CHPC
CENTRE FOR HIGH
PERFORMANCE COMPUTING

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Advancing Computational Science in South African Academia through Social and Cyber Networks

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In his 2002 State of the Nation Address, President Thabo Mbeki identified Information and Communication Technology (ICT) as "a critical and pervasive element in economic development" and recommended the establishment of an "ICT University". The establishment of the CHPC in 2005 signalled the first pillar in the national research cyberinfrastructure1 and remains a major investment that anchors the development and growth of the computational and data sciences stretching across disciplines from science, through to social science. The recent feverish announcements from pundits through to politicians hailing the onset of the 4th industrial revolution posits a research landscape where computational science is a central kernel of South Africa's future economic plan.

Large parts of the chemical, biological and physical science have had an uptick in production and activity in modelling, simulation and data analytics as measured by number of papers produced. However, the challenge of innovative home grown methods to address the national needs of medical science, the bio-economy and the green revolution remain unmet.
I will present a view of the future of computing and data analytics in the biological, chemical and life sciences. More importantly I will discuss a hopeful future scenario where academics across all South African institutions cooperate via the CHPC to advance our international research profile.

Presenter Biography

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