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Negative parity hyperons from coupled channel scattering

Thursday 6 November 2025 15:30 (20 minutes)

The experimentally challenging JˆP=1/2ˆ- hyperons are investigated by computing meson-baryon scattering on the lattice. An ensemble with 2+1 flavours from the CLS consortium with m_pi=285 MeV, m_K=460 MeV is employed. This is possible thanks to the stochastic Laplacian Heaviside smearing. Both single hadron and scattering operators are considered in different irreps and moving frames. We will review the results for the Lambda(1405) channel, and the ongoing analyses of the Sigma(1430) and Xi(1620) will be discussed. For the latter we study meson-baryon scattering with three coupled channels.

Parallel Session (for talks only)

Hadronic and nuclear spectrum and interactions

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