

Combinatorial tangle Floer homology

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In joint work with Vera Vertesi, we extend the functoriality in Heegaard Floer homology by defining a Heegaard Floer invariant for tangles which satisfies a nice gluing formula. We will discuss the construction of this combinatorial invariant for tangles in S^3 , D^3 , and $I \times S^2$. The special case of S^3 gives back a stabilized version of knot Floer homology. No prior knowledge of Heegaard Floer homology will be assumed for this talk.