

SAIP2012

Tuesday 10 July 2012

Applied Physics Forum: Radiation Physics (11:00-12:20)

-Conveners: Frikkie De Beer

time	[id] title	presenter
11:00	[55] Effects of impurities and defects on the performances of synthetic diamond crystals when used as radiation sensors for medical applications	Mr ADE, Nicholas
11:20	[237] Assessment of spatial resolution and contrast in 3-dimensions at SANRAD	Mr RADEBE, Mabuti Jacob Radebe
11:40	[377] Image optimization techniques in a PET diamond location system	Mr COOK, Martin
12:00	[157] Towards Quantification of Cu and Ni Using X-Ray Radiography	Mr BAM, Lunga

Applied Physics Forum: Radiation Physics (14:30-15:50)

-Conveners: Gabriel Nothnagel

time	[id] title	presenter
14:30	[152] Characteristics of the Micro-Focus X-ray Tomography Facility (MIXRAD) at Necsa in South Africa	Mr HOFFMAN, Jakobus
14:50	[214] Precision of Porosity Calculation and Material Identification Using Neutron Radiography	Mr NSHIMIRIMANA, Robert
15:10	[506] Non-Specialist Talk - Measurement of Residual Stress with Diffraction Techniques	Dr VENTER, Andrew

Wednesday 11 July 2012

Applied Physics Forum: Industrial Physics (08:00-09:20)

-Conveners: Frederik Vorster

time	[id] title	presenter
08:00	[542] Applied Physics Forum Group Meeting	Dr VORSTER, Frederik
08:40	[17] A low-cost Thermo-Luminescence system for use with .NET computing environments	Mr MBONGO, Mduduzi
09:00	[137] Selectivity of ice crystallization and refrigeration waste heat integration in freeze desalination of brine - Application and Optimisation	Mr MTOMBENI, Tabani

Applied Physics Forum: Industrial Physics (10:55-11:55)

-Conveners: Sampson Mamphweli

time	[id] title	presenter
10:55	[204] Influence of the motion of aerospace systems on the polarization angle of qubits for free space QKD	Mr MARIOLA, Marco
11:15	[405] Prediction of aerodynamic loads in arbitrary manoeuvre: identifying flow regimes	Dr GLEDHILL, Irvy (Igle)
11:35	[293] Fluid Simulation for Corona ionization Thruster	Dr FERRER, phil

Applied Physics Forum: Radiation Physics- Non Specialist Talk (16:30-17:50)

-Conveners: Irvy (Igle) Gledhill

time	[id] title	presenter
16:30	[524] Non-Specialist Talk - Use of neutron diffraction for residual stress mapping in industrial applications	Dr LUZIN, Vladimir
17:10	[110] Measurement and simulation of neutron beam fluence spectra	Dr HERBERT, Mark
17:30	[264] On a Popular Myth: "Scientific Research Cannot be Subject to Quality Management". Think Again! Who Says It Cannot Be?	Mr THERON, Bertus

Thursday 12 July 2012

Applied Physics Forum: Renewable Energy (08:00-09:20)

-Conveners: Ernest van Dyk

time	[id] title	presenter
08:00	[344] A Case Study into the Effects of Partial Shadowing on a 4 kWp Photovoltaic array	Ms CROZIER, Jacqui
08:20	[376] An Investigation into the operational modes used in a charge controller in a grid integrated photovoltaic system with battery storage	Mr ALISTOUN, Warren
08:40	[386] Investigation of the design aspects on the performance of a LCPV system	Mr BENECKE, Mario
09:00	[384] Development of CTJ Cell Characterisation Techniques for HCPV Modules	Mr SCHULTZ, Ross

Applied Physics Forum: Renewable Energy (11:00-12:20)

-Conveners: Frederik Vorster

time	[id] title	presenter
11:00	[408] Performance monitoring of a photovoltaic thermal collector system	Mr MTUNZI, Busiso
11:20	[333] Design, construction and characterization of a steady state solar simulator	Mr MTHIMUNYE, Thabiso Vincent
11:40	[267] Title: Mathematical modeling of the coefficient of performance of a Carnot's Air source heat pump water heater	Mr TANGWE, Stephen Loh
12:00	[470] Construction and evaluation of a PV/T collector under low concentration using the batch method	Mr SAMUKONGA, Gilbert

Applied Physics Forum: Renewable Energy (14:10-15:30)

-Conveners: phil ferrer

time	[id] title	presenter
14:10	[252] A Study of Photo-Generated Charge Carrier Density in Dye Sensitized solar cells by Microwave Reflectance	Dr MALUTA, Nnditshedzeni Eric
14:30	[365] Determination of energy yield for multi-MW photovoltaic power stations	Prof. VAN DYK, Ernest
14:50	[277] Analysis of the solar radiation data and the determination of regression coefficients for the Vhembe region of Limpopo Province, South Africa	Mrs MULAUDZI, Sophie
15:10	[304] Energy Conservation Measure in RDP House In South Africa	Mr OVEREN, ochuko

Applied Physics Forum: Renewable Energy (16:00-17:20)

-Conveners: Mmantsae Diale

time	[id] title	presenter
16:00	[330] SEM analysis as a diagnostic tool for photovoltaic cell degradation	Mr OSAYEMWENRE, Gilbert
16:20	[124] Model free kinetic analysis of biomass/sorbent blends for gasification purposes	Ms MABUDA, Irene
16:40	[243] Optimization of biogas by co-digestion using a field-scale bath digester	Mr MUKUMBA, Patrick

Friday 13 July 2012

Applied Physics Forum: Materials (08:00-09:20)

-Conveners: Daniel Wamwangi

time	[id] title	presenter
08:00	[130] New Interactive and Graphical Calculation Method for Setting up Isochronous Magnetic Fields in the Solid Pole Injector Cyclotron 2 at iThemba LABS	Dr DE VILLIERS, John Garrett
08:20	[410] Induced Stress studies of RF Magnetron Sputtered ZrC thin films	Dr WAMWANGI, Daniel
08:40	[478] Stability of high temperature operating Ru-SiC Schottky diodes using 6H-SiC as a substrate, and nickel as an ohmic contact	Mr MUNTHALI, Kinnock Vundawaka
09:00	[475] Fabrication and Characterization of an AlGa _N -Based Four-Quadrant Solar-Blind UV Photodetector Device	Mr VAN SCHALKWYK, Louwrens

Applied Physics Forum: Materials (11:00-12:20)

-Conveners: Daniel Wamwangi

time	[id] title	presenter
11:00	[86] Physics Publication Productivity in South Africa	Dr MATTHEWS, Alan
11:20	[215] Design of a high-resolution PID temperature controller for use in a low-cost thermo-luminescence system	Mr MBONGO, Mduduzi
11:40	[141] Morphological and Luminescent properties of Y ₃ (AlGa) ₅ O ₁₂ :Ce ³⁺ powder phosphor	Mr DLAMINI, Siphon