

Abstract Submitted
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Emergence of rotational bands in *ab initio* no-core configuration interaction calculations of light nuclei¹ MARK A. CAPRIO, University of Notre Dame, PIETER MARIS, JAMES P. VARY, Iowa State University — The emergence of rotational bands has recently been observed in no-core configuration interaction (NCCI) calculations for *p*-shell nuclei, as evidenced by rotational patterns for excitation energies, electromagnetic moments, and electromagnetic transitions. Yrast and low-lying excited bands are found. The results demonstrate the possibility of well-developed rotational structure in NCCI calculations, using realistic nucleon-nucleon interactions, and within finite, computationally-accessible configuration spaces. This talk will focus on results for rotation in both the even-mass and odd-mass Be isotopes ($7 \leq A \leq 12$).

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