

## **Session Program**

**7-10 Apr 2019**



## **IoP Joint HEPP and APP Annual Conference 2019**

### ***Parallel stream 2***

Imperial College London, Clore Lecture Theatre, Huxley 213  
Imperial College London Prince Consort Road South Kensington London

# Monday 8 April

14:00

## Parallel stream 2: Session 1

**Session** | **Location:** Imperial College London, Huxley 340 | **Conveners:**  
Antonin Vacheret, Dr Antonin Vacheret, Wilf Shorrock, Teppei Katori

14:00–14:15

### Search for long-lived neutral particles that decay into displaced jets in the ATLAS detector

#### Speaker

Ms Alice Morris

14:15–14:30

### Search for the Higgs boson decay to a pair of muons with the ATLAS detector at the LHC

#### Speaker

Miha Zgubic

14:30–14:45

### Search for $H \rightarrow e\bar{e}$ using 140/fb of 13 TeV pp collision data with ATLAS experiment

#### Speaker

Russell James Turner

14:45–15:00

### IceCube astrophysical neutrino 7.5-year data

#### Speaker

Teppei Katori

### Noise Rejection Method

15:00–15:15

### Using Spherical Harmonic Decomposition

#### Speaker

Elena Massera

15:15–15:30

### Status of the LUX-ZEPLIN (LZ) dark matter experiment

#### Speaker

Brais Lopez Paredes

15:30–15:45

### Radon Backgrounds in LZ

#### Speaker

Mr Umit Utku

16:30

## Tuesday 9 April

11:00

### Parallel stream 2: Session 2

**Session** | **Location:** Imperial College London, Huxley 340 | **Conveners:**  
Samuel Webb, Paul Scovell, Jonathon Mark Langford, Paul Scovell

11:00–11:15

#### Modelling Backgrounds and Searching for WIMPs in DEAP-3600

**Speaker**

Joseph Walding

11:15–11:30

#### Differential measurement of the $Z/\gamma$ ratio with the CMS experiment in pp collisions at 13 TeV

**Speaker**

Giacomo Zecchinelli

11:30–11:45

#### Search for dark matter produced in association with bottom or top quarks with the ATLAS detector

**Speaker**

Edward James Thorpe

11:45–12:00

#### Associated production of a $J/\psi$ + photon at ATLAS

**Speaker**

Amy Tee

12:00–12:15

#### Search for a heavy Higgs boson decaying into a Z boson and another heavy Higgs boson in the $llbb$ final state in 13 TeV pp collision with ATLAS detector

**Speaker**

Wai Yuen Chan

12:15–12:30

#### Searching for dark matter in DEAP-3600 in a 758 tonne-day data set.

**Speaker**

Ashlea Kemp

13:00

## Wednesday 10 April

11:00

### Parallel stream 2: Session 3

**Session** | **Location:** Imperial College London, Huxley 340 | **Conveners:** Mark Scott, Tracey Berry, Wilf Shorrock

11:00–11:15

**Searches for electroweak supersymmetry in final states containing one lepton, two b-tagged jets and missing transverse energy at the ATLAS experiment.**

**Speaker**

Matthew James Sullivan

11:15–11:30

**Non-parametric Bayesian event reconstruction in Super-Kamiokande detector**

**Speaker**

Artur Sztuc

11:30–11:45

**Electron neutrino selection in the MicroBooNE LArTPC using the Pandora pattern recognition reconstruction**

**Speaker**

Wouter Van De Pontseele

11:45–12:00

**Applications of machine learning to the identification of particle etch pits in Moedal NTD (Nuclear Track Detector) Images.**

**Speaker**

Lewis Richard Millward

12:00–12:15

**Boosting the Search for New Physics in bb Events**

**Speaker**

Lydia Audrey Beresford

12:15–12:30

**Search for Contact Interactions using 140fb-1 of pp collision data collected at  $\sqrt{s}=13\text{TeV}$  with the ATLAS detector**

**Speaker**

Deshan Kavishka Abhayasinghe

13:00