## 1019-57-139N. Shirokova\* (nadya@math.stanford.edu), 450 Serra mall, Bld. 380, Department of<br/>Mathematics, Stanford, Palo Alto, CA 94305. On the classification of Floer-type theories.

Many Floer-type theories can be considered as categorifications of classical invariants. Instanton Floer homology categorifies Casson invariant, Heegaard 3-manifold and knot homology categorify Turaev torsion and Alexander polynomial. We give an axiomatics for such homology theory to be of order k and introduce examples of theories of finite order. Our main examples come from the Khovanov theory, Euler characteristics of which is Jones polynomial, we also have a simple example in Heegaard Floer homology. (Received August 13, 2006)