Seminar/Talk

On compressible fluids interacting with a linear-elastic shell

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We study the Navier--Stokes equations governing the motion of an isentropic compressible fluid in three dimensions interacting with a flexible shell. The latter one constitutes a moving part of the boundary of the physical domain. Its deformation is modeled by a linearized version of Koiter's elastic energy.We discuss the existence of weak solutions to the corresponding system of PDEs provided the adiabatic exponent satisfies in two dimensions). The solution exists until the moving boundary approaches a self-intersection.It is a joint work with D. Breit (Heriot-Watt Univ. Edinburgh).

Thursday, November 30, 2017 04:00pm - 06:00pm
Big Seminar room Ground floor / Office Bldg West (I21.EG.101)

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