



# SAIP2015

## Tuesday 30 June 2015

### **Photonics: Photonics Medical (11:10-12:10)**

**-Conveners: Darryl Naidoo**

time	[id] title	presenter
11:10	[77] Gene Expression Changes in Diabetic Wound Healing as Induced by Photobiostimulation <i>in vitro</i>	Ms AYUK, Sandra, M.
11:30	[155] Irradiation of in vitro melanoma cells with low intensity laser in the presence of hypericin and aluminium (III) phthalocyanine chloride tetrasulphonate for use in photodynamic diagnosis	Ms NDHUNDHUMA, Ivy
11:50	[219] Ability of Gold Nanoparticles in mediating cellular damage in human breast cancer cells (MCF-7) using laser irradiation	Mr MFOUO TYNGA, Ivan

### **Photonics: Fibre Photonics (14:00-15:40)**

**-Conveners: Melanie McLaren**

time	[id] title	presenter
14:00	[74] Fibre Bragg grating sensor to measure shrinkage in a concrete overlay.	Mr GROBLER, Michael
14:20	[75] Fibre Optic Temperature Measurement Sensors for a Robotic Hand	Mr MOORCROFT, Ronald
14:40	[110] A Nonlinear Optical loop Mirror enhanced three wavelengths Erbium doped fiber laser	Mr QHUMAYO, Siyanda
15:00	[365] Development of Single Mode 2076.4 nm Holmium-doped Fibre Laser	Dr WU, Lorinda

# Wednesday 01 July 2015

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

**-Conveners: Pieter Neethling**

time	[id] title	presenter
09:40	[7] Measuring the “vectorness” of a vector vortex beam	Dr MCLAREN, Melanie
10:00	[145] Angular Accelerating White Light	Dr DUDLEY, Angela
10:20	[422] Wigner distribution function and the complex curvature applied to Laguerre-Gaussian modes propagating through first order systems	Dr MAFUSIRE, Cosmas

## **Photonics: Photonics (11:10-12:10)**

**-Conveners: Erich Rohwer**

time	[id] title	presenter
11:10	[452] The Fundamentals of Single Molecule Microscopy.	Dr BOSMAN, Gurthwin
11:30	[458] NON-SPECIALIST LECTURE: Accelerating light	Prof. FORBES, Andrew

## **Photonics: Photonics (14:00-15:40)**

**-Conveners: Christine Steenkamp**

time	[id] title	presenter
14:00	[191] Terahertz Time-Domain Ellipsometry	Mr SMITH, Shane
14:20	[197] Surface Enhanced Raman Spectroscopy (SERS) of bio-molecules.	Ms PFUKWA, Cathrine
14:40	[201] Supercontinuum pulse compression	Mr VILJOEN, Ruan
15:00	[214] Fluorescence spectra of carbon monoxide isotopomers upon vacuum ultraviolet excitation	Mr DE BRUYN, Andre
15:20	[408] Development of kHz applied optical remote sensing for atmospheric insect monitoring applications	Mr GEBRU, Alem

# Thursday 02 July 2015

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

**-Conveners: Gurthwin Bosman**

time	[id] title	presenter
09:40	[285] A Near Infrared Femtosecond Laser Source for Observation of Charge Transfer Processes in Semiconductors	Ms AHMED, Essraa
10:00	[370] Ultrafast photochromism in metal-organic complexes	Mr VON STEIN, Xavier
10:20	[31] Novel zincate phosphors: A new red-emitting phosphors for LED applications	Dr KUMAR, Vijay

## **Photonics: Photonics (11:10-12:10)**

**-Conveners: Erich Rohwer**

time	[id] title	presenter
11:10	[409] Ultrafast mapping of crystallic structural changes in organic radical salts	Mr SMIT, Bart
11:30	[465] Division Meeting	Prof. ROHWER, Erich

## **Photonics: Photonics (14:00-15:40)**

**-Conveners: Andrew Forbes**

time	[id] title	presenter
14:00	[132] Hong-Ou-Mandel interference for the orbital angular momentum Bell States - a high dimensional analysis	Dr ZHANG, Yingwen
14:20	[220] Implementing the Deutsch Algorithm with classical light	Mr PEREZ-GARCIA, Benjamin
14:40	[80] Communication through fibres using cylindrical vector vortex modes.	Mr NDAGANO, Bienvenu
15:00	[257] Fundamental Laguerre-Gaussian (LGp0) mode with lower output power threshold	Mr BELL, July
15:20	[366] Controlled injection of higher-order modes into an optical fiber from a solid state digital laser	Mr NGCOBO, Sandile

# Friday 03 July 2015

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

**-Conveners: Tjaart Krüger**

time	[id] title	presenter
09:40	[87] Investigating the excited electronic states of carotenoids in the main plant light-harvesting complex (LHCII) via femtosecond pump-probe spectroscopy	Ms SINGH, Asmita
10:00	[198] Femtosecond pump-probe spectroscopy on wild-type and mutant antenna complexes from <i>Arabidopsis thaliana</i>	Mr PARADZAH, Alexander
10:20	[228] Using single-molecule spectroscopy methods to investigate the environmental dependencies of photoprotection in the main plant light harvesting complex.	Mr BOTHA, Joshua

## **Photonics: Biophysics (11:10-13:10)**

**-Conveners: Tjaart Krüger**

time	[id] title	presenter
11:10	[237] Ultrafast energy transfer and photoprotection in the light-harvesting complexes of the diatom <i>Cyclotella meneghiniana</i>	Dr KRUGER, Tjaart
11:30	[258] Using single molecule spectroscopy to study the role of low-energy fluorescence bands in the photoprotection of the major plant light harvesting complex.	Mr STOLTZ, Herman