Supplementary materials

The Ω_{cc}^+ can decay to $\Omega_c^0 \pi^+$, where Ω_c^0 decays to Ξ_c^+ and K^-. There are few possible Ω_c^0 states, $\Omega_c(3000)^0$, $\Omega_c(3050)^0$, $\Omega_c(3066)^0$, $\Omega_c(3090)^0$ and $\Omega_c(3119)^0$. To check the contribution from $\Omega_c^0 \pi^+$, the $m(\Xi_c^+ K^-)$ invariant mass distributions after applying Selection A and Selection B are shown in Fig. 1 and Fig. 2.
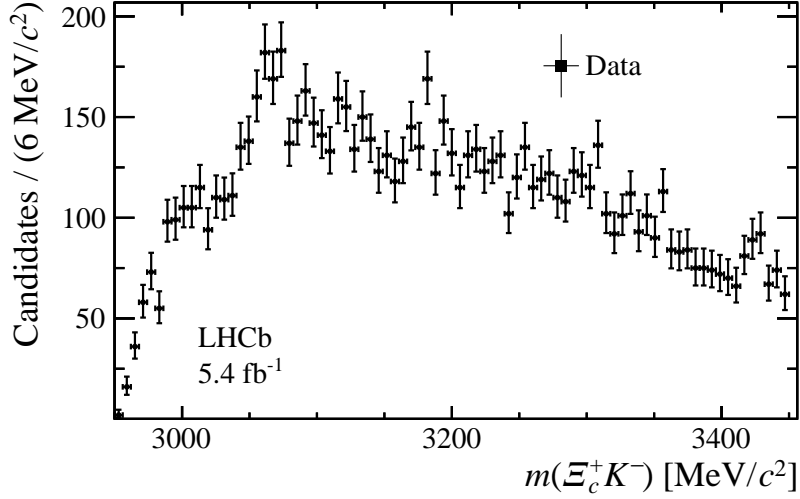

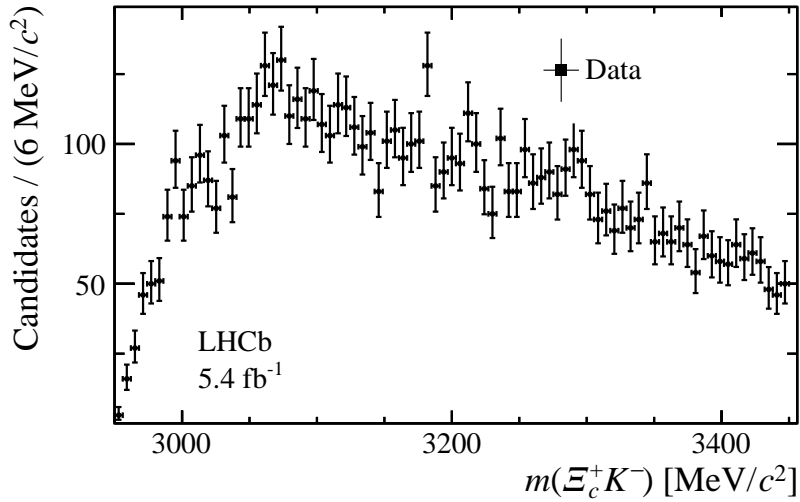Figure 1: Invariant mass spectrum of $\Xi_c^+ K^-$ with selection A.

Figure 2: Invariant mass spectrum of $\Xi_c^+ K^-$ with selection B.

The upper limits on the production ratio R at 90% credibility level as a function of $m(\Xi_c^+ K^- \pi^+)$ at $\sqrt{s} = 13\,\text{TeV}$ is shown in Fig. 3.
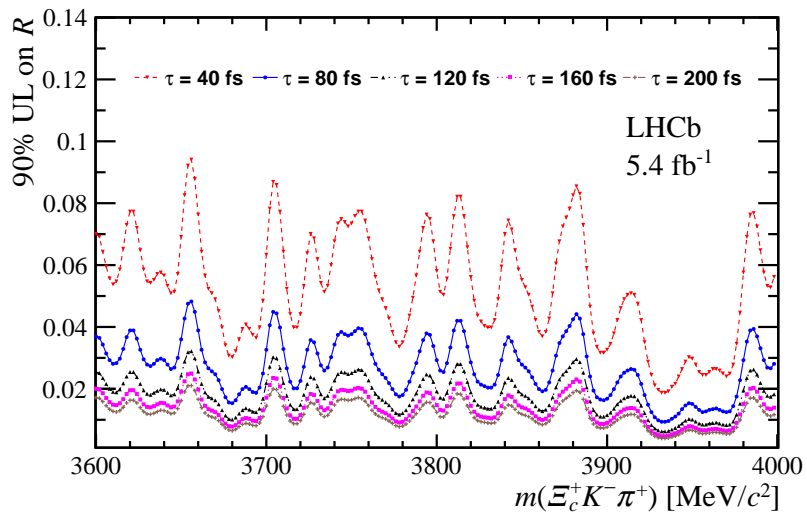
Figure 3: Upper limits on the production ratio R at 90% credibility level as a function of $m(\Xi_c^+ K^- \pi^+)$ at $\sqrt{s} = 13\,\text{TeV}$, for five Ω_{cc}^+ lifetime hypotheses.

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