

Kevin A. Reiss

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Education

Dartmouth College

PH.D. IN PHYSICS

Hanover, NH

Jun 2025 - Present

- NSF Graduate Research Fellow and Presidential Fellow

Boston University

B.A. with honors IN PHYSICS

Boston, MA

Sep 2018 - May 2022

- College Prize (highest honor in department)
- GPA: 3.99/4.00, Summa Cum Laude

Publications

- [Kevin A. Reiss](#) and David K. Campbell, “The Metastable State of Fermi-Pasta-Ulam-Tsingou Models”, *Entropy*, vol. 25, no. 2. **2023**.
- [Kevin A. Reiss](#), “The Metastable State of Fermi-Pasta-Ulam-Tsingou Models”, *Senior Honors Thesis*. **2022**.
- James Rohlf and [Kevin Reiss](#), “ElectroDynamics: A Novel Computational Approach”, *Wolfram Media*. **2021**.
- S. D. Pace, [K. A. Reiss](#), and D. K. Campbell, “The β Fermi-Pasta-Ulam-Tsingou Recurrence Problem”, *Chaos*, vol. 29, no. 11. **2019**.

Research

Quantum Benchmarking: Random Circuits

ADVISOR: PROF. JAMES WHITFIELD

Dartmouth College

Sep 2025 - Present

- Constructing and comparing different models of random quantum circuits
- Evaluating benchmarking models like Quantum Volume against performance on problems like Hamiltonian simulation

Fermi-Pasta-Ulam-Tsingou Problem

ADVISOR: PROF. DAVID CAMPBELL

Boston University

Feb 2019 - May 2022

- Explored FPUT recurrences in the β -FPUT model, using a combination of analytical and numerical techniques
- Performed statistical analysis on data derived from symplectic integration of a Hamiltonian system
- Published and presented results with implications on the equipartition theorem, and the metastable state of localized systems
- Mentored undergraduate researchers through REU programs, honors theses, and introductory research

Experience

ResCon Technologies

MACHINE LEARNING ALGORITHM DEVELOPER

Columbus, OH

Sep 2022 - Jun 2024

- Led a small team to improve accuracy during GPS-denied inertial navigation, resulting in a provisional patent
- Developed novel algorithms to implement Next-Generation Reservoir Computing on edge hardware
- Researched systems of interest to discover use cases of min-data machine learning

Wolfram Research

MACHINE LEARNING DEVELOPER INTERN

Champaign, IL

Jun 2022 - Sep 2022

- Trained a neural network to solve partial differential equations using physically motivated methods, with minimal training data
- Formally presented and disseminated research and results

Skills

Programming Python, Mathematica, Git, \LaTeX , Julia, Fortran, Matlab, Java
Languages English (native), French, Spanish

Honors & Awards

Graduate Research Fellowship , National Science Foundation, 2025	National
Presidential Fellowship , Guarini School of Graduate and Advanced Studies, 2025	Dartmouth
College Prize for Excellence in Physics , Boston University College of Arts and Sciences, 2022	BU
ΦBK (Phi Beta Kappa) Inductee , Phi Beta Kappa, 2022	National
Harold C. Case Scholarship , Boston University Office of Fellowships and Scholarships, 2021	BU
Goldwater Scholarship , Barry Goldwater Scholarship and Excellence in Education Foundation, 2020	National
Provost's Scholars Award , Boston University Office of the Provost, 2020	BU
Presidential Scholarship , Boston University Office of the President, 2018	BU

Presentations

May 2022	"The Metastable State of Fermi-Pasta-Ulam-Tsingou Models" , Honors Thesis Oral Defense	Boston, MA
Mar 2022	"Timing of the Fermi-Pasta-Ulam-Tsingou Metastable State" , American Physical Society	Chicago, IL
Mar 2021	"The Fermi-Pasta-Ulam-Tsingou Metastability Issue" , American Physical Society	Online
Aug 2020	"Metastability and the Fermi-Pasta-Ulam-Tsingou Lattice" , BU Physics Research Opportunities	Online
Mar 2020	"Destruction of Fermi-Pasta-Ulam-Tsingou Recurrences" , American Physical Society	Online
Oct 2019	"The β Fermi-Pasta-Ulam-Tsingou Recurrence Problem" , BU Undergraduate Research Opportunities Program	BU Metcalf Ballroom

Leadership & Teaching

Treasurer , Dartmouth BridgeUSA	Sep 2025 - Present
Learning Assistant , BU PY405/PY406: Electromagnetic Fields and Waves I & II	Sep 2020 - May 2022
Treasurer , Boston University's Robotics and Ambient Intelligence Labs	Sep 2020 - Sep 2021
Research Mentor , Research In Science and Engineering (RISE)	Jul 2021 - Aug 2021
Mentor , Wolfram Summer Camp	Jul 2021
Ambassador / Mentor , Boston University Physics Research Opportunity (REU)	May 2020 - Aug 2020
Mentor , Physics PeeRs for Incoming Student Mentorship Program (PRISM)	Aug 2020 - May 2022
Section Leader / Member , Boston University Marching, Pep, Scarlet, and Concert Bands	Aug 2018 - May 2022

Committees

2021-22	Harold C. Case Member , Provost's Faculty Teaching Awards Committee	BU
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Classwork

PHYS116	Quantum Information Science , Prof. James Whitfield; Dartmouth	Spring 2026
PHYS90	Intermediate Quantum Mechanics , Prof. Chandrasekhar Ramanathan; Dartmouth	Winter 2026
ENGS121	Implementations of Quantum Information , Prof. Mattias Fitzpatrick; Dartmouth	Grade: HP
PHYS100	Mathematical Methods for Physicists , Prof. Rufus Boyack; Dartmouth	Grade: HP
PY580	Machine Learning for Physicists , Prof. Pankaj Mehta; BU	Grade: A
PY502	Computational Physics , Prof. Anders Sandvik; BU	Grade: A
PY511	Quantum Mechanics I , Prof. Shyamsunder Erramilli; BU	Grade: P
PY541	Statistical Mechanics , Prof. Claudio Chamon; BU	Grade: A
MA561	Methods of Applied Mathematics I , Prof. Gene Wayne; BU	Grade: A
PY452	Quantum Physics II , Prof. Ken Lane; BU	Grade: A
EK103	Computational Linear Algebra , Prof. Kamal Sen; BU	Grade: A