PROBING THE NUCLEAR EQUATION OF STATE THROUGH LOW-ENERGY HEAVY-ION COLLISIONS

Understanding the microscopic processes governing the complex dynamics of low-energy heavy-ion collisions is challenging. However, such studies can provide valuable insights into the characteristics of the nuclear effective interaction and the associated equation of state. In this seminar, we focus on the dipole response occurring in charge-asymmetric reactions at energies just above the Coulomb barrier. By comparing results from both quantal and semi-classical transport (mean-field) models, we aim to disentangle the role of entrance channel deformation effects from those associated with quantal structural details on dipole emission. Additionally, we examine the effect of nuclear interaction ingredients and the impact of residual two-body collisions on reaction dynamics, which are crucial for aligning theoretical predictions with experimental data.

ESPRESSO SEMINARS
19 MARZO 2025 | ORE 15:00
AULA AZZURRA - LNS

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