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Studying lattice artifacts in baryon-baryon variational bounds

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The quantification of lattice artifacts in two-baryon variational bounds is an essential prerequisite for a controlled determination of multi-baryon scattering parameters. Recent work suggests the existence of large lattice artifacts in the SU(3) flavor singlet channel. This channel is phenomenologically interesting because the ground state is the hypothesized H-dibaryon. In this talk I summarize progress by the NPLQCD Collaboration towards a continuum-limit extrapolation of baryon-baryon variational bounds in several flavor channels at a pion mass of $m_\pi \approx 800$ MeV, utilizing a larger variational set of operators than previously employed.

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