

610th ASRC Seminar

Date: 14:30-16:00 Friday 18 December

Location: Meeting room 302, ASRC Building

Speaker: Dr. Susumu Shimoura
(Center for Nuclear Study, The
University of Tokyo)

Title: Experimental studies of the tetra-
neutron system by using RI-beam

Abstract: We have found a candidate tetra-neutron resonant state via a double-charge exchange reaction $4\text{He}(8\text{He},8\text{Be})$ at 190 A MeV by using the SHARAQ spectrometer at the RIBF facility in RIKEN.

Production mechanism with kinematical consideration for the present reaction is introduced and analysis for the obtained missing mass spectrum is described.

Three-body forces relevant for formation of multi-neutron resonance are discussed for consistent understanding of few-body systems.

Other experimental approaches for the tetra-neutron system at the RIBF are also shown.

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