Publisher's Note: Low-energy effective theories of the two-thirds filled Hubbard model on the triangular necklace lattice [Phys. Rev. B **90, 035120 (2014)]**

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(Received 12 July 2019; published 24 February 2020)

DOI: [10.1103/PhysRevB.101.089903](https://doi.org/10.1103/PhysRevB.101.089903)

This paper was published online on 16 July 2014 with errors in some equations and terms throughout the paper. On page 3, the second term in Eq. (8) should read as

$$V_{mn} \sum_{i\sigma\sigma'} n_{im\sigma} n_{in\sigma'}.$$

The line after Eq. (8) should start out as “where $\hat{S}_{im} = \hat{c}_{im\alpha}^\dagger \sigma_{\alpha\beta} \hat{c}_{im\beta}$.” Some of the parameters in the twelfth and thirteenth lines after Eq. (8) were presented incorrectly and should be given as $V_{E_+E_-} = U/24$, $V_{A_+E_+} = U/12$, and $X_{E_+A_+} = U/3\sqrt{2}$.

Equation (9) should read

$$\hat{\mathcal{H}}_3 = \frac{U}{3\sqrt{2}} \sum_{i\sigma} (\hat{c}_{iA_+\sigma}^\dagger \hat{c}_{iE_+\bar{\sigma}}^\dagger \hat{c}_{iE_-\sigma} \hat{c}_{iE_-\bar{\sigma}} + \text{H.c.}) + \frac{U}{3\sqrt{2}} \sum_{i\sigma} (\hat{c}_{iE_-\sigma}^\dagger \hat{c}_{iE_-\bar{\sigma}} \hat{c}_{iE_+\sigma}^\dagger \hat{c}_{iA_+\sigma} + \text{H.c.}) - \frac{U}{3\sqrt{2}} \sum_{i\sigma} (n_{iE_-\sigma} \hat{c}_{iE_+\bar{\sigma}}^\dagger \hat{c}_{iA_+\bar{\sigma}} + \text{H.c.}).$$

Equation (10c) should read

$$|\phi_i^0\rangle = \frac{1}{\sqrt{2}} (|A_+^{\uparrow\downarrow}, E_-^{\uparrow}, E_+^{\downarrow}\rangle + |A_+^{\uparrow\downarrow}, E_-^{\downarrow}, E_+^{\uparrow}\rangle) = \frac{1}{\sqrt{2}} (\hat{c}_{iA_+\uparrow}^\dagger \hat{c}_{iA_+\downarrow}^\dagger \hat{c}_{iE_-\uparrow}^\dagger \hat{c}_{iE_+\downarrow}^\dagger + \hat{c}_{iA_+\uparrow}^\dagger \hat{c}_{iA_+\downarrow}^\dagger \hat{c}_{iE_-\downarrow}^\dagger \hat{c}_{iE_+\uparrow}^\dagger) |0\rangle.$$

The seventh line in the right-hand column on page 4 should read $U_{E_+} = U_{E_-} = 2V_{E_+E_-} - \frac{3}{2}J_{E_+E_-} - P_{E_+E_-}$.

Equation (14) should read

$$|\phi_{ij}^0\rangle = \frac{1}{\sqrt{3}} (|\phi_i^{\uparrow}\rangle \otimes |\phi_j^{\downarrow}\rangle + |\phi_i^{\downarrow}\rangle \otimes |\phi_j^{\uparrow}\rangle - |\phi_i^0\rangle \otimes |\phi_j^0\rangle).$$

Equation (31d) should read

$$\tilde{\mathcal{H}}_3 = \frac{U}{3\sqrt{2}} \sum_{i\sigma} (\hat{c}_{iE_-\sigma}^\dagger \hat{c}_{iE_-\bar{\sigma}} \hat{c}_{iE_+\bar{\sigma}}^\dagger \hat{c}_{iA_+\sigma} + \text{H.c.}) - \frac{U}{3\sqrt{2}} \sum_{i\sigma} (\hat{n}_{iE_-\sigma} \hat{c}_{iE_+\bar{\sigma}}^\dagger \hat{c}_{iA_+\bar{\sigma}} + \text{H.c.}).$$

The first line in the left column on page 9 should start as “where $\varepsilon_{E_+}^* = 17U/24 - 2t_c$.”

The paper has been corrected as of 8 May 2019. The content is incorrect in the printed version of the journal.