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Type: **Talk**

Studying heavy hadrons with relativistic quarks

Monday 3 November 2025 14:50 (20 minutes)

We present preliminary lattice QCD results for the ground-state spectrum of hadrons containing bottom, charm, and strange quarks. Using relativistic highly improved staggered quarks (HISQ) for all three flavors—bottom, charm, and strange—on $2+1+1$ ensembles, we compute meson and spin- $3/2$ baryon masses. While some states have been observed experimentally, much in the bottom sector remains uncharted, making lattice predictions essential for guiding future experimental searches. We observe that the taste splittings of baryons across all flavor channels are consistent within statistical errors. Our results show good agreement of baryon masses between calculations using relativistic bottom quarks and previous studies employing non-relativistic formulations.

Parallel Session (for talks only)

Hadronic and nuclear spectrum and interactions

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