

FIG. 1: Distribution of  $\Delta E$  VS  $M_{bc}$  for  $B^0 \rightarrow K^{*0}\gamma \rightarrow K^+\pi^-\gamma$  candidates in TOP-detector-calibrated  $0.389 \text{ fb}^{-1}$  out of  $0.5 \text{ fb}^{-1}$  of Phase II data. The red box corresponds to the signal box defined as  $5.27 \text{ GeV}/c^2 < M_{bc} < 5.29 \text{ GeV}/c^2$  and  $-0.2 \text{ GeV} < \Delta E < 0.08 \text{ GeV}$ . We find four signal candidates in the signal box.

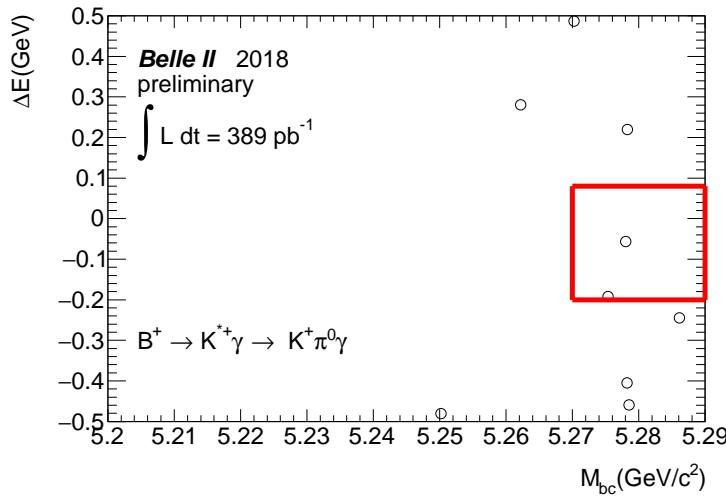


FIG. 2: Distribution of  $\Delta E$  VS  $M_{bc}$  for  $B^+ \rightarrow K^{*+}\gamma \rightarrow K^+\pi^0\gamma$  candidates in TOP-detector-calibrated  $0.389 \text{ fb}^{-1}$  out of  $0.5 \text{ fb}^{-1}$  of Phase II data. The red box corresponds to the signal box defined as  $5.27 \text{ GeV}/c^2 < M_{bc} < 5.29 \text{ GeV}/c^2$  and  $-0.2 \text{ GeV} < \Delta E < 0.08 \text{ GeV}$ . We find two signal candidates in the signal box.

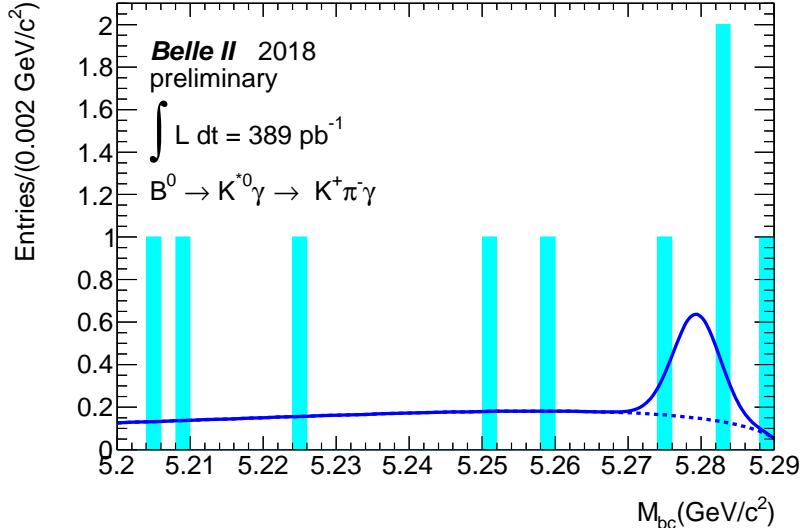


FIG. 3: Distribution of  $M_{bc}$  for  $B^0 \rightarrow K^{*0}\gamma \rightarrow K^+\pi^-\gamma$  candidates in TOP-detector-calibrated  $0.389 \text{ fb}^{-1}$  out of  $0.5 \text{ fb}^{-1}$  of Phase II data. Blue line is the result of an extended unbinned maximum likelihood fit. Shape parameters of probability density functions are determined using signal and  $q\bar{q}$  Monte-Carlo of the Phase II configuration.

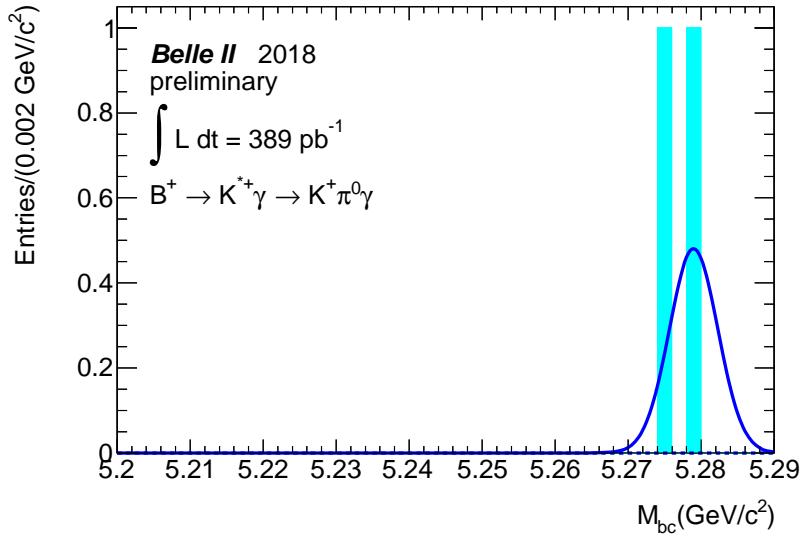


FIG. 4: Distribution of  $M_{bc}$  for  $B^+ \rightarrow K^{*+}\gamma \rightarrow K^+\pi^0\gamma$  candidates in TOP-detector-calibrated  $0.389 \text{ fb}^{-1}$  out of  $0.5 \text{ fb}^{-1}$  of Phase II data. Blue line is the result of an extended unbinned maximum likelihood fit. Shape parameters of probability density functions are determined using signal and  $q\bar{q}$  Monte-Carlo of the Phase II configuration.