January 2022 DPF Newsletter

Dear DPF members,

Please find below the monthly DPF newsletter for January 2022. This newsletter will be archived on the DPF website. If you would like an announcement included in the February 2022 newsletter, to be sent out around February 15th, please contact the DPF Secretary/Treasurer. Please keep requests to 300 words and submit them by the 10th of the month for consideration.

Tulika Bose, Secretary/Treasurer  tulika@hep.wisc.edu
Julia Gonski, Early Career Member  julia.lynne.gonski@gmail.com

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Greetings from the DPF Chair

Dear colleagues,

First, we wish all our members and families a happy healthy safe and successful new year. Second, we would like to thank Tao Han for his outstanding leadership during a very challenging year.

For nearly two years now our functioning has been distorted by the COVID pandemic. A major decision taken last year was to “pause” or “slow down” the DPF-hosted US HEP Community Planning Process and to delay its completion until 2022. We had hoped in September of 2021 that COVID was mostly behind us, and we could proceed smoothly to completion of the Snowmass process with a Community Summer Study at the University of Washington in Seattle in July 2022. However, we now find ourselves in a new and somewhat bewildering phase of the pandemic, the omicron variant. Some of our near-term meetings and activities may have to continue to be virtual, but we hope over the next couple of months that conditions will improve, and we can begin to have meetings that provide the opportunity for both in-person and remote participation. Completing the Snowmass process in 2022 is a very high priority. We also look forward to a vibrant April meeting in New York, N.Y. and to exciting physics results in the upcoming year.

We plan to reevaluate many of the functions DPF performs to see if we can find ways to better serve our community and expand our membership. We also want to initiate a discussion of how we can do more to promote diversity, equity, inclusion, and social justice in particle physics in the US and world-wide. We will continue to participate in outreach activities with our partners in universities and national laboratories, and we want to help APS to encourage the use of science as a fundamental method for solving society’s problems. A positive outcome of the pandemic has been that we are now experienced in conducting large interactive meetings, such as town halls, that provide us with additional opportunities to discuss issues outside of our relatively infrequent formal in-person meetings.

We would like to conclude by welcoming Andre de Gouvea (Northwestern University) as the new EC Vice-Chair, Tulika Bose (University of Wisconsin) as Secretary/Treasurer, Robert Bernstein, (Fermilab) as Councilor, Heather Gray (University of California, Berkeley) and Kendall Mahn (Michigan State University) as new EC Members-at-large, and Julia Gonski (Columbia University), who continues for a second term as our Early Career member. We thank Mirjam Cvetic (University of Pennsylvania), Elizabeth Simmons (University of California, San Diego), and Natalia Toro (Stanford University), for their service on the EC. Finally, we thank Young-Kee Kim (University of Chicago), outgoing DPF past chair, who has recently been elected future President of the APS, for her inspired leadership over the last four years.

Best wishes from the DPF Chair line,
Joel Butler (Chair), Sekhar Chivukula (Chair-elect), Andre de Gouvea (Vice Chair), Tao Han (Past chair)
Contact us at: DPF_CHAIR_LINE@fnal.gov
Call for nominations for APS Honors

Dear colleagues,

Nominations for APS-level Prizes, Awards, and Fellowship, opened on January 1, 2022. Information about them and the nomination guidelines can be found at https://www.aps.org/programs/honors/listings.cfm

Some relevant deadlines for DPF are listed below:

- Henry Primakoff Award for Early-Career Particle Physics [Wednesday, June 1, 2022]
- J. J. and Noriko Sakurai Dissertation Award in Theoretical Particle Physics [Friday, September 30, 2022]
- J. J. Sakurai Prize for Theoretical Particle Physics [Wednesday, June 1, 2022]
- Mitsuyoshi Tanaka Dissertation Award in Experimental Particle Physics [Friday, September 30, 2022]
- W.K.H. Panofsky Prize in Experimental Particle Physics [Wednesday, June 1, 2022]
- Robert R. Wilson Prize for Achievement in the Physics of Particle Accelerators [Wednesday, June 1, 2022]
- DPF Fellowship [Wednesday, June 1, 2022]

We encourage you to submit nominations for these awards, prizes and for the DPF Fellowship. The membership of APS is diverse and global, and the nominees and recipients of APS Honors should reflect that diversity so that all are recognized for their impact on our community. Nominations of members belonging to groups traditionally underrepresented in physics, such as women, LGBT+ scientists, scientists who are Black, Indigenous, and people of color (BIPOC), disabled scientists, scientists from institutions with limited resources, and scientists from outside the United States, are especially encouraged.

Please note that carryover nominations do not automatically enter the 2022 nomination pool. Nominators are required to recertify, either in its original form or with updates, the nomination before the nomination deadline. Otherwise, the nomination will not be available to the selection committee for consideration. APS staff will contact nominators with carryover nominations regarding recertification.

Best regards,

DPF Executive Committee
Dear Colleagues,

We are pleased to announce the 2022 Graduate Instrumentation Research Award (GIRA) award.

Applications are accepted from January 15th, 2022, through April 15th, 2022.

The GIRA award aims to attract a diverse pool of talented graduate students who significantly contribute to the development of instrumentation for High Energy Physics and to foster and support the growth of instrumentation experts in the field. The award will provide a stipend of $36,000 per year and is renewable for a maximum of 3 consecutive years. The addition of a tuition supplement, determined by OHEP on a case-by-case basis, caps at $50,000 including a stipend.

We are aiming to offer one or two awards, as funding allows, to further instrumentation in particle physics and related fields. All students enrolled in accredited US Physics PhD programs are eligible to apply regardless of nationality. Complete details, eligibility information and past awards can be found at https://detectors.fnal.gov/gira/

We encourage the broadest distribution of this announcement to students in your group, collaboration, and department, and to forward to colleagues whose research focuses on particle physics instrumentation. The proposal must be for a graduate student to conduct research on instrumentation of relevance for high energy physics, to be carried out mainly in the US at a university or at one of the following national labs: ANL, BNL, FNAL, LANL, LBNL, LLNL, ORNL, PNNL or SLAC. The applicant must name a faculty or staff mentor. The project must include a staff partner from one of these labs who may or may not be the same person as the mentor. The work, however, does not need to take place at one of the labs.

Complete application packages including mentor and lab partner letters must be submitted by the student before the deadline at: https://academicprogramsonline.org/ajo/award/20863

Each application must contain:

- Cover letter with at least two suggested references (no need to request reference letters, just provide names and emails)
- Research proposal (3-page limit excluding references)
- Curriculum Vitae
- Academic transcript or proof of enrollment in a physics PhD program
- Two reference letters (to be submitted online by the reference writers)

If you have questions please first visit the GIRA FAQ page (https://detectors.fnal.gov/gira/gira-faq/) or inquire by email to gira@fnal.gov.

We look forward to receiving your proposals,

The GIRA 2022 Selection Committee: Andrea Pocar (UMass, chair), Angela Fava (FNAL), Bo Jayatilaka (FNAL), Noah Kurinsky (SLAC), Marcelle Soares Santos (Michigan), Lindley Winslow (MIT)
Snowmass “Agora” on Future Colliders

Dear All,

In the context of the DPF-hosted Snowmass 2021 Community Planning Exercise, the Accelerator Frontier (AF) and Energy Frontier (EF) are sponsoring a series of events intended for all Snowmass participants and DPF members, to critically discuss physics and technical aspects of different HEP collider concepts.

The events are hosted by the Future Colliders Initiative at Fermilab. The plan is to discuss both near and far future collider proposals, in different stages of development, synergistically grouped into five categories, each referred to as an “Agora”:

- **Agora on Linear e+e- colliders**
  - Dec. 15, 2021
- **Agora on Circular e+e- colliders**
  - Jan. 19, 2022
- **Agora on Muon colliders**
  - Feb. 16, 2022
- **Agora on Circular pp and ep colliders**
  - Mar. 16, 2022
- **Agora on Advanced colliders**
  - Apr. 13, 2022

All of the events are virtual (via ZOOM) and take place on Wednesdays 3-5 p.m. CST. The first two of these have already taken place. The detailed agenda and registration link are sent out about a week before each meeting. A `Collider discussion`` will be further organized during the Energy Frontier Meeting planned for the week of March 28. These events are meant to focus on critical discussions of classes of colliders that share similar concepts, and both physics and feasibility are considered including aspects such as:

- physics reach
- challenges and R&D required
- synergy of project with global context (comparative dis/advantages)
- synergy of project with local resources
- time frame (short-term R&D, long-term construction)
- Costs projections: both R&D and construction costs

Each event consists of a set of brief presentations followed by a discussion session led by assigned moderators to encourage audience participation. A summary of the discussion and highlights are documented as a short report on this series, which will feed into Snowmass contributed papers by EF and AF.

The Program Committee:

EF conveners: Meenakshi Narain, Laura Reina, Alessandro Tricoli,
AF conveners: Steve Gourlay, Tor Raubenheimer, Vladimir Shiltsev
Fermilab Future Colliders group: Pushpa Bhat, Joel Butler
Call for hosting LHCP 2024

Dear Colleagues,

The LHCP Conference organizers announce a call for Expressions of Interest (EOIs) for hosting the LHCP conference in 2024. Following the rotation scheme agreed for the LHCP Conference, the Americas (North, Central and South) is the preferred region. As a reminder, LHCP 2022 will be held in Taipei (May 16-21, 2022) and LHCP 2023 will be held in Belgrade. Please note that an African site can be proposed any year.

The deadline for submitting EOIs is Friday, March 4th, 2022.

We expect presentations of the proposals by the proponents at an International Advisory Committee (IAC) meeting scheduled the week before LHCP2022 on Wednesday, May 11th at 15:00 CERN time. The decision about the conference site and timing of LHCP 2024 will be taken by the IAC at this meeting and it will be announced during the LHCP 2022 Closing Session on Friday, May 20th.

The timing of LHCP 2024 is expected to be within the period of May 15th - June 15th. Proposals should include the first-choice preferred week, and a second week to be considered as a backup option. In case the number of proposals for LHCP 2024 is greater than four, a pre-selection procedure may be arranged resulting in a shorter list. Further details will be communicated to all the proponents soon after the deadline.

The conference format is expected to be similar to the format of the previous LHCP in-person conference editions (Barcelona, New York, St. Petersburg, Lund, Shanghai, Bologna, Puebla), with justified changes of course possible. Please look at the web-sites of these conferences to get an approximate guide.

The considerations for the site selection for LHCP conferences include the following criteria (although there is some flexibility as usual for justified changes):

- the number of participants, up to about 400; the number of parallel sessions, up to 5,
- commitment towards organizing an inclusive and accessible conference and increasing the participation of underrepresented groups,
- attractive location, convenient and affordable accommodation, food options, convenient transportation, attractive social program,
- low conference fee (what is included in the fee will be taken into account in the comparison of the different proposals); reduced fee for junior participants,
- strong local community involved in LHC experiments (participation on more than one LHC experiment is not a requirement, but may be a plus),
- experience of the organizers,
- possibility to attract local sponsors.

For further details, please contact the LHCP 2022 IAC Chair + Deputy Chair, and the International Co-chairs, all listed below:
Tulika Bose - IAC Chair
Bruno Mansoulie - IAC Deputy Chair
Dave Charlton - International Co-chair
Shahram Rahatlou - International Co-chair