LIAM WATSON, University of Glasgow

Dehn twists in Heegaard Floer homology

Bordered Floer homology replaces surfaces with differential algebras and manifolds-with-boundary with differential modules over these algebras. This gives a refinement of Heegaard Floer homology (due to Lipshitz, Ozsváth and Thurston) that is decidedly algebraic; this talk will introduce and focus on these algebraic objects by way of some simple examples. While bordered invariants are typically quite sensitive to a parametrization of the boundary, our interest will be in those instances where different choices of parametrization yield equivalent bordered invariants. We observe a Heegaard Floer homology Alexander trick, and this leads to the notion of a Heegaard Floer homology solid torus.