



*The NSF AI Institute for*  
Artificial Intelligence and Fundamental Interactions



## IAIFI-AIMLAC Workshop Day 2

9:00-10:30 am (Kolker Room, 26-414)

Flash Talks (3-5 minutes)

- Tonicha Crook (Swansea) – A computability perspective on (verified) Machine Learning
- Yin Lin (MIT) - Neural-network preconditioners for solving lattice Dirac equations
- Tom Spriggs (Swansea) – Spectral reconstruction in lattice QCD at nonzero temperature
- Natalia Sikora (Swansea) – Shining the light on cancer diagnosis in asymptomatic patients. Applications of Raman spectroscopy and machine learning algorithms in blood-based liquid biopsies
- Anindita Maiti (Northeastern) - Symmetries, Non-Gaussianities, and Dualities in Neural Networks / Theoretical Particle Physics Correspondence
- Tabitha Lewis (Swansea) – Data visualisation of Sepsis mice data
- Luke Golby (Swansea) - Linking Cancer Prognosis to Immune Cell Composition and Contents by Artificial Intelligence (AI)
- Tri Nguyen (MIT) - Understanding the dark matter density profiles in dwarf galaxies with neural networks

1:00-2:00 pm (IAIFI Penthouse, 26-648)

Reception with refreshments

2:00-4:00 pm (LNS Conference Room, 26-528)

Education Discussion

- Gert Aarts (Swansea, 30') – AIMLAC: Training the next generation of data/ML scientists
- Tom Spriggs (Swansea, 15') – Student placement at Amplyfi
- Mike Williams (IAIFI Deputy Director) – IAIFI and Fellowship Program, Summer School, and Interdisciplinary PhD program
- Phil Harris (IAIFI Senior Investigator) – MITx course and Micromasters