# 63<sup>rd</sup> ANNUAL CONFERENCE OF THE SA INSTITUTE OF PHYSICS

# Tuesday 26 June 2018

**Space Science** (10:00-11:00)

**Space Science** (11:20-13:00)

-Conveners: Du Toit Strauss

time	[id] title	presenter
11:20	[156] SuperDARN radar estimates of thermospheric neutral density	Prof. KOSCH, Michael
11:40	[130] Investigation of Pc5 pulsations during a TRINNI event	Mr MMAME, Bernad
12:00	[57] An investigation of the presence of Pc5 oscillations during a TRINNI event	Mr MBANJWA, Njabulo
	[59] Measuring the mesoscale neutral wind variability near auroral arcs using Fabry-Perot Interferometer (FPI).	Mr NGWANE, Ntlakanipho
	[85] Investigation of traveling ionospheric disturbances (TIDs) using SANAE SuperDARN radar	Ms ATILAW, Tsige

## Wednesday 27 June 2018

**Space Science** (10:00-11:00)

#### **Space Science** (11:20-13:00)

-Conveners: Michael Kosch

time	[id] title	presenter
11:20	[80] Modelling the acceleration of energetic particles at travelling heliospheric shocks	Mr PRINSLOO, Phillip
11:40	[236] Towards an ab initio model for the radiation dose rate of cosmic rays on and near various planetary surfaces is our solar system: solar cycle-dependent modulation of galactic cosmic-ray intensities	Mr MOLOTO, KATLEGO
12:00	[39] Investigate ionizing radiation in the troposphere using ground-based neutron monitor, ACE/DSCVR satellite and RBSP satellite data for aviation radiation forecasting.	Mr THAGANYANA, Golekamang
12:20	[81] High Altitude Radiation Monitor (HARM)	Mr MOSOTHO, Godfrey Moshe
12:40	[63] Including Variometers in Geomagnetic Field Interpolation	Mr HEYNS, Michael

#### **Space Science** (14:00-15:20)

-Conveners: John Bosco Habarulema

time [id] title	presenter
14:00 [38] Sprites over South Africa	Mr MASHAO, Dakalo
14:20 [165] Multi-spectral observations of sprites: N2(1PG) and N2+(2PG) Emissions	Mr NNADIH, Stanislaus

Space Science: Division meeting (15:40-17:00)

-Conveners: Du Toit Strauss

## Thursday 28 June 2018

**Space Science** (10:00-11:00)

## **Space Science** (11:20-13:00)

-Conveners: Shimul Kumar Maharaj

time	[id] title	presenter
11:20	[6] Expansion of the Radar Link Budget Equation: Improving the number of estimated Lunar Laser Ranging returns for the HartRAO-LLR station	Mr NDLOVU, Sphumelele
11:40	[95] Climatology of thermospheric meridional winds derived from South African ionosonde network during extended solar minimum of 2007-2009.	Dr KATAMZI-JOSEPH, Zama Thobeka
12:00	[201] Estimation of ionospheric vertical drifts based on magnetometer and satellite data	Dr HABARULEMA, John Bosco
12:20	[107] Storm-time TEC mapping over Africa and surrounding areas	Dr HABARULEMA, John Bosco
12:40	[176] The ionospheric response to HILDCAA events over the African mid-latitude sector	Mrs MATAMBA, Tshimangadzo Merline

# **Friday 29 June 2018**

<u>Space Science</u> (10:00-11:00)

## **Space Science** (11:20-13:00)

-Conveners: Zama Thobeka Katamzi-Joseph

time	[id] title	presenter
11:20	[23] WPIT101 (Introduction to Wave-particle Interactions in Turbulence): Micro-physics of Charged Particle Transport in Turbulent Magnetic Fields	Mr VAN DEN BERG, Jabus
11:40	[27] Numerical investigation of solar energetic particle transport between the Sun, Earth, and Mars.	Mr HEITA, Phillip
12:00	[35] Modelling of the injection function of solar energetic particles (SEPs).	Mr STEYN, Ruhann
12:20	[118] Stopbands of fast ion-acoustic solitons in non-thermal plasmas with two-temperature adiabatic ions	Dr MAHARAJ, Shimul Kumar
12:40	[349] Langmuir Probe diagnostics of the exhaust plume of a miniature DC-discharge plasma-thruster.	Mr CWELE, Mahlomola