

Generation of interface for solutions of the mass conserved Allen-Cahn equation

Danielle Hilhorst

Université Paris-Sud

We consider the mass conserved Allen-Cahn equation, which has been proposed by Rubinstein and Sternberg to model the phase separation in a binary mixture. It does not possess any comparison theorem, which makes its study very difficult. We prove a generation of interface property in the case that the coefficient of the nonlocal reaction term tends to infinity.

This is joint work with Hiroshi Matano, Thanh Nam Nguyen and Hendrik Weber.