

1. Record Nr.	UNINA9910780886103321
Autore	Rowe D. J (David J.)
Titolo	Nuclear collective motion [[electronic resource]] : models and theory / / David J. Rowe
Pubbl/distr/stampa	Singapore ; ; Hackensack, N.J., : World Scientific Pub. Co., c2010
ISBN	1-283-14351-8 9786613143518 981-279-066-7
Descrizione fisica	1 online resource (250 p.)
Disciplina	539.74
Soggetti	Many-body problem Nuclear collective models Nuclear spectroscopy
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"The first edition was published by Methuen in 1970."--t.p. verso.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	pt. 1. Phenomenological models -- pt. 2. Microscopic theories.
Sommario/riassunto	The two most important developments in nuclear physics were the shell model and the collective model. The former gives the formal framework for a description of nuclei in terms of interacting neutrons and protons. The latter provides a very physical but phenomenological framework for interpreting the observed properties of nuclei. A third approach, based on variational and mean-field methods, brings these two perspectives together in terms of the so-called unified models. Together, these three approaches provide the foundations on which nuclear physics is based. They need to be understood by e