

Session Program

21-23 Mar 2016



IoP HEPP and AP joint meeting

Parallel session 3

University of Sussex, Chichester Lecture Theatre
Falmer Brighton BN1 9QJ UK

Tuesday 22 March

16:30

Parallel session 3: Session 3A

Session | **Location:** University of Sussex, Chichester Lecture Theatre

16:30–16:45

Search for new resonances decaying to a W or Z boson and a Higgs in 0,1,2 lepton channels in pp collisions at 13 TeV with the ATLAS detector

Speaker

Stephen Jiggins

16:45–17:00

Search for beyond SM Higgs boson decaying to two tau leptons in Run-II ATLAS

Speaker

Guillermo Nicolas Hamity

17:00–17:15

Perturbative unitarity bound on the parameter space in composite two Higgs doublet models. Emine Yildirim, University of Southampton, UK

17:15–17:30

MonoH to bb in association with dark matter

Speaker

Matt Baca

17:30–17:45

Searches for neutral BSM Higgs bosons with final states containing two taus

Speaker

Adinda De Wit

17:45–18:00

The search for high mass resonances in Diboson decays at ATLAS in Run-2

Speaker

Joseph Stanford Ennis

18:00

16:30

Parallel session 3: Session 3B

Session | **Location:** University of Sussex, Pevensey 1, Level 1 A06 (1A06)

16:30–16:45

Search for supersymmetry in pp collisions at CMS at a centre of mass energy of 13 TeV

Speaker

Dominic Smith

16:45–17:00

Summary of searches for the electroweak production of supersymmetric particles in $\sqrt{s}=8$ TeV pp collisions in ATLAS

Speakers

Itzebelt Santoyo Castillo, Itzebelt Santoyo Castillo

17:00-17:15

Data-driven background estimation techniques used in ATLAS searches for SUSY**Speaker**

Calum Michael Macdonald

17:15-17:30

Direct stop pair production in the fully hadronic channel at ATLAS**Speaker**

Dave Lewis

18:00

16:30

Parallel session 3: Session 3C**Session** | **Location:** University of Sussex, Pevensey 1, Level 1 A07 (1A07)

16:30-16:45

NC gamma, an exclusive channel for neutrino photo-production in GENIE neutrino event generator. Pierre Lasorak, Queen Mary, University of London, UK

16:45-17:00

Nucleon final state interaction in NEUT**Speaker**

Wing Yan Ma

17:00-17:15

A truth study using transverse variables to characterise nuclear effects in neutrino-nucleus scattering**Speaker**

Luke Pickering

17:15-17:30

Neutrino coherent pion production**Speaker**

Paul Martins

17:30-17:45

Shower reconstruction in LAr for the detection of pi0s in the DUNE far detector. Michael Wallbank, University of Sheffield, UK**Speaker**

Michael Wallbank

17:45-18:00

Particle Identification in the 35 ton and Cosmogenic simulations. Thomas Warburton, University of Sheffield, UK**Speaker**

Mr Thomas Warburton

18:00

16:30

Parallel session 3: Session 3D**Session** | **Location:** University of Sussex, Pevensey 1, Level 2 D10 (2D10)

16:30-16:45

Liquid level monitoring with a differential capacitive sensor for the LUX-ZEPLIN dark matter experiment. Fengting Liao, University of Oxford, UK**Speaker**

FengTing Liao

16:45–17:00

Simplified readout for CYGNUS-TPC: a massive directional dark matter detector.
Anthony Ezeribe, University of Sheffield, UK

17:00–17:15

Prospects for the direct detection of dark matter with inelastic transitions of xenon

Speakers

Christopher McCabe, Christopher McCabe

17:15–17:30

UK materials screening for the LZ dark matter direct detection experiment and future rare event searches

Speaker

James Edward Young Dobson

17:30–17:45

Boulby Underground Laboratory: update of science hosted and infrastructure for new projects. Chris Toth, STFC, UK

17:45–18:00

Radio-purity strategy for the SuperNEMO experiment. Xinran Liu, University College London, UK

18:00

16:30

Parallel session 3: Session 3E

Session | **Location:** University of Sussex, Pevensey 1, Level 2 D11 (2D11)

16:30–16:45

Reactor monitoring with T2K anti-neutrino technology

Speaker

Yan Jie Schnellbach

16:45–17:00

Muon radiography for carbon storage monitoring

Speaker

David Woodward

17:00–17:15

Prototype atom interferometer for fundamental physics. David Morris, University of Liverpool, UK

17:15–17:30

Fabrication and characterisation of 3D diamond detectors

Speaker

Steven Alexander Murphy

17:30–17:45

3D diamond detector development

Speaker

Giulio Tiziano Forcolin

18:00