

**Session Program**

**12-15 Apr 2021**

**IoP 2021 - Joint APP/HEPP/NP Conference**

***Parallel Stream 4***

Edinburgh, Remote

# Monday 12 April

13:30

## Parallel Stream 4: HEPP and APP Instrumentation 1

Session | Location: Edinburgh, Remote | Convener: Matthew Daniel Buckland

13:30-13:45

### Benchmarking New Hardware and Software For Machine Learning In Particle Physics

**Speaker**

Stefano Vergani

13:45-14:00

### Developing a distributed water Cherenkov detector array

**Speaker**

Simeon Bash

14:00-14:15

### An Alternative Design for Large Scale Liquid Scintillator Detectors

**Speaker**

Iwan Morton-Blake

14:15-14:30

### ARIADNE - A Liquid Argon Time Projection Chamber (LARTPC) featuring an ultra-fast optical readout

**Speaker**

Barney Philippou

14:30-14:45

### A Simulation Framework for Spherical Proportional Counters

**Speaker**

Patrick Ryan Knights

14:45-15:00

### Towards a Gas Filtration Setup for Ultra-Sensitive SF6 Gas Based Rare-Event Physics Experiments

**Speaker**

Robert Renz Marcelo Gregorio

15:00

## Tuesday 13 April

14:45

### Parallel Stream 4: HEPP and APP Instrumentation 2

Session | Location: Edinburgh, Remote | Convener: Gary Smith

14:45-15:00

#### Commissioning of the Upgraded ALICE Inner Tracking System for LHC Run 3

**Speaker**

Jian Liu

15:00-15:15

#### The Commissioning of the SuperNEMO Demonstrator Module Calorimeter and an investigation into the effects of Helium Poisoning of PhotoMultiplier Tubes.

**Speaker**

William Quinn

15:15-15:30

#### Identifying Materials in Nuclear Waste Drums using Muon Scattering Tomography and Machine Learning

**Speaker**

Michael Weekes

15:30-15:45

#### Contrast to Noise Ratio Method: Quantitative Assessment of Image Reconstruction Algorithms for Muon Scattering Tomography Technique.

**Speaker**

Ahmad F Alrheli

15:45-16:00

#### A Silicon Pixel system for monitoring Primary and Secondary Radiation during Hadron Therapy

**Speaker**

Mohammad E. Alsulimane

16:00-16:15

#### MAGIS-100: A Matter-wave Atomic Gradiometer with Sensitivities to Dark Matter

**Speaker**

Sam Hindley

16:15

# Thursday 15 April

11:30

## Parallel Stream 4: HEPP Reconstruction

Session | Location: Edinburgh, Remote | Convener: Jacob Linace

11:30-11:45

### Event reconstruction in ALICE's run 3 continuous readout environment

**Speaker**

Aimeric Landou

11:45-12:00

### Track Finding in the CMS Level 1 Trigger for HL-LHC: Challenges, Design and Implementation

**Speaker**

David Gabriel Monk

12:00-12:15

### Enhancing physics reach with improved L1 triggers in Run 3

**Speaker**

Elena Michelle Villhauer

12:15-12:30

### New Algorithms for Reconstructing Event Pairs in Gd-H<sub>2</sub>O for Reactor Anti-neutrino Detection

**Speaker**

Elisabeth Kneale

12:30