

**Erratum: Renormalization-group picture of the Lifshitz critical behavior
[Phys. Rev. B **67**, 104415 (2003)]**

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(Received 3 July 2009; published 28 July 2009)

DOI: [10.1103/PhysRevB.80.029904](https://doi.org/10.1103/PhysRevB.80.029904)

PACS number(s): 75.40.Cx, 64.60.Kw, 99.10.Cd

In Eq. (208) of our paper, there was an incorrect extra factor of $1/4$ in the $O(\epsilon_L^2)$ contribution to the critical exponent ν_{L4} computed using the orthogonal approximation which appeared therein. The correct value of this critical exponent is given by the following expression:

$$\nu_{L4} = \frac{1}{4} + \frac{(N+2)}{16(N+8)}\epsilon_L + \frac{1}{64} \frac{(N+2)(N^2+23N+60)}{(N+8)^3} \epsilon_L^2. \quad (1)$$

Furthermore, other isotropic exponents also were displayed with misprints therein. The incorrect expressions for those exponents corresponding to Eqs. (209), (210), and (211) in that paper should read:

$$\gamma_{L4} = 1 + \frac{(N+2)}{4(N+8)}\epsilon_L + \frac{1}{16} \frac{(N+2)(N^2+22N+52)}{(N+8)^3} \epsilon_L^2, \quad (2)$$

$$\alpha_{L4} = \frac{(4-N)}{4(N+8)}\epsilon_L - \frac{1}{16} \frac{(N+2)(N^2+30N+56)}{(N+8)^3} \epsilon_L^2, \quad (3)$$

$$\beta_{L4} = \frac{1}{2} - \frac{3}{4(N+8)}\epsilon_L + \frac{1}{8} \frac{(N+2)(2N+1)}{(N+8)^3} \epsilon_L^2. \quad (4)$$

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