

HHIQCD 2015 PROGRAM (Symposium)

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http://www2.yukawa.kyoto-u.ac.jp/~hhiqcd.ws/schedule_sympo.html

2nd March (Mon.)

Heavy hadrons and exotics 1 — Chair: A. Hosaka

- 09:00 - 09:05 **Atsushi Hosaka** (Research Center for Nuclear Physics, Osaka University)
Opening address
- 09:05 - 09:50 **Makoto Oka** (Tokyo Institute of Technology)
Hadron Spectroscopy from Strange to Charm/Bottom - Effective theories or Lattice? -
- 09:50 - 10:35 **Marco Maggiora** (INFN Torino)
Highlights on BESIII recent results
- 10:35 - 11:05 **Shunsuke Ohkoda** (Tokyo Institute of Technology)
Spin partners of heavy meson molecules
- 11:05 - 11:30 *Coffee*

Heavy hadrons and exotics 2 — Chair: M. Oka

- 11:30 - 12:15 **Kenkichi Miyabayashi** (Nara Women's University)
Heavy hadron spectroscopy at Belle
- 12:15 - 12:45 **Susana Coito** (Institute of Modern Physics, Chinese Academy of Sciences)
Unquenched vector mesons with open beauty
- 12:45 - 14:00 *Lunch*

Heavy hadrons and exotics 3 — Chair: H. Kamano

- 14:00 - 14:45 **Hiroyuki Noumi** (Osaka University)
Hadron spectroscopy at the J-PARC high-momentum beam line
- 14:45 - 15:30 **Masayasu Harada** (Nagoya University)
Modification of spectrum of heavy-light mesons in nuclear medium
- 15:30 - 16:00 **Junko Yamagata-Sekihara** (Research Center for Nuclear Physics, Osaka University)
Structure and formation spectra of Dbar meson-nucleus systems
- 16:00 - 16:30 *Coffee*

Heavy hadrons and exotics 4 — Chair: S. Yasui

- 16:30 - 17:15 **Juan Nieves** (University of Valencia)
Hidden charm and bottom molecular states
- 17:15 - 18:00 **Feng-Kun Guo** (Bethe Center for Theoretical Physics)
XYZ

3rd March (Tue.)

Hadron scattering and interactions 1 — Chair: T. Doi

- 09:00 - 09:45 **Yoichi Ikeda** (RIKEN)
Charmed tetraquarks from lattice QCD
- 09:45 - 10:15 **Atsushi Hosaka** (Research Center for Nuclear Physics, Osaka University)
Charmed baryon structure and productions
- 10:15 - 10:45 **Akira Yokota** (Tokyo Institute of Technology)
J/psi-bound nuclei and J/psi-nucleon interaction
- 10:45 - 11:15 *Coffee*

Hadron scattering and interactions 2 — Chair: J. Nieves

- 11:15 - 12:00 **Colin Morningstar** (Carnegie Mellon University)
Excited states and scattering phase shifts
- 12:00 - 12:30 **Xiaohai Liu** (Tokyo Institute of Technology)
Influence of threshold effect induced by heavy flavour meson rescattering
- 12:30 - 14:00 *Lunch*

Hadron scattering and interactions 3 — Chair: T. Nakano

- 14:00 - 14:45 **Jacobo Ruiz de Elvira** (University of Bonn)
Roy-Steiner equations for pi N scattering
- 14:45 - 15:15 **Satoshi Nakamura** (Osaka University)
Neutrino-induced meson productions
- 15:15 - 15:45 *Coffee*

Hadron scattering and interactions 4 — Chair: T. Hyodo

- 15:45 - 16:30 **Takashi Nakano** (RCNP, Osaka University)
Hadron Physics with photon beam at LEPS/LEPS2
- 16:30 - 17:00 **Vojtech Krejcirik** (Theoretical Research Division, RIKEN Nishina Center)
The effective model for $\bar{K}N$ interactions including the $L = 1$ partial wave
- 17:00 - 17:30 **Akinobu Dote** (KEK theory center, Institute for Particle and Nuclear Study (IPNS), High Energy Accelerator Research Organization (KEK))
Investigation of $K\bar{K}NN$ resonances with a coupled-channel Complex Scaling Method + Feshbach projection

Poster session —

- 17:30 - 19:00 room Y206

Poster session

- 1 **Kenji Araki** (Tokyo Institute of Technology)
Analysis of quarkonia at finite temperature from complex Borel sum rules
- 2 **Kadir Utku Can** (Tokyo Institute of Technology)
Lattice QCD calculation of electromagnetic form factors of charmed baryons
- 3 **Takahiro Doi** (Kyoto University)
Contribution to the Polyakov loop from low-lying Dirac mode in QCD
- 4 **Sachiko Fukino** (Tokyo Institute of Technology)
Short-range part of YcN interaction in the Quark Cluster Model
- 5 **Ryo Iwami** (Niigata University)
Finite density and temperature phase transitions in QCD with many flavors of Wilson fermions
- 6 **Kyoko Katsuyama** (Nara Womens University)
The nature of the $a_1(1260)$ and the spectral function of the a_1 from tau decay
- 7 **Xiaohai Liu** (Tokyo Institute of Technology)
Influence of threshold effect induced by heavy flavour meson rescattering
- 8 **Kenta Miyahara** (Graduate School of Science, Kyoto University)
Structure of $\Lambda(1405)$ and construction of antikaon-nucleon potential based on chiral unitary approach
- 9 **Seijiro Nishi** (Tokyo Institute of Technology)
 Ω_{bcc} energy spectrum in the Y -string three-body confinement potential
- 10 **Keisuke Ohtani** (Tokyo Institute of Technology)
Modification of nucleon spectral function in the nuclear medium from QCD sum rules
- 11 **Shuntaro Sakai** (Kyoto University)
The η decay into 3π in asymmetric nuclear medium and partial restoration of chiral symmetry in nuclear medium
- 12 **Kei Suzuki** (Tokyo Institute of Technology)
Recent progress of QCD sum rules for D meson in extreme environments
- 13 **Takashi Suzuki** (Particle Physics Theory Group, Department of Physics, Osaka university)
Extracting the electro-magnetic pion form factor from QCD in a finite volume
- 14 **Yoshiki K. Tanaka** (The University of Tokyo)
Search for eta' mesic nuclei with (p,d) reaction at GSI
- 15 **Akio Tomiya** (Osaka Univesity)
 $U(1)$ axial anomaly with chiral fermion at finite temperature
- 16 **Masayuki Wakayama** (Nagoya University)
Lattice study of four-quark components of the iso-singlet scalar mesons
- 17 **Akira Yokota** (Tokyo Institute of Technology)
 J/ψ -bound nuclei and J/ψ -nucleon interaction
- 18 **Tetsuya Yoshida** (Tokyo Institute of Technology)
 P -wave heavy baryons with the constituent quark model
- 19 **Ryo Yoshi-ike** (Kyoto University)
Magnetic properties of quark matter in the inhomogeneous chiral phase

4th March (Wed.)

QCD phase diagram and heavy ion collisions 1 — Chair: T. Kunihiro

- 09:00 - 09:45 **Tetsuo Hatsuda** (RIKEN)
SU(3) Thermodynamics from Yang-Mills Gradient Flow
- 09:45 - 10:30 **Hiroshi Masui** (University of Tsukuba)
RHIC Beam Energy Scan
- 10:30 - 11:00 *Coffee*

QCD phase diagram and heavy ion collisions 2 — Chair: A. Ohnishi

- 11:00 - 11:45 **Jiunn-Wei Chen** (NTU)
Baryon susceptibilities, nongaussian moments and the QCD critical point
- 11:45 - 12:15 **Kenji Morita** (Yukawa Institute for Theoretical Physics, Kyoto University)
Lambda-Lambda interaction from relativistic heavy ion collisions
- 12:15 - 13:30 *Lunch*

QCD phase diagram and heavy ion collisions 3 — Chair: T. Hatsuda

- 13:30 - 14:15 **Wolfram Weise** (Technische Universitaet Muenchen)
Chiral Effective Field Theories and Phases of QCD
- 14:15 - 15:00 **Gert Aarts** (Swansea University)
Two topics in the QGP: diffusion of light quarks and parity doubling in the baryon sector
- 15:00 - 15:30 *Coffee*

Finite density QCD 1 — Chair: G. Aarts

- 15:30 - 16:15 **Philippe de Forcrand** (ETH)
Progress in simulating lattice QCD at finite density
- 16:15 - 17:00 **Keitaro Nagata** (KEK)
Canonical partition functions and Lee-Yang zeros in QCD
- 17:00 - 17:30 *Coffee*

Finite density QCD 2 — Chair: H. Fukaya

- 17:30 - 18:15 **Denes Sexty** (Heidelberg University)
Complex Langevin simulations of non-zero density QCD

5th March (Thu.)

Hadrons in nuclei 1 — Chair: K. Itahashi

- 09:00 - 09:45 **Hideko Nagahiro** (Nara Women's University)
Hadron properties at finite density and spectroscopies of mesic nuclei
- 09:45 - 10:30 **Volker Metag** (Giessen University)
Meson-nucleus interactions studied in photo nuclear experiments
- 10:30 - 11:00 **Akio Tomiya** (Osaka University)
 $U(1)$ axial anomaly with chiral fermion at finite temperature
- 11:00 - 11:30 *Coffee*

Hadrons in nuclei 2 — Chair: P. Moskal

- 11:30 - 12:15 **Satoshi Yokkaichi** (RIKEN)
Measurement of vector meson in nuclei at J-PARC E16
- 12:15 - 12:45 **Keisuke Ohtani** (Tokyo Institute of Technology)
Modification of nucleon spectral function in the nuclear medium from QCD sum rules
- 12:45 - 14:00 *Lunch*

Hadrons in nuclei 3 — Chair: H. Nagahiro

- 14:00 - 14:45 **Pawel Moskal** (Jagiellonian University)
Interaction of eta and eta-prime mesons with nucleons
- 14:45 - 15:15 **Wojciech Krzemien** (Jagellonian University)
Search for eta-mesic nuclei with WASA-at-COSY
- 15:15 - 15:45 *Coffee*

Hadrons in nuclei 4 — Chair: V. Metag

- 15:45 - 16:30 **Kenta Itahashi** (RIKEN)
Experimental spectroscopy of pionic atoms and eta'-mesic nuclei
- 16:30 - 17:00 **Yoshiki K. Tanaka** (The University of Tokyo)
Search for eta' mesic nuclei with (p,d) reaction at GSI
- 17:00 - 17:30 **Guido Cossu** (High Energy Accelerator Research Organization KEK)
Axial symmetry at finite temperature and lowest modes of the Dirac operator

Party —

- 18:00 - Cafeteria

6th March (Fri.)

Few-nucleon systems and astrophysical constraints — Chair: W. Weise

- 09:30 - 10:15 **Evgeny Epelbaum** (University of Bochum)
Chiral effective field theory for few-nucleon systems at the precision frontier
- 10:15 - 11:00 **Takashi Nakamura** (Tokyo Institute of Technology)
Nuclear matter in neutron stars by experiments and astronomical observations
- 11:00 - 11:30 *Coffee*

New approaches 1 — Chair: H. Fukaya

- 11:30 - 12:15 **Tetsuya Onogi** (Osaka University)
Position space formulation of fermions on honeycomb lattice
- 12:15 - 13:30 *Lunch*

New approaches 2 — Chair: T. Onogi

- 13:30 - 14:15 **Michael Endres** (MIT)
New avenues for noise reduction in QCD correlation functions
- 14:15 - 15:00 **Shin Nakamura** (Chuo University)
Effective Temperature of Non-equilibrium Steady States in AdS/CFT Correspondence
- 15:00 - 15:30 *Coffee*

New approaches 3 — Chair: S. Aoki

- 15:30 - 16:15 **Etsuko Ito** (KEK)
Quantum entanglement entropy for $SU(3)$ gauge theories
- 16:15 - 17:00 **Stefan Sint** (Trinity College)
Symanzik improvement and the gradient flow in lattice QCD
- 17:00 - 17:05 **Sinya Aoki** (Yukawa Institute for Theoretical Physics, Kyoto University)
Closing address