1135-57-1077 **Adam R Saltz*** (adam.saltz@uga.edu), University of Georgia, Boyd Graduate Studies, Department of Mathematics, Athens, GA 30602. *Strong functoriality for Khovanov-Floer theories.* Preliminary report.

A link homology theory is called functorial if link cobordisms induce maps on homology. The recipe for building a map from a diagrammatic presentation of a cobordism is typically built into the homology theory. The difficulty is in showing that the map does not depend on the presentation.

The notion of a Khovanov-Floer theory was introduced by Baldwin, Hedden, and Lobb to encompass the many link homology theories which admit spectral sequences from Khovanov homology. These include the Heegaard Floer (and monopole, framed instanton, and planar Floer homologies) of the branched double cover, Szabó's 'geometric' spectral sequence, and singular instanton knot homology. They show that all of these theories are weakly functorial: link cobordisms induce well-defined maps on the spectral sequence from Khovanov homology and therefore on the homology. But this map is only part of the natural recipe.

I will discuss a strategy for showing that these theories are functorial in the usual sense by relating these theories to Bar-Natan's formulation of Khovanov homology. (Received September 19, 2017)