Newsletter No. 203 February 2020

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

HIGHLIGHTED IN THIS NEWSLETTER:

· DNP Election Results

Future Deadlines:

- 1 March 2020 Nominations for the DNP Mentoring Award
- 1 March 2020 Nominations for Distinguished Service Award
- 31 March 2020 Nominations for the Stuart Jay Freedman Award
- 1 May 2020 Nominations for APS Fellows (DNP)

The home page for the Division of Nuclear Physics is available at http://dnp.aps.org. 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 Renee Fatemi at rhfate2@g.uky.edu.

1. RESULTS OF THE DNP ELECTION: OFFICERS AND EXECUTIVE COMMITTEE FOR 2020

By the deadline date of 23 January 2020, 740 web ballots or properly executed paper ballots were cast in the 2019 election of officers and members of the Executive Committee. The results of the election are as follows: Vicki Greene was elected to Vice-Chair and Kenneth Hicks was elected to Secretary-Treasurer for one-year terms. Robert Janssens will be appointed to serve a one-year term as Past Chair. Evie Downie, Jeff Nico and Jaki Noronha-Hostler were elected to two-year terms on the Executive Committee. Baha Balantekin continues in his four-year term as Division Councilor. The members of the 2020 Executive Committee, who will assume their duties at the close of the Business Meeting to be held during the APS April Meeting, 18-21 April 2020, in Washington, DC, are:

Krishna Kumar, Univ. of Mass (Amherst), Chair (2020)
Sherry J. Yennello, Texas A&M Univ., Chair-Elect (2020)
S. Vicki Greene, Vanderbilt Univ., Vice-Chair (2020)
Robert V. F. Janssens, Univ. of N. Carolina, Past-Chair (2020)
Kenneth H. Hicks, Ohio Univ., Secretary-Treasurer (2020)
A. Baha Balentekin, Univ. of Wisconsin (2021)
Jeffrey C. Blackmon, LSU (2020)
Evie Downie, George Washington Univ. (2021)
Nadia Fomin, Univ. of Tennessee (2020)
Jeffrey S. Nico, NIST (2021)
Jacquelyn Noronha-Hostler, Univ. Illinois (2021)
Julie Roche, Ohio Univ. (2020)

The DNP wishes to thank each of the members who agreed to stand for election. The DNP depends entirely on volunteers to carry out the business of the Division.

2. CALL FOR DNP COMMITTEE SUGGESTIONS

The terms of some of the members of the following DNP committees will expire in April 2020: Fellowship, Nominating, Home Page, Education, and Mentoring. Suggestions from the DNP membership for new members of these committees as well as the APS Bethe, Bonner, and Feshbach Prize Committees and the Freedman Award and the Nuclear Physics Dissertation Award Committees are welcome and should be sent to the DNP Chair. A list of committee members for 2020-2021 will be published in the August newsletter.

3. ACKNOWLEDGE YOUR SPONSORING AGENCY

Given the importance of agency sponsorship in fostering nuclear physics research, we urge DNP members to acknowledge their agency sponsors in any talk or publication they generate: seminars, workshop contributions, APS meeting talks, conference talks/posters, etc.

4. NEW APS FELLOWS NOMINATED BY DNP

The following DNP members are newly elected (2019) Fellows of the APS. Please join us in offering congratulations.

Daniel Bazin, Michigan State University
Daniel Boer, University of Groningen
Mahananda Dasgupta, Australian National University
Evgeny Epelbaum, Ruhr University Bochum
Jutta E. Escher, Lawrence Livermore National Laboratory
Joseph A. Formaggio, MIT
Rituparna Kanungo, Saint Mary's University
Saskia Mioduszewski, Texas A&M University
Kent Paschke, University of Virginia
Sofia Quaglioni, Lawrence Livermore National Laboratory
Bernd Surrow, Brookhaven National Laboratory

The citations for the above Fellows can be found on the DNP website: https://www.aps.org/units/dnp/fellowship/

The award pin and certificate for the above Fellows will be presented at the Business Meeting of the April APS meeting in Washington, DC. The Business Meeting and Town Hall will be held on Monday, April 20, following the DNP Prize Session.

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- · Call for nominations: DNP Fellows
- APR20 in Washington, DC
- DNP20 in New Orleans, LA



5. NOMINATIONS FOR APS FELLOWSHIP

The qualifications and procedure for the election of a Member to Fellowship in the APS can be found under Fellowships on the APS Home Page. Only web nominations are accepted. The total number of members who may be elected to Fellowship in a given year is one half of one percent of the total APS membership.

The DNP deadline for nominations is 1 May. Nomination instructions can be found on the APS home page (http://www.aps.org); click on the heading "Programs" and follow the link to "Honors".

The 2020 DNP Fellowship Committee is comprised of Robert Janssens (Chair), Willem Dickhoff, Rolf Ent, Helen Caines and Chen-Yu Liu. The Fellowship Committee reviews the nominations for APS Fellowship referred to the DNP and recommends a slate of candidates, which is forwarded to the APS Fellowship Committee and then to APS Council for election. Nominations are active for two years. It is important for nominators to ensure that the cases that they prepare for the Fellowship Committee are well documented. In addition to that requested on the nomination form, information such as lists of invited talks, awards, professional activities, committee service, and participation in organization of conferences is very helpful. Inclusion of a current CV and a complete publication list is highly recommended.

The DNP has adopted the following Fellowship Criteria Guidelines. To be chosen as a Fellow, an APS member should have a record of excellence in research that has been sustained over several years, and have completed at least one major, original work that has influenced his/her specialty in a significant way. The APS requires membership for at least the prior year.

The list of APS Fellows elected in a given year appears on the APS Home Page in November and is published in the March issue of APS News. The names of newly elected DNP Fellows are published in the February Newsletter and the awards are presented at the DNP Business Meeting held during the APS April Meeting.

6. APS MEETING, Washington DC, 18-21 APRIL 2020

The APS April Meeting encapsulates the full range of physical scales, from "Quarks to the Cosmos (Q2C)". Research will be presented on topics by more than 20 participating APS units. The 2020 theme (Q2C) will be broadly proclaimed through speakers and scientific sessions. The venue will be the Washington Marriott Wardman Park Hotel. The APS has secured a special rate for April Meting attendees. You must book your room online through the APS to receive the discounted rates.

The APS units participating in the meeting are:

Divisions

Atomic, Molecular & Optical Physics (DAMOP)

Astrophysics (DAP)

Computational Physics (DCOMP)

Nuclear Physics (DNP)

Gravitational Physics (DGRAV)

Particles and Fields (DPF)

Physics of Beams (DPB)

Forums

Early Career Scientists (FECS)

Education (FED)

Graduate Student Affairs (FGSA)

History of Physics (FHP)

International Physics (FIP)

Physics and Society (FPS)

Outreach and Engaging the Public (FOEP)

Topical Groups

Energy Research and Applications (GERA)

Few-Body Systems (GFB)

Hadronic Physics (GHP)

Medical Physics (GMED)

Physics Education Research (GPER)

Precision Measurement & Fundamental Constants (GPMFC)

Committees

Minorities in Physics (COM)

Status of Women in Physics (CSWP)

The April Meeting program will be highlighted by 3 **plenary sessions**: **Saturday morning** – *Kavli Foundation Keynotes*: featuring James Peebles (Princeton), Michael Mayor (University of Geneva), and Eric Cornell (University of Colorado & NIST-JILA);

Monday morning –*Multi-Messenger Probes of Fundamental Physics*, featuring Laura Cadonati (Georgia Tech), Amina Helmi (University of Groningen), and Zaven Arzoumanian (NASA);

Tuesday morning –*Frontiers of Discovery: Flavor, Color and Exoplanets* featuring Didier Queloz (University of Geneva), Chris Polly (FNAL), and Larry McLerran (University of Washington).

Deadlines:

Early Registration: 28 February 2020 Hotel Reservations: 13 March 2020 Late Registration: 27 March 2020 On-site Registration: 18-21 April 2020

7. APRIL 2020 MEETING PROGRAM (DNP EVENTS)

The DNP Program Committee, under the direction of Program Chair Krishna Kumar and DNP Vice-Chair Sherry Yennello, has put together a wonderful collection of stand alone and joint sessions:

- New Results from NICER and Neutron Star EoS (DNP/DGRAV)
- From deuterium to light nuclei: meas./ab-initio theory (DNP/GFB)
- From Quarks to the Cosmos (DNP/DCOMP)
- Sensitive Reaction Studies: Nuclear Astrophysics (DNP/DCOMP)
- Science, Status and Prospects of US Facilities for Nuclear Physics (DNP/DPB)
- New Physics Searches at the Intensity Frontier (DNP/DPF)
- Electron Ion Collider Science (DNP/GHP)
- The Hadron Spectrum in Hot and Cold QCD (DNP/GHP)
- New Insights from Precision Measurements of Weak Interaction Phenomena (DNP/GPMFC)
- Increasing Nuclear Literacy (DNP/FED)
- Polarization and the QCD Nuclear Medium (DNP)
- Lepton Number and the Quest for Neutrinoless Double-Beta Decay
- BSN Physics in Nuclear and Nucleon Beta Decay (DNP)
- DNP Prize Session (Bonner and Feshbach award talks)

Contributed abstracts for the DNP component of the meeting were arranged into coherent sessions by volunteers from the Program Committee under the direction of Krishna Kumar.

8. FUTURE APS SPRING MEETING INFORMATION

2020	April 18-21	Washington, DC
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).

9. 2020 DNP FALL MEETING IN NEW ORLEANS, LA

The Annual Fall Meeting of the Division of Nuclear Physics of the American Physical Society will be held in New Orleans, Louisiana from Oct. 29 - Nov. 1, 2020. The meeting will begin with topical workshops on Thursday morning, followed by the opening plenary session on Thursday afternoon starting at 3 pm. A reception will be held starting immediately following the plenary session. Parallel scientific sessions – invited speaker sessions, mini-symposia, and contributed sessions – will be held on Friday and Saturday (both morning and afternoon) as well as on Sunday morning. The CEU poster session and the Physical Review Meet-the-Editors Drop-In reception will be scheduled starting at 4 pm on Friday. In a change in format from previous years, the banquet will be held on Friday evening following the poster session. The graduate school fair will be held during lunch time on Saturday, and the DNP Business/Town Meeting will be Saturday afternoon in the late time slot. A special dinner for graduate students is being planned for Saturday evening (Halloween night).

The meeting (and all functions) will be held in the Hyatt Regency Hotel, New Orleans, LA. The hotel is located 14 miles from Louis Armstrong International Airport (MSY), whose new terminal opened in 2019 providing direct flights to more than 50 major cities. The hotel is located in New Orleans' Central Business District, a short walk from the French Quarter and numerous restaurants and attractions. New Orleans is a timeless city with a unique way of life. Steeped in European traditions and Caribbean influences, the Big Easy calls curious minds to sweet sounds and savory cuisine fueled by three hundred years of history. New Orleans' famed street cars (as well as ubiquitous taxi and ride-hailing services) provide easy access to explore all New Orleans has to offer. The Local Organizing Committee is chaired by Jeff Blackmon (LSU, contact: blackmon@lsu.edu), working with Catherine Deibel (LSU), Jerry Draayer (LSU), Lev Kaplan (Tulane), Kristina Launey (LSU), Scott Marley (LSU), George Rosensteel (Tulane) and Fred Wietfeldt (Tulane). Additional details will be available in the May newsletter and at the conference website (http://www.phys.lsu.edu/dnp2020) as they become available.

WORKSHOPS: Topical workshops planned for Thursday morning:

- FRIB Day 1 Science (C. Deibel, chair)
- 2. Frontiers in Neutron Physics (F. Wietfeldt, chair)
- 3. Computational Advances in Nuclear Science (K. Launey, chair)

ABSTRACTS: The abstracts website will open in early May, 2020.

HOTEL: Hyatt Regency Hotel, 601 Loyola Avenue, New Orleans, LA, 70113. You must book your accommodations through the conference registration website to obtain the APS special rate.

10. PHYSICAL REVIEW C NEWS, Ben Gibson

Five new *Physical Review C* Editorial Board members were appointed to 3-year terms beginning January 1, 2020, by the APS Editor in Chief, Michael Thoennessen:

Douglas Beck (UIUC), Vincenzo Cirigliano (LANL), Rituparna Kanungo (St. Mary's, Halifax), Takashi Nakano (RCNP), Petr Navratil (TRIUMF).

On behalf of the nuclear physics community, the *Physical Review C* editors thank the departing Editorial Board members for their service: Simonetta Liuti, James Napolitano, David Radford, Achim Schwenk, and Susumu Shimoura.

Physical Review C published its initial issue in January 1970 and is celebrating its 50th anniversary in 2020. As part of that celebration PRC is highlighting milestone papers on its web page (https://journals.aps.org/prc/). The first two papers have been posted for January. The first reported a joint Russian-US collaboration discovery of element 118, the heaviest element to date. The second reported a pioneering application of Green's function Monte Carlo methods in nuclear structure physics. It is anticipated that two new milestone papers will be posted each month.

PRA, *PRB*, *PRC*, & *PRD* will participate in 50th anniversary celebrations at the APS March and April meetings. PRC will hold an additional celebration during the DNP 2020 fall meeting in New Orleans. Details will be given in *APS News* and the DNP newsletters.

11. CEU REPORT FROM DNP19, Shelly Lesher

The 2019 CEU program, held in conjunction with the 2019 DNP Meeting in Crystal City, VA was highly successful. There were 148 students participating in the program which included 15 students who presented oral contributions in either a regular session or the new Category 17 – Undergraduate Research session.

The goal of the CEU program is to provide a valuable conference experience for undergraduate students, who have conducted research in nuclear science, by providing them an opportunity to present their research to the larger professional community and to one another in the CEU poster session. The CEU program also enables participating students to converse with faculty and senior scientists from graduate institutions about graduate school opportunities. This year continued a mentoring program where graduate students and postdocs guided the CEU students through the conference experience. Additional CEU activities included nuclear science seminars presented by Ania Kwiatkowski (TRIUMF) and Bob McKeown (JLab) as well as a tutorial about applying to graduate school by Mark Caprio (Univ. of Notre Dame) and a graduate school information session. A CEU social was provided by the DNP.

The CEU program was sponsored by the National Science Foundation, the Department of Energy (via national labs), and the Division of Nuclear Physics.

12. STUART JAY FREEDMAN AWARD

The 2019 Stuart Jay Freedman Award in Experimental Nuclear Physics was awarded to **Or Hen** (MIT) at the DNP19 meeting. This award, which will be given annually, was established to recognize an outstanding early career experimentalist in nuclear physics. It honors the memory of Stuart Freedman who inspired his students and post-docs in experimental nuclear physics through his accomplishments, his approach to science, and his commitment to the scientific development of those whom he mentored.

The deadline for nominations of the 2020 award is March 31. The 2020 selection committee is: Hamish Robertson (Chair), Remco Zegers (Vice-Chair), Baha Balantekin and Mike Lisa. More information may be found on the DNP website. The 2020 award includes a \$4000 stipend. Fund raising for the award continues, with the goal of providing a \$5000 stipend, which requires an endowment of \$150,000. The current endowment is now at about \$117,000. Please contact the APS for donations via the website:

https://www.aps.org/about/support/freedman.cfm

13. FUTURE CONFERENCES

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

"XXIX International Conference on Neutrino Physics and Astrophysics (Neutrino 2020)"

22-27 June 2020, Chicago, IL, USA

Contacts: Steve Brice, Marvin Marshak, Sam Zeller

URL: https://conferences.fnal.gov/nu2020/

Email: nu2020@fnal.gov

"2020 R-matrix Workshop on Methods and Applications"

22-26 June 2020, Ohio University, Athens, OH, USA

Contacts: Carl Brune, James deBoer

URL: https://indico.frib.msu.edu/event/29/overview

Email: brune@ohio.edu

"2020 Gordon Research Conference: Photonuclear Reactions"

9-14 August 2020, Holderness, NH

Contacts: Huey-Wen Lin and Douglas Higinbotham

URL: https://www.grc.org/photonuclear-reactions-conference/2020/

Email: hwlin@pa.msu.edu

"8th Asia-Pacific Conference on Few-Body Problems in Physics"

19-23 August 2020, Kanazawa, Japan

Contacts: Emiko Hiyama, Souichi Ishikawa, Atushi Tamil URL:http://www.rcnp.osaka-u.ac.jp/Divisions/np1-a/apfb2020/

Email: apfb2020@email.phys.kuushu-u.ac.jp

"International Conference on the Structure of Baryons"

22-25 September 2020, Seville, Spain

Contacts: Jorge Segovia

URL: https://www.upo.es/baryons2020/

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"Compound-Nuclear Reactions and Related Topics"

5-9 October 2020, Athens, Greece

Contacts: Paraskevi Dimitriou, Anastasia Georgiadou

URL: http://www.inp.demokritos.gr/cnr2020

Email: cnr2020@inp.demokritos.gr

"7th International Conference on Fission and Properties of Neutron-Rich Nuclei (ICFN7)"

8-14, November, 2020, Sanibel Island, FL Contacts: Joseph Hamilton and Brad Sherrill URL: https://indico.frib.msu.edu/e/ICFN7

Email: icfn7@frib.msu.edu

"HEP Community Planning Process (Snowmass 2021)"

11-20 July 2021, Snowmass, CO

Contacts: Priscilla Cushman (DPF Chair)

URL: TBA

Email: cushman@umn.edu

The TALENT initiative (Training in Advanced Low Energy Nuclear

Theory) will run three summer schools (listed below) in 2020

Contact: Chuck Horowitz

URL: https://fribtheoryalliance.org/TALENT/

Email: horowit@indiana.edu

Atomic Nuclei as Open Quantum Systems: Unifying Nuclear Structure and Reactions (at the Institute for Nuclear Theory, Seattle June 22-July 10,

2020) https://nucleartalent.github.io/NuclearOQS2020/

Density Functional Theory and Self-Consistent Methods (at Lawrence

Berkeley National Laboratory, July 6-24, 2020) Contact: Nicolas Schunck (schunck1@llnl.gov)

Machine Learning and Data Analysis for Nuclear Physics (at European Center for Theoretical Physics ECT*, Trento, Italy, June 22-July 11, 2020)

URL: http://www.ectstar.eu/node/4472

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