

## **Session Program**

**2-5 Apr 2023**

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

## ***Poster session + reception***

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

# Monday 3 April

18:45

## Poster session + reception

**Session** | **Location:** Terrace, 8th floor, Bush House

18:45–20:45

### Developing Pilot Tuneable Microwave Receiver for Axion Detection

#### Speaker

Ling Hao

18:45–20:45

### Using Bayesian Inference to Study Gravitational Wave Signals in Atom Interferometers and Formulate a Network of the MAGIS-100 and AION Experiments

#### Speaker

Yu Zhi

18:45–20:45

### An overview of the LZ Outer Detector: Calibration, Monitoring and Performance, and its Contribution to the First Science Run

#### Speaker

Sam Woodford

18:45–20:45

### Finding what you didn't know you were looking for: Machine learning for the detection of anomalies with LUX-ZEPLIN

#### Speaker

Leah Wolf

18:45–20:45

### Characterisation and Calibration of Photosensors for Water Cherenkov Neutrino Detectors

#### Speaker

Stephen Wilson

18:45–20:45

### Translating Near to Far Detector for DUNE-PRISM Analysis

#### Speaker

Alex Wilkinson

18:45–20:45

### Measuring the CKM angle $\gamma$ using $B^0 \rightarrow D K^+ \pi^-$ decays at LHCb

#### Speaker

Aidan Wiederhold

18:45–20:45

### Development of Water based Liquid Scintillator (WbLS) for Future Neutrino Experiments

#### Speaker

Adam Tarrant

18:45–20:45

### Kaon Cross Section Measurement with NuMI beam at MicroBooNE

**Speaker**

Natsumi Taniuchi

18:45–20:45

**Quantum Technologies for Neutrino Mass - Investigating Trigger Design****Speaker**

Daniel Swinnoock

18:45–20:45

**COSMIC-SWAMP : Smart Water Management using Cosmic Ray Neutrons****Speaker**

Patrick Stowell

18:45–20:45

**QUEST-DMC: Superfluid Helium-3 Bolometers for a Direct Dark Matter Search****Speaker**

Tineke Salmon

18:45–20:45

**Assembly and QA/QC of the readout electronics for the DarkSide-20k veto photodetector modules****Speaker**

Giovanni Rogers

18:45–20:45

**Solar axion searches in LUX-ZEPLIN****Speaker**

Harkirat Riyat

18:45–20:45

**Investigating the use of the z expansion in the axial form factors for nuclear neutrino scattering****Speaker**

Abigail Peake

18:45–20:45

**Reactor Antineutrinos at SNO+: Predicting Survival****Speaker**

James Page

18:45–20:45

**Developing Numerical Simulations of Atom Interferometers for Direct Searches of Ultra-light Dark Matter with the AION project****Speaker**

Noam Mouelle

18:45–20:45

**Development of Simulations for the BUTTON Testbed****Speaker**

Alexander Morgan

18:45–20:45

**Commissioning and characterisation of the MIGDAL detector****Speaker**

Lex Millins

18:45–20:45

**Overview of the near detector analysis strategy with MaCh3**

**Speaker**

Ewan Miller

18:45–20:45

**Development of a proton beam delivery system to treat tumours via laser-driven acceleration****Speaker**

Josie McGarrigle

18:45–20:45

**Development of an Ion-Acoustic Dose-Deposition Mapping System for LhARA****Speaker**

Maria Maxouti

18:45–20:45

**Searching for Dark Matter in the Sun using DUNE****Speaker**

Francisco Martinez Lopez

18:45–20:45

**The KM3NeT Project****Speaker**

Matthew Malek

18:45–20:45

**ARIADNE+: Large Scale Demonstration of Fast Optical Readout for Dual Phase LArTPCs at the CERN Neutrino Platform****Speaker**

Adam Lowe

18:45–20:45

**Reparameterisations of the PMNS matrix in long-baseline neutrino experiments****Speaker**

Andres Lopez Moreno

18:45–20:45

**Neutrino Oscillation Global Fit with GAMBIT****Speaker**

Chien Lin

18:45–20:45

**Q-Pix concept: Kiloton-scale pixelated liquid noble TPCs****Speaker**

Shion Kubota

18:45–20:45

**Love, Glue and Robots: on the loading of ATLAS ITk Pixel Models on Outer Endcap Half-rings****Speaker**

Simon Florian Koch

18:45–20:45

**Using the 4-momentum subtraction algorithm to model medium response in JEWEL****Speaker**

Daniel Jones

18:45–20:45

**AION & MAGIS - Long baseline Atom Interferometry for Dark Matter and Gravitational Waves searches****Speaker**

Kamran Hussain

18:45–20:45

**An Automated Bandwidth Division for the LHCb Upgrade Trigger****Speaker**

Joshua Horswill

18:45–20:45

**One lepton channel measurement of  $ttZ$  with  $Z$  decaying to neutrinos****Speaker**

Zoë Earnshaw

18:45–20:45

**Cosmogenic Neutron Multiplicity in SNO+****Speaker**

Katharine Dixon

18:45–20:45

**The Water Cherenkov Test Experiment and its calibration****Speaker**

Alie Craplet

18:45–20:45

**The effect of wavelength shifting plates on PMT dark rate in the Hyper-Kamiokande Outer Detector****Speaker**

George Burton

18:45–20:45

**High Energy Neutron-Water Cross Section Measurements at ISIS****Speaker**

Nahid Bhuiyan

18:45–20:45

**Studying penguins in the jungle****Speaker**

Anja Beck

18:45–20:45

**The ATLAS jet trigger and Trigger-Level Analysis applications in Run 3 of the LHC****Speaker**

Max Amerl

18:45–20:45

**Development of the data acquisition system for the Mu2e STM detector****Speaker**

Claudia Alvarez Garcia

20:45