Unoriented Cobordism Maps on Link Floer Homology

Haofei Fan
 UCLA

Abstract. We study the problem of defining maps on link Floer homology induced by unoriented link cobordisms. We provide a natural notion of link cobordism, disoriented link cobordism, which tracks the motion index zero and index three critical points. Then we construct a map on unoriented link Floer homology associated to a disoriented link cobordism. Furthermore, we will discuss some potential applications on the involutive upsilon invariants and unoriented four-ball genus.