

The first International African Symposium on Exotic Nuclei IASEN2013

Monday 02 December 2013 - Friday 06 December 2013

**Cape Town
Programme**

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Monday 02 December 2013

Opening - Lord Charles Hotel (09:00-09:20)

Structure Session I - (09:20-11:10)

Chair: Prof. Yuri Penionzhkevich

time	[id] title	presenter
09:20	[63] Perspectives of physics of exotic nuclei beyond the shell evolution	Prof. OTSUKA, Takaharu
09:55	[6] The ALTO facility for the production of rare nuclei	Dr. IBRAHIM, Fadi
10:20	[28] Status of the FLNR DRIBs Project	Dr. POPEKO, Andrey
10:45	[125] Nuclear structure: from stable to unstable nuclei	Prof. VORONOV, Victor

Tea - (11:10-11:30)

Structure Session II - (11:30-12:55)

Chair: Prof. John Sharpey-Schafer

time	[id] title	presenter
11:30	[134] 0+ excited states in nuclei: critical signatures of structure	WOOD, John L.
12:05	[0] PreSPEC-AGATA nuclear structure studies using radioactive isotope beams	Dr. WOLLERSHEIM, Hans-Jürgen
12:30	[5] Investigations of shape conundra using Coulomb-excitation measurements at RIB facilities	Prof. ORCE, Nico

LUNCH - (12:55-13:55)

Cluster Session - (13:55-15:20)

Chair: Prof. Peter von Neumann-Cosel

time	[id] title	presenter
13:55	[65] Molecular structures and clustering effects in reactions induced by light nuclei	Dr. BECK, Christian
14:30	[56] The K600 High Energy-Resolution Zero-Degree Facility at iThemba LABS	Dr. NEVELING, Retief
14:55	[17] Electron shell and alpha-decay	Prof. TCHUVILSKY, Yury

Tea - (15:20-15:40)

Rare Processes & Decays - (15:40-17:40)

Chair: Dr. Simon Mullins

time	[id] title	presenter
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15:40	[53] The role of the atomic nucleus in testing fundamental symmetries: Can we moderate wavefunction related uncertainties?	Prof. TRIAMBAK, Smarajit
16:15	[123] Status and perspectives of double beta decay searches	Dr. ZUBER, Kai
16:40	[30] Beta-decay spectroscopy of N=82 nuclei and the path of the r-process:	Mr. LORUSSO, Giuseppe
17:05	[60] Studies of light exotic nuclei at ACCULINNA/ACCULINNA-2 facilities	Dr. GRIGORENKO, Leonid

Tuesday 03 December 2013

Address by the Deputy Director-General of Science & Technology - (09:00-09:35)

Facilities I - (09:35-10:45)

Chair: Dr Zeblon Vilakazi

time	[id] title	presenter
09:35	[136] A Rare-Ion facility at iThemba LABS	Dr. BARK, Robert
10:10	[55] The Facility for Rare Isotope Beams	Prof. THOENNESSEN, Michael

Tea - (10:45-11:05)

Facilities II - (11:05-12:50)

Chair: Mr Faiçal Azaiez

time	[id] title	presenter
11:05	[62] GANIL/SPIRAL 2 – status and future	Dr. LEWITOWICZ, Marek
11:40	[132] The ISOLDE facility at CERN: production, study and application of exotic isotopes.	Dr. JOHNSTON, Karl
12:15	[131] RIKEN RI beam factory, Japanese flagship for nuclear Science	Dr. EN'YO, Hideto

LUNCH - (12:50-13:50)

Facilities III - (13:50-15:00)

Chair: Dr. Andrey Popeko

time	[id] title	presenter
13:50	[61] Radioactive ion beams for nuclear astrophysics at Texas A University	Dr. TRIBBLE, Robert
14:25	[130] Exploring nuclear structure by binary reactions with stable and radioactive nuclear beams	Dr. DE ANGELIS, Giacomo

Tea - (15:00-15:20)

Facilities IV - (15:20-16:30)

Chair: Dr Kobus Lawrie

time	[id] title	presenter
15:20	[128] International FAIR - challenges and chances in modern physics and technologies	Dr. WEISSBACH, Florian
15:55	[138] Nuclear science and applications with next generation of high-power lasers and brilliant low-energy gamma beams at ELI-NP	GALES, Sydney

Tour of iThemba LABS Facility - (16:30-18:00)

"Braai vleis" - a barbeque - (18:00-20:00)

Wednesday 04 December 2013

Reaction Session - (09:00-10:50)

Chair: Dr. Marek Lewitowicz

time	[id] title	presenter
09:00	[64] Highlights from TRIUMF's Rare Isotope Program	Prof. KRUECKEN, Reiner
09:35	[48] Exploring exotic nuclei within the MCAS framework	Prof. KARATAGLIDIS, Steven
10:00	[27] Neutron knockout on beams of Sn-106,108 and Cd-106	Dr. CERIZZA, Giordano
10:25	[25] Two-nucleon transfer reactions and implications for studies of unstable nuclei	Prof. COWLEY, Anthony

Tea - (10:50-11:10)

Applications Session I - (11:10-12:35)

Chair: Dr Carlos Pineda-Vargas

time	[id] title	presenter
11:10	[58] Hyperfine interactions in condensed matter research	Prof. BHARUTH-RAM, Krishanlal
11:45	[34] An overview of emission ^{57}Fe Mössbauer spectroscopy investigations in metal oxides	Dr. NAIDOO, Deena
12:10	[57] Emission channeling with short-lived isotopes (EC-SLI) at CERN's ISOLDE facility	Dr. WAHL, Ulrich

LUNCH - (12:35-13:35)

Tour of Cape Peninsula - (13:35-19:00)

Conference Dinner - Waterfront (19:00-19:20)

Thursday 05 December 2013

Super-Heavy Elements Session - (09:00-10:50)

Chair: Dr Victor Voronov

time	[id] title	presenter
09:00	[66] The NUSTAR project at GSI and FAIR	Dr. GERL, Juergen
09:35	[14] Super-heavy element and other exotic nuclei research at LLNL	Dr. STOYER, Mark
10:00	[4] Isomers and enhanced stability of the heaviest elements	Dr. KONDEV, Filip
10:25	[24] Spectroscopy of very heavy elements at and beyond the limits	Prof. GALL, Benoit

Tea - (10:50-11:10)

Applications Session II - (11:10-12:35)

Chair:

time	[id] title	presenter
11:10	[127] Radioactive ion beams at ISOLDE: applications to semiconductor physics	Dr. DEICHER, Manfred
11:45	[33] Emission Mössbauer spectroscopy of Mn/Fe implanted III-nitrides	Mr. MASENDA, Hilary
12:10	[54] Using LaBr3 detectors for precision lifetimes measurements of excited states of 'interesting' nuclei	Prof. REGAN, Patrick

LUNCH - (12:35-13:35)

Nuclear Physics - (13:35-14:55)

Chair:

time	[id] title	presenter
13:35	[135] The SPES project at the Legnaro National Laboratories: status and perspectives	Dr. DE ANGELIS, Giacomo
14:10	[32] The subtleties of pairing and collective structures in deformed nuclei	Prof. SHARPEY-SCHAFFER, John F
14:35	[137] Study of isoscalar giant resonances in exotic nuclei by means of inverse reactions	Dr. HARAKEH, Muhsin

Tea - (14:55-15:15)

Nuclear Physics: Parallel Session I - (15:15-16:55)

Chair:

time	[id] title	presenter
15:15	[3] Local suppression of collectivity in the N=80 isotones at the Z=58 subshell closure	Mr. BAUER, Christopher

15:35	[38] Spin and parity dependent level densities in exotic calcium isotopes	USMAN, Iyabo
15:55	[47] Observation of light shape isomers in the multi-body decay of ^{252}Cf (sf)	Prof. PYATKOV, Yuri
16:15	[23] Dilute excited states in light nuclei	Dr. DEMYANOVA, Alla
16:35	[139] Effect of electron screening in alpha decay	Dr. KARPESHIN, Feodor

Nuclear Physics: Parallel Session II - (15:15-16:55)

Chair:

time	[id] title	presenter
15:15	[29] GALS – setup for production and study of heavy neutron rich nuclei	Dr. ZEMLYANOY, Sergey
15:35	[11] SHELS - Separator for Heavy Element Spectroscopy. First results.	Dr. POPEKO, Andrey
15:55	[16] Study of nuclear clustering and cluster decay using the modern shell model approach	Dr. VOLYA, Alexander
16:15	[44] Clusters, halos and S-factors in fermionic molecular dynamics	Prof. FELDMEIER, Hans
16:35	[39] Investigation into the effects of deformation on proton emission rates via lifetime measurements	Dr. TAYLOR, M J

Friday 06 December 2013

Astrophysics Session - (09:00-10:50)

Chair:

time	[id] title	presenter
09:05	[67] Nuclear input with relevance for supernova dynamics and nucleosynthesis	Prof. LANGANKE, Karlheinz
09:40	[15] Roles of nuclear weak processes in stars	Prof. SUZUKI, Toshio
10:05	[124] Fusion study of ^{194}Pt with ^6Li at around barrier energies	Prof. BORCEA, Catalin
10:30	[133] Exotic nuclei in astrophysics	Prof. PENIONZHKEVICH, Yuri

Tea - (10:50-11:10)

Resonances Session - (11:10-12:35)

Chair:

time	[id] title	presenter
11:10	[52] Complete electric and magnetic dipole response of nuclei from zero degree inelastic proton scattering	Prof. VON NEUMANN-COSEL, Peter
11:45	[59] Investigating the photon strength function to discrete levels	Dr. WIEDEKING, Mathis
12:10	[46] Production of p-nuclides in photonuclear reactions	Dr. STOPANI, Konstantin

LUNCH - (12:35-13:35)

Round Table - (13:35-14:40)

Co-chairmen: Sydney GALES & Zeblon VILAKASI