

Abstract Submitted  
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**Nuclear Scaling at Low Resolution**<sup>1</sup> E.R. ANDERSON, Ohio State Univ., S.K. BOGNER, Michigan State Univ., R.J. FURNSTAHL, K. HEBELER, R.J. PERRY, Ohio State Univ. — Nuclear scaling is observed in the ratios of inclusive electron scattering on different nuclei for  $1.5 \leq x_B \leq 2.0$  at large momentum transfer  $Q^2$ . The ratios depend on the nucleus but are independent of  $Q^2$ , and have been understood to be a result of strong short- range correlations induced by the nucleon-nucleon interaction. Recent calculations of nuclear structure make use of the similarity renormalization group to soften the nuclear potential through a series of unitary transformations, which suppress short range correlations.<sup>2,3</sup> However, we can now understand and calculate this scaling ratio as an effect of low momentum nuclear structure via factorization of operator expectation values. We also apply this framework to an observed correlation with the EMC effect.<sup>4</sup>

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<sup>3</sup>E. R. Anderson, S. K. Bogner, R. J. Furnstahl, and R. J. Perry, Phys. Rev. C **82**, 054001 (2010)

<sup>4</sup>L. B. Weinstein *et al.*, Phys. Rev. Lett. **106**, 052301 (2011)

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