Erratum: Resonant soft x-ray scattering investigation of orbital and magnetic ordering in La_{0.5}Sr_{1.5}MnO_{4}

(Received 9 June 2006; published 19 July 2006)

DOI: 10.1103/PhysRevB.74.049902 PACS number(s): 71.30.+h, 61.10.−i, 75.25.+z, 75.47.Lx, 99.10.Cd

The drawing of the ferromagnetic spin chains in Fig. 1(c), shown as blue (dark gray) lines, was incorrect and should be replaced by the new figure provided here. Previously, by mistake, the ferromagnetic spin chains had segments which were not parallel to the in-plane lobes of the $d_{x^2-r^2}/d_{y^2-r^2}$-like orbitals, whereas in the rest of the paper, including the calculations, the correct spin chains were assumed.

FIG. 1. (Color online) The structure of La$_{0.5}$Sr$_{1.5}$MnO$_4$. (a) and (b) show two different types of orbital ordering, $d_{x^2-r^2}/d_{y^2-r^2}$ type in (a) and $d_{x^2-r^2}/d_{y^2-r^2}$ in (b). (c) shows the magnetic ordering with blue (dark gray) lines representing the ferromagnetic spin chains. The orbitals are drawn for the Mn$^{3+}$ ions, while the large circles represent the Mn$^{4+}$ ions. In (a) and (b), the small yellow (light gray) circles [discarded for clarity in (c)] represent the oxygen atoms.