SAIP2021

Monday 26 July 2021

Nuclear, Particle and Radiation Physics - Potchefstroom Campus (11:30-13:00)

-Conveners: Rudolph Nchodu

time	[id] title	presenter
11:30	[350] Activity Concentration Measurement of Naturally-Occurring Radionuclides in Various Vegetation plots in Rustenburg, North-West Province, South Africa	OLAGBAJU, Peter
11:45	[351] Assessment of NORM in fruits and vegetables from local markets in Hartbeespoort, Mahikeng and Pretoria	GOUWS, Veronica
12:00	[28] The derivation of preliminary reference levels for radioactivity in drinking water surrounding authorised sites.	MOLOKWE, Thato
12:15	[240] Upgrade of the iThemba LABS Fast Neutron Beam Facility towards ISO/IEC 17025 Accreditation	NDABENI, Zina BUFFLER, Andy LACOSTE, Veronique MALEKA, Peane NOLTE, Ralf
12:30	[355] Investigation of limit of detection using standard radioactive sources with a LaBr3(Ce) detector	VAN NIEKERK, Ferdie
12:45	[356] Multi-photon decay mode spectroscopy of positronium	JOHNSON, Storm

Nuclear, Particle and Radiation Physics - Potchefstroom Campus (15:00-16:30)

-Conveners: Sahal Yacoob

time	[id] title	presenter
15:00	[66] Electronics Research Laboratory at University of Zululand: Contributing towards the ATLAS Experiment at CERN	KIBIRIGE, Betty
15:15	[283] Reliability testing of the End-of-Substructure card for operation within the ATLAS Inner Tracker	Mr VAN DER MERWE, Max
15:30	[37] South African contribution towards the ATLAS Tile Calorimeter PreProcessor	GOLOLO, Mpho Gift Doctor
15:45	[187] Simulation of the strip sub-detector system in the new Inner Tracker of the ATLAS detector	ATKIN, Ryan
16:00	[52] Re-designing a radiation-tolerant low voltage power supply for the ATLAS Tile Calorimeter Phase-II Upgrade	NKADIMENG, Edward
16:15	[62] Quality assurance testing of the ATLAS Tile-Calorimeter Phase-II upgrade low-voltage power supplies	MCKENZIE, Ryan NKADIMENG, Edward

Tuesday 27 July 2021

Nuclear, Particle and Radiation Physics - Potchefstroom Campus (11:30-13:00)

-Conveners: Simon Connell

time	[id] title	presenter
11:30	[45] Background decomposition in $Z\gamma$ events used in the search for high-mass resonances.	RAPHEEHA, Phuti Ntsoko
11:45	[97] A search for a high-momentum high-mass neutrino in pp collisions with the ATLAS detector	DHLAMINI, Mvelo
12:00	[54] Search for heavy resonances in the $\ell^+\ell^-\ell^+\ell^-$ final state in association with missing transverse energy using pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector	TLOU, Humphry
12:15	[60] Photons in Darkness	Ms DU PLESSIS, Karien
12:30	[70] Search for dark-sector showering in ATLAS using semi-visible jets	SINHA, Sukanya
12:45	[68] Single Leptoquark Search in ATLAS	CHRISTOPHER, Lawrence Davou

Nuclear, Particle and Radiation Physics - Potchefstroom Campus (15:00-16:30)

time	[id] title	presenter
15:00	[358] Measurement of the photoabsorption cross section of 24Mg.	BEKKER, Jacob
15:15	[359] Study of the 44Ti(alpha,p)47V reaction rate using high-precision 50Cr(p,t)48Cr measurements	BINDA, Sifundo
15:30	[357] Optic Fibre Sensors for Temperature Sensing in Pressurized Water Reactors	MAQABUKA, Bongani
15:45	[361] The scissors resonance in 151Sm	MAGAGULA, SEBENZILE PRETTY ENGELINAH
16:00	[362] Impact of Experimentally Constrained Nuclear Level Density and Photon Strength Function of 182Hf on the Nucleosynthesis Puzzle of 182Hf	YENDE, Nomcebo
16:15	[65] Search for a heavy pseudo-scalar decaying into a Z boson and another heavy scalar boson leading to four lepton final states in pp collisions at $\sqrt{s}$ = 13~TeV with the ATLAS detector	Ms MTINTSILANA, Onesimo

Thursday 29 July 2021

Nuclear, Particle and Radiation Physics - Potchefstroom Campus (11:30-13:00)

-Conveners: Rudolph Nchodu

time	[id] title	presenter
11:30	[364] Fine structure of the ISGMR in 90Zr, 120Sn and 208Pb	BAHINI, Armand
11:45	[365] Transfer reactions to populate the PDR in 96Mo	Ms KHUMALO, Thuthukile
12:00	[366] Validation of the Monte Carlo model for 6 and 15 MV photon beams of VARIAN CLINAC IX Linac	DUMELA, KHOMBO
12:15	[367] Application of tagged neutron method for detecting diamonds in kimberlite.	SEBELE, Motswakae
12:30	[279] Connecting multi-lepton anomalies at the LHC and Astrophysical observations	MALWA, Elias
12:45	[71] The anatomy of the multi-lepton anomalies at the LHC and the potential connection with other anomalies	MELLADO, Bruce

Nuclear, Particle and Radiation Physics - Potchefstroom Campus (15:00-16:30)

-Conveners: James Keaveney

time	[id] title	presenter
15:00	[158] A search for tWZ production in the trilepton channel using Run 2 data from the ATLAS experiment	WARREN, Benjamin
15:15	[208] Search for a heavier Higgs like boson and a dark force boson using ATLAS experiment results	Mr MAPEKULA, Xola
15:30	[203] Search for the non-resonant Higgs-pair production in $\ell^+\ell^-\ell^+\ell^-$ final state at $\sqrt{s} = 13$ TeV in the ATLAS detector	FADOL, Abdualazem
15:45	[195] Measurement of the leptonic charge asymmetry in the tri-lepton final state of ttW in proton-proton collisions at a centre-of-mass energy of 13 TeV using the ATLAS detector	GARVEY, Cameron
16:00	[189] Search for a heavy di-photon resonance in association with b-jets with the ATLAS detector at the LHC	SHRIF, Esra
16:15	[186] Simplified Template Cross Section measurements of the V(H->bb) process with the ATLAS detector at sqrt(s)=13 TeV	ATKIN, Ryan

Friday 30 July 2021

Nuclear, Particle and Radiation Physics - Potchefstroom Campus (11:30-13:00)

-Conveners: XIFENG RUAN

time	[id] title	presenter
11:30	[170] Statistical correlations impacting a top quark mass measurement in 13 TeV proton-proton collision data from the ATLAS detector	BARENDS, Kevin Nicholas
11:45	[73] Quark versus Gluon Jet Tagging	CHOWDHURY, Tasnuva
12:00	[212] Anomaly detection with Data Quality Early Warning Systems in ATLAS using machine learning	MSUTWANA, Senzo
12:15	[44] The use of Semi-Supervision in the search for heavy resonances with the Zγ final state	Mr CHOMA, Nalamotse Joshua
12:30	[119] Machine learning approach for the search of resonances with topological features at the Large Hadron Collider	DAHBI, Salah-eddine
12:45	[33] An Investigation of overtraining within Semi-Supervised Machine Learning Models in the search for heavy resonances at the LHC	LIEBERMAN, Benjamin