

Zengrui Han

Department of Mathematics
Rutgers, the State University of New Jersey
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EDUCATION

- Ph.D. Rutgers, the State University of New Jersey, 2020-2025(expected)
B.S. University of Science and Technology of China, 2016-2020

RESEARCH AREAS

Algebraic Geometry, especially mirror symmetry and related areas.

PUBLICATIONS AND PREPRINTS

- 2024 Central charges in local mirror symmetry via hypergeometric duality. arXiv:2404.16258
2023 Analytic continuation of better-behaved GKZ systems and Fourier-Mukai transforms, under revision. arXiv:2305.12241
2023 On hypergeometric duality conjecture, with Lev Borisov, **Advances in Mathematics**, Volume 442 (2024): 109582. arXiv:2301.01374
2019 On duality of certain GKZ hypergeometric systems, with Lev Borisov and Chengxi Wang, **Asian Journal of Mathematics**, Volume 25 (2021), No.1, 65-88. arXiv:1910.04039

TALKS

- 2024 “Central charges in local mirror symmetry”, Rutgers Algebra Seminar, Rutgers University, April 2024
2023 “Better-behaved GKZ systems and toric mirror symmetry”, 5 minutes talk, Algebraic Geometry Northeastern Series, University of Pennsylvania, Oct 2023
2023 “Duality of better-behaved GKZ systems”, Rutgers Algebra Seminar, Rutgers University, Feb 2023

TEACHING

Rutgers University

- Math III: Precalculus, TA, Spring 2024
Math 552: Abstract Algebra II, TA, Spring 2024
Math 551: Abstract Algebra I, TA, Fall 2023
Math 477: Mathematical Theory of Probability, TA, Fall 2023
Math 244: Differential Equations for Engineering and Physics, TA, Spring 2023
Math 354: Linear Optimization, TA, Fall 2022
Math 501: Theory of Functions of a Real Variable I, Grader, Fall 2022

Math 251: Multivariable Calculus, Grader, Summer 2022

Math 251: Multivariable Calculus, TA, Spring 2022

Math 251H: Multivariable Calculus, TA, Fall 2021

Math 503: Theory of Functions of a Complex Variable I, Grader, Fall 2021

University of Science and Technology of China

Foundation of Algebra, TA, Fall 2019

Modern Algebra, TA, Spring 2019

Foundation of Algebra, TA, Fall 2018

AWARDS AND HONORS

- 2019 Huang Yu Memorial Scholarship, University of Science and Technology of China, 2019
- 2018 Outstanding Student Scholarship, Silver Award, University of Science and Technology of China
- 2017 Outstanding Student Scholarship, Silver Award, University of Science and Technology of China
- 2015 Chinese Mathematical Olympiad (CMO), Bronze Medal, 2015

Updated April 2024