0.1 $K^{\pm}$ Track Selection

Charged kaons are identified using the AliFemtoESDTrackCutNSigmaFilter class. The specific cuts used in this analysis are as follows:

$K^{\pm}$ selection			
Kinematic range			
$\|\eta\|$			< 0.8
p_T			$0.14 < p_T < 1.5$ GeV/c
Track quality and selection			
FilterBit			7
Number of clusters in the TPC			> 80
χ^2/N_{DOF} for ITS clusters			< 3.0
χ^2/N_{DOF} for TPC clusters			< 4.0
XY impact parameter			< 2.4 cm
Z impact parameter			< 3.0 cm
Remove particles with any kink labels			true
Nσ to primary vertex			< 3.0
$K^{\pm}$ identification			
PID Probabilities			
	K		> 0.2
	π		< 0.1
	μ		< 0.8
	p		< 0.1
Most probable particle type			Kaon (fMostProbable=3)
TPC and TOF Nσ Cuts			
	$p < 0.4$ GeV/c		$N_{\sigma K,TPC} < 2$
	$0.4 < p < 0.45$ GeV/c		$N_{\sigma K,TPC} < 1$
	$0.45 < p < 0.80$ GeV/c		$N_{\sigma K,TPC} < 3$ & $N_{\sigma K,TOF} < 2$
	$0.80 < p < 1.0$ GeV/c		$N_{\sigma K,TPC} < 3$ & $N_{\sigma K,TOF} < 1.5$
	$p > 1.0$ GeV/c		$N_{\sigma K,TPC} < 3$ & $N_{\sigma K,TOF} < 1$
Misidentification cuts			
Electron Rejection			Reject if $N_{\sigma e^-,TPC} < 3$
Pion Rejection: Reject if:			
$p < 0.65$ GeV/c	if TOF and TPC available		$N_{\sigma\pi,TPC} < 3$ & $N_{\sigma\pi,TOF} < 3$
	else	$p < 0.5$ GeV/c	$N_{\sigma\pi,TPC} < 3$
		$0.5 < p < 0.65$ GeV/c	$N_{\sigma\pi,TPC} < 2$
$0.65 < p < 1.5$ GeV/c			$N_{\sigma\pi,TPC} < 5$ & $N_{\sigma\pi,TOF} < 3$
$p > 1.5$ GeV/c			$N_{\sigma\pi,TPC} < 5$ & $N_{\sigma\pi,TOF} < 2$

Table 1: $K^{\pm}$ selection

The purity of the $K^{\pm}$ collections was estimated using the HIJING MC data, for which the true identity of each reconstructed $K^{\pm}$ particle is known. Therefore, the purity may be estimated as:

$$Purity(K^{\pm}) = \frac{N_{true}}{N_{reconstructed}} \tag{1}$$

Purity(K^+) $\approx$ Purity(K^-) $\approx 97\%$