

JORDAN N. HOFFART

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EDUCATION

Ph.D. Mathematics

Dec 2026

Texas A&M University

Advisor: Matthias S. Maier

Dissertation: *Structure-preserving finite element methods for electrically charged fluids*

B.S. Applied Mathematical Sciences

Dec 2019

Texas A&M University

GPA: 3.71 *magna cum laude*

PUBLICATIONS AND PREPRINTS

Jordan Hoffart, Matthias Maier, John N. Shadid, and Ignacio Tomas, *Structure-preserving finite-element approximations of the magnetic Euler–Poisson equations*. Submitted (2025).
[arXiv:2510.11808](https://arxiv.org/abs/2510.11808).

RESEARCH EXPERIENCE

Graduate Research Assistant

Sep 2021 – Dec 2026

Texas A&M University

Computational Physics Summer Workshop Fellow

Jun 2023 – Aug 2023

Los Alamos National Laboratory

CONFERENCE TALKS

SIAM TX–LA Section Meeting, 2024

A comparison of finite element spaces for the discontinuous Galerkin approximation of the Maxwell eigenvalue problem in first-order form

Finite Element Rodeo, 2024

Towards an Involution-preserving solver for the time-dependent Maxwell equations

Finite Element Rodeo, 2023

Structure-preserving finite element schemes for the Euler–Poisson equations

TEACHING EXPERIENCE

Graduate Teaching Assistant, Texas A&M University

Sep 2021 – Dec 2026

Numerical Partial Differential Equations (MATH 610)

2022, 2024

Principles of Numerical Analysis (MATH 437)

2025 – 2026

Engineering Mathematics II (MATH 152)

2024

Functions, Trigonometry, and Linear Systems (MATH 150)

2021

SERVICE

Texas A&M University SIAM Student Chapter

President	Sep 2025 – Aug 2026
Vice-President	Sep 2023 – Aug 2025

SIAM TX–LA Section Meeting

Co-organizer, Minisymposium on:

<i>Numerical methods for coupled multiphysics systems</i>	Sep 2025
<i>Advances in numerical methods for electromagnetism</i>	Oct 2024
<i>Recent developments in electromagnetics and related eigenvalue problems</i>	Nov 2023

Texas Junior Science and Humanities Symposium

Panel Judge	Jan 2025
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OUTREACH

Texas A&M University

Assistant	<i>Undergraduate Summer School</i>	May 2024 – 2026
Mentor	<i>Undergraduate Directed Reading Program</i>	Sep 2022 – May 2023
Instructor	<i>K–12 Math Circle</i>	Feb 2020
