

IBM RESEARCH AFRICA QUANTUM MEETUPS

Speaker: Isa Tippens, *University of the Western Cape*

Topic: A Framework for Secure Financial Transactions with Relativistic Quantum Tokens

Research into quantum money dates back to the 1980s, but its practical implementation has been delayed due to the absence of efficient quantum memory. Isa's project bridges the gap by integrating quantum and classical techniques to demonstrate a proof-of-concept transaction system. Combining quantum communication and cryptography, the project combines quantum key distribution, hashing, and GPS-based time synchronization protocols to create a secure quantum banknote framework. This approach enables the anonymous generation, exchange, and verification of quantum banknotes while maintaining robust security against counterfeiting.

**DATE**

27 Aug 2025

**TIME**

13:00 – 14:00 SAST

**LOCATION**

Wits Gatehouse
Science Boardroom
GH102

**MEETING LINK**

<https://ibm.biz/ibm-q-meetup>

STAY TUNED

www.meetup.com/ibm-q-and-wits-quantum-computing-talks/



South African
Quantum
Technology
Initiative

IBM Quantum



<Wits|Q>
Wits Quantum Initiative