

Abstract Submitted
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Phase diagram of the isotropic spin-3/2 model on the $z=3$ Bethe lattice STEFAN DEPENBROCK, Department of Physics and Astronomy, University of California, Irvine, FRANK POLLMANN, Max-Planck-Institut für Physik komplexer Systeme — We study an $SU(2)$ symmetric spin-3/2 model on the $z = 3$ Bethe lattice using the infinite Time Evolving Block Decimation (iTEBD) method. This model is shown to exhibit a rich phase diagram. We compute the expectation values of several order parameters which allow us to identify a ferromagnetic, a ferrimagnetic, a anti-ferromagnetic as well as a dimerized phase. We calculate the entanglement spectra from which we conclude the existence of a symmetry protected topological phase that is characterized by $S = 1/2$ edge spins.

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