

63rd ANNUAL CONFERENCE OF THE SA INSTITUTE OF PHYSICS

Tuesday 26 June 2018

Nuclear, Particle and Radiation Physics (10:00-11:00)

-Conveners: Simon Mullins

time	[id] title	presenter
10:00	[281] Using Monte Carlo Simulations and Experiments to Investigate the Activation of Heavy Metals Using 14.1 MeV Neutrons	Mr MHLONGO, Sizwe
10:20	[62] Efficiency calibration of the laboratory based gamma-ray detector for various sample geometries	Ms BULALA, Avuyile Sisanda
10:40	[260] Using reference radiation source to test Monte Carlo simulations	Ms AJANI, Mistura Bolaji

Nuclear, Particle and Radiation Physics (11:20-13:00)

-Conveners: Bruce Mellado

time	[id] title	presenter
11:20	[229] Fine structure of the IsoScalar Giant Monopole Resonance (ISGMR) in 40,42,44,48Ca using alpha inelastic scattering at zero degrees	Mr OLORUNFUNMI, Sunday
11:40	[264] Low Pressure Focal Plane Detectors for the K600 :A design study	Ms KHUMALO, Thuthukile
12:00	[168] Cross section measurements of light ion production using (p,xp) reactions	Mrs KENFACK JIOTSA, Doris Carole
12:20	[186] Production of electron sources at iThemba LABS	Mr ZIKHALI, Bonginkosi
12:40	[179] OPTIMIZATION OF ELECTRON SPECTROMETER IN LENS-MODE OPERATION	Mr AVAA, Abraham

Wednesday 27 June 2018

Nuclear, Particle and Radiation Physics (10:00-11:00)

-Conveners: Muneer Sakildien

time	[id] title	presenter
10:00	[226] A review of nuclear clustering formulation	Mr CAROLUS, Timothy Gary
10:20	[210] Investigating the candidate 5-alpha cluster state in ^{20}Ne at $E_x = 22.5$ MeV with the $^{22}\text{Ne}(p, t)^{20}\text{Ne}$ reaction.	Ms BALOYI, Lerato
10:40	[198] The first-excited 2^+ state in ^{14}C	Mr BRITS, Christiaan

Nuclear, Particle and Radiation Physics (11:20-13:00)

-Conveners: Iyabo Usman

time	[id] title	presenter
11:20	[106] Performance of missing transverse energy reconstruction in pp collisions at 13 TeV in the diphoton channel with ATLAS	Ms LIAO, Shell-may
11:40	[126] Mitigating the effect of fake missing energy using Machine learning in the ATLAS experiment	Mr TOMIWA, Kehinde
12:00	[117] Event Selection and Signal Optimization of Three-Lepton and $b\bar{b}$ -jets Search in ATLAS	Mr MOKOENA, Lebohlang
12:40	[127] Signal and background ATLAS Monte Carlo Comparison studies in the $H \rightarrow ZZ \rightarrow 4l$ Channel.	Mr THABEDE, Mzwandile

Nuclear, Particle and Radiation Physics (14:00-15:20)

-Conveners: Pete Jones

time	[id] title	presenter
14:00	[164] ATLAS Monte Carlo studies for the search of heavy resonances in the $H \rightarrow ZZ \rightarrow 4l$ decay channel.	RAJAOFERASON, Mampionona Ralaimiaramanana
14:20	[172] Electrons inside jets in ATLAS: not an isolated problem	Mr CHRISTOPHER, Lawrence
14:40	[280] Search for a heavier Higgs like boson and a dark force boson using ATLAS experiment results	Mr MAPEKULA, Xolani
15:00	[372] Search for $W' \rightarrow t\bar{b}$ using the 2017 and 2018 in the hadronic final states with ATLAS	Mr MHLANGA, Fortune

Nuclear, Particle and Radiation Physics (15:40-17:00)

-Conveners: Simon Mullins

time	[id] title	presenter
15:40	[408] NPRP Division Meeting	Dr MULLINS, Simon

Thursday 28 June 2018

Nuclear, Particle and Radiation Physics (10:00-11:00)

-Conveners: Simon Mullins

time	[id] title	presenter
10:00	[274] Measurement of fundamental ion beam – matter interaction parameters for heavy ion nuclear analytical techniques	Prof. MSIMANGA, Mandla
10:20	[185] Measurement of heavy ion induced X-ray production cross sections in metallic targets at MeV energies.	Mr MASEKANE, Masedi
10:40	[380] Measurement of the cosmogenic isotope ¹⁰ Be at iThemba LABS and applications of cosmogenic isotopes in South Africa	Dr WINKLER, Stephan

Nuclear, Particle and Radiation Physics (11:20-13:00)

-Conveners: Stephan Winkler

time	[id] title	presenter
11:20	[270] Lifetime measurements in ⁴⁴ Sc excited states using LaBr ₃ :(Ce) detectors coupled with the AFRODITE Array	Mr MSEBI, Lumkile
11:40	[171] Structure of ³³ Si, ³⁵ S and ³⁶ S nuclei and the N=20 shell gap	Ms JONGILE, Sandile
12:00	[147] Potential Human Risk of Dissolved Heavy Metals in Gold Mine Waters of Gauteng Province, South Africa	Dr KAMUNDA, Caspah
12:20	[163] Statistical Properties of highly-deformed Samarium isotopes	Mr MALATJI, Kgashane
12:40	[352] Microwave induced electron losses from an ECR Ion Source	Mr SAKILDIEN, Muneer

Friday 29 June 2018

Nuclear, Particle and Radiation Physics (10:00-11:00)

-Conveners: OBED SHIRINDA

time	[id] title	presenter
10:00	[300] Design and testing of a BGO-SiPM based electron beam dispersion monitor	Mr NIYOYADUTUMYE, Elijah
10:20	[149] A comparative study of the high fluence neutron radiation effects on the structural and optical properties of plastic scintillator UPS 923A	Mr MOKGATITSWANE, Gaogalalwe
10:40	[94] A virtual model of an Elekta Synergy linac for verification of planning system photon beams	Dr ODERINDE, Oluwaseyi M.

Nuclear, Particle and Radiation Physics (11:20-13:00)

-Conveners: Deepak Kar

time	[id] title	presenter
11:20	[101] Probing colour reconnection and underlying event in top quark events at the LHC	Mr RAFANO HARANA, Dimbiniaina Soanasolo
11:40	[129] Search for a new boson by studying the Z(II) + photon final state	Mr RAPHEEHA, Phuti Ntsoko
12:00	[388] AdS/CFT predictions for partonic and fragmented momentum, azimuthal, and rapidity correlations of heavy flavors in heavy ion collisions	Mr HAMBROCK, Robert
12:20	[113] The compatibility of the LHC data with new bosons	Prof. MELLADO, Bruce