Erratum: Magnetic focusing of electrons and holes in the presence of spin-orbit interactions **[Phys. Rev. B 92, 235416 (2015)]**

Samuel Bladwell and Oleg Sushkov
 (Received 1 March 2017; published 5 April 2017)

DOI: [10.1103/PhysRevB.95.159901](https://doi.org/10.1103/PhysRevB.95.159901)

We recently detected an error in the last line of Eq. (25) of the original paper. The line should be

$$c(\theta) = \frac{1}{3} \frac{\tilde{\gamma}_2}{\tilde{\gamma}_3} \sin(\theta - \phi), \quad (25)$$

which differs by a factor of 3 compared to the published result. This change leads to the following three corrections to the published results,

(i) The published Fig. 3 should be replaced by the following: left panel corresponding to the upper panel in the published paper, and right panel corresponding to the lower panel.

FIG. 3. Particle trajectories in the focusing out-of-plane magnetic field. Red lines correspond to the spin polarization $s = +1$ and blue lines correspond to the spin polarization $s = -1$. The value of the “Rashba parameter” is $\tilde{\gamma}_3 = 0.1$. Coordinates are given in units of cyclotron radius (17); the injection point is at $x = y = 0$. Dashed lines in both panels are identical; these are simple semicircles corresponding to zero in-plane magnetic field. Solid lines account for a nonzero in-plane magnetic field corresponding to $\tilde{\gamma}_2 = 0.05$. Solid lines in the left panel are trajectories for the field parallel to the direction of injection, $\phi = -\pi/2$. Solid lines in the right panel are trajectories for the field perpendicular to the direction of injection, $\phi = 0, \pi$.

(ii) The expression for δ_B presented after Eq. (28) $\delta_B \approx -\pi \frac{\tilde{\gamma}_2}{\tilde{\gamma}_3} \sin \phi$ should be replaced by

$$\delta_B = \frac{1}{2} \frac{\tilde{\gamma}_2^2}{\tilde{\gamma}_3^2} \sin^2 \phi.$$

(iii) The published Fig. 4 should be replaced by the following.

FIG. 4. Dependence of the focusing distance on the in-plane magnetic field. δ_B is the relative field contribution to the focusing distance (relative to Rashba). The plots show δ_B vs the field orientation angle ϕ for the following values of the ratio of the field spin-orbit parameter over the Rashba spin-orbit parameter $\tilde{\gamma}_2/\tilde{\gamma}_3 = 0.1, 0.25, 0.4, 0.5$. At sufficiently small $\tilde{\gamma}_2/\tilde{\gamma}_3$ the angular dependence is approximately sinusoidal.