

Abstract Submitted
for the MAR17 Meeting of
The American Physical Society

Tunable topological superconductivity from a lattice of finite-size magnets KIM PÖYHÖNEN, TEEMU OJANEN, Aalto Univ — In this work we examine a system consisting of a square lattice of finite-size magnets on a two-dimensional electron gas coupled to an s -wave superconductor. We find that the system supports a rich spectrum of topological phases, including several with large Chern numbers. The advantages of the studied system are twofold: first, it is feasible to construct with pre-existing experimental setups; second, the system parameters can be tuned after it has already been constructed, which enables fine-tuning the system into the desired topological phase.

Kim Pöyhönen
Aalto Univ

Date submitted: 07 Nov 2016

Electronic form version 1.4