Erratum: Effective potentials in the Veltman-Derman dynamical model of composite fermions

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We have realized that the sign of the potential $V_2(r)$, obtained in the context of an eikonal scattering approximation, should have been the negative of the one given in this paper. This simple change of sign makes our result for the total effective potential $V(r) = V_1(r) + V_2(r)$ physically more interesting, i.e., an attractive potential with a repulsive core:

$$V \sim V_2 \sim +\pi n^2/2m_H, \quad rM_H\ll 1, \quad \text{and} \quad V \sim V_1 = -(n/r) \exp(-rM_H), \quad rM_H \gg 1 .$$

We thank C. Kopper of the Max Planck Institut für Physik und Astrophysik, who suggested reexamination of our result.

Erratum: Can $NN$ and $N\bar{N}$ resonances have similar structures?
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The inequality $R > 1$ fm on pp. 2540 and 2542 should be changed to $R = 1$ fm. Contrary to our statement on p. 2540, the long-range part of the real potential ($R > 2$ fm) is, in fact, opposite in sign for $NN$ relative to $N\bar{N}$ for states with the same isospin. This difference in sign arises because $NN$ and $N\bar{N}$ states with the same isospin are related by $G$ parity (not $C$ parity). Since two-pion exchange (with positive $G$ parity) predominates in the interaction range of interest, the impact of the above changes should be small.

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