

The convergence of a nonlocal singular to a local anisotropic Cahn-Hilliard equation

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We consider a nonlocal Cahn-Hilliard equation with singular kernel, where the kernel is symmetric and non-radial. We get the existence of a weak solution of the equation using the Moreau regularization of the potential and an implicit time discretization.

We then prove convergence of suitable sequence of weak solutions of the equation to weak solutions of a local anisotropic Cahn-Hilliard equation.

This talk is based on a joint work with Professor Helmut Abels (Regensburg Univ.).