

IOP Joint APP, HEPP and NP Annual Conference 2024

Report of Contributions

Contribution ID: 1

Type: **not specified**

Welcome

Monday 8 April 2024 13:00 (15 minutes)

Presenter: Prof. JONES, Tim (Vice-Chancellor University of Liverpool)

Session Classification: Plenary Session

Contribution ID: 9

Type: **not specified**

Higgs and SM Physics at the LHC (25'+5')

Monday 8 April 2024 13:15 (30 minutes)

Presenter: LANGFORD, Jonathon Mark (Imperial College (GB))

Session Classification: Plenary Session

Contribution ID: **10**

Type: **not specified**

BSM Physics at the LHC and HL-LHC upgrades (25'+5')

Monday 8 April 2024 13:45 (30 minutes)

Presenter: ALDERWEIRELDT, Sara (The University of Edinburgh (GB))

Session Classification: Plenary Session

Contribution ID: 11

Type: **not specified**

Anatomy of Hadron Collisions - And Challenges for the Future (17'+3')

Monday 8 April 2024 14:15 (20 minutes)

Presenter: Prof. SKANDS, Peter (Monash University (AU) & University of Oxford)

Session Classification: Plenary Session

Contribution ID: 12

Type: **not specified**

Sustainability in the subatomic sciences (17'+3')

Monday 8 April 2024 14:35 (20 minutes)

Presenter: BOISVERT, Veronique (Royal Holloway, University of London)

Session Classification: Plenary Session

Contribution ID: 13

Type: **not specified**

Particle Physics Strategy, the P5 Report. (17'+3')

Monday 8 April 2024 15:45 (20 minutes)

Presenter: TOURAMANIS, Christos (University of Liverpool (GB))

Session Classification: Plenary Session

Contribution ID: 14

Type: **not specified**

ALICE and the Heavy Ion Programme at CERN (25'+5')

Monday 8 April 2024 16:05 (30 minutes)

Presenter: VAN LEEUWEN, Marco (Nikhef National institute for subatomic physics (NL))

Session Classification: Plenary Session

Contribution ID: 15

Type: **not specified**

Flavour Physics at the LHC and elsewhere (25'+5)

Monday 8 April 2024 16:35 (30 minutes)

Presenter: GRILLO, Lucia (University of Glasgow (GB))

Session Classification: Plenary Session

Contribution ID: 16

Type: **not specified**

Hidden Sector Experiments (17'+3')

Monday 8 April 2024 17:05 (20 minutes)

Presenter: GWILLIAM, Carl (University of Liverpool (GB))

Session Classification: Plenary Session

Contribution ID: 17

Type: **not specified**

The Proton EDM (17'+3')

Monday 8 April 2024 17:25 (20 minutes)

Presenter: KESHAVARZI, Alex (University of Manchester)

Session Classification: Plenary Session

Contribution ID: **18**

Type: **not specified**

Nuclear Structure with AGATA (25'+5')

Tuesday 9 April 2024 09:00 (30 minutes)

Presenter: PEREZ, Rosa (LNL, INFN)

Session Classification: Plenary Session

Contribution ID: 19

Type: **not specified**

Recent advances in hadron structure at Jlab (17'+3')

Tuesday 9 April 2024 09:30 (20 minutes)

Presenter: HAMILTON, David (University of Glasgow)

Session Classification: Plenary Session

Contribution ID: 20

Type: **not specified**

Quantum Algorithms applied to nuclear structure (25'+5')

Tuesday 9 April 2024 09:50 (30 minutes)

Presenter: STEVENSON, Paul (University of Surrey)

Session Classification: Plenary Session

Contribution ID: 21

Type: **not specified**

Novel Probes of Primordial Hot Quark Soup (25'+5')

Tuesday 9 April 2024 10:20 (30 minutes)

Presenter: RAJAGOPAL, Krishna (Massachusetts Inst. of Technology (US))

Session Classification: Plenary Session

Contribution ID: 22

Type: **not specified**

IoP APP early career prize winner's talk

Tuesday 9 April 2024 11:20 (20 minutes)

Presenter: KNIGHTS, Patrick (University of Birmingham)

Session Classification: Plenary Session

Contribution ID: 23

Type: **not specified**

Dark Matter: Direct Search experiments and other approaches (25'_5)

Tuesday 9 April 2024 11:40 (30 minutes)

Presenter: Dr COTTLE, Amy (University College London)

Session Classification: Plenary Session

Contribution ID: 24

Type: **not specified**

Gravitational Wave Experiments (17'+3')

Tuesday 9 April 2024 12:10 (20 minutes)

Presenter: HAMMOND, Giles (University of Glasgow)

Session Classification: Plenary Session

Contribution ID: 25

Type: **not specified**

Cosmic rays and cosmic neutrinos (17'+3')

Tuesday 9 April 2024 12:30 (20 minutes)

Presenter: Prof. NICHOL, Ryan (UCL)

Session Classification: Plenary Session

Contribution ID: 26

Type: **not specified**

Laser Spectroscopy of Super Heavy Elements (25'+5')

Tuesday 9 April 2024 14:05 (30 minutes)

Presenter: CHHETRI, Premaditya (KU Leuven (BE))

Session Classification: Plenary Session

Contribution ID: 27

Type: **not specified**

In-Source Laser Spectroscopy @ ISOLDE (17'+3')

Tuesday 9 April 2024 14:35 (20 minutes)

Presenter: CUBISS, James (University of York (GB))

Session Classification: Plenary Session

Contribution ID: 28

Type: **not specified**

Combined gamma-ray and electron spectroscopy for studies of shape coexistence (25'+5')

Tuesday 9 April 2024 14:55 (30 minutes)

Presenter: PAKARINEN, Janne (University of Jyvaskyla (FI))

Session Classification: Plenary Session

Contribution ID: 29

Type: **not specified**

Neutrinoless double beta decay and absolute neutrino mass ($17'+3'$)

Tuesday 9 April 2024 15:25 (20 minutes)

Presenter: SAAKYAN, Ruben (University College London)

Session Classification: Plenary Session

Contribution ID: 30

Type: **not specified**

Neutrino Oscillation Experiments (25'+5')

Tuesday 9 April 2024 16:30 (30 minutes)

Presenter: Dr PICKERING, Luke (Royal Holloway, University of London)

Session Classification: Plenary Session

Contribution ID: 31

Type: **not specified**

The Muon Physics Programme: g-2 puzzle, cLFV and EDM (25'+5')

Tuesday 9 April 2024 17:00 (30 minutes)

Presenter: CHARITY, Saskia (University of Liverpool (GB))

Session Classification: Plenary Session

Contribution ID: 32

Type: **not specified**

The UK QTFP programme (25'+5)

Tuesday 9 April 2024 17:30 (30 minutes)

Presenter: SHIPSEY, Ian (University of Oxford (GB))

Session Classification: Plenary Session

Contribution ID: 33

Type: **not specified**

The 2024 NuPECC Long Range Plan (17'+3')

Thursday 11 April 2024 09:00 (20 minutes)

Presenter: WIDMANN, Eberhard (Austrian Academy of Sciences (AT))

Session Classification: Plenary Session

Contribution ID: 34

Type: **not specified**

2023 IoP HEPP Early Career Prize winner's talk – Physics opportunities at future colliders (17'+3')

Thursday 11 April 2024 09:20 (20 minutes)

Presenter: WILLIAMS, Sarah Louise (University of Cambridge (GB))

Session Classification: Plenary Session

Contribution ID: 35

Type: **not specified**

CERN: The future programme (25'+5')

Thursday 11 April 2024 10:10 (30 minutes)

Presenter: LAMONT, Mike (CERN)

Session Classification: Plenary Session

Contribution ID: 36

Type: **not specified**

The future programme at Fermilab (25'+5')

Thursday 11 April 2024 09:40 (30 minutes)

Presenter: FLEMING, Bonnie (Fermi National Laboratory)

Session Classification: Plenary Session

Contribution ID: 37

Type: **not specified**

The future programme at JPARC (25'+5')

Thursday 11 April 2024 11:10 (30 minutes)

Presenter: KOBAYASHI, Takashi (High Energy Accelerator Research Organization (JP))

Session Classification: Plenary Session

Contribution ID: 38

Type: **not specified**

The future programme at BNL (25'+5')

Thursday 11 April 2024 11:40 (30 minutes)

Presenter: HEWETT, Joanne (BNL)

Session Classification: Plenary Session

Contribution ID: 39

Type: **not specified**

The ECFA DRD Programme (17'+3')

Thursday 11 April 2024 12:10 (30 minutes)

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

Session Classification: Plenary Session

Contribution ID: 40

Type: **not specified**

Closing Remarks

Thursday 11 April 2024 12:40 (10 minutes)

Session Classification: Plenary Session

Contribution ID: 41

Type: **not specified**

Update from DSIT

Wednesday 10 April 2024 15:45 (10 minutes)

Session Classification: Plenary Session

Contribution ID: 42

Type: **not specified**

Executive Chair Report –Mark Thomson (overview of STFC)

Wednesday 10 April 2024 15:55 (1 hour)

Presenters: THOMSON, Mark Andrew; THOMSON, Mark

Session Classification: Plenary Session

Contribution ID: 43

Type: **not specified**

Science Board (PPAN) Update - Keith Grainge

Wednesday 10 April 2024 16:55 (15 minutes)

Session Classification: Plenary Session

Contribution ID: 44

Type: **not specified**

Report Particle Astrophysics Advisory Panel (PAAP)

Wednesday 10 April 2024 17:10 (15 minutes)

Presenter: BURDIN, Sergey (University of Liverpool (GB))

Session Classification: Plenary Session

Contribution ID: 45

Type: **not specified**

Report Particle Physics Advisory Panel (PPAP)

Wednesday 10 April 2024 17:25 (15 minutes)

Presenter: SAAKYAN, Ruben (University of London (GB))

Session Classification: Plenary Session

Contribution ID: 46

Type: **not specified**

Report Nuclear Physics Advisory Panel (NPAP)

Wednesday 10 April 2024 17:40 (15 minutes)

Presenter: DOBACZEWSKI, Jacek

Session Classification: Plenary Session

Contribution ID: 47

Type: **not specified**

Search for long lived ALPs that decay into diphoton in Run 3 (12'+3')

Wednesday 10 April 2024 09:00 (15 minutes)

Presenter: IRWIN, Rebecca Katie (University of Liverpool (GB))

Session Classification: Parallel Sessions

Contribution ID: 48

Type: **not specified**

Searches for the Inert Doublet Model ($12'+3'$)

Wednesday 10 April 2024 09:15 (15 minutes)

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

Session Classification: Parallel Sessions

Contribution ID: 49

Type: **not specified**

Search for dark showers in the b-parking dataset (12'+3)

Wednesday 10 April 2024 09:30 (15 minutes)

Presenters: LAW, Kai Hong (Imperial College (GB)); LAW, Kai Hong (Imperial College London)

Session Classification: Parallel Sessions

Contribution ID: 51

Type: **not specified**

Re-thinking the CMS Level 1 Trigger with Machine Learning (12'+3')

Wednesday 10 April 2024 09:45 (15 minutes)

Presenter: GLOWACKI, Maciej Mikolaj (University of Bristol (GB))

Session Classification: Parallel Sessions

Contribution ID: 52

Type: **not specified**

The ATLAS Run III L1 calorimeter trigger (12'+3')

Wednesday 10 April 2024 10:00 (15 minutes)

Presenter: BELLOS, Panagiotis (University of Birmingham (GB))

Session Classification: Parallel Sessions

Contribution ID: 53

Type: **not specified**

A Top Friendship: Measurement of $t\bar{t}H$ production in the $H(bb)$ decay channel at ATLAS with Transformer Networks (12'+3')

Wednesday 10 April 2024 14:45 (15 minutes)

Presenter: EVANS, Levi (Royal Holloway, University of London (GB))

Session Classification: Parallel Sessions

Contribution ID: 54

Type: **not specified**

Search for Decays of the Higgs Boson into a Z Boson and a Light Hadronically Decaying Resonance (12'+3')

Wednesday 10 April 2024 11:15 (15 minutes)

Presenter: WU, Chonghao (University of Birmingham (GB))

Session Classification: Parallel Sessions

Contribution ID: 55

Type: **not specified**

Transformer Neural Networks for Large Radius Jet Classification and Regression for Boosted Higgs Bosons at the ATLAS Detector (12'+3')

Wednesday 10 April 2024 11:30 (15 minutes)

Presenter: VAITKUS, Andrius (University College London (GB))

Session Classification: Parallel Sessions

Contribution ID: 56

Type: **not specified**

Constraining Anomalous Quartic Gauge Couplings in Production of Three Massive Vector Bosons with the ATLAS detector (12'+3')

Wednesday 10 April 2024 11:45 (15 minutes)

Presenter: DOUGAN, Patrick (University of Manchester (GB))

Session Classification: Parallel Sessions

Contribution ID: 57

Type: **not specified**

The first measurement of the $t\bar{t}Z \rightarrow \nu\nu\nu$ cross section. (12'+3')

Wednesday 10 April 2024 12:00 (15 minutes)

Presenter: POSTILL, Michael Antony (University of Sheffield (GB))

Session Classification: Parallel Sessions

Contribution ID: 58

Type: **not specified**

Top quark mass measurement in the boosted lepton+jets channel in pp collisions at $\sqrt{s}=13$ TeV using the ATLAS detector at the LHC (12'+3')

Wednesday 10 April 2024 12:15 (15 minutes)

Presenter: WATTON, Elliot (University of Glasgow (GB))

Session Classification: Parallel Sessions

Contribution ID: 59

Type: **not specified**

UKRI-MPW1: Simulations and preliminary Evaluations of an HV-CMOS sensor optimised for high radiation tolerance (12'+3')

Wednesday 10 April 2024 13:30 (15 minutes)

Presenter: WADE, Benjamin (University of Liverpool (GB))

Session Classification: Parallel Sessions

Contribution ID: **60**

Type: **not specified**

Pre-clinical Investigations of Spatially Fractionated Radiotherapy (12'+3')

Wednesday 10 April 2024 13:45 (15 minutes)

Presenter: MCGARRIGLE, Josie (Imperial College London)

Session Classification: Parallel Sessions

Contribution ID: 61

Type: **not specified**

Characterization of Secondary Neutrons in Carbon Ion Beam Therapy Using TOPAS Monte Carlo Simulations (12'+3')

Wednesday 10 April 2024 14:00 (15 minutes)

Presenter: ALQAHTANI, Fajer (University of Liverpool)

Session Classification: Parallel Sessions

Contribution ID: 62

Type: **not specified**

Design of an Ion-Acoustics Proof-of-Principle Experiment for LhARA (12'+3')

Wednesday 10 April 2024 14:15 (15 minutes)

Presenter: MAXOUTI, Maria (Imperial College London)

Session Classification: Parallel Sessions

Contribution ID: 63

Type: **not specified**

A feasibility study using an array of LaBr₃(Ce) scintillation detectors as a Compton camera for prompt gamma imaging during BNCT (12'+3')

Wednesday 10 April 2024 14:30 (15 minutes)

Presenter: NUTTER, Kiran

Session Classification: Parallel Sessions

Contribution ID: 64

Type: **not specified**

A search for lepton flavour violating $\tau \rightarrow 3\mu$ decays with the ATLAS experiment (12'+3')

Wednesday 10 April 2024 09:00 (15 minutes)

Presenter: MCPARTLAND, Conor (University of Liverpool (GB))

Session Classification: Parallel Sessions

Contribution ID: 65

Type: **not specified**

Search for light long-lived neutral particles from Higgs boson decays via vector-boson-fusion production from proton-proton collisions at $\sqrt{s}=13$ TeV with the ATLAS detector (12'+3')

Wednesday 10 April 2024 09:15 (15 minutes)

Presenter: GONZÁLEZ, Richards (The University of Edinburgh (GB))

Session Classification: Parallel Sessions

Contribution ID: 66

Type: **not specified**

Searching for direct stau production in the lepton-hadron final state at ATLAS using machine learning (12'+3')

Wednesday 10 April 2024 09:30 (15 minutes)

Presenter: RUTHERFORD COLMENARES, Sebastian (University of Cambridge (GB))

Session Classification: Parallel Sessions

Contribution ID: 67

Type: **not specified**

Searching for Supersymmetry with the ATLAS Detector (12'+3')

Wednesday 10 April 2024 09:45 (15 minutes)

Presenter: RUGGIERO, Alessandro (University of Oxford (GB))

Session Classification: Parallel Sessions

Contribution ID: **68**

Type: **not specified**

A search for tri-Higgs production at the ATLAS detector (12'+3')

Wednesday 10 April 2024 10:00 (15 minutes)

Presenter: CHEN, Maggie (University of Oxford (GB))

Session Classification: Parallel Sessions

Contribution ID: 69

Type: **not specified**

ML and BSM reinterpretation - challenges and opportunities (12'+3')

Wednesday 10 April 2024 10:15 (15 minutes)

Presenter: PROCTER, Tomasz (University of Glasgow (GB))

Session Classification: Parallel Sessions

Contribution ID: 70

Type: **not specified**

A Search for Dark Matter in the Light of Dark-Higgs Strahlung (12'+3')

Wednesday 10 April 2024 11:00 (15 minutes)

Presenter: BRUECKLER, Tim Lukas (Oxford University)

Session Classification: Parallel Sessions

Contribution ID: 71

Type: **not specified**

A search for high-mass resonances decaying to $\tau\nu$ in pp-collisions at center-of-mass energy = 13 TeV with the Run-2 data of the ATLAS detector (12'+3')

Wednesday 10 April 2024 11:15 (15 minutes)

Presenter: VERGIS, Christos (University of London (GB))

Session Classification: Parallel Sessions

Contribution ID: 72

Type: **not specified**

Searching for missing mass in proton-tagged dilepton events with the AFP and ATLAS detectors (12'+3')

Wednesday 10 April 2024 11:30 (15 minutes)

Presenter: LOMAS, Josh (University of Birmingham (GB))

Session Classification: Parallel Sessions

Contribution ID: 73

Type: **not specified**

The Search for Axion-Like Particles with the FASER Experiment at the LHC (12'+3')

Wednesday 10 April 2024 11:45 (15 minutes)

Presenter: CAVANAGH, Charlotte (University of Liverpool (GB))

Session Classification: Parallel Sessions

Contribution ID: 74

Type: **not specified**

Baler: Machine-Learning-Based Compression of Scientific Data in Real Time (12'+3')

Wednesday 10 April 2024 12:00 (15 minutes)

Presenter: SMITH, James (University of Manchester (GB))

Session Classification: Parallel Sessions

Contribution ID: 75

Type: **not specified**

Upgrading the magnetic spectrometer for electron bunch emittance and energy measurements at AWAKE. (12'+3')

Wednesday 10 April 2024 12:15 (15 minutes)

Presenter: PANNELL, Fern (University College London)

Session Classification: Parallel Sessions

Contribution ID: 76

Type: **not specified**

Fiducial differential measurement of the production of the Higgs boson through Vector Boson Fusion in the $\tau+\tau^-$ channel with the ATLAS Detector (12'+3')

Wednesday 10 April 2024 13:30 (15 minutes)

Presenter: GUILLOTON, Eva (University of Warwick (GB))

Session Classification: Parallel Sessions

Contribution ID: 77

Type: **not specified**

Differential Cross-Section Measurement of Inclusive $W^{\pm} (\rightarrow l^{\pm} \nu) \gamma$ Process in proton-proton collision at $\sqrt{s}=13$ TeV with the ATLAS Detector (12'+3')

Wednesday 10 April 2024 13:45 (15 minutes)

Presenter: HUANG, Zuchen (University of Manchester)

Session Classification: Parallel Sessions

Contribution ID: 78

Type: **not specified**

Studies on Z-gamma Scattering at 13 TeV with ATLAS Detector (12'+3')

Wednesday 10 April 2024 14:00 (15 minutes)

Presenter: PODDAR, Gitanjali (University of London (GB))

Session Classification: Parallel Sessions

Contribution ID: 79

Type: **not specified**

Uncertain systematics in combinations (12'+3')

Wednesday 10 April 2024 14:15 (15 minutes)

Presenter: CANONERO, Enzo (University of London (GB))

Session Classification: Parallel Sessions

Contribution ID: 80

Type: **not specified**

First measurement of high-mass ttll and LFU-inspired EFT interpretations with the ATLAS detector (12'+3')

Wednesday 10 April 2024 14:30 (15 minutes)

Presenter: LOESCHCKE CENTENO, Gianna (University of Sussex (GB))

Session Classification: Parallel Sessions

Contribution ID: **81**

Type: **not specified**

Beyond the standard model particle searches in MicroBooNE (12'+3')

Wednesday 10 April 2024 09:00 (15 minutes)

Presenter: ARELLANO, Luciano (The University of Manchester)

Session Classification: Parallel Sessions

Contribution ID: 82

Type: **not specified**

Sensitivity to HNLs with the ANUBIS detector (12'+3')

Wednesday 10 April 2024 09:15 (15 minutes)

Presenter: MULLIN, Anna Jane (University of Cambridge (GB))

Session Classification: Parallel Sessions

Contribution ID: 83

Type: **not specified**

Developing the Reconstruction of a Magnetised Gaseous Argon TPC for the DUNE Near Detector (12'+3')

Wednesday 10 April 2024 09:30 (15 minutes)

Presenter: MARTINEZ LOPEZ, Francisco (Queen Mary University of London (GB))

Session Classification: Parallel Sessions

Contribution ID: 84

Type: **not specified**

A Data-Driven Extrapolation Technique for the DUNE-PRISM Oscillation Analysis (12'+3')

Wednesday 10 April 2024 09:45 (15 minutes)

Presenter: WILKINSON, Alexander J (University College London)

Session Classification: Parallel Sessions

Contribution ID: 85

Type: **not specified**

Measuring Reactor Antineutrino Oscillation at SNO+ (12'+3')

Wednesday 10 April 2024 10:00 (15 minutes)

Presenter: PAGE, James (University of Sussex)

Session Classification: Parallel Sessions

Contribution ID: 87

Type: **not specified**

Sensitivity Studies for a Gaseous Argon Near Detector for DUNE (12'+3')

Wednesday 10 April 2024 11:00 (15 minutes)

Presenter: KHAN, Naseem (Imperial College (GB))

Session Classification: Parallel Sessions

Contribution ID: **88**

Type: **not specified**

Analysing the fast oscillations of atmospheric neutrinos at Super-Kamiokande (12'+3')

Wednesday 10 April 2024 11:15 (15 minutes)

Presenter: BURTON, George (Kings College London)

Session Classification: Parallel Sessions

Contribution ID: 89

Type: **not specified**

Sterile Neutrino Oscillation Searches using the VALOR Fitting Framework at SBN ($12'+3'$)

Wednesday 10 April 2024 11:30 (15 minutes)

Presenter: SLATER, Beth (University Of Liverpool)

Session Classification: Parallel Sessions

Contribution ID: 90

Type: **not specified**

Improving Neutrino Energy Reconstruction with Machine Learning (12'+3')

Wednesday 10 April 2024 11:45 (15 minutes)

Presenter: MACMAHON, Margot (University College London)

Session Classification: Parallel Sessions

Contribution ID: 91

Type: **not specified**

Joint analysis between Super-Kamiokande atmospheric and T2K accelerator neutrinos (12'+3')

Wednesday 10 April 2024 12:00 (15 minutes)

Presenter: XIE, Zhenxiong (King's College London)

Session Classification: Parallel Sessions

Contribution ID: 92

Type: **not specified**

Supernova triggering at DUNE from machine-learning based clustering (12'+3')

Wednesday 10 April 2024 12:15 (15 minutes)

Presenter: LINDEBAUM, Dennis (University of Bristol (GB))

Session Classification: Parallel Sessions

Contribution ID: 93

Type: **not specified**

SoLAr: A novel technology for solar neutrino detection (12'+3')

Wednesday 10 April 2024 13:30 (15 minutes)

Presenter: RUIZ FERREIRA, Guilherme (University Of Manchester)

Session Classification: Parallel Sessions

Contribution ID: 94

Type: **not specified**

Towards a $\text{NC}\pi^0$ cross section measurement in the Short-Baseline Near Detector. (12'+3')

Wednesday 10 April 2024 13:45 (15 minutes)

Presenters: LAY, Henry (Lancaster University); LAY, Henry (Lancaster University)

Session Classification: Parallel Sessions

Contribution ID: 95

Type: **not specified**

First results from a relativistic mean field theory implemented in the NEUT neutrino interaction event generator. (12'+3')

Wednesday 10 April 2024 14:00 (15 minutes)

Presenter: Mr MCKEAN, Jake (Imperial College (GB))

Session Classification: Parallel Sessions

Contribution ID: 96

Type: **not specified**

First look at the background of the LEGEND-200 experiment (12'+3')

Wednesday 10 April 2024 14:15 (15 minutes)

Presenter: MARSHALL, George (University College London)

Session Classification: Parallel Sessions

Contribution ID: 97

Type: **not specified**

LEGEND-1000 (12'+3')

Wednesday 10 April 2024 14:30 (15 minutes)

Presenter: Prof. WATERS, David (UCL)

Session Classification: Parallel Sessions

Contribution ID: 98

Type: **not specified**

Sub-GeV particle identification and tagged photon beam for the Water Cherenkov Test Experiment (12'+3')

Wednesday 10 April 2024 14:45 (15 minutes)

Presenter: CRAPLET, Alie Adeline Laure (Imperial College (GB))

Session Classification: Parallel Sessions

Contribution ID: 99

Type: **not specified**

Stopping Effects and Sensitivity of Sub-GeV Dark Matter in QUEST-DMC (12'+3')

Wednesday 10 April 2024 09:00 (15 minutes)

Presenter: DARVISHI, Neda (Royal Holloway University of London)

Session Classification: Parallel Sessions

Contribution ID: **100**

Type: **not specified**

Cryogenic qualification of SiPM array detectors for the DarkSide-20k experiment (12'+3')

Wednesday 10 April 2024 09:15 (15 minutes)

Presenter: HAMER, Alice (University of Edinburgh)

Session Classification: Parallel Sessions

Contribution ID: **101**

Type: **not specified**

Boosted Dark Matter Sensitivity in the DarkSide-20k Detector (12'+3')

Wednesday 10 April 2024 09:30 (15 minutes)

Presenter: BALMFORTH, Zoe (Royal Holloway University of London)

Session Classification: Parallel Sessions

Contribution ID: **102**

Type: **not specified**

The APEX Experiment: a dark matter search at Jefferson Lab Hall A (12'+3')

Wednesday 10 April 2024 09:45 (15 minutes)

Presenter: JEVONS, Oliver (University of Glasgow)

Session Classification: Parallel Sessions

Contribution ID: **103**

Type: **not specified**

Status of the LUX-ZEPLIN (LZ) Dark Matter Experiment (12'+3')

Wednesday 10 April 2024 10:00 (15 minutes)

Presenter: FRASER, Ewan

Session Classification: Parallel Sessions

Contribution ID: **104**

Type: **not specified**

LZ Outer Detector: Calibration, Monitoring and Performance in Contribution to First Science Result (12'+3')

Wednesday 10 April 2024 10:15 (15 minutes)

Presenters: WOODFORD, Sam; WOODFORD, Sam (University Of Liverpool)

Session Classification: Parallel Sessions

Contribution ID: **105**

Type: **not specified**

Characterising Electric Fields in LZ (12'+3')

Wednesday 10 April 2024 11:00 (15 minutes)

Presenter: DEY, Sparshita (University of Oxford)

Session Classification: Parallel Sessions

Contribution ID: **106**

Type: **not specified**

Multiple Scatter Neutron Background Measurements in LZ (12'+3')

Wednesday 10 April 2024 11:15 (15 minutes)

Presenter: ORPWOOD, Jo (University of Sheffield)

Session Classification: Parallel Sessions

Contribution ID: 107

Type: **not specified**

Studies of radioactive background from environment for a potential LXe dark matter experiment at Boulby (12'+3')

Wednesday 10 April 2024 11:30 (15 minutes)

Presenter: TRANTER, Jemima (University of Sheffield)

Session Classification: Parallel Sessions

Contribution ID: **108**

Type: **not specified**

Searching for Low Mass Dark Matter in Silicon using the Silicon Photomultipliers in Darkside-20k. (12'+3')

Wednesday 10 April 2024 11:45 (15 minutes)

Presenter: KOULOSOUSAS, Seraphim (Royal Holloway University of London)

Session Classification: Parallel Sessions

Contribution ID: **110**

Type: **not specified**

Benchmarking the DarkSide-20k UAr Cryogenic System (12'+3')

Wednesday 10 April 2024 12:00 (15 minutes)

Presenters: MACFADYEN, Oliver; MACFADYEN, Olly (Royal Holloway)

Session Classification: Parallel Sessions

Contribution ID: 111

Type: **not specified**

Production and performance of first DarkSide-20k Photo Detector Units (12'+3')

Wednesday 10 April 2024 13:30 (15 minutes)

Presenter: MARASCIULLI, Andrea (LNGS (INFN))

Session Classification: Parallel Sessions

Contribution ID: 112

Type: **not specified**

The QUantum Enhanced Space-Time (QUEST) experiment. (12'+3')

Wednesday 10 April 2024 13:45 (15 minutes)

Presenter: PATRA, Abhinav (Cardiff University)

Session Classification: Parallel Sessions

Contribution ID: 113

Type: **not specified**

Overview of the Technology of MAGIS and AION Atom Interferometry Experiments Towards Ultra-light Dark Matter Searches (12'+3')

Wednesday 10 April 2024 14:00 (15 minutes)

Presenter: ELERTAS, Gedminas (University of Liverpool)

Session Classification: Parallel Sessions

Contribution ID: 114

Type: **not specified**

Low energy electron recoil searches within LZ and using FlameNEST for future work (12'+3')

Wednesday 10 April 2024 14:15 (15 minutes)

Presenter: RIYAT, Harkirat (University of Edinburgh)

Session Classification: Parallel Sessions

Contribution ID: 116

Type: **not specified**

Optimisation of fast likelihood functions for dark matter and rare event searches (12'+3')

Wednesday 10 April 2024 14:30 (15 minutes)

Presenter: GREEN, Joshua (University Of Oxford)

Session Classification: Parallel Sessions

Contribution ID: 117

Type: **not specified**

BUTTON Simulations for the Development of WbLS (12'+3')

Wednesday 10 April 2024 09:00 (15 minutes)

Presenter: TARRANT, Adam (University of Liverpool)

Session Classification: Parallel Sessions

Contribution ID: 119

Type: **not specified**

ARIADNE+: Large Scale Demonstration of Fast Optical Readout for Dual Phase LArTPCs at the CERN Neutrino Platform (12'+3')

Wednesday 10 April 2024 09:15 (15 minutes)

Presenter: LOWE, Adam (University of Liverpool (GB))

Session Classification: Parallel Sessions

Contribution ID: 120

Type: **not specified**

Q-Pix: pixel-based charge readout for kton scale LArTPC (12'+3')

Wednesday 10 April 2024 09:30 (15 minutes)

Presenter: KUBOTA, Shion (University of Manchester (GB))

Session Classification: Parallel Sessions

Contribution ID: 121

Type: **not specified**

The University of Sheffield LArTPC Test Stand for Development of Next Generation Charge Readout Technologies (12'+3')

Wednesday 10 April 2024 09:45 (15 minutes)

Presenter: SCOTT, Harry (University Of Sheffield)

Session Classification: Parallel Sessions

Contribution ID: 122

Type: **not specified**

Understanding the Off-Axis Flux of Neutrinos from Neutral Kaons (12'+3')

Wednesday 10 April 2024 10:00 (15 minutes)

Presenter: PARKINSON, Holly (University of Edinburgh)

Session Classification: Parallel Sessions

Contribution ID: 123

Type: **not specified**

Measuring muon antineutrino charged-current interactions without mesons in the final state, in the NOvA Near Detector. (12'+3')

Wednesday 10 April 2024 11:00 (15 minutes)

Presenter: VOCKERODT, Kevin (Queen Mary University of London)

Session Classification: Parallel Sessions

Contribution ID: 124

Type: **not specified**

TPC Calibration in the Short Baseline Near Detector (SBND) (12'+3')

Wednesday 10 April 2024 11:15 (15 minutes)

Presenters: DARBY, Robert (University of Sussex); DARBY, Robert (University Of Sussex)

Session Classification: Parallel Sessions

Contribution ID: 125

Type: **not specified**

Modelling Cosmic Ray Muon Spallation for a Hyper-Kamiokande DSNB Analysis (12'+3')

Wednesday 10 April 2024 11:30 (15 minutes)

Presenter: FANNON, Jack (University of Sheffield)

Session Classification: Parallel Sessions

Contribution ID: 126

Type: **not specified**

Constraints on the Cosmic Neutrino Background from NGC1068 (12'+3)

Wednesday 10 April 2024 11:45 (15 minutes)

Presenter: FRANKLIN, Jack (Durham University)

Session Classification: Parallel Sessions

Contribution ID: 127

Type: **not specified**

The SNO+ Neutrinoless Double Beta Decay Programme (12'+3')

Wednesday 10 April 2024 12:00 (15 minutes)

Presenter: Dr TAM, Benjamin (University of Oxford)

Session Classification: Parallel Sessions

Contribution ID: 128

Type: **not specified**

Cold Atoms, Cool Physics: Progress in the AION Project (12'+3')

Wednesday 10 April 2024 12:15 (15 minutes)

Presenter: PASATEMBOU, Elizabeth

Session Classification: Parallel Sessions

Contribution ID: 129

Type: **not specified**

Development of the MAGIS-100 atom interferometer primary imaging system (12'+3')

Wednesday 10 April 2024 13:30 (15 minutes)

Presenter: WOOD, Daniel (University of Oxford (GB))

Session Classification: Parallel Sessions

Contribution ID: 130

Type: **not specified**

Superfluid Helium-3 Calorimetry with Quantum Sensor Readout in the QUEST-DMC experiment (12'+3')

Wednesday 10 April 2024 13:45 (15 minutes)

Presenter: SMITH, Robert

Session Classification: Parallel Sessions

Contribution ID: 131

Type: **not specified**

Molecular sieve vacuum swing adsorption purification and radon reduction system for gaseous dark matter and rare-event detectors (12'+3')

Wednesday 10 April 2024 14:00 (15 minutes)

Presenter: MARCELO GREGORIO, Robert Renz (Queen Mary University London)

Session Classification: Parallel Sessions

Contribution ID: 132

Type: **not specified**

Direct search for scalar field dark matter with LIGO (12'+3')

Wednesday 10 April 2024 14:15 (15 minutes)

Presenter: GÖTTEL, Alexandre (Cardiff University | Gravity Exploration Institute)

Session Classification: Parallel Sessions

Contribution ID: 134

Type: **not specified**

IWAVE a novel adaptive filtering method and its application to short and long duration gravitational wave searches (12'+3')

Wednesday 10 April 2024 14:30 (15 minutes)

Presenter: HOLLOWS, Ian (University of Sheffield)

Session Classification: Parallel Sessions

Contribution ID: 135

Type: **not specified**

Status of the Fermilab Muon $g-2$ Experiment (12'+3')

Wednesday 10 April 2024 09:00 (15 minutes)

Presenter: ZHANG, Ce (University of Liverpool (GB))

Session Classification: Parallel Sessions

Contribution ID: 136

Type: **not specified**

Measurement of the anomalous spin precession frequency ω_a in the Muon g-2 experiment at Fermilab (12'+3')

Wednesday 10 April 2024 09:15 (15 minutes)

Presenter: COTROZZI, Lorenzo (University Of Liverpool)

Session Classification: Parallel Sessions

Contribution ID: 137

Type: **not specified**

Search for an explanation to the muon anomalous magnetic moment through the non-resonant production of two additional Higgs bosons ($12'+3'$)

Wednesday 10 April 2024 09:30 (15 minutes)

Presenter: SAVVA, Klitos (Imperial College (GB))

Session Classification: Parallel Sessions

Contribution ID: 138

Type: **not specified**

Status of the MUonE experiment (12'+3')

Wednesday 10 April 2024 09:45 (15 minutes)

Presenter: PILATO, Riccardo (University of Liverpool (GB))

Session Classification: Parallel Sessions

Contribution ID: 139

Type: **not specified**

Measurement of the muon electric dipole moment at the Fermilab Muon g-2 experiment (12'+3')

Wednesday 10 April 2024 10:00 (15 minutes)

Presenters: BAILEY, Lucy (University College London); BAILEY, Miss Lucy Bailey

Session Classification: Parallel Sessions

Contribution ID: 140

Type: **not specified**

Nuanced Beta Spectral Shapes and Their Role in Exploring Physics Beyond the Standard Model (12'+3')

Wednesday 10 April 2024 10:15 (15 minutes)

Presenter: RAMALHO, Marlom (University Of Jyväskylä)

Session Classification: Parallel Sessions

Contribution ID: 141

Type: **not specified**

Characterization of irradiated Silicon Photomultipliers for LHCb Upgrade II (12'+3')

Wednesday 10 April 2024 11:00 (15 minutes)

Presenter: VRAHAS, Constantinos (The University of Edinburgh (GB))

Session Classification: Parallel Sessions

Contribution ID: 142

Type: **not specified**

Amplitude Analysis of $B^0 \rightarrow D^0 D^{-0} K^+ \pi^-$ decays with the LHCb experiment (12'+3')

Wednesday 10 April 2024 11:15 (15 minutes)

Presenter: AMEY, Jake (University of Bristol (GB))

Session Classification: Parallel Sessions

Contribution ID: 143

Type: **not specified**

Search for rare Bd -> phi phi decays in the full Run 1 + Run 2 dataset from the LHCb experiment (12'+3')

Wednesday 10 April 2024 11:30 (15 minutes)

Presenter: RICHARDSON-SLIPPER, Mary (The University of Edinburgh (GB))

Session Classification: Parallel Sessions

Contribution ID: 144

Type: **not specified**

Angular analysis of rare Bs decays involving electrons at the LHCb Experiment ($12'+3'$)

Wednesday 10 April 2024 11:45 (15 minutes)

Presenter: PAOLUCCI, Lorenzo (University of Warwick (GB))

Session Classification: Parallel Sessions

Contribution ID: 145

Type: **not specified**

Test of lepton flavour universality using $B^+ \rightarrow K^+ l^+ l^-$ processes at high dilepton invariant mass ($12'+3'$)

Wednesday 10 April 2024 12:00 (15 minutes)

Presenter: HERD, James (Imperial)

Session Classification: Parallel Sessions

Contribution ID: 146

Type: **not specified**

Search for Right-Handed Weak Decays with the LHCb Detector (12'+3')

Wednesday 10 April 2024 12:15 (15 minutes)

Presenter: BROWN, James (University of Liverpool (GB))

Session Classification: Parallel Sessions

Contribution ID: 147

Type: **not specified**

Search for the very rare $B^+ \rightarrow \pi^+ e^+ e^-$ electroweak penguin decay at LHCb (12'+3')

Wednesday 10 April 2024 13:30 (15 minutes)

Presenter: WILLIAMS, Richard Morgan (University of Cambridge (GB))

Session Classification: Parallel Sessions

Contribution ID: 148

Type: **not specified**

Search for the Lepton Flavour Violating Decay $\Lambda_b \rightarrow \Lambda(1520)\mu e$ at the LHCb Detector (12'+3')

Wednesday 10 April 2024 13:45 (15 minutes)

Presenter: THOMPSON, Dan (University of Birmingham (GB))

Session Classification: Parallel Sessions

Contribution ID: 149

Type: **not specified**

Novel sources and uses of quantum-correlated charm systems (12'+3')

Wednesday 10 April 2024 14:00 (15 minutes)

Presenter: NAIK, Paras (University of Liverpool (GB))

Session Classification: Parallel Sessions

Contribution ID: 150

Type: **not specified**

Measurement of the Z Mass at LHCb with 2016 pp collision data (12'+3')

Wednesday 10 April 2024 14:15 (15 minutes)

Presenter: MUHAMMAD, Emir (University of Warwick (GB))

Session Classification: Parallel Sessions

Contribution ID: 151

Type: **not specified**

CMS Run 3 RK measurement and di-electron triggers (12'+3')

Wednesday 10 April 2024 14:30 (15 minutes)

Presenter: ODEDRA, Jay (Imperial College (GB))

Session Classification: Parallel Sessions

Contribution ID: 152

Type: **not specified**

Silicon detector upgrades in ALICE: ITS3 and ALICE 3 (12'+3')

Wednesday 10 April 2024 09:00 (15 minutes)

Presenter: LIU, Jian (University of Liverpool (GB))

Session Classification: Parallel Sessions

Contribution ID: 153

Type: **not specified**

Low transverse momentum jet measurements in heavy-ion collisions with ALICE (12'+3')

Wednesday 10 April 2024 09:15 (15 minutes)

Presenter: NORMAN, Jaime (University of Liverpool (GB))

Session Classification: Parallel Sessions

Contribution ID: 154

Type: **not specified**

Exploring Neutron stars EoS with coherent $\pi^0\pi^0$ photoproduction at A2@MAMI (12'+3')

Wednesday 10 April 2024 09:30 (15 minutes)

Presenter: MOCANU, Mihai (University of York, UK)

Session Classification: Parallel Sessions

Contribution ID: 155

Type: **not specified**

Probing the strange meson spectrum through the analysis of photoproduction reaction $\gamma p \rightarrow K^+ K^- \gamma p$ at the GlueX experiment (12'+3')

Wednesday 10 April 2024 09:45 (15 minutes)

Presenter: DARULIS, Darius (University Of Glasgow)

Session Classification: Parallel Sessions

Contribution ID: 156

Type: **not specified**

Studying gluon GPDs at the Electron Ion Collider via DVMP (12'+3')

Wednesday 10 April 2024 10:00 (15 minutes)

Presenter: FEGAN, Stuart (University Of York)

Session Classification: Parallel Sessions

Contribution ID: 157

Type: **not specified**

Measurement of the Electric Form Factor of the Neutron ($12^{\prime}+3^{\prime}$)

Wednesday 10 April 2024 10:15 (15 minutes)

Presenter: PENMAN, Gary

Session Classification: Parallel Sessions

Contribution ID: 158

Type: **not specified**

Comparing Post Processing Nucleosynthesis (PPN) codes: An investigation into the impact that different reaction rate libraries and PPN codes can have on a variety of different astrophysical environments (12'+3')

Wednesday 10 April 2024 11:00 (15 minutes)

Presenter: HALL-SMITH, Alexander (The University Of York)

Session Classification: Parallel Sessions

Contribution ID: 159

Type: **not specified**

Constraining the NiCu cycle in X-ray bursts: Spectroscopy of ^{60}Zn (12'+3')

Wednesday 10 April 2024 11:15 (15 minutes)

Presenter: Mr O'SHEA, Connor Thomas (University of Surrey (GB))

Session Classification: Parallel Sessions

Contribution ID: 160

Type: **not specified**

**A new Measurement of $^{16}\text{O}(p, \alpha)^{13}\text{N}$ reaction rate
using MUSIC detector at the energies relevant to
SNIa (12'+3')**

Wednesday 10 April 2024 11:30 (15 minutes)

Presenter: ALRUWAILI, May (University of York)

Session Classification: Parallel Sessions

Contribution ID: 161

Type: **not specified**

Neutron irradiations at the University of Birmingham High Flux Accelerator Driven Neutron Facility (HF-ADNeF) (12'+3')

Wednesday 10 April 2024 11:45 (15 minutes)

Presenter: BISHOP, Jack (University Of Birmingham)

Session Classification: Parallel Sessions

Contribution ID: 162

Type: **not specified**

Spectroscopy of ^{23}F Following a One-Neutron Removal Reaction ($12'+3'$)

Wednesday 10 April 2024 12:00 (15 minutes)

Presenter: TETLEY, Luke (University of York)

Session Classification: Parallel Sessions

Contribution ID: 163

Type: **not specified**

Coulomb Excitation in 80Sr (12'+3')

Wednesday 10 April 2024 12:15 (15 minutes)

Presenter: RUSSELL, Reuben (University of Surrey)

Session Classification: Parallel Sessions

Contribution ID: 165

Type: **not specified**

The New MARA-LEB Facility and Experimental Prospects (12'+3')

Wednesday 10 April 2024 13:30 (15 minutes)

Presenter: ROMERO, Jorge (University of Liverpool)

Session Classification: Parallel Sessions

Contribution ID: 166

Type: **not specified**

Lifetime measurements in ^{53}Ca (12'+3')

Wednesday 10 April 2024 13:45 (15 minutes)

Presenter: CHEN, Sidong

Session Classification: Parallel Sessions

Contribution ID: 167

Type: **not specified**

High-Spin Gamma-Ray Spectroscopy at the Proton Drip Line: The Study of ^{131}Eu (12^+3^+)

Wednesday 10 April 2024 14:00 (15 minutes)

Presenter: SULLIVAN, Conor (University Of Liverpool)

Session Classification: Parallel Sessions

Contribution ID: 168

Type: **not specified**

Octupole correlations in neutron deficient plutonium isotopes ($12'+3'$)

Wednesday 10 April 2024 14:15 (15 minutes)

Presenter: AYATOLLAHZADEH, Hamid (University of the West of Scotland)

Session Classification: Parallel Sessions

Contribution ID: 169

Type: **not specified**

Electromagnetic moments of ground and excited states calculated in nearly spherical and well-deformed odd nuclei (12^+3^+)

Wednesday 10 April 2024 14:30 (15 minutes)

Presenter: DOBACZEWSKI, Jacek (University of York)

Session Classification: Parallel Sessions

Contribution ID: 170

Type: **not specified**

Dense room temperature spin polarized nuclear targets from SABRE chemical hyperpolarization methods –R&D status (12'+3')

Wednesday 10 April 2024 09:00 (15 minutes)

Presenters: COLLINS, Benjamin; COLLINS, Benjamin (University Of York)

Session Classification: Parallel Sessions

Contribution ID: 171

Type: **not specified**

Nuclear Density Functional Theory Calculations of Nuclear Schiff Moment of Ac-227 (12^+3^+)

Wednesday 10 April 2024 09:15 (15 minutes)

Presenter: WIBOWO, Herlik (School of Physics, Engineering and Technology, University of York)

Session Classification: Parallel Sessions

Contribution ID: 172

Type: **not specified**

Shell-model study of ^{58}Ni using quantum computing algorithm (12'+3')

Wednesday 10 April 2024 09:30 (15 minutes)

Presenter: BHOY, Bharti (University Of Surrey)

Session Classification: Parallel Sessions

Contribution ID: 173

Type: **not specified**

Binding Blocks UK: A National, Inclusive Programme for Nuclear Physics Education (12'+3')

Wednesday 10 April 2024 09:45 (15 minutes)

Presenter: RICHARDSON, Joel (University Of York)

Session Classification: Parallel Sessions

Contribution ID: 174

Type: **not specified**

(Many!) Proton Knockout With CLAS@JLAB (12'+3')

Wednesday 10 April 2024 10:00 (15 minutes)

Presenter: WILLIAMS, Rhidian (University Of York)

Session Classification: Parallel Sessions

Contribution ID: 175

Type: **not specified**

Cross Sections of Proton-Induced Reactions on natZn and natNi: Exploring the $^{67}\text{Cu}/^{64}\text{Cu}$ Theranostic Pair Production ($12'+3'$)

Wednesday 10 April 2024 10:15 (15 minutes)

Presenter: ESLAMI, Mamad (School of Physics, Engineering and Technology, University of York)

Session Classification: Parallel Sessions

Contribution ID: 176

Type: **not specified**

Tracing two-neutron halos in N=28 isotones: A three-body adventure (12'+3')

Wednesday 10 April 2024 11:00 (15 minutes)

Presenter: SINGH, Jagjit (University Of Manchester)

Session Classification: Parallel Sessions

Contribution ID: 177

Type: **not specified**

**Two-centre harmonic oscillator basis for Skyrme
Hartree Fock: alpha clustering in 8Be and 24Mg
-> $12\text{C}+12\text{C}$ as a proof of principles calculations.
($12'+3'$)**

Wednesday 10 April 2024 11:15 (15 minutes)

Presenter: SANCHEZ FERNANDEZ, Adrian (University Of York)

Session Classification: Parallel Sessions

Contribution ID: 178

Type: **not specified**

Finding Excitation Spectra Using a Quantum Computer (12'+3')

Wednesday 10 April 2024 11:30 (15 minutes)

Presenter: HOBDAY, Isaac (University Of Surrey)

Session Classification: Parallel Sessions

Contribution ID: 179

Type: **not specified**

Shape coexistence in neutron-deficient ^{190}Pb ($12^+ + 3^+$)

Wednesday 10 April 2024 11:45 (15 minutes)

Presenter: MONTES PLAZA, Adrian (University of Jyväskylä & University of Liverpool)

Session Classification: Parallel Sessions

Contribution ID: **180**

Type: **not specified**

Investigation of quadrupole and octupole states in Zr chain using TDHF and QRPA (12'+3')

Wednesday 10 April 2024 12:00 (15 minutes)

Presenter: ABHISHEK, Abhishek (University Of Surrey)

Session Classification: Parallel Sessions

Contribution ID: **181**

Type: **not specified**

Suppressed electric quadrupole collectivity in ^{32}Si ($12^+ + 3^+$)

Wednesday 10 April 2024 12:15 (15 minutes)

Presenter: HEERY, Jacob (University Of Surrey)

Session Classification: Parallel Sessions

Contribution ID: **182**

Type: **not specified**

In-source Laser Spectroscopy Studies of Neutron-rich Thallium at IDS/ RILIS-ISOLDE (12'+3')

Wednesday 10 April 2024 13:30 (15 minutes)

Presenter: YUE, Zixuan (University of York (GB))

Session Classification: Parallel Sessions

Contribution ID: **183**

Type: **not specified**

Shape studies in neutron-rich cerium isotopes (12'+3')

Wednesday 10 April 2024 13:45 (15 minutes)

Presenter: SATRAZANI, Maria-Magdalini (University of Liverpool (GB))

Session Classification: Parallel Sessions

Contribution ID: **184**

Type: **not specified**

Decay spectroscopy of isomerically pure $^{178}\text{Au}^m$ at the ISOLDE Decay Station, CERN (12'+3')

Wednesday 10 April 2024 14:00 (15 minutes)

Presenter: PAGE, Christopher (University of York (GB))

Session Classification: Parallel Sessions

Contribution ID: 185

Type: **not specified**

Onset of deformation in the neutron-rich krypton isotopes with the ISOLDE Solenoidal Spectrometer (12'+3')

Wednesday 10 April 2024 14:15 (15 minutes)

Presenter: DOLAN, Annie (University of Liverpool (GB))

Session Classification: Parallel Sessions

Contribution ID: **186**

Type: **not specified**

Decays of K isomers in the extremely deformed neutron-deficient $A = 130$ region ($12^+ + 3^+$)

Wednesday 10 April 2024 14:30 (15 minutes)

Presenter: BRISCOE, Andy (University of Liverpool)

Session Classification: Parallel Sessions

Contribution ID: **187**

Type: **not specified**

Investigating nucleon-nucleon correlations through QFS reactions ($12'+3'$)

Wednesday 10 April 2024 14:45 (15 minutes)

Presenter: TANIUCHI, Ryo (Department of Physics, University of York)

Session Classification: Parallel Sessions

Contribution ID: **188**

Type: **not specified**

Using U-nets for the Application of Machine Learning to Improve Acquisition Times for Muography

Monday 8 April 2024 18:00 (2 hours)

Presenter: O'DONNELL, William (University of Glasgow)

Session Classification: Exhibitors and Posters Reception - I

Contribution ID: **189**

Type: **not specified**

Light simulation optimisation for the DarkSide-20k detector

Monday 8 April 2024 18:00 (2 hours)

Presenter: GAWDZIK, Andrzej (University Of Manchester)

Session Classification: Exhibitors and Posters Reception - I

Contribution ID: **190**

Type: **not specified**

Calculation of Neutron Production in (alpha, n) Reactions with SOURCES4 and ONYSC

Monday 8 April 2024 18:00 (2 hours)

Presenter: KRAWCZUN, Piotr (University Of Sheffield)

Session Classification: Exhibitors and Posters Reception - I

Contribution ID: **191**

Type: **not specified**

The VELO Monitoring during the Run-III

Monday 8 April 2024 18:00 (2 hours)

Presenter: LI, Lanxing (University of Manchester (GB))

Session Classification: Exhibitors and Posters Reception - I

Contribution ID: 192

Type: **not specified**

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

Monday 8 April 2024 18:00 (2 hours)

Presenter: ROGERS, Giovanni (University of Birmingham (GB))

Session Classification: Exhibitors and Posters Reception - I

Contribution ID: 193

Type: **not specified**

First operation of an ACHINOS equipped Spherical Proportional Counter with individual anode read-out

Monday 8 April 2024 18:00 (2 hours)

Presenter: MILLINS, Lex (University Of Birmingham)

Session Classification: Exhibitors and Posters Reception - I

Contribution ID: 194

Type: **not specified**

Investigating Charge Sharing Effect in HVCMOS Silicon Detectors during Carbon Ion Beam Therapy

Monday 8 April 2024 18:00 (2 hours)

Presenter: ALQAHTANI, Fajer (University of Liverpool)

Session Classification: Exhibitors and Posters Reception - I

Contribution ID: 195

Type: **not specified**

Beam Studies using a Cherenkov Diffraction based Beam Position Monitor in the AWAKE common beamline

Monday 8 April 2024 18:00 (2 hours)

Presenter: SPEAR, Bethany (University of Oxford (GB))

Session Classification: Exhibitors and Posters Reception - I

Contribution ID: **196**

Type: **not specified**

An overview of the Miniball spectrometer at ISOLDE

Monday 8 April 2024 18:00 (2 hours)

Presenter: BROWNE, Frank (University of Manchester (GB))

Session Classification: Exhibitors and Posters Reception - I

Contribution ID: 197

Type: **not specified**

Progress on designing a beta-gamma detection system for criticality monitoring of spent nuclear fuel rods and operational nuclear reactors

Monday 8 April 2024 18:00 (2 hours)

Presenter: POULTON, Sifa Elizabeth

Session Classification: Exhibitors and Posters Reception - I

Contribution ID: 200

Type: **not specified**

Analysis of particle/nuclei cross sections within neutrino generator final state interaction models

Monday 8 April 2024 18:00 (2 hours)

Presenter: PEACOCK, Tom (University Of Sheffield)

Session Classification: Exhibitors and Posters Reception - I

Contribution ID: 201

Type: **not specified**

Measurement of the $|V_{cb}|$ element of the CKM matrix in $t\bar{t}b\bar{a}$ decays with the ATLAS detector

Monday 8 April 2024 18:00 (2 hours)

Presenter: GHANI, Mo (University of Warwick)

Session Classification: Exhibitors and Posters Reception - I

Contribution ID: 202

Type: **not specified**

The current status of Jet measurements from Run 3 at ALICE

Monday 8 April 2024 18:00 (2 hours)

Presenter: JONES, Daniel Matthew (University of Liverpool (GB))

Session Classification: Exhibitors and Posters Reception - I

Contribution ID: 203

Type: **not specified**

OpenMC simulations of the UoB HF-ADNeF for Medical Isotope Production

Monday 8 April 2024 18:00 (2 hours)

Presenter: CONROY, Maxwell (University Of Birmingham)

Session Classification: Exhibitors and Posters Reception - I

Contribution ID: **204**

Type: **not specified**

Neutron Beams at Birmingham: HF-ADNeF

Monday 8 April 2024 18:00 (2 hours)

Presenter: BROOKS, Alex (University Of Birmingham)

Session Classification: Exhibitors and Posters Reception - I

Contribution ID: **206**

Type: **not specified**

The 2023 MUonE Test Run

Monday 8 April 2024 18:00 (2 hours)

Presenter: DEVANNE, Clement (University of Liverpool)

Session Classification: Exhibitors and Posters Reception - I

Contribution ID: 207

Type: **not specified**

Measurement of the production cross section for the single top quark in association with a Z boson at the ATLAS detector

Monday 8 April 2024 18:00 (2 hours)

Presenter: PLEBANI, Alberto (University of Cambridge (GB))

Session Classification: Exhibitors and Posters Reception - I

Contribution ID: 208

Type: **not specified**

A Study on Dose Monitoring in Carbon Therapy Using Secondary Protons

Monday 8 April 2024 18:00 (2 hours)

Presenter: ALSUBAYAE, Shaikah Moslat M (University of Liverpool)

Session Classification: Exhibitors and Posters Reception - I

Contribution ID: **209**

Type: **not specified**

Elucidating Strangeness with electromagnetic probes

Monday 8 April 2024 18:00 (2 hours)

Presenter: ACAR, Asli (University Of York)

Session Classification: Exhibitors and Posters Reception - I

Contribution ID: 210

Type: **not specified**

A Time-Dependent Wave-Packet Approach to the 12C + 12C Reaction Using DC-TDHF Potentials.

Monday 8 April 2024 18:00 (2 hours)

Presenter: CLOSE, Grant (University Of Surrey)

Session Classification: Exhibitors and Posters Reception - I

Contribution ID: 211

Type: **not specified**

Optimising Phenomenological Optical Model Parameters to Reproduce Reaction Cross Sections using Particle Swarm Optimisation and a Feed-Forward Neural Network

Monday 8 April 2024 18:00 (2 hours)

Presenter: SULLIVAN, Samuel (University Of Surrey)

Session Classification: Exhibitors and Posters Reception - I

Contribution ID: 212

Type: **not specified**

Exploring unphysical quadrupole triaxiality in 200,202Hg using Coulomb Excitation

Monday 8 April 2024 18:00 (2 hours)

Presenter: WILLMOTT, Gregory (University Of Surrey)

Session Classification: Exhibitors and Posters Reception - I

Contribution ID: 213

Type: **not specified**

Examining the north-west limit of octupole correlations in the light-actinide region using alpha decay spectroscopy

Monday 8 April 2024 18:00 (2 hours)

Presenter: HOGG, Ben (University of the West of Scotland)

Session Classification: Exhibitors and Posters Reception - I

Contribution ID: 214

Type: **not specified**

Commissioning the Isolde Solenoidal Spectrometer with a measurement of the (d,p)²³Ne reaction

Monday 8 April 2024 18:00 (2 hours)

Presenter: JONES, Ben (University of Liverpool)

Session Classification: Exhibitors and Posters Reception - I

Contribution ID: 215

Type: **not specified**

Measurement of Nuclear Schiff Moment in ^{199}Hg

Monday 8 April 2024 18:00 (2 hours)

Presenter: WHITE, Dylan (UWS)

Session Classification: Exhibitors and Posters Reception - I

Contribution ID: 216

Type: **not specified**

Exploring Proton Structure: Gluon TMDs at ATLAS

Monday 8 April 2024 18:00 (2 hours)

Presenter: HAGAN, Alina (Lancaster University (GB))

Session Classification: Exhibitors and Posters Reception - I

Contribution ID: 217

Type: **not specified**

Measurement of the electric dipole moment of the muon at the Fermilab g-2 experiment.

Tuesday 9 April 2024 18:00 (2 hours)

Presenter: FERRABY, Katherine (University of Liverpool (GB))

Session Classification: Exhibitors and Poster Reception - II

Contribution ID: **218**

Type: **not specified**

Commissioning of the MIGDAL detector with fast neutrons at ISIS/NILE

Tuesday 9 April 2024 18:00 (2 hours)

Presenter: MILLINS, Lex (University Of Birmingham)

Session Classification: Exhibitors and Poster Reception - II

Contribution ID: 219

Type: **not specified**

Designing Calorimeters for the Luminosity Monitoring System at the Electron-Ion Collider

Tuesday 9 April 2024 18:00 (2 hours)

Presenter: SMITH, Alex (University Of York)

Session Classification: Exhibitors and Poster Reception - II

Contribution ID: 220

Type: **not specified**

Calibrating the Short-Baseline Near Detector with Cosmic-Ray Muons

Tuesday 9 April 2024 18:00 (2 hours)

Presenter: BEEVER, Anna (University Of Sheffield)

Session Classification: Exhibitors and Poster Reception - II

Contribution ID: 221

Type: **not specified**

Novel Techniques for α/β Pulse Shape Discrimination Using Silicon Strip Detectors

Tuesday 9 April 2024 18:00 (2 hours)

Presenter: TINDLE, Olivia (Sheffield Hallam University)

Session Classification: Exhibitors and Poster Reception - II

Contribution ID: 222

Type: **not specified**

The QUantum Enhanced Space-Time experiment poster

Tuesday 9 April 2024 18:00 (2 hours)

Presenter: PATRA, Abhinav (Cardiff University)

Session Classification: Exhibitors and Poster Reception - II

Contribution ID: 223

Type: **not specified**

The 2x2 DUNE Near Detector Demonstrator

Tuesday 9 April 2024 18:00 (2 hours)

Presenter: HART, Akeem (Queen Mary University of London)

Session Classification: Exhibitors and Poster Reception - II

Contribution ID: 224

Type: **not specified**

Improving the Performance and Reliability of High Purity Germanium (HPGe) Detectors through the monitoring of trace signals

Tuesday 9 April 2024 18:00 (2 hours)

Presenter: WONDERLEY, Thomas (University of Liverpool)

Session Classification: Exhibitors and Poster Reception - II

Contribution ID: 225

Type: **not specified**

Studying displacement damage in silicon detectors with the University of Birmingham MC40 Cyclotron

Tuesday 9 April 2024 18:00 (2 hours)

Presenter: LIU, Eric (University of Birmingham (GB))

Session Classification: Exhibitors and Poster Reception - II

Contribution ID: 226

Type: **not specified**

Wavelength Shifting Plates to Improve the Photon Detection Efficiency for the Southern Wide-Field Gamma-Ray Observatory

Tuesday 9 April 2024 18:00 (2 hours)

Presenter: STEWART, Jazmin (University of Leicester)

Session Classification: Exhibitors and Poster Reception - II

Contribution ID: 227

Type: **not specified**

Construction, Installation, and Commissioning of the SFGD Detector

Tuesday 9 April 2024 18:00 (2 hours)

Presenter: Mr MCKEAN, Jake (Imperial College (GB))

Session Classification: Exhibitors and Poster Reception - II

Contribution ID: 228

Type: **not specified**

Kaon Cross Section Measurement with NuMI Beam at MicroBooNE

Tuesday 9 April 2024 18:00 (2 hours)

Presenter: TANIUCHI, Natsumi (University Of Cambridge)

Session Classification: Exhibitors and Poster Reception - II

Contribution ID: 229

Type: **not specified**

"Search for $\mu^+ \rightarrow e^+e^+e^-$ at the Mu3e experiment and the Commissioning of the Pixel Tracker."

Tuesday 9 April 2024 18:00 (2 hours)

Presenter: KINSMAN, Charles (University Of Liverpool)

Session Classification: Exhibitors and Poster Reception - II

Contribution ID: 230

Type: **not specified**

Unfolding Jet Observables with Machine Learning

Tuesday 9 April 2024 18:00 (2 hours)

Presenter: ANDREOU, Nicodemos (University of Derby (GB))

Session Classification: Exhibitors and Poster Reception - II

Contribution ID: 231

Type: **not specified**

Decay Spectroscopy of ^{152}Tb as a Theragnostic Radionuclide

Tuesday 9 April 2024 18:00 (2 hours)

Presenter: O'SULLIVAN, Edward (University of Surrey)

Session Classification: Exhibitors and Poster Reception - II

Contribution ID: 232

Type: **not specified**

Progress towards Strontium Atom Interferometry at RAL Space

Tuesday 9 April 2024 18:00 (2 hours)

Presenter: HUSSAIN, Kamran (University of Liverpool)

Session Classification: Exhibitors and Poster Reception - II

Contribution ID: 234

Type: **not specified**

The MUonE experiment: a novel way to measure the hadronic contribution to the muon $g-2$

Tuesday 9 April 2024 18:00 (2 hours)

Presenter: CACCIOLA, Giorgia (University of Liverpool)

Session Classification: Exhibitors and Poster Reception - II

Contribution ID: 235

Type: **not specified**

Exploring Tau Identification in $t\bar{t}$ dilepton final state with ATLAS 2022 Data

Tuesday 9 April 2024 18:00 (2 hours)

Presenter: PRADHAN, Sudev (University of Sheffield (GB))

Session Classification: Exhibitors and Poster Reception - II

Contribution ID: 236

Type: **not specified**

Gaussian Processes: Machine Learning for Observable Interpolation and Data Analysis

Tuesday 9 April 2024 18:00 (2 hours)

Presenter: FERGUSON, Ryan (University of Glasgow)

Session Classification: Exhibitors and Poster Reception - II

Contribution ID: 237

Type: **not specified**

The effect of kinematic-specific calibrations on the timing resolution of the the BigBite Timing Hodoscope for the GMn experiment at Jefferson Lab.

Tuesday 9 April 2024 18:00 (2 hours)

Presenter: CHEYNE, Andrew

Session Classification: Exhibitors and Poster Reception - II

Contribution ID: 238

Type: **not specified**

12C(a,g): Accurate Measurements of ϕ_{12} Over the 1- Resonance

Tuesday 9 April 2024 18:00 (2 hours)

Presenter: HAVERSON, Kristian (Sheffield Hallam Univeristy)

Session Classification: Exhibitors and Poster Reception - II

Contribution ID: 240

Type: **not specified**

A microscopic study of $^{12}\text{C}+^{12}\text{C}$ fusion interactions

Tuesday 9 April 2024 18:00 (2 hours)

Presenter: ALHARTHI, Khlood (University Of Surrey)

Session Classification: Exhibitors and Poster Reception - II

Contribution ID: 241

Type: **not specified**

Cocktail Beam Coulomb-Excitation of 50Cr and 50Ti

Tuesday 9 April 2024 18:00 (2 hours)

Presenter: COUSINS, Christopher (University Of Surrey)

Session Classification: Exhibitors and Poster Reception - II

Contribution ID: 242

Type: **not specified**

Isomeric and Beta Decays in the Neutron-Rich $N=126$ Region

Monday 8 April 2024 18:00 (2 hours)

Presenter: BARTRAM, Gee (University Of Surrey)

Session Classification: Exhibitors and Posters Reception - I

Contribution ID: 243

Type: **not specified**

Exploring nuclear shapes and sizes of Thulium using laser spectroscopy (On behalf of the COLLAPS collaboration)

Tuesday 9 April 2024 18:00 (2 hours)

Presenter: HUGHES, Jack (University of Liverpool)

Session Classification: Exhibitors and Poster Reception - II

Contribution ID: 245

Type: **not specified**

Measuring the lifetimes of low-lying ^{146}Ba energy levels using fast-timing techniques

Tuesday 9 April 2024 18:00 (2 hours)

Presenter: ROWNTREE, Faye (University of Liverpool)

Session Classification: Exhibitors and Poster Reception - II

Contribution ID: 246

Type: **not specified**

Experimental Investigation of High-K Isomer Decays in Neutron-Rich $^{183,184}\text{Hf}$ isotopes Using the KISS Facility

Monday 8 April 2024 18:00 (2 hours)

Presenter: DOSHI, Siddharth (University Of Brighton)

Session Classification: Exhibitors and Posters Reception - I

Contribution ID: 247

Type: **not specified**

ATLAS Run 3 Search for New Physics in the Dielectron Channel

Tuesday 9 April 2024 18:00 (2 hours)

Presenter: ELLIOT, Tom (RHUL)

Session Classification: Exhibitors and Poster Reception - II

Contribution ID: 248

Type: **not specified**

Measurement of Higgs boson properties via the H- $\tau\tau$ decay channel (12'+3')

Wednesday 10 April 2024 10:15 (15 minutes)

Presenter: LAZARIDOU, Roxani (University of Warwick (UK))

Session Classification: Parallel Sessions

Contribution ID: 249

Type: **not specified**

Muon & Antimuon Separation Using Machine Learning at MicroBooNE

Wednesday 10 April 2024 12:15 (15 minutes)

Presenter: BATCHELOR, Charlie (The University of Edinburgh (GB))

Session Classification: Parallel Sessions