

Hyperon polarization asymmetry and vortical effects in relativistic heavy-ion collisions

We discuss the enhancement in the spin polarization of anti-hyperons compared to the polarization of the hyperons in noncentral relativistic heavy-ion collisions at low energies. We argue that this enhancement arises from an interplay between the chiral vortical effect and its helical counterpart. Furthermore, we show that the chiral/helical mechanism can reasonably well describe, without any fitting parameters, the ratio of the (anti)hyperon spin polarizations obtained by the STAR group.

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