Oluwadamilola Olorode

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Education

2021–Present **Cornell University**
Ithaca, NY
PhD, Mathematics (expected May 2027)
Advisor: Jason Manning

2019–2021 **Rutgers University-New Brunswick**
New Brunswick, NJ
Bachelors of Science, Mathematics, Highest Honors, Summa Cum Laude

Research Interests

Geometric group theory, hyperbolic geometry, low dimensional topology, and machine learning.

Papers

1. An improved combination theorem for A/QI triples. Preprint available upon request.
2. The Ratcliffe-Tschantz manifold is isometric to Martelli's fibered 5-manifold. With I. Broudy, C. Kelln, and L. Xu. Preprint available upon request.

Research Mentoring

Summer 2023 **Cornell University**
Mathematics REU Mentor
Mentored students to produce original research at the intersection of graph theory and finite group theory, which led to a published paper:
B. Akbari, J. Chuharski, V. Sharan, and Z. Slonim, Characterization of solubilizers of elements in minimal simple groups, *Communications in Algebra* **53**(5) (2025), 1995–2017.

Teaching Experience

Cornell University

2022–2026 **MATH 2220, Multivariable Calculus**
Teaching Assistant
Fall 2022–Spring 2023, Spring 2024, Fall 2025, Fall 2026

Spring 2026 **MATH 4710, Basic Probability**
Teaching Assistant

Fall 2024 **MATH 1110, Calculus I**
Instructor

Summer 2024 **MATH 2930, Differential Equations for Engineers**
Teaching Assistant

Rutgers University

2020–2021 **Rutgers Student Learning Center**
Learning Assistant
Mentored students to help them understand the material and develop solutions independently; initiated group-learning activities.

Mathnasium of Plainsboro

2018–2020 **Mathnasium of Plainsboro**
Lead Math Instructor
Taught several students grade K-12 math, Calculus AB and BC, and SAT math in group and private settings and trained new instructors.

Talks

Invited Talks

2026 **New Tools for Finding Exotic Hyperbolic Groups**
CUNY Geometry and Topology Seminar, Manhattan, NY

2026 **An Improved Combination Theorem for A/QI Triples**
Spring Topology and Dynamics Conference, Birmingham, AL

2025 **An Improved Combination Theorem for A/QI Triples**
Brandeis Topology Seminar, Waltham, MA

Contributed Talks

2026 **An Improved Combination Theorem for A/QI Triples**
Topology Students Workshop, Nashville, TN

2025 **Two Useful Facts In Hyperbolic Geometry**
BUGCAT, Binghamton, New York

2025 **A Result of Gromov and A Surprising Application**
Living in Topology III, Pisa, Italy

2023 **On The Finite Presentation of the Mapping Class Group of a Closed, Orientable Surface**
BUGCAT, Binghamton, NY

Service

2025 **Cornell Topology Festival**
Ithaca, NY
Co-organizer

Honors and Awards

Cornell University

- Cornell Fellowship (2021)

Rutgers University-New Brunswick

- Lawrence Corwin Memorial Math Prize (2021)
- Jacqueline B. Lewis Memorial Award (2021)
- Alan Marc Schreiber Memorial Scholarship (2021)
- Maurice M. & Adrienne R. Weill Endowed Math Fund Scholarship (2021)
- Phi Beta Kappa, Tau Sigma, Phi Theta Kappa, and Matthew Leydt Honor Societies

Earlier Research and Independent Study

2020–2021 **Undergraduate Research Assistant**
Piscataway, NJ
Conducted study on "Topics In Geometric Topology".

2020–2021 **Independent Study**
Piscataway, NJ
"Representation And Character Theory Of Finite Groups" (Summer 2020); "Algebraic Topology" (Spring 2021).

Summer 2019 **SURIEM Research Internship**
East Lansing, MI
Research Intern. Conducted study on "Combinatorial Games on Graphs". Gave a team oral presentation to a scientific audience at SUMMR Regional Conference in University of Michigan-Dearborn and at SUMS Conference in James Madison University.

Conferences and Summer Schools Attended

- 2026: Fibrations in Group Theory and Topology, Oxford, United Kingdom
- 2026: Cornell Topology Festival, Ithaca, NY
- 2025: Cornell Topology Festival, Ithaca, NY
- 2025: Groups Logic and Dynamics Spring, New Brunswick, NJ
- 2025: Upstate New York Topology Seminar, Binghamton, NY
- 2024: Cornell Topology Festival, Ithaca, NY

- 2023: 1, 2, 3: Curves, Surfaces, and 3-Manifolds, Haifa, Israel
- 2023: Huge Groups, Montréal, Canada
- 2022: MSRI: Metric Geometry and Geometric Analysis, Oxford, United Kingdom
- 2022: BRIDGES, Salt Lake City, UT