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## Leveraging Hybrid Cloud, HPC and Quantum Computing Resources

*Tuesday, 2 December 2025 12:00 (20 minutes)*

Quantum Computing is a disruptive emerging technology, promising the capability to solve complex problems that were previously considered intractable even on large scale HPC systems. This talk will briefly introduce quantum computing, outlining some of the opportunities and challenges it presents specifically in a South African context. Through the utilization of a demonstrative use-case, i.e. computational quantum chemistry, the talk will showcase how NICIS is uniquely poised as the hub of hybrid cloud, HPC and quantum computing resources and infrastructure. Finally the talk will focus on the transformative impact of strategically democratizing access to such and other technologies, culminating in quantum researchers leveraging cloud and HPC infrastructure, as well as classical HPC users encouraged to adopt quantum computing resources.

**Presenting Author**

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**CHPC Research Programme**

**Workshop Duration**

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**Session Classification:** Special