

# Jishen Du

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## EDUCATION

### Rutgers, The State University of New Jersey

Ph.D., Mathematics | Advisor: Yi-Zhi Huang

New Jersey, the United States

09/2021 - Present

### Beijing Normal University

B.S., Mathematics

Beijing, China

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 $\infty$ -category theory

Direct Reading Program, Rutgers University, Summer 2024