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**David Krcatovich\*** ([david-k@rice.edu](mailto:david-k@rice.edu)), Rice University, Math Department – MS 136, 6100  
Main St, Houston, TX 77005. *The reduced knot Floer complex.*

In this talk we will introduce a reduced form of the knot Floer complex associated to a knot in  $S^3$ . We will see how it simplifies computations for connected sums of knots, and can be used to compute smooth concordance invariants. As an application, we will see how the reduced complex lends itself to a simple proof of the fact that a knot in  $S^3$  which admits an  $L$ -space surgery must be prime. (Received September 11, 2014)