



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

“Stellar Alchemy: in the era of astronomical observations and nuclear measurements”

by Nobuya Nishimura (RIKEN)

Time and Date: 10:00-12:00, March 24th, 2022

Registration:

▶ Abstract

The r-process, the rapid neutron-capture process, is a major origin of heavy nuclei beyond iron in the universe, occurring in explosive astrophysical phenomena with very neutron-rich environments. In the studies of r-process nucleosynthesis, there are several unsolved problems in nuclear physics and astrophysics. This lecture will introduce the basics of nucleosynthesis theory and summarize recent on r-process studies. Significant progress has been made over the last decade in nuclear physics and astrophysics: new measurements of neutron-rich nuclei accelerator and astronomical observation of kilonova associated with the gravitational wave event, GW170817. I discuss impacts on the theoretical study of r-process nucleosynthesis.

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