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## "COUPLING OF SINGLE-PARTICLE AND COLLECTIVE VIBRATIONS"

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Various processes of fundamental importance for the understanding of the nuclear many-body problem can be analyzed at profit considering the interplay between particle and collective vibrations.

This will be illustrated through the review of some of the recent advances in the field, concerning energy spectra and electromagnetic transitions in superfluid nuclei, the reactions of exotic nuclei and the properties of quasibound states, the distribution of Gamow-Teller strength and the lifetime of beta decay.