

Report of RCNP workshop		
1	Title (both in English for a domestic workshop/conference)	Reaction mechanism to investigate various resonant phenomena in nuclei
2	List of members of the organizing committee with full name	Takuma Matsumoto (Kyushu Univ.), Kouichi Hagino (Kyoto Univ.) Yoshiko Kanada-En'yo (Kyoto Univ.) Takahiro Kawabata (Osaka Univ.) Takashi Nakamura (Tokyo Inst. of Tech.) Takayuki Myo (Osaka Inst. of Tech.) Kazuyuki Ogata (Osaka Univ., RCNP)
3	Period of workshop/conference (From dd/mm/yy to dd/mm/yy)	From 18/01/21 to 20/01/21
4	Venue	Zoom (On line)
5	Description of the results	<p>This workshop was scheduled to be held on March 11-13, 2020, but was postponed due to the influence of COVID-19. As an alternative, the online workshop was held by Zoom on January 18-20, 2021.</p> <p>The phenomena of resonances in nuclei have been studied intensively because the phenomena play a key role in not only nuclear physics but also the nucleosynthesis and the structure of neutron stars. In general, resonant properties in nuclei are investigated via nuclear reactions such as inelastic scattering and transfer reactions. To extract properties of resonances from measurements of the nuclear reactions, an accurate calculation for not only the nuclear reaction but also structure is highly required. In this workshop, we discussed the latest theoretical and experimental researches for various phenomena of resonances.</p> <p>For the presentations, we had 25 talks for various topics as follows:</p> <ul style="list-style-type: none"> - Resonances for the collective motion - Resonances for cluster structures - Molecular resonances in nuclei - Resonances for compound nuclei - Resonances in hadron physics <p>Although there were some difficulties in the online workshop, we had active discussions for each presentation. As one of the advantages of the online workshop, more participants joined than we had expected, and the maximum number of participants was 60. Through the discussions, we shared the importance of the study on resonances in nuclei. Thus this workshop was beneficial as originally planned.</p>
6	URL of the webpage	https://indico.rcnp.osaka-u.ac.jp/event/1431/
7	URL and/or DOI of the (online) proceedings	No