

Report of RCNP workshop

1	Title (both in English for a domestic workshop/conference)	International Workshop on the Extension Project for the J-PARC Hadron Experimental Facility (J-PARC HEF-ex WS)
2	List of members of the organizing committee with full name	Kazuya Aoki(KEK), Akinobu Dote(KEK), Makoto Endo(KEK), Yoshimasa Hidaka(KEK), Emiko Hiyama(Tohoku), Atsushi Hosaka(RCNP), Takatsugu Ishikawa(ELPH,Tohoku), Koji Miwa(Tohoku), Satoshi N Nakamura(Tohoku), Hajime Nanjo(Osaka), Megumi Naruki(Kyoto), Hajime Nishiguchi(KEK), Tadashi Nomura(KEK), Hiroyuki Noumi(RCNP/KEK), Hiroaki Ohnishi(ELPH,Tohoku), Fuminori Sakuma(RIKEN), Sshinya Sawada(KEK), Koji Shiomi(KEK), Kotaro Shirotori(RCNP), Yasuhisa Tajima(Yamagata), Makoto Takizawa(Showa Pham. Univ.), Hitoshi Takahashi(KEK), Toshiyuki Takahashi(KEK), Hirokazu Tamura(Tohoku), Kazuki Ueno(Osaka), Mifuyu Ukai(KEK)
3	Period of workshop/conference (From dd/mm/yy to dd/mm/yy)	First WS: 07/07/2021-09/07/2021 Second WS: 16/02/2022-18/02/2022
4	Venue	online via ZOOM
5	Description o the results	<p>The J-PARC HEF-ex WSs were part of a series of workshops to discuss and deepen physics case at Hadron Experimental Facility. In the first half of 2021, several workshops were held focused on future physics case at the extended Hadron Experimental Facility, whose outputs were summarized as the third white paper of arXiv:2110.04462. Detailed information on the extension project can be found in HUA's home page (<a href="http://www.rcnp.osaka-u.ac.jp/~jparchua/en/hefextension.html">http://www.rcnp.osaka-u.ac.jp/~jparchua/en/hefextension.html</a>).</p> <p><b>[First J-PARC HEF-ex WS on 7-9 June 2021]</b></p> <p>The first workshop was dedicated to discussions on important physics features at the extended J-PARC Hadron Experimental Facility. This workshop consists of plenary sessions by invited speakers, in which the physics case at the new beamlines was discussed:</p> <ul style="list-style-type: none"> <li>- project overview</li> <li>- strangeness nuclear physics at the HIHR and K1.1 beamlines</li> <li>- flavor physics at the KL2 beamline</li> <li>- hadron physics at the K10 beamline</li> </ul> <p>A total of 138 participants from 12 countries (42 participants from abroad) attended the workshop. There were 12 plenary talks.</p> <p><b>[Second J-PARC HEF-ex WS on 16-18 February 2022]</b></p> <p>In the second workshop, discussions were devoted to the physics case connecting both of the "present" and the "future" Hadron Experimental Facility of the J-PARC. For that purpose, this workshop covered wide-ranging topics related to both experimental and theoretical activities being conducted at the Hadron Experimental Facility as follows:</p> <ul style="list-style-type: none"> <li>- S=-1 and -2 hypernuclei</li> <li>- meson in nuclei</li> <li>- baryon spectroscopy</li> <li>- kaon rare decays</li> <li>- mu-e conversion</li> <li>- future facilities and instrumentation</li> </ul> <p>The scientific program comprised plenary sessions by invited speakers and parallel sessions by invited and contributed speakers. A total of 250 participants from 15 countries (94 participants from abroad) attended the workshop. There were 19 plenary talks and 86 parallel talks (including 23 invited keynote talks).</p>
6	URL of the webpage	First WS: <a href="https://indico2.riken.jp/event/3773/">https://indico2.riken.jp/event/3773/</a> Second WS: <a href="https://kds.kek.jp/event/40010/">https://kds.kek.jp/event/40010/</a>
7	URL and/or DOI of the (online) proceedings	none