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Abstract for an Invited Paper for the APR18 Meeting of the American Physical Society

Lattice QCD and the gluonic structure of light nuclei PHIALA SHANAHAN, Massachusetts Inst of Tech-MIT

I will present the results of recent lattice QCD studies of aspects of the gluon structure of both hadrons and light nuclei. The generalised transversity gluon distributions are of particular interest since they are purely gluonic; they do not mix with quark distributions at leading twist. In light nuclei they moreover provide a clean signature of 'exotic', i.e., non-nucleonic, gluon degrees of freedom. First QCD predictions for the magnitudes of these and other gluon structure quantities will be tested by experiments at Jefferson Laboratory, and at a future Electron-Ion Collider.