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Amjad Tuffaha* (tuffaha@usc.edu), **Igor Kukavica** and **Mohammed Ziane**. *Strong Solutions to a Nonlinear Fluid Structure Interaction System.*

We consider the existence of local in-time strong solutions to a fluid structure interaction model describing the elastic motion of a solid inside a fluid. Mathematically, the model is comprised of a fluid modeled by the Navier Stokes equation interacting with an elastic body equation at the boundary of the solid with stress and velocity matching boundary conditions. (Received February 03, 2009)