F Alberto Grunbaum* (grunbaum@math.berkeley.edu), Math Dept, UC Berkeley, Berkeley, CA 94720. Bulk-edge correspondence of one dimensional quantum walks.

This is a report on joint work with C. Cedzich, C. Stahl, L. Velazquez, A. Werner and R. Werner (arXiv 1502.02592v2).

We study symmetry protected topological phases for one dimensional quantum walks. This plays an important role in the classification of quantum matter, e.g. the distinction between topological and ordinary insulators in lattice systems.

This is well understood in the case of translation invariant systems. Our work allows us to deal with non-translation invariant situations. (Received September 19, 2015)