Figure 1: The normalized wrong-sign subtracted $Q$-value spectra for (a) $B^+$ and (b) $B^0$ modes in events with companion pion $p_T > 2$ GeV.

References


Figure 2: Mass predictions of the excited $B$ states $[1–8]$. The boxes cover the range of predictions for the mass of each state, and the red dots indicate the measured values. The dashed horizontal lines correspond to the $B\pi$ and $B^*\pi$ thresholds. The horizontal red bands above show the averaged isospin masses of the $B_J(5840)^{0,\pm}$ and $B_J(5960)^{0,\pm}$ states when an empirical model with two relativistic Breit-Wigner functions is used.


Figure 3: Mass predictions of the excited $B$ states. The boxes cover the range of predictions for the mass of each state, and the red dots indicate the measured values. The dashed horizontal lines correspond to the $B\pi$ and $B^*\pi$ thresholds. The horizontal red bands above show the averaged isospin masses of the $B_J(5840)^{0,+}$ and $B_J(5960)^{0,+}$ states in case the $B_J(5840)^{0,+}$ state is supposed to be natural.
Figure 4: Mass predictions of the excited $B$ states. The boxes cover the range of predictions for the mass of each state, and the red dots indicate the measured values. The dashed horizontal lines correspond to the $B\pi$ and $B^*\pi$ thresholds. The horizontal red bands above show the averaged isospin masses of the $B_J(5840)^{0,+}$ and $B_J(5960)^{0,+}$ states in case the $B_J(5960)^{0,+}$ state is supposed to be natural.