

Talk-20

Emergence and Annihilation of Vortices for Ginzburg-Landau Equations

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Abstract

In this talk, we consider some behavior of vortices for Ginzburg-Landau equations. "vortices", in mathematical meaning, is zero level set of unknown complex valued function.

Though everybody knows zero level set of complex valued function is intersection of two zero level sets of functions (real part and imaginary part of function), not so many of us have this kind of view point to analyze the behavior of vortices.

We show some numerical simulations and analysis on emergence and annihilation of vortices for Ginzburg-Landau equations, and discuss some ideas to understand emergence and annihilation.

