

2001 Vol . 35 No. 3 pp. 365-370 DOI :

The Critical Lines of the Yang-Lee Edge Singularities of the Anisotropic Ising Ferromagnets on Square, Triangular and Honeycomb Lattices

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(Received: 2000-3-7; Revised:)

Abstract: Using the numerical results and some results from the renormalization group theory, we extend our previous approach of determining the Yang-Lee edge singularities of Ising ferromagnets on square, triangular and honeycomb lattices (Phys. Rev. Lett. 78 (1997) 413; Phys. Rev. E 56 (1998) 2793; E 57 (1998) 5013) and obtain accurate closed-form approximations of the critical lines of anisotropic Ising ferromagnets on these lattices.

PACS: 75.40.Cx, 75.10.Hk, 64.60.Cn, 05.50.+q

Key words: Yang-Lee edge singularity, Ising ferromagnet

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