Erratum to: Polarization in (quasi-)two-body decays and new physics

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Equation (38) of the article is incorrect. Indeed, adopting the same notations, Eq. (33) reads as

$$\begin{aligned}\rho' &= \mathcal{D}^{1/2}(\Omega)^\dagger \rho^{f_1} \mathcal{D}^{1/2}(\Omega) \\ &= \frac{1}{2}[I + \mathcal{D}^{1/2}(\Omega)^\dagger \vec{\sigma} \cdot \vec{P}^{f_1} \mathcal{D}^{1/2}(\Omega)].\end{aligned}$$

This implies, instead of Eq. (38),

$$\rho' = \frac{1}{2}(I + \sigma_1 P_T + \sigma_2 P_N + \sigma_3 P_L),$$

with

$$P_i = \vec{P}^{f_1} \cdot \hat{e}_i, \quad i = T, N, L,$$

and

$$\hat{e}_L = \frac{\vec{p}}{p}, \quad \hat{e}_N = \frac{\hat{e}_L \times \hat{k}}{|\hat{e}_L \times \hat{k}|}, \quad \hat{e}_T = \hat{e}_L \times \hat{e}_N.$$

These unit vectors differ from those of Eq. (36), which define the helicity frame. The corrections do not affect the successive equations; however, the matrix R , which appears in Eq. (66), describes a rotation around $-\vec{p}$ and not around $\vec{p}$, as claimed in the text.

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