Fourteenth International Conference Zaragoza-Pau on Mathematics and its Applications Jaca, September 12–15th 2016

Numerical analysis for the stochastic Cahn-Hilliard equation near the sharp interface limit

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SUMMARY

In the deterministic setting, level surfaces of solutions of the Cahn-Hilliard equation are known to converge to the Hele-Shaw problem. I discuss a related question in the stochastic context, and propose related numerical and computational results, evidencing the role of noise on the geometric evolution.

Keywords: geometric (S)PDE, numerical analysis, simulation

AMS Classification: 60H15, 35R35, 35A35

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