

Session Program

2-5 Apr 2023

2023 IoP Joint APP and HEPP Annual Conference

Parallel stream 1

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 1: Session 1

Session | **Location:** Auditorium, ground floor, Bush House | **Convener:** Matthew Malek

15:00–15:15 **Measuring Solar Neutrino Oscillations in the SNO+ Detector**

Speaker

Daniel Cookman

15:15–15:30 **The SoLAr Concept: LArTPCs for solar neutrino physics**

Speaker

Dr Anyssa Navrer-Agasson

15:30–15:45 **The Future of Supernova Neutrinos**

Speaker

Dr Jost Migenda

15:45–16:00

BUTTON: a technology testbed for the future of (anti)neutrino detection

Speaker

Liz Kneale

16:00–16:15 **Remote Reactor Ranging using Neutrino Oscillations**

Speaker

Stephen Wilson

16:15–16:30 **Modelling Cosmic Ray Muon Spallation in Super-Kamiokande VI+**

Speaker

Jack Fannon

16:30

17:00

Parallel stream 1: Session 2

Session | **Location:** Auditorium, ground floor, Bush House | **Convener:** Dr Luke Pickering

17:00–17:15

Exploring the Potential of Machine Learning for Neutrino Identification in the DUNE Trigger System

Speaker

Raul Stein

17:15–17:30

High-Statistics Measurement of Nuclear Dependence in Inclusive Antineutrino Scattering in 1D and 2D with MINERvA

Speaker

Anežka Klustová

17:30–17:45

Timing Resolution of the Data Acquisition in the Short Baseline Near Detector

Speaker

Vu Chi Lan Nguyen

17:45-18:00

Searching for dark neutrinos using the SBND Cosmic Ray Tagger**Speaker**

Jiaoyang Li

18:00-18:15

Searching for heavy neutral leptons with the MicroBooNE experiment**Speaker**

David Marsden

18:15-18:30

MicroBooNE's tests of the MiniBooNE anomalous low-energy excess**Speaker**

Pawel Guzowski

18:30-18:45

Measuring neutrino magnetic moment in the NOvA near detector**Speaker**

Robert Kralik

18:45

Wednesday 5 April

11:30

Parallel stream 1: Session 3

Session | **Location:** Auditorium, ground floor, Bush House | **Convener:** Dr Peter Millington

11:30–11:45

Lepton universality test in VBF topology with tau(had) tau(lep) final states.

Speaker

Diego Baron

11:45–12:00

Higgs boson pair production searches in ATLAS

Speaker

Panagiotis Bellos

12:00–12:15

Measurement of differential cross sections for W boson production and W⁺/W⁻ production cross-section ratios in association with jets at $\sqrt{s} = 13$ TeV with the ATLAS detector at the LHC

Speaker

Eimear Conroy

12:15–12:30

Search for QCD Instantons at the LHC

Speaker

Ynyr Harris

12:30

13:30

Parallel stream 1: Session 4

Session | **Location:** Auditorium, ground floor, Bush House | **Convener:** Andrzej Michal Szelc

13:30–13:45

Bayesian Neutrino Oscillation Analysis for DUNE using the MaCh3Markov Chain Monte Carlo Fitter

Speaker

Liban Warsame

13:45–14:00

Joint Fit Between Atmospheric Neutrinos and Accelerator Neutrinos

Speaker

Zhenxiong Xie

14:00–14:15

Particle Identification and Position Reconstruction with a Machine Learning Technique in the Hyper-Kamiokande Detector

Speaker

Joanna Gao

14:15–14:30

Improving systematic uncertainties in the oscillation analysis with the new NC1 π^0 samples for the T2K experiment

Speaker

Tailin Zhu

14:30-14:45

First measurement of a joint CC0Pi/CC1Pi cross-section with the T2K near detector ND280

Speaker

Yassine Alj Hakim

14:45-15:00

The Super Fine-Grained Detector: Assembly and Gain Calibration

Speaker

Chien Lin

15:00