

Division of Nuclear Physics

The American Physical Society

Newsletter No. 205 August 2020

TO: Members of the Division of Nuclear Physics, APS FROM: Ken Hicks, Ohio U. – Secretary-Treasurer, DNP

HIGHLIGHTED IN THIS NEWSLETTER:

- 2020 DNP Fall VIRTUAL Meeting
- 2020 DNP Committee Members

Future Deadlines:

15 September 2020 — DNP20 Early Registration
20 October 2020 — DNP20 Late Registration

The home page for the Division of Nuclear Physics is available at <u>http://dnp.aps.org</u>. Information of interest to DNP members – nominations, prizes, meeting deadlines, *etc.* are provided. Each DNP Newsletter is posted online. Comments and suggestions are solicited. Please send them to Julie Roche at <u>rochej@ohio.edu</u>

1. DNP 2020 FALL VIRTUAL MEETING

The Annual Fall Meeting of the Division of Nuclear Physics of the American Physical Society will be held as a virtual meeting, using the video conference platform Zoom, on 28 Oct. – 1 Nov. 2020. The meeting will run from Thursday 8:30 am (Central Time) through 4:00 pm (CT) on Sunday. Topical workshops will be held on Thursday morning, followed by the opening plenary session on Thursday afternoon, starting at 3:00 pm (CT). A set of parallel Group Meetings will be held following the plenary session, starting at 7 pm (CT). Parallel scientific sessions—invited speaker sessions, mini-symposia, and contributed sessions—will be held Friday and Saturday morning and afternoon as well as on Sunday morning. The CEU poster sessions will be scheduled in the late afternoon on Friday and Saturday. The Business/Town Meeting will be Sunday afternoon, from 2-4 pm (CT).

Meeting website: http://tigers.phys.lsu.edu/dnp2020/

Due to the COVID-19 pandemic, the meeting will be held online, using Zoom. The meeting will be hosted by the Facility for Rare Isotope Beams (FRIB) at Michigan State University (MSU). This group has had experience with virtual meetings and has the infrastructure to handle any technology challenges. The DNP thanks the FRIB/MSU group for hosting the DNP 2020 virtual meeting.

Zoom Connection:

The website for the program is at:

https://indico.frib.msu.edu/event/37/

The links to the Zoom sessions can be found there. Just find the day and session you want and click on the Zoom link. A password will be required to join all sessions. Passwords will be sent by email to all registered participants on the day of the meeting. You must register in order to join the meeting. The registration website is linked at: http://tigers.phys.lsu.edu/dnp2020/reg.html

<u>Conference Organizers:</u> Complete Conference Coordinators, Inc. (CCC) will handle the meeting registration through the above web link.

The contact information for CCC is: Complete Conference Coordinators, Inc. Email: info@cccmeetings.com Tel: **630-416-3030** URL: <u>http://www.cccmeetings.com</u> Reminders to register will be sent to all DNP members by email.

At the meeting:

The program, with the schedule and abstracts for all talks is at: <u>http://meetings.aps.org/Meeting/DNP20/</u>

NOTE: there are no links to the Zoom meetings from this website! Although it is slightly inconvenient, the abstracts are listed at the above link, whereas the Zoom links are connected to the indico website (see Zoom Connection above). Because of a record number of abstracts, almost double that of an in-person meeting, the effort to cut-and-paste the over 1000 abstracts was too costly. Having two websites, one for each function, is a more reasonable solution.

Local Organizing Committee:

The Local Organizing Committee is chaired by Jeff Blackmon (LSU), working with: Catherine Deibel (LSU), Jerry Draayer (LSU), Lev Kaplan (Tulane), Kristina Launey (LSU), Scott Marley (LSU), George Rosensteel (Tulane), and Fred Wietfeldt (Tulane).

The Local Organizing Committee (LOC) has arranged three workshops for Thursday morning, intended as didactic introductions to the given topics. The workshops are entitled: (1) "FRIB Day 1 Science", organized by C. Deibel, (2) "Frontiers in Neutron Physics", organized by F. Wietfeldt, and (3) "Computational Advances in Nuclear Science", organized by K. Launey.

The Program Committee, under the leadership of Sherry Yennello, has organized 6 invited sessions which will begin at 8:30 am (CT) on Friday morning and run through Sunday at 12:30 pm (CT). The Program Committee has organized a number of high-interest invited sessions:

- New insights in the spin structure of the nucleon
- Theory-experiment co-developments in Quantum Information
- Nuclei near neutron star surfaces
- Thermalization from small to large systems
- Electroweak and BSM physics with electron scattering
- Compact accelerator systems for nuclear physics

The invited session of the Local Organizing Committee is entitled "Neutrons: from particles to stars".

The Plenary session, organized by DNP Chair Krishna Kumar, starts at 3:00 pm (CT) Thursday with talks on topics that span the field: (1) New Results from PREX-II (Lead Radius Experiment), (2) Fundamental Symmetries Theory: Recent Results, (3) Nuclear Structure and Nuclear Astrophysics Theory, and (4) Fostering Diversity and Equality in Science. There will also be a dedication to the 50th anniversary of Physical Review C just prior to the plenary session. There are 20 minisymposia planned for the Fall DNP20 meeting:

- New Insights into Fission
- Short Range Correlations in Nuclei
- Gamma-Particle Coincidence Studies with Radioactive Ion Beams
- Precision Beta Decay
- Hypernuclear Spectroscopy
- Hadronic Weak Interactions
- Nuclear Physics in Africa
- The next generation nuclear workforce
- Invariant mass spectroscopy for the study of rare isotopes
- U.S.-based Electron-Ion Collider: Physics and Detectors
- Nuclear Physics from Effective Field Theory and Lattice Field Theory
- (α,n) Reactions for Astrophysics and Applications
- Charting the Spectrum of Excited Nucleons at Jefferson Lab
- Beta decay: Nuclear Astrophysics, Structure and Applications
- Nucleon Structure in the Valence Regime
- Neutrino Physics
- Isotope Production at Nucear Physics Facilities
- Probing nucleons and nuclei in ultra-peripheral collisions and with vector-mesons
- Novel detector Technologies, from detectors to data analysis
- NSBP (National Society of Black Physicists) / NSHP (National Society of Hispanic Physicists): nuclear sciences

An award session, held on Sunday at 10:30-12:20, will include talks by the Nuclear Physics Dissertation Award winners, **Jordan Melendez**, as well as by the Mentoring Award winner, **Jolie Cizewski**, and the Stuart Jay Freedman Award winner, **Marta Verweij**.

The DNP Business and Town Hall Meetings will be held from 2:00-4:00 pm (Central Time) on Sunday, November 1. In addition to presentations by the federal funding agencies, the DNP Distinguished Service Award will be presented to **Wick Haxton**.

Registration Fee:

Contrary to rumors, virtual meetings are not free of costs. The Zoom licence for large attendance meetings is a real cost. The registration fee includes the cost of processing the abstracts, which are published online by the APS, the cost of processing registrations by CCC, and any costs incurred by the host institution that runs the Zoom meetings. In order to cover these costs, it is necessary to charge for registration. The fee structure has been set as: students at \$50, postdocs/retired \$100, full DNP members \$150 and non-DNP registrations at \$250. The early registration deadline is 15 September 2020. After this date, all registration fees increase by \$50. Don't miss the deadline!!

Women in Science Social (Heather Garland):

The 6th consecutive Women in Science Social, a virtual discussion event, will be held over lunch Friday, October 30. This program was developed in an effort to provide a space for those who identify as women or non-binary to network and socialize with established people in the field of nuclear science. There are several points in a career where those who are part of underrepresented groups are likely to leave fields in STEM. These points include the second year of undergraduate or graduate programs and any time within a post doctoral position. The Women in Science Social is an organized effort to introduce early career scientists (including CEU students), who are women or nonbinary individuals in the field of nuclear physics, to possible mentors within the Division of Nuclear Physics. This event provides unique opportunities to speak to a wider audience of people in the community and with a diverse group of community leaders . Recently, discussion associated with the challenges that face women or non-binary people in science, and brainstorming of possible action-based solutions to these problems, has been included in the Women in Science Social event. If you are interested in connecting to the event please go to the meeting website (see above) and click the tab for the Women in Science Social.

PRC 50th Anniversary Celebration Session:

The American Physical Society's *Physical Review* was split into four journals, *Physical Review A-D*, in 1970. To celebrate the 50 years of *Physical Review C*, a special online session will be held at the virtual 2020 DNP Fall Meeting. Sam Austin will provide an overview of the history of *Physical Review C*. That presentation will be followed by a panel discussion pertaining to the future of journal publishing and what may lie ahead for *Physical Review C*. The panelists will be Michael Thoennessen, the APS Editor in Chief, Sam Austin, the past Editor of *Physical Review C*, Ben Gibson, the current Editor of the journal, and Chris Wesselborg, the journal's Managing Editor. Following remarks by the panelists, there will be an opportunity for live questions from the audience.

For those interested in publication highlights from the past 50 years, biweekly selections are posted on the the home page of *Physical Review C (https://journals.aps.org/prc/)*. The "Collection" of highlighted papers appears under the heading "*Physical Review C* 50th Anniversary Milestones". The papers are listed in reverse chronological order starting with the most recent; the last milestones will appear in December.

2. CEU20, Shelly Lesher

The 23rd annual Conference Experience for Undergraduates (CEU), will be held in conjunction with the DNP 2020 Fall Meeting. More than 100 undergraduate students, who have been involved in nuclear science research during the past year, will participate in CEU20. The program will include a number of special events for undergraduates, including a research poster session, where each CEU student will have their own virtual meeting room to present a short, pre-recorded talk about their poster followed by discussion via video conference with DNP members. A graduate school information session at which university and laboratory representatives will be set up via video conference to share with the students about graduate school opportunities. Special CEU seminars will be given by Catherine M Deibel (Louisiana State University) and Lijuan Ruan (Brookhaven National Laboratory). This year, two undergraduate oral presentation sessions have been added to the DNP20 epitome, check your schedule! The CEU is generously supported by the National Science Foundation and by the Department of Energy (through the national labs).

CEU website: https://www.uwlax.edu/ceu

3. FUTURE APS SPRING MEETING INFORMATION

2021	April 17-20	Sacramento, CA
2022	April 23-26	Washington, DC

Any comments/suggestions should be sent to APS Meetings Manager, Terri Olsen (olsen@aps.org).

4. FUTURE DNP FALL MEETINGS

The premeeting workshops are normally held in conjunction with the DNP Fall Meetings. Holding workshops at the DNP Fall Meetings is a tradition that began with the 1986 Vancouver meeting. All meeting attendees are welcome and encouraged to come. It has been the intention of the DNP Executive Committees 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 of specialty of the local community.

2021	October 11-14	Boston, MA
2022	October 27-30	New Orleans, LA
2023	October, dates TBA	HI, Joint with JPS

5. DNP COMMITTEES

2020 Executive Committee

Krishna S. Kumar, Univ. of Mass. Amherst, Chair (2020) Sherry J. Yennello, Texas A&M Univ., Chair-Elect (2020) S. Victoria Greene, Vanderbilt, Vice-Chair (2020) Robert V.F. Janssens, Univ. of N. Carolina, Past-Chair (2020) Kenneth H. Hicks, Ohio U., Sec.-Treas. (2020) A. Baha Balantekin, Univ. of Wisc., Div. Coun. (2021) Jeffery C. Blackmon, LSU (2020) Evangeline J. Downie (2021) Nadia Fomin, Univ. of Tennessee (2020) Jeffrey S. Nico, NIST (2021) Jacquelyn Noronha-Hostler (2021) Julie Roche, Ohio University (2020)

2020 Program Committee

Sherry J. Yennello, Texas A&M Univ., Chair (2020) S. Victoria Greene, Vanderbilt, Vice-Chair (2020) Krishna S. Kumar, Univ. Mass. Amherst, Past-Chair (2020) Kenneth H. Hicks, Ohio U., Sec.-Trea. (2020) Jeffrey C. Blackmon, LSU (2020) Vince Cirigliano, LANL (2020) Catherine Deibel, LSU (2020) Anna Hayes-Sterbenz, LANL (2020) Mike Heffner, LLNL (2020) Kent Paschke, U. of Virginia (2020) Christine Nattrass, U. of Tennessee (2020) Ernst Sichtermann, LBNL (2020) Derek Teaney, SUNY Stony Brook (2020) Fatiha Benmokhtar, Duquesne U. (2021) Leah Broussard, ORNL (2021) Paul Gueye, MSU (2021) Ania Kwiatkowski, TRIUMF (2021) Libby McCutchan, BNL (2021) Zach Meisel, Ohio U. (2021) Emilie Passemar, Indiana U. (2021) Roxanne Springer, Duke U. (2021)

2021 Hans Bethe Prize Selection Committee (Award April 2021)

Katherine Freese, Univ. Michigan, Chair Guy Savard, ANL, Vice-Chair Charlotte Elster, Ohio U Chris Fryer, LANL Fiona Harrison, CalTech (2020 Awardee)

2021 Tom Bonner Prize Selection Committee (Award April 2021)

Reina Maruyama, Yale Univ., Chair Cynthia Keppel, Hampton Univ., Vice-Chair Alexandra Gade, MSU Carl Gagliardi, Texas A&M Richard Millner, MIT (2020 Awardee)

2021 Herman Feshbach Prize Committee (Award April 2021)

Gail McLaughlin, NC State Univ., Chair Jolie Czewski, Rutgers Univ., Vice-Chair Janet Seger, Creighton Univ. John Beacom, Ohio State U. Ubirajara van Kolck, Univ. of Arizona (2020 Awardee)

2020 Stuart Jay Freedman Prize Committee (Award DNP 2020)

Hamish Robertson, Univ. Washington, Chair Remco Zegers, Vice-Chair Baha Balantekin, Univ. Wisconson Yury Kolomensky, UC Berkeley Or Hen (2019 Awardee)

2021 DNP Dissertation Committee (Award DNP 2020)

Krishna Kumar, U. Mass. Amherst, Chair Robert V.F. Janssens, UNC Past DNP Chair Latifa Elouadrhiri, JLab Mohammad Ahmed, NCSU Martha Constantinou, Temple Univ. Mike Lisa, Ohio State U.

2020 DNP Mentoring Committee (Award DNP 2020)

Robert V.F. Janssens, UNC, Chair Shelly Lesher, Univ. Wisconson La Cross (CEU program) Carl Gagliardi, Texas A&M Ron Gilman, Rutgers Samuel Tabor, FSU (2019 Awardee)

2020 DNP Fellowship Committee (Awards April 2021)

Robert V.F. Janssens, UNC, Chair Helen Caines, Yale Univ. Chen-Yu Liu, Indiana Univ. Wim Dickhoff, Washington Univ. Rolf Ent, JLab

2020 DNP Nominating Committee (Elections Dec. 2020)

Joanna Kiryluk, SUNY Stony Brook, Chair Fred Wietfeldt, Tulane, Vice-Chair Jainwei Qiu, JLab Xin Dong, LBL Alfredo Galindo-Uribarri, ORNL

2020 Ad Hoc Education Committee

Lauren McIntosh, Texas A&M Univ., Chair Jeff Blackmon, LSU Evie Downie, GWU Warren Rogers, Indiana Wesleyan Univ. Alan Poon, LBNL Shelly Lescher, CEU Program Coordinator Taya Chetry, Mississippi State U, Student/Postdoc Representative

2020 Ad Hoc Home Page Committee

Julie Roche, Ohio Univ., Chair Jeff Nico, NIST, Vice-Chair

2020 Ad Hoc Publications Committee

Nadia Fomin, Univ. Tennessee, Chair Jaki Noronha-Hostler, Univ. Illinois, Vice-Chair Vicki Greene, Vanderbilt Univ.

2020 Ad Hoc APS Nominations Committee

S. Vicki Greene, Vanderbilt U., Chair Sherry Yennello, Texas A&M Univ.

2020 Distinguished Service Award Committee (Award DNP20)

Krishna Kumar, U Mass Amherst., Chair with DNP Chair-Elect, Vice-Chair, Past-Chair, Sec-Treas.

6. FUTURE MEETINGS

Organizers of future conferences should contact the DNP Secretary-Treasurer if they wish their conferences listed in DNP newsletters.

Under the leadership of the DPF, the US particle physics community is engaged in its long-range planning process known as "Snowmass 2021". Snowmass is an opportunity for the entire HEP community to come together to identify and document a vision for the future of particle physics in the U.S. and with its domestic and international partners. Workshops will be organized over the next year and a half, culminating in a 2021 summer study that pulls all the work together. Several of the topics and related workshops would likely profit from the participation of, and be of significant interest to, members of the DNP. More information on Snowmass 2021 can be found on the website: https://snowmass21.org/

In particular, the schedule of workshops, deadlines (e.g. for the Letters of Intent and contributed White Papers), and monthly newsletters are listed under "Announcements": <u>https://snowmass21.org/announcements</u>

Links to the current and past workshops can be found at https://indico.fnal.gov/category/1098/

The scope of the Snowmass studies is organized in 10 "frontiers" which focus on specific scientific and societal questions relevant to particle physics. Some topics have overlaps with nuclear physics, in particular in the studies of neutrino physics, fundamental symmetries, QCD, detector instrumentation, and accelerator technologies. Members of DNP with interests in these topics are encouraged to participate in the Snowmass process. We strongly encourage early career scientists (students, postdocs, junior faculty and staff) to engage through the "Snowmass Early Career" groups: https://snowmass21.org/start/young. Many of the community issues common to particle and nuclear physics are being discussed within the "Community Engagement Frontier": https://snowmass21.org/community/start. For more information on how to stay connected to Snowmass 2021 through various media please see https://snowmass21.org/communicationtypes, or contact the conveners of the relevant frontiers and topical groups.

"Snowmass 2021"

21 and 30 July 2021, on Zoom Contacts: Rana Adhikari, Luis Anchordoqui, Kristen Tollefson URL: <u>https://snowmass21.org</u> Email: <u>bss25@psu.edu</u>

"International Conference on Hypernuclear and Strange Particle Physics (HYP2021)"

4-8 October 2021 Contact: Jiri Mares, Conference Chair URL: <u>http://rafael.ujf.cas.cz/hyp2021/</u> Email: <u>mares@ujf.cas.cz</u>

KRISHNA S. KUMAR Chair

Dept. of Physics W104, Physical Sciences Bldg. 690 North Pleasant Street University of Massachusetts Amherst, MA 01003 Phone: (413) 545-0763 kkumar@umass.edu

SHERRY J. YENNELLO Chair-Elect Cyclotron Institute Texas A&M University College Station, TX 77843 Phone: (979)-845-1411 yennello@comp.tamu.edu

S. VICTORIA GREENE Vice-Chair Dept. of Physics & Astronomy Vanderbilt University 2301 Vanderbilt Place Nashville, TB 37235-1807 Phone: (615) 343-0657 senta.v.greene@vanderbilt.edu KENNETH H. HICKS Secretary-Treasurer Dept. of Physics & Astronomy Ohio University Athens, OH 45701-2979 Phone: (740) 593-1981 hicks@ohio.edu