Supplementary material for LHCb-PAPER-2021-025

The comparison of masses of beauty baryons with quark content bqq' and bsq between the experimental data and theoretical predictions is shown in Fig. 1.

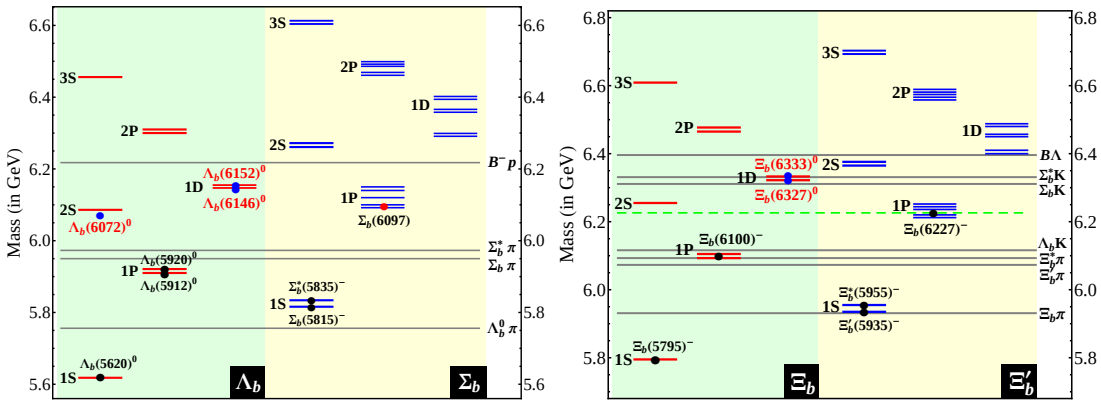

Figure 1: Comparison of masses of beauty baryons with quark content (left) bqq' and (right) bsq between the experimental data (points) and theoretical predictions (lines). The Λ_b^0 and Ξ_b baryons correspond to the light diquark spin $s_{qq'(sq)} = 0$, while Σ_b and Ξ_b' states correspond to the light diquark spin $s_{qq'(sq)} = 1$. The figures are modified from Ref. [1] and Ref. [2].

References

[1] B. Chen and X. Liu, *Assigning the newly reported $\Sigma_b(6097)$ as a P-wave excited state and predicting its partners*, Phys. Rev. **D98** (2018) 074032, arXiv:1810.00389.

[2] B. Chen, K.-W. Wei, X. Liu, and A. Zhang, *Role of newly discovered $\Xi_b(6227)^-$ for constructing excited bottom baryon family*, Phys. Rev. **D98** (2018) 031502, arXiv:1805.10826.