

SAIP 2011

Wednesday 13 July 2011

Theoretical - Acro5 (11:00-12:45)

-Conveners: Frederik Scholtz

time	[id] title	presenter
11:00	[21] Density-matrix renormalization group study of the electro-absorption in conjugated polymers	Mr ABDELWAHAB, Anas
11:15	[32] Successes and Failures of Numerical Solutions to the 1-Dimensional Marchenko Integral Equation for Quantum Inverse Scattering	Mr SHUMAN, Serle
11:30	[96] B3-B1 phase transition in GaAs: A Quantum Monte Carlo Study	Mr OUMA, Cecil
11:45	[113] Ferromagnetism in nuclear matter	Mr DIENER, Jacobus
12:00	[242] Derivation of the master equation for a particle in an external field which is subject to continuous measurement.	Mr GARAPO, Kevin
12:15	[246] Wave-packet scattering off a soliton	Mr ABDELHADY, Ahmed
12:30	[247] Many-boson Quantum Walks on Graphs with Shared Coins	Mr MUSUMBU, Dibwe Pierrot

Theoretical - Acro5 (13:45-15:30)

-Conveners: Jean Cleymans

time	[id] title	presenter
13:45	[277] Monte Carlo simulation using GEANT 4 of MuSR	Mr HARTMAN, Jonathan
14:00	[332] A Quantum Hall Effect without Landau Levels in a Carbon Nanotube.	Ms BRAND, Nanette
14:15	[341] The Mechanical and Structural Properties of the Pt-Ti and Ir-Ti Alloy Systems	Mr CAVERO, Miguel
14:30	[361] Spectral method for studying nuclear four-body reactions	Mr MASITA, Dithlase
14:45	[365] One-way Quantum Computing with Photonic Orbital Angular Momentum	Ms BASSA, Humairah
15:00	[398] Towards the unconditional security proof for the Coherent-One-Way (COW) protocol	Mr MAFU, Mhlambululi
15:15	[315] Structure of Few-Hyperon Systems Studied with the Integro-Differential Equations Approach	NKUNA, John S.

Thursday 14 July 2011

Theoretical - Acro5 (08:00-09:30)

-Conveners: Dieter Heiss

time	[id] title	presenter
08:00	[316] Black-Hole Decay and Detection at LHC	Mr CARLSON, Warren
08:15	[339] Adding Flavour to Nonplanar Integrability	Ms SMITH, Stephanie
08:30	[359] Beyond the Planar Limit in ABJM Theory	Mr MOHAMMED, Badr
08:45	[199] The Giant Graviton on AdS ₄ ×CP ³	Dr PRINSLOO, Andrea
09:00	[373] The Giant Graviton Oscillator	Prof. DE MELLO KOCH, Robert

Theoretical - Acro5 (11:00-12:45)

-Conveners: Steven Karataglidis

time	[id] title	presenter
11:00	[215] Entanglement dynamics in an oscillating bipartite Gaussian state coupled to reservoirs with different temperatures	Dr GHESQUIERE, Anne
11:15	[243] Designing reservoirs for 1/t decoherence process in Jaynes-Cummings model	Dr GIRALDI, Filippo
11:30	[200] Decoherence-assisted transport in a dimer system	Dr SINAYSKIY, Ilya
11:45	[239] Open Quantum Random Walks	Dr SINAYSKIY, Ilya
12:00	[281] Non-locality without inequality and generalized non-local theory	Dr CHOUDHARY, Sujit Kumar
12:15	[312] Structure of Few-Nucleon Systems Studied with the Extended Antisymmetrized Molecular Dynamics	Mr RAMPHO, Gaotsiwe Joel
12:30	[313] Electromagnetic Form Factors of Three-Nucleon Systems	Mr RAMPHO, Gaotsiwe Joel

Theoretical - Acro5 (13:45-14:30)

-Conveners: Jan Greben

time	[id] title	presenter
13:45	[173] A comparison of purification schemes for treating the idempotency condition on the density matrix in electronic structure calculations	Prof. HOFFMAN, Matthiam
14:15	[84] South African e-Infrastructure for physics applications	Mr MURRAY, Sean

Friday 15 July 2011

Theoretical - Acro5 (08:00-09:30)

-Conveners: **Moritz Braun**

time	[id] title	presenter
08:00	[76] Bilinear expansion of the photon quantum field and the emergence of classical mechanics from quantum field theory	Dr GREBEN, Jan
08:30	[364] From few-body to many-body problems	Prof. LEKALA, Mantile
08:45	[34] Optimised Hyperchaotic Modes of a Triple Pendulum	Prof. BOTHA, André
09:00	[26] Finite Element Calculations for Molecules with multiple Coulomb Centers	Prof. BRAUN, Moritz

Theoretical - Acro5 (11:00-12:45)

-Conveners: **Robert de Mello Koch**

time	[id] title	presenter
11:00	[8] Enhancing the understanding of entropy through computation	Dr SALAGARAM, Trisha
11:15	[14] Antimatter production in pp and in heavy-ion collisions at ultrarelativistic energies	Prof. CLEYMANS, Jean
11:45	[22] Algebraic density functionals	Prof. KARATAGLIDIS, Steven
12:15	[420] Einstein - Eddington generalized gravity	Dr DAVYDOV, Evgeny
12:30	[16] The Physics of Exceptional Points	Prof. HEISS, W. Dieter