

Regularity results for the Abels-Garcke-Grün model

The Abels-Garcke-Grün (AGG) system is a fundamental thermodynamically consistent diffuse interface model which describes the motion of two viscous and incompressible fluids with unmatched (constant) densities. The AGG model consists of a nonhomogeneous incompressible Navier-Stokes-Cahn-Hilliard system. In this talk, I will present some recent results concerning the existence of regular solutions for the AGG model in both two and three dimensions.