

Variable	SS $\pi$		SS $p$	
	selection	BDT	selection	BDT
$\chi_{\text{track}}^2/\text{ndf}$	$< 3$	✓	$< 3$	-
$p_{\text{T}}^{\text{track}}$ [GeV/c]	$> 0.4$	✓	$> 0.4$	✓
$p^{\text{track}}$ [GeV/c]	-	✓	-	✓
IP/ $\sigma_{\text{IP}}$	$< 4$	✓	$< 4$	✓
IP <sub>PU</sub> / $\sigma_{\text{IP}_{\text{PU}}}$	$> 3$	-	-	-
$\log L_p - \log L_\pi$	$< 5$	-	$> 5$	✓
$\log L_K - \log L_\pi$	$< 5$	✓	-	-
$p_{\text{T}}^{B^0}$ [GeV/c]	-	✓	-	-
$p_{\text{T}}^{\text{tot}}$ [GeV/c]	$> 3$	✓	$> 3$	✓
$\chi_{B^0\text{-track}}^2$	$< 100$	-	$< 100$	-
$\Delta Q$ [GeV/c <sup>2</sup> ]	$< 1.2$	✓	$< 1.3$	✓
$\Delta\eta$	$< 1.2$	✓	$< 1.2$	✓
$\Delta\phi$ [rad]	$< 1.1$	✓	$< 1.2$	-
$\Delta R$	-	✓	-	✓
$PV_{\text{tracks}}$	-	✓	-	✓