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Thomas E Mark, University of Virginia, and **Bulent Tosun*** (bt5t@virginia.edu), University of Virginia. *Naturality of Heegaard Floer invariants under positive rational contact surgery.*

We consider the problem of tightness of a contact structure obtained by contact surgery along a Legendrian knot in the three-sphere, with positive rational surgery coefficient. We prove that in this situation the Heegaard Floer contact invariant of three sphere is mapped by a surgery cobordism to the contact invariant of the result of contact surgery. We also characterize the spin^c structure on the cobordism that induces the relevant map. We will describe this result and outline the applications to positive rational contact surgeries, which generalize previous results of Golla and Lisca-Stipsicz. Our proof involves a construction called reducible open book surgery. (Received September 10, 2015)