intermediate), French (basic), Greek (native)