Yoyo Jiang

Baltimore, Maryland
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Education

BA/MA in Mathematics, Johns Hopkins University — Expected May 2025

Papers

- **Braidings on Non-Split Tambara-Yamagami Categories over the Reals** (joint with David Green, Sean Sanford). Preprint. https://arxiv.org/abs/2412.21012
- **Interface Resistance of Biomolecular Condensates** (joint with Yaojun Zhang, Andrew G.T. Pyo, Ross Kliegman, Clifford P. Brangwynne, Howard A. Stone, Ned S. Wingreen). eLife 12 (2024). https://doi.org/10.7554/eLife.91680.3

Talks

6. *Braidings on Tambara-Yamagami Categories over the Reals*. JHU Graduate Student Seminar, November 2024.
5. *A Geometric Introduction to Representation Theory (Expository)*. JHU Math Club, April 2024.
4. *Braidings on Non-Split Tambara-Yamagami Categories over the Reals*. Mid-Atlantic Research Exchange (JHU MATRX), March 2024.
3. *Braidings on Non-Split Tambara-Yamagami Categories over the Reals (Poster)*. Joint Mathematics Meeting, January 2024.
2. *Braidings on Non-Split Tambara-Yamagami Categories over the Reals*. Young Mathematicians Conference, August 2023.
1. *Introduction to Monoidal Categories (Expository)*. JHU Math Club, May 2023.

Conferences/Workshops Attended

Algebra and Number Theory Day, Johns Hopkins University.	Nov 2024
Atlantic Meeting on Topology, Representation theory, and K-theory (AMTRaK), Johns Hopkins University.	Nov 2024
Women+ and Mathematics, Institute for Advanced Study.	May 2024
Gender Minorities in Topology and Related Areas Konference (GeMTRAK), University of Pennsylvania.	Apr 2024

Awards

Best Presentation, JHU MATRX Conference	March 2024
Woodrow Wilson Research Fellowship, Johns Hopkins University	2021 – Present
Dean's List, Johns Hopkins University	2021 – Present

Independent Study

Reading course (thesis preparation) on ∞-category theory, supervised by Emily Riehl — Fall 2024

- Read selections from Cisinski's *Higher Categories and Homotopical Algebra* and Riehl and Verity's *Elements of ∞-Category Theory*

Reading course on higher algebra, supervised by Rok Gregoric — Fall 2024

- Read parts of chapter 1 of Lurie's *Higher Algebra*

Directed reading on algebraic curves, supervised by Anish Chedalavada — Fall 2024

- Read selections from Fulton's *Algebraic Curves* and Hartshorne's *Algebraic Geometry*

Reading course on representation theory, supervised by Yiannis Sakellaridis — Spring 2024

- Read Erdmann's *Introduction to Lie Algebras* and selections from Fulton and Harris' *Representation Theory*

Reading course on category theory, supervised by Emily Riehl — Spring 2024

- Read chapters 4-6 of Riehl's *Category Theory in Context* and selections from Dwyer and Spalinski's *Homotopy theories and model categories*

Directed reading on differential forms, supervised by Anish Chedalavada — Spring 2024

- Read chapter 1 of Bott and Tu's *Differential Forms in Algebraic Topology* and selections from Tu's *An Introduction to Manifolds*

Directed reading on sheaf theory, supervised by Anish Chedalavada — Fall 2023

- Read chapters 1 and 2 of Vakil's *Rising Sea* and selections from Wedhorn's *Manifolds, Sheaves, and Cohomology*

Reading course on category theory, supervised by Maru Sarazola — Spring 2023

- Read chapters 1-4 of Riehl's *Category Theory in Context*

Teaching Experience

Johns Hopkins University

- Course Assistant, Calculus 1 (fall 2022).
- Learning Assistant, Physics 1 (spring 2022, fall 2022).
- Learning Assistant, Physics 2 (spring 2023).

Organization

President of JHU Math Club (Ex Numera) — Jan 2023 – Dec 2024

Board member of JHU Society of Physics Students — Sep 2021 – May 2023

[1] Updated February 11, 2025