

Workshop on J-PARC hadron physics in 2014

February 10-12, 2014

2F Conference room, Ibaraki Quantum Beam Research Center (IQBRC)

162-1, Shirakata, Tokai, Ibaraki 319-1106, Japan

<http://j-parc-th.kek.jp/workshops/2014/02-10/>

Local Organizers:

A. Dote (KEK), T. Harada (Osaka EC/KEK), S. Hirenzaki (Nara WU/KEK),
S. Kumano (KEK), T. Maruyama (JAEA/KEK), T. Takahashi (KEK),
K. Tanaka (Juntendo/KEK)

Advisory Committee:

T. Hatsuda (RIKEN), A. Hosaka (Osaka/KEK), K. Imai (JAEA), A. Ohnishi (Kyoto),
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Host: KEK theory center, J-PARC branch

<http://j-parc-th.kek.jp/html/English/e-index.html>

February 10 (Monday)

9:30-10:00 Registration

Chair: Kenichi Imai (Japan Atomic Energy Agency)

10:00-10:10 (10) Shunzo Kumano (KEK)
J-PARC theory activities

10:10-10:55 (35+10) Shin'ya Sawada (KEK)
Hadron physics experiments at J-PARC

Chair: Tatsuyuki Takatsuka (RIKEN)

10:55-11:40 (35+10) Toshio Motoba (Osaka Electro-Communication University)
Hyernuclear physics

11:40-12:50 lunch

Chair: Toshiyuki Takahashi (KEK)

12:50-13:35 (35+10) Tomofumi Nagae (Kyoto University)
Experiments on strangeness nuclear physics

13:35-14:10 (25+10) Atsushi Sakaguchi (Osaka University)
E10 experiment on neutron-rich hypernuclei

14:10-14:45 (25+10) Satoshi Nakamura (Tohoku University)
Hypernucleus experiments at Mainz and JLab

14:45-15:15 coffee break

Chair: Toshiki Maruyama (Japan Atomic Energy Agency/KEK)

15:15-15:50 (25+10) Akinobu Dote (KEK)
Kaonic nuclei

15:50-16:25 (25+10) Haruhiko Ota (RIKEN)
E15 experiment on K-pp

Poster session (16:30-18:20), 2F Exchange Corner, IQBRC

- * Kenji Araki (Tokyo Institute of Technology)
Complex plane QCD sum rules
- * Yasuro Funaki (RIKEN)
A new theoretical approach to study light hypernuclei
- * Philipp Gubler (RIKEN)
The phi meson at finite density revisited
- * Yudai Ichikawa (Kyoto University/JAEA)
Experimental study of $K\bar{p}p$ bound state by using the $d(\pi^+, K^+)$ reaction
- * Yoichi Ikeda (RIKEN)
Charmed Tetraquarks T_{cc} and T_{cs} from Dynamical Lattice QCD Simulations
- * Masahiro Isaka (RIKEN)
Deformations of sd-pf shell Lambda hypernuclei
- * Kazuhiko Kamikado (RIKEN)
Chiral dynamics in a magnetic field from the functional renormalization group
- * Sangho Kim (Osaka University)
Theoretical analysis of $\pi N \rightarrow D^{*-} \Lambda_c^+$ reaction using Regge approach
- * Tong-Gyu Lee (Kochi University/JAEA)
NG modes on inhomogeneous phases
- * Kota Masuda (University of Tokyo/RIKEN)
Neutron stars
- * Raquel Molina (Osaka University)
Strategies for an accurate determination of the $X(3872)$ energy from QCD lattice simulations
- * Satoshi Nakamura (Osaka University)
Neutrino-induced meson productions
- * Kanabu Nawa (RIKEN)
Complex 2D Matrix Model and Geometrical Map on Complex- N_c plane
- * Keisuke Ohtani (Tokyo Institute of Technology)
The nucleon spectral function in the nuclear medium
- * Shuntaro Sakai (Kyoto University)
The η 'N interaction and η ' optical potential in the nuclear matter with a chiral effective model
- * Shoji Shinmura (Gifu University)
 $K\bar{K}$ -hyperon S-wave resonances
- * Kei Suzuki (Tokyo Institute of Technology)
D and B meson in nuclear medium from QCD sum rules
- * Akira Watanabe (Academia Sinica)
Structure functions of hadrons at small x in holographic QCD
- * Ngo Thi Hong Xiem (Gifu University)
Meson-meson interaction

- * Fumiyo Uchiyama (KEK)
Saturation of nuclear force
- * Shigehiro Yasui (Tokyo Institute of Technology)
Excited charm baryons
- * Akira Yokota (Tokyo Institute of Technology)
Possible existence of charmonium-nucleus bound states in light nuclei
- * Tetsuya Yoshida (Tokyo Institute of Technology)
Study of heavy baryon and structure
- * Yasuhiro Yamaguchi (Osaka University)
Exotic dibaryons with a heavy antiquark

Get-together party (18:30-20:20), 2F Exchange Corner, IQBRC

Welcome address, Kazuhiro Tanaka (Deputy Director of IPNS, KEK)
Kozi Nakai (Professor Emeritus, KEK)

February 11 (Tuesday)

Chair: Tetsuo Hatsuda (RIKEN)

9:15-10:00 (35+10) Jochen Wambach (Technical University of Darmstadt/GSI)
Hadron properties in nuclear medium

10:00-10:45 (35+10) Satoru Hirenzaki (Nara Woman's University/KEK)
Meson properties at finite density from meson-nucleus systems

10:45-11:05 coffee break

Chair: Kyoichiro Ozawa (KEK)

11:05-11:50 (35+10) Megumi Naruki (Kyoto University)
Mass modification experiments

11:50-12:35 (35+10) Michael Hartmann (Atomic Energy Research Center Juelich)
COSY-Experiments: A general overview and selected results

12:35-13:35 lunch

Chair: Hiroyuki Kawamura (KEK)

13:35-14:20 (35+10) Haiyan Gao (Duke University)
Studies of nucleon structure from lepton scatterings

14:20-15:05 (35+10) Kazuhiro Tanaka (Juntendo University/KEK)
High-energy hadron physics at J-PARC

15:05-15:50 (35+10) Wen-Chen Chang (Academia Sinica)
High-energy hadron experiments at J-PARC

15:50-16:20 coffee break

Chair: Akira Ohnishi (Kyoto University)

16:20-17:05 (35+10) James Lattimer (Stony Brook University/YITP)
Neutron star physics

17:05-17:50 (35+10) Eberhard Widmann (Austrian Academy of Sciences)
Studying fundamental interactions and symmetries with antiprotons

February 12 (Wednesday)

Chair: Osamu Morimatsu (KEK)

9:15-10:00 (35+10) Ulrich Mosel (University of Giessen)

Neutrino interactions with nuclei

10:00-10:45 (35+10) Harry Lee (Argonne National Laboratory)

Meson production reactions for investigating hadron structure:
New opportunities at J-PARC

10:45-11:05 coffee break

Chair: James Vary (Iowa State University)

11:05-11:50 (35+10) Takumi Doi (RIKEN)

Baryon interactions from lattice QCD

11:50-12:45 lunch

Chair: Makoto Oka (Tokyo Institute of Technology)

12:45-13:30 (35+10) Atsushi Hosaka (Osaka University/KEK)

Exotic hadrons at J-PARC

13:30-14:15 (35+10) Hiroyuki Noumi (Osaka University)

Charmed hadron experiments at J-PARC

14:15-14:50 (25+10) Takayasu Sekihara (KEK)

Structure of $\Lambda(1405)$ - How to determine it in experiments -

14:50-15:05 (15) Hirokazu Tamura (Tohoku University)

Future prospect

***** J-PARC tour (15:30-17:00) *****

We have a J-PARC tour for invited foreign speakers.
