

PHASE TRANSITION FOR THE CLOCK MODEL VIA RANDOM-CLUSTER PERCOLATION

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Resumo/Abstract:

We show that, for temperature sufficiently low, the Edwards-Sokal random-cluster probability associated to the q -state clock model with constant boundary conditions, stochastically dominates a supercritical Bernoulli bond percolation measure. This provides a lower bound for the critical temperature, for every value of q and every dimension. We present possible extensions of the method.