

Figure 1: This figure shows the invariant mass distribution of charm candidates in 250 pb⁻¹ of collision data, in the mode $D^0 \to K_S^0 \pi^+ \pi^-$. Events are required to contain at least three good tracks to purify the sample with processes of the type $e^+e^- \to$ hadrons, while rejecting beam induced background, Bhabha scattering, and other low multiplicity background sources. The K_S^0 selection criteria are the same as mentioned in BELLE2-NOTE-PL-2018-016. The charged pion tracks from D^0 are required to have impact parameters, $|d_0|$ and $|z_0|$ less than 0.5 cm and 3.0 cm respectively. The D^0 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-2018-017.