Centre for High Performance Computing 2021 National Conference



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The IPCC Assessment Report Six: modelling contributions from the CHPC

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The Intergovernmental Panel on Climate Change (IPCC) Assessment Report Six (AR6) Working Group I (WGI) report, released in August 2021, is widely regarded as the most influential and comprehensive report on climate change composed to date. The report was described as a 'code red' for humanity by the United Nations Secretary General, and served as a direct input to the 26th Conference of the Parties (COP26) in November 2021. African climate science is well represented in the report, including several modelling papers on the projected climate change futures of the African continent. The CHPC and most recently its Lengau cluster played a critical role and in fact made feasible the completion of several computationally expensive simulations that underpinned several papers referenced by the IPCC AR6. This talk will review those papers, and their significance. Future directions in Earth System Modelling will also be discussed, in the context of convection permitting models and exascale computing, and the role of the CHPC in ensuring that South African climate modelling remains internationally competitive will be emphasized.

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