

Abstract Submitted  
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**Exact Pairing in a Deformed Hartree-Fock Basis**<sup>1</sup> ROMAN SENKOV, B. ALEX BROWN, VLADIMIR ZELEVINSKY, Michigan State Univ., GEORGE BERTSCH, YUAN LUNG LUO, University of Washington — A new theoretical approach is presented that combines the Hartree-Fock variational scheme with the exact solution of the pairing problem in the finite orbital space. Using this formulation in the *sd* and *pf* model spaces as examples, we show that the exact pairing significantly improves the results for the ground state energies.

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