

On EOM equations for phase separation

Naoyuki ISHIMURA, MasaAki NAKAMURA and Takao HANADA.

Abstract

Eguchi-Oki-Matsunura (EOM) equations are introduced to describe the dynamics of pattern formation which arises from phase separation in some binary alloys. The model extends the well-known Cahn-Hilliard equation. We show the existence of solutions and determine their long time behavior analytically. Numerical computations are also presented.