

Abstract Submitted  
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**Similarity Renormalization Group with Three-Body Forces in One-Dimensional Models**<sup>1</sup> ERIC JURGENSON, RICHARD FURNSTAHL, Ohio State University — Similarity Renormalization Group (SRG) flow equations have been applied to nucleon-nucleon interactions, resulting in band-diagonalized Hamiltonians. This decouples high- and low-energy states, which greatly simplifies many-body calculations. Further progress requires a consistent application of the SRG to at least three-nucleon interactions. In this talk we present model calculations in one dimension including the evolution of three and four body forces with the SRG flow equations. We perform our calculations with several different approaches in anticipation of the three-dimensional generalization.

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