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The spectrum of static-light baryons in twisted mass lattice QCD

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We compute the static-light baryon spectrum with $N_f = 2$ flavors of sea quarks using Wilson twisted mass lattice QCD. As valence quarks we consider unitary light quarks (with a corresponding pion mass of around 340 MeV) as well as partially quenched light quarks, which have the mass of the physical strange quark. We extract masses of states with isospin $I = 0$, $I = 1/2$ and $I = 1$, with light cloud angular momentum $j = 0$ and $j = 1$, and with parity $P = +$ and $P = -$. We present a preliminary extrapolation in the light u/d and in the heavy quark mass to the physical point and compare with available experimental results.

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talk

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