Isospin Symmetry of Fragmentation Functions

Wednesday, 18 August 2021 10:40 (20 minutes)

In this talk, we present a systematic study of the isospin symmetry of fragmentation functions by taking decay contributions into account. We show that in the unpolarized case the isospin symmetry is held for fragmentation functions of Λ and only tiny violations are allowed for other hadrons due to the contributions from weak decays. We present a rough estimate of the magnitudes of such violations. In the polarized case, we show that the isospin symmetry violation for Λ production should be tiny and the recent Belle data on the transverse polarization of Λ can be reproduced if the isospin symmetry is kept in the corresponding polarized fragmentation functions.

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