

## Erratum: Global polarization measurement in Au + Au collisions [Phys. Rev. C 76, 024915 (2007)]

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**Erratum: Global polarization measurement in Au + Au collisions [Phys. Rev. C **76**, 024915 (2007)]**

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The direction of the total angular momentum of a collision between two nuclei is

$$\hat{L} = \hat{b} \times \hat{p}_{\text{beam}},$$

where  $\hat{b}$  and  $\hat{p}_{\text{beam}}$  are unit vectors in the directions of the impact parameter and the momentum of one of the incoming nuclei, respectively. It is important to maintain a consistent convention when defining the vectors in this equation. In particular,  $\hat{b}$  is the perpendicular (to  $\hat{p}_{\text{beam}}$ ) component of the separation vector between the centers of the two nuclei before they collide. This separation vector points *from* the center of the nucleus defined to travel in the  $-\hat{p}_{\text{beam}}$  direction *towards* the center of the nucleus traveling in the  $+\hat{p}_{\text{beam}}$  direction. The opposite definition was used in the original paper.

In Fig. 1, the angular momentum vector  $\vec{L}$  should point in the direction opposite to what is shown, and Eq. (3) should read

$$P_H = -\frac{8}{\pi\alpha_H} \langle \sin(\phi_p^* - \Psi_{\text{RP}}) \rangle$$

Here,  $\alpha_H$  is the  $\Lambda$  decay parameter, and  $\Psi_{\text{RP}}$  is the reaction plane angle, defined as the azimuthal angle of  $\hat{b}$ . The azimuthal angle of the decay proton's momentum in the  $\Lambda$  frame is  $\phi_p^*$ .

All reported polarization data shown in Figs. 3–8 are plotted with the wrong signs.

The conclusion, that the global polarization of  $\Lambda$  and  $\bar{\Lambda}$  in Au + Au collisions at  $\sqrt{s_{\text{NN}}} = 62.4$  and 200 GeV is  $|P_{\Lambda, \bar{\Lambda}}| < 0.02$ , remains the same.