## Erratum: Nonuniversal finite-size scaling in anisotropic systems [Phys. Rev. E 70, 056136 (2004)]

X. S. Chen and V. Dohm (Received 14 March 2005; published 12 May 2005)

At several places in our paper we refer to spatially anisotropic systems or interactions of "noncubic symmetry". For the sake of clarity and precision, these systems should be characterized as systems of *noncubic symmetry at order*  $O(k^2)$  in the **k**-space representation of the corresponding continuum Hamiltonian (see our Hamiltonian Eq. (7)). Such systems have an anisotropy matrix **A** that is not proportional to the unity matrix **1**.

Systems of noncubic symmetry also exist that are anisotropic at order  $O(k^4)$  and at higher order in k but have an isotropic term  $(\nabla \varphi)^2$  at order  $O(k^2)$ , i.e.,  $\mathbf{A} = c_0 \mathbf{1}$ . The *asymptotic* (large L, small t) finite-size scaling functions of such systems are still universal but the anisotropic terms at order  $O(k^4)$  yield nonuniversal *nonasymptotic* contributions that may cause nonnegligible corrections in finite systems of small size. For example, a spin system on a two-dimensional triangular lattice with an isotropic at order  $O(k^2)$ . The noncubic symmetry but the corresponding continuum Hamiltonian of this system is isotropic at order  $O(k^2)$ . The noncubic symmetry enters only at order  $O(k^4)$  and beyond. The same property is valid for other systems of noncubic symmetry, e.g. for the three-dimensional  $\varphi^4$  lattice model with isotropic NNN couplings J and *isotropic* NNN couplings J' on a simple-cubic lattice, as noted after Eq. (51) of our paper.