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## Heavy-Baryon Spectroscopy

*Thursday 5 September 2019 14:00 (25 minutes)*

We present excitation spectra for heavy baryons - containing  $c$  and  $b$  flavors - calculated from a universal relativistic constituent-quark model valid for all baryons. The three-quark system is solved along modified Faddeev equations adapted to treat long-range interactions, here in particular the confinement. The hyper-fine interaction is furnished by Goldstone-boson exchange. The full interaction is represented by a Poincaré-invariant mass operator.

Most prominently we focus on the spectra of charm and beauty baryons, which have recently become amenable to new measurements especially at LHCb. Beyond the ground states of corresponding  $\Lambda$ ,  $\Sigma$ ,  $\Xi$ , and  $\Omega$  baryons we also predict their first few excitations, which are expected to be manifested by future experiments.

**Authors:** Ms MOTAMEDI, Bitam M. (Department of Physics and Astronomy, California State University Long Beach); Dr DAY, Joseph P. (Department of Physics and Astronomy, California State University Long Beach); Prof. PAPP, Zoltan (Department of Physics and Astronomy, California State University Long Beach); Prof. PLESSAS, Willibald (Institute of Physics, University of Graz)

**Presenter:** Prof. PLESSAS, Willibald (Institute of Physics, University of Graz)

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