Session Program

23–25 Sept 2024

Fourth MODE Workshop on Differentiable Programming for Experiment Design

Astroparticle

Valencia (Spain)

Monday 23 September

16:35

Astroparticle
Session | **Location:** Valencia (Spain) | **Conveners:** Roberto Ruiz De Austri, Christian Glaser

16:35–16:55
NuRadioOpt: Optimization of Radio Detectors of Ultra-High Energy Neutrinos through Deep Learning and Differential Programming

Speaker

Christian Glaser

16:55–17:15
Machine learning based design optimization for the search of neutrinoless double-beta decay with LEGEND

Speaker

Dr Ann-Kathrin Schuetz

17:15–17:35 Status of GENETIS

Speaker

Amy Connolly

17:35–17:55
Simultaneous high-dimensional calibration with differentiable simulations for a liquid argon time projection chamber

Speaker

Yifan Chen

17:55–18:15 TAMBO: Searching for Tau Neutrinos in the Peruvian Andes

Speaker

Dr Alfonso Andres Garcia Soto

18:15

Tuesday 24 September

14:30

Astroparticle
Session | **Location:** Valencia (Spain) | **Conveners:** Christian Glaser, Roberto Ruiz De Austri

14:30–14:50
Application of machine learning techniques to search dark matter with ANAIS-112

Speaker
Iván Coarasa Casas

14:50–15:10 Optimization of the DSA 2000 radio interferometer

Speaker
Joshua Albert

15:10–15:30 Applications of Information Field Theory in Astroparticle Physics

Speaker
Frederik Krieger

15:30–15:50
A surrogate model for the generation of radio pulses from neutrinos for IceCube-Gen2

Speaker
Philipp Pilar

15:50

Wednesday 25 September

10:40

Astroparticle

Session | **Location:** Valencia (Spain) | **Convener:** Roberto Ruiz De Austri

10:40–11:00

ML4GW: An AI-based Ecosystem for Real-time Gravitational Wave Analysis

Speaker
Eric Anton Moreno

11:00