### Division of Nuclear Physics

## The American Physical Society

## Newsletter No. 192 May 2017

TO: Members of the Division of Nuclear Physics, APS FROM: Benjamin F. Gibson, LANL – Secretary-Treasurer, DNP

#### ACCOMPANYING THIS NEWSLETTER:

Treasurer's Report

## 2017 DNP

#### Future deadlines

- 30 June 2017 DNP Fall Meeting Abstract Submission
- 30 June 2017 Election Nominations
- 30 June 2017 Nomination for Bethe Prize
- 30 June 2017 Nomination for Bonner Prize
- 30 June 2017 Nomination for Feshbach Prize
- 30 June 2017 Nomination for Dissertation Award

The home page for the Division of Nuclear Physics is now available at "http://dnp.aps.org." Information of interest to DNP members --current research topics, deadlines for meetings, prize nominations, forms, and useful links are provided. Each DNP Newsletter is posted online, along with the copy sent via post. Comments and suggestions are solicited. Please send them to Jorge Piekarewicz at<jpiekarwicz@fsu.edu >

#### 1. DNP COMMITTEES

#### **Executive Committee**

Michael Thoennessen, Michigan State Univ., Chair (2017)
David J. Dean, ORNL, Chair-Elect (2017)
Robert V. F. Janssens, ANL, Vice-Chair (2017)
Gordon D. Cates, Univ. of Virginia, Past Chair (2017)
Benjamin F. Gibson, LANL, Sec.-Trea. (2017)
A. Baha Balantekin Univ. of Wisc., Div. Coun. (Dec. 2018)
John R. Arrington, ANL, (2018)
Gail E. Dodge, Old Dominion Univ. (2017)
Jorge Piekarewicz, Florida State Univ. (2017)
Rebecca Surman, Univ. of Notre Dame (2018)
Raju Venugopalan, BNL (2017)
Remco G. T. Zegers, Michigan State Univ. (2018)

#### **Program Committee**

David J. Dean, ORNL, Chair (20167 Robert V. F. Janssens, ANL, Vice-Chair (2017) Gordon D. Cates, Univ. of Virginia, Past Chair (2015) Michael Thoennessen, Michigan State Univ., Past Chair (2016) Benjamin F. Gibson, LANL, Sec.-Treas. (2017) Christine Aidala, Univ. of Michigan (2018) Vince Cianciolo, ORNL (2017) Evangeline Downie, George Washington Univ. (2017) Jon Engel, Univ. of N. Carolina (2018) Carla Frohlich, North Carolina State Univ. (2017) Daniel Kassen, UC Berkeley (2018) Benjamin Kay, ANL (2018) Hironori Iwasaki, Michigan State Univ. (2017) Alan W. P. Poon, LBNL (2017) Julie Roche, Ohio Univ. (2018) Rocco Schiavilla, Jefferson Lab. (2017) Reinhard Schumacher, Carnegie Mellon Univ. (2017) Susan J. Seestrom, Sandia Nat. Lab. (2018) Matthew Shepherd, Indiana Univ. (2018)

Julia Velkovska, Vanderbilt Univ. (2018) Ramona Vogt, LBNL (2017)

Other DNP committees will appear in the August Newsletter.

## 2. 2017 NOMINATIONS FOR OFFICERS AND EXECUTIVE COMMITTEE

Terms of the officers and three 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 2018 April meeting in Columbus, OH. David Dean will become Chair and Robert Janssens will become Chair-Elect. John Arrington, Rebecca Surman, and Remco Zegers will remain members of the Executive Committee as will Michael Thoennessen as Past Chair. A Vice-Chair, Secretary-Treasurer, and three members of the Executive Committee are to be elected. In addition a Division Councilor is to be elected to begin serving in the fall of 2018.

The nominating ballot will, beginning this year, be on-line only in that no paper (nominating) ballot will be mailed to the membership. The nominating ballot will be available from 15 May until 1 July. The DNP bylaws require that a nominee proposed for a given post by not fewer than one-fiftieth (2%) of the members (55 for this election) shall be deemed nominated for that post. Nominees proposed by at least 20 members will be given strong consideration.

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#### **CALL FOR PRIZE/AWARD NOMINATIONS**

#### 3. NOMINATIONS FOR THE 2018 TOM W. BONNER PRIZE IN NUCLEAR PHYSICS

This annual prize was established in 1964 as a memorial to Tom W. Bonner by his friends, students, and associates. Previous winners are: H. H. Barschall, R. J. Van de Graaff, C. C. Lauritsen, R. G. Herb, G. Breit, W. A. Fowler, M. Goldhaber, J. D. Anderson and D. Robson, H. Feshbach, D. H. Wilkinson, C. S. Wu, J. P. Schiffer, S. T. Butler and G. R. Satchler, S. Polikanov and V. M. Strutinsky, Roy Middelton and W. Haeberli, R. M. Diamond and F. S. Stephens, B. L. Cohen, G. E. Brown, G. Baym, C. D. Goodman, H. A. Enge, E. G. Adelberger, L. M. Bollinger, B. Frois and I. Sick, R. H. Davis, E. M. Henley, V. W. Hughes, P. Twin, H. G. Blosser and R. E. Pollock, A. Arima and F. Iachello, E. K. Warburton, F. Boehm, J. D. Walecka, R. G. H. Robertson, J. M. Moss, V. R. Pandharipande, R. Arnold, R. Geller and C. Lyneis, J. D. Bowman, A. B. McDonald, G. F. Bertsch, R. J. Holt, J. C. Hardy and I.S. Towner, S. J. Freedman, A. M. Pozkanzer, R. D. McKeown, 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, and C. F. Perdrisat.

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 the committee evaluate the nominee's contribution. While general statements concerning the value of the nominee's work are important, specific information is needed that allows one to determine what the nominee has contributed and how this contribution has impacted the field. See the APS web site.

Submit name of proposed candidate and supporting material by 30 June 2017 to the APS via web submission.

## 4. NOMINATIONS FOR THE 2018 HANS A. BETHE PRIZE IN NUCLEAR PHYSICS AND ASTROPHYSICS

This annual prize was established in 1996 by friends, students, and associates of Hans A. Bethe and announced at Bethe's 90th 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. Thielemann, D. Arnett, C. Rolfs, C. J. Pethick, M. Peimbert and S. Torres-Peimbert, G. M. Fuller, K. L. Kratz, J. Lattimer, V. Kalogera, and S. L. Shapiro.

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 contribution. While general statements concerning the value of the nominee's work are important, specific information defining what the nominee has contributed and how this contribution has impacted the field is needed. See the APS web site.

Submit name of proposed candidate and supporting material by 30 June 2017 to the APS via web submission.

# 5. NOMINATIONS FOR THE 2018 HERMAN FESHBACH PRIZE IN NUCLEAR PHYSICS

This prize was established in 2013 by friends, students, and associates of Herman Feshbach. Previous prize winners are: J. W. Negele, L. McLerran, X-d. Ji, and J. A. Carlson.

The purpose of the prize, which currently consists of \$10,000 and a certificate citing the recipient's 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 important, specific information is needed that allows one to determine what the nominee has contributed and how this contribution has impacted the field. See the APS web site.

Submit name of the proposed candidate and supporting material by 30 *June 2017* to the APS via web submission.

#### 6. NOMINATIONS FOR THE 2018 DISSERTATION AWARD IN NUCLEAR PHYSICS

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. Sherrill and W. J. Burger, Thomas E. Cowan, Michael J. Musolf, James Edward Koster, Zhiping Zhao, Greg Schmid, Yury G. Kolomensky, Eric Hawker, John Arrington, Daniel Bardayan, Juinn-Wei Chen, Karsten Heeger, Andrew Steiner, Andriy Kurylov, Li-Bang Wang, Kathryn Miknaitis and Magdelena Djordjevic, Nikolai Tolich and Deepshikha Choudhury, Steven Clayton and Thomas Banks, Calem R. Hoffman, and Huicho Song and Matthew Luzum, Emanuelle Mereghetti and Phillip Barbeau, Gang Shen, Katherine Myers, Michael P. Mendenhall, Chun Shen, and Jonathan L. Ouellet.

Nature: 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.

**Rules and Eligibility:** 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 July 2017. See the APS web site.

Submit by 30 June 2017 the nomination of the proposed candidate, a statement of his/her contribution to the research as well as that of others and a letter of support from physicists who are familiar with the candidate and the research. To expedite the process, copies of the thesis (preferably a pdf) should be made available for the five committee members. These materials are required for each nominee and should be sent to: Michael Thoennessen, Michigan State University, Dept. of Physics & Astronomy/ FRIB, 640 S. Shaw Lane, East Lansing, MI 48824. Email: thoennessen@frib.msu.edu.

#### 7. FUTURE DNP FALL MEETINGS

2018	Oct 23 – 27	Waikaloa, HI	
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conjunction with the DNP Fall Meetings. Holding such workshops 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.

#### 8. FUTURE APS SPRING MEETING INFORMATION

2018	Apr 14 – 17	Columbus, OH			
2019	Mar 4 – 8	Boston, MA			
120 <sup>th</sup> APS Anniversary Meeting (March + April Meetings)					

Any comments/suggestions should be sent to APS Director of Meetings, Terri Gaier (gaier@aps.org).

#### DNP 2017 FALL MEETING IN PITTSBURGH, PA 25-28 OCTOBER 2017, Reinhard Schumacher

The Annual Fall Meeting of the Division of Nuclear Physics of the American Physical Society will be held in Pittsburgh, PA, 25-28 October. The meeting will run from Wednesday through noon on Saturday. Topical workshops will be held on Wednesday morning, followed by the opening plenary session on Thursday afternoon, starting at 3:00 p.m. A reception will be held starting immediately following the plenary session. Parallel scientific sessions — invited speaker sessions, mini-symposia, and contributed pair sessions — will be held Thursday and Friday morning and afternoon as well as on Saturday morning. The CEU poster session as well as the Physical Review Meet-the-Editors Drop-In reception will be scheduled in the early afternoon time slot on Thursday. The Business/Town Meeting will be Friday afternoon in the late time slot.

The meeting will be held in the Pittsburgh Marriott City Center. The nearby Double Tree property will serve as the overflow hotel. All functions will be in the Marriott. Pittsburgh is the second largest city in Pennsylvania. It is located at the confluence of three rivers: the Monongahela, the Allegheny, and the Ohio. The Marriott is 35 minutes from the PIT airport. It is a short 10-15 minute walk to many wonderful off-site restaurants. The Local Organizing Committee is chaired by Reinhard Schumacher, with other members coming from several Pittsburgh universities: Colin Morningstar (CMU), Gregg Franklin (CMU), Curtis Meyer (CMU), Brian Quinn (CMU), Eric Swanson (U. Pittsburgh), Fatiha Benmokhtar (Duquesne U), and Michael McCracken (Washington & Jefferson).

The Local Organizing Committee has arranged three workshops for Wednesday morning, intended as didactic introductions to the given topics. The workshops are entitled: (1) "Theoretical Approaches to Hadron Structure", (2) "Modern Machine Learning Methods in Data Analysis", and (3) "Advances in Particle Detectors".

The Program Committee, under the leadership of Program Committee Chair David Dean, has organized 8 invited sessions which will begin at 8:30am on Thursday morning and run through Saturday at 1:00 pm. The session organized by the Local Organizing Committee is entitled "Advances in Mesonic Physics". An award session will include talks by the Nuclear Physics Dissertation Award winner and by the Mentoring Award winner; a special talk on QWeak results will also be presented. A voted session will include three speakers nominated by the DNP membership and selected from those nominations by the Program Committee; the speakers will be Christine Nattrass (Univ. of Tennessee), Iris Dillmann (TRIUMF & Univ. of Victoria), and Phiala Shanahan (MIT). Topic sessions arranged by the members of the

Program Committee include: "Unraveling the Proton Radius Puzzle" (R. Schumacher), "Novel Observables of the Quark Gluon Plasma" (J Velkovska &R. Vogt), "Recent Results from and Future Prospects for Neutrinoless Double-Beta Decay Searches" (J. Engle, B. Kay, A. Poon, & R. Schumacher), "Recent Progress in Fundamental Neutron Physics Experiments" (V. Cianciolo & S. Seestrom), and "Spectroscopy of Exotic Nuclei via Proton Removal" (H. Iwasaki, R. Janssens, & B. Kay).

#### 10. DNP 2017 MINI-SYMPOSIA, David J. Dean

Fourteen mini-symposia are being organized for DNP 2017 (Pittsburgh). Recall that a mini-symposium has a lead speaker who introduces the topic that will be the focus of a particular mini-symposium. Thus, the contributed abstract speakers who follow can avoid introductory material and spend their 10 minutes on the primary results, which they wish to present. Because the material presented in a mini-symposium talk can cover much more ground than in a talk in a regular contributed paper session, we urge participants in DNP 2017 to look carefully at whether their contribution might fit into one of the 14 mini-symposia listed below. The mini-symposia are listed by their category number (e.g., 14c) as they appear on the abstract submission website. The principal Program Committee organizers are identified in parentheses. The lead speaker follows.

14a. Mini-symposium on the CEU 20th Anniversary (Rogers) Christine Aidala

14b. Mini-symposium on How Small is the QGP? Collectivity in Small Systems (Vogt, Velkovska) Bjorn Schenke

14c. Mini-symposium on Recent Results and Future Prospects in Heavy Flavor Physics (Vogt, Velkovska) Zhangbo Kang

14d. Mini-symposium on Photoproduction Physics with GlueX at JLab (Shepherd) Naomi Jarvis

14e. Mini-symposium on Fundamental Symmetries (Cianciolo, Fomin) Brad Plaster

14f. Mini-symposium on Nuclear Matrix Element Calculations for Neutrinoless Double-Beta Decay (Engel, Kay, Poon) Vincenzo Cirigliano

14g. Mini-symposium on Coulomb Excitation of Exotic Nucle (Iwasaki, Janssens, Kay) Agusto Macchiavelli

14h. Mini-symposium on Direct Reactions as a Probe of Nuclear Structure and Nuclear Astrophysics — New Techniques and Instrumentation (Iwasaki, Janssens, Kay) Sergio Almaraz-Caldron

14j. Mini-symposium on Nuclear Structure of the Ge and Se isotopes (Iwasaki, Janssens, Kay) Alex Brown

14k. Mini-symposium on Nuclear Imaging for Homeland Security (Cianciolo, Newby) Donny Hornback

141. Mini-symposium on Instrumentation for Physics beyond the Standard Model (Cianciolo, Poon) Kent Leung

14m. Mini-symposium on Theoretical Approaches to Nucleon Structure (Aidala, Schiavilla) Chris Monahan

14n. Mini-symposium on Electro-weak Physics and Fundamental Symmetries (Roche) Roger Carlini

14o. Mini-symposium on the Nuclear Equation of State and its Astrophysical Applications (Frohlich, Kassen) Andrew Steiner

## 11. DNP 2017 REGISTRATION AND HOTEL RESERVATIONS

Complete Conference Coordinators, Inc. (CCC) will handle the meeting registration and hotel reservations through a web site that is linked to the Meeting website. A special room rate for the meeting has been negotiated with the Pittsburgh Marriott City Center hotel, which serves as the meeting hotel for all sessions and special events. To obtain the conference rate, rooms must be reserved through the CCC website. The

Neighboring Double Tree hotel will serve as the overflow backup.

The contact information for CCC is Complete Conference Coordinators, Inc. Email: <info@cccmeetings.com>

Tel: +1-630-416-3030

URL: http://www.cccmeetings.com

Registration will be through the CCC web site. Registration will open in mid May. A link will appear on the conference website and the opening will be announced by email.

The registration fee includes the workshop and plenary session coffee break, and coffee will be available Thursday through Saturday in the morning until the end of the break between the morning parallel sessions. The companion's registration fee offsets in part the cost of coffee breaks, the companions' program on Wednesday afternoon, and reception on Wednesday evening following the plenary session.

A banquet will be held on Friday evening in the Marriott at an additional cost.

Registration costs are outlined in the following table.

Registration Categories & Deadlines	Members	Non members	Students/ Unemployed	Postdoc Members	Companions
Early Registration (by September 8th)	\$300	\$600	\$100	\$150	\$60
Late Reg. (Sept. 9th – October 20th)	\$375	\$750	\$175	\$225	\$75
On-site Reg.	\$450	\$900	\$250	\$300	\$100
Banquet Tickets (Advanced/On-Site)	\$65/\$80	\$65/\$80	\$65/\$80	\$65/\$80	\$65/\$80

#### 12. TREASURER'S REPORT

A summary report on the financial status of the Division accompanies this newsletter as an insert. The DNP Fund and the Prize and Award Funds are held by the APS.

#### 13. FUTURE CONFERENCES

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

## "Gordon Research Conference on

Nuclear Chemistry" 18-23 June 2017

Colby Sawyer College, New London, NH USA

Chair: Michael Carpenter Email: carpenter@anl.gov

URL: https://www.grc.org/programs.aspx?id=11764

## "Thirteenth International Topical Meeting on the Applications of Accelerators (AccApp'17)"

31 July - 4 August 2017 Quebec City, Quebec, Canada Contact: Philip Cole Email: colephil@isu.edu

URL: http://accapp17.org/

# "Seventh Asia-Pacific Few-Body Conference on Problems in Physics (APFB-2017)"

25-29 August 2017 Guilin, China Contact: Qiang Zhao Email: zhaoq@ihep.ac.cn

URL: http://indico.ihep.ac.cn/event/6581/

# "12th European Research Conference on Electromagnetic Interactions of Nucleons and Nuclei (EINN2017)"

29 October-4 November 2017

Paphos, Cyprus

Contact: Constantia Alexandrou Email: alexand@ucy.ac.cy URL: einnconference.org/2017

# $^{\circ}$ 13th International Conference on Hypernuclear and Strange Particle Physics (HYP 2018)"

24-29 June 2018 Norfolk, VA

Contact: Liguang Tang Email: tangl@jlab.org

URL: https://www.jlab.org/conferences/hyp2018

# "Conference on Application of Accelerators in Research and Industry (CAARI 2018)"

12-17 August 2018

Grapevine, Texas (Gaylord Texan)

Contact: Carley Parriott, Email: cparriott@sandia.gov

#### MICHAEL THOENNESSEN Chair

Michigan State University
Dept. of Physics & Astronomy/NSCL
640 S. Shaw Lane

East Lansing, MI 48824 Phone: (517) 908-7323 Fax: (517) 353-5967 thoennessen@nscl.msu.edu

#### DAVID J. DEAN Chair-Elect

Oak Ridge National Laboratory
Physics Division
P.O. Box 2008
Bldg. 6000, MS 6369
Oak Ridge, TN 37831
Phone: (865) 576-5229

Fax: (865) 574-1268 deandj@ornl.gov

#### ROBERT V. F. JANSSENS Vice-Chair

Argonne National Laboratory
Physics Division
9700 S. Cass Ave.
Argonne, IL 60439
Phone: (630) 252-8426
Fax: (630) 252-6210
janssens@anl.gov

## BENJAMIN F. GIBSON Secretary-Treasurer

Los Alamos National Laboratory
DNP, MS B283
Los Alamos, NM 87545
Phone: (505) 667-5059
Fax: (505) 667-1931
dnp@lanl.gov