Erratum: Phase diagram of the hard-core Bose-Hubbard model on a checkerboard superlattice [Phys. Rev. B 81, 064503 (2010)]

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A small error has been detected in the scripts used to produce the finite-size scaling of the superfluid density of the three-dimensional system reported in Figs. 4 and 5 of the original manuscript. As a result, the critical value reported in the caption of Fig. 4 is found to be $\mu \approx 0.752$ and not as reported. Otherwise this has no effect on any of the conclusions of the original paper.

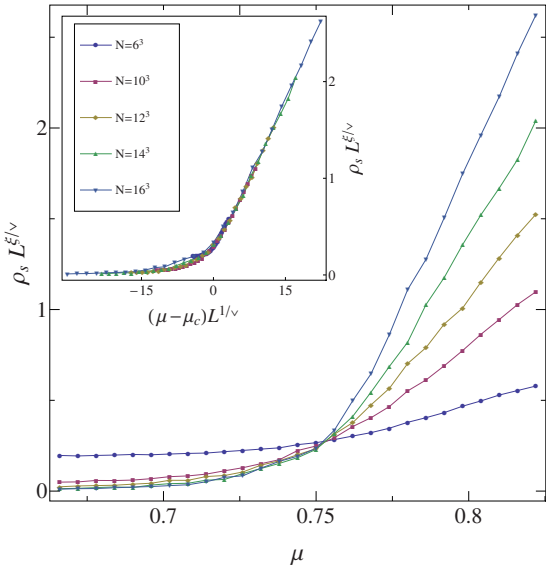

FIG. 4. (Color online) Scaled superfluid density as a function of the chemical potential μ for the various system sizes in the three-dimensional case (here, $A=2.28$). All the curves intersect at $\mu \approx 0.752$ indicating the value of the critical point. In the inset, the control parameter (the horizontal axis) is scaled as well, leading to the collapse of all data points into a single curve.

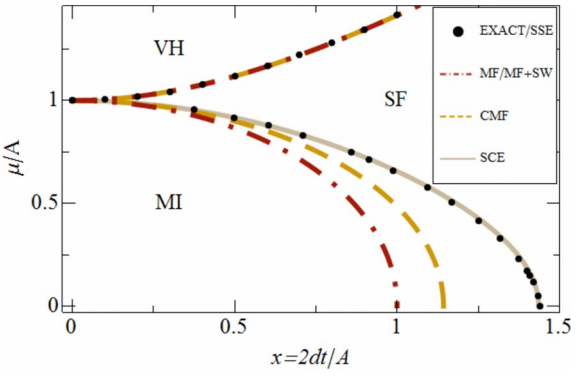

FIG. 5. (Color online) Phase diagram of the model in three dimensions. The full circles are the analytical (VH boundary) and numerical (MI boundary) results. The solid line corresponds to the strong-coupling expansion (SCE) fit, whereas the dot-dashed and dashed lines are the mean-field (with and without spin-wave corrections) and cluster mean-field predictions, respectively. As the figure shows, the SF-VH boundary is predicted correctly by the mean-field approximation schemes. As for the SF-MI boundary, the predictions of the SCE fit provide the most accurate results.

