



NITheCS

National Institute for
Theoretical and Computational Sciences



COLLOQUIUM

Quantum Computing, a new toolbox for Stochastic Analysis & Machine Learning?

Prof Jack Jacquier (Imperial College London, UK)

DATE: Monday, 18 August 2025 | 16h00–17h00 SAST

VENUES:

- **Stellenbosch University:** Neelsie Cinema
- **University of the Witwatersrand:** Room P215, 2nd Floor, Physics Building
- **North-West University:** Seminar room K310, Physics building G5
- **Online**

--- A recording of the talk will be published on the NITheCS YouTube channel afterwards ---

ABSTRACT

We are interested here in recent developments in Quantum Computing from an algorithmic standpoint and with a view towards applications (with an emphasis on Mathematical Finance and Stochastic Analysis). We shall in particular focus on Universal Approximations theorems for Parameterised Quantum Circuits as well as on the links between (partial) measurements of Quantum systems and Stochastic diffusions.

BIOGRAPHY

Jack Jacquier is a Professor of Mathematics at Imperial College London. His research focuses on stochastic analysis and volatility modelling in Mathematical Finance, as well as on quantum computing algorithms.

Prof Jacquier also serves as a scientific consultant and advisor for various finance and technology companies.



**REGISTER
TO ATTEND**

<https://bit.ly/4omDbWE>



**SUBSCRIBE
TO THE
NITheCS MAILING LIST:**

