SAIP 2011

Wednesday 13 July 2011

LOS: Lasers - Acro4 (11:00-12:45)

-Conveners: Pieter Neethling

time	[id] title	presenter
11:00	[383] Dielectric barrier discharge CO2 TEA laser operated at frequencies up to 400 Hz	Mr BARICHOLO, Peter
11:15	[197] Decomposition of the field within an apertured plano-concave resonator	Mr NAIDOO, Darryl
11:30	[322] Pulse Repetition Frequency locking by pump modulation in numerical simulations of a diode end pumped passively Q-switched Nd:YAG laser with a Cr4+:YAG saturable absorber	Mr COLLETT, oliver
11:45	[368] Digital control of a pulsed Ho:YLF ring laser	Mr JACOBS, Cobus
12:00	[150] 2 µm Ho doped amplifiers	Dr STRAUSS, Hencharl Johan
12:15	[354] 2 µm pumped HBr Oscillator-amplifier	Dr ESSER, M J Daniel
12:30	[158] Demonstration of a wavelength tuneable mid-IR molecular laser	Mr KOEN, Wayne

LOS: Spectroscopy - Acro4 (13:45-15:30)

-Conveners: M J Daniel Esser

time	[id] title	presenter
13:45	[436] NON-SPECIALIST: Spectroscopy in Chemistry	Dr LITWINSKI, Christian
14:30	[301] Identification of ultrafast processes in the spectroscopy of ZnPc	Mr OMBINDA-LEMBOUMBA, Saturnin
14:45	[307] Density Functional Calculation of Metal Dithizonates	Mr OLAOYE, OLUFEMI OPEYEMI
15:00	[395] Spectroscopy with a mode-locked Femtosecond Laser Frequency Comb	Mr MBELE, Vela Lincoln

Thursday 14 July 2011

LOS: Optics 1 - Acro4 (08:00-09:30)

-Conveners: Andrew Forbes

time	[id] title	presenter
08:15	[235] Comparison of phase-dependent only and complete Laguerre-Gaussian beams using modal decomposition	Ms MCLAREN, Melanie
08:30	[384] Implementation of intra–cavity beam shaping technique to enhance pump efficiency	Dr LITVIN, Igor
08:45	[179] The mean focal length of an aberrated lens	Mr MAFUSIRE, Cosmas
09:00	[402] The optical syringe for selective differentiation of pluripotent stem cells	Dr MTHUNZI, Patience
09:15	[205] Accurately and precisely determining the strength of an optical trap	Ms ISMAIL, Yaseera

LOS: Optics 2 - Acro4 (11:00-12:45)

-Conveners: Patience Mthunzi

time	[id] title	presenter
11:00	[417] Structured Light	Prof. FORBES, Andrew
11:30	[385] The behavior of an instantaneous Poynting vector in the laser beams	Dr LITVIN, Igor
11:45	[310] Superresolution beams	Mr NGCOBO, Sandile
12:00	[193] Phase calibration of the Shack-Hartmann wavefront sensor using a phase-only spatial light modulator	Mr MAFUSIRE, Cosmas
12:15	[337] Stable interferometer for orbital angular momentum sorting	Mrs DUDLEY, Angela

LOS: Femtosecond - Acro4 (13:45-14:30)

-Conveners: Hermann Uys

time	[id] title	presenter
13:45	[206] Time-domain Terahertz Spectroscopy: Principles and applications	Dr NEETHLING, Pieter
14:00	[266] First time resolved diffraction experiments with the Stellenbosch Ultrafast Electron Gun	Ms HAUPT, Kerstin
14:15	[148] Compression of highly charged electron pulses for single shot femtosecond time-resolved electron diffraction experiments	Mr ERASMUS, Nicolas

Friday 15 July 2011

LOS: Quantum - Acro4 (08:00-09:30)

-Conveners: Venkataraman Sivakumar

time	[id] title	presenter
08:00	[437] Quantum Physics with Trapped Ions	Dr UYS, Hermann
08:30	[387] Quantum cryptography for satellite communication	Mr MARIOLA, Marco
08:45	[209] Validation of a numerical simulation to study the decoherence of quantum orbital angular momentum entanglement due to atmospheric turbulence	Mr HAMADOU IBRAHIM, Alpha
09:00	[180] Tracking a quantum wavefunction in the presence of noise	Dr UYS, Hermann

LOS: Applications - Acro4 (11:00-12:45)

-Conveners: Hencharl Strauss

time	[id] title	presenter
11:15	[100] Laser-induced breakdown spectroscopy for monitoring heavy metals in soils	Dr AMBUSHE, Abayneh
11:45	[185] Radiometric studies of South African Water bodies	Mr RAMKILOWAN, Arshath
12:00	[378] CSIR-NLC mobile LIDAR for atmospheric remote sensing	Prof. SIVAKUMAR, Venkataraman