ID de Contribution: **25** Type: **Non spécifié**

Spectroscopy of shape isomers: status and perspectives

vendredi 5 juillet 2024 11:05 (25 minutes)

A survey of decay properties of excited 0+ states in regions of the nuclear chart well known for shape coexistence phenomena has been recently performed. The aim is to identify examples of extreme shape coexistence, namely, coexisting deformed and spherical (or close-to-spherical) nuclear states, with wave functions well separated in the Potential Energy Surface (PES) with coordinates in the deformation space. The Hindrance Factor (HF) of the E2 transitions de-exciting 0+ states is a primary quantity which is used to differentiate between types of shape coexistence. It is found that a limited number of 0+ excitations (in the Ni, Sr, Zr and Cd regions) exhibit large HF values (>10), few of them being associated with a clear separation of coexisting wave functions, while in most cases the decay is not hindered, due to the mixing between different configurations.

Orateur: LEONI, Silvia (University of Milano and INFFN Milano)

Classification de Session: Presentation of parallel complementary activities in other facilities, perspectives for the future experiments and campaigns