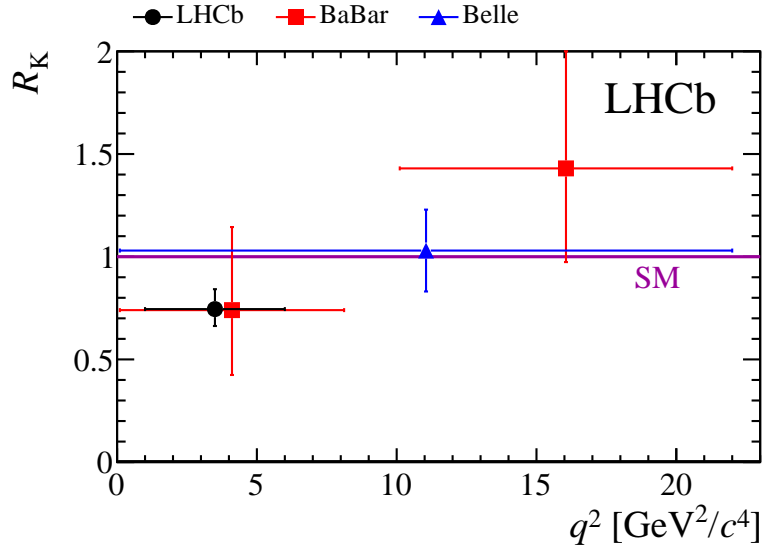# 1 Supplementary material

Figure 1: Summary of results on R_K determined by LHCb experiment in this paper, BaBar and Belle [?] experiments. The SM prediction is also shown as a continuous function of q^2. The theoretical uncertainty on R_K is expected to be $\mathcal{O}(10^{-3})$.
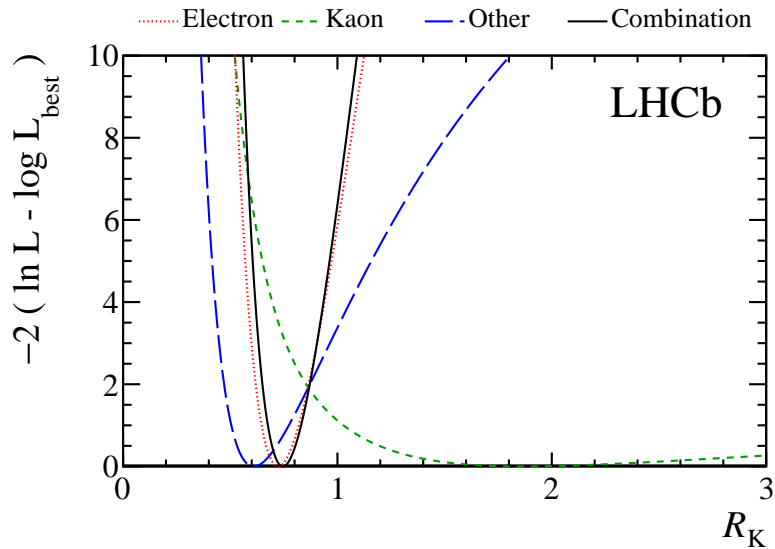

Figure 2: Likelihood profile for R_K of $B^+ \to K^+ e^+ e^-$ candidates in the three trigger categories (electron, hadron and other) and their combination.
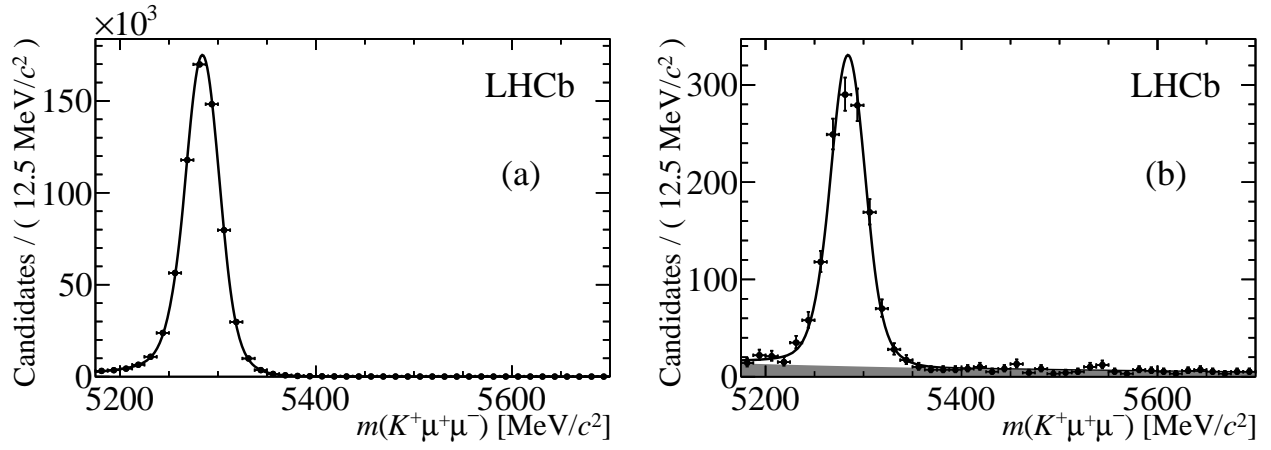
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Figure 3: (a), the invariant mass distribution of selected $B^+ \to J/\psi(\to \mu^+\mu^-)K^+$ signal decays and (b), the invariant mass distribution of $B^+ \to K^+\mu^+\mu^-$ signal decays. The total function is shown in black and the combinatorial background component is indicated by the dark shaded region.