# Session Program 19-21 May 2025



# Phenomenology 2025 Symposium *Machine Learning*

University of Pittsburgh

# **Monday 19 May**

14:15

# **Machine Learning: Methods**

Session | Location: David Lawrence Hall 107, University of Pittsburgh

# 14:15-14:30

Truth, beauty, and goodness in grand unification: A machine learning approach

Dr Nobuchika Okada

# 14:30-14:45

The bias-variance-correlation tradeoff and its implications for ML applications in **HEP** 

# Speaker

Prasanth Shyamsundar

14:45-15:00 Synaptic Field Theory

## Speaker

Jaeok Yi

# 15:00-15:15

Frequentist Uncertainties on Neural Density Ratios with wifi Ensembles

# Speaker

Sean Benevedes

# 15:15-15:30

Jet Image Generation using Score Based and Consistency Diffusion Models

Dr Vidya Manian

15:30-15:45

15:45-16:00

16:00

# **Tuesday 20 May**

14:00

**Machine Learning: Data Applications** 

Session | Location: David Lawrence Hall 107, University of Pittsburgh

14:00-14:15

NomAD: Real-Time Unsupervised Anomaly Detection at the ATLAS Level-1 Trigger

Speaker

Rajat Gupta

14:15-14:30 Jet calibration with in-situ pileup suppression

Speaker

Stephen Roche

14:30-14:45

Learning the energy dependence and source brightness distribution of the **Galactic Center Excess** 

Speaker

Eve Schoen

14:45-15:00

Isolating Unisolated Upsilons with Anomaly Detection in CMS Open Data

Speaker

Rikab Gambhir

15:00-15:15 Baryon number violation searches with CUORE

Speaker

Vivek Sharma

15:15-15:30 Deep Learning Reveals Structure in Fast Radio Burst Signals

Speaker

Rohan Arni

15:30-16:00

16:00