

Influence of the Gluon Mass on Nonrelativistic Tetraquark States

Tuesday, 2 December 2025 16:20 (0:10)

Content

In this poster I present my current master's work, in which we investigate the role of a finite gluon mass in the formation of nonrelativistic tetraquark states within a low-energy QCD framework. The inclusion of a massive gluon allows for analytic expressions of the quark-quark interaction potential, from which the tetraquark spectrum is derived. Using gluon mass values obtained fitting meson spectra, we predict tetraquark masses. The results provide insight into how gluon mass effects may influence the dynamics of multi-quark systems.

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Session Classification : Poster session