

PROGRAM 3rd African Laser Centre Student Workshop 2010

Thursday, 23 September

10:00 – 17:00 Arrive at Venue
18:30 – 22:00 Opening Proceedings & Dinner (Die Lapa)

Friday, 24 September

07:00 – 08:00 Breakfast (Manor House Restaurant)

Session 1 Chair: Erich Rohwer

			Abstract
08:00 – 08:50	Laser spectroscopy of biological materials	Prof Tony Parker	INV 01
08:50 – 09:10	Detection of high PMD section in optical fibre links using polarization-sensitive optical time domain reflectometry.	<u>S. K. Fosuhene</u> , V. Musara and A.W. Leitch	T1
09:10 – 09:30	Characterisation of Raman amplifier gain in optical single mode fibres with respect to polarisation mode dispersion	<u>K.M Muguro</u> , A.W.R Leitch	T2
09:30 – 09:50	Characterization of the non-linear optical properties of LiNbO ₃ -based materials using Raman spectroscopy	B. Mohamadou, <u>R.M. Erasmus</u> and N. Djiedeu	T3
09:50 – 10:10	Surface Brillouin scattering in thin supported films	<u>C. Sumanya</u> , <u>N. Saoula</u> , J.D. Comins and A.G. Every	T4
10:10 – 10:30	Tea		

Session 2 Chair: Andrew Leitch

			Abstract
10:30 – 11:20	Optical Fibers and Fiber Lasers	Prof Thomas Feurer	INV 02
11:20 – 11:40	Photophysical Effects of Low Symmetry Zinc Phthalocyanines Linked to Mercaptopropionic-Capped CdTe Quantum Dots	<u>S. D' Souza</u> , E. Antunes, C. Litwinski and T. Nyokong	T5
11:40 – 12:00	Laser flash photolytic investigation of photophysical and photocatalytic properties of palladium and platinum phthalocyanines	<u>T. Ogunbayo</u> and T. Nyokong	T6

12:00 – 12:20	Flow cytometry as major tool in the field of anticancer drug discovery from medicinal plants	<u>L. Baatjies</u> , A.A. Sowemimo, S. Bowles, G. Schnablegger and M. Van de Venter	T7
12:20 – 12:40	Study on lower atmosphere aerosol structure and dynamics using ground based measurements and model simulations	<u>M.T. Yigiletu</u> , S. Venkataraman, G. Mengistu	T8
12:40 – 13:45	Lunch (Conference venue)		

Session 3 **Chair: Ernest van Dyk**

			Abstract
13:45 – 14:05	Electrical and optical characterization of dielectric barrier discharge excited Ar excimer lamp systems and its applications	<u>P. Baricholo</u> , T. Stehmann, H. M. von Bergmann, E. G. Rohwer, M. Collier, D. J. Hlatywayo	T9
14:05 – 14:25	Two-dimensional electronic spectroscopy	<u>Z. Birech</u> , G. Bosman, E. M. Rohwer, P. Krok, E. Rohwer and H. Schwoerer	T10
14:25 – 14:45	Characterization of Thulium Doped Fiber for Mid Infrared Laser Applications	<u>W. Ndebeka</u> , A. Heidt and E. G. Rohwer	T11
14:45 – 15:05	Electric field induced second harmonic generation and pump-probe reflectivity measurements from Si/SiO ₂ interfaces	<u>G.P. Nyamuda</u> , E.G. Rohwer C.M. Steenkamp, H. Stafast	T12
15:05 – 15:25	An Ultrafast Study of Zinc Phthalocyanine in DMSO	<u>S. Ombinda-Lemboumba</u> , A. du Plessis, L.R. Botha, E.G. Rohwer, and C.M. Steenkamp	T13
15:25 – 15:45	Tea		
15:45 – 16:15	Poster Introduction		
16:15 – 17:00	Poster Session	P1, P2, P3, P4, P5, P6, P7, P8	
17:00 – 18:30	Wine Tasting		
19:00 – 22:00	Dinner (Manor House Restaurant)		

Saturday, 25 September

07:00 – 08:00	Breakfast (Manor House Restaurant)
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Session 4		Chair: Andrew Forbes	
			Abstract
08:00 – 08:50	How plants regulate solar energy absorption on the single-molecule level	Tjaart Kruger	INV 03
08:50 – 09:10	Solar cell parameter extraction from spot illuminated light beam induced current data	<u>M. K. Munji</u> , W. Okullo, E. E. van Dyk and F. J. Vorster	T14
09:10 – 09:30	Characterization of CIGS and mc-Si photovoltaic modules	<u>W. Okullo</u> , M. K. Munji, E. E. van Dyk and F. J. Vorster	T15
09:30 – 09:50	Synthesis of colloidal NaYF ₄ nanocrystals doped with Er ³⁺ via thermal decomposition of fluoracetates precursors	<u>M.A. Gusowski</u> and H.C. Swart	T16
09:50 – 10:10	Characterization of laser ablated SrAl ₂ O ₄ :Eu ²⁺ ,Dy ³⁺ thin films	<u>P.D. Nsimama</u> , O.M. Ntwaeaborwa and H.C Swart	T17
10:10 – 10:30	Tea		

Session 5		Chair: Hendrik Swart	
			Abstract
10:30 – 10:50	Non-diffracting light	<u>Y. Ismail</u> , R.K. Rop and A. Forbes	T18
10:50 – 11:10	Rotating light – a new twist in the tale	<u>R.K. Rop</u> , A. Dudley, Y. Ismail and A. Forbes	T19
11:10 – 11:30	Modeling of Butt Joint Formation by Laser Cladding	<u>E.H. Amara</u> , T. Tamsaout, H. Burger and S. Pityana	T20
11:30 – 11:50	Laser synthesis of stainless steel matrix nanocomposite	<u>B.A.Obadele</u> , Z.H. Masuku and P.A. Olubambi	T21
11:50 – 12:10	Supercontinuum generation in highly nonlinear photonic crystal fiber	A.B. Salem, R. Cherif and <u>M. Zghal</u> and J. P. Burger	T22
12:10 – 12:20	Conclusion		
12:20 – 13:00	Lunch (Conference venue) and Excursion to Table Mountain		
19:00 – 22:00	Dinner (Die Lapa)		

Sunday, 26 September	
07:30 – 08:30	Breakfast (Manor House Restaurant)
08:30 – 12:00	Departure for Airport