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

# Wednesday 27 June 2018

#### Photonics: Spectroscopy (10:00-11:00)

-Conveners: Tjaart Krüger

time [id] title	presenter
10:00 [405] Contrast enhancement in spectral domain optical coherence tomography.	Mr COENRAAD, Wendall
10:20 [110] A Heat Pipe Setup for Resonant Ionisation Spectroscopy of Zinc	Mr HATTINGH, Brandon
10:40 [136] Enhancement of signal to noise ratio through temporal pulse shaping	Mr DWAPANYIN, George Okyere

# Photonics: Lasers and Optics (11:20-13:00)

-Conveners: Pieter Neethling

time	[id] title	presenter
11:20	[306] Output power stability of an all-fibre Erbium doped fibre laser	Mr KABOKO, jean jacques monga
11:40	[318] Vector vortex beams through amplifiers	Ms SROOR, Hend
12:00	[364] Spontaneous Parametric Down-Conversion Beam Shaping	Mr PINNELL, Jonathan
12:20	[330] Observation of local entanglement oscillation in free space	Dr ROSALES-GUZMAN, Carmelo
12:40	[342] Generating high quality spatial modes of light at a high rate	Mr KARA, Ravin

#### Photonics: Beam Shaping & Meeting (14:00-15:20)

-Conveners: Andrew Forbes

time	[id] title	presenter
14:00	[322] Modelling Crosstalk and Propagation of LG Beams in Turbulence	Mr COX, Mitchell
	[328] Creation, characterization and analysis of propagation invariant vector flat-top beams	Mr BHEBHE, NKOSIPHILE ANDILE
14:40	[410] Photonics Division Meeting	Prof. FORBES, Andrew

## **Photonics: Applied Photonics** (15:40-17:00)

#### -Conveners: Carmelo Rosales-Guzman

time [id] title	presenter	
15:40 [411] Continuation of Photonics Division Meeting (if required)	Prof. FORBES, Andrew	
16:00 [43] Using optical tweezers to measure the forces exerted by molecular motors in onion cells	Ms ERASMUS, Anneke	
16:20 [323] Robust quantum key distribution with spatial modes	Mr NDAGANO, Bienvenu	

16:40 [188] Single molecule fluorescence microscopy- An application in thin polymer film dynamics.

Ms SIBANDA, charmaine

# **Friday 29 June 2018**

# **Photonics: Applied Photonics** (10:00-11:00)

### -Conveners: Bienvenu Ndagano

time	[id] title	presenter
	[36] Cu nanoclusters embedded in a glass host: A tunable nonlinear optical response, thermodynamic and dielectric behaviour	Dr PROMOD, Kumar
10:20	[68] Effects of annealing on luminescent properties of mixed lanthanum oxyorthosilicates co-doped Dy3+ and Pr3+ phosphors	Mr OGUGUA, Simon Nnalue
10:40	[83] Resonant Ionization Spectroscopy for laser isotope separation of zinc isotopes	Mr DE BRUYN, Andre

# Photonics: Bio-Photonics (11:20-13:00)

#### -Conveners: Gurthwin Bosman

time	[id] title	presenter
11:20	[333] A photophysical investigation of bio-inspired molecular dyads by means of femtosecond transient absorption spectroscopy	Mr HARRISON, Arthur
11:40	[49] Investigation of a specifically targeted photosynthetic nanoparticle drug delivery system for enhanced photodynamic therapy treatment of metastatic melanoma	Ms NAIDOO, Channay
12:00	[246] Plasmon-enhanced fluorescence from individual plant light-harvesting complexes	Mr KYEYUNE, Farooq
12:20	[70] The effect of photobiomodulation at 660 nm on the differentiation of diabetic wounded WS1 human fibroblasts into myofibroblasts	Ms MOKOENA, Dimakatso
12:40	[82] Laser-induced differentiation of Adipose Stem Cells to neuron-like cells	Mr GEORGE, Sajan