

Abstract Submitted
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Benchmarking projected Hartree-Fock as an approximation¹
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University — We benchmark angular-momentum projected Hartree-Fock calcula-
tions as an approximation to full configuration-interaction results in a shell model
basis. For such a simple approximation we find reasonably good agreement between
excitation spectra, including for add-A and odd-odd nuclei. Key to this, we argue,
is the use of gradient descent. We also find cases where shape-coexistence demon-
strably improves the spectrum and make an application to Ge even-even nuclei.

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