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Bordered Floer modules as immersed curves in the torus

We consider bordered Heegaard Floer homology of 3-manifolds with boundary a torus. As originally defined, these invariants take the form of differential or \mathcal{A}_∞ modules over a particular algebra. We show that these objects can be replaced by collections of immersed curves in the boundary torus minus a basepoint, decorated with local systems. Recovering \widehat{HF} of a closed manifold from two bordered Floer invariants typically involves taking the homology of a tensor product of modules; in our setting, we show that \widehat{HF} is obtained by simply counting intersection points of the corresponding immersed curves. The moral of the talk is: bordered Heegaard Floer homology is not as scary as it looks! In addition to making many computations easier, this geometric perspective leads to simple proofs of some important results about L-spaces. This is joint work with J. Rasmussen and L. Watson.