Program for Yamada Conference LXXII: The 8th Asia-Pacific Conference on Few-Body problems in Physics

March 1 (Mon.) - 5 (Fri.), 2021

March 1st (Mon.)

Plenary I Chair : E. Hiyama(Tohoku Univ./RIKEN)

8:45 -8:50	Opening address	E. Hiyama (Tohoku Univ/RIKEN)
8:50 -9:05	Speech from Yamada science foundation	Y. Kitaoka (Osaka Univ.)
9:05 -9:15	Speech from co-host institutes	T. Nakano (Osaka Univ.-RCNP)
9:15 -9:45	Status and Perspectives of J-PARC	T. Nagae (Kyoto Univ.)
9:45 -10:15	Understanding threshold phenomena and signals for exotic hadrons	Qiang Zhao (IHEP)
10:15 -10:45	Advances in coupled-cluster computations of nuclei	G. Hagen (Oak Ridge / Univ. of Tennessee)

break 15 min.

	Parallel (1) chair : H. Kamada(Kyushu Inst. of Tech.)			**Parallel (2) chair : M. Naruki(Kyoto Univ.)**	
11:00 -11:30	Recent Experimental Few-Nucleon Studies at TUNL	W. Tornow (Duke Univ./TUNL)	11:00 -11:30	Study Spin Structure of the Nucleon and Few-Body Systems at Jefferson Lab	J-P. Chen (Jlab)
11:30 -11:50	Measurement for p-^{3}He elastic scattering with a 65 MeV polarized proton beam	S. Nakai (Tohoku Univ.)	11:30 -11:50	Exotic charmonium-like states at BESIII	Liao Longzhou (IHEP)
11:50 -12:10	Analyzing power measurement for p-^{3}He elastic scattering at intermediate energies	A.Watanabe (Tohoku Univ.)	11:50 -12:10	Estimation of the low-lying tetraquark mass spectrum	Z. Zhao
12:10 -12:30	Measurement of ^{3}He analyzing power and Feasibility study of spin correlation coefficients measurement for $\it {p}$-^{3}He elastic scattering	M.Inoue (Tohoku Univ.)	12:10 -12:30	The structure of doubly heavy tetraquarks	Q. Meng (Nanjing Univ.)
12:30 -12:50	Study of the dp elastic and dp breakup complementary processes using polarized and unpolarized beam of Nuclotron.	M.Janek (Zilina Univ.)	12:30 -12:50	Pentaquark components in low-lying baryon resonances	K. Xu (Suranaree University of Technology)
12:50 -13:10	Faddeev calculations for p-d scattering with Kharkov potential including 3-body force.	A.Shebeko (Kharkov Institute of Physics & Technology)	break	1hr10min	

break 50min.

	Parallel (3) chair: M. Itoh(Kansai Univ.)			**Parallel (4) chair : T.Fukuda (Osaka Electro-Comm. Univ.)**			**Parallel (5) chair : Y. Kanada-En'yo (Kyoto Univ.)**	
14:00 -14:20	Hoyle analogs and rotational states in 16O	Y. Funaki (Kanto Gakuin Univ.)	14:00 -14:30	Low-energy kaon-nucleon/nuclei interaction studies at the DAFNE Collider: SIDDHARTA and AMADES	C. O. Curceanu (LNF-INFN)	14:00 -14:20	Electroweak Current from Chiral Effective Field Theory	H. Krebs (Ruhr-University Bochum)
14:20 -14:40	A fundamental research for the Fukushima tritium contaminated water problem by the ab-initio nuclear reaction calculation	S. Aoyama (Niigata Univ.)	14:30 -14:50	Four-body Faddeev-type calculation of $\bar{K}NNN$ system: quasi-bound state	N. Shevchenko (NPI Rez, Czech republic)	14:20 -14:40	Three-baryon forces in a quark model	C. Nakamoto (National Institute of Technology, Suzuka College)
14:40 -15:00	One neutron removal cross sections for the $^{16}\mathrm{N}$ isomeric state	M. Fukutome	14:50 -15:10	Hypertriton two-body mesonic decay rate	A.P. Castaneda (Kochi University of Technology)	14:40 -15:00	An Alternate Way for Calculating the Deuteron Form Factors	Y. Kostylenko (NSC Kharkov Institute of Physics and Technology)
15:00 -15:20	Nuclear cluster correlations visualized with microscopic wave function	Y. Tanimura (Tohoku Univ.)	15:10 -15:30	Structure of the three-body KKK^{bar} S-wave resonance and partial decay widths of $K(1460)$	S.Shinmura (Gifu University)	15:00 -15:20	Covariance matrix of nucleon-nucleon potential parameters in few-nucleon studies	Y. Volkotrub (Jagiellonian university)
15:20 -15:40	Container picture for cluster structure in nuclei	B. Zhou (Hokkaido University)	15:30 -15:50	High precision missing-mass spectroscopy of Ξ hypernuclei via the (K^{-}, K^{+}) reaction	T.Harada (Kyoto University)	break	20.min	

break 20min. break 10min.

Plenary II Chair : S. Ishikawa(Hosei Univ.)

16:00 -16:30	Precision studies with chiral nuclear forces	E. Epelbaum (Ruhr-Universität Bochum)
16:30 -17:00	New developments in four-nucleon reactions	A. Deltuva (Vilnius University)
17:00 -17:30	Recent results of few body system in the hadron physics with photon beam	M. Niiyama (Kyoto Sangyo Univ.)
17:30 -18:00	ALICE unveils strong interaction among stable and unstable hadrons.	L. Fabbietti (Technical University Munich)
18:00 -18:30	Recent results and future prospects of kaonic nuclei at J-PARC	F. Sakuma (RIKEN)

March 2nd (Tue.)

Plenary III Chair : H. Noumi (RCNP, Osaka Univ.)

9:00 -9:30	One way to understand the nature of exotic hadrons--from DK to DDK	Lisheng Geng (Beihang Univ.)
9:30 -10:00	Charm hadron spectroscopy at Belle	Yuji Kato (Nagoya Univ.)
10:00 -10:30	Hadron spectroscopy at LHCb	Zhenwei Yang (Tsinghua Univ.)

break 30 min.

	Parallel (6) chair : T. Shima (RCNP, Osaka Univ.)			**Parallel (7) chair : T. Doi (RIKEN)**			**Parallel (8) chair : S. Endo(Tohoku Univ.)**	
11:00 -11:30	Recent progress of microscopic calculations for electroweak properties of light nuclei	Saori Pastore (Washington Univ.)	11:00 -11:20	Femtoscopic study of $N\Xi$ interaction and search for the H dibaryon state around the $N\Xi$ threshold	A. Ohnishi (Kyoto Univ.)	11:00 -11:30	Ab initio study of the effect of molecular vibrations on the positron-binding to polyatomic molecules	M. Tachikawa (Yokohama City Univ.)
11:30 -11:50	Leading order ab initio effective potentials for proton elastic scattering from light nuclei.	Ch. Elster (Ohio University)	11:20 -11:40	Proton radius measurement with low-energy electron scattering at ELPH	Y. Honda (Tohoku Univ.)	11:30 -11:50	A partial mixing of quantum gases	P. Naidon (RIKEN)
11:50 -12:10	Cluster effective field theory and nuclear reactions	S. Ando (Sunmoon Univ.)	11:40 -12:00	Coherent photoproduction of the neutral pion and eta meson on the deuteron	T. Ishikawa (Tohoku Univ.)	11:50 -12:10	Origin of the three-body parameter of the Kartavtsev-Malykh crossover trime	C. Schmickler (RIKEN)
12:10 -12:30	Search for NΔ resonance state via the exclusive measurement of γd → dπ^+π^- reaction	Y. Toyama (Tohoku Univ.)	12:00 -12:20	Pion induced productions for the study of heavy baryons	S. SHIM (Osaka Univ.)	12:10 -12:30	Effect of deeply bound states on three-body universality in 1D	L. Happ (Universität Ulm, Institut für Quantenphysik)
12:30 -12:50	Delta isobar (Δ) contribution to neutrino nuclear response for double beta decay	H. Ejiri (Osaka Univ.)	12:20 -12:40	Heavy baryons in holographic QCD using higher dimensional degrees of freedom	D. Fujii (Osaka Univ.)	12:30 -12:50	Quantum effect on NH$_{4}^{+}$(H$_{2}$O) cluster by using path integral molecular dynamics	K. Kuwahata (Yokohama National Univ.)
12:50 -13:10	Study of resonances via CDCC analysis with the complex-scaling method	T. Matsumoto (Kyushu Univ.)	12:40 -13:00	Electroproduction of omega meson at backward angles and parton distribution function	Byung Geel Yu (Korea Aerospace Univ.)	12:50 -13:10	Universal properties of resonantly interacting systems in one dimension from the few-body perspective	Y. Sekino (RIKEN)
break	50min.		break	1hr.		break	50min	

	Parallel (9) chair : T. Myo (Osaka Inst. of Tech.)			**Parallel (10) chair : M.Naruki(Kyoto Univ.)**			**Parallel (11) chair : Y. Funaki (Kanto Gakuin Univ.)**	
14:00 -14:30	Three-body description of neutron dripline systems	Jagit Singh (Osaka Univ.)	14:00 -14:20	Lambda hypertriton binding energy measurement at Jefferson Lab	T. Gogami (Kyoto Univ.)	14:00 -14:30	Observation of double strangeness nuclei at J-PARC	Junya Yoshida (Tohoku Univ./RIKEN)
14:30 -14:50	Four nucleons configurations around heavy core nuclei	M. Itoh (Kansai Univ.)	14:20 -14:40	Low-lying level structure of Λ hypernuclei and spin dependence of the Λ N interaction with antisymmetrized molecular dynamics	M. Isaka (Hosei University)	14:30 -14:50	A realistic approach to the ΞNN bound-state problem based on Faddeev Equation	K.Miyagawa (Okayama University of Science)
14:50 -15:10	Continuum strength of α emissions induced by external isoscalar field	R.Nakamoto (Kansai Univ.)	14:40 -15:00	Study of the nnΛ state and Λn interaction at Jefferson Lab	K. Itabashi (Tohoku Univ.)	14:50 -15:10	Trigger system development for the accurate B_{Λ} measurement of Lambda hypertriton at Jlab	K. Katayama (Kyoto Univ.)
15:10 -15:30	Three-alpha configurations in the spectrum of 12C	H.Moriya (Hokkaido Univ.)	15:00 -15:20	The analysis status of Σ^+p elastic scattering events in the J-PARC E40 experiment	T. Nanamura (Kyoto Univ.)	15:10 -15:30	Analysis method development for precise spectroscopy of Xi hypernuclei in J-PARC E70	T. Ohashi (Kyoto Univ.)
15:30 -15:50	Coulomb screening effect on the Hoyle state energy in thermal plasmas	Phyu (Hokkaido Univ.)	15:20 -15:40	Structure of Li7-Lambda with taking Lambda-Sigma coupling effect explicitly	Qian Wu (Nanjing Univ.)	15:30 -15:50	Search for the lightest double-Λ hypernucleus, $^{\ \ \:5}_{\Lambda\Lambda}\mathrm{H}$, at J-PARC	H. Fujioka (Kyoto Univ.)
break	30min.		break	40min.		break	30min	

Plenary IV Chair : T. Uesaka (RIKEN)

16:20 -16:50	Exploring Efimov spectrum with DITRIS interferometer	Lev Khaykovich (Bar-Ilan Univ.)
16:50 -17:20	Diatomic molecular electronic wavefunction inside a nucleus for measurement of nuclear Schiff moment	M. Abe (Tokyo Metropolian Univ.)
17:20 -17:50	Impact of Nuclear Reactions on Element Genesis in BBN, SNe and Neutron Star Mergers	T. Kajino (NAOJ)
17:50 -18:20	Status of nuclear experiments at KoBRA and Y2L	Kevin Insik Hahn (IBS/Ewha Womans. Univ.)

March 3rd (Wed.)

Plenary V Chair : K. Ogata (RCNP, Osaka Univ./Osaka City Univ.)

9:00 -9:30	Ab initio calculations of structure and reactions in light nuclei	S. Quaglioni (LLNL)
9:30 -10:00	Bound state properties studied by the knockout reaction	K. Yoshida (JAEA)
10:00 -10:30	Four-body treatment of antihydrogen atomic collision	T. Yamashita (Tohoku Univ.)
10:30 -11:00	Recent progress in time-resolved binary (e, 2e) spectroscopy: Towards real-time imaging of electron orbitals in transient molecular systems	M. Yamazaki (Tokyo Institute of Technology)
break	30 min.	

Poster

11:30 -12:30	Strange pentaquark resonances with a heavy quark-antiquark pair	S. Takeuchi (Japan College of Social Work)
12:30 break	1.5hr.	

Poster

11:30 -12:30	Development of polarimetry system for p-^{3}He elastic scattering	S. Kitayama (Tohoku Univ.)
	Analysis of invariant mass ^{5}He→α+n via ^{8}He(p,pn) measurement	S. Kiyotake (Miyazaki Univ.)
	Envelope Theory for Systems with Different Particles	C. Semay (Université de Mons)
12:30 break	1.5hr.	

Poster

11:30 -12:30	Observation of Hyperon polarization and measurement of the form factor	Li Cui
	Light meson spectroscopy at BESIII	Han Tingting
12:30 break	1.5hr.	

Parallel (12) chair : W. Horiuchi (Hokkaido Univ.)

14:00 -14:20	The proton and N(1440) wave function extracted from the electromagnetic helicity amplitude	A. Kaewsnod (Suranaree University of Technology)
14:20 -14:40	Prediction of an exotic state around 4240 MeV with $J^{PC}=1^{-+}$ as the C-parity partner of Y(4260) in molecular picture	X. Dong (University of Chinese Academy of Sciences)
14:40 -15:00	Search for very heavy dibaryons	J.-M. Richard (Institut de Physique Nucléaire, Universite de Lyon)
15:00 -15:20	Heavy-hadron molecules from light-meson-exchange saturation	Fang-zheng Peng (Beihang Univ.)
15:20 -15:40	Study on multi-hadron bound states with Gaussian Expansion Method	Tian-Wei Wu (Beihang Univ.)
break	20min.	

Parallel (13) chair : M. Itoh(Kansai Univ.)

14:00 -14:20	A Possible Long Range Force in Hadron Systems and Three-Body Efimov Potential	S. Oryu (Tokyo University of Science)
14:20 -14:40	Partial wave analysis of elastic $K^+ n$ scattering at low energies	Kook-Jin Kong (Korea Aerospace University)
14:40 -15:00	Analysis on Λ(1405) Photoproduction of CLAS Collaboration	Thae Thae Mar (U Myint Ngwe)
15:00 -15:20	Studying the phi meson in nuclear matter by simulating pA reactions in a transport approach	Philipp Gubler (RIKEN)
15:20 -15:40	Symmetrized Faddeev Equations	H. Kamada (Kyushu Institute of Technology)
break	20min.	

Parallel (14) chair : Y. Funaki (Kanto Gakuin Univ.)

14:00 -14:20	Tensor and short-range correlations in light nuclei studied with antisymmetrized molecular dynamics	T. Myo (Osaka Institute of Technology)
14:20 -14:40	Experimental study of many-neutron systems: 7H and 4n	Z. Yang (RIKEN)
14:40 -15:00	Research on the α condensate in 16O using real-time evolution method	H. Motoki (Hokkaido Univ.)
15:00 -15:20	The shape of 13C studied by the real-time evolution method	Seungheon Shin (Hokkaido Univ.)
15:20 -15:40	Study on the 2^{+}_{2} resonance in ^{6}He via analysis of ^{6}He(p, p') reactions	Shoya Ogawa (Kyushu Univ.)
break	20min.	

Plenary VI Chair : T. Nakamura (Tokyo Inst. of Tech.)

16:00 -16:30	The endless hunt for multineutron systems	R. Lazauskas (CNRS, Strasbourg)
16:30 -17:00	Experimental studies on multi-neutron and proton systems and tritium target for RIBF	Ken Miki (Tohoku Univ.)
17:00 -17:30	Hyperon-proton scattering experiment and recent progress of strangeness nuclear physics at J-PARC	Koji Miwa (Tohoku Univ.)
17:30 -18:00	Heavy hadronic molecules coupled with multiquark states	Y. Yamaguchi (RIKEN)
18:00 -18:30	Polarizations in hadron productions	Seung-il Nam (Pukyong National Univ.)

March 4th (Thu.)

Plenary VII Chair : Y. Kino(Tohoku Univ.)

9:00 -9:30	Exploring extremely neutron-rich nuclei beyond the drip line	Y. Kondo (Tokyo Institute of Technology)
9:30 -10:00	Universality of bosonic few-body clusters in cold atoms	S. Endo (Tohoku Univ.)
10:00 -10:30	Dimensional effects in Efimov physics	M. Yamashita (IFT/UNESP)
break	30 min.	

Parallel (15) chair : K. Miki(Tohoku Univ.)			**Parallel (16) chair : H. Noumi(RCNP, Osaka Univ.)**			**Parallel (17) chair : K. Ogata (RCNP/Osaka City Univ.)**		
11:00 -11:30	Spectroscopy of light exotic nuclei beyond the proton drip line	Daisuke Suzuki (RIKEN)	11:00 -11:20	X(3872) revisited: the roles of OPEP and the quark degrees of freedom	S. Takeuchi (Japan College of Social Work)	11:00 -11:30	Theoretical study of deuteron-induced reactions in the nuclear data field	S. Nakayama (JAEA)
11:30 -11:50	Two-neutron halo structure and anti-halo effect in 31F	H. Masui (Kitami Institute of Technology)	11:20 -11:40	Triangle singularity appearing as an $X(3872)$-like peak in $B\to (J/\psi\pi^+\pi^-) K\pi$	S.X. Nakamura	11:30 -11:50	Laser spectroscopy experiment of pionic helium atoms at PSI	M. Hori (CERN)
11:50 -12:10	Structure of two-neutron halo in light exotic nuclei	T. Suzuki (Nihon Univ.)	11:40 -12:00	Two-pion emission decay of Roper-like heavy baryons	A. Jafar Arifi (Osaka Univ.)	11:50 -12:10	Neutron production from thick LiF, C, Si, Ni, Mo, and Ta targets by bombardment of 6.7 MeV/u deuterons	H.Takeshita (Kyushu Univ.)
12:10 -12:30	Chiral three-body force and shell evolution	T. Fukui (Kyoto Univ.)	12:00 -12:20	Building diquark model from Lattice QCD	K. Watanabe (Osaka Univ.)	12:10 -12:30	Development of ultracold francium atomic sources towards the permanent EDM search	T.Hayamizu (RIKEN)
12:30 -12:50	Probing dineutron correlation in 11Li using the quasi-free (p,pn) reaction	Y. Kubota (Technische Universität Darmstadt)	12:20 -12:40	Novel pentaquark picture of single-heavy baryons in chiral effective model	D. Suenaga (Osaka Univ.)	12:30 -12:50	Weinberg operator contribution to the nucleon EDM in the quark model	N. Yamanaka
12:50 -13:10	Unbound states in ^{17}C and p-sd cross-shell interactions	S. Kim (Institute for Basic Science)	break	1hr20min.		12:50 -13:10	Ternary fission: an intersection between mean-field and few-body physics, and application and fundamental physics	S. Chiba (Tokyo Institute of Technology)
break	50min.					break	50min.	

Parallel (18) chair : H. Kamada(Kyushu Inst. of Tech.)			**Parallel (19) chair : T. Fukuda (Osaka Electro-Comm. Univ.)**		
14:00 -14:20	Modern chiral forces applied to the neutron-deuteron breakup reaction	R. Skibinski (Jagiellonian Univ.)	14:00 -14:30	The $\Lambda-\alpha$ Potential by Folding Λ-Nucleon Interaction with Realistic α Wave Function	Htun Htun Oo (Meikhtilar Univ.)
14:20 -14:40	Experimental studies of deuteron breakup in collision with proton at intermediate energies.	E. Stephan (University of Silesia)	14:30 -14:50	Medium Effect in s-shell double-Λ Hypernuclei	Zin Mar (Kyaukse Univ.)
14:40 -15:00	Cross-sections for the star configurations in ^{1}H(d,pp)n breakup at 80 MeV/nucleon	A. Wilczek (University of Silesia)	14:50 -15:10	Structure Analysis of $_\Lambda^5He$ in Three-Body Models	M Naing (Kyaukse Univ.)
15:00 -15:20	Effect of Nucleon Dressing on the Triton Binding Energy	B. Blankleider (Flinders University)	15:10 -15:30	Xi(-) mixing Probability in ΛΛH5 System	Hla Hla Win (ShweBo Univ.)
15:20 -15:40	Studies of deuteron – proton collisions at 100 MeV	I. Skwira-Chalot (University of Warsaw)	15:30 -15:50	Analysis of Systematic Uncertainties for Light Hypernuclei	Thiri Yadanar Htun (Mandalay Univ.)
15:40 -16:00	Few-Nucleon System Dynamics in Deuteron Breakup Reactions at 160 MeV	B. Wloch (Institute of Nuclear Physics, Polish Academy of Science)	break	30min.	
break	20min.				

Plenary VIII Chair : T. Shima (RCNP, Osaka Univ.)

16:20 -16:50	Understanding Effect of Tensor Interactions on Structure of Light Atomic Nuclei	Ong Hooi Jin (IMP-CAS/Osaka Univ.)
16:50 -17:20	Short-Range Correlations in neutron-ricch nuclei	M. Duer (TU Darmstadt)
17:20 -17:50	Kaon photoproduction in all isospin channels: Summary of 20 years work	Terry Mart (Indonesia Univ.)
17:50 -18:20	Classifying near-threshold enhancement using deep neural network	D. Sombillo (Osaka Univ.)

March 5th (Fri.)

Plenary IX Chair : A. Tamii (RCNP, Osaka Univ.)

9:00 -9:30	Baryon interactions from QCD on lattice	T. Inoue (Nihon Univ.)
9:30 -10:00	Triple alpha reaction rate under the extreme environments	T. Kawabata (Osaka Univ.)
10:00 -10:30	FRIB opportunities for rare isotope science	H. Iwasaki (NSCL)
10:30 -11:00	Current progress of Jinping Underground Nuclear Astrophysics Experiment JUNA	Weiping Liu (CIAE)
11:00 -11:30	Highlights and future directions of RIBF	H. Sakurai (RIKEN/Tokyo Univ.)
	Closing	B. Gibson (LANL)