0.1 Systematic Errors: $\Xi K^{\pm}$

0.1.1 Particle and Pair Cuts

The cuts included in the systematic study, as well as the values used in the variations, are listed below. Note, the central value corresponds to that used in the analysis.

1. Max. DCA $\Xi(\bar{\Xi})$: $\{2, 3, 4$ mm$\}$
2. Max. DCA $\Xi(\bar{\Xi})$ Daughters: $\{2, 3, 4$ mm$\}$
3. Min. $\Xi(\bar{\Xi})$ Cosine of Pointing Angle to Primary Vertex: $\{0.9991, 0.9992, 0.9993\}$
4. Min. $\Lambda(\bar{\Lambda})$ Cosine of Pointing Angle to $\Xi(\bar{\Xi})$ Decay Vertex: $\{0.9992, 0.9993, 0.9994\}$
5. Min. DCA Bachelor π: $\{0.5, 1, 2$ mm$\}$
6. Min. DCA $\Lambda(\bar{\Lambda})$: $\{1, 2, 3$ mm$\}$
7. Max. DCA $\Lambda(\bar{\Lambda})$ Daughters: $\{3, 4, 5$ mm$\}$
8. Min. DCA to Primary Vertex of $p(\bar{p})$ Daughter of $\Lambda(\bar{\Lambda})$: $\{0.5, 1, 2$ mm$\}$
9. Min. DCA to Primary Vertex of $\pi^{-}(\pi^{+})$ Daughter of $\Lambda(\bar{\Lambda})$: $\{2, 3, 4$ mm$\}$
10. Min. Average Separation of $\Lambda(\bar{\Lambda})$ Daughter and $K^{\pm}$ with like charge: $\{7, 8, 9$ cm$\}$
11. Min. Average Separation of Bachelor π and $K^{\pm}$ with like charge: $\{7, 8, 9$ cm$\}$
12. Max. DCA to Primary Vertex in Transverse Plane of $K^{\pm}$: $\{1.92, 2.4, 2.88\}$
13. Max. DCA to Primary Vertex in Longitudinal Direction of $K^{\pm}$: $\{2.4, 3.0, 3.6\}$