

Triet Ho

Umich Aerospace Engineering | (657) 508-9494 | triet@umich.edu

EDUCATION

University of Michigan, Ann Arbor, MI 48109

Ph.D. in Aerospace Engineering

AUGUST 2025 - JUNE 2030

SKILLS

Programming: Python, Matlab, Fortran, C++

3D software and Simulation: Blender, Solidworks, COMSOL Multiphysics, Future Aircraft Sizing Tool (FAST)

Machine Learning: DNNs, Autoencoder, VAE, GANs, RNNs, LLMs, GNNs, RL

Skills: Time management, Teamwork, Problem-solving

PUBLICATION

Possible Spin-Triplet Excitonic Insulator in the Ultraquantum Limit of HfTe_5

Jinyu Liu, Varsha Subramanyan, Robert Welser, Timothy McSorley, **Triet Ho**, David Graf, Michael T. Pettes, Avadh B. Saxena, Laurel E. Winter, Shi-Zeng Lin & Luis A. Jauregui

DOI: [10.1103/bj2n-4k2w](https://doi.org/10.1103/bj2n-4k2w)

Published in Physical Review Letters, July 22, 2025

Controllable strain-driven topological phase transition and dominant surface-state transport in HfTe_5

Jinyu Liu, Yinong Zhou, Sebastian Y. Rodriguez, Matthew A. Delmont, Robert A. Welser, **Triet Ho**, Nicholas Sirica, Kaleb McClure, Paolo Vilmercati, Joseph W. Ziller, Norman Mannella, Javier D. Sanchez-Yamagishi, Michael T. Pettes, Ruqian Wu & Luis A. Jauregui

DOI: [10.1038/s41467-023-44547-7](https://doi.org/10.1038/s41467-023-44547-7)

Published in Nature Communications, Springer Nature, January 6, 2024

Non-local Transport and Spontaneous Superconductivity of the Topological Surface States of thin HfTe_5 devices

Robert A. Welser, Jinyu Liu, Timothy J. McSorley, **Triet Ho**, Jonghyun Moon, David Graf & Luis A. Jauregui

Manuscript in progress

RESEARCH EXPERIENCE

NASA AACES 2050 Advanced Aircraft Concepts for Environmental Sustainability - Ph.D. Researcher

August 2025 - Present | Prof. Gokcin Cinar, University of Michigan | 20 hours per week

- Developing sustainable aircraft concepts in a collaborative NASA project with industry partner ELECTRA
- Streamlined researcher onboarding by revising documentation for the computational environment setup

Generative Graph Neural Networks in Hybrid Propulsion System Design - Ph.D. Researcher

August 2025 - Present | Prof. Gokcin Cinar, University of Michigan | 20 hours per week

- Developed and trained generative GNNs to discover unconventional hybrid propulsion system designs
- Analyzed the GNN-generated designs for potential improvements in fuel efficiency and emissions

Machine Learning in High Entropy Alloys - Undergrad Student Researcher

August 2023 - June 2025 | Prof. Penghui Cao, UC Irvine | 20 hours per week

- Developed and trained machine learning models to predict material properties of high-entropy alloys

EXTRACURRICULAR ACTIVITY

YouTube Channel - Education Content Creator

July 2019 - Present

- Educational videos on [Machine Learning](#)
- Software tutorial videos on [COMSOL Multiphysics](#) and [Blender](#)