

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

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Resumo/Abstract:

We consider the Kawasaki dynamics at inverse temperature β 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 β . 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.