



# SAIP2023

## Tuesday 04 July 2023

### Photonics: Photonics in Biology (10:00-10:40)

**-Conveners: Pieter Neethling**

time	[id] title	presenter
10:00	[177] Curcumin an emerging natural photosensitiser for lung cancer photodynamic therapy	KAH, Glory
10:20	[169] Evaluation of Anticancer Effect of Punica granatum Extract in Combination of Hypericin Mediated Phototoxicity on MCF-7 Cells	FAKUDZE, Nosipho

### Photonics: Quantum Aspects (11:00-12:00)

**-Conveners: Gurthwin Bosman**

time	[id] title	presenter
11:00	[298] Quantum Algorithms on Classical Optical Vector-Matrix Multipliers	KONI, MWEZI
11:20	[50] Quantum random number generation using an on-chip linear plasmonic beamsplitter	STRYDOM, Conrad
11:40	[306] The Uncertainty Principle with a Twist	GOUNDEN, Neelan

### Photonics: Quantum phenomena (14:00-15:20)

**-Conveners: Andrew Forbes**

time	[id] title	presenter
14:00	[349] Modal Characterization of a Few-Mode Fiber based on a Wavelength and Polarization Entangled Photon Source	Mr YOUSSEF, M
14:20	[308] Studying quantum-like light from simple laser systems	MKHUMBUZA, Light
14:40	[323] Uncovering the spatial distribution of entanglement using vectorial light	PETERS, Cade Ribeiro
15:00	[299] Is classical entanglement of a vector beam fragile or robust?	KONI, MWEZI

# Wednesday 05 July 2023

## Photonics: Sensing (09:40-10:40)

-Conveners: Tjaart Krüger

time	[id] title	presenter
09:40	[99] Quantum Phase-based Plasmonic Biosensing for Enhanced COVID-19 Detection	Dr MPOFU, Kelvin
10:00	[129] Majority Voting Algorithm for TB Detection: Machine Learning Approach	Mr TSEBESEBE, Nkgaphe
10:20	[273] Photonic crystal-based biosensing for TB detection	Mr MAPHANGA, Charles

## Photonics: Non Specialist Session (11:00-12:00)

-Conveners: Andrew Forbes

time	[id] title	presenter
11:00	[353] From quantum quirks to microscopic wonders: journey into the future of imaging with entangled photons!	Dr DEFLENNE, Hugo
11:40	[302] Pumping up the frequency conversion of structured light	SINGH, Sachleen

## Photonics: Biological applications (14:00-15:00)

-Conveners: Pieter Neethling

time	[id] title	presenter
14:00	[153] Optical Tweezers Towards Single-Cell Analysis	DU PLESSIS, LeRoi
14:20	[176] Real-time feedback-driven single-particle tracking spectroscopy of LHCII	VAN HEERDEN, Bertus
14:40	[187] Modelling linear spectra of plant light-harvesting complexes	NÖTHLING, Johan

## Photonics: Spectroscopy, communication and beam shaping (15:20-17:40)

-Conveners: Mitchell Cox

time	[id] title	presenter
15:20	[155] Solution phase photodegradation studies of PCDTBT	Ms EVERTS, Kelsey
15:40	[282] Mid infrared gas absorption spectroscopy using a photonic chip-based supercontinuum	BARICHOLO, Peter
16:00	[314] Investigating mode diversity with combinations of Hermite-Gaussian and Orbital Angular Momentum modes	DROZDOV, Alice
16:20	[316] Beyond doughnuts and mugs, tying photons together	ORNELAS, Pedro
16:40	[320] Threading a Laser Through the Eye of a Needle 2.0: Evaluating Coupling Performance of Telecom Fibre Cables for use in a Cost-Effective Free Space Optical (FSO) System under Atmospheric Turbulence.	Mr IGA, Fortune
17:00	[364] Photonics Division Meeting	NEETHLING, Pieter

# Thursday 06 July 2023

**Photonics (09:40-10:40)**

**Photonics (11:00-12:00)**

**Photonics (14:00-15:20)**

# Friday 07 July 2023

**Photonics (09:40-10:40)**

**Photonics (11:00-12:20)**