Jishen Du

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EDUCATION

Rutgers, The State University of New Jersey New Jersey, the United States
Ph.D., Mathematics | Advisor: Yi-Zhi Huang 09/2021 - Present

Beijing Normal University Beijing, China
B.S., Mathematics | Thesis Advisor: Wei Hu 09/2017 - 07/2021
one-year study in Physics 09/2016 - 07/2017

PUBLICATIONS

1. **J. Du**, Y-Z. Huang, Twisted intertwining operators and tensor products of (generalized) twisted modules, arXiv:2501.15003. (Under review)

2. Ph.D. thesis. Twisted intertwining operator, tensor product of twisted modules, and their associativity. (in progress)

TALKS

AMS Sectional Meeting, Special Session on Recent Advances in Vertex Operator Algebras 10/19/2024
Towards G-crossed braided tensor category: twisted intertwining University at Albany
operators, $P(z)$-compatibility, and associativity of intertwining operators

Vertex Algebra, Tensor Category and Related Topics 10/19/2024
Towards G-crossed braided tensor category: skew symmetry Shanghai Jiaotong University
isomorphism, $P(z)$-compatibility, and associativity of intertwining operators

Lie Group/Quantum Mathematics Seminar 04/26/2024
Twisted intertwining operators and tensor products of (generalized) twisted modules Rutgers University

Graduate Algebra and Representation Theory Seminar 10/13/2023
Integrable Highest Weight Modules, and Weyl-Kac Character Formula Rutgers University

Graduate Algebra and Representation Theory Seminar 03/21/2022
A brief intro to BGG category and BGG resolution Rutgers University

HONORS AND AWARDS

Jingshi Scholarship at Beijing Normal University (3 times)
Outstanding undergraduate thesis at Beijing Normal University

TEACHING EXPERIENCES

────── **Instructor** ──────────────

Math 252: Elementary Differential Equations Rutgers University, Summer 2023

Math 250: Introductory Linear Algebra Rutgers University, Summer 2025

────── **Teaching Assistant** ──────────

Math 251: Multivariable Calculus	Rutgers University, Fall 2025
Math 252: Elementary Differential Equations (TA at large)	Rutgers University, Spring 2025
Math 135: Calculus I for the Life and Social Sciences	Rutgers University, Fall 2024
Math 481: Mathematical Theory of Statistics (TA at large)	Rutgers University, Spring 2024
Math 151: Calculus I for the Mathematical and Physical Sciences	Rutgers University, Fall 2023
Math 152: Calculus II for the Mathematical and Physical Sciences	Rutgers University, Spring 2023
Math 251: Multivariable Calculus	Rutgers University, Fall 2022

────── **Mentor** ──────────────────-

Basic ∞-category theory Direct Reading Program, Rutgers University, Summer 2024