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Type: **Parallel Talk**

Hybrid Quantum Estimation of Thermal Averages via Partial Mixed States Preparation

Thursday, 3 August 2023 15:10 (20 minutes)

In this talk we introduce a novel quantum algorithm for the estimation of thermal averages in the NISQ-era through an iterative combination of Variational Quantum Eigensolver techniques and reweighting.

We discuss the details of the algorithm and the scaling of resources and systematic errors, showing some results of the application to compelling test cases.

Topical area

Quantum Computing and Quantum Information

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