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Nuclear Incompressibility: How Collective Excitation Modes of a Nucleus Characterize Astrophysical Processes

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- 日程** : 4月28日(金) 15:30-16:30
- 場所** : 本館2階 290 物理学系輪講室

概要

The Nuclear Incompressibility parameter is one of three important components characterizing the nuclear equation of state (EOS). It has crucial bearing on diverse nuclear and astrophysical phenomena, including radii of neutron stars, strength of supernova collapse, emission of neutrinos in supernova explosions, and collective flow in medium- and high-energy nuclear collisions. In this talk I will review current status of the research on direct experimental determination of nuclear incompressibility via the compressional-mode giant resonances. In particular, measurements on a series of Tin and Cadmium isotopes have provided an "experimental" value for the asymmetry term of nuclear incompressibility, which can provide constraints on the EOS of neutron stars.

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