



Figure 1: This figure shows the invariant mass distribution of  $K_S^0 \rightarrow \pi\pi$   $5 \text{ pb}^{-1}$  of collision data. Events are required to contain at least three good tracks to reject Bhabha scattering, other low multiplicity background sources, and beam induced background. The charged  $\pi$  tracks from the  $K_S^0$  candidates are required to have a  $z$ -direction impact parameter,  $z_0$ , in the range of  $-4$  to  $6 \text{ cm}$  to ensure the tracks originate from near the interaction region. A vertex fitter based on a Kalman algorithm is used to fit the vertex to reject candidates where the tracks do not originate from near a common decay point. The internal document reference is BELLE2-NOTE-PH-2018-001.