

*Convergence of the Neumann-Neumann Method for the  
Cahn-Hilliard Equation*

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In this paper, we analyze a substructuring type algorithm for the Cahn-Hilliard (CH) equation. Being a nonlinear equation, it is of great importance to develop efficient numerical schemes for investigating the solution behaviour of the CH equation. We present the formulation of Neumann-Neumann (NN) method applied to the CH equation and investigate the convergence behaviour of the same in one and two spatial dimension for two subdomains. We illustrate the theoretical results by providing numerical example.