

Abstract Submitted  
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**Braiding anyons and communication between topological and non-topological systems**<sup>1</sup> HAITAN XU, JACOB TAYLOR, JQI, University of Maryland-College Park and NIST — Quasi-particles with non-Abelian statistics are intriguing in both fundamental and applied physics. Here we propose a “proof of principle” experimental setup for braiding anyons and observing non-Abelian statistics using nearest-neighbor spin interactions inspired by the Kitaev honeycomb model. We also show an explicit method for teleportation between the topological and non-topological systems.

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