

SAIP2023

Tuesday 04 July 2023

Applied Physics (10:00-10:40)

-Conveners: Alan Matthews

time	[id] title	presenter
10:00	[185] Introducing the 10kW Solar Trough Prototype	FERRER, phil
10:20	[184] A physics approach to ecological networks	MATTHEWS, Alan

Applied Physics (11:00-12:00)

-Conveners: phil ferrer

time	[id] title	presenter
11:00	[140] Enhancing the photocurrent response of morphology tailored Cu ₂ O nanostructures for photoelectrochemical water-splitting	Ms MOSALAKGOTLA, Mano
11:20	[247] Density functional theory study of Ti-doped NaMnO ₂ , a cathode material for sodium-ion battery	RANWAHA, Tshifhiwa Steven
11:40	[271] Long-term kimberlite activation for Radiological Assessment for the Min-PET technique.	NEMAKHAVHANI, Thendo Emmanuel

Applied Physics (14:00-15:20)

-Conveners: Ernest van Dyk

time	[id] title	presenter
14:00	[154] Comparative Analysis of Numerical Methods for Assessing Wind Potential in Fort Beaufort, South Africa, using Two-Parameter Weibull Distribution Model.	Mr SHAMBIRA, Ngwarai
14:20	[203] An Internet-Of Things pilot project as a primer for future technological development for high-energy physics detector control systems.	MCKENZIE, Ryan
14:40	[55] EFFECT OF NANO-SCALED METAL OXIDES ON THE CARBON-NITROGEN RATIO OF COW DUNG FOR SUSTAINABLE BIOGAS PRODUCTION	NETHAVHANANI, Takalani

Wednesday 05 July 2023

Applied Physics (09:40-10:40)

-Conveners: Trevor Derry

time	[id] title	presenter
09:40	[139] Development and testing of an external cavity diode laser and controller	GOVENDER, Kessie
10:00	[296] Shaping a kaleidoscope of colours	Ms PERUMAL, Leerin Michaela
10:20	[322] The varying and invariant properties of vectorial light for robust communication through a 270m free space optical link with no pre- or post-correction	PETERS, Cade Ribeiro

Applied Physics (11:00-12:00)

-Conveners: Tjaart Krüger

time	[id] title	presenter
11:00	[54] Fast neutron transmission spectroscopy for the non-destructive analysis of concrete	Ms SEGALE, Naledi
11:20	[270] Density functional theory study of Porphyrin dye molecule adsorbed on TiO ₂ (010) Anatase surface.	RANDELA, Ronel Ronella
11:40	[274] Nuclear Orientation Thermometry using the UCT Dilution Refrigerator	Mr NTOLOSI, Yanga

Applied Physics (14:00-15:00)

-Conveners: Kessie Govender

time	[id] title	presenter
14:00	[224] Modelling Weather Patterns and Solar PV systems for the Sizing of Standalone PV Battery Charging System Standalone PV Battery Charging System	NDLOVU, Happy Sibusiso
14:20	[340] Topic: Conversion of biomass into carbonaceous material: Making synthetic graphite	Mr NEMAKONDE, Pfano
14:40	[172] Assessment of CO ₂ emissions in the rural set-up of the Vuwani area in Limpopo, South Africa.	Mr TAKALANI, Lufuno Ms THENGA, Humbelani

Applied Physics (15:20-17:40)

-Conveners: Alan Matthews

time	[id] title	presenter
15:20	[192] Applications of Graph Neural Networks in Particle Physics and Air Quality Systems for PM _{2.5} forecasting	RUDOLPH, Craig
15:40	[98] ASSESSMENT OF DEMAND CONSUMPTIONS AND POTENTIAL VIABILITY OF INSTALLATION OF BIOGAS DIGESTER IN MELANI VILLAGE EASTERN CAPE, SOUTH AFRICA	MTHIMUNYE, Thabiso
16:20	[358] Applied Physics Division Meeting	MATTHEWS, Alan

Thursday 06 July 2023

Applied Physics (09:40-10:40)

-Conveners: Trevor Derry

time	[id] title	presenter
09:40	[342] The work of Physics to mitigate greenhouse gases to address climate change.	Prof. DIALE, Mmantsae
10:00	[34] Effect of concentrator geometry on wind velocity augmentation	Dr SHONHIWA, Chipo
10:20	[333] Severe Accident Analysis at Koeberg Nuclear Power Station Using MELCOR Computer Code	Ms KHUMALO, Nontobeko

Applied Physics (11:00-12:00)

-Conveners: Adiel Holtzhausen

time	[id] title	presenter
11:00	[212] Computational fluid dynamics modelling of airborne droplets	Dr RALIJAONA, Mbolahasina
11:20	[221] A computational fluid dynamics study of the infectiousness decay of SARS-CoV-2 microorganism when exposed to UVGI combined with evaporation	Dr IGUMBOR, Emmanuel
11:40	[301] Imaging with X-rays and prospect of a cold neutron source at Necsca	NSHIMIRIMANA, Robert

Applied Physics (14:00-15:20)

-Conveners: Alan Matthews

time	[id] title	presenter
14:00	[195] O2 adsorption on PtSb ₂ (100) surface	Dr MANGWEJANE, Samuel
14:20	[332] Button Optics: On-demand generation and diagnosis of structured light	Dr JORDAAN, Bertus
14:40	[284] Artificial neural network-based photodiode radiometer for instantaneous global solar irradiance measurements	Mr TLHAPANE, Olebogeng

Friday 07 July 2023

Applied Physics (09:40-10:40)

Applied Physics (11:00-12:20)