Session Program

7–9 Apr 2025

IOP Joint APP and HEPP Annual Conference 2025

Analysis and Reconstruction Methods

Cavendish Laboratory, University of Cambridge
J J Thomson Avenue Cambridge CB3 0HE UK

Tuesday 8 April

13:30

Analysis and Reconstruction Methods: 1

Session | **Location:** The Cluster Room (A0.022)

13:30–13:45 **An angular analysis of the $B^0 \to D^* \mu \nu$**

Speaker
Hasret Nur

13:45–14:00

Machine Learning driven improvements for the high-mass MSSM search in the di-tau final state with CMS

Speaker
Irene Andreou

14:00–14:15

Novel Machine Learning techniques for high-dimensional density estimation and photon shower calibration

Speaker
Paul Felix Kruper

14:15–14:30

Observation of the $K^{+}\rightarrow\pi^{+}\nu\bar{\nu}$ decay and measurement of its branching ratio by the NA62 experiment at CERN

Speaker
Chandler Baynham Kenworthy

14:30

Wednesday 9 April

11:00

Analysis and Reconstruction Methods: 2

Session | **Location:** The Cluster Room (A0.022)

11:00–11:15

Experience of using ACTS to implement GBTS as a new seeding method for the ATLAS ITk.

Speaker
Rosie Hasan

11:15–11:30

Optimising the LUX-ZEPLIN Neutron Veto using MOO

Speaker
Nathan Pannifer

11:30–11:45

Quantum machine learning in particle physics

Speaker
Marcin Jastrzebski

11:45–12:00

Validation and Calibration of Machine Learning Models: Particle Identification and Eye-Disease Prognosis

Speaker
Robert John McNulty

12:00–12:15

Jet mass reconstruction in the CMS level-1 trigger for the HL-LHC

Speaker
Liam Robertshaw

12:15–12:30

Search for μ+ → e+e+e− at the Mu3e experiment and the Commissioning of the Pixel Tracker.

Speaker
Charles Kinsman

12:30