Istituto Nazionale di Fisica Nucleare
SEZIONE DI PADOVA

Dipartimento di Fisica e Astronomia Galileo Galilei

S E M I N A R I O

SHUMPEI NOJI

MICHIGAN STATE UNIVERSITY

RI-BEAM-INDUCED CHARGE-EXCHANGE REACTION STUDIES COMBINED WITH GAMMA-RAY SPECTROSCOPY

GIOVEDI' 26 SETTEMBRE 2019
DFA - AULA VOCI ORE 11:00

ABSTRACT:

Charge-exchange reactions at intermediate incident beam energies are a powerful tool for studying spin-isospin responses of nuclei. They become even mightier when rare-isotope beams are utilized and/or when gamma-ray spectroscopy is combined, as they allow for pinning down specific excitations with precise energy determination or gain new spin-isospin selectivities that are not possible with conventional reaction probes. They are useful in particular for studying elusive giant resonances and a variety of other astrophysical phenomena such as stellar electron captures. In this seminar, I will discuss some of these instances including our recent results on rare-isotope-beam-induced charge-exchange reactions such as (t, ^{3}He), (^{12}N, ^{12}C), and (^{10}Be, ^{10}B) which were performed at NSCL/MSU and RIBF/RIKEN.

F. RECCHIA