Erratum

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

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

This implies, instead of Eq. (38),

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

with

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

and

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

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. **Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit http://creativecomm ons.org/licenses/by/4.0/. Funded by SCOAP³.

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