1126-35-188 **Lorena Bociu** and **Steven Derochers*** (sjderoch@ncsu.edu), 1211 Ridge Trace Dr., Raleigh, NC 27606, and **Daniel Toundykov**. *Feedback Stabilization of a Hydro-Elasticity Model.* Preliminary report.

We investigate the stability of a linear fluid-elasticity model obtained recently using shape optimization techniques. As the linearization took into account the geometry of the problem through the moving common interface, the linear system contains boundary terms involving curvature and boundary acceleration. The C_0-semigroup generator for this evolution is ω-dissipative, instead of dissipative, like in the classical coupling of the linear problems. This observation, along with numerical investigations performed on the linearization, prompted us to consider interior and boundary feedback stabilization terms, in order to obtain exponential stability for the system. (Received January 12, 2017)