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.

$\Xi^{-}K^{\pm}$ systematics

DCA to PV $\Xi(\bar{\Xi})$	$<$ [2, 3, 4] mm
DCA $\Xi(\bar{\Xi})$ Daughters	$<$ [2, 3, 4] mm
$\cos(\theta_{PA})$ $\Xi(\bar{\Xi})$ to PV	$>$ [0.9991, 0.9992, 0.9993]
$\cos(\theta_{PA})$ $\Lambda(\bar{\Lambda})$ to $\Xi(\bar{\Xi})$ DV	$>$ [0.9992, 0.9993, 0.9994]
DCA to PV bachelor π	$>$ [0.5, 1, 2] mm
DCA to PV $\Lambda(\bar{\Lambda})$	$>$ [1, 2, 3] mm
DCA $\Lambda(\bar{\Lambda})$ Daughters	$<$ [3, 4, 5] mm
DCA to PV of $p(\bar{p})$ Daughter of $\Lambda(\bar{\Lambda})$	$>$ [0.5, 1, 2] mm
DCA to PV of $\pi^{-}(\pi^{+})$ Daughter of $\Lambda(\bar{\Lambda})$	$>$ [2, 3, 4] mm
$\overline{\Delta\mathbf{r}}$ of $\Lambda(\bar{\Lambda})$ Daughter and $K^{\pm}$ with like charge	$>$ [7, 8, 9] cm
$\overline{\Delta\mathbf{r}}$ of Bachelor π and $K^{\pm}$ with like charge	$>$ [7, 8, 9] cm
DCA to PV in Transverse Plane of $K^{\pm}$	$<$ [1.92, 2.4, 2.88]
DCA to PV in Longitudinal Direction of $K^{\pm}$	$<$ [2.4, 3.0, 3.6]

Table 1: $\Xi^{-}K^{\pm}$ systematics. In the table, the shorthand used is as follows: *PA* = pointing angle; PV = primary vertex; DV = decay vertex; DCA = distance of closest approach; $\overline{\Delta\mathbf{r}}$ = average separation.