



Contribution ID: 99

Type: Oral presentation

H-dibaryon away from the $SU(3)_f$ symmetric point

Tuesday, 27 July 2021 13:45 (15 minutes)

We present the current status of our ongoing efforts in search of the H-dibaryon on $N_f = 2 + 1$ CLS ensembles away from the $SU(3)$ flavor symmetric point. Utilizing the distillation framework (also known as LapH) in its exact and stochastic forms, we calculate two-point correlation matrices using large bases of bi-local two-baryon interpolators to reliably determine the low energy spectra. We report the low lying spectrum on several relevant lattice irreducible representations for multiple ensembles with different lattice spacing and physical volumes. The status of finite volume analysis to extract the scattering amplitudes will also be discussed.

Primary authors: MADANAGOPALAN, Padmanath (Universität Mainz); BULAVA, John (University of Southern Denmark); Dr GREEN, Jeremy (CERN); HANLON, Andrew (Helmholtz-Institut Mainz, JGU); HOERZ, Ben; JUNNARKAR, Parikshit (Helmholtz-Institute Mainz); MORNINGSTAR, Colin (Carnegie Mellon University); PAUL, Srijit (The Cyprus Institute); WALKER-LOUD, Andre (LBNL); WITTIG, Hartmut

Presenter: MADANAGOPALAN, Padmanath (Universität Mainz)

Session Classification: Hadron Spectroscopy and Interactions

Track Classification: Hadron Spectroscopy and Interactions