

C-even quarkonia production at JLab and EIC

We study the C-even heavy quarkonium production processes. The charge odd J/ψ production process via gravitational interaction is also investigated. The nonperturbative nature of quarkonia is depicted by the NRQCD factorization framework. The predicted cross sections for $\chi_{c(b)1}$ are suppressed compared with their counterparts $\eta_{c(b)}$, $\chi_{c(b)0}$ and $\chi_{c(b)2}$, which can be explained by the Landau-Yang theorem. We propose that these production processes can be detected in the future JLab and EIC experiments.

Presentation type

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Primary authors: Ms ZHANG, Jia-Yue (IHEP); Mr PAN, Jichen (IHEP); Prof. JIA, Yu (IHEP); Mr MO, Zhewen (IHEP)

Presenter: Mr MO, Zhewen (IHEP)