Institutul Național de Fizică și Inginerie Nucleară
Horia Hulubei

IFIN-HH

Seminar general

Ab initio emergence of rotational nuclear structure

Prof. Mark A. Caprio

Department of Physics
University of Notre Dame

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.

Joi 28 august 2014, ora 10^{00}
Biblioteca Națională de Fizică