

Figure 1: This figure shows the invariant mass distributions of charm candidates in 472 pb⁻¹ of collision data, in the mode $D^{*+} \rightarrow D^0 \pi^+$, $D^0 \rightarrow K_S^0 \pi^0$ for $0.144 < \Delta M < 0.147$ GeV/ c^2 . Events are required to contain at least three good tracks to purity the sample with processes of the type $e^+e^- \rightarrow$ hadrons, while rejecting beam induced background, Bhabha scattering, and other low multiplicity background sources. The charged kaon and pion tracks are required to have impact parameters, $|d_0|$ and $|z_0|$ less than 0.5 cm and 3.0 cm respectively. No particle identification criteria are applied. The D^* candidates are required to have a centre-of-mass momentum of greater than 2.5 GeV/c to select $c\bar{c}$ events. The internal document reference is BELLE2-NOTE-PH-2018-004.



Figure 2: This figure shows the ΔM distribution of charm candidates in 472 pb⁻¹ of collision data, in the mode $D^{*+} \rightarrow D^0 \pi^+$, $D^0 \rightarrow K_S^0 \pi^0$ for $1.83 < M(K\pi) < 1.89 \text{ GeV}/c^2$. Events are required to contain at least three good tracks to purity the sample with processes of the type $e^+e^- \rightarrow$ hadrons, while rejecting beam induced background, Bhabha scattering, and other low multiplicity background sources. The charged kaon and pion tracks are required to have impact parameters, $|d_0|$ and $|z_0|$ less than 0.5 cm and 3.0 cm respectively. No particle identification criteria are applied. The D^* candidates are required to have a centre-of-mass momentum of greater than 2.5 GeV/c to select $c\bar{c}$ events. The internal document reference is BELLE2-NOTE-PH-2018-004.