

PLENARY (LT1): PROBING THE MYSTERY OF DARK ENERGY WITH BILLIONS OF GALAXIES (p 16) Prof. Steven M. KAHN (Stanford University, California)					PLENARY (LT1): PROBING THE MYSTERY OF DARK ENERGY WITH BILLIONS OF GALAXIES (p 16) Prof. Steven M. KAHN (Stanford University, California)					
TRACK	Division for Physics of Condensed Matter and Materials (1) LT1	Nuclear, Particle and Radiation Physics (1) LT3	Nuclear, Particle and Radiation Physics (2) 4A	Theoretical and Computational Physics (1) 2A	Photonics 5C	Physics Education 2B	Astrophysics (1) 5A	Astrophysics (2) 4B	Space Science 5B	Applied Physics (1) LT2
Theme Chair	DR. RICHARD HARRIS	DR. RICKY SMIT	DR. SAHAL YACOOB	Prof. MURONGA	Beams DR. MCLARAN, MELANIE	EDU - 2B MR. RIJSDIJK, CASE	PhD Awards - General DR. ABEBE, AMARE	Survey data mining: Globular Clusters DR. ODENDAAL, ALIDA	Space Geodesy DR. NNDANGANENI, RENDANI	DR. WAMWANGI, DANIEL
08:40 - 09:40										
09:40 - 10:00	Room temperature CH4 gas sensor based on Au loaded ZnO nanorods: The effect of Au loading concentration on sensing properties. Ms. SHINGANGE, Katekani (CSIR and UFS) [MSc 400]	Modelling of Radiological Risks from Gold Mine Tailings in Gauteng Province, South Africa Mr. KAMUNDA, Caspah (NWU) [PhD 4]	CHPC WLCG Tier2 status, plans and user analysis MURRAY, Sean (CHPC/UCT) [- 417]	2HDM and the LHC Mr. MOSOMANE, Chuene (Wits) [MSc 35]	Hyper-entanglement for secure communication Mr. NAPE, Isaac (Wits) [MSc 120]	An overview of the University of the Western Cape Physics Department Physics for teachers' program Dr. HERBERT, Mark (UWC) [- 431]	Modeling the JVLA primary beam using characteristic basis function Mr. IHEANETU, Kelachukwu (Rhodes University) [PhD 105]	Correlation study of multi-wavelength transient emission of selected CRTS cataclysmic variables Ms. SZEGEDI, Helene (UFS) [MSc 55]	Near-Earth Object Avoidance Mitigation: Profiting One Rock at a Time Dr. MACLEOD, Gordon (HartRAO) [- 287]	Solar water geysers - a South African perspective Dr. FERRER, Phil (Wits) [- 237]
10:00 - 10:20	Effect of Hydrochloric Acid on the Structure, Defect States and Gas Sensing Properties of TiO ₂ Nanotubes by Hydrothermal Method Mrs. TSHABALALA, Zamaswazi (CSIR and UFS) [MSc 405]	Chemical contamination and radiological risk assessment of Richards Bay waters Mr. MASOK, Felix Bitrus (UJ) [PhD 160]	The search for crystal undulator radiation Dr. HENNING, Colleen (St John's College) [- 173]	Quasinormal modes for a spin-3/2 field in the Reissner-Nordstrom black hole background Mr. NGCOBO, Xolane (Wits) [MSc 103]	Quantum transport with vector beams Mr. NDAGANO, Bienvenu (Wits) [MSc 148]	Teaching students problem solving with the 'light bulb effect' cognitive diagrammatic representation Dr. ALBERS, Claudia (Wits) [- 133]	Direction Dependent Calibration for the KAT-7 radio data Mr. KASSAYE, Ermias (Rhodes University) [PhD 246]	Getting WISE on Star Formation Ms. AUGUST, Tamlyn (University of Cape Town) [MSc 162]	Development of an integrated model and system to enable optimal efficiency of the HartRAO LLR system Dr. BOTHA, Roelf (HartRAO) [PhD 125]	Hydrogen Fuel Cell Studies Using Neutron Radiography Mr. DE BEER, Frikkie (Necsa) [- 232]
10:20 - 10:40	Sol-gel Synthesis and Characterization studies of Er ³⁺ doped TiO ₂ nanoparticles Mr. TALANE, Tsholo (UNISA) [MSc 492]	Modelling and measurements of cosmic-ray related muon-fluxes in the Huguonot Tunnel near Paarl Mr. DAWAM, Robert Rangmou (SU) [PhD 463]	CODE-RADE - Community Infrastructure for the Delivery of Physics Applications MURRAY, Sean (CHPC/UCT) [- 413]	Generalized Geometry and Hopf Twists Mr. DLAMINI, Hector (UP) [MSc 126]	A beam quality measure for vector beams Ms. SROOR, Hend (Wits) [PhD 214]	Meeting the World's Needs for 21st Century Science Instruction - a synthesis of research and best practice Mr. HORSZOWSKI, Peter (PERT INDUSTRIALS) [- 522]	Rethinking IIR filters as part of real-time pulsar astronomy Mr. JACQUES, Maritz (UFS) [PhD 50]	Investigating gamma-ray fluxes from globular clusters Ms. NDIYAVALA, HAMBELELENI (NWU) [MSc 144]	Tube assembly experiments for optimal temperature sensor placement on the HartRAO Lunar Laser Ranger telescope Mr. TSELA, Philemon (University of Pretoria) [PhD 517]	Physics behind the life cycle and life cycle analysis of artisanal clay brick making Mr. TSHIYOYO, Madjer Monatschiebe (University of Johannesburg) [- 509]
10:40 - 11:10	Tea & Coffee Break					Tea & Coffee Break				
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Theme Chair	PhD for Award PROF. SWART, HENDRIK	DR. KAR, DEEPAK	DR. MULLINS, SIMON	DR. HOROWITZ, WILLIAM	Ion Trapping DR. DUDLEY, ANGELA	DR. RAMAILA, SAM	Compact Binaries DR. MCBRIDE, VANESSA	OAD: Virtual Observatory DR. BUCKLEY, DAVID	Open session and recent results Dr. MTUMELA, ZOLILE	PROF. DERRY, TREVOR
11:10 - 11:30	Formation of a Thin Film of AB compound Layer at a Low Irradiation Temperature under the Influence of Radiation Induced Interstitial Mr. AKINTUNDE, Samuel (University of Pretoria) [PhD 100]	The Analysis of Zh in association with missing transverse momentum using the CxAOD Framework with the ATLAS detector Mr. MTHEMBU, Skhathisomusa (Wits) [MSc 342]	Test for traditional vibrational wisdom in 110,112Cd by two proton stripping Mr. MAQABUKA, Bongani (iThemba LABS / UWC) [PhD 59]	Exact Magnon Dynamics Prof. DE MELLO KOCH, Robert (Wits) [- 230]	Towards quantum feedback measurements with trapped Yb ⁺ ions Dr. KHANYILE, Ncamiso (Stellenbosch University) [- 481]	Student understanding of vectors Mr. JOHN, Ignatius (CPUT) [MSc 201]	SILVER MEDALLIST LECTURE: 3D Models of Stellar Wind Dr. MOHAMED, Shazrene (SAAO) [- 357]	Astronomy for a Better World! Mr. GOVENDER, Kevintran [- 546]	Solar Total Irradiance Behaviour during Cycle 23-24 Dr. KOTZE, Pieter (SANSa) [- 11]	Simple models for cytoskeleton Prof. MÜLLER-NEDEBOCK, Kristian (University of Stellenbosch) [- 193]
11:30 - 11:50	Copper nitride nanoparticles for use in photoelectronic devices Ms. SHOLE, Rudo (Wits) [PhD 5]	Constraints on new hypothetical particles in the Higgs sector using LHC Run 1 and 2 data Mr. VON BUDDENBROCK, Stefan (Wits) [MSc 331]	Nuclear structure studies relevant to double beta decay of 136Xe REBEIRO, Bernadette (UWC) [PhD 223]	Anomalous Dimensions of Heavy Operators from Magnon Energies Mr. HASINA TAHIRIDIMBISOA, Nirina Maurice (Wits) [PhD 166]	NON-SPECIALIST LECTURE: Trapped ions for new frontiers in precision measurement Dr. UYS, Hermann (CSIR / SU) [- 495]	Is the Abstract/Concrete Distinction a Useful Tool in Physics Education Research? Mr. SOUTHEY, Philip (UCT) [PhD 227]	Magnetic Cataclysmic Variables in the Catalina Real-time Transient Survey Ms. MOTSOALEDI, Mokhine (SAAO) [PhD 434]	The Virtual Observatory Tools and its benefits Dr. EL BOUCHEFRY, Khadija (HartRAO) [- 51]	AfriSprite campaign 2015/16 Mr. NNADIH, Stanislaus (SpaceLab) [MSc 21]	Division Meeting: Applied Prof van Dyk, Ernest [- 535]
11:50 - 12:10	Computational modelling of sulphides mineral (FeS ₂) Dr. LETSOALO, Thabo (University of Limpopo) [- 373]	Phase-II Upgrade of the ATLAS Inner Detector Mr. HAMITY, Guillermo [PhD 115]	Resonances in odd-odd 182Ta Mr. BRITS, Christiaan (SU) [MSc 67]	Interacting Double Coset Magnons Mr. MAHU, Augustine Larweh (Wits) [PhD 167]		Student difficulties with DC circuits: misconceptions or sense-making? Mr. JOHN, Ignatius (CPUT) [- 200]		Solar Total Irradiance Behaviour during Cycle 23-24 Dr. KOTZE, Pieter (SANSa) [- 11]	Automated Scheduling for a robotic astronomical telescope Mr. MAARTENS, Deneys (SALT) [MSc 18]	
12:10 - 13:10	PLENARY (LT1): FIRE, FLARES AND FUSION: SOME WANDERINGS IN PLASMALAND (p 16) Prof. Manfred HELLBERG (UKZN)					PLENARY (LT1): FIRE, FLARES AND FUSION: SOME WANDERINGS IN PLASMALAND (p 16) Prof. Manfred HELLBERG (UKZN)				
13:10 - 14:00	Lunch Break (WiPiSA Talk by Prof. Gagnon in LT2)					Lunch Break (WiPiSA Talk by Prof. Gagnon in LT2)				
14:00 - 15:30	ANNUAL GENERAL MEETING (LT1)					ANNUAL GENERAL MEETING (LT1)				
15:30 - 16:00	Tea & Coffee Break					Tea & Coffee Break				
16:00 - 17:30	PHYSICS BOWL Inter-vasity Fastest Fingers First Physics Team Quiz(LT1) GREAT PRIZES: Be seated by 16:00 to be in the lucky draw for a full Mathematica license					PHYSICS BOWL Inter-vasity Fastest Fingers First Physics Team Quiz(LT1) GREAT PRIZES: Be seated by 16:00 to be in the lucky draw for a full Mathematica license				

Conference dinner Thursday 7 July - Jameson Hall

<p>18:30 Arrival Measurement challenge at tables</p> <p>19:00 Welcome by Master of Ceremonies: Andy Buffler Further welcome by the President of the SAIP: Azwinndini Muronga Starter is served Bootleggers Blues Band</p>	<p>20:00 Awarding of student prizes Awarding of Honorary Membership of the SAIP Awarding of SA Physics Olympiad 2015 Gold Medal Main course is served Bootleggers Blues Band</p> <p>21:30 - 23:39 Vote of thanks by SAIP2016 Chair, Roger Fearick, and hand-over of SAIP mace to SAIP2017 Dessert is served DJ Rene and DJ Sobsfor</p>
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Cancelled / Withdrawn

Astrophysics (1) 5A	Space Science 5B
Characterising new Be/X-ray binaries in the Large Magellanic Cloud Ms. VAN JAARSVELD, Johanna (University of Cape Town) [PhD 310]	Beam-driven slow and fast electron-acoustic solitons in three-electron temperature space plasmas Mr. MBULI, Lifa Nicholas (SANSa / UWC) [- 193]
The long-term evolution of the helium nova V445 Puppis Prof. WOUTD, Patrick (University of Cape Town) [62]	