

## Day 3 (Poster E)

Nedeen Alsharif, University College London

Title: Hybrid Quantum Annealing and Quantum Walk

Abstract:

An increased research effort has been recently geared towards continuous-time quantum computing due to its promising near and mid-term applications. Quantum annealing and continuous-time quantum walk are examples of two general techniques in this field. (改行)(改行) In this work, we investigate using a hybrid quantum annealing and continuous-time quantum walk to solve the spin glass problem. Our motivation is to examine the coherent quantum processes during the quantum random walk.

By using numerical and analytical techniques we consider which spin-glass problem instances may show a shorter time to solution when introducing continuous time quantum walk. Our future work will focus on experimentally verifying these results.

This work was done in collaboration with Paul Warburton.