

Abstract Submitted
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Accessing the QCD Van der Waals force with SoLID-J/ and beyond¹ SYLVESTER JOOSTEN, CHAO PENG, ZEIN-EDDINE MEZIANI, Argonne National Laboratory, SOLID COLLABORATION — The future SoLID- J/ψ experiment at Jefferson Lab combines high luminosity with a large acceptance detector to enable a fully differential measurement of near-threshold J/ψ photo- and electroproduction cross-section with high statistical precision. This measurement is sensitive to the non-perturbative gluonic interaction between the J/ψ and the nucleon. This interaction could give rise to a purely gluonic binding force between both color-neutral particles: a QCD Van der Waals force between two color dipoles. I will discuss the impact of SoLID- J/ψ on our understanding of this binding force and further opportunities with nuclear targets.

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