

Exit Time for a Reaction Diffusion model: Case of a One Well Potential.

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We consider a interacting particle system, the Glauber + Kawasaki model. This model is the result of the combination of a fast stirring, the Kawasaki part, and a spin flip process, the Glauber part. This process has a Reaction-Diffusion equation as hydrodynamic limit, as is proven by [1].

The ergodicity of these dynamics (one well potential) was proven in [2]., for any dimension. In this article we prove the asymptotic exponentiality for certain exit time from a subset of the basin of attraction of the well.

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References

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- [2] BRASSESCO, S., PRESUTTI, E., SIDORAVICIUS, V. AND VARES, M. E., *Mathematical methods for hydrodynamic limits*, Markov Processes and Related Fields, 6 (2), 2000