

SAIP2023

Tuesday 04 July 2023

Theoretical and Computational Physics (10:00-10:40)

-Conveners: Alan Cornell

time	[id] title	presenter
10:00	[334] 2022/2023 NMU-NITheCS Internship Programme: Connecting Quarks with the Cosmos, connecting people with the Universe	Prof. MURONGA, Azwinndini

Theoretical and Computational Physics (11:00-12:00)

-Conveners: Aldo Deandrea

time	[id] title	presenter
11:00	[28] Black holes and nilmanifolds	CORNELL, Alan
11:20	[29] Weak Gravity Conjecture for dilaton de Sitter black holes in extra dimension	Dr NOSHAD, Hajar
11:40	[178] Wave Mechanics for Dissipative Classical Systems	Mr LARA, Sekhants'o

Theoretical and Computational Physics (14:00-15:20)

-Conveners: Azwinndini Muronga

time	[id] title	presenter
14:00	[47] Quasinormal excitation factors in the eikonal regime	CHRYSOSTOMOU, Anna
14:20	[46] Quasinormal modes calculated with physics-informed neural networks	NCUBE, Anele
14:40	[144] Quantum black holes and holography	VAN LEUVEN, Sam
15:00	[89] Viscous cosmological fluids and large-scale structures	MBEWE, BONANG GEORGE

Wednesday 05 July 2023

Theoretical and Computational Physics (09:40-10:40)

-Conveners: William Horowitz

time	[id] title	presenter
09:40	[344] Continuous Monitoring and Feedback Control of a quantum harmonic oscillator	KONRAD, Thomas
10:00	[336] Balance in Quantum Dynamical Systems	Dr SNYMAN, Mathys
10:20	[15] How to be an orthodox quantum mechanic	BECK, Geoff

Theoretical and Computational Physics (11:00-12:00)

-Conveners: Thomas Konrad

time	[id] title	presenter
11:00	[49] Topological Edge States in 2D Su–Schrieffer–Heeger Models	VAN NIEKERK, Chani
11:20	[124] First-principles study on the effect of Pt addition on the stability of B2 Ti50Ru50 – a supercell approach	Mr NGOBE, Bongani
11:40	[254] Computer simulated study of the structural and electronic properties of β -MnO ₂ nanoclusters as cathode materials in rechargeable lithium-ion batteries	MASOGA, Phala

Theoretical and Computational Physics (14:00-15:00)

-Conveners: Alan Cornell

time	[id] title	presenter
14:00	[264] Equation of state and the Casimir effect in non-Abelian gauge theory on the lattice	Mr NGWENYA, Blessed Arthur
14:20	[225] Quantum Field Theories in Finite Systems	DU PLESSIS, Jean
14:40	[248] Short path length corrections to pQCD phenomenological energy loss models in a QGP	FARADAY, Coleridge

Theoretical and Computational Physics (15:20-17:40)

-Conveners: Azwinndini Muronga

time	[id] title	presenter
15:20	[227] Deep Inelastic Scattering in Nuclear Collisions	HOROWITZ, William
15:40	[162] Wigner function approach to the classical limit of quantum Brownian motion and to the derivation of open quantum Brownian motion	Mr ZUNGU, Ayanda
16:00	[318] Non-local topological rejection of noise	ORNELAS, Pedro
16:20	[289] Exploring the connections between quantum search algorithms and ghost imaging	CONCHA OBANDO, Paola
16:40	[354] Theoretical and Computational Division meeting	CORNELL, Alan

Thursday 06 July 2023

Theoretical and Computational Physics (09:40-10:40)

-Conveners: Thomas Konrad

time	[id] title	presenter
09:40	[287] First principles characterization of nitrogen dopant- vacancy complexes in graphane	MAPINGIRE, Hezekia Dr MAPASHA, Refilwe Edwin
10:00	[39] Insight into the effect of rhodium atom on TiN (N = 1 – 20) nanoclusters: A DFT investigation	Mr RAMALEBANA , Moeti

Theoretical and Computational Physics (11:00-12:00)

-Conveners: William Horowitz

time	[id] title	presenter
11:00	[269] Theoretical & Computational Biophysics	NYAWENI, Fundile Mr CEBEKHULU, Ntokozo God-knowledge Ms DZHIVHUHO, Asakundwi Praisethelord Ms MOTJOPE, Dineo Patience Mr RAPHULU, Funanani Prof. MATHEBULA, Dephney Dr NETSHIKWETA, Rendani Ms MOILA , Mercy Mr GUGA, Aluwani
11:20	[190] Studying the dependence of observables on the impact parameter (b) in Pb+Pb High Energy Heavy-Ion collision particle multiplicity from the microscopic model (UrQMD) at Elab = 300 AGeV.	NEMAKHAVHANI, Thendo Emmanuel
11:40	[268] Modeling and tomographic visualization of the dying Schrodinger cat and its implication for the biomechanical dynamics of cardiovascular diseases	AKPOJOTOR, Godfrey

Theoretical and Computational Physics (14:00-15:20)

Friday 07 July 2023

Theoretical and Computational Physics (09:40-10:40)

Theoretical and Computational Physics (11:00-12:20)