

## **Session Program**

**2-5 Apr 2023**

# **2023 IoP Joint APP and HEPP Annual Conference**

## ***Parallel stream 3***

King's College London, Bush House Arcade (South Central) Arcade Entrance  
Bush House, Strand campus, London, WC2B 4BG

# Monday 3 April

15:00

## Parallel stream 3: Session 1

**Session** | **Location:** Lecture Theatre 2 (4.04), 4th floor, Bush House | **Convener:** Dr Christopher McCabe

15:00–15:15

### Development of a Phase Shear Detection System for the MAGIS-100 and AION Experiments

#### Speaker

Gedminas Elertas

15:15–15:30

### Development of the MAGIS-100 primary science imager

#### Speaker

Daniel Wood

15:30–15:45

### Electronic feedback system for the MAGIS-100 and AION retro reflection chamber

#### Speaker

Henry Throssell

15:45–16:00

### Terrestrial Limits on Ultra-light Dark Matter Detection With Atom Interferometers; MAGIS-100 and AION

#### Speaker

Dr Jeremiah Mitchell

16:00–16:15

### Quantum Technologies for Neutrino Mass

#### Speaker

Dr Seb Jones

16:15–16:30

### QSHS collaboration

#### Speaker

Paul Smith

16:30

17:00

## Parallel stream 3: Session 2

**Session** | **Location:** Lecture Theatre 2 (4.04), 4th floor, Bush House | **Convener:** Dr Sally Shaw

17:00–17:15

### The complexity of cosmic large-scale structure encoded in a single wavefunction

#### Speaker

Alex Gough

17:15–17:30

### DarkSide50 low mass analysis with non standard operators and Earth shielding effects

#### Speaker

Elizabeth Leason

17:30–17:45

### The Cold Radon Emanation Facility

**Speaker**

Emily Perry

17:45-18:00

**Neutron Activation Background in the LUX-ZEPLIN Experiment****Speaker**

Tom Rushton

18:00-18:15

**Photon Propagation in the LUX-ZEPLIN Experiment****Speaker**

Anna David

18:15-18:30

**Low energy electron recoil searches in LUX-ZEPLIN****Speaker**

Anh Nguyen

18:30-18:45

**Calibration using a YBe source in the LUX-ZEPLIN experiment****Speaker**

Amardeep Chawla

18:45

## Wednesday 5 April

11:30

### Parallel stream 3: Session 3

**Session** | **Location:** Lecture Theatre 2 (4.04), 4th floor, Bush House | **Convener:** Cheryl Patrick

11:30–11:45

#### Probing the Nature of Heavy Neutral Leptons in Direct Searches and Neutrinoless Double Beta Decay

##### Speaker

Zhong Zhang

11:45–12:00

#### From NEXT-White to NEXT100: Results and expectations.

##### Speaker

Brais Palmeiro Pazos

12:00–12:15

#### The NEXT tonne-scale programme

##### Speaker

Helena Almazan

12:15–12:30

#### LEGEND-200 first operational results

##### Speaker

George Marshall

12:30

13:30

### Parallel stream 3: Session 4

**Session** | **Location:** Lecture Theatre 2 (4.04), 4th floor, Bush House | **Convener:** Andrew Pilkington

13:30–13:45

#### Large Area Picosecond Photodetector for the Upgrade II of the LHCb RICH

##### Speaker

Federica Oliva

13:45–14:00

#### MightyPix: An HV-CMOS Pixel Chip for LHCb's Mighty Tracker

##### Speaker

Sigrid Scherl

14:00–14:15

#### The CMS Upgrade High Granularity Calorimeter Electronics Test Systems

##### Speaker

Miloš Vojinović

14:15–14:30

#### Duplicate Track Removal in the CMS L1 Track-Finder

##### Speaker

Katie Walkingshaw Pass

14:30–14:45

#### Calibration and Adjustment of Noise Thresholds for ATLAS Run3 Level-1 Electron Trigger

##### Speaker

Chonghao Wu

14:45-15:00

## **Non-Parametric Data-Driven Background Modelling using Conditional Probabilities**

### **Speakers**

Julia Manuela Cardoso Silva, Júlia Silva

15:00