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Mihaela Ignatova* (ignatova@math.princeton.edu), Princeton University. *Global existence for fluid-structure models*

We address a fluid-structure system coupling the incompressible Navier-Stokes equation and a linear elasticity equation with interior damping. The interaction takes place at a common interface and it is described by the transmission boundary conditions matching the velocities and the stress forces at the interface. We prove the global existence and exponential decay of smooth solutions for small initial data. This is a joint work with Igor Kukavica, Irena Lasiecka, and Amjad Tuffaha. (Received October 03, 2016)