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New Hadronic States at LHCb

STEVEN BLUSK¹, Syracuse Univ

The LHCb experiment has enabled an unprecedentedly large sample of b -hadron decays to be collected and studied in great detail. These samples are being used not only to search for the presence of new physics in the decays of b -hadrons, but to probe the very nature of QCD. In particular, these samples provide a unique laboratory in which to study scalar mesons, such as the $f_0(980)$ and the σ , as well as more exotic states, such as the $Z(4430)^-$. In addition, these samples have enabled searches for, and discoveries of, additional excited b -hadron states, such as the $\Xi_b'^-$ and Ξ_b^{*-} . The speaker will review recent results on new hadronic states studied at LHCb.

¹On behalf of the LHCb Collaboration.