#### **November 2018 DPF Newsletter**

Dear DPF members,

Please find below the monthly DPF newsletter for November 2018. This newsletter will be archived on the DPF website.

If you would like an announcement included in the December newsletter, to be sent out around December 15th, please contact the DPF Secretary/Treasurer. Please keep requests to 300 words and submit them by the **10th of the month** for consideration.

Kate Scholberg, Secretary/Treasurer, schol@phy.duke.edu Rick Van Kooten, Member-at-Large, rvankoot@indiana.edu Elizabeth Worcester, Member-at-Large, etw@bnl.gov

- 1. Update on DPF submission to ESG
- 2. Bids for next DPF meeting: due December 1, 2018
- 3. DPF election results
- 4. New Topical Group on Data Science: check your email
- 5. HEPAP meeting, November 29-30, 2018
- 6. CPAD meeting reminder, December 9-11, 2018
- 7. Request for Community Input on the NSF Physics Frontiers Centers Program
- 8. APS Proposed Statement on Ethics: comments requested by November 26, 2018
- 9. DPF membership

## 1. Update on DPF Submission to the European Strategy Group

Please see the <u>August 2018 newsletter</u> for information on the content and timeline for the DPF white paper submission to the European Strategy Group (ESG). The deadline is now passed for submissions, and the editors are preparing drafts. The drafts will be posted for community feedback on approximately November 15. Please check your email around then for a communication from DPF on this topic.

The US representative endorsed by the CERN Council to the Particle Physics Preparatory Group (PPG) for the European Particle Physics Update (EPPSU) is Marcela Carena of Fermilab. The main task of the team is to prepare the documentation for the deliberations of the ESG on the update of the European Strategy for Particle Physics, based on input received from the community. The latter will be debated during the Open Symposium (OS) which will take place in Granada, May 13-16, 2019. The PPG is responsible for the programme of the OS. The submission of inputs will be closed on December 18, 2018. On July 13, 2019, there will be a window of opportunity to confront the conclusions of the OS with a wide audience at the special ECFA-EPS session of the EPS2019 conference in Ghent (July 10-17, 2019). The briefing book

with all the submitted inputs and the summaries of the OS debates have to be ready for the ESG by September 2019.

## 2. DPF Meeting Bids

The deadline for receipt of proposals for hosting the next DPF meeting is December 1, 2018. Please see the <u>August 2018 newsletter</u> for more detailed information.

#### 3. DPF Election Results

Dear DPF Colleagues,

I am very pleased to report the results of the recent DPF election for vice chair and members of the DPF executive committee.

Congratulations to the newly elected:

#### Vice Chair:

Tao Han, University of Pittsburgh

## **Secretary/Treasurer:**

Mirjam Cvetic, University of Pennsylvania

# **Members-at-Large:**

- André de Gouvêa, Northwestern University
- Natalia Toro, SLAC, Stanford University

## **Early Career Member:**

Fernanda Psihas, University of Texas at Austin

These distinguished members will be assuming their new positions effective on January 1, 2019.

In addition, I would like to express my sincere appreciation to all of the candidates for their willingness to serve the DPF, and to the nominating committee. Thanks to these, we had an outstanding slate of candidates in this year's election, demonstrating the breadth and strength of the DPF membership.

Best regards,

Kate Scholberg
Secretary/Treasurer
APS Division of Particles & Fields

#### 4. New Topical Group on Data Science (GDS)

DPF members recently received a petition regarding the creation of a new topical group on data science.

Dear members.

At the urging of many of its members, APS is considering establishing a Topical Group on Data Science (GDS). We are writing to you to ask whether you would be interested in being a member of such a topical group if it were formed.

Data science is a fast growing and highly interdisciplinary field that is at the intersection of statistics, computer science, and mathematics. Applications of data science in engineering and both physical and life sciences are countless and only increasing. Physics is not an exception, in fact, physicists make up a significant portion of the data science community. Some are contributing to the latest developments of machine learning algorithms, some use its applications in solving physics problems, and some combine their skills stemming from their physics education to tackle data science problems in other fields or industry. Many of these researchers belong to multiple APS units but lack a cohesive home. As a result, the Data Science community within APS is fragmented, its impact within the society diluted, and its visibility outside the society diminished. Many physicist data scientists are members of various data science communities but are not yet APS members due to the absence of a dedicated unit. Because of all these reasons, the Data Science community needs its own unit within the APS for both intellectual and practical reasons. It is anticipated that this new unit will supplement individual membership in other APS units, and serve to unify data science research across the society.

To initiate a new APS Topical Group requires a petition to the APS Council with at least 200 signatures. If you are a DPF member, you should have received an individual email about this. If you would like to add your name to a petition supporting the establishment of a Topical Group on Data Science, please click on the button below.

#### Support GDS

Thank you,

Mohammad Soltanieh-ha, Boston University, APS Committee on Membership Colin Howard, ICU Medical, 2018 APS Committee on Membership Chair

# 5. Next HEPAP Meeting

The next HEPAP meeting will take place November 29-30, 2018, at the Gaithersburg Marriott Washingtonian Center, located at 9751 Washingtonian Boulevard, Gaithersburg, Maryland 20878.

#### 6. CPAD meeting

The Coordinating Panel for Advanced Detectors (CPAD) of the APS Division of Particles and Fields will hold its fourth annual instrumentation workshop in Providence, RI from December 9-11, 2018. The workshop is being organized by Brown University.

Website: http://www.brown.edu/Conference/CPAD2018/

Program: https://indico.fnal.gov/event/18104/timetable/#20181209.detailed

The goal of the workshop is to survey the state of detector R&D for particle physics at the energy, intensity, and cosmic frontiers and to publish a report that summarizes the instrumentation needs of the physics drivers and the state of detector technology in the field and identifies promising technologies to pursue with further R&D.

The workshop features plenary sessions with overview talks covering physics goals and instrumentation needs and then breaks into parallel working sessions to discuss specific detector technologies in more detail. Those include:

- Noble Element Detectors
- Quantum Sensors
- Superconducting Detectors
- Photodetectors
- Silicon Detectors
- Computing and Machine Learning

A poster session will provide additional opportunity for participants to present their work. The working groups come together again for discussions and summary presentations at the end of the meeting.

Registration and abstract submission is open. Limited funds to support the attendance of graduate students and postdocs are available and will be awarded on a first comefirst served basis.

We are looking forward to seeing you in Providence!

Marcel Demarteau, Ulrich Heintz, Ian Shipsey, Bob Wagner

for the Organizing Committee and Conveners

# 7. Community Input Requested for a National Science Foundation Review of the Physics Frontiers Centers Program

The National Science Foundation has charged a subcommittee of the Mathematical and Physical Sciences Advisory Committee to conduct a review of the Physics Frontiers Centers (PFC) Program. We are explicitly not reviewing individual centers or the selection process, and this review will have no impact on the funding of any center. We are asked to identify strengths and weaknesses of the program and issues that the Physics Division can address in developing and evolving the program.

We are seeking broad community input on the program and have set up a web site so individuals can provide us their input. The web address is <a href="https://auburn.gualtrics.com/ife/form/SV-41klvJQLL8j2YXr">https://auburn.gualtrics.com/ife/form/SV-41klvJQLL8j2YXr</a>

The site also contains a copy of the full charge to the subcommittee and the subcommittee membership. If you would prefer to provide your input directly to a subcommittee member that you may know, you are welcome to do this. For us to move forward expeditiously, it would be most helpful if you could provide your input by January 1, 2019, but later responses until April 2019 will still be welcome.

Don Geesaman geesaman@anl.gov

## 8. APS Proposed Statement on Ethics: comments requested by November 26, 2018

The APS has proposed a revised <u>Statement on Ethics</u> and encourages comments and suggestions by November 26, 2018. The DPF Executive Committee encourages the membership to read and comment on this draft.

The DPF EC will recommend an addition to the "Authorship" section, point 2: "Large collaborations with official author lists applied to all publications should have clearly defined authorship policies established as part of the collaboration governance process."

# 9. DPF membership

If you are reading this, you are likely a DPF member already, and you already know that the DPF drives the U.S. particle physics community planning process, connects to other divisions and to a broader international community, and provides networking and resources for its members (for example, student travel support to meetings). The more

DPF members we can engage, the more APS resources we have access to, and the stronger our community will be. International members are very welcome.

Please forward the information below to your students and colleagues. Information on how to check unit membership is included.

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APS Unit Membership Information

Here are general benefits of APS membership:

http://www.aps.org/membership/benefits.cfm

If you are not an APS member, you can join here: <a href="https://www.aps.org/memb-sec/join/startpage.cfm">https://www.aps.org/memb-sec/join/startpage.cfm</a>

Students can join at a reduced rate, and for free for their first year: <a href="http://www.aps.org/membership/student.cfm">http://www.aps.org/membership/student.cfm</a>

If you are already an APS member, and you are not sure if you are also a DPF member, you can check whether you are by doing the following:

Go to the member page:

https://www.aps.org/membership/index.cfm

Sign in at "My member profile", and click on the "membership" tab. To add a unit, click on the "Add Unit" button.