

Centre for High Performance Computing 2023 National Conference

Tuesday 05 December 2023

HPC: CHPC Cloud Users (Chair: Ms Dorah Thobye) - 1-1-1+3 - Ingwe + Mhelembe (11:00-12:30)

time	[id] title	presenter
11:00	[187] Enhancing Population Health Research Using SAPRIN HDSS Data Science Platform	Dr MAOYI, Molulaqhoa
11:20	[191] CASABIO.org: The Citizen Science Platform for African Observations of Nature	Dr GWYNNE-EVANS, David
11:40	[163] TBC	TBC
12:00	[164] TBC	TBC
12:20	[165] Questions	QUESTIONS

HPC: CHPC Partners and Collaborators (Chair: Mr Mervyn Christoffels) - 1-1-1+3 - Ingwe + Mhelembe (13:30-15:00)

time	[id] title	presenter
13:30	[145] DIPLOMICS: An Overview	Dr SWART, Patricia
13:50	[101] Unleashing the Cloud-Native Potential: Rethinking Research Cyber-Infrastructures with Kubernetes and Cloud APIs	Mr VAN HEUSDEN, Peter
14:10	[160] ® NITheCS: An Overview	Prof. PETRUCCIONE, Francesco
14:30	[113] ® Computing for the ALICE Experiment at the Large Hadron Collider	Mr MURRAY, Sean
14:50	[167] Questions	QUESTIONS

Wednesday 06 December 2023

HPC: Applications 1 (Chair: Dr Mordecai Mashamaite) - 1-1-1+3 - Ingwe + Mhelembe (11:00-12:30)

time	[id] title	presenter
11:00	[138] The Rooibos Genome Program: computational requirements	Dr HESSE, Uljana
11:20	[95] Engineering Strategies for Perovskites: From DFT to Machine Learning	Prof. MAPHANGA, Regina
11:40	[91] Variable resolution numerical weather modelling on the CHPC	Ms MULOVHEDZI, Patience Tlangelani
12:00	[21] A theoretical investigation of decorated novel triazoles as organic dyes in dye sensitized solar cells	Mr COETZEE, Louis-Charl
12:20	[179] Questions	QUESTIONS

HPC: Applications 2 (Chair: Dr Charles Crosby) - 1-1-1+3 - Ingwe + Mhelembe (13:30-15:00)

time	[id] title	presenter
13:30	[222] ® A Shelter When the Storms Hit: How the CHPC Supports the South African Weather Service	Dr LANDMAN, Stephanie
13:50	[25] Effective use of high performance computing resources in computational chemistry and materials science	Dr GOVENDER, Krishna
14:10	[31] Building HPC modelling ecosystems for furnace tapping problems	Dr REYNOLDS, Quinn
14:30	[51] Research Software Engineering (RSE) groups in the UK and their relationship to HPC facilities	Dr MARTIN, Kim
14:50	[181] Questions	QUESTIONS

HPC: Applications 3 (Chair: Dr Uljana Hesse) - 1-1-1+3 - Ingwe + Mhelembe (15:30-16:50)

time	[id] title	presenter
15:30	[29] Dynamic downscaling of CMIP6 model outputs: usage of the Lengau Cluster by the Agrometeorology division of Agricultural Research Council	Dr ROFFE, Sarah
15:50	[115] DFT studies of Iron at extreme temperature and pressure conditions, metal oxides and dopant-induced magnetization in a two-dimensional material	Dr RAJI, Abdulrafiu Tunde
16:10	[149] Accelerating South Africa's indigenous knowledge systems for antiviral drug discovery using computational modelling	Dr RAMULONGO, Tovhowani
16:30	[45] Simulation of the eThekweni Heat Island in South Africa	Mr MAISHA, T. Robert

Thursday 07 December 2023

HPC: Applications 4 (Chair: Dr Quinn Reynolds) - 1-1-1+3 - Ingwe + Mhelembe (11:00-12:30)

time	[id] title	presenter
11:00	[121] Computational fluid dynamics (CFD) in congenital heart disease and thrombosis: The role of high performance computing (HPC)	Prof. NGOEPE, Malebogo
11:20	[30] Application of High-Performance Computing in Nanomedicine: Lipid based nanocarriers and biogenic nanoparticles	Dr NGOEPE, Mpho
11:40	[150] Complexity vs. Clarity: Modelling Effects of Lancing into Process Material Through Furnace Tap-Holes	Mr ERWEE, Markus
12:00	[96] ® Earth system model prototype for seamless forecast construction: Evaluation/validation from weather to monthly time scales and tailored services development for sectors of development.	Dr MATEYISI, Mohau
12:20	[176] Questions	QUESTIONS

HPC: CHPC Users Forum BoF (Facilitator: Dr Werner Janse van Rensburg) - 1-1-1+3 - Ingwe + Mhelembe (13:30-15:00)

time	[id] title	presenter
13:30	[186] BoF: CHPC Users Forum	Dr JANSE VAN RENSBURG, Werner

HPC: Women in HPC BoF (Facilitator: Prof Khomotso Maenetja) - 1-1-1+3 - Ingwe + Mhelembe (15:30-16:30)

time	[id] title	presenter
15:30	[185] BoF: Women in High Performance Computing South Africa (WHPC-South Africa)	Prof. MAENETJA, Khomotso