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Phase diagrams of multicomponent lattice models. (English) Zbl 1177.82043

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Summary: We consider q -component models on both the integer lattice \mathbb{Z}^2 and a second-order Cayley tree and study phase diagrams of these models.

MSC:

82B26 Phase transitions (general) in equilibrium statistical mechanics

82B20 Lattice systems (Ising, dimer, Potts, etc.) and systems on graphs arising in equilibrium statistical mechanics

Keywords:

Cayley tree; Gibbs measure; phase diagram

Full Text: [DOI](#)

References:

- [1] S. A. Pirogov and Ya. G. Sinai, *Theor. Math. Phys.*, 25, 1185–1192 (1975). · [doi:10.1007/BF01040127](#)
- [2] S. A. Pirogov and Ya. G. Sinai, *Theor. Math. Phys.*, 26, 39–49 (1976). · [doi:10.1007/BF01038255](#)
- [3] R. Peierls, *Proc. Cambridge Philos. Soc.*, 32, 477–481 (1936). · [Zbl 0014.33604](#) · [doi:10.1017/S0305004100019174](#)
- [4] R. B. Griffiths, *Phys. Rev. A*, 136, 437–439 (1964).
- [5] P. L. Dobrushin, *Theor. Probab. Appl.*, 10, 253–271 (1965). · [Zbl 0168.23803](#) · [doi:10.1137/1110026](#)
- [6] U. A. Rozikov, *Lett. Math. Phys.*, 71, 27–38 (2005). · [Zbl 1076.82509](#) · [doi:10.1007/s11005-004-5117-2](#)
- [7] N. N. Ganikhodzaev, *Theor. Math. Phys.*, 130, 419–424 (2002). · [Zbl 1031.82012](#) · [doi:10.1023/A:1014771023960](#)
- [8] N. N. Ganikhodjaev, C. H. Pah, and M. R. B. Wahiddin, *J. Phys. A*, 36, 4283–4289 (2003). · [Zbl 1168.82316](#) · [doi:10.1088/0305-4470/36/15/305](#)
- [9] R. A. Minlos, *Introduction to Mathematical Statistical Physics (University Lecture Series, Vol. 19)*, Amer. Math. Soc., Providence, R. I. (2000). · [Zbl 0998.82501](#)

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