

January 2021 DPF Newsletter

Dear DPF members,

Please find below the monthly DPF newsletter for January 2021. This newsletter will be archived on the DPF website. If you would like an announcement included in the February 2021 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.

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Greetings from the DPF Chair

Dear DPF colleagues,

New year's greetings! I am honored to work this year on your behalf as Chair of the APS Division of Particles and Fields.

The past year has witnessed one of the worst pandemics in centuries. Millions of people worldwide have lost their lives. Our work and our daily routines have been severely interrupted. Nonetheless, our physics community has remained strong, and we have carried out our work despite these unprecedented challenges. At the initiative of DPF, the particle physics community has commenced a large-scale decadal planning exercise, the "Snowmass Study". The goals of the Snowmass Study are to define the most important questions for the field of particle physics and to identify promising approaches to address them. Due to the tremendous effort by our community, all 10 frontier groups have made great progress. This work of the particle physics community, particularly in the Snowmass exercise, once again demonstrated the importance of global collaboration, and global collaboration will remain crucial in order to address our scientific questions. Another significant endeavor in our community in the last year was to continue the important work of embracing of diversity and inclusion and to support colleagues of all backgrounds in reaching our common goals. Creating and sustaining a welcoming and inclusive environment will be vital to our future success, and much more remains to be done.

There are many reasons to hope for a brighter year in 2021. We have begun to see the light at the end of the tunnel regarding containment of the pandemic through effective vaccination. We hope to return to our normal life before too long. Although the pandemic has slowed down the execution of our work and projects, and consequently delayed our planned Snowmass activities by one year, we will use this opportunity to optimize our plans, better engage both our participants and our community, and develop/deliver a comprehensive Snowmass Study report in 2022. Your contributions and efforts are all greatly appreciated!

I look forward to working with you and achieving our ambitious goals in 2021.

Stay healthy and be safe!

Tao Han
Chair, APS DPF 2021

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 latest Snowmass newsletter is available at <https://snowmass21.org/announcements>.

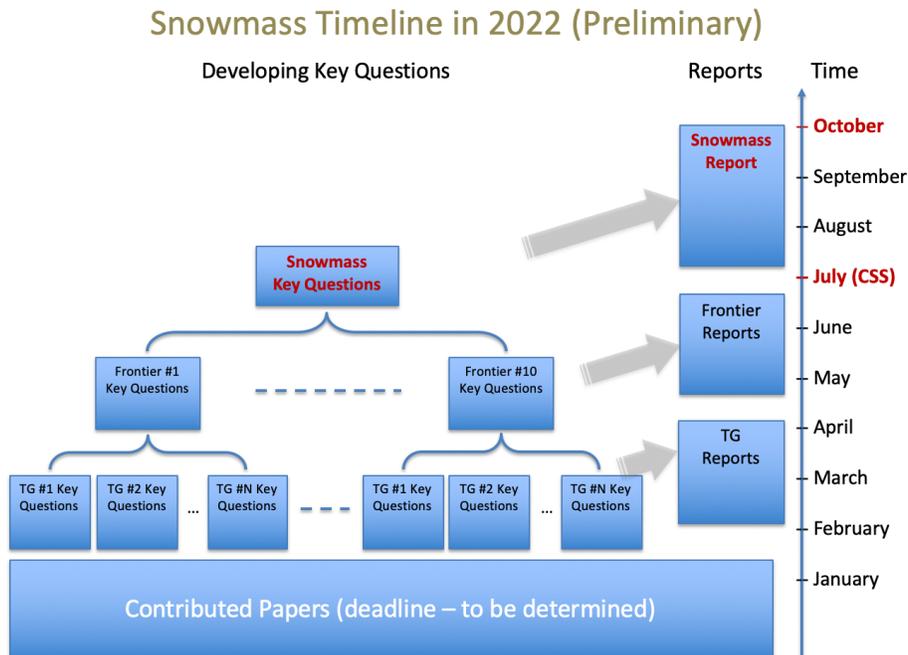
New Snowmass Timeline

Because of the COVID-19 pandemic, the Snowmass Report will be delayed by one year and the overall schedule for the Snowmass process will be adjusted accordingly.

The new Snowmass timeline includes:

- Preliminary Topical Group Reports – Spring 2022
- Preliminary Frontier Reports – late Spring 2022
- Snowmass Community Summer Study – Summer 2022 in University of Washington, Seattle
- Snowmass Book – October 2022

The deadline for contributed papers will be delayed but the specific date will be decided by January 2021. Originally scheduled frontier-level Spring 2021 workshops will be moved to later times. In January 2021, each Frontier will communicate with their own and related frontier communities to develop a detailed work plan. While our goal is to have uniformity among the frontiers, we will provide some flexibility to accommodate specific needs from various groups. Frontier plans will be established by January 31, 2021 and will be available at [Snowmass wiki page](#).



Best regards,

Young-Kee Kim, DPF Chair 2020

On behalf of the Snowmass Organization Team

DPF Bylaws Amendment Ratification

The proposed DPF bylaws amendments were ratified by voting of the DPF membership on January 1, 2021. The bylaws were approved by 92.6% of the voters. Approval of at least 75% of the voting members was required for passage. The revised bylaws can be viewed at <https://engage.aps.org/dpf/governance/bylaws>. Our thanks to all who participated in the process.



US Muon 2021

Virtual Workshop, February 1—2, 2021

The Proton Power Upgrade at the Spallation Neutron Source at Oak Ridge National Laboratory will ultimately provide 2.8MW proton beams to the First and Second Target Station. This presents a unique opportunity to leverage this accelerator and scientific infrastructure to develop a world class Muon Source at Oak Ridge National Laboratory of which there are only four in the world to date.

A Single Event Effects and Muon Spectroscopy (SEEMS) facility is being considered that will serve both the condensed matter science community, exploiting high-resolution muon spin relaxation (mSR) techniques, as well as industrial and academic research on single event effects in semiconductor electronic components and systems. The facility also provides an opportunity to study fundamental physics processes such as lepton flavor violating experiments and studies of muonium. There will be a dedicated breakout session at the workshop on Tuesday February 2, starting at 12:30 Eastern time, to focus on the broader impacts of a US-based muon source and the benefits of such a source to the HEP and NP communities. All members of the community are invited to join the discussion on the scientific opportunities for fundamental science of a new muon source in the US. If you are interested in submitting a slide for discussion at the breakout session please contact Travis Williams (williamstj@ornl.gov), Alexey Petrov (apetrov@wayne.edu) or Marcel Demarteau (demarteau@ornl.gov).

Website: <https://www.mrs.org/muon-2021>

Registration: <https://www.mrs.org/muon-2021/registration>

CPAD Workshop

18—22 March, 2021

CPAD, the Coordinating Panel for Advanced Detectors by the DPF, is the leading organization in the US for the advancement and promotion of HEP detector instrumentation. Since its inception in 2012, CPAD has organized annual workshops, that bring together the detector community in the country. It has guided the field with its Grand Challenges documented in its annual reports. CPAD has launched the DOE's Graduate Instrumentation Research Award (GIRA), the DPF Instrumentation Award, a pilot quantum sensing workshop, and many more.

Registration is now open for the next CPAD Workshop, organized by Stony Brook University and held virtually on March 18, 19, 22: <https://www.stonybrook.edu/cfns/cpad2021/index.html>.

The focus of the workshop will be a discussion of the outcome of the recent BRN (Basic Research Needs) for Detectors with the aim to sharpen some of the technical requirements and to formulate a roadmap for the needed R&D. Therefore, the work in the parallel sessions will be organized along the same technical groups as in the BRN: Quantum Sensors, Noble Elements, Calorimetry, Solid State Vertexing and Tracking, Photodetectors, TDAQ, Readout and ASIC, Micropattern Gas Detectors. In addition, special attention will be paid to cross cutting, interdisciplinary topics, in particular with the NP/EIC community.

Early Career: In light of the ongoing pandemic and thus added complications especially for people in instrumentation and a lack of networking opportunities for early career members of our community, we are organizing a plenary session with short contributions drawn from that community. Please indicate your career status under 'Position' during the registration process if you want to be considered for this session.

With best regards,
Petra Merkel and Karsten Heeger (CPAD Chairs)
For the organizing committee