

Abstract Submitted  
for the MAR13 Meeting of  
The American Physical Society

**Disordered Floquet topological insulators** SHIRIT BARUCH, TAMI PEREG-BARNEA, McGill University — In the presence of an external periodic field some materials become Floquet topological insulators. Introducing disorder into these systems may alter their electronic properties, which may critically affect their applications. We investigate the effects of disorder on Floquet topological insulators using a Green's function formalism. We find that in the presence of disorder, the transport properties of Floquet topological insulators differ from those of standard topological insulators. We further investigate the robustness of the topological phase to disorder.

Shirit Baruch  
McGill University

Date submitted: 28 Dec 2012

Electronic form version 1.4