

Aspects of the Structure of Exotic Nuclei and New Opportunities with GRETINA

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Monday, February 4 ❖ 4:00 P.M. ❖ 124 NSH

The structure of nuclei far from the stability line is a central theme of research both in experimental and theoretical nuclear physics.

Radioactive beam facilities and novel detector systems are unique tools to produce and study these nuclei, and together with new developments in nuclear theory they provide a framework to understand the properties of these exotic nuclei.

In this talk I will present recent results related to the quadrupole collectivity in neutron rich Carbon isotopes, and the evolution of the $N=28$ and 40 shell closures with isospin.

I will also review the gamma-ray tracking technique, give a status report of GRETINA, and discuss some aspects of the exciting physics campaign being carried out at NSCL/MSU.