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Abstract for an Invited Paper for the SES14 Meeting of the American Physical Society

Low Energy Few Body Hadronic Parity Violation JARED VANASSE, Duke University

Hadronic parity-violation offers a unique probe of QCD since it is sensitive to the interplay between QCD at hadronic scales and the short distance weak interaction. At low energies these interactions manifest themselves as interactions between nucleons and are described by five low energy constants. The current goal in hadronic parity-violation is to cleanly extract these constants from experiments using new theoretical tools such as pionless effective field theory. In this talk I will discuss the calculation of parity-violating observables for few-body nuclear systems in pionless effective field theory and the prospect of current and future experiments to extract the five low energy constants using these theoretical calculations.