Theory for long range magnetic order in nanometer films

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Abstract: The functional integral method and Heisenberg model for localised spins were used for the calculation of the thermodynamics characteristics of magnetic films. It was shown in the Gaussian approximation that the Curie temperature is strongly reduced when the film's thickness reduces to the nanometer region. ?? 2010 IOP Publishing Ltd.

Index Keywords: Functional integral methods; Gaussian approximations; Heisenberg models; Long range magnetic order; Nanometer films; Nanometer region; Thermodynamics

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