

## Chair Line

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**DNP 2026 WEBSITE:**

<https://indico.bnl.gov/event/30850/overview>  
submit an abstract here.

**Upcoming Deadlines:****1 June Nominations due for:**

- Hans A. Bethe Prize
- Tom W. Bonner Prize
- Herman Feshbach Prize
- Dissertation Award in Nuclear Physics

**1 July Nominations for DNP Elected Officers****15 July CEU Mentoring Application Deadline****21 July DNP 2026 Abstract Submission Deadline, including Undergraduate Oral abstracts (17:00 ET)****2 August CEU Application Deadline**

The Division of Nuclear Physics home page is available at <https://engage.aps.org/dnp/home>. Information of interest to DNP members such as nominations, prizes, and committee memberships can be found there. The DNP newsletters are also posted online. Comments and suggestions are solicited and can be sent to Sofia Quaglioni ([quaglioni1@llnl.gov](mailto:quaglioni1@llnl.gov)).

**I. DNP COMMITTEES****Executive Committee**

- Nadia Fomin, University of Tennessee Knoxville, Chair (2027)
- Helen Caines, Yale University, Chair Elect (2027)
- Jeff Blackmon, Louisiana State University, Vice Chair (2027)
- Jim Napolitano, Temple University, Past Chair (2027)
- Ramona Vogt, Lawrence Livermore National Laboratory & UC Davis, Secretary-Treasurer (2028)
- Haiyan Gao, Duke University, Division Councilor (2029)
- Heather Crawford, Lawrence Berkeley National Laboratory (2027)

- Jo Dudek, William & Mary (2028)
- Karsten Heeger, Yale University (2028)
- Sofia Quaglioni, Lawrence Livermore National Laboratory (2027)
- Paul Reimer, Argonne National Laboratory (2027)

- Andrea Richard, Ohio University (2028)
- Heather Garland, Pacific Northwest National Laboratory (2027)

**2026 DNP Program Committee**

- Helen Caines, Yale University, Chair (2026)
- Jeff Blackmon, Louisiana State University, Vice Chair (2026)
- Nadia Fomin, University of Tennessee Knoxville, Past Chair (2025)
- Jim Napolitano, Temple, Past Chair (2024)
- Ramona Vogt, LLNL/UC Davis, Sec.-Treas. (2027)
- Wim Cosyn, Florida International (2026)
- Jon Engel, U North Carolina (2026)
- Pablo Giuliani, Michigan State (2026)
- Jason Newby, Oak Ridge (2026)
- Peter Petreczky, Brookhaven (2026)
- Andrew Puckett, U Connecticut (2026)
- Prithwish Tribedy, Brookhaven (2026)
- Phil Adsley, Texas A&M (2027)
- Mark Dalton, Jefferson Lab (2027)
- Wenqing Fang, U Houston (2027)
- Erika Holmbeck, Lawrence Livermore National Laboratory (2027)
- Jason Holt, TRIUMF (2027)
- Amy Lovell, Los Alamos National Laboratory (2027)
- Axel Schmidt, George Washington U (2027)
- Jaideep Singh, Michigan State U (2027)

Other DNP committees will appear in the August Newsletter.

## II. CALL FOR NOMINATIONS FOR OFFICERS AND EXECUTIVE COMMITTEE (2026)

Terms of the officers, four members of the present Executive Committee will expire at the close of the regular meeting of the Division, to be held in conjunction with the APS 2027 Global Physics Summit. Nadia Fomin will become Past Chair, Helen Caines will become Chair, and Jeff Blackmon will become Chair Elect. Jo Dudek, Karsten Heeger, and Andrea Richard will remain members of the Executive Committee. A Vice-Chair and four members of the Executive Committee are to be elected, three regular members and an early career member.

Nominations are online only. The nominations site will be available from **1 June** until **1 July**. (See the DNP home page for a link.) The DNP Bylaws require that a nominee proposed for a given office by not fewer than 2% of the members (about 50 nominations) shall be deemed nominated for that position. Nominees proposed by at least 20 members will be given strong consideration by the Nominating Committee.

DNP members should please exercise their right to nominate candidates for the upcoming DNP elections and then remember to vote in the elections. **Some elections can be determined by small margins so every vote counts. It is important to vote!**

## III. NOMINATIONS FOR PRIZES AND AWARDS IN NUCLEAR PHYSICS

### 3.1. 2027 Hans A. Bethe Prize

This annual prize was established in 1996 by friends, students, and associates of Hans A. Bethe and announced at Bethe's 90<sup>th</sup> birthday celebration at Cornell. Previous prize winners are: J. Bahcall, E. E. Salpeter, I. Talmi, G. E. Brown, M. C. T. Wiescher, W. C. Haxton, S. E. Woosley, A. G. W. Cameron, J. R. Wilson, F. K. Thieleman, D. Arnett, C. Rolfs, C. J. Pethick, M. Peimbert and S. Torres-Peimbert, G. M. Fuller, K. L. Kratz, J. Lattimer, V. Kalogera, S. L. Shapiro, K. A. Olive, K. Nomoto, F. Harrison, J. W. Truran, M. Prakash, F. Calaprice, J. R. Bond, A. B. Balantekin, and C. Fryer.

The purpose of the prize, which currently consists of \$10,000 and a certificate citing the recipient's contributions, is "To recognize outstanding work in theory, experiment, or observation in the areas of astrophysics, nuclear physics, nuclear astrophysics or closely related fields."

The award is to be made to one individual for outstanding accomplishments in these areas. No time limits are set on when the work was done.

Nominations remain active for three years. It is extremely helpful for the committee to receive additional letters of support that detail the contributions of the nominee and the impact these contributions have had on the field. It is also appropriate to submit material such as significant articles that might help the committee evaluate the nominee's contributions. While general state-

ments concerning the value of the nominee's work are important, specific information defining what the nominee has contributed and how these contributions have impacted the field is needed.

For more details, see the [Bethe Prize website](https://www.aps.org/programs/honors/nomination.cfm), for more details and submit nominations to <https://www.aps.org/programs/honors/nomination.cfm>. Submit the nomination, with all supporting material before 1 June 2026.

### 3.2. 2027 Tom W. Bonner Prize

This annual prize was established in 1964 as a memorial to Tom W. Bonner by his friends, students, and associates. Winners since 2002 are: J. D. Bowman, A. B. McDonald, G. F. Bertsch, R. J. Holt, J. C. Hardy and I. S. Towner, S. J. Freedman, A. M. Poskanzer, R. D. McKewen, S. C. Pieper and R. B. Wiringa, R. F. Casten, W. Nazarewicz, M. K. Moe, W. A. Zajc, M. Gyulassy and H. Weiman, I-Y. Lee, C. F. Perdrisat, B. M. Sherrill, B. V. Jacak, R. G. Milner, G. L. Greene, D. Hertzog, J.-C. Peng, W. Busza, V. Burkert and C. Morris.

The purpose of this prize, which currently consists of \$10,000 and a certificate citing the recipient's contributions, is "To recognize and encourage outstanding experimental research in nuclear physics, including the development of a method, technique, or device that significantly contributes in a general way to nuclear physics research."

Nominations are open to physicists whose work in nuclear physics is primarily experimental. There are no time limitations on when the work was performed. The prize shall ordinarily be awarded to one person, but a prize may be shared among recipients when all the recipients have contributed to the same accomplishment(s).

Nominations remain active for three years. It is extremely helpful for the committee to receive additional letters of support that detail the contributions of the nominee and the impact these contributions have had on the field. It is also appropriate to submit material such as significant articles that might help us evaluate the nominee's contributions. While general statements concerning the value of the nominee's work are important, specific information that allows the committee to determine what the nominee has contributed and how these contributions have impacted the field are crucial.

For more details, see the [Bonner Prize website](https://www.aps.org/programs/honors/nomination.cfm), for more details and submit nominations to <https://www.aps.org/programs/honors/nomination.cfm>. Submit the nomination, with all supporting material before 1 June 2026.

### 3.3. 2027 Herman Feshbach Prize

This prize was established in 2013 by friends, students, and associates of Herman Feshbach. Previous prize winners are: J. W. Negele, L. McLerran, X. Ji, J. A. Carlson, E. Shuryak, B. R. Holstein, U. van Kolck, B. Mueller,

D. Kaplan, M. J. Ramsey-Musolf, G. C. McLaughlin, R. Furnstahl and M. Savage.

The purpose of the prize, which currently consists of \$10,000 and a certificate citing the recipients contributions, is “To recognize and encourage outstanding research in theoretical nuclear physics”.

Nominations are open to physicists whose work in nuclear physics is primarily theoretical. There are no time limitations on when the work described in the citation was performed. The prize shall be awarded to one person, or it may be shared by up to and including three persons when all the recipients have contributed equally to the same accomplishment.

Nominations remain active for three years. It is extremely helpful for the committee to receive additional letters of support that detail the contributions of the nominee and the impact these contributions have had on the field. It is also appropriate to submit material such as significant articles that might help in evaluating the nominee’s contribution. While general statements concerning the value of the nominee’s work are useful, specific information helps the committee to determine what the nominee has contributed and how these contributions have impacted the field.

For more details, see the [Feshbach Prize website](#), for more details and submit nominations to <https://www.aps.org/programs/honors/nomination.cfm>. Submit the nomination, with all supporting material before 1 June 2026.

### 3.4. 2026 Dissertation Award

The annual award, which recognizes a recent Ph.D. in nuclear physics, was established in 1985 by members and friends of the Division of Nuclear Physics of the APS. Previous winners are: B. M. Sherrill and W. J. Burger, T. E. Cowan, M. J. Musolf, J. E. Koster, Z. Zhao, G. Schmid, Y. G. Kolomensky, E. Hawker, J. R. Arrington, D. Bardayan, J-W. Chen, K. Heeger, A. Steiner, A. Kurylov, L-B. Wang, K. Miknaitis and M. Djordjevic, N. Tolich and D. Choudhury, S. Clayton and Th. Banks, C. R. Hoffman, H. Song and M. Luzum, E. Mereghetti and P. Barbeau, G. Shen, K. Myers, M. P. Mendenhall, C. Shen, J. L. Ouellet, K. W. Brown and M. E. Caplan, G. Rich, I. Upsal and S. Li, J. Melendez, E. Holmbeck, A. Li, and A. Sorensen, and M. Heffernan and E. Rule, G. King, B. S. S. Hitschfeld and Z. Xu.

The award consists of \$2500 and an allowance for travel to the annual Fall Meeting of the Division of Nuclear Physics of the American Physical Society at which the award will be presented.

Nominations are open to any person who has received a Ph.D. degree in experimental or theoretical nuclear physics from a North American university within the two-year period preceding 1 June 2026.

For more details, see the [Dissertation Award website](#), for more details and submit nominations to <https://www.aps.org/programs/honors/nomination.cfm>.

Submit the nomination, with all supporting material, including a PDF file of the dissertation, a statement of the candidate’s contribution to the research, and letters of support from physicists familiar with the candidate and the research before 1 June 2026.

## IV. DNP 2026 FALL MEETING

The Annual Fall Meeting of the Division of Nuclear Physics of the American Physical Society is scheduled to be held in Philadelphia, PA from 11 to 14 October at the Philadelphia Marriott Downtown. All functions will be held at the hotel. For more information about the meeting, see [meeting website](#).

The program begins with workshops in the morning of 11 October. (See the section on workshops below for more details.) The plenary session starts at 15:00 that afternoon, following the Mosaic Network lunch. (More details on the Mosaic Network can be found in Sec. 4.6.) The general parallel sessions, including invited sessions and minisymposia begin on the morning of 12 October and continue through the 14<sup>th</sup>.

### 4.1. Conference Experience for Undergraduates Mentoring Program

All graduate students and postdocs interested in attending the DNP conference are invited to apply for the CEU mentoring program. Mentors will interact with CEU students during the meeting to help them navigate the conference, be a friendly face, and attend their research posters. The mentoring program was introduced to enhance the experience for all participants. Over 90% of undergraduates and 85% of mentors agreed these interactions enhanced their own conference experience.

Mentor benefits include support (this may include travel, hotel, and/or paid meals), a mentoring workshop, plus a network of graduate students and postdocs from across the DNP. This announcement is early to encourage you to submit a research abstract before the DNP abstract submission deadline of July 21.

Please apply via the [application website](#) by 15 July. For more information and to sign up, please visit the [CEU Mentoring website](#).

Contact Shelly R. Leshner ([srlesher@ncat.edu](mailto:srlesher@ncat.edu)) with further questions.

### 4.2. Conference Experience for Undergraduates at DNP 2026

The 28<sup>th</sup> Annual Conference Experience for Undergraduates (CEU26) will take place in conjunction with the DNP 2026 Fall Meeting. The student application (poster abstract to APS (sorting category 15 and CEU application submitted) deadline is 2 August. Undergraduate students can also submit oral presentations to the Undergraduate Research sorting category (category 16, with the deadline of **21 July** – different from previous years).

Submitted talks will be sorted into the regular meeting agenda, not into separate undergraduate oral sessions, and are not part of the CEU program.

Acceptance into the CEU program, along with funding for conference registration and housing funding are awarded on a competitive basis. Due to the high number of submissions in the last several years, students will be accepted into the CEU program only once during their undergraduate studies. No applications for attending a second time will be accepted. Because of the large demand, priority will be given to juniors and seniors students who are advanced in their research work.

Students who have already taken part in the CEU program are encouraged to submit an abstract to the undergraduate oral sorting category (category 15) by the regular abstract submission deadline. Their talks will be placed in the appropriate regular oral sessions rather than undergraduate-only sessions. These submissions do not require a submission to the CEU program. Indeed, they are completely independent of it.

Decisions about CEU acceptance will be made in mid-August. Students who applied for CEU support and are not selected will not be able to present at the conference, *i.e.* abstracts that are not accepted will not be converted to oral abstracts.

All undergraduate students attending DNP are welcome to attend the CEU events, aside from CEU/mentor events (joint breakfasts and mentor meetups). However, only students accepted into the CEU program can present their research at the poster session.

To help the CEU students navigate the conference experience, the program is looking for graduate students and postdocs to serve as undergraduate mentors during the conference. The CEU program has planned an enhanced mentoring experience by providing training to mentors and additional programming at the DNP meeting. A separate announcement will be forthcoming. CEU details can be found on the new CEU website: <https://engage.aps.org/dnp/resources/ceu/>.

Please contact Dr. Fatiha Benmokhtar at [benmokhtar@duq.edu](mailto:benmokhtar@duq.edu) with any questions.

### 4.3. New Poster Session Pilot Project

The DNP Executive Committee has decided to do a pilot project of opening the regular sorting categories up for poster presentation, in addition to the CEU poster session. A poster session would allow presenters to have in-depth discussions at their poster without the constraints of a 10 minute oral talk.

### 4.4. DNP 2026 Program

The Plenary Sessions are organized by the 2026 DNP Chair, Nadia Fomin.

The Program Committee, chaired by Helen Caines, has organized 6 invited sessions and 12 minisymposia. The

local committee also organizes an invited session. A brief synopsis of all the sessions is given below.

## Invited Sessions

**Advances in Reaction Rates for Explosive Hydrogen Burning** Sensitive experimental techniques and new beams are advancing our understanding of the most important reaction rates for novae, X-ray bursts, and the proton-rich ejecta of supernovae. This session will highlight recent advances using different facilities and approaches.

**From Ultrapерipheral Heavy-Ion Collisions to the Electron-Ion Collider** The nuclear physics community has entered a critical transition period: RHIC has completed its experimental program, and the LHC is in a long shutdown. With massive datasets now on tape, the pressing question is how to maximally utilize these final collider results to directly inform the science of the future Electron-Ion Collider (EIC). This session focuses on how photon-induced measurements in ultra-peripheral heavy-ion collisions currently serve as our near-term baseline for electron-ion physics, bringing together the heavy-ion and cold-nuclear-matter communities to synthesize these final collider results with state-of-the-art theory.

**Imaging the Nucleon at Large Bjorken  $x$**  The Jefferson Lab 12 GeV Upgrade has enabled unprecedented access to the measurement of the structure of nucleons and nuclei at large  $x$ . Recent results provide new measurements of the polarized quark distributions at large  $x$  via inclusive electron scattering from polarized  $^3\text{He}$ . Semi-inclusive pion production using magnetic focusing spectrometers will provide crucial information on the contribution of longitudinal photons to the SIDIS process. SIDIS measurements using the large acceptance CLAS12 spectrometer in Hall B will provide measurements of numerous SIDIS channels from polarized and unpolarized targets, providing constraints on the transverse quark structure of nucleons

**New Results from Laser Probing of Nuclei** This session showcases the latest results from the increasing overlap between atomic/molecular/optical physics and condensed matter physics with nuclear physics that involves using lasers to probe and manipulate atomic nuclei. These results demonstrate progress towards new ultra stable optical clocks, a new quantum computing platform, and searches for new physics which all leverage nuclear spin.

**The Partonic Structure and Dynamics of Nuclear Matter** Understanding the structure and dynamics of nuclear matter in terms of its fundamental quark and gluon degrees of freedom remains a central goal of nuclear and particle physics. Over the past decades, advances in quantum chromodynamics (QCD), together with experimental progress in deep inelastic scattering, hadron collisions, and relativistic heavy-ion experiments, have significantly deepened our understanding of how nucleons and nuclei emerge from quark-gluon interactions. This invited session brings together leading theo-

rists and experimentalists to review the historical foundations, current status, and future directions of research on partonic structure and dynamics. It begins with a historical perspective on the discovery of quarks and the development of QCD, followed by discussions of modern theoretical frameworks describing nucleon and nuclear structure and emergent phenomena in strongly interacting matter. Recent experimental results from heavy-ion and high-energy scattering experiments will be highlighted, emphasizing efforts to map the distributions and dynamics of quarks and gluons. The session will also address the convergence of theory and experiment toward a unified picture of QCD matter across energy scales. Finally, prospects at the forthcoming Electron-Ion Collider (EIC) will be discussed, including precision studies of multidimensional nucleon structure and novel QCD phenomena such as gluon saturation.

**Pushing the Boundaries of Exotic Nuclei with Complementary Techniques** Measurements using a variety of complementary techniques provide keen insights into how the properties of exotic nuclei evolve with isospin away from the most stable, commonly-occurring nuclei. These talks will cover recent advances in our understanding of the properties of exotic nuclei derived from different experimental approaches.

**Recent Developments in Light Hadron Spectroscopy** This session will highlight the latest developments in light hadron spectroscopy from experiment, phenomenology and lattice QCD. One of the overarching goals of the field is to understand the light hybrid meson spectrum, which requires contributions from each of these three perspectives. This session aims to describe the recent developments in these areas and explore the connections between them.

The DNP award session will include talks by the Freedman Award Winner, the DNP Dissertation Award and Mentoring Award winners.

### Minisymposia

In addition to the usual sorting categories, there are 10 minisymposia available for abstract submission. To submit a contributed talk to one of these categories, be sure to find the proper sorting category when submitting the abstract on the APS submissions website. The minisymposia are listed under sorting category 18.

**Aligning AI Innovation and Scientific Discovery** The American Science Cloud has been funded to facilitate scientific research, data sharing, and computational analysis across various disciplines. Under the new umbrella of Genesis, nuclear physics will be supported in at least three areas: enhancing particle accelerators for discovery; unifying physics from quarks to the cosmos; and discovering quantum algorithms with AI. This session will review ongoing work and look towards future efforts.

**Neutrinos as a Probe of the Nucleus** Recent advances in nuclear-structure theory enable better calcula-

tions, both in density-functional and ab initio schemes, of neutrino-nucleus cross sections for neutrinos below a few 10s of MeV. Neutrinos in this energy range from the sun, from supernovae, from reactors, and from stopped pions can both teach us about nuclear structure and, together with nuclear-structure predictions, help us learn about astrophysics and physics beyond the standard model. This session will explore recent progress in theory and its application, and outline what we can achieve in the coming few years.

**Nuclear Structure from Laser Spectroscopy of Atoms and Molecules** This session showcases the latest results and new developments in the laser spectroscopy of atoms and molecules. High resolution laser spectroscopy provides access to symmetry-conserving moments and distributions which benchmark and test nuclear structure calculations.

**Progress Towards Tests of Fundamental Symmetry Violations In The Hadronic Sector Using Atoms and Molecules** Certain nuclei contained in suitable atoms and molecules have enhanced sensitivity to new physics within the hadronic sector. This session showcases the latest results and new developments towards tests of fundamental symmetries using atoms and molecules containing these isotopes.

**Revealing the nature and origin of matter through searches for neutrinoless double-beta nuclear decay** Neutrinoless double-beta decay is the only practical way to determine if the neutrino is a Majorana fermion. The existence of Majorana neutrinos would have profound implications on our understanding of the nature and origin of matter, as well as cosmology. This symposium will present recent theoretical and experimental results and discuss future efforts in the search for this rare nuclear decay.

**Science Advances at University Nuclear Facilities** University-based nuclear labs provide a wide variety of capabilities and much of the beam time for nuclear science in the U.S. These facilities serve as an incubator for new techniques and provide hands-on training for the future nuclear workforce. This minisymposium will highlight the scientific impact of university labs across a variety of science topics including astrophysics, structure, symmetries, and applications.

**Searching for QGP Signatures Across Systems: New Insights from RHIC and the LHC** RHIC concluded its final run earlier this year, marking a milestone in the field and setting the stage for the next phase of heavy-ion physics. There now exists high-statistics Au+Au and Pb+Pb data from RHIC and the LHC, respectively, that will enable detailed studies of QGP properties across multiple hard and soft observables. In addition, the availability of multiple collision species, including the newly collected O+O data from both facilities, enables a systematic system-size scan from  $p+p$  through light-ion to large  $A+A$  collisions, directly addressing the open questions of where jet quenching turns on and where QGP signatures emerge. These multi-system datasets

will serve as valuable inputs to global Bayesian analyses to constrain QGP transport coefficients and deepen our understanding of QGP properties across different environments. It is timely to bring together experimentalists and theorists to synthesize this landscape. Contributed talks on hard-probe observables, bulk properties, and other QGP signatures across system sizes are welcome.

**Trustworthy AI/ML in Nuclear Physics** As AI and ML become indispensable tools in nuclear science, the challenge is no longer just using them to solve problems, it is ensuring we trust their solutions. This minisymposium brings together practitioners applying AI/ML to many facets of nuclear physics—experiments, data analysis, control systems, and theory, with the focus this year being on trustworthiness: how do we know these models will not lead us astray, especially in hard-to-interpret scenarios? Speakers will showcase frameworks for rigorous testing, beyond standard data splits, such as controlled mock datasets and synthetic scenarios where ground truth is known. We will explore how AI/ML models extrapolate, when their uncertainty is trustworthy, and how to avoid fooling ourselves. Presenters will be encouraged to share well-commented code and testing pipelines, ensuring that every attendee leaves with tools to trust and verify their own models. We aim to carve out a path toward AI/ML that is not only smart but reliable for tomorrow’s nuclear discoveries.

**Understanding Fission Through Gamma Rays** Gamma rays are a signature of many nuclear reactions, including fission. In recent years, there has been a significant effort to understand underlying fission properties through measurements of the outgoing fragments, neutrons, gamma rays, and delayed particles. Although the properties of neutrons emitted from fission have been studied widely, there are fewer data on the gamma rays that are emitted, even though they provide rich information about the properties of the nuclei that are emitted during the fission process, their spin, nuclear structure, and mass. The aim of this session is to bring together state-of-the-art measurements and theories involving fission gamma rays, focusing on the gamma rays that are emitted from fission, those that can be used as signature of the fragments that are produced, and those that can induce fission.

**The VudU Alliance: Prospects for Improving  $V_{ud}$  and Tests of CKM Unitarity** Precise measurements of hadron and nuclear decays allow for the extraction of the CKM matrix element  $V_{ud}$ , which provides stringent tests of the Standard Model. A new topical group, the VudU ( $V_{ud}$  Unitarity) alliance, has recently been proposed to foster further collaboration, strengthen theory benchmarking efforts, amplify the impact of focused experimental efforts, and sustain the leadership role of the  $\beta$  decay community in precision CKM unitarity tests. This minisymposium provides a platform to discuss details of such a collaboration, as well as to summarize recent important works that contribute to the precise extraction of  $V_{ud}$ .

## Workshops

Fourteen workshops have been proposed for the 2026 DNP meeting. Some of the workshops will be held the first morning of the meeting, as usual. The DNP Executive Committee is considering incorporating the rest during the regular meeting both to accommodate all the proposals and to avoid competition among workshops with overlapping themes. We will actively seek to schedule the workshops so that they do not directly compete with each other or with other sessions on similar topics. When registering for the meeting, participants can select one morning workshop and unlimited workshops during the main meeting.

**Advances in Fission Theory and Experiment** The workshop goal is to review the current state-of-the-art in ab-initio fission theory, fission modeling and fission experiments. Ab-initio and first-principle microscopic models can give insight into fission fragment properties following scission that cannot be measured directly. The de-excitation of the excited fission fragments then follows via neutron and gamma emission that can be modeled in either deterministic or Monte Carlo fashion, giving rise to average fission observables, spectra, and correlations between fragments, neutrons, and gamma rays (for the Monte Carlo descriptions). Information about nuclear structure, such as level densities and discrete nuclear levels, are included in modeling and need to be constrained through experimental measurements. Experimentally accessible quantities including, fission fragment mass and charge distributions, kinetic energy distributions of fission fragments, prompt fission gamma ray and neutron multiplicity and energy distributions can be compared to theoretical predictions. Increasingly, experimental measurements of correlations between fission fragments, neutrons, and gamma rays are being used to understand the fission process.

**Energy Correlators in High Energy Nuclear Physics** Energy correlators have, in recent years, attracted significant attention as a novel way to probe the properties of QCD matter created in high-energy nuclear collisions, offering a particularly clean bridge between theory, phenomenology, and experiment. Their formulation in terms of energy flow observables enables systematically improvable theoretical calculations while remaining directly connected to experimentally accessible measurements. This workshop aims to review recent progress along these three fronts, highlighting new conceptual developments, advances in perturbative and non-perturbative modeling, and emerging experimental results from collider programs. A central goal is to foster dialogue across communities, identify open challenges, and outline promising directions for future research. By bringing together experts from different top US research institutions, we seek to clarify the role of energy correlators as precision tools for studying QCD dynamics in complex many-body environments.

**A Fixed-Target Program at the Electron-Ion**

**Collider** This workshop examines the feasibility and physics potential of a fixed-target program at the future Electron–Ion Collider at Brookhaven National Laboratory. While ePIC is optimized for collider-mode  $e + A$  interactions, we propose an additional fixed-target configuration enabling  $p + A$  and  $A + A$  collisions over the largely unexplored energy range  $\sqrt{s} = 3 - 23$  GeV. This program would provide a unique opportunity to map the transition between cold and hot QCD matter across a broad set of ion species. The availability of polarized light-ion beams further opens original perspectives on spin phenomena in  $A + A$  collisions. Beyond its fundamental physics impact, such a program would deliver essential nuclear data relevant for transport models and space radiation studies, critical for future long-duration space missions.

**From  $p + A$  to  $e + A$ : Understanding the Fundamentals of QCD** The workshop will bring together theorists and experimentalists to examine cold nuclear matter (CNM) effects across hadronic and lepton–nucleus collisions, with the goal of developing a unified understanding of QCD in nuclei. Proton–nucleus ( $p + A$ ) measurements at RHIC, the LHC, and fixed-target experiments have revealed rich phenomena, including tantalizing hints of gluon saturation and the Color Glass Condensate (CGC), modification of nuclear PDFs, formation of QGP-like media in small systems, and final-state interactions that modify parton propagation and hadronization. These results have raised fundamental questions about the onset of collectivity, the role of initial- versus final-state effects, and the space–time dynamics of parton energy loss and hadron formation in nuclear matter. Building on these insights, the workshop will explore how future electron–nucleus ( $e + A$ ) collisions at the Electron–Ion Collider (EIC) can provide precise and differential probes of nuclear parton structure, saturation dynamics, and hadronization mechanisms in a clean electroweak environment. By connecting the lessons learned from  $p + A$  collisions to the new opportunities in  $e + A$ , the workshop aims to sharpen our understanding of QCD dynamics in nuclei and chart a path toward a comprehensive description of strong interactions in cold and hot nuclear matter.

**Hard Exclusive Production of Mesons in Lepton Scattering** A rigorous understanding of longitudinal photon contributions, considered to be dominant for most exclusive final states, is critical for the interpretation of both exclusive and semi-inclusive observables, providing access to three-dimensional QCD partonic distributions, such as Generalized Parton Distributions (GPDs) and Transverse Momentum Distributions (TMDs). Measurements of multiplicities and different single- and double-spin asymmetries in hard exclusive production of scalar and, even more importantly, vector mesons provide important information about the phenomenology of GPDs and TMDs. Although a wealth of data from various Jefferson Lab experiments is already available, its incorporation into phenomenological stud-

ies has been slow, and a significant portion of data from other lepton production experiments is still missing from global fits. We plan to discuss the existing challenges and outline a path forward for improving the analysis of low center-of-mass electroproduction experiments in general and Jefferson Lab data in particular.

**Identifying Deep-Inelastic Scattering Electrons in ePIC** This workshop will discuss and review how the ePIC detector will be used to identify scattered DIS electrons from electron-ion collisions at the EIC, and its DIS physics program.

**Jet Quenching Physics from Large to Small Systems at RHIC and the LHC** Jet quenching is one of the pillars of the discovery of quark-gluon plasma formed in collisions of large nuclei at relativistic energies. The modification of parton showers, the transfer of energy to the plasma, and the specific experimental observables make this one of the most fascinating areas of nuclear physics. Recent data taking at both RHIC and the LHC in oxygen-oxygen collisions indicate strikingly different jet quenching signatures compared to proton-nucleus data. In addition, the collection of the largest data sets to date in heavy ion collision (Au+Au and Pb+Pb), along with new instrumentation, including the sPHENIX experiment, can provide stringent constraints on the underlying physics, relative to single quenching parameters. This workshop aims to enable a lively discussion of the latest developments in theory and experiment and map a path forward towards a more comprehensive understanding.

**Nuclear Science for Security and Defense Applications** This workshop will highlight current research in nuclear science that impacts national security and defense applications and help identify the overlap between the techniques and nuclear data used for these applications and for basic nuclear physics.

**Pressure and Stress Distributions in the Proton** High-precision measurements of highly virtual exclusive reactions at Jefferson Lab have revealed an astonishing internal pressure in the proton on the order of 1035 Pascals, surpassing even the pressure at the core of a neutron star. This landmark discovery is opening entirely new directions in the study of proton structure, transforming our understanding of the hadronic stress-energy tensor. The workshop will bring together leading theorists and experimentalists to present the latest results, illuminate the internal pressure landscape of the proton, and discuss new results from dedicated high-energy experiments that are driving this emerging frontier of hadronic physics.

**Prospects for High Luminosity Experiments** Two large-acceptance and high-luminosity experiments have been approved at PAC53 at Jefferson Laboratory, primarily to measure Double Deeply Virtual Compton Scattering. We will present an overview of nucleon properties that can be accessed by the proposed measurements. This workshop will foster new physics opportunities for the two future setups.

**Recent Progress in Beta Decay Studies** Studies

of beta decay processes are one of the main directions in modern nuclear physics. New and improved powerful facilities at Argonne and FRIB, equipped with state-of-art arrays, allow us to cross the borders of known nuclei. Nuclear structure and nuclear astrophysics benefit from new data verifying model extrapolations. Additionally, the beta decay precision frontier yields new results on rare processes involving forbidden decays with low probabilities. The workshop will review the newest results and their impact on nuclear structure, astrophysics, and fundamental aspects of weak interactions.

**The Role of Nuclear Physics in Developing Radioisotope Applications** Nuclear physics data and techniques are important for producing and using radioisotopes in applications. Medical isotopes are of broad interest for the benefit of society. Nuclear physics data and techniques are vital in identifying, characterizing, producing, separating, and using these radioisotopes. A wide spectrum of expertise and techniques, from identification to final use will be discussed, including theoretical calculations as well as experiments.

**Spin Physics at the EIC: Polarized Ion Beams and Accelerator Readiness** Polarized ion beams are essential for realizing the scientific program of the Electron-Ion Collider. This workshop will highlight the physics opportunities enabled by polarized light-ion beams and review the present status of key developments required for their implementation, including polarized ion sources, injector chain readiness, and hadron polarimetry. These efforts are being coordinated within the EPIOS scientific consortium as part of a broader initiative to prepare polarized ion capabilities for EIC operations. The APS Division of Nuclear Physics meeting provides an ideal forum to present this progress to the community, foster engagement, and support the development of the scientific and technical workforce for the EIC era.

**Symmetry-Aware Machine Learning in Strong-Interaction Physics** Artificial intelligence is rapidly becoming a powerful tool in theoretical nuclear physics and QCD, but its greatest impact will come not only from faster computation, but from enabling new discoveries. This workshop will explore a paradigm shift in which physicists move beyond asking AI systems to solve predefined problems and instead embed first-principles physics — symmetries, conservation laws, and theoretical insights — directly into machine-learning models.

#### 4.5. Upstander workshop

There is another Upstander workshop being planned for the fall meeting. Further details will be announced later.

#### 4.6. The Mosaic Network: A Collaborative Lunch

This event is designed as an interactive, community-building luncheon that brings together individuals across

career stages and diverse backgrounds in nuclear physics to foster meaningful dialogue and connection. Building on the spirit of prior initiatives, the event creates a structured yet welcoming space for candid conversations about navigating the field, developing essential (often unspoken) career skills, and cultivating strong support systems and mentoring networks. Participants will engage in small-group discussions guided by lightning talks from senior, mid-career, and early-career scientists. Organized around shared meals and rotating discussions, the luncheon emphasizes both common challenges and varied pathways, ultimately aiming to strengthen the nuclear physics community. This event will be held at the annual DNP Fall Meeting on Sunday October 11.

#### 4.7. Other Special Events

There will be a social event for graduate students.

Any other special events will be announced when registration opens.

#### 4.8. 2026 Meeting Venue, Registration and Hotel Reservations

APS will handle meeting registration and hotel reservations. A special rate has been negotiated at the Philadelphia Marriott Downtown.

Philadelphia will be a good place to visit during America's semiquincentennial (250<sup>th</sup> anniversary). It is known as the "Birthplace of America" and was prominent in the American Revolution. The Declaration of Independence was signed there (1776) and it hosted the Constitutional Convention (1787). The Declaration and the Constitution are arguably the most important founding documents in US history. It was the capital of the in 1790–1800 while Washington DC was under construction. The city was originally founded in 1682 by William Penn and was home Benjamin Franklin, arguably the first US physicist. It is also the site of the first library, hospital, university, computer (the ENIAC), and zoo in the US. See [this website](#) on Philadelphia firsts and [this one](#) on Philadelphia history. While at the meeting, consider a visit to the Liberty Bell and Independence Hall, both within walking distance of the meeting venue.

The registration fee, which includes the workshops and plenary session, and other meeting events, will be given on the meeting website when available. When registering, please note which, if any, workshops you will attend. Any special events are listed separately, along with any applicable fees, on the registration website. Registration will open in early July.

Note that the DNP has had to raise the registration fee for regular members this year in an effort to keep the meeting from losing money. The DNP meeting is smaller in scope than the DFD (Division of Fluid Dynamics) and DPP (Division of Plasma Physics) meetings, actually making it more expensive to run due to economies of scale, but the DNP member registration

fee is considerably lower. See [the 2025 DFD meeting site](#) and [the 2025 DPP meeting site](#) for a list of their meeting registration fees.

Please note that DNP charges a significantly reduced fee for DNP members, in part to encourage meeting participants who are not members to join the unit. The DNP meeting also offers a discount for early career members, something that the DFP and DPP do not do. We hope that the higher fee, although painful, especially in these days of tight budgets, will provide a better meeting experience.

## V. FUTURE MEETINGS

### 5.1. DNP Fall Meetings

2026      October 11-14      Philadelphia, PA  
 2027      October 31-November 2      Seattle, WA

The 2027 meeting, while held in Seattle, will be joint with the Japanese Physical Society. Sanjay Reddy will be the US co-chair while Kimiko Sekiguchi will be the Japanese co-chair.

Meeting dates include the workshops, which are normally held in conjunction with the DNP Fall Meetings. These workshops, previously organized by the local organizing committee, have been a tradition at the DNP Fall Meetings since they began with the 1986 Vancouver meeting. Starting in 2025, the DNP solicited workshop proposals from the DNP community, not just from the local committee. All meeting attendees are welcome and encouraged to come to a workshop. It has been the intention of the DNP Executive Committee that these workshops should have broad appeal, with introductory pedagogical talks for the benefit of those who have come primarily for the DNP meeting but want to take the opportunity to learn about a field important to the local community.

### 5.2. APS Spring Meetings

The dates for the 2027 April meeting are given below. The DNP prepares a program for these spring meetings as well, with invited sessions often organized jointly with other units. The meeting is an excellent opportunity to learn about new research and discoveries made by other units. The plenary session has often included Nobel laureates in physics. The DNP program committee also prepares mini-symposia for these meetings. The DNP prize sessions include talks by the Bethe, Bonner and Feshbach Prize winners. The DNP also holds a combined business meeting and town hall during the April meeting, with introduction of the new DNP Fellows and change of unit officers.

2027      April Atlanta, GA

The 2027 Global Physics Summit will again join the March and April meeting units since the joint pilot has been extended another year.

The meeting will include both in person and virtual components.

Any comments/suggestions regarding the April meeting should be sent to APS Director of Meetings, Hunter Clemens ([clemens@aps.org](mailto:clemens@aps.org)).

## VI. EINN 2025 MARKS 30 YEARS OF SCIENTIFIC EXCHANGE IN HADRON AND NUCLEAR PHYSICS

(Contributed by Martha Constantinou, Temple University, [marthac@temple.edu](mailto:marthac@temple.edu))

The 16<sup>th</sup> edition of *Electromagnetic Interactions with Nucleons and Nuclei* (EINN 2025) brought together the international hadron- and nuclear-physics community for a vibrant meeting that highlighted both recent scientific advances as well as the role of EINN as a forum for discussion across theory, experiment, and computation.

A special feature of this year's conference was the celebration of EINN's 30<sup>th</sup> anniversary. This milestone was marked by a tribute to all past editions of the conference, reflecting on the series' scientific breadth and its long-standing contribution to the field. The anniversary program also included a talk on the cultural heritage of Cyprus by Stathis Raptou of the Department of Antiquities, Cyprus, which offered participants a connection between the scientific gathering and the host country's rich historical setting.

The scientific program featured two topical workshops spanning both foundational and emerging directions in the field. Barbara Pasquini led a workshop on nonperturbative approaches for hadron structure from low to high energy while Abhay Deshpande organized a workshop on AI and machine learning in nuclear science.

Another highlight of EINN 2025 was the recognition of outstanding poster contributions. Four poster prize winners were invited to present their work in plenary talks: Cornelis Mommers (University of Mainz), *Joint neutron polarizability extraction and dark sector search using deuteron photodisintegration*; Dimitra Pefkou (Lawrence Berkeley National Laboratory), *Moments of PDFs of the pion from lattice QCD using gradient flow*; Bhavna Prasad (The Cyprus Institute), *Proton and neutron electromagnetic form factors from lattice QCD simulations at the physical point*; and Matteo Ronchi (University of Mainz), *Subtracted dispersion relation formalism for virtual Compton scattering off the proton*. These plenary contributions showcased the diversity and high quality of research presented by early-career scientists and underscored the importance of the poster session within the conference.

As in previous editions, EINN 2025 was complemented by a pre-conference event which provided additional opportunities for discussion and networking for early-career scientists. Such activities continue to strengthen the role of EINN not only as a venue for presenting new results but also as a place where collaborations are built and future directions are shaped.

The organizers of EINN 2025 were Martha Constantinou (Chair), Achim Denig (Vice-Chair), and Constantia Alexandrou (Local Organizer), with Abhay Deshpande and Barbara Pasquini leading the two topical workshops. The committee gratefully acknowledges the generous support of the European Physical Society (EPS), Helmholtz-Institut Mainz, NuPECC (Nuclear Physics European Collaboration Committee), the Quark-Gluon Tomography (QGT) Topical Collaboration, and the University of Cyprus. Support was also provided by the Thomas Jefferson National Accelerator Facility (Jefferson Lab), the Center for Frontiers in Nuclear Science (CFNS) at Stony Brook University, and the Laboratoire de Physique des 2 Infinis Irène Joliot-Curie (IJCLab).



## VII. OTHER FORTHCOMING MEETINGS

Meeting organizers who wish to have their meetings advertised in the DNP newsletter should contact the DNP Secretary-Treasurer.