

“ Shell Model and Collective Models in Nuclei: experimental and theoretical perspectives ”

Prof. Richard F. Casten (Yale U./JUSTIPEN Guest)

講義内容

Lecture 1: Introduction to nuclear structure and the Independent Particle Model (IPM)

[Key words/phrases]:

Two perspectives on structure: microscopic (nucleons and their interactions) and macroscopic (properties of the many-body system).

A broad survey of structural evolution in terms of key observables reflecting both perspectives --single particle and collective behavior. The basic ideas of the IPM.

Empirical evidence for the need to introduce residual interactions, the importance of the valence p-n interaction.

Lecture 2: The Shell Model

[Key words/phrases]: Residual interactions:

Simple understanding of principal effects, geometric interpretation, multipole decomposition, seniority.

Fragility of magicity. Empirical observables for changes in shell structure.

2010年1月6日(水) 1コマ目 : 13:30 ~ 15:00

休憩

2コマ目 : 15:30 ~ 17:00

会場 : 仁科ホール、理研

This Lecture will be given in English.

Contact:

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