Nuclear Scaling with Low Momentum Interactions[1] E.R. ANDER-SON, The Ohio State University — 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 these short range correlations.[2,3] However, we can now understand and calculate this scaling ratio as an effect of low momentum nuclear structure via factorization of operator expectation values. Recent calculations in nuclear matter, and in a Hartree-Fock basis for finite nuclei will be presented. We also apply this framework to an observed correlation with the EMC effect.[4]

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Eric Anderson
The Ohio State University

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