1142-57-151 **Kristen Hendricks*** (hendricks@math.msu.edu), **Jennifer Hom** and **Tye Lidman**. *Connected Heegaard Floer homology and homology cobordism.*

We study applications of Heegaard Floer homology to homology cobordism. In particular, to a homology sphere Y, we define a module $HF_{\mathrm{conn}}(Y)$, called the connected Heegaard Floer homology of Y, and show that this module is invariant under homology cobordism and isomorphic to a summand of $HF_{\mathrm{red}}(Y)$. The definition of this invariant relies on involutive Heegaard Floer homology. We use this to define a new filtration on the homology cobordism group, and to give a reproof of Furuta's theorem. This is joint work with J. Hom and T. Lidman. (Received September 01, 2018)