Contribution ID : **1**   Type : **not specified**

Dissipative Quantum Neural Network

Monday, 13 October 2025 10:00 (60)

Artificial neural networks have been shown to fulfil unexpected image recognition abilities. In this talk I will give an introduction to quantum machine learning that focuses on ideas to quantify artificial neural networks by changing neurons to qubits or qudits. We will discuss advantages and disadvantages of such a quantization of an artificial neural network. Focusing on the impact of different cost functions on the optimization process, we show significant training differences among the cost functions considered.
Our findings facilitate both the theoretical understanding and the
experimental implementability of quantum neural networks.

Presenter(s) :   HIESMAYR, Beatrix