

Abstract Submitted  
for the TSF17 Meeting of  
The American Physical Society

**Majorana Corner States of Topological Edge Superconductors**

QIYUE WANG, FAN ZHANG, Univ of Texas, Dallas — Majorana bound states often occur at an end of a topological superconductor or at the Pi Josephson Junction mediated by a helical edge state. Here we show that there can emerge one Majorana Kramers pair at a corner of a finite-size quantum spin Hall insulator proximity coupled to an extended s-wave superconductor. We obtain a phase diagram that emphasizes the roles of chemical potential, order parameters, and edge orientations. Our scheme offers a unique platform and opens a new perspective for exploring non-Abelian quasiparticles and topological quantum computing.

Qiyue Wang  
Univ of Texas, Dallas

Date submitted: 19 Sep 2017

Electronic form version 1.4