

HYBRID SEMINAR  
FIRST OF TWO CTMP TALKS:

# Quantum Computing: Supremacy, Advantage, Practicality?

Francesco Petruccione (University of Stellenbosch)

Friday, 28 July 2023 @ 14h00 SAST

*Venue:* Duncan Elliott Seminar Room, University of Cape Town,  
& Zoom

**Abstract:**

Have you ever wondered how computers, which have shaped our world in unimaginable ways, could evolve further? Starting with the concept of 'quantum supremacy', we'll illuminate how quantum computers could outshine classical computers in specific computational tasks. However, what about practicality? Can we expect a quantum computer in every home, just like a PC? Are there challenges that we still need to overcome to make quantum computers a reality?

**Biography:**

Francesco Petruccione AAS, ASSAf is a renowned physicist and academic leader, currently serving as a professor of Physics at Stellenbosch University and the interim director of the National Institute for Theoretical and Computational Sciences (NITheCS). With a wealth of experience in his field, he previously held the position of professor and Pro Vice-Chancellor of Big Data and Informatics at the University of KwaZulu-Natal (UKZN). Petruccione is also a highly regarded member of the Academy of Science of South Africa and a Fellow of the Royal Society of South Africa.



**ZOOM LINK:** <https://1nq.com/UlcB2>

