

Report of RCNP workshop

1	Title (both in English for a domestic workshop/conference)	Cluster phenomena in knockout and astrophysical reactions
2	List of members of the organizing committee with full name	Yasutaka Taniguchi (NIT, Kagawa Col., Chair) Kazuyuki Ogata (RCNP, Osaka Univ.) Tomohiro Uesaka (RIKEN) Hidetoshi Yamaguchi (CNS, Univ. Tokyo) Kazuki Yoshida (JAEA)
3	Period of workshop/conference (From dd/mm/yy to dd/mm/yy)	From 14/10/2021 to 15/10/2021
4	Venue	Online
5	Description of the results	<p>The first day of the workshop was focused on knockout reactions and the second day was on astrophysical nuclear reactions. In addition, there were free discussion sessions at the end of both days to review the presentations and discuss related topics. There were 16 oral presentations, including four invited talks. The number of registered participants was 79.</p> <p>On the first day, perspectives of the new clustering phenomena and dynamics relevant to knockout reaction, e.g., the alpha clustering on the heavy nuclei and quests for novel cluster degrees of freedom, were discussed from both theoretical and experimental sides.</p> <p>The first half of the second day was on reactions and structures involving alpha particles, and the second half was on fusion reactions between heavier nuclei. There were active discussions in the free discussion session, such as the $^{12}\text{C}+^{12}\text{C}$ fusion reaction.</p>
6	URL of the webpage	https://indico.rcnp.osaka-u.ac.jp/event/1753/
7	URL and/or DOI of the (online) proceedings	no