

Session Program

1-2 Oct 2024

Foundation Models
for Science
mini-workshop
CERN and remote
October 1-2



Foundation Models for Science Mini Workshop

Foundation Model MiniWorkshop

Tuesday 1 October

14:00

Foundation Model MiniWorkshop: Day 1

Session | **Location:** CERN, 354/1-019**14:00-14:10 Introduction****Speakers**

Dr Gaia Grosso, Raghav Kansal

15:00

14:10-15:00 Towards Foundation Models in HEP with Self-Supervised Learning**Speaker**

Michael Kagan

15:45

Foundation Model MiniWorkshop: Day 1

Session | **Location:** CERN, 354/1-019**15:45-16:30 Foundation models for HEP****Speaker**

Philip Coleman Harris

16:30-17:30**Invisible Cities: Towards a multi-modal era of fundamental physics research****Speaker**

Mariel Pettee

18:30

17:30-18:30 Foundation Models for Scientific Discovery in the Lab of the Future**Speaker**

Patrick Ruch

Wednesday 2 October

14:00

Foundation Model MiniWorkshop: Day 2

Session | **Location:** CERN, 40/S2-B01 - Salle Bohr

14:00-14:15 Introduction to Day 2

Speakers

Dr Gaia Grosso, Raghav Kansal

14:15-15:00 Re-simulation-based self-supervised learning

Speaker

Benedikt Maier

15:00-15:45 Finetuning Foundation Models for Joint Analysis Optimization

Speaker

Nicole Michelle Hartman

15:45-16:00 Coffe Break

16:00-16:45 OmniJet- α : The first cross-task foundation model for particle physics

Speaker

Joschka Birk

16:45-17:30 Foundation Models for Astrophysics and Representation Learning

Speaker

Leopoldo Sarra

17:30-18:30

OmniLearn: A Method to Simultaneously Facilitate All Jet Physics Tasks

Speaker

Vinicius Massami Mikuni

18:30-19:00 Summary and Roundtable

Speakers

Dr Gaia Grosso, Raghav Kansal

19:00