Abstract Submitted
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Applications of SRG Factorization[1] E.R. ANDERSON, Ohio State Univ., S.K. BOGNER, Michigan State Univ., R.J. FURNSTAHL, K. HEBELER, H. HERGERT, R.J. PERRY, Ohio State Univ. — 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.[2,3] Not only does this lead to a decoupling of scales in the potential, but also simplifications for other operators. One consequence, in particular, is that operator expectation values of high-energy probes in low-energy nuclear states exhibit factorization. As a result, phenomena previously attributed to strong short-range correlations induced by the nucleon-nucleon interaction, such as nuclear scaling and the EMC effect, can now be understood more clearly as a result of low-momentum nuclear structure. Recent results are reported.

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[2]E.D. Jurgenson, P. Navrátil, and R.J. Furnstahl, Phys. Rev. Lett. **103**, 082501 (2009).
[3]E. R. Anderson, S. K. Bogner, R. J. Furnstahl, and R. J. Perry, Phys. Rev. C **82**, 054001 (2010)

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