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Quantum-Inspired Machine Learning

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Learning tasks are implemented via mappings of the sampled data set, including both the classical and the quantum framework. The quantum-inspired approach mimics the support vector machine mapping in a high-dimensional feature space, yielded by the qubit encoding. In our application such scheme is framed in the formulation of a least-squares problem for the minimization of the mean squared error cost function, implemented by means of measurements. The ability of quantum algorithms to manage a high number of parameters will characterize their analysis capability for complex systems, like the targeted biomedical framework.

Significance

References

https://www.mdpi.com/2227-7390/9/4/410

Experiment context, if any

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