HYP2018 Scientific Program and Schedule

Sunday, June 24, 2018

Registration begins at 16:00 until 20:00.
Welcome reception at conference site from 18:00 to 20:00.

The Plenary and Topical Sessions

Monday, June 25, 2018

8:00 – 8:30 Continued registration
8:30 – 8:40 Liguang Tang (chair and local organizer), "Opening remark on HYP2018"
8:40 – 9:05 Robert McKeown (JLab deputy director for science), "Welcome address".
9:05 – 9:15 Prof. John Millener, "Special memory on Prof. Dr. Robert Chrien".
9:15 – 10:00 Prof. Avraham Gal, "Old and New Problems in Strangeness Nuclear Physics".

10:00 – 10:20 Break

Session chair: Prof. Benjamin Gibson
10:20 – 10:55 Prof. Takashi Inoue, "Hyperon forces from QCD on lattice and their applications".
10:55 – 11:30 Prof. Zohren Davoudi, "From quantum chromodynamics to hypernuclear interactions".
11:30 – 12:05 Prof. Thomas A. Rijken, "Extended-soft-core Baryon-Baryon model ESC16".

12:05 – 14:00 Lunch break

Session chair: Prof. Tullio Bressani
14:00 – 14:35 Prof. John Price, "Λ proton elastic scattering in CLAS".
14:35 – 15:10 Prof. Laura Fabbiatti, "Femtoscopy in pp and pA collisions at GeV and TeV energies as a tool to shed light on the hyperon puzzle".
15:10 – 15:45 Prof. Benjamin Gibson, "Determine the unknown Λn interaction".

15:45 – 16:05 Break

Topical Session 1: Neutral Baryonic Systems with Strangeness
(***Conveners: Profs. Josef Pochozalla and Emiko Hiyama***)
16:05 – 16:25 Prof. Josef Pochozalla, "Introduction on neutral baryonic systems".
16:25 – 16:45 Prof. Humberto Garcilazo, "Neutral Baryonic Systems with Strangeness".
16:45 – 17:05 Prof. Emiko Hiyama, "Calculations on Ξnn and Ξnnn systems".
17:05 – 17:25 Prof. Susumu Shimoura, "Tetraneutron system populated by double-charge exchange reactions using RI beam".
17:25 – 17:45 Dr. Jaume Carbonell, "On the possible existence of three and four neutron resonances".
17:45 – 18:05 Open discussions

19:00 – 21:00 Conference reception at Marriot Hotel (taking ferry to Norfolk side)

Tuesday, June 26, 2018

7:45 – 8:15 Open

Session chair: Prof. Alessandro Feliciello

8:15 – 8:50 Prof. Koji Miwa, "Σ-p scattering experiment at J-PARC – results of commissioning run".

8:50 – 9:25 Dr. Natalie Walford, "Recent Measurements of Hyperon Photoproduction Spin Observables in CLAS".

9:25 – 10:00 Prof. Reinhard Schumacher, "Photoproduction of Λ-Anti-Λ Pairs at GlueX".

10:00 – 10:20 Break

Session chair: Prof. Avraham Gal

10:20 – 10:55 Dr. Jiangming Yao, "Beyond relativistic mean-field approaches to deformed hypernuclei".

10:55 – 11:30 Dr. Han-Josef Schulze, "Skyrme forces for Lambda and Cascade hypernuclei".

11:30 – 12:05 Prof. Isaac Vidana, "Single-particle spectral function of the Λ hyperon in finite nuclei".

12:05 – 14:00 Lunch break

Session chair: Prof. Tomofumi Nagae

14:00 – 14:35 Dr. Takeshi Koike, "Gamma-ray spectroscopy of single Λ-hypernuclei at J-PARC: The results and future".

14:35 – 15:10 Prof. Satoshi N. Nakamura, "Spectroscopy of electro-produced hypernuclei at JLab".

15:10 – 15:45 Prof. Jiri Mares, "Studies of Kbar Nuclear Bound States".

15:45 – 16:05 Break

Topical Session 2: Charge Symmetry Breaking
(***Conveners: Profs. Elena Botta and Patrick Achenbach***)

16:05 – 16:20 Prof. Elena Botta, "Charge Symmetry Breaking in s- and p-shell Λ-hypernuclei: An updated review".

16:20 – 16:35 Prof. John Millener, "Shell-model calculatuions for charge-symmetry breaking in p-shell hypernuclei".

16:35 – 16:55 Dr. Daniel Gazda, "CSB ab initio calculations of Charge symmetry breaking in light hypernuclei".

16:55 – 17:15 Dr. Andreas Nogga, "Charge-symmetry breaking in light hypernuclei based on chiral and similarity renormalization group-evolved interactions".

17:15 – 17:35 Dr. Takeshi Yamamoto, "Future gamma-ray spectroscopic experiment (J-PARC E63) on $^{4}_{\Lambda}$H".

17:35 – 17:55 Dr. Toshiyuki Gogami, "Latest results from JLab on $^{7}_{\Lambda}$He and $^{10}_{\Lambda}$Be".

17:55 – 18:15 Dr. Masahiro Yoshimoto, "Studies for charge symmetry breaking effect in hypernuclei with nuclear emulsion".

18:15 – 18:30 Prof. Patrick Achenbach, "Reflections on Charge Symmetry Breaking".

Wednesday, June 27, 2018

7:45 – 8:15 Open

Session chair: ***Prof. Jiri Mares***

8:15 – 8:50 Prof. Petr Bydzovsky, "Electroproduction of p-shell hypernuclei in DWIA".

8:50 – 9:25 Prof. Toshio Motoba, "Multi-configuration calculation of hearnuclear photoproduction spectra to shed light on new capability".

9:25 – 10:00 Prof. Emiko Hiyama, "Structure of light p-shell Ξ hypernuclei".

10:00 – 10:20 Break

Session chair: ***Prof. Satoshi N. Nakamura***

10:20 – 10:55 Prof. Tomofumi Nagae, "Observation of a Ξ bound state in the $^{12}C(K^-, K^+)X$ reaction at 1.8 GeV/c".

10:55 – 11:30 Dr. Junya Yoshida, "Status of J-PARC E07: Systematic study of double strangeness nuclei with hybrid emulsion method".

11:30 – 12:05 Dr. Takehiko Saito, "Present and future hypernuclear spectroscopy with heavy ion beam".

12:05 – 14:00 Lunch break

Session chair: ***Prof. Josef Pochozalla***

14:00 – 14:35 Prof. Isaac Upsal, "Global polarization of Lambda hyperons in Au+Au Collisions at RHIC".

14:35 – 15:10 Prof. Benjamin Dönigus, "Highlights of the production of anti-(hyper-)nuclei and exotica with ALICE at the LHC".

15:10 – 15:45 Dr. Akinobu Dote, "Fully coupled-channel study of K^-pp resonance in a chiral SU(3)-based $\overline{K}N$ potential".

15:45 – 16:05 Break

15:45 – 17:30 **Poster Session**

18:30 **Boat excursion-dinner:** ***Spirit of Norfolk***

Thursday, June 28, 2018

Parallel Sessions ***See detailed parallel session schedule***

Friday, June 29, 2018

7:45 – 8:15 Open

Session chair: Prof. Makoto Oka

8:15 – 8:50 Prof. Robert Roth, "Ab Initio Hypernuclear Structure Theory".

8:50 – 9:25 Dr. Diego Lonardoni, "Strangeness in nuclei and neutron stars: many-body forces and the hyperon puzzle".

9:25 – 10:00 Dr. Stefano Gandolfi, "The EOS of neutron matter, and the effect of Lambda hyperons to neutron star structure".

10:00 – 10:20 Break

Session chair: Prof. Liguang Tang

10:20 – 10:55 Prof. Alessandro Feliciello, "Study of the (π^-, K^0) reaction on nuclei at J-PARC".

10:55 – 11:30 Prof. Masahiko Iwasaki, "A quest for the "Kpp" bound state via ^{3}He(K^-, n) reaction, J-PARC E1 experiment".

11:30 – 12:05 Prof. Kristian Piscicchia, "Low Energy Antikaon-nucleon/nuclei interaction studies by AMADEUS".

12:05 – 14:00 Lunch break

Session chair: Prof. Àngels Ramos

14:00 – 14:35 Dr. Jinhui Chen, "Precise measurement on hypertriton and anti-hypertriton mass and lifetime with the STAR Heavy Flavor Tracker".

14:35 – 15:10 Prof. Gastao Krein, "Charmed hypernuclei and charmed mesons and baryons in nuclear matter".

15:10 – 15:45 Prof. Bing Song Zou, "Hadron spectroscopy from production and decay of Λ_c and Λ_b".

15:45 – 16:05 Break

Session chair: Prof. Reinhard Schumacher

16:05 – 16:45 Prof. Hirokazu Tamura, **Summary.**

16:45 – 17:00 Prof. Liguang Tang, Closing remarks.

The Parallel Session A Program and Schedule

Thursday, June 28, 2018

7:45 – 8:15 Open

Session A1 ***Session chair: Prof. Joerg Reinhold***

8:15 – 8:45 Dr. Tongtong Cao, "Determination of Polarization Observables for Final-State Interactions in the Reaction $\vec{\gamma}\, d \rightarrow K^{+}\vec{\Lambda}n$".

8:45 – 9:15 Dr. Thomas Jude, "Strangeness photoproduction at extremely forward angles at the BGO-OD experiment".

9:15 – 9:45 Dr. Sho Nagao, "Feasibility of lifetime measurements on hyperhydrogens with the photon beams".

9:45 – 10:15 Dr. Florian Hauenstein, "Polarization Observables and pΛ Scattering Length Measured in the $\vec{p}p \rightarrow pK^{+}\Lambda$ Reaction".

10:15 – 10:35 **Break**

10:35 – 11:05 Prof. Hiroyuki Fujioka, "$^{5}_{\Lambda\Lambda}$H production experiment by use of $^{7}_{\Xi}$H production and decay at J-PARC".

11:05 – 11:35 Prof. Franco Garibaldi, "Studying Λ interactions in nuclear matter with the ^{208}Pb(e, e'K^{+})$^{208}_{\Lambda}$Tl reaction".

11:35 – 12:05 Prof. Chhanda Samanta, "Binding, bonding and charge symmetry breaking in Λ-hypernuclei".

12:05 – 13:45 **Lunch break**

Session A2 ***Session chair: Dr. Hans-Josef Schulze***

13:45 – 14:15 Dr. Hidekatsu Nemura, "Hyperon-nucleon interaction from lattice QCD at (m_{π}, m_{K}) ≈ (146, 525) MeV".

14:15 – 14:45 Dr. Jaroslava Hrtankova, "Λ^{*} - matter: stable or unstable?

14:45 – 15:15 Dr. Carlos Granados, "Hyperon transition form factors".

15:15 – 15:45 Prof. Igor Filikhin, "Isospin Given Charge Formalism for Three-Body Nuclear Systems".

15:45 – 16:05 **Break**

16:05 – 16:35 Dr. Alexander Botvina, "Formation of hypernuclei in relativistic ion, hadron and lepton collision".

16:35 – 17:05 Prof. Liguang Tang, "Lifetime of medium-heavy hypernuclei – Jlab E02-017 experiment".

17:05 – 17:35 Dr. Jacek Biernat, "Hypron structure with BESIII".

The Parallel Session B Program and Schedule

Thursday, June 28, 2018

7:45 – 8:15 Open

Session B1 ***Session chair: Prof. Pete Markowitz***

8:15 – 8:45 Dr. Hajime Togashi, "Hyperon equation of state for core-collapse simulations based on the variational many-body theory".

8:45 – 9:15 Dr. Isaac Vidana, "Do hyperons exist in the neutron star interior".

9:15 – 9:45 Dr. Lorenzo Contessi, "$B_\Lambda(^5{}_\Lambda He)$ from short range effective theory".

9:45 – 10:15 Prof. Àngels Ramos, "The constraining effect of isospin filtering reactions in the S = -1 sector".

10:15 – 10:35 **Break**

10:35 – 11:05 Dr. Jean-christophe David, "Production of strange particles and hypernuclei in nuclear reactions at a few GeV".

11:05 – 11:35 Dr. Philipp Gubler, "Mesons with charm and strangeness in nuclear matter".

11:35 – 12:05 Prof. Luis Trevisan, "The Isospin strange asymmetry from the chiral effective theory".

12:05 – 13:45 **Lunch break**

Session B2 ***Session chair: Prof. Guido Maria Urciuoli***

13:45 – 14:15 Prof. Jung Keun Ahn, "Search for an H-dibaryon near $\Lambda\Lambda$ and Ξ^-p thresholds at J-PARC".

14:15 – 14:45 Dr. Kiyoshi Tanida, "Possibility of a new narrow Λ^* resonance near the $\Lambda\eta$ threshold".

14:45 – 15:15 Dr. Yudai Ichikawa, "$\overline{K}$ and nucleus system studied by $^{12}C(K^-, p)$ spectrum".

15:15 – 15:45 Dr. Jinhui Chen, "Search for the N-Ω bound state with the STAR detector at RHIC".

15:45 – 16:05 **Break**

16:05 – 16:35 Dr. Hidemitsu Asano, "Spectroscopic study of the Λ(1405) resonance via the d(K-,n) reaction at J-PARC".

16:35 – 17:05 Dr. Ramona Lea, "Studying the strong interaction for meson-baryon with femtoscopy in pp collisions with ALICE".

17:05 – 17:35 Dr. Kiyoshi Tanida, "Exotic and Conventional Quarkonium Physics Prospects at Belle II".

HYP2018 Scientific Program and Schedule

Poster Presentations, Wednesday, June 27, 2018

15:45 – 18:05

Bishnu Pandey, "Determining the unknown Λ-n interaction by investigating the Λnn resonance – JLab E12-17-003"

Dimitar Mihaylov, "Baryon-baryon femtoscopy in pp and p-A collisions".

Shin Hyung Kim, "Development of the Hyperon Spectrometer for Hadron Physics Experiments at J-PARC".

Kosuke Itabashi, "Design of a target system for Λ hypernuclear spectroscopy at JLab".

Manami Fujita, "Ξ− atom X-ray Spectroscopy (J-PARC E07)".

Hiroyuki Ekawa, "Search for double hypernuclei with a hybrid emulsion method at J-PARC".

Shuhei Hayakawa, "Status of double hypernuclei experiment with hybrid emulsion method at J-PARC".

Takuya Nanamura, "High-resolution spectroscopic study of the Ξ-hypernuclei with S2S spectrometer".

Yuichi Toyama, "Developments of a detector system for decay pions from light hypernuclei".

Schafer Martin, "On high-density Λ* matter".

Sachio Iwasaki, "Hadronic Paschen-Back effect in charmonium".

Michael Bölting, "Status of the Hypernuclei and Hyperatom setup at PANDA".

Michael Bölting, "Continuation of high-precision hypernuclear mass measurements at MAMI".

Noraim Nunez, "Observation of Λ-p elastic scattering in the CLAS detector"

Luis Trevisan, "The Nucleon Strange asymmetry from the nonextensive statistics".

Jesmin Nazeer (Hampton University), "Development of a GEM telescope"

Angel Christopher (Hampton University), "GEANT4 simulation for a LHe-TPC thick-GEM based target".

Thir Gautam (Hampton University), "Precision Measurement of the Proton Elastic Cross-Section at High Q2".

Debaditya Biswas (Hampton University), "New Physics Search with the TREK/E36 experiment at J-PARC"