Jordan N. Hoffart

Department of Mathematics, Texas A&M University, College Station, TX
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Education

Ph.D. Mathematics Aug 2026
Texas A&M University
Advisor: Matthias S. Maier
Dissertation: *Structure-preserving numerical methods for plasma physics*

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.

Research Experience

Graduate Research Assistant Sep 2021 – Aug 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 – Aug 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:

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

Texas Junior Science and Humanities Symposium

Panel Judge — Jan 2025

Outreach

Texas A&M University

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