Contribution ID: **248** Type: **Poster Presentation**

Multiparty Quantum State Sharing of an arbitrary unknown three particle state with GHZ state measurements

Wednesday, 6 July 2016 16:10 (1h 50m)

Abstract content
   (Max 300 words)
Formatting &
Special chars

We propose a scheme for sharing unknown three-particle state to n agents using Greenberger-Horne-Zeilinger (GHZ) states. Firstly, we introduce the five party QSTS of arbitrary three particle unknown state where Alice start by sharing four GHZ entangled states with her four agents and performs three GHZ state measurements on her particles followed by two single particle measurements on the Hadamard basis. One of the agents Bob1 performs single measurement on her particle and the three other agents each perform unitary transformation on their particle to recover the unknown state. Subsequently we propose the generalised multiparty QSTS of an arbitrary three particle state.

Apply to be
 considered for a student
   award (Yes / No)?

No

Level for award
 (Hons, MSc,
   PhD, N/A)?

MSc

Main supervisor (name and email)
and his / her institution

Dr Mhlambululi Mafu, mafum@biust.ac.bw, Botswana International University of Science and Technology

Would you like to <br> submit a short paper <br> for the Conference
 Proceedings (Yes / No)?

Yes

Please indicate whether
this abstract may be
published online
(Yes / No)

Yes

Primary author: Mr SEKGA, COMFORT (Botswana International University of Science and Technology)

Co-author: Dr MAFU, Mhlambululi (Botswana International University of Science and Technology)

Presenters: Mr SEKGA, COMFORT (Botswana International University of Science and Technology); Dr MAFU, Mhlambululi (Botswana International University of Science and Technology)

Session Classification: Poster Session (2)

Track Classification: Track G - Theoretical and Computational Physics