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Stability of the superselection sectors of Kitaev's abelian quantum double models.

Kitaev's quantum double models provide a rich class of examples of two-dimensional lattice models with topological order in the ground states and a spectrum described by anyonic elementary excitations. The infinite volume ground states of the abelian quantum double models come in a number of equivalence classes called superselection sectors. We prove that the superselection structure remains unchanged under uniformly small perturbations of the quantum double Hamiltonians. (Received September 24, 2017)