

April 2020 DPF Newsletter

Dear DPF members,

Please find below the monthly DPF newsletter for April 2020. This newsletter will be archived on the DPF website. If you would like an announcement included in the May newsletter, to be sent out around May 15th, please contact the DPF Secretary/Treasurer. Please keep requests to 300 words and submit them by the **10th of the month** for consideration.

Mirjam Cvetič, Secretary/Treasurer, cvetic@physics.upenn.edu

Rick Van Kooten, Member-at-Large, rvankoot@indiana.edu

Elizabeth Worcester, Member-at-Large, etw@bnl.gov

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Snowmass News

Dear colleagues,

Over the next year, the U.S. particle physics community will be engaged in Snowmass 2021, an in-depth process to define the most important questions for our field and to identify the most promising opportunities to address these questions in a global context. The process will have its roots in a series of preparatory meetings organized by Snowmass conveners, starting with a Snowmass Planning Meeting at Fermilab on **November 4 - 6, 2020**, and ending with a Snowmass Summer Study at the University of Washington, Seattle, on **July 11 - 20, 2021**.

To optimally engage all participants in the process, the Division of Particles and Fields invites the international community to submit written documents as described below. Given the increasing importance of interdisciplinary work in related fields such as astrophysics, cosmology, gravity, nuclear physics, accelerator physics, AMO, and materials science, members of the Divisions of Astrophysics, Gravitational Physics, Nuclear Physics, Physics of Beams and members of other units with a connection to particle physics are strongly encouraged to participate in this process.

Letters of Interest (submission period: April 1, 2020 – August 31, 2020)

Letters of interest allow Snowmass conveners to see what proposals to expect and to encourage the community to begin studying them. They will help conveners to prepare the Snowmass Planning Meeting that will take place on November 4 - 6, 2020 at Fermilab. Letters should give brief descriptions of the proposal and cite the relevant papers to study. Instructions for submitting letters are available at <https://snowmass21.org/loi>. Authors of the letters are encouraged to submit a full writeup for their work as a contributed paper.

Contributed Papers (submission period: April 1, 2020 – July 31, 2021)

Contributed papers will be part of the Snowmass proceedings. They may include white papers on specific scientific areas, technical articles presenting new results on relevant physics topics, and reasoned expressions of physics priorities, including those related to community involvement. These papers and discussions throughout the Snowmass process will help shape the long-term strategy of particle physics in the U.S. Contributed papers will remain part of the permanent record of Snowmass 2021. Instructions for submitting contributed papers are available at <https://snowmass21.org/submissions/>.

Best regards,

Young-Kee Kim, DPF Chair

On behalf of the Snowmass Advisory Group (<https://snowmass21.org/start/advisory>)

The information presented at the April Snowmass Townhall Meeting is located at <https://indico.fnal.gov/event/23601/>

Snowmass Young 2021

Dear Colleagues,

As part of the Snowmass 2021 process, we are soliciting nominations for representatives for Snowmass Young. The Snowmass 2021 process will develop a long-term strategic plan, so the voices of early career members are critically important, and we want them to be heard.

These representatives will have the opportunity to shape how early career members are included in the Snowmass process. This could include finding ways to get early career members engaged with the working groups, incorporating career development opportunities into events, surveying early career members as was done for Snowmass 2013, and integrating other items of interest to early career members into the events.

Nominations can be made by anyone, but nominees should be early career members (e.g. grad students, postdocs, new faculty, etc.). Nominees need not be APS members to participate in the process. Nominations can include self-nominations and will be open until **May 11, 2020** through the google form below:

<https://forms.gle/Xpd4jW3Y6oxcXmD7>

Nominees will be reviewed and selected to ensure that the group is representative of the field. More details about the responsibilities and Snowmass process are included below. Please feel free to circulate this broadly.

Sincerely,

Sara M. Simon
2020 DPF Executive Committee Early Career Member

Fernanda Psihas
2019 DPF Executive Committee Early Career Member

What is Snowmass?

Snowmass is an opportunity for the entire HEP community to come together to identify and document a vision for the future of particle physics in the U.S. and with its international partners. Workshops will be organized over the next year and a half, culminating in a 2021 summer study that pulls all the work together. More information on Snowmass 2021 can be found here: <https://www.aps.org/units/dpf/snowmass-2021.cfm>

What is Snowmass Young?

Snowmass Young is composed of early career members in the HEP community. "Early career" is loosely defined and includes grad students, postdocs, and new faculty. Any early career member is welcome to be a part of Snowmass Young.

What are Snowmass young representative responsibilities?

The term for Snowmass Young representatives will go from now through the Snowmass 2021 meeting. The group leadership will also include the 2019-2021 DPF Executive Committee Early Career Members. Representatives for Snowmass Young will be responsible for determining how early career members are engaged in the Snowmass 2021 process. This will require calling into some Snowmass planning meetings (~monthly), engaging existing early career member groups within the HEP community and collaborations, and attending (in-person or remotely) the fall 2020 Snowmass Community Planning Meeting (November 4-6 at Fermilab).

The DPF Coordinating Panel for Advanced Detectors - Passing the Leadership Torch

CPAD has the responsibility to promote excellence in the research and development of instrumentation and detectors to support the national program of particle physics in a global context. Since its inception in 2012 CPAD has been ably led by Ian Shipsey (Oxford) and Marcel Demarteau (ORNL). The DPF is very grateful for their leadership.

Among the many notable achievements of CPAD are the coordination of the Snowmass 2013 Instrumentation Frontier and its [report](#), the creation of the DPF instrumentation [awards](#), the creation of the [DOE Graduate Instrumentation Research Award](#), the annual advice to DOE on the SBIR program, the creation of an annual CPAD workshop and whitepaper "[New Technologies for Discovery](#)" and the first truly interdisciplinary workshop on "Quantum Sensing for High Energy Physics" in 2017. The well-received report of the workshop "[Quantum Sensing for High Energy Physics](#)" articulated the rationale for a QSHEP program and was cited by the House Science and Technology Committee.

With the renewed emphasis on instrumentation and detector R&D by OHEP and the upcoming Snowmass process, Ian and Marcel believe this is the ideal time to pass the torch to new CPAD leadership. Accordingly, DPF called for nominations from the community. Among the many excellent suggestions, DPF identified Petra Merkel (FNAL) and Karsten Heeger (Yale) as the future chairs of CPAD.

Ian and Marcel commented: "We are thrilled by the choice of Petra and Karsten to succeed us as co-Chairs of CPAD; they have a wealth of experience and proven leadership and will be steady hands at the tiller as CPAD continue to fulfill its mission."

"This is an exciting time to assume the leadership of CPAD with the recent DOE BRN for Detectors concluding and the new Snowmass process just starting," say Petra and Karsten, "there are a lot of new instrumentation ideas in the community that have the potential to transform the physics reach of the next generation of experiments. We believe that we are at a crucial junction where we are in need of revolutionary breakthroughs in technology rather than evolutionary advances. It will be very important to look carefully outside the boundaries of classic HEP instrumentation and adapt technologies from other fields, such as quantum sensing as well as advanced materials, condensed matter, and Artificial Intelligence. We believe CPAD can assist the Snowmass process with the organization of interdisciplinary workshops and through its close ties to international bodies such as ICFA and domestic agencies, including DOE and NSF. We are looking forward to refreshing the CPAD membership and its various committees, and to working closely with the outstanding instrumentation community in the US. We are very grateful to Ian and Marcel for their guidance and leadership and are determined to continue the impactful way in which CPAD has helped shape the field."

Submit your nominations for the 2020 APS Fellowships

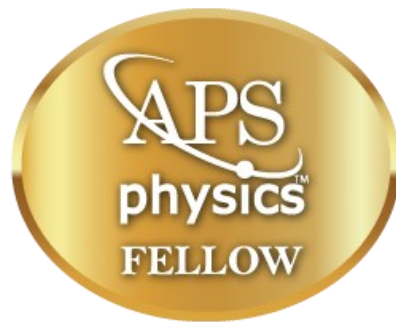
Deadline: **1 May, 2020**

The APS Fellowship Program was created to recognize members who may have made advances in physics through original research and publication or made significant innovative contributions in the application of physics to science and technology. They may also have made significant contributions to the teaching of physics or service and participation in the activities of the Society.

Fellowship is a distinct honor signifying recognition by one's professional peers. Each year, no more than one half of one percent of the Society's membership (excluding student members) is recognized by their peers for election to the status of Fellow of the American Physical Society. The DPF Fellowship committee is receiving nominations for the 2020 DPF Fellows now, and the deadline for submission is April first.

The nomination procedure is straightforward and can be found here:

<https://www.aps.org/programs/honors/fellowships/>



Call for the nomination of candidates for the Robert R. Wilson Prize

Nomination Deadline: **1 June, 2020**

The [Robert R. Wilson Prize](#) is intended to recognize and encourage outstanding achievement in the physics of particle accelerators. The Prize consists of \$10,000, an allowance for travel to the meeting at which the Prize is awarded and a certificate citing the contributions made by the recipient. **The deadline for the nomination is Monday, June 1, 2020.** The nomination should include a vitae and a description of the accomplishments of the nominee. At least two but not more than four supporting letters will help the selection committee in their deliberations.

Serving a diverse and inclusive community of physicists worldwide is a primary goal for APS. Nominations of women, members of underrepresented minority groups, and scientists from outside the United States are especially encouraged. These nominations are open to scientists of all nations regardless of the geographical site at which the work was done. The prize shall ordinarily be awarded to one person but may be shared when all recipients have contributed to the same accomplishment. The prize will normally be awarded for contributions made at an early stage of the recipient's career. Nominations are active for three years.

More details and instructions for the nomination process can be [found online](#).

Feel free to contact Kenneth Bloom, chair of the 2020 APS Wilson Prize Selection Committee

Neutrino 2020

June 22-27, 2020

Poster Abstract Deadline: **1 May, 2020**

<https://conferences.fnal.gov/nu2020/>

The XIX International Conference on Neutrino Physics and Astrophysics will be an entirely online conference.

In light of the present COVID-19 worldwide crisis and after carefully considering all options, it has been decided that Neutrino 2020 will be held as an online-only conference. We anticipate it taking place on or close to the originally planned dates and expect there to be a process for online poster presentation. More details on the conference format will be announced once they are available. Rooms in the conference hotel can be cancelled without penalty up to 48 hours before the reservation date and details on full registration fee reimbursement will be available soon.

The biannual Neutrino conference is a vital, regular milestone for our field and an important career opportunity for our junior colleagues. For these reasons we consider it imperative to hold a Neutrino conference this summer. Although we are disappointed to not be welcoming you to Chicago, we hope that an online-only event will maintain the great features of this conference series and also be an opportunity for some innovation.

Sincerely,

Steve Brice, Marvin Marshak, Sam Zeller

for the Neutrino 2020 Local Organizing Committee

[email: nu2020@fnal.gov](mailto:nu2020@fnal.gov)

Phenomenology 2020 Symposium (PHENO 2020)

Virtual Symposium

4–6 May, 2020

Early Registration Deadline – 13 April, 2020 (Passed)

Registration Deadline – **27 April, 2020**

Talk Submission Deadline – **20 April, 2020**

Dear Colleagues,

The Phenomenology 2020 Symposium (PHENO 2020) will take place virtually during May 4-6, 2020 instead of in Pittsburgh as originally planned.

The Symposium will cover current issues in particle physics phenomenology, theoretical developments, and recent experimental results, ranging from low energy phenomena over collider physics to astroparticle physics and cosmology. The Symposia are attended by both experimental and theoretical physicists, with a large number of junior participants. The broad plenary and parallel sessions provide an excellent forum for discussions.

- Early registration will end April 13, 2020; Talk submission will end April 20, 2020; Registration will close April 27, 2020.

For registration and further information, please visit the web site: <https://indico.cern.ch/event/858682/>

Note that LoopFest 2020 was to have taken place at the University of Pittsburgh immediately following PHENO 2020, however because of the ongoing pandemic LoopFest 2020 has been cancelled (see <https://indico.cern.ch/event/866125/> for further information).

We look forward to seeing you at PHENO 2020!

Best regards!

Tao Han

on behalf of the PHENO 2020 organizers:

Brian Batell, Joshua Berger, Ayres Freitas, Joni George, Tao Han (chair), Adam Leibovich, Natália Maia, Cédric Weiland and Keping Xie

(Pheno Symposia are supported by the US DOE, NSF, and PITT PACC)

SLAC Summer Institute

10-21 August, 2020

Dear Colleagues:

The 48th SLAC Summer Institute will take place 10-21 Aug 2020. The theme for this year's installment is "The Almost Invisibles: Exploring the Weakly Coupled Universe" and will cover issues related to neutrinos, gravitational waves, dark matter and dark energy.

Due to the Covid19 virus, this year's SSI will take the form of a series of on-line lectures given via Zoom. Registration (which is free) is still requested of all attendees. The full program and further details can be found on the SSI website:

<https://conf.slac.stanford.edu/ssi2020>

SSI has a long tradition of offering comprehensible lectures for advanced graduate students & postdoctoral fellows while senior researchers are always welcome. If you have further questions, please contact us at

ssi@slac.stanford.edu.

We hope to see you (virtually!) at SLAC this summer for SSI 2020!

The SSI 2020 Program Directors,

Mark Convery, Lisa Kaufman, Greg Madejski, Su Dong, Rich Partridge, Charlie Young, and Tom Rizzo (chair)