Factorization of Operators Evolved with the Similarity Renormalization Group[1] E.R. ANDERSON, The Ohio State University, S.K. BOGNER, Michigan State University, R.J. FURNSTAHL, R.J. PERRY, The Ohio State University — The Similarity Renormalization Group (SRG) flow equations are a series of unitary transformations which can be used to to achieve different patterns of decoupling in a Hamiltonian. An SRG transformation applied to internucleon interactions leads to greatly improved convergence properties.[2] A principal advantage of SRG transformations is that all operators can be consistently transformed, so that all observables are invariant. Calculations of the two-body momentum-distribution reveal an apparent factorization of the unitary transformation, $U(k,q) \approx K(k)Q(q)$ for $k \ll \lambda$ and $q \gg \lambda$. The emergence of a nonrelativistic operator product expansion and factorization will be discussed.

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