



6th Symposium on Analysis and PDEs

Purdue University, June 1–4, 2015

Ryan Murray, Carnegie Mellon University

June 2, 5:00–5:25pm

Second-Order Gamma Limit for the Cahn-Hilliard Functional.

The Cahn–Hilliard functional models phase transitions in a variety of physical settings. This talk will discuss the resolution of a long standing open problem, namely, the asymptotic development of order 2 by Γ -convergence of the mass-constrained Cahn–Hilliard functional. This is achieved by introducing a novel rearrangement technique, which works without Dirichlet boundary conditions.