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Title: Droplet States in Quantum XXZ Spin Systems on General Graphs

Abstract: We introduce XXZ Quantum Spin Systems on general graphs. To this end, we will define the so-called N -th symmetric product of a graph and show the relation of the XXZ Hamiltonian to a direct sum of Schrodinger operators on these N -th symmetric products. We will also discuss the existence of spectral gaps above the droplet band for quasi-one-dimensional graphs. This is joint work with G. Stolz.