Abstract Submitted
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Behavior of SRG evolved interactions into the p-shell[1] ERIC JURGENSON, Lawrence Livermore Natl Lab, PIETER MARIS, Iowa State U, RICHARD FURNSTAHL, Ohio State U, PETR NAVRATIL, TRIUMF, ERICH ORMAND, Lawrence Livermore Natl Lab, JAMES VARY, Iowa State U — The Similarity Renormalization Group has provided a powerful and versatile means to soften interactions for ab initio nuclear calculations. The large contribution of three-body forces to the nuclear interaction has required the consistent evolution of free-space Hamiltonians in the three-particle space. Fully evolved NN+3N calculations at A=6 show very minor contributions due to induced four-body forces, signalling a controlled hierarchy of renormalization effects. However, questions have arisen whether this situation persists for larger systems. We will present investigations into this question and discuss efforts at further many-body calculations with evolved interactions.

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