

Decohering quantum states with quantum circuits

Quantum circuits can also be used to decohere quantum states in a highly controlled manner. In this second lecture, we will discuss this scenario for the toric code, subject to various coherent and incoherent deformations. Of particular interest will be the existence of decoherence thresholds and the field-theory description at the critical points, which will lead to a short tutorial on unitary and non-unitary conformal field theories relevant to these transitions.

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