

Chair Line

Chair	Chair-Elect	Vice-Chair	Secretary-Treasurer
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DNP 2024 WEBSITE:<https://web.mit.edu/dnp2024/index.html>**Upcoming Deadlines:****4 September 2024**

Early Deadline for DNP 2024 Registration

18 October 2024

Deadline for contributed abstract submission for 2025

April meeting

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 Melina Avila at mavila@anl.gov or Lee Bernstein at labernstein@lbl.gov.

I. DNP MEMBERSHIP

The number of DNP members relative to the total membership of APS determines the number of APS Fellows inducted by the DNP each year as well as the number of invited sessions at the April Meeting. The DNP membership has been dropping in recent years. We are therefore urgently asking everyone to do their part in renewing their own membership and encouraging their co-workers, collaborators, postdocs, and students to join the DNP or renew their DNP memberships. For information about membership types, including lifetime memberships, see <https://www.aps.org/membership/join>.

II. DNP 2024 FALL MEETING

The program for the 2024 DNP meeting in Boston is summarized here.

There are 5 workshops in the morning of the 7th. The first, Professional Development for Early-Career Scientists, is organized by the DNP Education Committee. It will consist of two panel sessions, each 1.5 hours in length. The first, Applying to and succeeding in a tenure-track/lab scientist position, includes panelists Crystal Bailey (APS), Giorgio Gratta (Stanford U), Filomena Nunes (Michigan State U), and Rosi Reed (Lehigh U).

The transition from a post-doctoral researcher to a faculty/permanent staff member includes numerous critical choices, both before and after being hired. The panelists will discuss strategies for approaching those choices, providing guidelines for navigating this stage of a scientific career. The first half of this panel will focus on finding job opportunities, how to approach the job interview, and things to negotiate on if offered a position. The second half will discuss initiating an independent research program, hiring post-docs and graduate students, setting up a lab, balancing teaching, research, and service, and maintaining a healthy life in the midst of all that. The second panel session, Funding resources for early-career scientists, features panelists Crystal Bailey (APS), Jim Napolitano (Temple U), Jacquelyn Noronha-Hostler (U Illinois Urbana-Champaign), and Lindley Winslow (MIT). Submitting proposals to funding opportunities is a crucial step in building a successful scientific program. From programs aimed specifically at early-career researchers, to university and lab internal awards, to open calls from agencies, the panel will discuss the grant writing process and elements of a successful application.

The other four workshops highlight aspects of the 2023 Long Range Plan for Nuclear Science. They are

- Nuclear Structure and Astrophysics
- Precision Measurements and BSM Physics
- QCD Towards the EIC
- Search for Neutrinoless Double Beta Decay

The Gender Minorities in Science Social (GeMSS) lunch will be held at the hotel between the workshops and the opening plenary session. Tickets are \$35.

The opening plenary session, New Opportunities for Nuclear Science, will feature talks by Marek Lewitowicz (the 2024 NuPECC Long Range Plan), Jaki Noronha-Hostler (Connecting Nuclear Physics Across Subfields), Michelle Kuchera (AI/ML in Nuclear Physics), and Agnes Mocsy (Public Engagement).

Parallel scientific sessions – invited speaker sessions, mini-symposia, and contributed sessions – will be held starting Monday evening and concluding Thursday afternoon. Sessions will be 3 hours starting at 09:00 and 19:00 with the afternoons left free.

The CEU poster session and the Physical Review Meet-the-Editors Drop-In reception will be scheduled on Tuesday afternoon.

The graduate student social event will be on Wednesday. Advance tickets are \$10.

There will also be a table read of the play, *Delicate Particle Logic* by Jennifer Blackmer, about the relationship between Lise Meitner and Otto Hahn. The reading is sponsored by MIT.

The Program Committee has organized 6 invited sessions and 13 minisymposia. A brief description of each of these special sessions can be found in [the May newsletter](#).

As a reminder, the invited sessions are

Invited Sessions

- BSM Physics Searches via Decay Recoil Experiments
- Early Results from FRIB
- Electromagnetic and Gravitational Form Factors of Nucleons and Nuclei
- Exploring the Phase Diagram of QCD Matter
- Fission of Exotic Nuclei and Its Impact in Astrophysics
- Lifting the Shadows
- Precision Measurements and Fundamental Symmetries

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

Minisymposia

- Advances in Direct Measurements of Astrophysical Reactions
- Applied Nuclear Physics
- BSM Physics and Neutrinos in Nuclear Astrophysics and Cosmology
- Entanglement in Nuclear Physics: From Theory to Measurement
- Exploring New Frontiers: Advances in Heavy Element Research
- From Data to Discovery: How Machine Learning and Statistics are Fueling Understanding in Nuclear Physics
- Next Generation Techniques for Fundamental Symmetries and Neutrinos
- Nuclear Data in the Cosmos
- Nuclear Physics from Multi-Messenger Data
- Probing Deeper into Neutrinoless Double Beta Decay
- Studies of Transversity in Hadron and Di-hadron Production
- The Future of EIC beyond ePIC

Additional details are available at the conference website.

III. DNP COMMITTEES

Executive Committee

- Dean Lee, Michigan State University, Chair (2025)
- Jim Napolitano, Temple University, Chair Elect (2025)
- Nadia Fomin, University of Tennessee, Knoxville, Vice Chair (2025)
- Haiyan Gao, Duke, Chair (2025)
- Ramona Vogt, Lawrence Livermore National Laboratory & UC Davis, Secretary-Treasurer (2025)
- John Wilkerson, University of North Carolina, Division Councilor (2025)
- Melina Avila, Argonne National Laboratory (2025)
- Lee Bernstein, Lawrence Berkeley National Laboratory (2026)
- Kelly Chipps, Oak Ridge National Laboratory (2026)
- Shelly Leshner, North Carolina A&T State U (2025)
- Daniel Phillips, Ohio University (2026)
- Kate Scholberg, Duke University (2025)
- Allison Zec, University of New Hampshire (2025)

Program Committee

- Jim Napolitano, Temple U, Chair (2024)
- Nadia Fomin, U Tennessee Knoxville, Vice Chair (2024)
- Dean Lee, MSU, Past Chair (2023)
- Haiyan Gao, Duke, Past Chair (2022)
- Ramona Vogt, LLNL/UC Davis, Sec.-Treas. (2024)
- Martha Constantinou, Temple, (2024)
- Jutta Escher, LLNL (2024)
- Vincente Guiseppe, ORNL (2024)
- Gabriel Orebi Gann, UC Berkeley (2024)
- Alexei Prokudin, Penn State Berks (2024)
- Claudia Ratti, Houston (2024)
- Betty (Manyee) Tsang, MSU (2024)
- Sergei Voloshin, Wayne State (2024)
- Jan Bernauer, Stony Brook (2025)
- Dave Brown, BNL (2025)
- Dan Cebra, UC Davis (2025)
- Garth Huber, U Regina (2025)
- Kyle Leach, Colorado Mines (2025)
- Elise Novitski, U Washington (2025)

- Hendrik Schatz, MSU (2025)
- Nicole Vassh, TRIUMF (2025)

2024 Hans Bethe Prize Committee
(Award April 2025)

- Tracy Slatyer, MIT (Chair)
- Sanjay Reddy, U Washington (Vice Chair)
- Anna Frebel, MIT
- Catherine Deibel, LSU
- Melina Avila, ANL
- Chris Wrede, MSU

2024 Tom Bonner Prize Committee
(Award April 2025)

- Douglas Higinbotham, Jefferson Lab (Chair)
- Jen-Chieh Peng, U Illinois (Vice Chair)
- Zein-Eddine Mezziani, ANL
- Xiaochao Zheng, U Virginia
- Barbara Jacak, LBNL and UC Berkeley
- Andrea Richard, Ohio U

2024 Herman Feshbach Prize Committee
(Award April 2025)

- Huey-Wen Lin, MSU (Chair)
- Anna Stasto, U Penn (Vice Chair)
- Yoram Alhassid, Yale
- Daniel Phillips, Ohio U
- Chuck Horowitz, U Indiana
- Gail McLaughlin, NSCU

2024 Stuart Jay Freedman Award Committee
(Award October 2024)

- Or Hen, MIT (Chair)
- Jaideep Singh, MSU (Vice Chair)
- Ania Kwiatkowski, TRIUMF
- Rosi Reed, Lehigh U
- Stephanie Lyons, PNNL
- Guy Ron, Hebrew University

2024 DNP Dissertation Award Committee
(Award October 2024)

- Dean Lee, MSU (Chair)
- Haiyan Gao, Duke (Past Chair)
- Matthew Green, NCSU
- Zhongbo Kang, UCLA
- Veronica Dexheimer, Kent State
- Ragnar Stroberg, Notre Dame

2024 DNP Distinguished Service Award Committee
(Award October 2024)

- Haiyan Gao, Duke (Chair)
- Dean Lee, MSU
- Jim Napolitano, Temple U
- Nadia Fomin, U Tennessee Knoxville
- Ramona Vogt, LLNL/UC Davis

2024 DNP Mentoring Award Committee
(Award October 2024)

- Haiyan Gao, Duke (Chair)
- Dan Phillips, Ohio U (Interim Education Committee Chair)
- Jorge Lopez, U Texas El Paso
- Matthew Shepherd, U Indiana
- Mustafa Rajabali, Tennessee Tech
- Agnieszka Sorensen, U Washington

2024 DNP Fellowship Committee
(Awards March 2025)

- Haiyan Gao, Duke (Chair)
- Dean Lee, MSU (Vice Chair)
- Rainer Kruecken, LBNL
- Carlos Munoz Camacho, Jefferson Lab
- Vincenzo Cirigliano, U Washington
- Daniel Phillips, Ohio U

2024 DNP Nominating Committee
(Elections Fall 2024)

- John Arrington, LBNL (Chair)
- Grigory Rogachev, Texas A&M (Vice Chair)
- Renee Fatemi, U Kentucky
- Jocelyn Reed, Cal State Fullerton
- Anthony Timmins, U Houston

2024 Diversity, Equity, and Inclusion Committee

- Susan Seestrom, LANL (Chair)
- Christine Nattrass, U Tennessee Knoxville (Past Chair)
- Warren Rogers, Indiana Wesleyan (Vice Chair)
- Philippe Colon, Notre Dame
- Penny Duran, U Arizona
- Paul Gueye, Michigan State
- Jennifer L. James, Vanderbilt
- Chen Yu Liu, U Illinois
- Sanjay Reddy, U Washington
- Roxanne Springer, Duke
- Allison Zec, U New Hampshire

2024 Education Committee

- Julie Roche, Ohio U (Chair)
- Daniel Phillips, Ohio U (Past Chair)
- Shelly Leshner, North Carolina A&T State U (CEU Director)
- Agnieszka Sorensen, U Washington (DNP Executive Committee rep)
- Erin Hansen, UC Berkeley
- Carlos Bertulani, Texas A&M Commerce
- Reyco Henning, U North Carolina
- Daniela Ramirez Chavez, Michigan State (Grad student)

2025 National Nuclear Physics Summer School Steering Committee

- Nadia Fomin, U Tennessee Knoxville (co-Chair)
- Jean-Francois Paquet, Vanderbilt U (co-Chair)
- Sanjay Reddy, U Washington (Grant Holder)
- Melina Avila, ANL
- Dipangkar Dutta, Mississippi State
- Kristina Launey, LSU
- Matt Sievert, New Mexico State
- Nathaly Santiesteban, U New Hampshire
- Andrew Steiner, U Tennessee Knoxville

2024 Ad Hoc Home Page Committee

- Melina Avila, ANL (Chair)
- Lee Bernstein, LBNL (Vice Chair)
- Ramona Vogt, LLNL & UC Davis

2024 Ad Hoc Publications Committee

- Kate Scholberg, Duke (Chair)
- Daniel Phillips, Ohio U (Vice Chair)
- Nadia Fomin, U Tennessee Knoxville

2024 Ad Hoc APS Nominations Committee

- Nadia Fomin, U Tennessee Knoxville (Chair)
- Kelly Chipps, ORNL

IV. SPOTLIGHT ON THE EDUCATION COMMITTEE

The Education Committee is working to issue a new version of the Nuclear Physics Graduate Schools brochure, compiling a curated list of educational resources, and updating the database of US nuclear science faculty. The committee is also involved with multiple activities at the Fall DNP Meeting, including: running a professional development workshop aimed at post-docs and early-career faculty/staff (see [II](#)); assisting with the organization of the Conference Experience for Undergraduates; and collaborating with the Local Organizing Committee on a social event for graduate students.

V. REPORT ON THE 2024 NATIONAL NUCLEAR PHYSICS SUMMER SCHOOL

The 36th National Nuclear Physics Summer School was hosted by Indiana University in Bloomington from 15-26 July, 2024. The event organization was overseen by Walter Pettus, Jinfeng Liao, Mike Snow, and Scott Wissink, with support from the Center for Exploration of Energy and Matter (CEEM) and the Department of Physics. The event webpage is <https://ceem.indiana.edu/events/nnpss/index.html>.

The school program was designed to provide broad and pedagogical coverage of the major areas of nuclear physics, with focus topics on emerging areas. The program was led by 11 keynote series by visiting lecturers, supplemented by 4 talks by local lecturers. Topics were Heavy Ion Collisions (Helen Caines), Electron Ion Collider (Jianwei Qiu), QCD on the Lattice (Huey-Wen Lin), Hadron Spectroscopy (Ryan Mitchell and Adam Szczepaniak), Nuclear Reactions (Charlotte Elster), Nuclear Structure (Thomas Papenbrock), Nuclear Astrophysics (Ani Aprahamian), Fundamental Symmetries (Emanuele Mereghetti), Neutrinos (Ben Jones), Neutrons (Adam Holley), Electric Dipole Moments (Jaideep Singh), Parity Violating Electron Scattering (Caryn Palatchi), Artificial Intelligence and Machine Learning (Aobo Li), Quantum Computing (Thomas Papenbrock), and Funding Agencies (James Sowinski).

A class of 52 visiting students (12 female or gender minority) attended the school. They were joined by an additional 24 local student participants. Over half of participants elected to share a poster on their research at the welcome reception the second afternoon of the school. Students were offered a tour of the research laboratories and facilities at CEEM, and also enjoyed a recreational outing to Lake Monroe over the weekend. Feedback from students and instructors on the event has been overwhelming positive.

The school was made possible with primary support from the National Science Foundation, with additional contributions from Indiana University, the Facility for Rare Isotope Beams, Brookhaven National Laboratory, Oak Ridge National Laboratory, and Thomas Jefferson

National Accelerator Facility. Students were able to participate with no registration fee as well as room and board fully covered, with limited travel support in cases of need. *Contributed by Walter Pettus.*

The next summer school will be in 2026. Anyone interested in proposing to host the school at their institution should contact the co-chairs, Nadia Fomin nfomin@utk.edu and Jean-Francois Paquet jean-francois.paquet@vanderbilt.edu.

VI. UPDATING THE DNP BYLAWS

The 2024 DNP election will include an update to the DNP bylaws. There was a bylaws update in 2021. The current update was initiated primarily in response to the APS Honors Task Force Report with an additional update to the DEI Committee description to better reflect the operations of the committee. These will be detailed below. Other changes were suggested by APS: the use of gender-neutral pronouns throughout and the option for virtual attendance at in-person Executive Committee meetings (which the DNP already had introduced as a best practice).

The DEI Committee has established a committee chair line. The bylaws concerning the DEI Committee also now include the DNP Allies Program which is under the purview of the DEI Committee.

Most of the changes to the bylaws reflected the desire of the DNP Executive Committee to bring committee makeup into compliance with the recommendations of the Honors Task Force Report. The DNP had already adapted some committee membership in anticipation of the change, approving the bylaws in 2024 will formalize this change. These changes are the following:

- Chair lines (Chair/Vice Chair) were indicated for each committee where information was lacking before. The number of regular members of these committees were increased from three in most cases (2 members plus the previous winner) to four (four regular members with two year terms).
- The DNP has discontinued the previous practice of asking previous year's honorees to sit on the Bethe, Bonner, Feshbach, and Freedman selection committees as well as asking the advisor to the DNP Dissertation Award winner to serve on that selection committee.
- The DNP has worked with DAP to clarify the process for member appointment and chair line for Bethe Prize Committee. (The DAP will change their bylaws concerning the Bethe Prize so that the language of the bylaws for both units will be identical.)
- The membership of the DNP Mentoring Award committee was changed so that, instead of the committee being appointed anew on a yearly basis, two

new members would be appointed each year to two-year terms, leaving four regular committee members.

- Due to the changes needed to bring the DNP committees into compliance with the Honors Task Force Report, it was decided that Fellowship and DNP Dissertation Award Committees be chaired by appointed members, like the other prize and award committees, rather than by the DNP Past Chair and Chair. The DNP Past Chair and Chair will still act as Chair and Vice Chair of the DNP Mentoring Award. The chair line plus the Secretary-Treasurer will continue to evaluate nominations for the DNP Distinguished Service Award.

VII. 2025 MARCH + APRIL MEETING

The April meeting will be held jointly with the March meeting in 2025 as part of the recognition by the United Nations of 2025 as the Global Year of Quantum. The April meeting will thus be 17-20 March, in Anaheim, CA. The longer March meeting lasts two more days. The combined meeting is billed as the "Global Physics Summit".

The earlier date, as well as the co-location with March, requires a *much* earlier abstract submission deadline of 18 October 2024. Due to this deadline, the April 2025 program is outlined in this issue of the newsletter.

The DNP will have a number of invited sessions and minisymposia, as usual. Notably, while there will not be any joint invited sessions with March units, there is the possibility for cross-fertilization between March and April units, appearing on the program either as minisymposia (with DNP as the lead) or focus sessions (with a March unit as the lead). The designation as a focus session or a minisymposium has more to do with the number of anticipated abstracts, the March sessions are considerably longer than the April sessions, 180 minutes for March relative to 108 minutes for April.

The DNP Program Committee has done a masterful job of developing a program for this meeting on an extremely compressed time scale. They are to be commended for their hard work.

The invited sessions, including those shared with other units are:

- Neutron capture modeling: progress and needs for understanding element synthesis
- Neutrino mass in the laboratory and the cosmos today (with DPF)
- Highlights in neutrino physics (with DPF)
- Rare isotope beam facilities: windows into extreme astrophysical events
- Structure and dynamics in the fusion of neutron-rich nuclei
- Isotope Harvesting: Production, Separation, and Use

- The physics of sPHENIX (with GHP)
- Gluon Saturation and how to find it (with GHP)
- AI/ML for hadron physics (with GHP)
- Novel detector systems in hadronic physics (with GHP)
- Precision Tests of Nuclear Few-Body Physics (with GFB)
- Advancing Few-Body Calculations with AI/ML Techniques (with GFB)
- Radiation Effects on Superconducting Qubits

The minisymposia, including shared with other units, including those with DNP as the lead with March units are:

- Collective and single-particle modes of nuclear excitations
- Drawing on and Cultivating the Talent of All
- Early Results from Nucleon Form Factor Campaign with SBS at JLab
- Equation of state of hot and dense matter: status and future developments (with DGRAV)
- Experimental and Theoretical Searches for the QCD Critical Point (with GHP)
- Lattice QCD for hadronic physics (with GHP)
- Neutrino Mass in the Laboratory and the Cosmos: Looking Forward (with DPF)
- Novel Instrumentation and Techniques for Low Energy Neutrinos (with DPF)
- Radiation Effects on Superconducting Qubits and Sensors
- Time Domain Astrophysics and Nuclear Physics (with DAP)

Finally, the sessions DNP is participating in, with March units as the lead, are:

- Applications of Nuclear Physics in Medicine (with GMED)
- Detectors and Instrumentation for Nuclear Physics (with GIMS)
- Density Functional Methods in Nuclear and Condensed Matter Physics (with DCOMP)
- Quantum Information and Nuclear Physics (with DQI)
- Relativistic Fluids (with GHP and DFD)

Abstract submission for the 2025 meeting opens on 9 September 2024 and closes on 18 October 2024.

Please consider submitting an abstract and attending this Global Physics Summit during the International Year of Quantum. It is an exciting opportunity to be part of a much larger program and to learn about other fields of physics not covered by the April meeting. Some programs available this year because of the co-location with March are a Career Fair and a Lunch with Experts opportunity.

VIII. FUTURE MEETINGS

8.1. DNP Fall Meetings

The dates and locations for the future DNP Fall Meetings are given below.

2025 October 17-20 Chicago
2026 October 11-14 Philadelphia

The dates include the pre-meeting workshops, which are normally held in conjunction with the DNP Fall Meetings. These workshops, organized by the local organizing committee, have been a tradition at the DNP Fall Meetings since they began with the 1986 Vancouver meeting. All meeting attendees are welcome and encouraged to come. 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.

If anyone is interested in hosting a future DNP meeting, they should contact the DNP Secretary-Treasurer with a proposal.

8.2. APS Spring Meetings

The dates for the next April meeting, held in March, as previously discussed, 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.

The 2026 April meeting will also be held in conjunction with the March meeting. It will be held in Denver, CO, with dates to be finalized.

2025 17-20 March Anaheim, CA
2026 March Denver, CO

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

IX. OTHER FORTHCOMING MEETINGS

DNP Secretary-Treasurer.

Meeting organizers who wish to have their meetings advertised in the DNP newsletter should contact the