

SAIP2015

Wednesday 01 July 2015

Poster2: NPRP, Photonics, Astro, Edu, Applied, TCP (16:10-18:00)

-Conveners: Kristian Müller-Nedebock; Ernest van Dyk; Sam Ramaila; Christian Engelbrecht; Erich Rohwer; Simon Mullins

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[46] Reaction mechanisms studied using the iThemba LABS recoil detector	Dr NTSHANGASE, Sifiso Senzo	B.046
[91] Radiation Shielding Calculation using FLUKA transport code for Radiative-ion Beam Facility at iThemba LABS.	Mr MANTENGU, Nkanyiso Robert	B.091
[102] Reaction rates determination using Monte Carlo simulations for the Bi target at 90 MeV neutron energy.	Ms LAMULA, Thobeka	B.102
[118] Impact of dose rate on radiation damage of plastics scintillators for the Tile Calorimeter of ATLAS.	Mr TLOU, Sijiye	B.118
[120] Viability of map-reduce algorithms for the measurement of Higgs boson properties with the ATLAS detector at the LHC	Ms O'CONNELL, Sheena	B.120
[135] Understanding double Higgs boson production with vector boson fusion with the ATLAS detector at the LHC	Mr MOLUPE, Tshidiso	B.135
[165] Efficient processing of physics quantities for the Processing Unit for the upgrade of the Tile Calorimeter of ATLAS	Mr OHENE-KWOFIE, Daniel	B.165
[195] High-Momentum Particle Production at RHIC, Fermilab, and LHC	Mr ADAMIYAK, Daniel	B.195
[196] Radon exhalation of building materials	Mr WENTZEL, Farrel Sidney	B.196
[203] Ambient gamma dose rate measurements at Manyoni uranium mines, Singida, Tanzania	Dr DAMMALAPATI, U.	B.203
[248] The search for Dark Matter in association with the Higgs boson with the di-photon decay	Dr KUREBA, Chamunorwa Oscar	B.248
[264] A precise measurement of the $\frac{12\text{sup}+\text{</sup>}}{\text{ft}}$ value in ^{19}Ne beta decay	Ms MABIKA, Phumzile	B.264
[295] Determining the spectroscopic quadrupole moment (Q_{2s}) of the first $2\text{sup}+\text{</sup>}$ state in ^{40}Ar	Mr MOKGOLOBOTHO, Makabata Jeremia	B.295
[296] Multiple chiral bands associated with the same strongly asymmetric many-particle nucleon configuration	Dr SHIRINDA, OBED	B.296
[298] Sensitivity to New Physics via the study of the Higgs boson transverse momentum at the ATLAS detector	Mr GOSSMAN, David	B.298
[309] Beam experiments with the Grenoble Test Electron Cyclotron Resonance Ion Source at iThemba LABS	Dr NEMULODI, Fhumulani	B.309
[330] Orientation of the Ge crystals of the iThemba LABS segmented clover detector	Dr DINOKO, Tshepo	B.330
[357] Single muon pT distributions from heavy quark decay in pp collisions at 7 TeV with ALICE	Ms DINDIKAZI, Nomvelo	B.357

[453] Channelling radiation of electrons in high-quality HPHT diamond single crystals	Prof. CONNELL, Simon	B.453
[14] Fluorescence behaviour of europium doped Gd ₂ O ₃ nanosheets	Dr PANDEY, Anurag	C.014
[81] Propagation of cylindrical vector beams through fibres	Mr NDAGANO, Bienvenu	C.081
[186] Investigating charge carrier effects in silicon membranes using fs laser.	Mr NDEBEKA, Wilfrid	C.186
[200] Demonstration of a new ultrafast pulse reconstruction modality – PIRANA	Mr VILJOEN, Ruan	C.200
[224] Implementing the Deutsch-Jozsa Algorithm with classical light	Mr PEREZ-GARCIA, Benjamin	C.224
[266] Wavelength-modulated spectroscopy of the sub-band gap response of solar cell devices	Mr HASINJATOVO MANDANIRINA, Nambinintsoa Romeoh	C.266
[323] Optimization of losses introduced by p absorbing mask in a Digital Laser	Mr BELL, July	C.323
[348] Creating and Measuring 2 µm Light Using a Spatial Light Modulator	Mr MAWEZA, Loyiso	C.348
[425] Intra-cavity metamorphosis of a Gaussian beam to flat-top distribution	Dr NAIDOO, Darryl	C.425
[445] Determination of the Origin of a High Frequency Signal Superimposed on the Light Emission detected from a Detonating Explosive in a Free Environment	Mr MQADI, Wonder Mhlakubuswa	C.445
[3] The unusually strong coronal emission lines of SDSS J1055+5637	Prof. WINKLER, Hartmut	D1.003
[37] Spectral studies of flaring quasar PKS 1424-418 above 100 MeV with Fermi-LAT	Mr DIRIRSA, Feraol	D1.037
[156] Numerical modelling of hydrodynamical astrophysical outflows	Mr VAN DER WESTHUIZEN, Izak	D1.156
[340] Fringe Fitting Calibration of VLBI Data	Mr AKOTO-DANSO, Alexander	D1.340
[344] New Minimization Techniques, Solvers and Calibration Algorithms	Ms SEBOKOLODI, Makhuduga	D1.344
[404] Investigating the Variability of Sources in the Data from the Karoo Array Telescope. U. Mbou Sob, S.K.Sirothia, T. Glober, O. Smirnov	Mr MBOU SOB, Ulrich Armel	D1.404
[18] Does proficiency in units and measurements contribute towards success in first year university physics?	Dr REDDY, Leelakrishna	E.018
[19] Exploring teaching-learning activity in large class groups	Dr RAMAILA, Sam	E.019
[20] Assessment of Physics practicals using a software-embedded and improvisation based scientifically efficient system	Dr REDDY, Leelakrishna	E.020
[21] Quality vs Quantity: the National Senior Certificate - a case study	Dr RAMAILA, Sam	E.021
[22] Global competitiveness as a barometer of scientific endeavor	Dr RAMAILA, Sam	E.022
[79] An overview of the mainstream mechanics first year module at the University of the Western Cape and students experiences of the module	Ms TANCI, Sinovuyo	E.079
[398] Soweto Science Centre as a community engagement initiative at the University of Johannesburg	Dr REDDY, Leelakrishna	E.398
[419] Expository vs Problem-based approach to Physics practicals at the University of Johannesburg-A case study	Dr REDDY, Leelakrishna	E.419
[455] A Comparative Study of the Preparedness for Undergraduate Studies of Students entering the University with South African Matriculation Examination results and Zimbabwe ZIMSEC Examination results.	Dr RAMAILA, Sam	E.455
[5] Low cost empirical modelling to determine milk production in a dairy plant: A case study of Fort Hare Dairy Trust	Mr MHUNDWA, Russel	F.005

[65] Metrology of Ultrasound and Underwater Acoustics at the National Metrology Institute of South Africa	Mr TYALIMPI, Vumile	F.065
[71] Determination of a neutron beam fluence energy distribution using multichannel unfolding code MAXED	Mr SHILUVANE, Thulani	F.071
[72] Simulation of quasi-mono-energetic neutron beam fluence energy distributions at the iThemba LABS time-of-flight facility	Mr NENGUDZA, Azwidovhiwi Emmanuel	F.072
[130] Experimental evaluation of emission models from a thermal evaporation source	Dr KROON, Ted	F.130
[139] Evaluation of an empirical model for a flat plate solar collector	Ms NDLOVU, Nothando	F.139
[205] A quantum walk-based MPPT optimization algorithm for a stand-alone PV system	Mr SENEKANE, Makhhamisa	F.205
[209] Measurement of diffusion capacitance of mono-crystalline and poly-crystalline photovoltaic cells using LBIC	Mr DIX-PEEK, Ross	F.209
[226] Investigating the structural changes in strontium implanted glassy carbon using Multiwavelength Raman Spectroscopy	Ms ODUTEMOWO, opeyemi	F.226
[251] Measuring the optical thermometry properties of a phosphor	Mr ERASMUS, Lucas	F.251
[342] Fibre-to-the-Hut Technology: A Solution to Cheap Access for High-Speed Optical Network in South Africa	Mr ISOE, George	F.342
[350] Phase noise analysis for 1.7-14.5 GHz clock signal transmission over 12km telescope network optical fibre	Ms DLAMINI, Phumla	F.350
[363] Active phase correction using a VCSEL for clock tones transmitted along a 24 km optical fibre link	Mr WASSIN, Shukree	F.363
[391] Simonkolleite-graphene foam composites and their superior electrochemical performance	Mr MOMODU, Damilola	F.391
[394] Morphological and elemental properties of sugarcane bagasse for gasification purposes	Mr KULA, Mpumezo	F.394
[401] Cross-section Electron Microscopy studies of Boron Implanted Hexagonal Boron Nitride	Dr ARADI, Emily	F.401
[413] The design of a waste heat system capable of harnessing energy from the surface of a cyclone dust collector attached to a downdraft biomass gasifier	Ms NWOKOLO, Nwabunwanne	F.413
[137] Density Functional Theory on a Lattice: Particle Number Dependence of the Exchange-Correlation Potential.	Mr KOSSI, Amouzouvi	G.137
[202] Molecular dynamics studies of Schottky and Frenkel defects in cerium dioxide	Dr MOSUANG, Thuto	G.202
[236] Neutrino mass hierarchy and CP phase measurement using atmospheric neutrino flux	Prof. RAZZAQUE, Soebur	G.236
[245] Minimum Norm Estimates for the Bioelectromagnetic Inverse Problem	Mr NGOMANE, Alex Otavia Dr MALUTA, Eric Prof. DE MELLO KOCH, Robert	G.245
[246] Computer modeling studies of the adsorption energies of heavy metals onto vermiculite surface	Mr PHALA, Feredi	G.246
[279] Security of quantum key distribution	Dr MAFU, Mhlambululi	G.279
[280] Higher dimensional quantum key distribution in the presence of quantum noise	Mr SENEKANE, Makhhamisa	G.280

[380] A comparative study of the three empirical solar models in North West, South Africa.	Ms MULAUDZI, Sophie	G.380
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