

SAIP2025

Tuesday 8 July 2025

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

-Conveners: Sifiso Ntshangase

time	[id] title	presenter
09:20	[93] Linear polarization measurement on gamma rays from non-oriented nuclear states	Ms SIMILINDI, Beatrice
09:40	[52] Systematics study of octupole bands in rotating even-even nuclei to reveal rigid or soft octupole shape	MUZOMUHLE, Muzomuhle
10:00	[107] Electromagnetic and thermodynamic properties in the quasi-continuum of mid-mass nuclei through inverse and direct kinematics.	NKALANGA, Mhlangano Freedom

Nuclear, Particle and Radiation Physics-1 - Solomon Mahlangu House (10:50 - 12:30)

-Conveners: Khuliso Murulane

time	[id] title	presenter
10:50	[212] Detecting Anomalies in Measured Thermal Neutron Flux Profiles of SAFARI-1 Research Reactor.	KGOLOBE, Rethabile
11:10	[343] Effect of SrO on radiation attenuation properties of boro-tellurate glass systems at a high energy region.	Mr MTHALANE, Sifiso
11:30	[54] RADIOLOGICAL RISKS ASSESSMENT OF MINING VICINITIES USING RESRAD COMPUTER CODE	Dr OLAGBAJU, Peter Oluwadamilare
11:50	[26] Alpha and Beta radiation effects on Re ₂ MnCoO ₆ (Re = La, Sm, Nd)	DHLIWAYO, Tinashe

Nuclear, Particle and Radiation Physics-1 - Solomon Mahlangu House (14:40 - 15:40)

-Conveners: Pete Jones

time	[id] title	presenter
14:40	[502] Radiation contamination in gold mine tailings soil samples using HPGe spectrometry	MVELASE, M.J.
15:00	[129] The low-lying electric dipole strength in nuclei: the role of deformation	PELLEGRI, Luna
15:20	[91] Nuclear structure investigations via the (p,d) neutron removal reaction	NEVELING, Retief

Nuclear, Particle and Radiation Physics-1 - Solomon Mahlangu House (16:10 - 17:30)

-Conveners: Pete Jones

time	[id] title	presenter
16:10	[19] Radiological health risk assessment of powdered and liquid milk in South Africa: A study on activity concentration levels of ²²⁶ Ra, ²³⁸ U, ²³² Th, ⁴⁰ K and ¹³⁷ Cs	Dr JOHN, Samuel Odumu Ogana

Wednesday 9 July 2025

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

-Conveners: Retief Neveling

time	[id] title	presenter
09:20	[36] Systematics study of ground-state bands in rotating even-even nuclei to reveal triaxial deformation at ground state	XULU, Nkonzo
09:40	[242] Study of the K quantum number of pygmy states in ^{154}Sm	MOLAENG, Refilwe Emil

Nuclear, Particle and Radiation Physics-1 - Solomon Mahlangu House (10:50 - 12:30)

-Conveners: Retief Neveling

time	[id] title	presenter
10:50	[90] X-ray production cross section measurements for the analysis of metal halide perovskite thin films using heavy ion PIXE spectroscopy	MOREMI, Lilian
11:10	[55] Statistical Discrimination of Uranium Ore Concentrate Using Trace Element Signatures: Developing nuclear forensic fingerprints	Ms NTSOHI, Liteboho
11:30	[452] Understanding the structure of ^{16}C and the $B(E2)$ problem through Large-Scale Shell-Model (LSSM) calculations	MURULANE, Khuliso

Nuclear, Particle and Radiation Physics-1 - Solomon Mahlangu House (14:40 - 15:40)

-Conveners: Linda Mdletshe

time	[id] title	presenter
14:40	[291] LEAD ISOTOPIC RATIOS AS A NUCLEAR FORENSIC SIGNATURE FOR AGE DATING OF URANIUM ORES	MATHUTHU, Manny
15:00	[278] Indirect experimental technique for constraining the $^{193,194}\text{Ir}(n,\gamma)$ cross sections	MAGAGULA, Sebenzile
15:20	[140] Portable African Neutron-Gamma Laboratory for Innovative Nuclear Science	JONES, Pete

Thursday 10 July 2025

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

-Conveners: Siyabonga Majola

time	[id] title	presenter
09:20	[432] Study of low-medium spin states in ^{156}Er	Ms KHANYEZA, N.N
09:40	[556] [516] Exciting the Hoyle state in ^{12}C selectively populated using the $^{10}\text{B}(^6\text{Li}, ^4\text{He})^{12}\text{C}$ reaction	CARTER, John
10:00	[385] The photon strength functions from (p, γ) capture reactions.	NETSHIYA, Adivhaho

Nuclear, Particle and Radiation Physics-1 - Solomon Mahlangu House (10:50 - 12:30)

-Conveners: Manny Mathuthu

time	[id] title	presenter
10:50	[126] INVESTIGATING THE PHOTON STRENGTH FUNCTION FOR ^{61}Cu USING ^{60}Ni (p, γ) REACTION AT iTHEMBA LABS	Mr MODISE, Tshegofatso Goitseone
11:10	[159] The PANDORA Project: Investigating Photonuclear Reactions in Light Nuclei.	BEKKER, Jacob
11:30	[488] Simulation of the X-ray and gamma-radiation shielding parameters of the $\text{Li}_2\text{O}+\text{Sb}_2\text{O}_3+\text{PbO}+\text{GeO}_2$ glass materials in the 20 - 300 keV energy range using Phy-X/PSD, XCOM, and Geant4 software programs	Dr MDLETSHE, Linda
11:50	[187] Coupling the MAGNEX focal-plane detector to the K600 high-resolution magnetic spectrometer for the NUMEN project	Dr KHUMALO, Thuthukile
12:10	[216] Investigating the photon shielding factors of the silicate glass system from 1 MeV up to 15 MeV, Using the X-COM and GEANT4 simulating software	Mr ZUMA, Mfundo

Nuclear, Particle and Radiation Physics-1 - Solomon Mahlangu House (13:50 - 15:40)

-Conveners: Sifiso Ntshangase; Mukesh Kumar

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

Friday 11 July 2025

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

-Conveners: Thuthukile Khumalo

time	[id] title	presenter
09:20	[311] Electromagnetic Properties of the ^{106}Cd Nucleus and Experimental Validation of the Generalized Brink-Axel Hypothesis (gBA)	Ms TSEWU, Ayabulela
09:40	[504] Theoretical studies of chiral systems described within particle-rotor model	Dr SHIRINDA, Obed
10:00	[473] Systematics review of low-lying positive parity structures in the 160 mass region.	MAJOLA, Siyabonga

Nuclear, Particle and Radiation Physics-1 - Solomon Mahlangu House (10:50 - 12:30)

-Conveners: Thuthukile Khumalo

time	[id] title	presenter
10:50	[462] Probing Charged Current B-anomalies via a $U(1)_{\mu-\tau}$ 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 $h \rightarrow Z\gamma$ 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, Doornull