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Lorena Bociu* (lvbociu@ncsu.edu). *On the linearization of a fluid-nonlinear elasticity interaction.*

We present a new linearized model for a three-dimensional fluid-structure interaction. The linearization that we obtained reveals new features, including the presence of the matrix of curvature terms on the common boundary. Thus our model takes into account the geometrical aspect of the problem, which is critical for a correct physical interpretation of the fluid-structure coupling. (Received September 22, 2011)