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## 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.

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### CHPC Research Programme

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