Kursat Sozer* (ksozer@indiana.edu). Extended HQFTs in dimension 2.

Topological quantum field theories (TQFTs), inspired by theoretical physics, produce manifold invariants behaving well under gluing. For every discrete group $G$, homotopy quantum field theories (HQFTs) are $G$-equivariant versions of TQFTs. In this talk, we define and classify 2-dimensional extended HQFTs generalizing methods introduced for TQFTs by Chris Schommer-Pries in 2009. We list generators and relations for the extended $G$-equivariant bordism bicategory and use them to classify 2-dimensional extended HQFTs. (Received August 19, 2019)