

Abstract

Entanglement Renormalization and Tensor Network Representation of Chern Insulators

Session 4

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Tensor networks provide an efficient means to describe strongly correlated many-body states. Chiral phases of matter, like those display integer or fractional quantum anomalous Hall effects, do not readily admit a faithful tensor network representation. In this talk, we describe how entanglement renormalization could offer a way to obtain tensor network representations of Chern insulators. As an application, we demonstrate how the tensor network representation provides a natural scheme for performing renormalization of the anomalous chiral edge mode.