

# 712<sup>th</sup> ASRC Seminar

Date: 10:30~12:00 Wed., February 28

Location: 302 Meeting Room, ASRC Bldg.

Speaker: Dr. Kazuki Yoshida  
(Osaka University)

Title: Shell and cluster structures of nuclei  
through knockout reactions

**Abstract:** The shell and alpha-cluster structures play important roles in the nuclear physics. For the investigation on such states across the nuclear chart, the nucleon/alpha knockout reaction induced by a proton with several hundreds MeV is a good probe.

First I will give an overview of the knockout reactions and show how the single-particle/alpha-cluster state can be probed with the knockout reaction observables, based on the distorted wave impulse approximation (DWIA) framework. Next I introduce recent achievements in the knockout reaction studies, alpha knockout reaction in particular. Then I discuss the future perspectives of the knockout reaction and its application.

<Contact>

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