Workshop on Modern Trends in Quantum Theory



Contribution ID: 41

Type: Poster

## Incremental Learning of Quantum Generative Adversarial Networks

Wednesday, 25 May 2022 16:50 (20 minutes)

Machine learning field has shown incredible impact on many kinds of optimization problems. Recently the power of machine learning was applied to speed up the quantum states preparation. Although approximation with quantum generative adversarial networks is one of the fastest ways to prepare a generic quantum state, training time for such models is still significant and can easily impair quantum advantage. This thesis explores incremental learning of quantum generative adversarial networks for the quantum states preparation problem and introduces learning use cases reducing the training time.

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Session Classification: Poster