

Abstract Submitted
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Lattice QCD in Background Fields BRIAN TIBURZI, University of Maryland, WILLIAM DETMOLD¹, ANDRE WALKER-LOUD, College of William and Mary — The response of hadrons to electromagnetic probes is highly constrained by chiral dynamics; but, in some cases, predictions have not compared well with experimental data. Electromagnetic properties of hadrons can be computed by lattice simulations of QCD in background fields. Focusing on calculations in background electric fields, we demonstrate new techniques to determine electric polarizabilities. We argue that the lattice can be used to test the chiral electromagnetism of hadrons, and ultimately confront experiment.

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