

[P16] Critical behavior of generalized CLG model*Wooseop Kwak, Chosun University*

We study a generalized conserved lattice gas model (GCLG) in two dimensions by introducing an effective temperature T to the conserved lattice gas model (CLG), where the number of particles is conserved during the dynamic process. At $T = \infty$, GCLG model is identical to CLG model. GCLG model at $T = 0$ [1], it shows two transition behaviors; from localized active state to active state, and from localized active state to absorbing state using a new order parameter. We study the critical behaviors of GCLG model between $0 < T \leq \infty$ and we find that the critical exponents do not depend on T and that the new order parameter works for GCLG model at both $T = 0$ and $T > 0$.

References

[1] J. Yang, I. Kim and W. Kwak, Phys. Rev. E. **78**, 051118 (2008).