

Quantum Information and computing

Michele Guadagini - Alessandro Lambertini

Exam assignment

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Exercise 1:

Study how tensor networks structures can be used to set up a machine learning algorithm (look at “Unsupervised Generative Modeling Using Matrix Product States”, <https://journals.aps.org/prx/abstract/10.1103/PhysRevX.8>).

Exercise 2:

Write a code to able to classify high-energy physics data by using an MPS based unsupervised learning algorithm

Exercise 3:

Test your code to reproduce the results contained in the reference paper