

# Data Augmentation for Quantum Machine Learning

*Thursday 20 November 2025 14:30 (30 minutes)*

Quantum machine learning faces several bottlenecks that impede its empirical and theoretical computational advantage. One critical challenge is encoding classical data to quantum states. In this work, we present a novel data augmentation strategy applied after encoding, resulting in faster convergence with less data on quantum machine learning models. We demonstrate its effectiveness on generative diffusion-inspired models, showing that even limited datasets can be utilized for learning distributions.

**Presenter:** BAIDACHNA, Mariia

**Session Classification:** After-lunch session