



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

HIGHLIGHTED IN THIS NEWSLETTER:

- 2020 DNP Elections

Future Deadlines:

- **10 January 2020** — Deadline submit abstracts for April APS mtg.
- **22 January 2020** — Deadline to vote in the DNP Election
- **1 March 2020** — Nominations for Mentoring or Service Awards
- **1 May 2020** — Nominations for DNP Fellows

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. 2020 DNP ELECTIONS

The terms of the officers and three members of the current Executive Committee will expire in April 2020. The installation of officers will take place at the DNP Business meeting in April 2020. Robert Janssens will become Past-Chair, Krishna Kumar will become Chair, and Sherry Yennello will become Chair-Elect. Baha Balantekin will remain as Division Councilor; his term as Divisional Councilor expires in April of 2022. Jeff Blackmon, Nadia Fomin, and Julie Roche will remain members of the Executive Committee. Renee Fatemi, Spencer Klein and Ramona Vogt will retire from the Executive Committee in April 2020. A Vice Chair, Secretary-Treasurer, and three members of the Executive Committee are to be elected. Executive Committee terms are 2 years, and the Secretary-Treasurer term is for 1 year.

This year's Nominating Committee consists of Peter Jacobs (Chair), Joanna Kiryluk (Vice-Chair), Catherine Deibel, Jianwei Qiu and Christine Aidala. The candidates selected by the Nominating Committee and approved by the Executive Committee are:

Vice-Chair (one position):

Vicki Greene (Vanderbilt)
Martin Savage (U. Washington)

Secretary-Treasurer (one position):

Kenneth Hicks (Ohio U)

Executive Committee (three positions):

Evie Downie (GWU)
Olga Evdokimov (U. Illinois—Chicago)
Jeff Nico (NIST)
Jacquelyn Noronha-Hostler (U. Illinois—Urbana-Champaign)
David Richards (JLab)
Richard Seto (UC—Riverside)

Candidate information and bios are given later in this newsletter.

2. 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.

3. 2019 DNP MENTORING AWARD

The 2019 recipient of the APS Division of Nuclear Physics Mentoring Award is Samuel Tabor of Florida State University. He received this award at the Business Meeting of DNP19 (held in Crystal City, VA). His citation reads:

“For his inspired, exceptional, and sustained mentorship of physics students and nuclear scientists. He has enthusiastically and successfully mentored men and women at all levels from undergraduates through early career faculty.”

4. 2020 NUCLEAR PHYSICS DISSERTATION AWARD

The 2020 co-recipients of the Nuclear Physics Dissertation Award of the APS Division of Nuclear Physics are Shirley Li at The Ohio State University and Isaac Upsal, also at OSU (the institutions were blinded during the award committee deliberations). Shirley's dissertation was written under the direction of John Beacom. She presented a summary of her research at the Awards session of DNP19. Her citation reads:

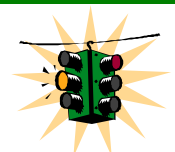
“For outstanding contributions to neutrino astrophysics through a coherent body of theoretical work that pioneers new background-rejection techniques for MeV detectors and new signal-selection techniques for TeV detectors.”

Isaac's dissertation was written under the direction of Michael Lisa. He also presented a summary of his research at the Awards session of DNP19. His citation reads:

“For the discovery and measurement of the vorticity of the quark gluon plasma in relativistic heavy ion collisions, and for indispensable leadership in the design and construction of an upgrade detector, providing crucial new capabilities to the STAR experiment at the Relativistic Heavy Ion Collider.”

INSIDE . . .

- Prize and Award Recipients
- DNP Election: Candidate Biographies
- April APS meeting in Washington, DC



5. 2019 STUART JAY FREEDMAN AWARD

The 2019 recipient of the APS Division of Nuclear Physics Stuart Jay Freeman Award is Or Hen at MIT. This is the second year for this award, given “for an outstanding early career experimentalist in nuclear physics”. He gave a presentation at the Awards session and received his award certificate at the Business Meeting of DNP19. His citation reads:

"For innovative, wide-ranging experiments that found important manifestations of nuclear neutron-proton short-range correlations."

6. 2020 BONNER PRIZE WINNER

Richard Milner of MIT was named the recipient of the 2020 APS Tom W. Bonner Prize in Nuclear Physics. The prize will be awarded at the APS 2020 April meeting. His citation reads:

"For pioneering work developing and using polarized internal targets in storage rings and his leadership role in studying the structure of the nucleon in a wide range of electronuclear experiments."

7. 2020 FESHBACH PRIZE WINNER

Ubirajara (Bira) van Kolck of the University of Arizona was named the recipient of the 2020 APS Herman Feshbach Prize in Theoretical Nuclear Physics. The prize will be awarded at the APS 2020 April meeting. His citation reads:

"For pioneering contributions to effective field theories of nuclear systems, which have transformed low-energy nuclear theory."

8. 2020 BETHE PRIZE WINNER

Fiona Harrison of Cal Tech was named the recipient of the 2020 APS Hans A. Bethe Prize. The prize will be awarded at the APS 2020 April meeting. Her citation reads:

"For pioneering work in conceiving and executing the first focusing telescope in the high energy X-ray regime, NASA's Nuclear Spectroscopic Telescope Array (NuSTAR) satellite. NuSTAR has enabled major advances in understanding phenomena in the most extreme environments in the universe."

More information on these prizes can be found on the APS website.

9. NOMINATIONS FOR THE DNP MENTORING AWARD

Nominations are sought for the Division of Nuclear Physics Mentoring Award. This APS Unit Award is intended to recognize Division of Nuclear Physics members who have had an exceptional impact as mentors of nuclear scientists and students. This mentoring could be through teaching or research or science-related activities.

Examples of contributions of individuals who could be candidates for this award:

- Exceptional mentoring of early career nuclear scientists;
- Sustained commitment to mentoring early career nuclear scientists from traditionally under-represented backgrounds;
- Leadership in developing nuclear science research and career development activities, such as centers for nuclear science research for undergraduates, or conference experiences for students, or summer schools for nuclear science students.

Early career nuclear scientists include undergraduate and graduate students, postdoctoral scholars, and nuclear science professionals early in their careers, such as assistant professors or assistant scientists.

Nominations for the 2020 award are due 1 March 2020 and should be sent to Robert Janssens, email: rvfj@email.unc.edu.

Nomination packets should consist of at least 3 but not more than 4 letters supporting the nomination and a brief bio sketch of the candidate. At least two of the letters should be submitted by individuals who have benefited from the mentoring experience. Nominees shall be members of the DNP. There are no time limitations on contributions that can be recognized by this award. Nominations will be active for three years.

The members of the 2020 DNP Mentoring Award selection committee are: Robert Janssens, Shelly Leshner, Carl Gagliardi, Ron Gilman and Sam Tabor.

10. NOMINATIONS FOR THE DNP DISTINGUISHED SERVICE AWARD

Nominations are sought for the DNP's Distinguished Service Award. This APS Unit Award is intended to recognize those who have made substantial and extensive contributions to the nuclear physics community through the activities of the DNP. The award will consist of a certificate with the citation specified by the selection committee. Nominees should be active or emeritus members of the DNP. There are no time limitations on contributions that can be recognized by this award. Nominations will remain active for three years. The award need not to be given each year. No more than two recipients will be selected in a given year. The selection committee will consist of the DNP Chair, Chair-Elect, Vice-Chair, Past-Chair, and Secretary-Treasurer. The DNP Chair will serve as the chair of the selection committee.

Nominations for the 2020 award are due 1 March 2020. Nominations should be limited to a one-page description of the candidate's contributions to nuclear physics through the DNP, plus an optional listing of positions held, major committee memberships, and the like. Nominations, should be sent to: Robert Janssens at rvfj@email.unc.edu.

11. FUTURE DNP FALL MEETINGS

The dates include the pre-meeting workshops, which 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. Jeff Blackmon of Louisiana State University will chair the local organizing committee.

2020	Oct. 29 – Nov. 1	New Orleans, LA
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12. 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).

13. 2020 APS APRIL MEETING IN WASHINGTON, DC

The APS April Meeting will be in Washington, DC. The meeting encapsulates the full range of physical scales, from “Quarks to the Cosmos (Q2C)” which is the meeting’s theme. Research will be presented on topics from the 19 participating units including particle physics, nuclear physics, astrophysics, and gravitation. For more information, go to the APS website.

The DNP Prize Session will be held on Monday, April 20, starting at 3:30 pm local time. The DNP Business Meeting will be held thereafter.

ABSTRACTS: The submission deadline is January 10, 2020.

REGISTRATION: The early registration deadline is Feb. 28, 2020.

HOTEL: Washington Marriott Wardman Park. You must book your hotel online to obtain the APS special rate. Deadline: March 13, 2020.

14. DNP EDUCATION COMMITTEE REPORT

One measure of the growth of our field and the future nuclear workforce is the number of nuclear researchers who are currently advising graduate students towards a Ph.D. To this end, the DNP Education Committee has been tracking the number of nuclear tenure track faculty in the US at Ph.D. granting institutions since 2015. Through departmental websites and online CVs, demographic information was collected, such as current institution and academic rank, and the institution, country and year of Ph.D. The subfield, theory/experiment, and gender were inferred from information publically available.

The Education Committee has discussed the question of why many universities no longer offer an undergraduate course specifically on the topic of nuclear physics. For students who want to go beyond the material typically covered in a Modern Physics course, the option to have a full course on Nuclear Physics is desired. The possibility now exists to have a quality online course, and depending on student demand at a given university, this might be a good option for cases where just one or two students want to take such a course (adapted to the needs of a given physics department). The education committee reviewed one online course, available from *The Great Courses*, taught by Larry Weinstein (ODU). If any DNP member knows of other online NP courses, please let us know (contact hicks@ohio.edu).

15. CANDIDATE BIOGRAPHIES

NOMINATIONS FOR VICE-CHAIR (choose 1 of 2)

VICKI GREENE – Senta Victoria Greene, Stevenson Professor of Physics, is an experimental nuclear physicist in Vanderbilt University’s Department of Physics and Astronomy. She received her B.A. in physics and mathematics from the University of Tennessee and her Ph.D. in physics from Yale University. She was a postdoctoral fellow at the University of Colorado, where she was an SSC National Fellow, and she joined the Vanderbilt faculty as assistant professor in 1994. Professor Greene’s research focuses on the study of the properties of the quark-gluon plasma, an extremely hot and dense primordial state of deconfined matter. The discovery of the QGP, to which Professor Greene contributed, was named the top physics story of the year in 2005 by AIP. She is currently a member of three international collaborations: PHENIX, CMS, and sPHENIX. She was named a fellow of the APS in 2014 for her contributions to nuclear physics research and for

promoting the participation of women in physics. Past service includes Chair of the Committee on the Status of Women in Physics of the APS; chair of the RHIC/AGS Users Executive Committee; Nominating Committees (APS, DNP); Program Committee (APS); Chair, Organizing Committee of the ‘06 DNP Meeting; Chair, Beams Award Committee (SESAPS); and Executive Committee (SESAPS). At Vanderbilt, she served as Executive Dean, Senior Associate Dean for Graduate Education and Research and as Chair of the VU Faculty Senate for 2018-19. Professor Greene is the founding faculty adviser for VU Women in Science and Engineering, and was awarded the Mary Jane Werthan award for contributions to the advancement of women at VU. She was named an Inspiring Woman in STEM by INSIGHT Into Diversity in 2015.

MARTIN SAVAGE – Senior Fellow, Institute of Nuclear Theory; Professor, Department of Physics, University of Washington; BSc, University of Auckland (1984); MSc, University of Auckland (1985); PhD, California Institute of Technology (1990); Postdoctoral Fellow, Rutgers University (1990-1991); Postdoctoral Fellow, UC San Diego (1991-1993); SSC Fellow (1992-1993); DOE OJI (1995-1997); APS Fellow (2002-); A founding member of the NPLQCD lattice collaboration (2004-); Humboldt Foundation Research Award (2012); Washington State Academy of Science (2019); USQCD Executive Committee (2013-2018); DNP Executive Committee (2014-2016); NSAC (2016-2018); DNP Long Range Planning Committee (2014-2015); Co-chair of the Joint ASCR-NP Exascale Requirements Review (2016); Co-organizer of the INT “Quantum Computing for Nuclear Physics” workshop (2017); Scientific Board of ECT* (2018-); Chair of NSAC Subcommittee on quantum information science (2018-2019).

NOMINATIONS FOR SECRETARY-TREASURER

KENNETH HICKS – Professor of Physics, Ohio University, 1988 to present; Research Scientist, TRIUMF, 1985-1988; PhD in Nuclear Physics, University of Colorado, 1984; BS Physics (with honors), Indiana University. APS Fellow, 2004; Presidential Research Scholar at Ohio U., 2004. Other awards include the Graselli-Brown Teaching Award in the Natural Sciences (2011) and Fellowships from the Japan Atomic Energy Agency (2013 and 2017). He served a two-year term as a Program Director in Experimental Nuclear Physics at the National Science Foundation (2014-16), served two years as Chair of the CLAS Collaboration at the Thomas Jefferson National Accelerator Facility (2012-13), and served two years as DNP Secretary-Treasurer (2018-20). His principle research area now is baryon spectroscopy, in particular the search for exotic baryons and mesons. He has co-organized several workshops, including four on joint US-Japan hadron physics projects. He has advised 16 PhD students at Ohio U, plus several PhD committees of students abroad.

NOMINATIONS FOR EXECUTIVE COMMITTEE (choose 3 of 6)

EVIE DOWNIE — Associate Professor of Physics and Associate Dean for Research and Strategic Initiatives at the George Washington University. She has a PhD in experimental nuclear physics from the University of Glasgow, Scotland (2007). Prior to beginning at GW in 2012, she was a Carl Zeiss Postdoctoral Fellow at Johannes Gutenberg University Mainz, Germany. During her time there, she served as technical coordinator of the A2 Experiment. She remains an active member of the A2 Collaboration, has some involvement at HIGS, and serves as spokesperson of the MUon proton Scattering Experiment (MUSE), running at the Paul Scherrer Institute in Switzerland. Her research covers nucleon polarizabilities, accessed via Compton scattering, and the first measurement of elastic muon proton scattering sensitive enough to address the proton radius puzzle. She has served on the DNP Program Committee, and currently serves as the Chair of the

National Organizing Committee of the Conferences for Undergraduate Women in Physics. She is also a DNP Ally, and has delivered a large number of APS Professional Skills Seminars for Women.

OLGA EVDOKIMOV — Professor of Physics at the University of Illinois at Chicago. She did her graduate thesis work at the Joint Institute of Nuclear Research (Dubna, Russia) and Ivanovo State University (Ivanovo, Russia), and received her Ph.D. in 1999. Her research is focused on studies of QCD matter under extreme temperature and energy densities achieved in ultra-relativistic heavy ion collisions. She is actively involved in the experimental exploration of the special form of matter formed in such collisions, the quark gluon plasma, as a member of two international collaborations: the STAR experiment at the Relativistic Heavy Ion Collider and the CMS experiment at the Large Hadron Collider. Her research interests spans several topical areas, have contributed to the understanding of bulk identified particle production and flow in the QGP as well as to the developments of multi-particle correlations techniques for jet quenching studies. She is serving as chair of the STAR Collaboration Council and as a member of CMS Heavy Ion Publication Committee. She is an active member of the physics community and is serving at the moment as a member of the DOE/NSF Nuclear Science Advisory Committee. She has also served as an elected member of the RHIC/AGS Users' Executive Committee and Executive Committee for the NERSC Users Group. She is a member of International Advisory Committee for several major conferences in the field and co-chaired recent Quark Matter 2017 conference.

JEFF NICO — physicist and group leader of the Neutron Physics Group at the National Institute of Standards and Technology (1994-present); University of Maryland affiliate/adjunct faculty (2008-present); Postdoctoral Fellow at Los Alamos National Laboratory (1991-94); Ph.D. at the University of Michigan (1991); B.S. at Michigan State University (1983). His research involves experimental studies of fundamental symmetries, neutron detection and metrology, and solar neutrinos. The work includes experiments to measure properties of neutron beta decay as tests of the Standard Model, such as the neutron lifetime and neutron decay correlation coefficients, and studies of hadronic parity violation using the weak interaction to probe QCD. He works in the field of neutron standards and dosimetry and maintains neutron fields with thermal and fast neutrons at NIST. He is involved in efforts to improve the detection and spectroscopy of fast neutrons and is a long-time collaborator on the SAGE solar neutrino experiment. He was a member of the Nuclear Science Advisory Committee (2016-19) and an editor-at-large for Physical Review C (2009-13). He is a member of the Proposal Review and Advisory Committee for the Fundamental Neutron Physics Beamline at the ORNL Spallation Neutron Source (2005-present). He has been a member of an APS Nominating Committee (2011) and Fellowship Committee (2015-17). He has participated in numerous programmatic and proposal review panels for the Department of Energy, the National Science Foundation, and the national laboratories. He is a Fellow of the American Physical Society (2008) and the American Association for the Advancement of Science (2011) and has mentored many students and postdocs performing work at NIST facilities.

JACQUELYN NORONHA-HOSTLER — Assistant Professor of Physics at University of Illinois Urbana-Champaign (previously at Rutgers University from 2017-2019). BA in Mathematics and Physics from Berea College; PhD in theoretical physics from the Goethe University in Frankfurt in 2010 (visiting student at Columbia University); Postdocs at the University of Sao Paulo, Columbia University, and the University of Houston. She is currently finishing a 3-year term (2017-2020) on the RHIC & AGS User's Executive committee at Brookhaven National Laboratory. In 2018 she was

awarded both the Alfred P. Sloan Fellowship and the Department of Energy Early Career Award. She has been on the award committees for the RHIC & AGS Merit Awards, Thesis Award, and the Elsevier Young Scientist Award. As a former SULI student at Argonne National Laboratory, she understands the importance of research experiences as an undergraduate. Thus, she regularly serves as a mentor for undergraduate students (two of her former students who were DNP CEU students were also awarded the Goldwater scholarship last year). Her research interests cover a wide range of topics in nuclear physics such as heavy-ion collisions, relativistic hydrodynamics, lattice quantum chromodynamics, nuclear/proton structure, and hadronic interactions.

DAVID RICHARDS — senior staff scientist in the Theory Group at Jefferson Laboratory whose research is focused on lattice QCD for nuclear and hadronic physics. He obtained his PhD from the University of Cambridge, working on Perturbative QCD and the physics of jets. He then held post-doctoral positions at the University of Southampton in the UK and at Argonne National Laboratory before spending ten years at the University of Edinburgh. David Richards was a member of the USQCD Executive Committee coordinating lattice gauge activities in the US for ten years, and is currently chair of the USQCD Scientific Program Committee. He is also the co-Chair of the Steering Committee of the Center for Nuclear Femtography, an initiative funded by the Commonwealth of Virginia. Amongst APS activities, he is 2019 Chair of the Topical Group on Hadronic Physics, and was a member of the writing committee of the DNP Town Meeting on "QCD and Hadron Physics" in preparation for the most recent NSAC Long Range Plan.

RICHARD SETO — Professor of Physics (1990-present), the University of California, Riverside. He has a Ph.D. in physics from Columbia University and is a member of the PHENIX collaboration, studying heavy ion collisions, the Quark Gluon Plasma, and gluon saturation. Recently he has become a member of the STAR collaboration studying flow as a means for locating the phase transition point. As a professor, he has a particular interest in undergraduate physics education, particularly for underrepresented groups. He is a Fellow of the American Physical Society (2012-present). He has been the Co-Spokesperson of experiment E917 at BNL (1996-2004) and Deputy Spokesperson for the PHENIX experiment (2007-2009), where he also has served on the executive committee (1997-2012). A selected set of services to the community include Chair, 2012 Fall Meeting of the DNP; Program Committee of the DNP (1998-2001, 2011-2012); Nuclear Science Advisory Committee (2000-2003); Chair, RHIC-AGS Users Group (2001-2003); NSAC Long Range Plan Working Group (2000-2001); RHIC-AGS Users Executive Committee (2001-2003); Editorial Board, Physical Review C (2010-2013); National Nuclear Physics Summer School Steering committee (2002-2006); NSF Nuclear Physics Review Panel (2013); PHENIX Speakers Bureau (2011-2015); Convener, Physics Working Group, PHENIX (2013-2016); organizing committees for various conferences; and member of various review panels.

16. FUTURE MEETINGS

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

“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 Tamai

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/>

Email: jsegovia@upo.es

“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

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