

Jon Erickson

Education

- 2021–Now **Ph.D., Mathematics (In Progress)**, *University of California, Davis*, Davis, CA.
- 2018–2021 **M.S., Mathematics**, *University of North Texas*, Denton, TX.
- 2012–2016 **B.A., Mathematics and Computer Science**, *Rice University*, Houston, TX.

Work and Teaching Experience

- 2021–Now **Teaching Assistant**, *University of California, Davis*, Davis, CA.
Served as a teaching assistant for MAT 21A and 21B, calculus courses for STEM students, and for MAT 22A, a linear algebra course.
- 2020–2021 **Teaching Fellow**, *University of North Texas*, Denton, TX.
Served as instructor of record for UGMT 1200, a developmental mathematics course, and for Precalculus.
- 2020–2021 **Faculty Member**, *Mid-Cities Math Circle*, Arlington, TX.
Helped to run math circle meetings for advanced middle and high school students. Led problem-solving sessions on topics such as modular arithmetic and invariants.
- 2016–2020 **Mathematics Teacher**, *Cistercian Preparatory School*, Irving, TX.
Worked as a Mathematics Teacher at Cistercian Preparatory School, which has an advanced all-honors mathematics curriculum. Taught 8th Grade Algebra I, and 6th Grade Pre-Algebra. Served as Math Club Coach.
- 2014–2016 **Grader**, *Rice University Math Department*, Houston, TX.
Worked as a Grader for Honors Linear Algebra, Honors Multivariate Calculus, and Real Analysis.

Academic Awards and Honors

- 2020–2021 **Academic Excellence Award**, *University of North Texas*, Denton, TX.
Awarded each year by the UNT Math Department to one graduate student in recognition of outstanding academic progress.
- 2020–2021 **John W. Neuberger Mathematics Scholarship**, *University of North Texas*, Denton, TX.
Awarded each year by the UNT Math Department to one graduate student to support their pursuit of advanced research.

Publications

- 2022 **The Vibrational Modes of Simplicial Molecules**, With Charles H. Conley.
The Mathematical Intelligencer, 2022. DOI: 10.1007/s00283-021-10160-z
- 2016 **Quantum Intermittency for Sparse CMV Matrices with An Application to Quantum Walks on The Half-Line**, With David Damanik, Jake Fillman, Gerhardt Hinkle, and Alan Vu.
Journal of Approximation Theory, 208:59-84, August 2016. DOI: 10.1016/j.jat.2016.04.001

Conferences, Talks, and Presentations

- April 2021 **Simplicial Molecules**, *Graduate Algebra Symposium*, Remote.
Gave thirty-minute talk on research analyzing the vibrational frequencies and modes of n -dimensional molecules formed by point-masses attached to springs.
- March 2021 **Simplicial Molecules**, *University of North Texas*, Denton, TX.
Gave hour-long talk on the vibrational modes of simplicial molecules.
- January 2015 **Undergraduate Poster Session**, *Joint Mathematics Meetings*, San Antonio, TX.
Presented research conducted at UT Tyler REU.
- July 2014 **Research Presentation**, *University of Texas at Tyler REU*.
Gave fifty-minute talk on research to other REU participants and members of the UT Tyler Math Department.