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What can cold atomic gases teach us about nuclear structure?[1]
CALVIN JOHNSON, PLAMEN KRASTEV, JOSHUA STAKER, San Diego State University — Cold atomic gases have become a new frontier for applying many-body techniques. We look at computing the ground state of a trapped gas of fermionic atoms using configuration-interaction shell-model methods, with attention paid to convergence. Most notably we consider gases with infinite scattering length and with zero- and finite-ranges, and discuss what lessons nuclear structure theorists can take home.

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