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Progress and applications of configuration-interaction shell-model code BIGSTICK PLAMEN KRASTEV, San Diego State University, Lawrence Livermore National Laboratory, CALVIN JOHNSON, San Diego State University, W. ERICH ORMAND, Lawrence Livermore National Laboratory —
The configuration-interaction (CI) shell-model, together with two- and three-body interactions, is a powerful tool for understanding properties of light nuclei. The aid of advanced computational resources is of primary importance in such calculations. We report on the latest developments and applications of the CI shell-model code BIGSTICK - an efficient parallel on-the-fly code which solves the nuclear many-body problem with both two- and three-body interactions. The US Department of Energy supported this investigation through Contract Nos. DE-FG02-96ER40985 and DE-FC02- 09ER41587 and through Subcontract No. B576152 of the Lawrence Livermore National Laboratory under Contract No. DE-AC52-07NA27344.

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