

SAIP2022

Monday 04 July 2022

Nuclear, Particle and Radiation Physics: Nuclear, Particle and Radiation Physics - Zoom Platform (11:30-13:00)

-Conveners: Manny Mathuthu

time	[id] title	presenter
11:30	[7] In-situ Determination of Radioactivity Levels and Radiological Hazards in and around the Gold Mine Tailings of the West Rand Area, South Africa.	MOSHUPYA, Paballo
11:45	[336] Assessment of the radiological and heavy metal water quality of Vaal River, South Africa	BOITSHEKWANE, Kgantsi
12:00	[247] Characterization of UF4 waste using gamma spectroscopy	Ms DESIREE, Tsholofelo Mokgele
12:15	[279] Nuclear forensic analysis of natural uranium mined from northern Nigeria.	Prof. USMAN, Iyabo
12:30	[312] Simulation of neutron and electron material damage in CuO, MgO, and Al ₂ O ₃	MAHAFA, Tshepo

Nuclear, Particle and Radiation Physics: Nuclear, Particle and Radiation Physics - Zoom Platform (15:00-16:30)

-Conveners: Zinhle Buthelezi; Thomas Dietel

time	[id] title	presenter
15:00	[13] Production of muons from heavy-quark hadron decays in pp collisions at $\sqrt{s} = 13$ TeV with the ALICE detector	Ms SHABA, Tebogo
15:15	[16] Correlation of heavy-flavour production and charged-particle multiplicity in pp collisions at $\sqrt{s} = 5.02$ TeV measured in ALICE	MDHLULI, Joyful
15:30	[14] Design and development of the ALICE Common Readout Unit user-logic firmware for the Muon Identifier readout chain	THYS-DINGOU, Dieuveil Orcel
15:45	[49] Burn-in testing of the ATLAS Tile-calorimeter Phase-II low-voltage power supply transformer-coupled buck converters	MCKENZIE, Ryan
16:00	[63] Time stability of the response of gap/crack scintillators of the Tile Calorimeter of the ATLAS detector to isolated muons.	RAPHEEHA, Phuti Ntsoko
16:15	[285] CFD humidity and temperature modelling in the ATLAS ITK Strip	Dr MAFA TAKISA, Pedro

Tuesday 05 July 2022

Nuclear, Particle and Radiation Physics: Nuclear, Particle and Radiation Physics - Zoom Platform (11:30-13:00)

-Conveners: Edward Nkadameng

time	[id] title	presenter
11:30	[48] Search for dark sector showering in ATLAS using semi-visible jets	SINHA, Sukanya
11:45	[126] Search for resonant production of strongly-coupled dark matter in proton-proton collisions	VAN DER SCHYF, Hannah
12:00	[66] Application of semi-supervision learning for the search of new resonances decaying to $Z\gamma$ with topological features	CHOMA, Nalamotse Joshua
12:15	[59] Evaluation and Optimisation of a Generative-Classification Hybrid Variational Autoencoder in the Search for Resonances at the LHC	STEVENSON, Finn
12:30	[199] Search for new spin-1 or spin-0 boson using ATLAS detector data	MAPEKULA, Xola
12:45	[53] Growing evidence of new bosons at the LHC	MELLADO, Bruce

Nuclear, Particle and Radiation Physics: Nuclear, Particle and Radiation Physics - Zoom Platform (15:00-16:30)

-Conveners: Armand Bahini

time	[id] title	presenter
15:15	[274] Dipole polarizability effect on the quadrupole moment of the first 2^+ state in ^{12}C	Mr NGWETSHENI, Cebo
15:30	[303] Determination of matrix elements in ^{62}Ni to test surface vibrations in nuclei	LESCH, Brenden
15:45	[322] Determination of E2/M1 mixing in the $J^\pi = 5/2^+$ to the $J^\pi = 3/2^+$ transition in ^{21}Na and its relation to the $^{20}\text{Ne}(p,\gamma)$ stellar reaction	GOPAL, Sumeera
16:00	[51] The isoscalar giant monopole resonance in the Ca isotope chain	NEVELING, Retief
16:15	[212] Investigating the impact of neutrons on Cadmium Zinc Telluride Compton Camera system	Mr DE KLERK, Josiah

Thursday 07 July 2022

Nuclear, Particle and Radiation Physics - Zoom Platform (11:30-13:00)

-Conveners: Mukesh Kumar

time	[id] title	presenter
11:30	[52] Studying the Production of a Singlet Scalar at Future e+ e- Colliders with Deep Neural Networks	MULAUDZI, Anza-Tshilidzi
11:45	[89] Compatibility of the CMS dilepton spectra with the Neutral Scalar with Mass around 151 GeV	BHATTACHARYA, Srimoy
12:00	[68] Explaining new type of multi-lepton excesses at the LHC with singlet scalar extended 2HDM model	SWAIN, Abhaya Kumar
12:15	[71] Comparing $2HDM+S$ and $2HDM+S+N$ models to explain multi-lepton excesses at the LHC	BHATTACHARYA, Srimoy
12:30	[223] A frequentist study of the false signals generated in the training of semi-supervised neural network classifiers using a WGAN as a data generator.	LIEBERMAN, Benjamin

Nuclear, Particle and Radiation Physics - Zoom Platform (15:00-16:30)

-Conveners: JAMES KEAVENEY

time	[id] title	presenter
15:00	[143] Measurement of the leptonic charge asymmetry in $t\bar{t}$ production using the trilepton final state in proton-proton collisions at centre-of-mass energy of 13 TeV using the ATLAS experiment	GARVEY, Cameron
15:15	[156] A search for tWZ production with the ATLAS detector using the three and four lepton final states in proton-proton collisions at $\sqrt{s} = 13\text{TeV}$	VELTMAN, Alexander
15:30	[219] Higgs decay to dark vector bosons via an additional scalar	CONNELL, Matthew
15:45	[299] Optimization of Scintillation Properties of Plastic Scintillator for PET/CT Using GEANT4 Simulations	AKAKPO, Elijah Hornam

Friday 08 July 2022

Nuclear, Particle and Radiation Physics - Zoom Platform (11:30-13:00)