APS Advancing Physics

DNP 2025 Schedule

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49 results Session ID Ascending

All | Fri | Sat | Sun | Mon

Sunday, October 19

Sun. October 19
08:30a - 10:18a//K01
Hilton Chicago, Continental A, Lobby Level
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From RHIC to the EIC Invited Session

Invited: James Daniel Brandenburg, Cameron Dean, Mathias Labonte

– Hide details

08:30a - 09:06a Heavy Flavor from RHIC to the EIC
Invited
Cameron Dean (presenter)

09:06a - 09:42a Search for the Critical Point in QCD Matter
Invited
Mathias Labonte (presenter)

09:42a - 10:18a The Breit-Wheeler Process from RHIC's Legacy to the EIC
Invited
James Daniel Brandenburg (presenter)

Sun. October 19
08:30a - 10:06a//K02
Hilton Chicago, Salon A1, Lower Level
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Mini-Symposium: Nuclear Effects in Neutrino Interactions

Mini-Symposium

Invited: Steven James Gardiner

– Hide details

08:30a - 09:06a Enabling Neutrino Discoveries with Precision Nuclear Science
Invited
Steven James Gardiner (presenter)

09:06a - 09:18a Status and Plans for Measurements of ν_μ-Ar Interactions at ICARUS
Minerba Betancourt, Guadalupe Moreno (presenter)

09:18a - 09:30a Comparison of the Electromagnetic Response Functions RL and RT for C-12, Ca-40 and Fe-56 to Nuclear Theory and Neutrino MC Generators
Arie Bodek (presenter), M E Christy

09:30a - 09:42a Neutrino Interaction Measurements with the SBND Experiment
Shweta Yadav (presenter)

09:42a - 09:54a Investigating One- and Two-Body Interference Terms in Neutrino–Argon Interactions with ACHILLES at BNB Energies
Josephine Louise Paton (presenter), Joshua Isaacson, Vishvas Pandey, Noemi Rocco, Noah Steinberg

09:54a - 10:06a Neutrino Induced Charged Current Coherent Pion Production for Constraining the Muon Neutrino Flux at DUNE
Gray Putnam (presenter), Moon Jung, Vishvas Pandey, David W Schmitz

Sun. October 19
08:30a - 10:06a//K03
Hilton Chicago, Salon A2, Lower Level
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Mini-Symposium: Highlights in Nucleosynthesis II Mini-Symposium

Invited: Tsung-Han Yeh

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08:30a - 09:06a Invited Sweeping across the chart of nuclides with neutrons: nucleosynthesis paths and termination at different neutron densities
Tsung-Han Yeh (presenter), Nicole Vassh, Matthew R Mumpower, Marco Pignatari, Falk Herwig

09:06a - 09:18a First Experimental Constraint of the $^{141}Ba(n,\gamma)^{142}Ba$ Reaction Rate for the Astrophysical i-Process
Andrea L Richard (presenter), Artemis Spyrou, Mallory K Smith, Caley M Harris, Beau Greaves, Alicia R Palmisano, Guy Savard, Daniel Santiago-Gonzalez, Jason Allan Clark, Sean N Liddick, Paul A Deyoung

09:18a - 09:30a The role of tritium reactions in the cosmological lithium problem
Ani Aprahamian (presenter), Chad J Forrest, Michael Wiescher, James DeBoer, Joachim Goerres, Maxwell Q Sorensen, Maria Gatu-Johnson, Arnold K Schwemmlein

09:30a - 09:42a Nucleosynthesis through the ^{15}N system, total neutron cross section on ^{14}N
Richard J DeBoer (presenter), A.R. Junghans, R. Arquette, D. Bemmerer, A. Best, R. Beyer, A. Boeltzig, G. Clarke, Joachim Goerres, T. Hensel, Miriam Matney, S.E. Mueller, D. Rapagnani, A. Roberts, K. Roemer, S. Turkat, K. Schmidt, J. Skowronski, A. Wagner, A. Yadav, Michael C F Wiescher

09:42a - 09:54a Investigating absolute $^{14}C(\alpha,n)^{17}O$ cross section at low energies
Javier Rufino (presenter), Richard J DeBoer, Michael C F Wiescher, Mike Febbraro, Joachim Gorres, Maxwell Q Sorensen, Vinny Picciotto

09:54a - 10:06a The Solenoid Spectrometer for Nuclear Astrophysics and Decays: a New Tool for the Indirect Measurement of Astrophysical Capture Reactions
Cade Thomas Dembski (presenter), Daniel W Bardayan, Patrick D O'Malley, Tan Ahn, Manoel Couder, Anna Simon, William W von Seeger

Sun. October 19
08:30a - 10:06a//K04
Hilton Chicago, Salon A3, Lower Level
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Nuclear Theory III

– Hide details

08:30a - 08:42a Probing Charge-Exchange Symmetry within the Nuclear Shell Model
Phong Quoc Dang (presenter), David Kekejian, Daniel Langr, Tomas Dytrych, Jerry P Draayer

08:42a - 08:54a Quadrupole Shape Distributions in Heavy Nuclei from Shell Model Monte Carlo

Dallas DeMartini (presenter), Cade Rodgers, Yoram Alhassid

08:54a - 09:06a Order-by-order uncertainties of nucleon-nucleon Wolfenstein amplitudes in chiral effective field theory
Charlotte Elster (presenter), Brad McClung, Daniel R Phillips

09:06a - 09:18a Separable Character of ab initio No-Core Shell-Model densities for 0^+ ground states.
Joseph Thomas Foy (presenter), Charlotte Elster, Pieter Maris, Stephen P Weppner, Scott K Bogner

09:18a - 09:30a Equation-of-Motion Extensions of the In-Medium Similarity Renormalization Group
Michael E Gajdosik (presenter), Heiko Hergert

09:30a - 09:42a Shell model inputs for statistical nuclear reactions
Oliver C Gorton (presenter)

09:42a - 09:54a Developments for the In-Medium No-Core Shell Model
Peter H Gysbers (presenter), Heiko Hergert

09:54a - 10:06a Impact of flowing three-body operators on electric quadrupole observables in the in-medium similarity renormalization group
Bingcheng N/A He (presenter), Ragnar R Stroberg

Sun. October 19
08:30a - 09:30a//K05
Hilton Chicago, Salon A4, Lower Level
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Mini-Symposium: Data-driven Discoveries in Nuclear Physics I

Mini-Symposium

Invited: Amy E Lovell

– Hide details

08:30a - 09:06a Uncertainty Propagation for Cross Sections along Isotopic Chains
Invited
Amy E Lovell (presenter), Marko Imbrisak, Matthew R Mumpower

09:06a - 09:18a Inferring the nuclear potential with a neural network via differentiable programming
Karl Daningburg (presenter), Amy Lovell, Arvind T Mohan, Richard O'Shaughnessy

09:18a - 09:30a Active-learning emulators for nuclear two-body scattering in momentum space
Abhinav Giri (presenter), Jane M Kim, Christian Drischler, Charlotte Elster

Sun. October 19
09:30a - 10:18a//K06
Hilton Chicago, Salon A5, Lower Level
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Thinking about Graduate School?

Invited Session Undergraduate Students

Invited: Helen Caines

Sun. October 19
08:30a - 09:42a//K08
Hilton Chicago, Salon C 3 & 4, Lower Level
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Neutron Physics I

– Hide details

08:30a - 08:42a Searches for Exotic Spin-Dependent Interactions Through the Application of Slow Neutron Polarimetry
Michael Van Meter (presenter)

08:42a - 08:54a Constraints on Exotic Spin-Dependent Interactions in Ferrimagnetic Targets at Compensation Temperature
Thomas Mulkey (presenter), Murad Sarsour

08:54a - 09:06a Neutron Imaging Analysis of Spin-Dependent Interactions in Ferrimagnetic Targets at Compensation

Temperature
Harini S Wijeratne (presenter), Murad Sarsour, Thomas Mulkey

09:06a - 09:18a Simultaneous Spin Analyzers for the LANL nEDM Experiment
Katherine Zine (presenter), Chen-Yu Liu

09:18a - 09:30a Simulations of a Search for Exotic Forces via Neutron Spin Rotation
Bret E Crawford (presenter)

09:30a - 09:42a Boosting Ultracold Neutron Production with Low Enriched Uranium
Marie A Blatnik (presenter), Christopher Martin O'Shaughnessy, Takeyasu M Ito

Sun. October 19
08:30a - 10:06a//K09
Hilton Chicago, Salon C 5 & 6, Lower Level
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Inside the Nucleon: TMDs and PDFs

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08:30a - 08:42a Angular Distribution Measurement of $p+p$ and $p+d$ Drell–Yan Processes at 120 GeV by the SeaQuest Experiment at Fermilab
Kei Nagai (presenter)

08:42a - 08:54a Measurement of DY Absolute Cross-Section for p+p and p+d Collisions with 120GeV Proton Beam in SeaQuest Experiment
Chatura D Kuruppu (presenter)

08:54a - 09:06a The new CJ25 global parton distributions fit
Alberto Accardi (presenter), Matteo Cerutti, Joseph F Owens, Shujie Li

09:06a - 09:18a Interpreting epistemic uncertainties in PDF analyses via symbolic regression
Brandon Kriesten (presenter), Timothy J Hobbs

09:18a - 09:30a Model Calculation of Pion Parton Distribution Functions in the Valence Region
Alan Salvador Sosa (presenter), Misak M Sargsian, Joseph E Maerovitz, Christopher A Leon

09:30a - 09:42a Employing Deep Neural Networks for extracting the 3D Structure of Nucleon
Ishara P Fernando (presenter), Dustin Keller

09:42a - 09:54a Transverse-momentum-dependent factorization at next-to-leading power
Leonard Gamberg (presenter), Zhongbo Kang, Owen Page

09:54a - 10:06a Extraction of Drell–Yan Angular Coefficients Using Neural Ratio Estimation in pp Collisions at 120 GeV Beam Energy
Dinupa Nawarathne (presenter), Vassili Papavassiliou, Stephen Pate, Harsha Arachchige, Huma Haider

Sun. October 19
08:30a - 10:18a//K10
Hilton Chicago, Salon C 7 & 8, Lower Level
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Instrumentation IV: Low Background Techniques

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08:30a - 08:42a SuperCDMS at SNOLAB: CUTE Results and Science Run Outlook
PRATYUSH KUMAR PATEL (presenter)

08:42a - 08:54a CRYO ASIC for SiPM readout in cryogenic experiments
Zepeng Li (presenter), Liang Yang, Aldo Pena Perez

08:54a - 09:06a Reliability Testing of CRYO ASICs in a Cryogenic Environment and the Charge Collection System in

nEXO's LXe TPC
Ariella Atencio (presenter)

09:06a - 09:18a Ultra-sensitive radon assay for low background liquid xenon detectors
Astrid Anker (presenter)

09:18a - 09:30a Study of Radon Progeny Attachment Suppression
Pramod Acharya (presenter), Andreas Piepke, Dmitry Chernyak

09:30a - 09:42a Development of light detectors with Neganov-Trofimov-Luke (NTL) amplification for the CUPID experiment
Krystal Alfonso (presenter)

09:42a - 09:54a Study of segregation behaviour of various dopants in High-Purity Germanium crystal
Sunil Chhetri (presenter), Dongming Mei, Sanjay Bhattarai, Narayan Budhathoki, Kunming Dong, Austin Warren, Athul Prem

09:54a - 10:06a Search for Axion-induced Magnetic Field with Optical Quantum Sensors
Young Jin Kim (presenter), Leanne Delma Duffy, Igor M Savukov

10:06a - 10:18a Radiopure Scintillating Plastics for Rare-Event Physics Experiments
Brennan T Hackett (presenter), Andreas Leonhardt, Cabot-Ann Christofferson, Peter Bauer, Ines Kuhnert, Bela Majorovits, Thomas Ruland, Michael T Febbraro, Toby T King

Sun. October 19
08:30a - 09:18a//K11
Hilton Chicago, Waldorf, 3rd Floor
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Applications of Nuclear Physics II: Fission

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08:30a - 08:42a Precise β-Decay Measurements of Long-Lived Fission Product ^{111}Ag
Isabel E Hernandez (presenter), Kay Kolos, Daniel E Hoff, Nicholas David Scielzo, Victor Iacob, Dan G. Melconian, Shree K Neupane, Daniel P Burdette, Khushi Bhatt, Jason Allan Clark, Biying Liu, Brenden Longfellow, Peter Mueller, Claus Müller-Gatermann, Andrea L Richard, D. Santiago-Gonzalez, Guy Savard, Anton P Tonchev, Adrian A. Valverde, Louis Varriano

08:42a - 08:54a Fission Product Yield Measurements of ^{235}U, ^{238}U, and ^{239}Pu from 2 MeV Neutron Irradiation
Drake E Brewster (presenter), Jack A Silano, Anthony Ramirez, Anton P Tonchev

08:54a - 09:06a Measurement of the Isomeric Yield Ratio for Xenon-134 Thermal Neutron Absorption
Will H Flanagan, Jacob Moldenhauer, Donald D Nolting, Isaac P Kelly (presenter)

09:06a - 09:18a Correlated fission fragment spin dynamics
Jorgen Randrup (presenter), Katarzyna Mazurek, Pavel Nadtochy, Christelle Schmitt

Sun. October 19
08:30a - 10:06a//K12
Hilton Chicago, Boulevard C, 2nd Floor
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Nuclear Reactions II: Heavy Ions/Rare Isotope Beams

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08:30a - 08:42a Optical matrix optimization for the study of unbound nuclei
Johanis Baraille (presenter), Paul L Gueye

08:42a - 08:54a Examination of Single Particle Excitation of ^{15}C using the Continuum Discretized Coupled Channels Method
Catherine Beckman (presenter), Manuel Catacora-Rios, Chloë Hebborn, Filomena Nunes

08:54a - 09:06a Machine Learning for MuSIC@Indiana Event Identification
Jordan R Cory (presenter), Kyle W Brown, Sylvie Hudan, Hunter Desilets, Rohit Kumar, Romualdo T DeSouza

09:06a - 09:18a Investigating Nuclear Matter Radii Extraction with the MoNA-LISA-Sweeper Setup at FRIB
Paula Plazas Isanoa (presenter), Paul L Gueye, Makaila Parks, Kei Minamisono

09:18a - 09:30a Breakup and Incomplete Fusion Reactions in ^{7}Be + ^{208}Pb
Marshall J Basson (presenter), Kaitlin Jennifer Cook, Iulia-Maria Harca, Kyle W Brown

09:30a - 09:42a Extending Progress in Multi-Step Abrasion Reaction Mechanisms
Oleg B. Tarasov (presenter), Bradley M Sherrill, Marc Hausmann, Mauricio Portillo, Deuk Soon Ahn, Mallory K Smith, Elaine Kwan, Alexander C Dombos, David Kahl, Kei Fukushima, Mathias Steiner, Shane Watters, Daniel Kaloyanov

09:42a - 09:54a Probing neutron-rich prefragment distributions for $^{9}Be(^{32}Mg,X)$ at 86 MeV/u
Georgia Votta (presenter), Paul L Gueye, Michael R Thoennessen

09:54a - 10:06a Trajectory Reconstruction in ARIS for Production Kinematics Studies
Shane Watters (presenter), Oleg B Tarasov, Bradley M Sherrill, Deuk Soon Ahn, Alexander C Dombos, Kei Fukushima, Marc Hausmann, David Kahl, Daniel Kaloyanov, Elaine Kwan, Mauricio Portillo, Mallory K Smith, Mathias Steiner

Sun. October 19
10:15a - 10:45a//KB01
Hilton Chicago,
Salon C Pre-Function (Lower Level) & Continental Foyer (Lobby Level)

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Coffee Break V Break

Sun. October 19
10:30a - 12:18p//L01
Hilton Chicago,
Continental A, Lobby Level

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Fingerprints from Exotic Nuclei on Astrophysical Transients

Invited Session

Invited: Jaspreet S Randhawa, Artemis Spyrou, Xilu Wang

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10:30a - 11:06a Invited Enhanced production of ^{60}Fe in massive stars and supernova explosions
Artemis Spyrou (presenter), Debra Richman, Aaron J Couture, Carl Fields, Sean N Liddick, Katherine Childers, Benjamin P Crider, Paul A Deyoung, Alexander C Dombos, Panagiotis Gastis, Magne Guttormsen, Kirby Hermansen, Ann-Cecilie Larsen, Rebecca Lewis, Stephanie M Lyons, Jorgen Midtbo, Shea Mosby, Dennis Muecher, Farheen Naqvi, Alicia R Palmisano, Georgios Perdikakis, Christopher Prokop, Hendrik Schatz, Mallory K Smith, Chandana S Sumithrarachchi, Adriana Sweet

11:06a - 11:42a MeV Gamma Rays from r-Process Sites: A Distinct Signature of Heavy-Element Production
Invited
Xilu Wang (presenter)

11:42a - 12:18p Imprints of nuclear burning on X-ray transients
Invited
Jaspreet S Randhawa (presenter)

Sun. October 19
10:30a - 11:54a//L02
Hilton Chicago, Salon A1, Lower Level
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Neutrino Physics V: High-Energy Neutrinos II

– Hide details

10:30a - 10:42a A GiBUU-Based Monte Carlo Simulation for DUNE Physics Studies
Leonidas Aliaga Soplin (presenter)

10:42a - 10:54a Charge Current single charged pion cross-section measurement in ICARUS
Shweta Yadav (presenter)

10:54a - 11:06a Detector Physics Measurements and Calibrations in the MicroBooNE LArTPC
William Foreman, Maria Gabriela Manuel Alves (presenter)

11:06a - 11:18a Precision Hadron Production Measurements from EMPHATIC
Manuel Dallolio (presenter)

11:18a - 11:30a Production of a Neutral Hadron Simulation for the Short Baseline Neutrino Program
Rohan Rajagopalan (presenter)

11:30a - 11:42a Water phase results from Eos
Yashwanth Bezawada (presenter), Gabriel D Orebi Gann

11:42a - 11:54a WbLS phase results from Eos
Leon Pickard (presenter), Gabriel D Orebi Gann

Sun. October 19
10:30a - 11:54a//L03
Hilton Chicago, Salon A2, Lower Level
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Nuclear Astrophysics II

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10:30a - 10:42a The ^{14}O(alpha,p)^{17}F Reaction Rate and Type I X-ray Bursts
Jeff C Blackmon (presenter), Balakrishnan Sudarsan, L. E Linhardt, Lagy Baby, Dan W Bardayan, Catherine M Deibel, H. E Gardiner, Evgeniy Koshchiy, Kevin T Macon, Milan Matos, Bertis C Rasco, D. Santiago-Gonzalez, Grigory V Rogachev, Michael S. Smith, Ingo L Wiedenhover

10:42a - 10:54a Constraining the ^{34}Cl(p,γ)^{35}Ar reaction rate for ONe nova nucleosynthesis with the the ^{34}Cl(d,p)^{35}Cl mirror reaction
Rajat Aggarwal (presenter), Sergio Almaraz-Calderon, Calem R Hoffman, Benjamin P Kay, Ivan Tolstukhin, Kirby W Kemper

10:54a - 11:06a Total Absorption Spectroscopy of ^{75}Ni β Decay
Jessica M Berkman (presenter), Rebecca Lewis, Sean N Liddick, Mejdi J Mogannam, Eleanor K Ronning, Artemis Spyrou, Stephanie M Lyons, Aaron Chester, Darren L Bleuel, Katherine Childers, Benjamin P Crider, Alex C Dombos, Magne Guttormsen, Caley Harris, Ann-Cecilie Larsen, Alicia R Palmisano, Andrea L Richard, Debra Richman, Nicholas David Scielzo, Anna Simon, Mallory K Smith, Antonius Torode, Adriana Sweet, Remco G.T. Zegers

11:06a - 11:18a Low-Spin Structure of ^{58}Cu and its Impact on the ^{57}Ni(p,γ)^{58}Cu Reaction in the νp-Process
Sean Patrick Byrne (presenter), Andrew M Rogers, Gavin Latoy, Dan Doherty, Dan W Bardayan, Michael P Carpenter, Jack Henderson, Amel Korichi, Torben Lauritsen, Dirk Rudolph, Darek Seweryniak, Aysegul Ertoprak, Shaikh Gholam Wahid, Matthew Williams, Jacob Heery, Vasil Karayonchev, Eilens Lopez Saavedra, Claus Müller-Gatermann, Walter Reviol, Luis Sarmiento, Nirupama Sensharma, Sanjanee Waniganeththi, Yiyi Zhu, Scott Carmichael, Maike Beuschlein, Chris Cousins, Connor O'Shea, Yuliia Hrabar, Reuben Russell, Marco Siciliano, Greg Willmott, Ragandeep Singh Sidhu, Christian M Burns, Kartikeya Sharma

11:18a - 11:30a Experimental Constraints to the ^{57}Ni(p,γ)^{58}Cu Reaction Rate
Scott Carmichael (presenter), Steven D Pain, Dan W Bardayan, Andrew Ratkiewicz, Claus Mueller Gatermann, Marco Siciliano, Jacob Allen, Chevelle Boomershine, Christopher M Campbell, Michael P Carpenter, Kelly A Chipps, Jolie Antonia Cizewski, Sydney Coil, Patrick A Copp, Cade Dembski, Jason David Forson, Heather Irene Garland, Tom Gore, Rajesh Ghimire, Kate L Jones, Jerome Mathew Kovoor, Torben Lauritsen, Pedro Magro, Patrick D O'Malley, Walter Reviol, Dariusz Seweryniak, Harrison E Sims, Chad Conrad Ummel, Gemma L Wilson

11:30a - 11:42a Neutron transmission study of ^{17}O resonances near the ^{13}C(α,n)^{16}O threshold
Joseph Ambrose Derkin (presenter), Carl Richard Brune, Bikash Chauhan, Michael Jeswald, Yenuel S Jones-Alberty, Thomas Neal Massey, Cody E Parker, Austin Rambo, Cade Saugier, Nisha Singh, Justin Warren

11:42a - 11:54a Measurement of the ^{56}Ni(a,p)^{59}Cu Reaction Cross Section
Christoforos Frantzis (presenter), Kelly A. Chipps, Fernando Montes, Steven D. Pain, Hendrik Schatz, Louis Wagner

Sun. October 19
10:30a - 12:06p//L04
Hilton Chicago, Salon A3, Lower Level

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Nuclear Theory IV

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10:30a - 10:42a Using effective bosons to capture nuclear deformation
Andre D Johnson (presenter), Ragnar R Stroberg

10:42a - 10:54a Divide, project, recouple: accelerating beyond-mean-field calculations
Calvin W Johnson (presenter)

10:54a - 11:06a Symmetry Adapted Model (SAM)
David Kekejian (presenter), Phong Quoc Dang, Jerry P Draayer, Daniel Langr, Tomas Dytrych

11:06a - 11:18a Finite-range pairing in nuclear density functional theory
Sudhanva S Lalit (presenter), Paul-Gerhard Reinhard, Kyle S Godbey, Witold Nazarewicz

11:18a - 11:30a Using Pairing to Improve Spherical QRPA Calculations of Low-Lying Octupole Excitations
Minh-Loc Bui (presenter), Calvin W Johnson, Le-Anh Nguyen, Panagiota Papakonstantinou, Naftali Auerbach

11:30a - 11:42a Relativistic Ab-Initio Approach for Nuclear Structure
Kyle Morrisey (presenter)

11:42a - 11:54a Analyzing Effective Field Theory results for ^{3}He-α scatteirng using Bayesian methods
Daniel Robertson Phillips (presenter), Andrius Burnelis

11:54a - 12:06p First-quantization quantum computing for nuclear physics: pion-less interaction
Ronen Weiss (presenter)

Sun. October 19
10:30a - 12:06p//L05
Hilton Chicago, Salon A4, Lower Level
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Mini-Symposium: Data-driven Discoveries in Nuclear Physics II

Mini-Symposium

Invited: Sergio Lopez-Caceres

– Hide details

10:30a - 11:06a Invited
Enhancing Radioactive Beam Transport at CARIBU through AI-driven Automation
Sergio Lopez-Caceres (presenter), Daniel Santiago-Gonzalez

11:06a - 11:18a Quantum Tomography for Collider Physics: A Data-Driven Approach to Imaging Hadronic Structure
Daniel Tapia Takaki (presenter)

11:18a - 11:30a Deep Learning for Polarization Analysis in Solid-State Targets via NMR
Sujan Subedi (presenter), Devin Seay, I. P. Fernando, Dustin Keller

11:30a - 11:42a Enhancing Detector-Grade Yield in High-Purity Germanium Crystal Growth for Next-Generation Dark Matter and Rare Event Detectors
Athul Prem (presenter), Sanjay Bhattarai, Dongming Mei, Kunming Dong, Narayan Budhathoki, Sunil Chhetri, Austin Warren

11:42a - 11:54a Nonparametric equation of state modeling from low-density nuclear theory to pQCD
Katerina Chatziioannou (presenter)

11:54a - 12:06p Direct Inference of Nuclear Equation-of-State Parameters from Gravitational-Wave Observations
Brendan T Reed (presenter), Cassandra L Armstrong, Rahul Somasundaram, Duncan A. Brown, Collin D Capano, Soumi De, Ingo Tews

Sun. October 19
10:30a - 12:30p//L06
Hilton Chicago, Salon A5, Lower Level
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Undergraduate Oral Session V

Undergraduate Students

– Hide details

10:30a - 10:42a Simulation Integration and Dielectric Modeling for the St. Benedict Experiment in SimIon
Brooks Sims (presenter)

10:42a - 10:54a Mechanical Design and Integration of a Live Irradiation Setup for the 2026 LHC pp Run
Aditi Balakrishna (presenter), Aadhavan Aadhavan, Ella R Dahle, Kristopher Daniel Young, Riccardo Longo, Matthias G Perdekamp

10:54a - 11:06a Measurement of Gain Evolution of PMTs for HL-ZDC and LUCID 3
Sude Baltaci (presenter), Riccardo Longo, Nivedha Vasanth, Antonello Sbrizzi, Matthias G Perdekamp

11:06a - 11:18a Applications of Radiation-Hard Fused Silica Materials in Post-Nuclear Accident Radiation Monitors
Reena Baswa (presenter), Henry A Bonzak, Aditi Balakrishna, Aadhavan Aadhavan, Matthias G Perdekamp

11:18a - 11:30a Simulations of nuclear modification effects using energy correlators in jets for the Electron-Ion Collider
Mingyang Gu (presenter), Devon Loomis, Christine A Aidala

11:30a - 11:42a Vector-Meson Reconstruction and Muon ID with the ePIC Backward Calorimeter
Dhruv Sharma (presenter), Caroline K Riedl

11:42a - 11:54a Using MPPCs to Measure the Zenith Angle Dependence of Cosmic Ray Muons
Nathan C Palley (presenter), Lincoln Joseph J Potts, Keegan Swafford, Madison Wilson, Riku Omori, Shiori Sugahara, Hirohiko Shimizu, Takuya Okudaira, Masaaki Kitaguchi, Christopher B Crawford, Jason A Fry, Ivan Novikov, Mae Scott, Martin Veillette, Jessica O'Mahar

11:54a - 12:06p Investigating π_1 (1600) hybrid meson decay with GlueX data
Prakriti Pradhan (presenter)

12:06p - 12:18p Recent jet measurements using the archived ALEPH e+e- data at 91 GeV
Shuangyi Zhou (presenter)

12:18p - 12:30p Developing a 1D stellar evolution model for rotating massive stars to study evolution of the weak s-process elements in the galaxy
Isabella M Bruzzese (presenter), Shuya Ota

Sun. October 19
10:30a - 12:18p//L07
Hilton Chicago, Salon C 1 & 2, Lower Level

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Ultrarelativistic Heavy Ions IV

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10:30a - 10:42a sPHENIX Electron Identification for Prompt J/ψ Decays using DNN and CNN Algorithms
Bade Sayki, Valerie E Wolfe (presenter)

10:42a - 10:54a Bulk Properties of the medium in Ru+Ru and Zr+Zr Collisions at $\sqrt{s_{NN}} = 200$ GeV with STAR detector
Chun Yuen Tsang (presenter)

10:54a - 11:06a Chiral critical point and meson melting in an improved holographic QCD model
Sean P Bartz (presenter), Alexander Waggoner

11:06a - 11:18a Measurement of the inclusive jet cross-section in p+p collisions at $\sqrt{s} = 200\,\mathrm{GeV}$ with the sPHENIX detector
Hanpu Jiang (presenter)

11:18a - 11:30a Photon-QGP Interactions Revisited in a Monte Carlo Scheme
Cameron Parker (presenter), Rainer J. Fries

11:30a - 11:42a Measurement of π^0 and η mesons as a function of transverse momentum in p+p collisions at √s=200 GeV with the sPHENIX detector
Samuel Liechty (presenter)

11:42a - 11:54a Probing baryon correlations in heavy-ion collisions with factorial cumulants
Jonathan Parra (presenter), Gregoire Pihan, Volker Koch, Volodymyr Vovchenko

11:54a - 12:06p Constraining Early-Time Electromagnetic Fields in Heavy Ion Collisions through Z Boson Dimuon Decays with CMS
Zheng Huang (presenter), Frank Gonzalez, Austin Baty, Manuel Calderon de la Barca Sanchez

12:06p - 12:18p Resurrecting the Dead-Cone: EEC Analysis of the Dead-Cone in Simulated p-p and e-p Collisions
Hudson H Mills (presenter)

Sun. October 19
10:30a - 11:30a//L08
Hilton Chicago,
Salon C 3 & 4, Lower Level

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Neutron Physics II

— Hide details

10:30a - 10:42a Electron Accelerator for Detector Characterization with Incident Particle Energies Between 0.1 and 1 MeV: Construction and Experimental Result Updates
William Charles McCray (presenter)

10:42a - 10:54a NESSE: a silicon detector simulation Python package for precision beta decay experiments
Robert Taylor (presenter)

10:54a - 11:06a Characterization of the Energy Reconstruction Techniques Developed for the Large Silicon Detectors Used in the Nab Experiment
Arlee Kaye Shelby (presenter)

11:06a - 11:18a Searching for Magnetic Contaminations in the Neutron Electric Dipole Moment Experiment at Los Alamos National Laboratory
Anastasio Fratangelo (presenter)

11:18a - 11:30a Optically Pumped Magnetometry Strategy for the Los Alamos National Laboratory Neutron Electron Dipole Moment Experiment
Felicity Hills (presenter)

Sun. October 19
10:30a - 11:54a//L09
Hilton Chicago,
Salon C 5 & 6, Lower Level

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Mini-Symposium: Parton Fragmentation in Hard Processes

Mini-Symposium

Invited: Fatiha Benmokhtar

— Hide details

10:30a - 11:06a Parton Fragmentation in Hard Processes
Invited
Fatiha Benmokhtar (presenter)

11:06a - 11:18a Studying hadronization and QCD dynamics with heavy flavor jet substructure at LHCb
Christine A Aidala (presenter)

11:18a - 11:30a Unfolding Hadronization Dynamics via Λ SIDIS Production off Nuclei with CLAS12 at Jefferson Lab
Uditha Weerasinghe (presenter)

11:30a - 11:42a Neutral pion multiplicity studies in SIDIS at CLAS12
Valerii Klimenko (presenter), Marshall Scott

11:42a - 11:54a Measurements of the Cosφ and Cos2φ Moments of the Unpolarized SIDIS π^+ Cross-section at CLAS12
Richard Albert Capobianco (presenter)

Sun. October 19
10:30a - 11:54a//L10
Hilton Chicago,
Salon C 7 & 8, Lower Level

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Instrumentation V: Neutron Techniques

— Hide details

10:30a - 10:42a Next Generation Neutron Detector Development
Thomas Baumann (presenter), Paul L Gueye, Nathan H Frank, Anthony N Kuchera, Paul A Deyoung, Warren F Rogers, Adriana Banu, Thomas Redpath, James Aaron Brown

10:42a - 10:54a Development of compact and modular neutron detector arrays using ^{6}LiF+ZnS(Ag) and wavelength shifters
Heshani Jayatissa (presenter), Felix Liang, Nicholas C Floyd

10:54a - 11:06a Vacuum Chamber Metrology and Detector Housing Design for the BL3 Experiment
Christopher B Crawford (presenter), Jamie Woodworth, Preston Porter, Tiffany Tondreau, Henry Dixon, Daryen Rodriguez-Saucedo

11:06a - 11:18a Absolute Neutron Flux Measurement to Calibrate Neutron Monitor Efficiencies in the BL3 Experiment
Calvin Nettelhorst (presenter)

11:18a - 11:30a A Magnetic Field Mapper to Improve Constraints on Exotic Spin-Dependent Interaction Searches
Krystyna Lopez (presenter)

11:30a - 11:42a MLEM Uncertainty Analysis For Neutron Spectroscopy Using SVD & KLT
Oscar G Thompson (presenter), Rebecca Toomey, Michael T Febbraro, Jesus Oliver

11:42a - 11:54a Imaging nuclear recoils with light-sheet microscopy
Samuel C Hedges (presenter), Patrick Huber

Sun. October 19
10:30a - 11:42a//L11
Hilton Chicago, Waldorf, 3rd Floor

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Applications of Nuclear Physics III: Precision Studies

— Hide details

10:30a - 10:42a New Capabilities for Accurate Decay Data: First Results from the NNDC Decay Station
Andrea Mattera (presenter), Sanjanee Waniganeththi, Elizabeth A McCutchan, Shuya Ota, Jin Wu, Christopher Morse, Marian Jandel

10:42a - 10:54a The n + ^{149}Sm study with DANCE and DICER at LANSCE and abrupt changes in width distributions
Thanos Stamatopoulos, Paul Koehler, Sotirios Chasapoglou, Aaron J Couture, Todd Allen Bredeweg, Brad J DiGiovine, Scott Essenmacher, Rene Reifarth, Josef Svoboda, John Leonard Ullmann, John M O'Donnell, Ryan Amberger (presenter)

10:54a - 11:06a NAUTILUS: a Research Facility on the Move
Alistaer Zhou (presenter), Thomas L Bailey, David G Lund, Griffin Robert Mulcahy, William Peeler, Philippe A. Collon, Amy Hixon, Antonio Simonetti, Clive Neal

11:06a - 11:18a ^{236}U/^{238}U Isotopic Ratio Measurements with Accelerator Mass Spectrometry Using the USRM Standard Reference Materials
Thomas L Bailey (presenter), Noah A Cabanas, Ian Russell, David G Lund, Griffin Robert Mulcahy, Calvin M Bacall, Russell Cox, Chris Dye, John P McDonaugh, William H Peeler, Ruchi Rathod, Fabio Rivero, William W von Seeger, Alistaer Zhou, Philippe A. Collon

11:18a - 11:30a First Successful Measurement of ^{129}I Levels in St. Joseph's Lake Using Accelerator Mass Spectrometry at the University of Notre Dame
David G Lund (presenter), Calvin M Bacall, Thomas L Bailey, Greg Chmiel, Kevin Lee, Griffin R Mulcahy, Khachatur Manukyan, Graham F Peaslee, William Peeler, Javier Rufino, Michael A Skulski, Maxwell Q Sorensen, William W von Seeger, Armenhui Yeghishyan, Alistaer Zhou, Philippe A. Collon

11:30a - 11:42a First results on the study of the ^{191,193}Ir(n,tot) reactions at DICER

Sotirios Chasapoglou, Thanos Stamatopoulos, Gencho Y Rusev, Paul Edward Koehler, Aaron J Couture, Brad J DiGiovine, John Leonard Ullmann, Ryan Amberger (presenter)

Sun. October 19
10:30a - 12:06p//L12
Hilton Chicago, Boulevard C, 2nd Floor

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Low Energy Nuclear Structure III: Light systems

— Hide details

10:30a - 10:42a Single-neutron spectroscopy of ^{12}C using the $^{11}C(d,p)$ reaction at 10 MeV/u.
Tsz Leung Tang (presenter)

10:42a - 10:54a Superradiant 3/2^+ state and parity mixing in fast reaction-decay correlations
Ingo Wiedenhoever (presenter), Kenneth G Hanselman, Alexander Volya, Lagy Baby, Gordon McCann, Kevin T Macon, Erin C Good, Catherine M Deibel, Sudarsan Balakrishnan, Jeff C Blackmon

10:54a - 11:06a A search for Hoyle-like analogous state in ^{16}O and ^{24}Mg with the AT-TPC data using machine learning methods
Pranjal Singh (presenter), Daniel Bazin, Takahiro KAWABATA, Daniela Ramirez Chavez, Benjamin P Kay, Marco Cortesi, Saul Beceiro Novo, Wolfgang Mittig, Clementine Angelique Santamaria, Jaspreet S Randhawa, Lisa Carpenter, Clementine Angelique Santamaria, Isao Tanihata, Tatsuya Furuno, Masatoshi Itoh, Yuki Matsuda, Hidetoshi Akimune, Hooi Jin ONG, Yassid Ayyad, Zach M Serikow, Nathan Turi, Gordon W McCann

11:06a - 11:18a Resonances in Unbound Systems from ^{7}Be reacting on Deuterium Gas in Inverse Kinematics
Daniela Ramirez Chavez (presenter), Daniel Bazin, Juan C Zamora, Valdir Guimaraes, Yassid Ayyad, Tan Ahn, Melina Avila, Dan W Bardayan, Cristina Cabo, Kyungyuk Chae, Jie Chen, Bea Fernandez-Dominguez, Simon Giraud, Benjamin P Kay, Jesus Lubian, Juan Lois Fuentes, Wolfgang Mittig, Zarif M Rahman, Zach M Serikow, Nathan Turi, Remco Zegers, Magdalena Kuich, Sk Mustak Ali, Sunghan Bae, Calem R Hoffman, Saul Beceiro-Novo

11:18a - 11:30a Investigating Resonances in Light Nuclei with ^{3}He-Induced Reactions
Zachary M Purcell (presenter), Scott T Marley, Rachel M Shaffer, Benjamin Asher, Lagy Baby, Caleb B Benetti, William Braverman, Alex L Conley, Keilah Davis, Catherine M Deibel, Chris Esparza, Kenneth G Hanselman, Bryan Kelly, Kevin T Macon, Gordon William McCann, Ashton Brooke Morelock, Andrea Munroe, Jesus F Perello Izaguirre, Khang H Pham, Vignesh Sitaraman, Sudarsan Balakrishnan, Eli S Temanson, Ingo Wiedenhoever

11:30a - 11:42a Studying the Proton-Unbound Superradiant State in ^{13}C
Juan Christopher Esparza (presenter), Ingo L Wiedenhoever, Lagy Baby, Alex L Conley, Vignesh Sitaraman, Bryan Kelly, Andrew Peters, Matthew Mestayer, Jacob Davis, Adam Ring, Rajat Aggarwal, Tyler Stuck, Daniel Seijas, Maria Fernanda Fernandez Davila Pastor, River Sheridan, Andrew Cook, Ella Marie Sarnac

11:42a - 11:54a Probing Halo Structure in Excited States of ^{17}C with the Gamma-decay Transmission Method
Andrew Douglas (presenter), Nobuyuki Kobayashi, Hironori Iwasaki, George L Zimba

11:54a - 12:06p Experimental Study Of The Electromagnetic Transitions in Neutron-rich ^{22}F
Muzafar Ibrahim (presenter), Peter C Bender, Brenden Longfellow, Claus Müller-Gatermann, Darek Seweryniak, Tobias Beck, Christopher M Campbell, Michael P Carpenter, Patrick Copp, Peter Farris, Daniel E Hoff, Calem R Hoffman, Amel Korichi, Torben Lauritsen, Walter Reviol, Elizabeth Rubino, Marco Siciliano, Yiyi Zhu

Sun. October 19
10:30a - 11:30a//L13
Hilton Chicago, Continental C, Lobby Level
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Neutrino Physics IV: 0νββ and Direct Mass II

– Hide details

10:30a - 10:42a Search for Double Beta Decays of ^{134}Xe with EXO-200 Phase II
Hannah Elizabeth Peltz Smalley (presenter), Seth Payne Thibado, Andrea Pocar

10:42a - 10:54a Results from the LEGEND-200 experiment in the search for neutrinoless double beta decay
Harisree Krishnamoorthy, Aparajita Mazumdar (presenter)

10:54a - 11:06a Most precise measurement of 2νββ half-life and shape of ^{130}Te with CUORE
Stefano Ghislandi (presenter)

11:06a - 11:18a Precision calibration of the CUORE 0νββ data with ^{56}Co gamma spectra
Aaron W Chizhik (presenter), Eric B Norman, Andrew S Voyles, Tong Zhu, Yury G Kolomensky

11:18a - 11:30a Measurements of ^{134}Xe(n,2n)^{133}Xe and ^{134}Xe(n,γ)^{135}Xe Cross-sections
Hyperion Aurinkeihäs (presenter), Mary F Kidd, Werner Tornow, Sean Finch

Sun. October 19
10:30a - 12:30p//L14
Hilton Chicago, 4C, 4th Floor
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Undergraduate Oral Session VI Undergraduate Students

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10:30a - 10:42a Quality Assurance of Lead-Tungstate Crystals for the ePIC Electron Endcap Electromagnetic Calorimeter at the Electron–Ion Collider
Mirella M Lajos (presenter)

10:42a - 10:54a Implementing Double Trapezoidal Filters on FPGAs for Data Analysis
Joshua Purnell (presenter), Christopher B Crawford

10:54a - 11:06a Emulating QRPA Response Calculations
Lauren Jin (presenter), Ante Ravlic, Pablo G Giuliani, Kyle S Godbey, Witold Nazarewicz

11:06a - 11:18a Exploring the Feasibility of Extracting Orbital Angular Momentum at Small x from Polarized Elastic Dijet Production
Benjamin Kegerreis (presenter), Nicholas Baldonado, Gabriel Zardo Becker, Yuri V Kovchegov, Ming Li, Brandon Manley, Wally Melnitchouk, Daniel Pitonyak, Nobuo Sato, Matthew D Sievert, Andrey Tarasov, Yossathorn Tawabutr

11:18a - 11:30a Optical Emission Spectroscopy Diagnostic for an ECR Dissociator
Crystal Killian (presenter), Walter Pettus, Anna Reine, Jin Oueslati

11:30a - 11:42a Characterization of Thin ^{nat}Sn Targets for Nuclear Reaction Experiments
Layla R Koon (presenter), Jillian K Tung, Charles M Folden III

11:42a - 11:54a Embedded Representations of TPC Data
Nikita Aleksii (presenter), Tanaka Makoni, Michelle Perry Kuchera, Raghuram Ramanujan, Yassid Ayyad, Daniel Bazin

11:54a - 12:06p Monitoring Detector Stability for MUSE
Meghan Foster (presenter), Evangeline J Downie

12:06p - 12:18p Preliminary Results of Particle Discrimination with Hybrid Pixel Detectors at the Annular Core Research Reactor
Adrienne Nicole Lehman (presenter), Andrew J Castro

12:18p - 12:30p Construction and Testing of the Upgraded Position-sensitive Ionization Drift Chamber Detector for Use with the SE-SPS
Jack R Rogers (presenter), Catherine M Deibel, Jeff C Blackmon, Molly E McLain, Cullen M Domangue

Sun. October 19
12:30p - 01:50p//M01
Hilton Chicago, Continental B, Lobby Level
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Graduate School Fair Graduate Students

Sun. October 19
12:30p - 02:00p//M02
Hilton Chicago, 4A, 4th Floor
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Postdocs, Faculty, and Staff Science Upstander Workshop Workshop

Sun. October 19
12:30p - 02:30p//M03
Hilton Chicago, Buckingham, Lobby Level
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RHIC User Group

Sun. October 19
01:30p - 02:00p//MB01
Hilton Chicago, Salon C Pre-Function (Lower Level) & Continental Foyer (Lobby Level)
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Coffee Break VI Break

Sun. October 19
02:00p - 04:00p//N01
Hilton Chicago, Continental A, Lobby Level
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Award Session Invited Session Prize/Award

Invited: Wei Jia Ong, Ernst Rehm, Bruno Scheihing Hitschfeld, Zhiwan Xu

– Hide details

02:00p - 02:36p Invited
Not Toast Yet- Type I X-ray Bursts and Accreted Neutron Star Crusts
Wei Jia Ong (presenter)

02:36p - 03:00p Invited
Search for the Chiral Magnetic Effect from STAR Beam Energy Scan-II data
Zhiwan Xu (presenter)

03:00p - 03:24p Invited
Dissertation Award in Nuclear Physics Talk: Formation of Quark-Gluon Plasma and the Dynamics of Quarkonium within it

Bruno Scheihing Hitschfeld (presenter)

03:24p - 04:00p Mentoring Award
Invited
Ernst Rehm (presenter)

Sun. October 19
02:00p - 03:12p//N02
Hilton Chicago, Salon A1, Lower Level

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Neutrino Physics VI: Low-Energy Neutrinos II

– Hide details

02:00p - 02:12p Performance of the ROADSTR PSD Plastic Prototype Detector
Franz Danylo Machado (presenter)

02:12p - 02:24p PROSPECT-I Absolute Antineutrino Flux Measurement
Nicholas Craft (presenter)

02:24p - 02:36p MARS Detector -- Measuring the Neutron Background of the COHERENT Experiment
Hexiang Huang (presenter)

02:36p - 02:48p Status of the Tonne-Scale Sodium Iodide detector (NaIvETe) from the COHERENT collaboration.
Jane O'Reilly (presenter)

02:48p - 03:00p COHERENT MicroCLEAR: Towards a Measurement of Coherent Elastic Neutrino-Nucleus Scattering on Neon
Ana Isabel Colon Rivera (presenter)

03:00p - 03:12p TPB coating equipment and methods for the COH-Ar 750 detector.
Andrew J Orvedahl (presenter)

Sun. October 19
02:00p - 03:36p//N03
Hilton Chicago, Salon A2, Lower Level

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Mini-Symposium: Computational Nuclear Physics for Exotic Nuclei and Astrophysics II

Mini-Symposium

Invited: Georgios Perdikakis

– Hide details

02:00p - 02:36p Uncertainty-quantified reaction modeling via data-driven multi-objective optimization.
Invited
Georgios Perdikakis (presenter), Nikolaos Dimitrakopoulos, Fernando Montes, Panagiotis Gastis, Sean A Kuvin, Hye Young Lee, Pelagia Tsintari, Alexander Voinov

02:36p - 02:48p Evaluation of Basic Properties of Nuclei: Updates on the AME and NUBASE
Rikel Chakma (presenter), Filip G Kondev, Wenjia Huang, Meng Wang, Sarah Naimi

02:48p - 03:00p Global emulation of atomic nuclei
Antoine Belley (presenter)

03:00p - 03:12p The Impact of Neutron-Nucleus Interaction Uncertainties on Astrophysical Reacton Rates
Jonathan Cabrera Garcia (presenter), Atul Kedia, Gail C McLaughlin

03:12p - 03:24p Machine Learning for Uncertainty Quantification in Neutron Matter
Cassandra L Armstrong (presenter)

03:24p - 03:36p Quantifying Uncertainties in the Neutron Star Equation of State with Gaussian Processes
Yoon Gyu Lee (presenter), Jane M Kim, Tianqi Zhao, Christian Drischler

Sun. October 19

Nuclear Theory V

02:00p - 03:36p//N04
Hilton Chicago, Salon A3, Lower Level

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02:00p - 02:12p New Algorithms for Lattice Simulations of Nuclear Structure and Reactions
Dean J Lee (presenter)

02:12p - 02:24p Orbital Removal via In-Medium Similarity Renormalization Group
Brandon Lem (presenter), Scott K Bogner, Aryan Vaidya

02:24p - 02:36p Coulomb effects in Helium-3
Xincheng Lin (presenter)

02:36p - 02:48p Neutron matter superfluidity in Nuclear Lattice EFT
Yuanzhuo Ma (presenter)

02:48p - 03:00p Ab initio calculations of light nuclei with quantified uncertainties
Pieter Maris (presenter)

03:00p - 03:12p The impact of emergent symmetries on beta decay in light nuclei
Anna E McCoy (presenter)

03:12p - 03:24p Coulomb corrections to the three-nucleon electroweak form factors towards a more precise proton-proton fusion prediction
Ha Song Nguyen (presenter), Jared Vanasse

03:24p - 03:36p Worldline Monte Carlo method for few body nuclear physics
Son T. Nguyen (presenter), Shailesh Chandrasekharan, Thomas Richchardson

Sun. October 19
02:00p - 04:00p//N06
Hilton Chicago, Salon A5, Lower Level

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Undergraduate Oral Session VII Undergraduate Students

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02:00p - 02:12p High-precision measurements of half-lives for ^{196}Au, ^{99}Mo, ^{122}Sb, ^{79}Kr, ^{77}Kr, ^{89}Zr, ^{85}Sr, and ^{77}Br radionuclides via photoactivation at the Madison Accelerator Laboratory.
Aiden Ebner (presenter), Lena Cressman, Robert Geissler, Mace Mierisch, Tilda Pendleton, David Purdham, Evan Witczak, Adriana Banu

02:12p - 02:24p Analysis of toponium mass spectra with the T-matrix formalism
Oliver Fast (presenter), Zhanduo Tang, Ralf F Rapp

02:24p - 02:36p Characterizing silicon photomultipliers for a next generation neutron detector
Jalen Felix (presenter), Thomas Redpath

02:36p - 02:48p Updates to the FAIRRAY Detector at the UMass Lowell Research Reactor
Daniel E Fernandez (presenter), Marian Jandel, Stanislav Valenta

02:48p - 03:00p Optical Characterization of Window Materials for the J-PARC MARQ RICH Aerogel Radiator
Owen K Finch (presenter), Ken Suzuki, Hiroyuki Noumi, Michael K Frank

03:00p - 03:12p Optimization of the Light Guides for the ATLAS-ZDC
Ujjwal Paul (presenter), Matthias G Perdekamp, Riccardo Longo

03:12p - 03:24p Additive Manufacturing of Near Components for Background Reduction and Structural Supports in LEGEND-1000

Venkata Dinesh Reddy Gangavarapu (presenter), Brennan T Hackett

03:24p - 03:36p In Search of Mirror Neutrons: Prototyping a Tri-Helical Coil with a Longitudinally Tunable Uniform Omnidirectional Field
Benjamin J Gorton (presenter), Christopher B Crawford, Thomas G Porter, Andrew Winterman

03:36p - 03:48p Silicon Strip Detector Testing in Support of Proposed Deuteron Charge Radius Measurements
Mohima Chowdhury Anushi (presenter), Forrest QL Friesen, Jingyi Zhou, Diane M Markoff

03:48p - 04:00p Investigating Shell Structure at the N=34 Shell Gap
Ella Marie Sarnac (presenter), Vandana Tripathi, Samuel Ayaji, Jacob Davis

Sun. October 19
02:00p - 03:48p//N07
Hilton Chicago, Salon C 1 & 2, Lower Level

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Ultrarelativistic Heavy Ions V

— Hide details

02:00p - 02:12p sPHENIX Minimum Bias Trigger Efficiency as a function of Jet p_T in pp at $\sqrt{s}$ = 200 GeV
Nikhil Kumar (presenter)

02:12p - 02:24p Visualizing the diffusion wake in high-energy heavy-ion collisions
Zhong Yang (presenter), Xin-Nian Wang, Rithya Elayavalli

02:24p - 02:36p Estimating epistemic and aleatoric uncertainties for Omnifolded distributions
Tanmay Pani (presenter)

02:36p - 02:48p Event-by-Event Flow Harmonic Analysis of Xe–Xe Collisions and Comparison with Pb–Pb Collisions at the LHC
Qutaiba Al Al Shaikh (presenter)

02:48p - 03:00p Charm quark hadronization into baryons and its dependence on the collision system in ALICE.
Maria Fernanda Torres Cabrera (presenter)

03:00p - 03:12p Search for collectivity and strangeness enhancement inside high-multiplicity jets in pp collisions with CMS
Prottoy Das (presenter), Austin Baty

03:12p - 03:24p Low-Mass Vector-Meson Production at Forward Rapidity in p+p and Au+Au Collisions at $\sqrt{S_{NN}}$=200GeV.
Uttam Acharya (presenter), Murad Sarsour

03:24p - 03:36p Photon radiation by fermions rotating with quark-gluon plasma in strong magnetic field
Nandagopal Vijayakumar (presenter), Matteo Buzzegoli, Jonathan David Kroth, Kirill Tuchin

03:36p - 03:48p Hadronic Calorimeter Calibrations using Cosmic Muons with sPHENIX Experiment at RHIC
Anjaly Sasikumar Menon (presenter)

Sun. October 19
02:00p - 03:36p//N08
Hilton Chicago, Salon C 3 & 4, Lower Level

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Nuclear Schiff Moments and CP-Violation in Heavy Systems

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02:00p - 02:12p Search for Fundamental Symmetry Violations through Upgraded Radium-225 EDM Measurements
Yousuf Alishan (presenter), Aiden Robert Boyer, Gordon Arrowsmith-Kron, Michael N Bishof, David Peana, Peter

Mueller, Thomas P O'Connor, Kevin G Bailey, Skylar Milne, Lindsey Hickman, Graham Malone, Aesen Copeland, Jaideep Taggart Singh

02:12p - 02:24p Progress toward improved limits on charge-parity violation using octupole-deformed Radium atoms.
David Peana (presenter)

02:24p - 02:36p Towards a Precision Measurement of the Nuclear Schiff Moment in 205TlF molecules with CeNTREX
Olivier Grasdijk (presenter), David P DeMille, David M Kawall, Jianhui Li, Carrie E McClure, Junlin Wu, Yuanhang Yang, Perry Zhou, Tanya Zelevinsky

02:36p - 02:48p Contribution of Neutrons and Protons to Nuclear EDM in Deformed Species
Prajwal T MohanMurthy (presenter), Jeff Allen Winger

02:48p - 03:00p The FRIB-EDM3 Experiment: Searching for nuclear CP-violation using radioactive molecules in solids
Nicholas Nusgart (presenter), Aiden Robert Boyer, Jaideep Taggart Singh

03:00p - 03:12p Prospects of Calibrating the New Physics Sensititivy of Protactinium-229 Via Nuclear Structure Measurements
Jaideep Taggart Singh (presenter), Aiden Robert Boyer, Stephan Friedrich, Marie-Anne Descalle, Catherine Burcklen

03:12p - 03:24p Development of Offline Francium Sources to search for hadronic CP violation
Mohit Verma (presenter)

03:24p - 03:36p Searching for hadronic CP violation using ultracold assembled FrAg molecules
Shaozhen Yang (presenter), Mohit Verma, Wesley Cassidy, Harish Ramachandran, Abby Kinney, Alan O Jamison, David P DeMille

Sun. October 19
02:00p - 03:36p//N09
Hilton Chicago, Salon C 5 & 6, Lower Level

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Nucleon Form Factors and 3D Structure

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02:00p - 02:12p Analysis Progress of the NTPE Experiment with Super BigBite Spectrometer at Jefferson Lab
Eric Fuchey (presenter), Ezekiel Wertz, Provakar Datta, Anuruddha D Rathnayake, Maria T Satnik

02:12p - 02:24p Status and Update of the SBS Experiment to Measurement the Neutron Electromagnetic Form Factor Ratio (G_E^n/G_M^n) up to Q^2 of 9.8 GeV^2
Jacob M Koenemann (presenter)

02:24p - 02:36p Analysis of PR detector data from the GEn-RP experiment
Sarashowati Dhital (presenter), Michael Kohl, Bogdan B Wojtsekhowski, David Hamilton, William Tireman, Andrew James Puckett, Ryan Richards, Dulitha Jayakodige

02:36p - 02:48p Jefferson Lab GEp-V Proton Electromagnetic Form Factor Ratio Measurment at High Momentum Transfer
Jacob Thomas McMurtry (presenter)

02:48p - 03:00p Optimization of the Calorimeters and Coincidence Trigger in the SBS GEP Experiment
Nikolas K Hunt (presenter)

03:00p - 03:12p Triple-GEM based Polarimeter Tracker for the High-Q^2 Proton Form Factor Measurement (GEp-V) at Jefferson Lab

Vidhura Vishvanath Nishshanka Arachchillage (presenter)

03:12p - 03:24p SBS GEP Experiment Event Reconstruction Software
Anuruddha D Rathnayake (presenter), Andrew James Puckett

03:24p - 03:36p SoLID: Nucleon 3D Structure at the Luminosity Frontier
Chao Peng (presenter)

Sun. October 19
02:00p - 03:48p//N10
Hilton Chicago, Salon C 7 & 8, Lower Level
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Instrumentation VI: Tracking

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02:00p - 02:12p Gas Electron Multiplier (GEM) Tracker for PRad-II Experiment at Jefferson Lab
Kiribathgodage Nithya U Kularatne (presenter), Mihitha Maithripala, Xinzhan Bai, Nilanga Liyanage, Huong Nguyen

02:12p - 02:24p Design and Performance of Cross-Shaped Veto Scintillator Detector in the PRad-II Experiment
Buddhiman Tamang (presenter)

02:24p - 02:36p High-Precision Tracking and Calibration with a Novel Triple-GEM Detector for the Moller Experiment
Asar Ahmed (presenter)

02:36p - 02:48p Upgrade of the sPHENIX TPC High Voltage System
Charles P Hughes (presenter)

02:48p - 03:00p Correcting Static Distortions in the sPHENIX TPC with a Remotely Steerable Laser System
Seth Howell (presenter)

03:00p - 03:12p Correcting Dynamic Distortions in the sPHENIX TPC using a Patterned Central Membrane
Christopher Platte (presenter)

03:12p - 03:24p Installation & Commissioning of GEM detectors for the DarkLight Experiment at TRIUMF
Manjukrishna Suresh (presenter), Michael Kohl, Ryan Richards, Dulitha Jayakodige

03:24p - 03:36p Efficiency Analysis of MUSE GEMs
Dulitha Jayakodige, Michael Kohl (presenter), Angel Christopher, Anne Flannery, Tanvi Patel, Ryan Richards, Krystal Scott

03:36p - 03:48p Silicon vertex tracker design simulations for in-beam spectroscopy with GRETA
Michael Armstrong (presenter), Heather L Crawford

Sun. October 19
02:00p - 03:12p//N12
Hilton Chicago, Boulevard C, 2nd Floor
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Low Energy Nuclear Structure IV: Measurements I

– Hide details

02:00p - 02:12p Spectral line shape in collinear laser spectroscopy after atomic charge exchange
Adam J Dockery (presenter), Kei Minamisono, Alejandro Ortiz Cortes, Brooke J Rickey

02:12p - 02:24p Proton Removal from ^{21}F: Probing the Z = 8 Shell Gap and the ⟨F|O+p⟩ overlap using HELIOS
Juan Lois Fuentes (presenter), Thomas Redpath, Calem R Hoffman, Benjamin P Kay, Ivan Tolstukhin, Alex Brown, Paul L Gueye, Nicholas Mendez, Georgia Votta, Beatriz Fernandez-Dominguez, Miguel Lozano-Gonzalez, Yassid Ayyad, Ivan Blanco-Calvino, Jalen Felix, Nicolas Dronchi, ALDRIC REVEL, David Lempke, Henry Sims, Samantha Waller, Andrew Wantz, Thomas Baumann,

Gabriel Garcia-Jimenez, Ryan Tang, Nyasia James, Trinity Allen, Aditya Babu

02:24p - 02:36p The Nuclear Structure of ^{72,74}Ge from Inelastic Neutron Scattering
Erin E Peters (presenter), Steven W Yates, B. Alex Brown, Sharmistha Mukhopadhyay, Anthony Ramirez

02:36p - 02:48p Preliminary Neutron Capture Cross Section Analysis of Iodine-127 Using DANCE
Ahmad Taninah (presenter), Benjamin P Crider, William Michael Snow, Jayden E Palomino

02:48p - 03:00p Neutron transfer near the N=20 Island of Inversion with the ^{29}Mg(d,p)^{30}Mg reaction
Alan H Wuosmaa (presenter), Juliette K Stecenko, Calem R Hoffman, Benjamin P Kay, Matthew Scott Martin, Ryan Tang, Ivan Tolstukhin, Roderick M Clark, Daniel Bazin, Saul Beceiro-Novo, Jorge Pereira, Daniela Ramirez Chavez, Pranjal Singh, Nathan Turi

03:00p - 03:12p Exploration of Nuclear Clustering via Compound Decay Pathways
Bryan M Harvey (presenter), Travis Hankins, Alan B McIntosh, Kris Hagel, Sherry J Yennello

Sun. October 19
02:00p - 03:36p//N14
Hilton Chicago, 4C, 4th Floor

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Undergraduate Oral Session VIII Undergraduate Students

– Hide details

02:00p - 02:12p Energy Distribution of Proton Beams Degraded by Rotating Aluminum Foil Wheel for Space Radiation Simulation
Adrian Martinez (presenter), Henry L Clark, Gabriel C Tabacaru

02:12p - 02:24p Statistical Modeling of Deeply Virtual Exclusive Scattering Reactions: Database Construction and Maximum Likelihood Methods
Lionel A Straus (presenter), Simonetta Liuti, Douglas Adams, Zaki Panjsheeri, Saraswati Pandey

02:24p - 02:36p "A study of applications of Physics-Informed Neural Networks"
Haley Rathman (presenter), Agustin Menjivar, Ava Oberrender, Alexey Prokudin

02:36p - 02:48p Development of High-Reflectivity Mirror for pfRICH in the EIC Experiment
Mahmodol Mojumder (presenter), Preet Mann, Abhay Deshpande, Charles-Joseph NAIM, Dongwi Dongwi, Zhoudunming Tu

02:48p - 03:00p Sample Holder for Efficiency Characterization of High-Purity Germanium Gamma-Ray Detectors
Nathan M Morales (presenter), Phillip Adsley, Alan B McIntosh, Sherry J Yennello, Lauren A McIntosh

03:00p - 03:12p Potential Impact of Various Equations of State on Jet Quenching Observables in Heavy Ion Collisions
Olivia Noelle Nippe-Jeakins (presenter), Rithya Kunnawalkam Elayavalli, Zhong Yang

03:12p - 03:24p Neutron Activation of KCl to Produce 36Cl to Verify Energy-Mass Equivalence
Ryan Opperman (presenter)

03:24p - 03:36p Simulation Study of Energy-Energy Correlators at LHCb
Nana Ozaki (presenter), Dillon Fitzgerald, Esteban Felipe Molina Cardenas, Christine A Aidala

Sun. October 19
04:00p - 05:12p//P02
Hilton Chicago,
Salon A1, Lower Level

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Neutrino Physics VII: 0νββ and Direct Mass III

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04:00p - 04:12p Overview of the Project 8 Neutrino Mass Experiment
Pranava Teja Surukuchi (presenter)

04:12p - 04:24p Integrated Magnetic Field Design for the Project 8 Experiment
R G Hamish Robertson (presenter)

04:24p - 04:36p Sensitivity of a Project 8 Cubic-Meter Scale Neutrino Mass Experiment
Talia E. Weiss (presenter)

04:36p - 04:48p The Path Towards KamLAND2-Zen, a Next-Generation 0νββ Experiment
Oemer Penek (presenter)

04:48p - 05:00p CNO neutrinos and dark matter searches in the nEXO neutrinoless double beta experiment
Brian G Lenardo (presenter)

05:00p - 05:12p Determining the leading-order contact term induced by sterile neutrinos in neutrinoless double β decay
Sebastian Urrutia Quiroga (presenter), Vincenzo Cirigliano, Wouter DEKENS

Sun. October 19
04:00p - 05:24p//P07
Hilton Chicago,
Salon C 1 & 2, Lower Level

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Ultrarelativistic Heavy Ions VI

— Hide details

04:00p - 04:12p Alignment and Residual Studies of the sPHENIX TPC
Mariia Mitrankova (presenter)

04:12p - 04:24p The Magnet Station: A soft particle tracker in LHCb to reach unexplored quantum chromodynamics regimes.
Cesar Luiz Da Silva (presenter)

04:24p - 04:36p Search For Nuclear Stopping using Bremsstrahlung Photons Emitted from Ultra-central Pb+Pb Collision at the Large Hadron Collider (CERN)
Michael R Chukwuka (presenter)

04:36p - 04:48p Modeling Space Charge Distortions in the sPHENIX TPC using Digital Currents
Adeeb Saed (presenter)

04:48p - 05:00p Measurements of the Two-Point Energy-Energy Correlator in pp Collisions √s = 510 GeV at STAR
Manuel A Rosales (presenter)

05:00p - 05:12p Femtoscopy of rotating sources
Oleh Savchuk (presenter)

05:12p - 05:24p New Submission Jet Axis Decorrelation Studies Using the ALEPH Detector at LEP
Jeetendra Gupta (presenter)

Sun. October 19
04:00p - 05:00p//P08
Hilton Chicago,
Salon C 3 & 4, Lower Level

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Advances in Radioactive Molecules and Experimental Techniques for EDM Searches

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04:00p - 04:12p Towards a magnetic centrifuge decelerator for testing fundamental symmetries
Xing Wu (presenter), Sebastian Miki-Silva, Nathan Czopp, Alexander Frenett, Maggie Tseng, Monika Fouad, Nicholas Emtage, Dorothy Gan

04:12p - 04:24p Synthesis and Cooling of ThO for Fundamental

Symmetries Tests
Monika Fouad (presenter), Alexander Frenett, Dorothy Gan, Nicholas Emtage, Maggie Tseng, Sebastian Miki-Silva, Katharina Domnanich, Xing Wu

04:24p - 04:36p Mitigating radioactivity in a university laboratory for laser cooling radium-226 containing molecules
Shungo Fukaya (presenter), Arian Jadbabaie, Sepehr Ebadi, Matteo Fulghieri, Avneesh Verma, Karina Khusainova, John M Doyle, Ronald Fernando Garcia Ruiz, Nicholas R Hutzler

04:36p - 04:48p Towards laser cooling molecules with octupole-deformed nuclei for fundamental physics
Arian Jadbabaie (presenter), Sepehr Ebadi, Shungo Fukaya, Matteo Fulghieri, Avneesh Verma, Karina Khusainova, John M Doyle, Ronald F Garcia Ruiz, Nicholas R Hutzler

04:48p - 05:00p Production and spectroscopy of cold radioactive molecules in a tabletop apparatus
Nicholas R Hutzler (presenter)

Sun. October 19
04:00p - 05:24p//P09
Hilton Chicago,
Salon C 5 & 6, Lower Level

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Progress in Generalized Parton Distributions

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04:00p - 04:12p Progress towards an extraction of Generalized Parton Distributions utilizing machine learning
Eric Moffat (presenter)

04:12p - 04:24p Generalized Parton Distributions from Symbolic Regression
Douglas Adams (presenter), Douglas Adams (presenter)

04:24p - 04:36p New Submission Off-forward dispersion relations for GPDs enhanced by AI and ML extrapolations
Gary R Goldstein (presenter)

04:36p - 04:48p Lorentz invariance and equation of motion relations for twist-three GTMDs
Zaki Panjsheeri (presenter), Simonetta Liuti, Michael Engelhardt

04:48p - 05:00p Incoherent Deeply Virtual Compton Scattering on the Deuteron
Alan Salvador Sosa (presenter), Wim Cosyn

05:00p - 05:12p Studying Two-Photon Exchange in Deep Inelastic Scattering with the HERA Data
Henry Klest (presenter)

05:12p - 05:24p Unveiling Mechanical Structure of a Hadron from QCD Vacuum
Wei-Yang Liu (presenter), ismail zahed, Christian Weiss, Edward V Shuryak

Sun. October 19
06:00p - 07:30p//Q01
Hilton Chicago,
Continental B & C, Lobby Level

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DNP Business Meeting and Town Hall Business Meeting

Sun. October 19
06:00p - 08:00p//Q02
Hilton Chicago,
International Ballroom South, 2nd Floor

Graduate Social Graduate Students

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Sun. October 19
06:00p - 08:00p//Q03
Hilton Chicago,
Salon A5, Lower Level

Undergraduate Ice Cream Social Undergraduate Students

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Sun. October 19
07:30p - 09:00p//R01
Hilton Chicago,
Continental A, Lobby Level

An Engineer in the Foundation of Physics Musical Comedy Performance

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