



Contribution ID: 126

Type: **Talk**

## Quantum Approximate Optimization Algorithm

The Quantum Approximate Optimization Algorithm (QAOA) has emerged as one of the most promising algorithms for tackling combinatorial optimization problems using near-term quantum computers. QAOA blends quantum and classical computational techniques to approximate the solutions to problems such as Max-Cut, portfolio optimization, networking, and other NP-hard challenges that are critical in finance, logistics, physics, and engineering. In this presentation, I will demonstrate an application of the QAOA algorithm to a simple Max-cut problem.

**Student or Postdoc?**

**Email address**

KMpofu@csir.co.za

**Co-Authors**

**CHPC User**

**CHPC Research Programme**

**Workshop Duration**

**Primary author:** MPOFU, Kelvin (CSIR)

**Presenter:** MPOFU, Kelvin (CSIR)

**Session Classification:** Special

**Track Classification:** Quantum Computing