

Program for

**International Symposium  
Commemorating the 40th Anniversary of the Halo Nuclei**

October 12 - 18, 2025 | Capital Hotel, Beijing

October 12th, 2025 (Sunday)	
15:00-20:00	Registration (1st Floor at the Capital Hotel)
18:00-20:00	Reception

**Conference Room: 2F Ziyun Grand Ballroom (紫云厅)**

October 13 <sup>th</sup> , 2025 (Monday)			
8:00-8:30	Registration		
8:30-8:45	Opening		
Time	Speaker	Title	Chair
8:45-9:10 (20+5 min)	<b>Isao Tanihata</b> Beihang University / Osaka University	Neutron halo to Tensor interactions	<b>Shan-Gui Zhou</b> Institute of Theoretical Physics, Chinese Academy of Sciences
9:10-9:35 (20+5 min)	<b>Meng Wang</b> Institute of Modern Physics, CAS	Introduction on the High Intensity Heavy-ion Accelerator Facility (HIAF)	
9:35-10:00 (20+5 min)	<b>Peter Ring</b> Technischen Universität München	Theoretical Methods to Describe Halo-Phenomena in Nuclei	

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10:00-10:45	Photo and Break		
10:45-11:10 (20+5 min)	<b>Takashi Nakamura</b> Institute of Science Tokyo	Coulomb Breakup and soft E1 excitation of Halo Nuclei: Present and Future	<b>Dario Vretenar</b> University of Zagreb
11:10-11:35 (20+5 min)	<b>Byungsik Hong</b> Korea University	Status of LAMPS at RAON	
11:35-12:00 (20+5 min)	<b>Youbao Wang</b> China Institute of Atomic Energy	Nuclear Physics at Beijing Rare Isotope Facility (BRIF)	
12:00-14:00	Lunch		
Time	Speaker	Title	Chair
14:00-14:25 (20+5 min)	<b>Pierre Descouvemont</b> Université Libre de Bruxelles	Microscopic study of halo nuclei through $(p, t)$ reactions	<b>Taka Kajino</b> Beihang University / University of Tokyo / NAOJ
14:25-14:50 (20+5 min)	<b>Baohua Sun</b> Beihang University	Deducing charge radii from charge-changing reactions of rare isotopes	
14:50-15:15 (20+5 min)	<b>Masaomi Tanaka</b> Kyushu University	Recent results of interaction cross section measurements in Japan	
15:15-15:40 (20+5 min)	<b>Enrico Vigezzi</b> INFN Milano	A dynamical model of light neutron halos	
15:40-16:00	Break		
16:00-16:25 (20+5 min)	<b>Hui Hua</b> Peking University	Decay and Structure of Nuclei around the Light Proton Drip Line	<b>Shuangquan Zhang</b> Peking University
16:25-16:50 (20+5 min)	<b>Elias Khan</b> IJCLab	Exotic nuclear phases, structure, and decay	
16:50-17:15 (20+5 min)	<b>Lu Guo</b> University of Chinese Academy of Sciences	Microscopic dynamics: from fusion and quasifission to fission	
17:15-17:40 (20+5 min)	<b>Wen Hui Long</b> Lanzhou University	Exchange correlation effects in nuclear novel phenomena	
17:40-18:05 (20+5 min)	<b>Ivan Muhka</b> GSI	Two-proton emitters "reflecting" the halo structure of their mirror neutron-rich nuclei	

October 14 <sup>th</sup> , 2025 (Tuesday)			
Time	Speaker	Title	Chair
8:30-8:55 <i>(20+5 min)</i>	<b>Lisheng Geng</b> Beihang University	Relativistic chiral nuclear forces: recent developments and applications	<b>Jianyou Guo</b> Anhui University
8:55-9:20 <i>(20+5 min)</i>	<b>Petr Navratil</b> TRIUMF	Halo nuclei from ab initio nuclear theory	
9:20-9:45 <i>(20+5 min)</i>	<b>Takaharu Otsuka</b> The University of Tokyo	Shape deformation and halo formation	
9:45-10:00 <i>(12+3 min)</i>	<b>Xiu-Lei Ren</b> Shandong University	A subtractive renormalization scheme on Chiral EFT and Halo EFT	
10:00-10:15 <i>(12+3 min)</i>	<b>Xiao-Dong Xu</b> IMP, CAS	Observation and spectroscopy of new proton-unbound nuclei $^{21}\text{Al}$ and $^{20}\text{Al}$	
10:15-10:35	Break		
10:35-11:00 <i>(20+5 min)</i>	<b>Grzegorz Kaminski</b> FLNR, JINR	Research with light exotic nuclei at the FLNR, JINR	<b>Zhipan Li</b> Southwest University
11:00-11:25 <i>(20+5 min)</i>	<b>Chengjian Lin</b> China Institute of Atomic Energy	Nuclear halos and related studies at the China Institute of Atomic Energy	
11:25-11:40 <i>(12+3 min)</i>	<b>Kaijia Sun</b> Fudan University	Production of strange halo nuclei in heavy-ion collisions	
11:40-11:55 <i>(12+3 min)</i>	<b>Xiaodong Tang</b> Institute of Modern Physics, CAS	Fusion reaction studies with neutron-rich beams	
11:55-12:10 <i>(12+3 min)</i>	<b>Nan Wang</b> Shenzhen University	The impact of nucleon-nucleon collisions on heavy-ion fusion reactions: An investigation utilizing time-dependent Hartree-Fock theory with the relaxation-time approximation	
12:10-14:00	Lunch		
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14:00-14:25 (20+5 min)	<b>Kouichi Hagino</b> Kyoto University	Deformation and pairing in neutron-rich halo nuclei	<b>Takeshi Suzuki</b> Saitama University / RIKEN
14:25-14:50 (20+5 min)	<b>Wataru Horiuchi</b> Osaka Metropolitan University	Nuclear halo: size, excitations, and related phenomena	
14:50-15:05 (12+3 min)	<b>Lang Liu</b> Jiangnan University	Pairing Phase Transition in Hot Nuclei	
15:05-15:20 (12+3 min)	<b>Bo Li*</b> Peking University	Relativistic continuum Hartree-Bogoliubov theory in three-dimensional lattice space	
15:20-15:35 (12+3 min)	<b>Xue Liu</b> Beijing Normal University	Determination of the rms radius of the neutron single-particle orbital in $^{17}\text{B}$	
15:35-15:50 (12+3 min)	<b>Kaiyuan Zhang</b> Institute of Nuclear Physics and Chemistry, CAEP	Triaxially deformed halo nuclei	
15:50-16:10	Break		
16:10-16:35 (20+5 min)	<b>Lie-Wen Chen</b> Shanghai Jiao Tong University	PREX and CREX: Evidence of Strong Isovector Spin-Orbit Interaction	<b>Xiaotao He</b> Nanjing University of Aeronautics and Astronautics
16:35-17:00 (20+5 min)	<b>Jianjun He</b> Fudan University	Mystery of Calcium production in the first generation stars	
17:00-17:25 (20+5 min)	<b>Aurora Tumino</b> LNS, Catania	Indirect Probes of Nuclear Astrophysics and Fundamental Symmetries	
17:25-17:40 (12+3 min)	<b>Fei Lu</b> Shanghai Advanced Research Institute, CAS	Probing Highly Excited States in the Exotic Nucleus $^{61}\text{Fe}$ via the Beta-Oslo Method	
17:40-17:55 (12+3 min)	<b>Junping Yang*</b> Shenzhen University	Revisiting the neutron-proton effective mass splitting in heavy-ion collisions: Is the momentum dependence of the symmetry potential monotonic?	
17:55-18:10 (12+3 min)	<b>Zhonghao Tu*</b> Xiamen University	Unified quark mean field equation of state for neutron star matter: Static and dynamic properties	

October 15 <sup>th</sup> , 2025 (Wednesday)			
Time	Speaker	Title	Chair
8:30-8:55 (20+5 min)	<b>Yury Litvinov</b> GSI	Nuclear Astrophysics at Low-Energy Storage Rings	<b>Byungsik Hong</b> Korea University
8:55-9:20 (20+5 min)	<b>Dimitar Tonev</b> INRNE, BAS	Lifetime measurements – a powerful tool to study nuclear structure	
9:20-9:45 (20+5 min)	<b>Takayuki Yamaguchi</b> Saitama University	The Rare-RI Ring facility	
9:45-10:00 (12+3 min)	<b>Wei Nan*</b> CIAE	First experiment using post-accelerated unstable ion beams at BRIF: angular distribution of the 21,22Na elastic scattering from doubly magic 40Ca	
10:00-10:15 (12+3 min)	<b>Yazhou Sun</b> Institute of Modern Physics, CAS	Reactions with RIBs at RIBLL2-ETF	
10:15-10:35	Break		
10:35-11:00 (20+5 min)	<b>Nikolai Antonenko</b> BLTP, JINR	Perspectives for cold and hot fusion reactions	<b>Pierre Descouvemont</b> Université Libre de Bruxelles
11:00-11:25 (20+5 min)	<b>Jenny Lee</b> The University of Hong Kong	Structural evolution of neutron-rich Calcium isotopes	
11:25-11:40 (12+3 min)	<b>Fulong Liu*</b> University of Tokyo	Experimental investigation of the 6He + p reaction: Elastic scattering and two-neutron transfer	
11:40-11:55 (12+3 min)	<b>Yiping Wang*</b> Peking University	Configuration-interaction time-dependent density functional theory and its first application	
11:55-12:10 (12+3 min)	<b>Dan Dan Zhang*</b> ITP, CAS	Mass and Spin Distributions of Fragments in Multinucleon Transfer Reactions with Time-Dependent Covariant Density Functional Theory	
12:10-14:00	Lunch		
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14:00-14:25 (20+5 min)	<b>Emiko Hiyama</b> Tohoku University / RIKEN	Structure of neutron-rich nucleus, 7H	<b>Elias Khan</b> IJCLab
14:25-14:50 (20+5 min)	<b>Zaihong Yang</b> Peking University	Halos and multi-neutron correlations in light neutron-rich nuclei	
14:50-15:05 (12+3 min)	<b>Jing Geng*</b> Lanzhou University	A coherent microscopic picture for the exotic structure of 11Be	
15:05-15:20 (12+3 min)	<b>Qi Lu*</b> Beihang University	Progress on the description of 1n halo nuclei from microscopic structures to reaction observables	
15:20-15:35 (12+3 min)	<b>Kosei Nakagawa*</b> Kyoto University	$\alpha+^2\text{n}+^2\text{n}$ cluster structure and $^2\text{n}$ breaking in $^8\text{He}$ ( $0_2^+$ )	
15:35-15:50 (12+3 min)	<b>De-Ye Tao*</b> Fudan University	Dineutron and diproton halo structures in light nuclei	
15:50-16:10	Break		
16:10-16:35 (20+5 min)	<b>Lorenzo Fortunato</b> University of Padua	Halo phenomena in light to medium mass nuclei with three-body models	<b>Zhong Liu</b> IMP, CAS
16:35-17:00 (20+5 min)	<b>Simin Wang</b> Fudan University	Exotic Three-Body Decay in Open Quantum Systems	
17:00-17:15 (12+3 min)	<b>Yongbeom Choi*</b> Beihang University	Half-Lives of One-Proton Emission for Odd-Z Nuclei near the Proton Drip-Line	
17:15-17:30 (12+3 min)	<b>Shihang Shen</b> Beihang University	Ab initio study of Beryllium isotopes: clustering, molecular orbital, and halo	
17:30-17:45 (12+3 min)	<b>Hankui Wang</b> Zhejiang Sci-Tech University	Monopole effects: the key role to explain neutron- rich nuclear structure	
17:45-18:00 (12+3 min)	<b>Chang Zhou*</b> Peking University	Deformed halo nucleus 42Mg in deformed relativistic Hartree-Bogoliubov theory in continuum with Lipkin-Nogami correction	
18:30-21:00	Banquet		

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October 16 <sup>th</sup> , 2025 (Thursday)			
Time	Speaker	Title	Chair
8:30-8:55 (20+5 min)	<b>Gongtao Fan</b> SARI, CAS	Status of Shanghai Laser Electron Gamma Source	<b>Aurora Tumino</b> Laboratori Nazionali del Sud, Catania
8:55-9:20 (20+5 min)	<b>Hiroyuki Sagawa</b> RIKEN / University of Aizu	A Halo: the trigger to new era of nuclear correlations	
9:20-9:45 (20+5 min)	<b>Yuanming Xing</b> Institute of Modern Physics, CAS	Nuclear mass measurements reveal exotic structures in proton-rich sd-shell nuclei	
9:45-10:00 (12+3 min)	<b>Xiaofei Jiang*</b> Peking University	Dipole response in deformed halo nuclei 42,44Mg	
10:00-10:15 (12+3 min)	<b>Cong Pan*</b> Anhui Normal University	Prediction of deformed and spherical halo nuclei in neutron-rich silicon isotopes	
10:15-10:35	Break		
10:35-11:00 (20+5 min)	<b>Lei Jin</b> Tongji University	SMOOTHIE: A Computational Tool for Nonelastic Breakup Calculations using the Ichimura-Austern- Vincent Formalism	<b>Ivan Mukha</b> GSI
11:00-11:25 (20+5 min)	<b>Tetsuaki Moriguchi</b> University of Tsukuba	Measurements of Reaction Cross Sections with a Solid Hydrogen Target and Development of the Target System	
11:25-11:40 (12+3 min)	<b>Rinku Kumar Prajapat*</b> GSI	Measurement of interaction and charge-changing cross-sections of carbon isotopes	
11:40-11:55 (12+3 min)	<b>Jian Li</b> Jilin University	Microscopic study of charge properties in halo nuclei	
11:55-12:10 (12+3 min)	<b>Jun-Yao Xu*</b> Beihang University	Exponential pattern of Charge-changing cross sections of relativistic nuclei on various reaction targets	
12:10-12:25 (12+3 min)	<b>Jichao Zhang*</b> RCNP, University of Osaka	Charge pickup reaction cross section for neutron-rich p-shell isotopes at 900A MeV	
12:25-14:00	Lunch		
14:00-18:00	Free Discussions		

October 17 <sup>th</sup> , 2025 (Friday)			
Time	Speaker	Title	Chair
8:30-8:55 (20+5 min)	<b>Faical Azaiez</b> LNL-INFN	SPES project status and future plans	<b>Nikolai Antonenko</b> BLTP, JINR
8:55-9:20 (20+5 min)	<b>Yumin Zhao</b> Shanghai Jiao Tong University	Recent advance in the nucleon-pair approximation to the shell model	
9:20-9:35 (12+3 min)	<b>Boshuai Cai*</b> Sun Yat-sen University	Microscopic Description of $\alpha$ Formation Based on Configuration Interaction Shell Model	
9:35-9:50 (12+3 min)	<b>Hadi Sobhani</b> Nankai University	New studies in the shell and collective models	
9:50-10:05 (12+3 min)	<b>Tianyu Wu*</b> Beihang University	Point-proton density distributions of stable nuclei	
10:05-10:25	Break		
10:25-10:50 (20+5 min)	<b>Jie Chen</b> Southern University of Science and Technology	Unraveling the Structure of Be isotopes and the Disappearance of the N=8 Magic Number	<b>Emiko Hiyama</b> Tohoku University / RIKEN
10:50-11:15 (20+5 min)	<b>Nobu Kobayashi</b> RCNP	TBD	
11:15-11:30 (12+3 min)	<b>Weijie Du</b> Institute of Modern Physics, CAS	Many-nucleon structure and dynamics via quantum computing	
11:30-11:45 (12+3 min)	<b>Xiao Lu*</b> Institute of Theoretical Physics, CAS	Dipole response of deformed halo nuclei $^{31}\text{Ne}$ and $^{37}\text{Mg}$	
11:45-12:00 (12+3 min)	<b>Xuan Wang*</b> Beihang University	Study of (p ,t) reaction on $^{11}\text{Li}$ at 6 MeV/nucleon	
12:00-14:00	Lunch		



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Time	Speaker	Title	Chair
14:00-14:25 <i>(20+5 min)</i>	<b>Alisher Sanetullaev</b> New Uzbekistan University	Probing Cluster Correlations in Neutron-Rich Ca Isotopes with Quasi-Free Scattering	<b>Petr Navratil</b> TRIUMF
14:25-14:50 <i>(20+5 min)</i>	<b>Bo Zhou</b> Fudan University	Gas-like Cluster States in Light Nuclei	
14:50-15:05 <i>(12+3 min)</i>	<b>Mingyan Li</b> Hunan University	The electromagnetic form factors of the hyperon $\Sigma$ in the time like region	
15:05-15:20 <i>(12+3 min)</i>	<b>Weifeng Li</b> Anhui University	Predictions for the (n, 2n) reaction cross section based on a Bayesian neural network approach	
15:20-15:35 <i>(12+3 min)</i>	<b>Zhixuan Wang</b> Sun Yat-sen University	Study on the Excited State Lifetimes of Neutron-Rich Isotopes - Based on $^{252}\text{Cf}$ Fission Experiments	
15:35-15:50 <i>(12+3 min)</i>	<b>Jianwei Zhao</b> Beihang University	Fission isomer studies with advanced experimental facilities and detection systems	
15:50-16:10	Break		
16:10-16:35 <i>(20+5 min)</i>	<b>Nobuo Hinohara</b> University of Tsukuba	Recent developments and applications of the finite-amplitude method for nuclear collective excitations	<b>Dimitar Tonev</b> Institute of Nuclear Research and Nuclear Energy, Bulgarian Academy of Sciences
16:35-17:00 <i>(20+5 min)</i>	<b>Giuseppe Verde</b> INFN	TBD	
17:00-17:15 <i>(12+3 min)</i>	<b>Fengcheng Liu</b> Beijing Normal University	Decay measurement of $^{235}\text{U}$ fission products based on LAMBDA-II and its application in the study of reactor neutrino anomalies	
17:15-17:30 <i>(12+3 min)</i>	<b>Ying Zhang</b> Tianjin University	Probing the $\Lambda$ Hyperon Drip Line in Multi- $\Lambda$ Oxygen and Calcium Hypernuclei	
17:30-18:00	Closing		

Note: An asterisk (\*) indicates a candidate for the Best Talk Award for Young Scholars.