1127-82-252 **Bruno Nachtergaele*** (bxn@math.ucdavis.edu), Department of Mathematics, University of California, Davis, Davis, CA 95616, and **Robert Sims** and **Amanda Young**. *Stability of Frustration-Free Ground States of Lattice Fermion Systems.*

We study frustration-free lattice Fermion systems with a non-vanishing spectral gap above one or more (infinite-volume) ground states. The ground states are called stable if arbitrary perturbations of the Hamiltonian that are uniformly small throughout the lattice have only a perturbative effect. In the past several years stability results have been obtained for quantum spin models of increasing generality aimed at applications to topological phases (most notably in work by Bravyi-Hastings-Michalakis and Michalakis-Zwolak). We present a recent extension to lattice Fermion models that may also exhibit spontaneously broken discrete symmetries. (Received February 05, 2017)