1064-57-326 **Mark Feshbach** and **Alexander A Voronov*** (voronov@umn.edu), School of Mathematics, 127 Vincent Hall, 206 Church St. S.E., Minneapolis, MN 55455-0488. *Higher Categories and TQFTs.* Preliminary report.

We describe categorical formalism for higher dimensional, a.k.a. extended, Topological Quantum Field Theories (TQFTs) and present them as functors from a suitable category of cobordisms with corners to a linear category, generalizing 2d open-closed TQFTs to higher dimensions. The approach is in the spirit of monoidal categories (associators, interchangers, Mac Lane's pentagons and hexagons), in contrast with the simplicial (weak Kan and complete Segal) approach of Jacob Lurie's. (Received September 13, 2010)