

Universal Features of the Polyakov Loop in Quantum Simulations of the Abelian Higgs Model

Thursday, September 13, 2018 9:25 AM (25 minutes)

I will discuss our proposal to quantum simulate the Abelian Higgs model in $1 + 1$ dimensions. While doing this I will show how the energy gap associated with the inclusion of a static charge shows universal finite-size scaling in the discrete lattice model, and the continuous-time quantum model. This finite-size scaling is identical in both limits. I will briefly go into progress being made in $2 + 1$ dimensions on the $U(1)$ -gauge model.

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