

1126-35-64

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*Semigroup well-posedness for the total linearization of a free boundary hydro-elastic model.*

We will look at a new linearized model of a free boundary fluid-structure interaction. The hydro-elastic equations and the free boundary were linearized together which yields a system quite different from the classical coupling of the Stokes flow and linear elasticity, going back to 1960's. Additional terms emerge on the common interface, some of them involving boundary curvatures. Despite many new features, the system shares a number of properties with the classical model. We proceed to demonstrate that when the linearization is performed around slow steady regimes, the associated evolution operator generates a strongly continuous semigroup. (Received December 29, 2016)