Stephen Stern

EDUCATION

University of Nebraska-Lincoln — Lincoln, NE
Ph.D., Mathematics (in progress) — 2023 - Present
Advisor: Brian Harbourne

University of Manitoba — Winnipeg, MB
M.S., Mathematics — 2021 - 2023
Advisor: Susan Cooper
Thesis: "Generalizations and Applications of Alexander Self-Duality"

George Mason University — Fairfax, VA
M.Ed., Secondary Mathematics — 2019 - 2021

University of Virginia — Charlottesville, VA
B.A., Mathematics — 2014 - 2016

Seminar Talks

Commutative Algebra Reading Seminar — Lincoln, NE
"The Persistence Property" — February 2024

Graduate Student Seminar — Lincoln, NE
"Eigen-Things" — December 2023

Commutative Algebra Reading Seminar — Lincoln, NE
"An Introduction to Edge and Cover Ideals" — November 2023

University of Manitoba Math Graduate Seminar — Winnipeg, MB
"An Introduction to Edge and Cover Ideals" — December 2022

Clifford Algebra and Spin Geometry Seminar — Winnipeg, MB
"Pin and Spin Groups in Finite-Dimensional Clifford Algebras" — March 2022

Rings and Modules Seminar — Winnipeg, MB
"Injective, Projective, and Global Dimension" — January 2022

GRANTS AND AWARDS

University of Manitoba Graduate Fellowship 2022-2023
Dr. Jiri Sichler Memorial Scholarship in Algebra 2022-2023
International Graduate Student Entrance Scholarship (Manitoba) 2021

Outstanding Student in Secondary Education – Math (George Mason) 2021
Echols Scholar (Virginia) 2014-2016
Alcoa Undergraduate Research Fellow 2015
nanoSTAR Undergraduate Summer Research Fund Recipient 2015

RESEARCH EXPERIENCE

University of Manitoba Winnipeg, MB
USRA Graduate Mentor Summer, 2022
The Order of Dominance of Powers of Edge Ideals for Some Graphs (preprint in preparation)

Emory University Atlanta, GA
NSF REU/RET Computational Mathematics for Data Science, Teacher Participant Summer, 2021
Efficient Determinant Estimators for Potential Flow Generators

University of Virginia Charlottesville , VA
Coordinated Systems Laboratory, Research Assistant 2016-2018
Safety of Distributed Air Traffic Control Systems
Computational Materials Group, Research Assistant 2015
Modeling Laser Ablation with Smoothed Particle Hydrodynamics

TEACHING EXPERIENCE

Instructor of Record

University of Nebraska-Lincoln Lincoln, NE
Mathematics Department 2023-Present
College Algebra
Geometry Matters

Teaching Assistant

University of Nebraska-Lincoln Lincoln, NE
Mathematics Department 2023-Present
Calculus 2

University of Manitoba Winnipeg, MB
Mathematics Department 2021-2023
Vector Geometry and Linear Algebra
Elementary Discrete Mathematics
Abstract Algebra 1
Mathematics of Data Science

Teaching K-12

Fairfax County Public Schools Fairfax, VA
Thomas Jefferson High School for Science and Technology (TJHSST)

Computer Science and Math Teacher 2019-2021
AP Computer Science A+ with Data Structures
Introduction to Computer Science
Research Statistics 1

Long Term Substitute 2018-2019

Service

Graduate Student Advisory Board, UNL 2024-Present

Co-organizer, Manitoba Math Graduate Student Seminar 2022-2023

Equity Lead, TJHSST 2019-2021

Class Sponsor, TJHSST 2019-2021

Treasurer, UVA Living Wage Campaign 2017-2018