

Abstract Submitted  
for the MAR13 Meeting of  
The American Physical Society

**Finite-size scaling behavior of the magnetization distribution for 5d Ising model** P. H. LUNDOW, A. ROSENGREN, KTH (Royal Institute of Technology) — We have previously established that the magnetization distribution of the 5-dimensional Ising model can be fitted by a  $p, q$ -binomial distribution. Our extensive sampled Monte Carlo data can be used to determine the parameters' finite-size behavior. Now we use a long series expansion of the  $p, q$ -binomial coefficients to obtain finite-size scaling formulas not only for the Binder ratio and the susceptibility near  $T_c$ , but also for the entire magnetization distribution, including corrections-to-scaling terms.

P. H. Lundow  
KTH (Royal Institute of Technology)

Date submitted: 07 Nov 2012

Electronic form version 1.4