

Crystalline evolutions with rapidly oscillating forcing terms

ANDREA BRAIDES, ANNALISA MALUSA AND MATTEO NOVAGA

Abstract. We consider the evolution by crystalline curvature of a planar set in a stratified medium, modeled by a periodic forcing term. We characterize the limit evolution law as the period of the oscillations tends to zero. Even if the model is very simple, the limit evolution problem is quite rich, and we discuss some properties such as uniqueness, comparison principle and pinning/depinning phenomena.

Mathematics Subject Classification (2010): 53C44 (primary); 35B27 (secondary).