



The Institute for Artificial Intelligence and Fundamental Interactions (IAIFI)
 is **enabling physics discoveries** and **advancing foundational AI** through the development of **novel AI approaches**
 that incorporate **first principles, best practices, and domain knowledge** from fundamental physics

MIT Physics Involvement in IAIFI

Faculty Senior Investigators



Jesse Thaler
Director

High Energy Theory



Mike Williams
Deputy Director

High Energy Experiment



Tracy Slatyer
Communications
Committee

Astroparticle Theory



Phiala Shanahan
Physics Theory
Research Lead

Nuclear Theory



Phil Harris
Physics Experiment
Research Lead

High Energy Experiment



Will Detmold
Computing
Committee Chair

Nuclear Theory



Ike Chuang
MITx Coordinator

Quantum Physics



Lisa Barsotti
Fellowship
Committee Chair

Gravitational Waves



Lina Necib
Public Engagement
Committee Chair

Astrophysics



Marin Soljagic
Industry Partnership
Committee Chair

Physics for AI



Max Tegmark

Physics for AI

Affiliates



Liang Fu

Condensed Matter
Physics



Erik Katsavounidis

Gravitational Waves



Wati Taylor

String Theory



Mark Vogelsberger

Astrophysics

IAIFI Resources & Opportunities

IAIFI Research

- Theoretical Physics
- Experimental Physics
- Astrophysics
- Foundational AI

Interdisciplinary PhD Program

- [Physics Statistics, and Data Science \(PhysSDS\)](#)
PhD program open to all MIT Physics PhD students

IAIFI Summer School and Workshop

- IAIFI Summer School: August 5-9, 2024 at MIT!
- IAIFI Summer Workshop: August 12-16, 2024 at MIT, [pre-registration open!](#)

IAIFI Friday Afternoons

- Discussion Seminars
- Public Colloquia
- Industry Lunches
- Lightning Talks / Thematic Discussions
- Followed by Networking Receptions

IAIFI Computing Resources

- IAIFI hosts its own set of NVIDIA A100 nodes at the Harvard Cannon cluster, available to IAIFI Junior Investigators

IAIFI Community

- Regular events bringing together IAIFI researchers across institutions and departments and the opportunity to serve on committees



If you are interested in rich data sets involving deep physics principles and exciting discovery opportunities, **come to MIT Physics and collaborate with IAIFI!**