

Shell-model study from light to heavy nuclei and a preliminary uncertainty investigation

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There are huge amount of nuclear data, including masses, levels, EM properties, alpha and beta decay half-lives. It is worth to know the uncertainties between these observed data and calculations within one model and one nuclear force. In this talk, I will introduce the nuclear shell model and its applications on light, medium, and heavy nuclei from Be to Np. Some preliminary results on the uncertainties of nuclear models will be presented. Systematic investigation on the uncertainty of shell model is helpful for nuclear astrophysics and reactor physics.

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Talk

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