ZERO-TEMPERATURE LIMIT OF THE KAWASAKI DYNAMICS FOR THE ISING LATTICE GAS IN THE TRIANGULAR LATTICE

Bruno dos Santos Gois.

UFRN - Universidade Federal do Rio Grande do Norte.

Resumo/Abstract:
We consider the Kawasaki dynamics at inverse temperature $\beta$ for the Ising lattice gas on a two-dimensional square of length $2L + 1$ with periodic boundary conditions and triangular lattice. We assume that in the beginning the particles form a hexagon of size length $m$, which may increase, as well as $L$, with $\beta$. We show that in a proper time scale $L^2 \theta_\beta$, particles form almost always a hexagon and that this hexagon evolves as a Brownian motion when the temperature vanishes.