

Seminar/Talk

Weak-strong uniqueness for Navier-Stokes two-phase flow with surface tension

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We establish a weak-strong uniqueness principle for the flow of two immiscible, incompressible and viscous fluids with surface tension under the assumption of identical viscosities and densities. As long as there exists a strong solution to the system, every varifold solution originating from the same initial condition has to coincide with it. The global-in-time existence of varifold solutions was established by H. Abels (Interfaces Free Bound. 9, 2007). The key ingredient of our result is the construction of a relative entropy functional which is capable of controlling the interface error.This is joint work with Julian Fischer.

Thursday, February 15, 2018 04:00pm - 06:00pm
Big Seminar room Ground floor / Office Bldg West (I21.EG.101)

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