



# The NSF AI Institute for Artificial Intelligence and Fundamental Interactions (IAIFI)

IAIFI is advancing physics knowledge and galvanizing AI research innovation. IAIFI's primary goals are to pioneer interdisciplinary AI+Physics **research**; empower the next generation of AI+Physics **talent**; and build a dynamic AI+Physics **community**.

## MIT Physics Involvement in IAIFI

### Faculty Senior Investigators



**Jesse Thaler**  
High Energy Theory



**Mike Williams**  
High Energy Experiment



**Will Detmold**  
Nuclear Theory



**Phiala Shanahan**  
Nuclear Theory



**Phil Harris**  
High Energy Experiment



**Ike Chuang**  
Quantum Physics



**Lisa Barsotti**  
Gravitational Waves



**Lina Necib**  
Astrophysics

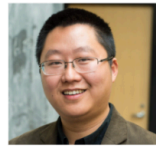


**Marin Soljagic**  
Physics for AI



**Max Tegmark**  
Physics for AI

### Affiliates



**Liang Fu**  
Condensed Matter Physics



**Erik Katsavounidis**  
Gravitational Waves



**Eluned Smith**  
Fast-ML



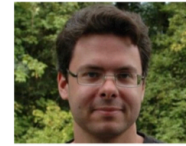
**Tracy Slatyer**  
Astroparticle Theory



**Wati Taylor**  
String Theory



**Mikhail Ivanov**  
Cosmology



**Mark Vogelsberger**  
Astrophysics



**David Kaiser**  
Early-Universe Cosmology

## IAIFI Resources and Opportunities

### IAIFI Research

- Foundational AI
- AI+Theoretical Physics
- AI+Experimental Physics
- AI+Astrophysics

### IAIFI Friday Afternoons

- Public Colloquia
- Industry Lunches
- Thematic Discussion Sessions
- Lunch Discussions

### IAIFI Summer School and Workshop

- Summer School: August 3-7, UMass Boston
- Summer Workshop: August 10-14, MIT

### IAIFI Community

- Regular events and forums bring together researchers across institutions & departments



### Highlights

Check out our [research and event highlights](#) from Fall 2025!

### Contact Us



<https://iaifi.org>



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