IoP APP / HEPP Conference 2018

Report of Contributions

IoP APP / HEPP $\cdots \,\,$ / Report of Contributions

Poster reception

Contribution ID: 1 Type: not specified

Poster reception

Monday 26 March 2018 18:15 (1h 15m)

Contribution ID: 2 Type: not specified

Multi-Messenger Physics

Monday 26 March 2018 09:15 (40 minutes)

Presenter: Prof. SUTTON, Patrick

Session Classification: Plenary

Contribution ID: 4 Type: **not specified**

Gamma Ray Astronomy

Monday 26 March 2018 09:55 (30 minutes)

Presenter: BROWN, Anthony (Durham University)

Session Classification: Plenary

Welcome

Contribution ID: 5 Type: **not specified**

Welcome

Monday 26 March 2018 09:00 (15 minutes)

Session Classification: Plenary

Contribution ID: 7 Type: **not specified**

Status of Neutrino Physics

Monday 26 March 2018 17:35 (40 minutes)

Presenter: Dr DEPPISCH, Frank

Session Classification: Plenary

Contribution ID: 8 Type: not specified

Particle Beam Therapy in the UK

Monday 26 March 2018 16:15 (25 minutes)

Presenter: Dr TAYLOR, Michael (University of Manchester)

Session Classification: Plenary

Flavour Physics

Contribution ID: 9 Type: not specified

Flavour Physics

Tuesday 27 March 2018 09:00 (40 minutes)

Presenter: COWAN, Greig (The University of Edinburgh (GB))

Session Classification: Plenary

Contribution ID: 10 Type: not specified

Lepton Flavour Physics

Tuesday 27 March 2018 09:40 (40 minutes)

Presenter: LITCHFIELD, Phillip (UCL)

Session Classification: Plenary

Contribution ID: 11 Type: not specified

Who ordered that? Interpreting LFUV and other new physics signals from flavour.

Tuesday 27 March 2018 10:20 (40 minutes)

Presenter: LENZ, Alexander (IPPP, Durham)

Session Classification: Plenary

Contribution ID: 12 Type: not specified

Standard Model Measurements at the LHC

Tuesday 27 March 2018 14:00 (30 minutes)

Presenter: BLUMENSCHEIN, Ulla (University of London (GB))

Session Classification: Plenary

Contribution ID: 13 Type: not specified

New Physics Searches at the LHC

Tuesday 27 March 2018 15:00 (30 minutes)

Presenter: BROOKE, Jim (University of Bristol (GB))

Session Classification: Plenary

Contribution ID: 14 Type: **not specified**

Status of Neutrino Physics

Session Classification: Plenary

Contribution ID: 15 Type: not specified

Short-Baseline Neutrino Experiments

Wednesday 28 March 2018 09:00 (30 minutes)

Presenter: SZELC, Andrzej Michal (University of Manchester (GB))

Session Classification: Plenary

Contribution ID: 16 Type: not specified

Long-Baseline Neutrino Experiments

Wednesday 28 March 2018 09:30 (30 minutes)

Presenter: KABOTH, Asher (RHUL/RAL)

Session Classification: Plenary

Contribution ID: 17 Type: not specified

Neutrinoless Double Beta Decay and Absolute Mass

Wednesday 28 March 2018 10:00 (30 minutes)

Presenter: FALK, Elisabeth (University of Sussex (UK))

Session Classification: Plenary

Contribution ID: 18 Type: not specified

IoP Prize Lecture: Charm Physics

Wednesday 28 March 2018 12:00 (30 minutes)

IoP Prize Lecture: Charm Physics

Presenter: GERSABECK, Marco (University of Manchester (GB))

Session Classification: Plenary

Contribution ID: 19 Type: not specified

Collider Physics Beyond the LHC

Wednesday 28 March 2018 12:30 (30 minutes)

Presenter: MARTIN, Victoria Jane (The University of Edinburgh (GB))

Session Classification: Plenary

Contribution ID: 20 Type: not specified

Promoting Physics in Developing Countries

Session Classification: Plenary

Contribution ID: 21 Type: not specified

Higgs Physics at the LHC

Tuesday 27 March 2018 14:30 (30 minutes)

Presenter: WARDLE, Nicholas (Imperial College (GB))

Session Classification: Plenary

Contribution ID: 22 Type: not specified

Dark Matter: Status and Prospects

Monday 26 March 2018 10:25 (30 minutes)

Dark Matter: Status and Prospects

Presenter: GHAG, Chamkaur (University College London)

Session Classification: Plenary

Contribution ID: 23 Type: not specified

Promoting Physics in Developing Countries

Monday 26 March 2018 16:40 (25 minutes)

Presenter: SHAW, Kate (University of Sussex (GB))

Session Classification: Plenary

Contribution ID: 24

Type: not specified

Search for additional heavy neutral Higgs and gauge bosons decaying to di-tau in the ATLAS detector produced with 13 TeV proton-proton collisions at the LHC

Monday 26 March 2018 11:30 (15 minutes)

Presenter: ZORBAS, Theodore (University of Sheffield (GB))

Session Classification: Parallel I

Contribution ID: 25 Type: not specified

Search for exclusive Higgs and Z boson decays to $\phi\gamma$ and $\rho\gamma$ with the ATLAS detector

Monday 26 March 2018 11:45 (15 minutes)

Presenter: OWEN, Rhys Edward (University of Birmingham (GB))

Session Classification: Parallel I

Contribution ID: 26 Type: not specified

Search for boosted ttH($H\rightarrow bb$) with the ATLAS detector

Monday 26 March 2018 12:00 (15 minutes)

Presenter: WINKELS, Emma (University of Sussex (GB))

Session Classification: Parallel I

Contribution ID: 27 Type: not specified

Searching for decays of the Higgs boson to charm quarks at ATLAS

Monday 26 March 2018 12:15 (15 minutes)

Presenter: REYNOLDS, Elliot (University of Birmingham (GB))

Session Classification: Parallel I

Contribution ID: 28 Type: not specified

Searches for additional neutral Higgs bosons in the di-tau final state with the CMS experiment

Monday 26 March 2018 12:30 (15 minutes)

Presenter: WINTERBOTTOM, Daniel (Imperial College (GB))

Session Classification: Parallel I

Contribution ID: 29 Type: not specified

Measurement of Z+bb kinematic variables with ATLAS

Monday 26 March 2018 14:00 (15 minutes)

Presenter: GRAY, Chloe (University of Glasgow (GB))

Session Classification: Parallel I

Contribution ID: 30 Type: not specified

Searching for invisible phenomena through measurement of events with jets and large missing transverse momentum in pp collisions at ATLAS

Monday 26 March 2018 14:15 (15 minutes)

Presenter: PICKLES, Rebecca Hayley (University of Manchester (GB))

Session Classification: Parallel I

Contribution ID: 31 Type: not specified

Measurements of boosted top-quark differential cross-sections in the lepton+jets channel at s=√13 TeV using pp collision data recorded with the ATLAS detector

Monday 26 March 2018 14:30 (15 minutes)

Presenter: FENTON, Michael James (University of Glasgow (GB))

Session Classification: Parallel I

Contribution ID: 32 Type: not specified

Higgsinos and compressed sleptons: opening the soft lepton frontier for new physics at the LHC

Monday 26 March 2018 14:45 (15 minutes)

Presenter: LIU, Jesse (University of Oxford)

Session Classification: Parallel I

Contribution ID: 33 Type: not specified

Dark Matter Searches at CMS

Monday 26 March 2018 15:00 (15 minutes)

Presenter: BREEZE, Shane Davy (Imperial College (GB))

Session Classification: Parallel I

Contribution ID: 34 Type: not specified

Search for single top production in association with a Z boson for the dilepton final state in pp collisions at $\sqrt{s} = 13$ TeV in the CMS detector

Monday 26 March 2018 15:15 (15 minutes)

Presenter: HOAD, Corin James Keir (Brunel University (GB))

Session Classification: Parallel I

Contribution ID: 35 Type: not specified

Tagging boosted jets from top quarks and heavy vector bosons using jet substructure and multivariate techniques

Tuesday 27 March 2018 11:30 (15 minutes)

Presenter: VAIDYA, Amal (University of London (GB))

Session Classification: Parallel I

Contribution ID: 36 Type: not specified

Searches for Resonant and Non-Resonant Higgs Pair Production in the bbtautau Decay Channel with the ATLAS Detector

Tuesday 27 March 2018 11:45 (15 minutes)

Presenter: GRAHAM, Emily Charlotte (University of Liverpool (GB))

Session Classification: Parallel I

Contribution ID: 37 Type: not specified

Searches for heavy ZZ and ZW resonances in the llqq and vvqq final states at 13 TeV in the ATLAS detector

Tuesday 27 March 2018 12:00 (15 minutes)

Presenter: LACK, David Philip John (University of Manchester (GB))

Session Classification: Parallel I

Contribution ID: 38 Type: not specified

Measurements of Higgs boson cross sections and couplings in the diphoton decay channel with the CMS experiment

Tuesday 27 March 2018 12:15 (15 minutes)

Presenter: SCOTT, Edward (Imperial College (GB))

Session Classification: Parallel I

Contribution ID: 39 Type: not specified

Higgs-to-Invisible Searches for the CMS experiment at the LHC

Tuesday 27 March 2018 12:30 (15 minutes)

Presenter: Mr DI MARIA, Riccardo (Imperial College (GB))

Session Classification: Parallel I

Contribution ID: 40 Type: not specified

Search for low mass dijet resonances in association with ISR in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector

Wednesday 28 March 2018 11:00 (15 minutes)

Presenter: SOGAARD, Andreas (University of Edinburgh (GB))

Session Classification: Parallel I

Contribution ID: 41 Type: not specified

ATLAS Measurement of the Dynamics of Single Proton Dissociation at the LHC

Wednesday 28 March 2018 11:15 (15 minutes)

Presenter: FOSTER, Andrew Geoffrey (University of Birmingham (GB))

Session Classification: Parallel I

Contribution ID: 42

Type: not specified

The Quest for New Physics, motivated with strong-supersymmetric models, in final states with many hadronic jets in 13 TeV pp collisions at the ATLAS detector

Wednesday 28 March 2018 11:30 (15 minutes)

Presenter: NELSON, Michael Edward (University of Oxford (GB))

Session Classification: Parallel I

Contribution ID: 43 Type: not specified

Measurement of the CP violating phase, $\phi s,$ in Run 2 using $B^0 s {\longrightarrow} J/\psi K{+}K{-}$

Monday 26 March 2018 11:30 (15 minutes)

Presenter: GIZDOV, Konstantin (The University of Edinburgh (GB))

Session Classification: Parallel II

Contribution ID: 44 Type: **not specified**

Prospects for $K\pm \rightarrow \pi\pm \mu+\mu$ - at the LHCb Experiment

Monday 26 March 2018 11:45 (15 minutes)

Presenter: ZAREBSKI, Kristian Alexander (University of Birmingham (GB))

Session Classification: Parallel II

Contribution ID: 45

Type: not specified

Status and prospects of the measurement of the pi+mu+mu- form factor with the NA62 experiment at CERN

Monday 26 March 2018 12:00 (15 minutes)

Presenter: PARKINSON, Christopher John (University of Birmingham)

Session Classification: Parallel II

Contribution ID: 46 Type: not specified

Measurement of the branching fractions and form factors of K+ $\rightarrow\pi^0$ l+ ν decays

Monday 26 March 2018 12:15 (15 minutes)

Presenter: Mr TRILOV, Stoyan (University of Bristol (GB))

Session Classification: Parallel II

Contribution ID: 47 Type: **not specified**

Measurement of the K+ -> pi+ gamma gamma decay at NA62

Monday 26 March 2018 12:30 (15 minutes)

Presenter: BRUNETTI, Maria Brigida (University of Birmingham (GB))

Session Classification: Parallel II

Contribution ID: 48 Type: not specified

Search for the decay $B \to p + p - \mu \nu$

Monday 26 March 2018 14:00 (15 minutes)

Presenter: TILLEY, Matthew James (Imperial College (GB))

Session Classification: Parallel II

Contribution ID: 49 Type: not specified

Measuring the WW Production Cross-Section at LHCb

Monday 26 March 2018 14:15 (15 minutes)

Presenter: WARK, Heather Mckenzie (University of Liverpool (GB))

Session Classification: Parallel II

Contribution ID: 50 Type: not specified

Search for Bc→DD decays with the LHCb detector

Monday 26 March 2018 14:30 (15 minutes)

Presenter: TULLY, Alison Maria (University of Cambridge (GB))

Session Classification: Parallel II

Contribution ID: 51 Type: not specified

Searching for lepton universality violation and New Physics in rare decays of Lambda baryons at the LHCb.

Monday 26 March 2018 14:45 (15 minutes)

Presenter: GLEW, Ross John (Science and Technology Facilities Council STFC (GB))

Session Classification: Parallel II

Contribution ID: 52 Type: not specified

Search for K+ to pi+ nu nu at NA62

Monday 26 March 2018 15:00 (15 minutes)

Presenter: ROMANO, Angela (University of Birmingham (GB))

Session Classification: Parallel II

Contribution ID: 53 Type: not specified

Search For Heavy Neutral Lepton Decays At NA62 Experiment At CERN

Monday 26 March 2018 15:15 (15 minutes)

Presenter: IACOBUZIO, Lorenza (University of Birmingham (GB))

Session Classification: Parallel II

Contribution ID: 54 Type: not specified

Relative branching fraction measurements of $B \rightarrow 3h$ decays

Tuesday 27 March 2018 11:30 (15 minutes)

Presenter: COSTA SOBRAL, Cayo (University of Warwick (GB))

Session Classification: Parallel II

Contribution ID: 55 Type: not specified

A search for the decay Λb ->pKη' using the LHCb Run I dataset.

Tuesday 27 March 2018 11:45 (15 minutes)

Presenter: WILLIAMS, Timothy (University of Birmingham (GB))

Session Classification: Parallel II

Contribution ID: 56 Type: not specified

Anti-deuteron measurements at LHCb

Tuesday 27 March 2018 12:00 (15 minutes)

Presenter: BAKER, Sophie Katherine (Imperial College (GB))

Session Classification: Parallel II

Contribution ID: 57 Type: not specified

Searches for doubly charmed baryons at LHCb

Tuesday 27 March 2018 12:15 (15 minutes)

Presenter: TRAILL, Murdo Thomas (University of Glasgow (GB))

Session Classification: Parallel II

Contribution ID: 58 Type: not specified

Angular analysis of the decay $\Lambda_b^0 \to \Lambda \mu^+ \mu^-$

Tuesday 27 March 2018 12:30 (15 minutes)

Presenter: CHATZIKONSTANTINIDIS, Georgios (University of Birmingham (GB))

Session Classification: Parallel II

Contribution ID: **59** Type: **not specified**

Search for hidden sectors in kaon decays at the NA62 experiment at CERN

Wednesday 28 March 2018 11:00 (15 minutes)

Presenter: Dr DUK, Viacheslav (University of Birmingham)

Session Classification: Parallel II

Contribution ID: **60** Type: **not specified**

Charged Higgs Bosons in Naturally Aligned Two Higgs Doublet Models at the LHC

Wednesday 28 March 2018 11:15 (15 minutes)

Presenter: ORGILL, Emily (University of Manchester (GB))

Session Classification: Parallel II

Contribution ID: 61 Type: not specified

Constraining new physics with standard model measurements

Wednesday 28 March 2018 11:30 (15 minutes)

Presenter: YALLUP, David (University College London)

Session Classification: Parallel II

Contribution ID: 62 Type: not specified

Vertex finding for pile-up mitigation in the Phase-2 upgrade of the Level-1 Trigger of CMS

Monday 26 March 2018 11:30 (15 minutes)

Presenter: SHTIPLIYSKI, Antoni (Imperial College (GB))

Session Classification: Parallel III

Contribution ID: 63 Type: not specified

Gaussian Processes for High Energy Physics

Monday 26 March 2018 11:45 (15 minutes)

Presenter: BOZSON, Adam (Royal Holloway, University of London (GB))

Session Classification: Parallel III

Contribution ID: 64 Type: not specified

Perspectives for SUSY in light of current LHC constraints

Monday 26 March 2018 12:00 (15 minutes)

Presenter: COSTA, Jonathan (Imperial College London)

Session Classification: Parallel III

Contribution ID: 65 Type: not specified

QED Parton Distribution Functions

Monday 26 March 2018 12:15 (15 minutes)

Presenter: NATHVANI, Ricky

Session Classification: Parallel III

Contribution ID: 66 Type: not specified

Positivity Constraints on Self-Interacting Dark Matter

Monday 26 March 2018 12:30 (15 minutes)

Presenters: MELVILLE, Scott (Imperial College, London); MELVILLE, Scott (Imperial College London)

don)

Session Classification: Parallel III

Contribution ID: 67 Type: not specified

Sensor Characterisation and Readout for the LHCb VELO Upgrade

Monday 26 March 2018 14:00 (15 minutes)

Presenter: FRANCO LIMA, Vinicius (University of Liverpool (GB))

Session Classification: Parallel III

Contribution ID: 68 Type: not specified

3D Printing Gaseous Radiation Detectors

Monday 26 March 2018 14:15 (15 minutes)

Presenter: FARGHER, Samuel

Session Classification: Parallel III

Contribution ID: 69 Type: not specified

ATLAS inner detector decommissioning: Tolerance study of robotic components for use in high radiation environment

Monday 26 March 2018 14:30 (15 minutes)

Presenter: CRYER, Alice (University of Sheffield (GB))

Session Classification: Parallel III

Contribution ID: **70** Type: **not specified**

The LHCb VELO Upgrade

Monday 26 March 2018 14:45 (15 minutes)

Presenter: DEEPANWITA, Dutta

Session Classification: Parallel III

Contribution ID: 71 Type: not specified

Bayesian optimisation of the SHiP muon shield

Monday 26 March 2018 15:00 (15 minutes)

Presenter: LANTWIN, Oliver (Imperial College (GB))

Session Classification: Parallel III

Contribution ID: 72 Type: not specified

Towards the highest precision detector at the LHC - The LHCb Upgrade VELO and Its Performance

Monday 26 March 2018 15:15 (15 minutes)

Presenter: BURR, Chris (University of Manchester (GB))

Session Classification: Parallel III

Contribution ID: 73 Type: not specified

Optical Calibration of the Hyper-Kamiokande Detector with Test Data in Super-Kamiokande

Tuesday 27 March 2018 11:30 (15 minutes)

Presenter: ANTHONY, Lauren

Session Classification: Parallel III

Contribution ID: 74 Type: **not specified**

Gadolinium radiopurity assay programme for Super-Kamiokande

Tuesday 27 March 2018 11:45 (15 minutes)

Presenter: THIESSE, Matthew

Session Classification: Parallel III

Contribution ID: 75 Type: **not specified**

The Hyper-Kamiokande Outer-Detector : design, performance estimation of background rejection and physics potential

Tuesday 27 March 2018 12:00 (15 minutes)

Presenter: ZSOLDOS, Stephane Alexandre (Universite de Paris-Sud 11 (FR))

Session Classification: Parallel III

Contribution ID: 76 Type: not specified

Supernova Neutrino Simulations in Hyper-Kamiokande

Tuesday 27 March 2018 12:15 (15 minutes)

Presenter: MIGENDA, Jost (University of Sheffield)

Session Classification: Parallel III

Contribution ID: 77 Type: **not specified**

Innovation and Non-Proliferation - Particle Physics for Nuclear Threat Reduction

Tuesday 27 March 2018 12:30 (15 minutes)

Presenter: KNEALE, Elisabeth

Session Classification: Parallel III

Contribution ID: 78 Type: not specified

Commissioning of a Laser Calibration System for SNO+

Wednesday 28 March 2018 11:00 (15 minutes)

Presenter: TURNER, Esther

Session Classification: Parallel III

Contribution ID: 79 Type: not specified

The physics of SNO+

Wednesday 28 March 2018 11:15 (15 minutes)

Presenter: Dr LEMING, Edward (University of Oxford)

Session Classification: Parallel III

Contribution ID: 80 Type: not specified

Cosmic Muon Induced Neutrons in SNO+

Wednesday 28 March 2018 11:30 (15 minutes)

Presenter: LIGGINS, Billy

Session Classification: Parallel III

Contribution ID: 81 Type: not specified

Measuring the Effective Longitudinal Electron Diffusion Coefficient at MicroBooNE

Monday 26 March 2018 11:30 (15 minutes)

Presenter: LISTER, Adam

Session Classification: Parallel IV

Contribution ID: 82 Type: not specified

Calorimetric Energy Scale in the NOvA Detectors

Monday 26 March 2018 11:45 (15 minutes)

Presenter: ALION, Tyler (University of Sussex)

Session Classification: Parallel IV

Contribution ID: 83 Type: not specified

MicroBooNE NC Delta Radiative Single-Photon Search

Monday 26 March 2018 12:00 (15 minutes)

Presenter: MURRELLS, Robert

Session Classification: Parallel IV

Contribution ID: 84 Type: not specified

Comparison of Binned vs. Unbinned Likelihood Analyses for Neutrino Oscillation Measurements in NOvA

Monday 26 March 2018 12:30 (15 minutes)

Presenter: BENDING, Sebastian

Session Classification: Parallel IV

Contribution ID: 85 Type: not specified

Latest muon neutrino disappearance results from the NOvA experiment

Monday 26 March 2018 12:15 (15 minutes)

Presenter: MENDEZ, Diana Patricia (University of Sussex)

Session Classification: Parallel IV

Contribution ID: 86 Type: not specified

Overview of the ANITA experiment

Monday 26 March 2018 14:00 (15 minutes)

Presenter: CREMONESI, Linda (Queen Mary University of London)

Session Classification: Parallel IV

Contribution ID: 87 Type: not specified

Hunting Axionlike Dark Matter by Searching for an Oscillating Neutron Electric Dipole Moment

Monday 26 March 2018 14:15 (15 minutes)

Presenter: AYRES, Nick (University of Sussex)

Session Classification: Parallel IV

Contribution ID: 88 Type: not specified

Search for New Physics in Astrophysical Flavor at IceCube

Monday 26 March 2018 14:30 (15 minutes)

Presenter: MANDALIA, Shivesh (Queen Mary University of London)

Session Classification: Parallel IV

Contribution ID: 89 Type: not specified

Neutrino Interferometry for High-Precision Tests of Lorentz Symmetry with IceCube

Monday 26 March 2018 14:45 (15 minutes)

Presenter: KATORI, Teppei (Queen Mary University of London)

Session Classification: Parallel IV

Contribution ID: 90 Type: not specified

Frequency Tracking of Advanced LIGO Data for Generation of Calibrated Strain h(t) with IWAVE/APL

Presenter: MISTRY, Timesh

Session Classification: Parallel IV

Contribution ID: 91 Type: not specified

Searching for WIMP dark matter with the LZ experiment

Monday 26 March 2018 15:00 (15 minutes)

Presenter: OLCINA, Ibles

Session Classification: Parallel IV

Contribution ID: 92 Type: not specified

Status of the SuperNEMO double-beta decay experiment

Tuesday 27 March 2018 11:30 (15 minutes)

Presenter: PATRICK, Cheryl (Northwestern University)

Session Classification: Parallel IV

Contribution ID: 93 Type: not specified

Recent Developments in the Spherical Proportional Counter for NEWS-G

Tuesday 27 March 2018 11:45 (15 minutes)

Presenter: KNIGHTS, Patrick

Session Classification: Parallel IV

Contribution ID: 94 Type: not specified

Sensitivity Studies and Development of the Gas Supply System for the SuperNEMO Experiment

Tuesday 27 March 2018 12:00 (15 minutes)

Presenter: DAWSON, Lauren

Session Classification: Parallel IV

Contribution ID: 95 Type: not specified

Radon Background Mitigation Strategy for the SuperNEMO Experiment

Tuesday 27 March 2018 12:15 (15 minutes)

Presenter: XIE, Fang

Session Classification: Parallel IV

Contribution ID: 96 Type: not specified

Search for light Dark Matter with NEWS-G

Tuesday 27 March 2018 12:30 (15 minutes)

Presenter: NIKOLOPOULOS, Konstantinos (University of Birmingham (GB))

Session Classification: Parallel IV

Contribution ID: 97 Type: **not specified**

ECR prize talk. Gravitational-wave astronomy, and the discoveries of LIGO and Virgo

Monday 26 March 2018 17:05 (30 minutes)

Presenter: BERRY, Christopher

Session Classification: Plenary