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Charlottesville, VA 22904. *Naturality of Heegaard Floer Invariants Under Positive Contact
Surgery.*

One of the fundamental open question in three dimensional contact topology is the determination of which closed oriented three manifolds support a tight contact structure. One powerful way to approach this problem is provided by Heegaard Floer homology. In this talk, we will describe some recent work that shows the contact invariant in Heegaard Floer homology behaves “naturally” under certain contact surgery operations. As an application we give a complete description of the contact invariant of a contact structure obtained by positive rational contact surgery on a Legendrian knot in the standard three sphere. This is joint work with Tom Mark. (Received January 18, 2016)