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Abstract for an Invited Paper for the HAW05 Meeting of the American Physical Society

Shell model applications to new regions of nuclei¹ B. ALEX BROWN

I will outline the progess that is being made on applying the techniques of large-basis configuration mixing to new region of nuclei, in particular the regions where radioactive beam facilities can explore now and over the next five years. The regions include those around the nuclei ²⁴O, ⁴²Si, ⁵⁴Ca, ⁷⁸Ni and ¹³²Sn. The problems for determining the single-particle energies and the effective interactions starting from the NN interaction will be discussed.

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