



東北大学 宇宙創成物理学国際共同大学院プログラム

GP-PU (Graduate Program on Physics for the Universe) Seminar

“Radioactive isotope physics at RIBF”

by Daisuke Suzuki

(RIKEN)

Time and Date : 10:00 - 12:00, Tue Jan 25th 2022

Zoom registration :

<https://us02web.zoom.us/meeting/register/tZcofu6sqDksHtzMvzcD4N3vMiW2M9mXnF28>

Abstract:

While Earth is made of stable nuclei, the wider universe is not necessarily alike. Radioactive isotopes (RI) with an asymmetry in proton and neutron numbers play important roles in an environment at high temperatures or sub/supra saturation density such as supernovae or neutron star merger. The RI Beam Factory (RIBF) of RIKEN Nishina Center offers a terrestrial laboratory to explore RIs over the wide range of nuclear chart. Since the first beam in 2007, the RIBF has been providing opportunities at the forefront of RI physics. In this lecture, I will be focused on a few recent findings from RIBF related to the nuclear magic numbers and nuclear equation of state. The former sheds light to many-body effects of the nuclear force in a system with large proton/neutron asymmetry, while the latter impacts the properties of neutron stars at the supra saturation density. The lecture will also overview the current facility and future upgrade.

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