

Simulation study of the $\bar{p}p \rightarrow \Sigma^0 \Lambda$ channel at PANDA

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At PANDA, strangeness production through $\bar{p}p \rightarrow \text{Hyperon Antihyperon}$ processes will be addressed. Measurements of the $\bar{p}p \rightarrow \Sigma^0 \Lambda$ channel for its comparison with the existing data of the $\bar{\Lambda} \Lambda$ channel are highly encouraged to study the role of isospin symmetry in hadron production dynamics. A previous simulation study from 2009 was performed with a simplified MC framework and an isotropic Σ^0 distribution. However, it has been found by the PS185 that the Σ^0 distribution is very strongly peaked in the forward direction with respect to the beam. In this talk, the motivation for performing a new, more realistic simulation study using the upgraded PandaRoot software and an angular distribution parametrization based on the experimental data will be presented.

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