

**Erratum: Multicriticality of the three-dimensional Ising model with plaquette interactions:
An extension of Novotny's transfer-matrix formalism
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Yoshihiro Nishiyama

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In Eq. (7), we presented an explicit expression for the operator P^x , which should read

$$\langle i|P^x|j\rangle = \sum_{\Phi_k} \langle i|\Phi_k\rangle \exp\left(\frac{2\pi kx}{N}i\right) \langle \Phi_k|j\rangle.$$

With use of this formula, we calculated P^x numerically by counting over all intermediate states $|\Phi_k\rangle$ within a Brillouin zone $\{k\}$. The range of the Brillouin zone, $k=0, 1, \dots, N-1$, given 7 lines above Eq. (7), has to be corrected. The actual computer simulation was performed, with the k range $k=1, 2, \dots, N$. Hence, it is needless to replace the simulation results.

To take this opportunity, we mention a remark on the Brillouin zone. The oscillating factor $\exp(2\pi kxi/N)$ in the above equation is incommensurate with respect to the lattice structure, and so, each Brillouin zone is not quite equivalent. There may be a reasonable choice of the Brillouin zone, which is not very clear at present. (Mathematically, any Brillouin zones are allowed.) This problem will be addressed in a future study.