

CALCULATION OF CRITICAL  
PARAMETERS IN SU(2) GAUGE THEORY  
WITH THE KOUVEL—FISHER METHOD

*O.A. Mogilevsky*

Bogolyubov Institute for Theoretical Physics  
(14b, Metrolohichna Str., Kyiv 03143, Ukraine)

S u m m a r y

We calculate the critical coupling  $4/g_c^2$  and critical exponent  $\beta$  for the order parameter in SU(2) lattice gauge theory by applying the finite-size scaling technique and the method proposed by Kouvel and Fisher for the analysis of experimental data. In contrast to the standard finite size scaling approach, this method allows us to determine simultaneously both  $g_c^2/4$  and  $\beta$  as two parameters of the linear fit to the Monte Carlo (MC) data.