

SAIP2025

Tuesday 8 July 2025

Nuclear, Particle and Radiation Physics-2: Session-1 - Solomon Mahlangu House (09:20 - 10:20)

-Conveners: Mpho Gololo

time	[id] title	presenter
09:20	[456] Highlights of ALICE results from heavy-flavour measurements at LHC energies	BUTHELEZI, Edith Zinhle
09:40	[229] Parton Production Spectra and Energy Loss in High-Energy $\sqrt{s}$ Collisions	ALAM, Mohammad
10:00	[344] Real-Time Anomaly Detection in High Energy Physics	ATKIN, Ryan

Nuclear, Particle and Radiation Physics-2: Session-2 - Solomon Mahlangu House (10:50 - 12:30)

-Conveners: Edward Nkadimeng

time	[id] title	presenter
10:50	[99] Analysis of Long-Term Stability Uncertainty in Luminosity Measurements Using the Tile Calorimeter of the ATLAS Detector for Run 3 Proton-Proton Collisions at $\sqrt{s} = 13.6$ TeV in 2023	RAPHEEHA, Phuti
11:10	[219] South Africa's Contribution to the Phase-II Upgrade of the ATLAS Hadronic Tile-Calorimeter Low-Voltage Power Supply	MCKENZIE, Ryan
11:30	[336] Early Failures Detection with Machine Learning for ATLAS TileCal LVPS: The Impact of Burn-in Assessed with Test Bench Datasets	Dr MOSOMANE, Chuene
11:50	[367] Investigation of Radiation-Resistant Components for the TileCal-ATLAS Detector	LALL, Gaurav Dr MOUANE, Othmane
12:10	[207] Particle Flow Algorithm (PFA) development for forward jet reconstruction with the ATLAS ITk detector setup at the HL-LHC	LEPOTA, Thabo James

Nuclear, Particle and Radiation Physics-2: Session-3 - Solomon Mahlangu House (14:40 - 15:40)

-Conveners: Edith Zinhle Buthelezi

time	[id] title	presenter
14:40	[237] Overview of the current status of the High Granularity Timing Detector for the ATLAS phase 2 upgrade	MAZINI, Rachid
15:00	[204] Ongoing validation of the High Granularity Timing Detector (HGTD) demonstrator for the ATLAS phase II upgrades	LEPOTA, Thabo James
15:20	[27] pQCD energy loss calculation for small systems	VAN DEN BERG, Dario

Nuclear, Particle and Radiation Physics-2 - Solomon Mahlangu House (16:10 - 17:30)

Wednesday 9 July 2025

Nuclear, Particle and Radiation Physics-2: Session-4 - Solomon Mahlangu House (09:20 - 10:20)

-Conveners: Rachid Mazini

time	[id] title	presenter
09:20	[139] Triboson Excesses in light of a Real Higgs Triplet Model	Dr BHATTACHARYA, Srimoy
09:40	[258] Observation of 152 GeV charged scalar at future lepton colliders	Dr MAHARATHY, Siddharth Prasad
10:00	[351] Measuring the anomalous ttZ and tty couplings at Future e-p colliders.	Dr KUMAR, Mukesh

Nuclear, Particle and Radiation Physics-2: Session-5 - Solomon Mahlangu House (10:50 - 12:30)

-Conveners: Bruce Mellado Garcia

time	[id] title	presenter
10:50	[369] Searches for scalar resonances with di-photon in association with taus using the easyjet analysis framework in ATLAS detector at the LHC	Mr MAKGETHA, Kutlwano
11:10	[373] Monte Carlo generation involving searches for scalar resonances with diphoton in association with tau+ tau-/2 b-jets in ATLAS detector at the LHC	MBUYISWA, Njokweni
11:30	[460] Searches for a scalar resonance with Di-photon in association with leptons in the range 130 – 200 GeV in the ATLAS detector at the LHC	KAKANCU, Vuyolwethu Happyboy
11:50	[401] Event Selection and Analysis Strategy for Diphoton Resonance Searches Accompanied by Leptonic Final States in 2022-2024 ATLAS Run 3 data	NTUMBE, Kgothatso
12:10	[409] A Search for a Scalar Resonance using Di-Photons in Association with a lepton and a b-jet with the ATLAS Detector	NDHLOVU, Baballo-Victor

Nuclear, Particle and Radiation Physics-2: Session-6 - Solomon Mahlangu House (14:40 - 15:40)

-Conveners: Mukesh Kumar

time	[id] title	presenter
14:40	[453] Strategy for Particle Physics: Opportunities for South Africa	MELLADO, Bruce
15:10	[475] Detector Research and Development projects for future High Energy Physics experiments	MAZINI, Rachid

Thursday 10 July 2025

Nuclear, Particle and Radiation Physics-2: Session-7 - Solomon Mahlangu House (09:20 - 10:20)

-Conveners: Mukesh Kumar

time	[id] title	presenter
09:20	[368] Measurement of the top quark Yukawa coupling from tt kinematic distributions in the dilepton final state	GARVEY, Cameron
09:40	[342] A search for tWZ production in the ATLAS experiment Run 2 dataset	SANGWENI, Thobani
10:00	[284] Exploring toponium formation at the LHC	HOSSAIN, Aminul

Nuclear, Particle and Radiation Physics-2: Session-8 - Solomon Mahlangu House (10:50 - 12:30)

-Conveners: Mpho Gololo

time	[id] title	presenter
10:50	[236] Dark photons search with the ATLAS detector at the LHC	MAZINI, Rachid
11:10	[288] Search for Higgs decaying to invisible particles via vector boson fusion with ATLAS	Ms TRUONG, Loan
11:30	[347] Search for a new spin-0 scalar and a spin-1 boson using Run2 ATLAS detector data	MAPEKULA, Xola
11:50	[102] The W boson as a probe for the initial state of hadron collisions at the LHC	POTGIETER, Stephan

Nuclear, Particle and Radiation Physics-2: Session-9 - Solomon Mahlangu House (13:50 - 15:40)

-Conveners: Mukesh Kumar; Sifiso Ntshangase

time	[id] title	presenter
13:50	[536] Division Meeting	

Friday 11 July 2025

Nuclear, Particle and Radiation Physics-2: Session-10 - Solomon Mahlangu House (10:50 - 12:30)

-Conveners: Srimoy Bhattacharya

time	[id] title	presenter
10:50	[462] Probing Charged Current B-anomalies via a U (1) μ - τ Extension of the Standard Model	Mr KAKANCU, Vuyolwethu Happyboy
11:10	[377] Analysing h to $Z\gamma$ decay at the Large Hadron Collider using SMEFT	MBUYISWA, Njokweni
11:30	[372] The use of Machine Learning techniques to analyse the h-> $Z\gamma$ process within the SMEFT framework at the Large Hadron Collider (LHC)	MAKGETHA, Kutlwano
11:50	[244] Comparison of Full and Fast Simulation Efficiencies in the ATLAS Detector Using Tag-and-Probe and EGamma MC Comparison Frameworks	CASSIM, Abdool Sattar
12:10	[448] Orthogonality study for the $A/S \rightarrow Z\bar{Z} \rightarrow 2l2\nu/2l2j$ with the ATLAS detector at the LHC	UNWUCHOLA, Doomnull