

NUCLEAR CONFIGURATION INTERACTION: THE GOLDEN STANDARD OF NUCLEAR STRUCTURE CALCULATIONS

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Monday, February 27, 2012

4:00 P.M. NSH 124

In the last few decades the Nuclear Configuration Interaction (NCI), widely known as the shell model, emerged as a golden standard of nuclear structure calculations, used not only for a comprehensive understanding of the data, but also for guiding expensive experimental endeavors. Although widely used, the understanding of its main ingredient, the effective Hamiltonian, is difficult to be understood in a purely reductionist manner. In my talk I will review the most recent development and understanding of the effective Hamiltonians used for NCI calculations, and I will show some recent applications of NCI to *rp*-process reaction rates, direct reactions, and double-beta decays.

Nuclear
Seminar

All interested
persons are
cordially
invited to
attend.