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# Monthly Snowmass Newsletter

August 2020

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Snowmass is the Particle Physics Community Planning Exercise, defining the most important questions for the field of particle physics, and identifying promising opportunities to address them. It provides an opportunity for the entire particle physics community to come together to develop a scientific vision for the future of particle physics in the U.S. and its international partners. The P5 (Particle Physics Project Prioritization Panel) will take the scientific input from Snowmass and develop a strategic plan for U.S. particle physics that can be executed over a 10-year timescale, in the context of a 20-year global vision for the field. Organization and activities of Snowmass 2021 are available on the [Snowmass wiki page](#). We encourage community members to participate in discussions on Slack frontier or topical group channels and to submit [Letters-of-Interest \(LOIs\)](#) and [Contributed Papers](#). LOIs are not required to submit contributed papers, and contributed papers are not required to submit LOIs.

## ***Snowmass Community Planning Meeting***

The Community Planning Meeting (CPM) 2020 will be a virtual meeting and be open to everyone without any restriction. It will take place during the week of October 5 (October 5-9), 2020. The goals of the CPM are to identify input needed to achieve Snowmass goals and to establish cross working-group connections and new areas to focus. Letters of Interest (LOIs) will help Snowmass conveners to prepare the CPM. More information is available at [https://snowmass21.org/2020\\_oct\\_cpm](https://snowmass21.org/2020_oct_cpm). Registration will be open **mid August**.

## ***Snowmass Early Career***

Snowmass Early Career (SEC) has decided on its initial leadership. A town hall took place on July 31<sup>st</sup> to engage with the rest of the early career community and kick off an educational series on the Snowmass process. The meeting information can be found here: <https://indico.fnal.gov/event/44627/>. More information about SEC and how to get involved can be found on our wiki page: <https://snowmass21.org/start/young>.

## ***Community Engagement Frontier***

The first community-wide [CEF TownHall](#) was held on July 15, at which we introduced the Frontier to the community, and gathered feedback on potential topics to be studied by CEF during Snowmass. We invite everyone to view and comment on the current and growing list of [CEF study topics](#). Over the next month we will be translating many of these topics into Letter of Interest (LOIs). If you find a topic, or have one of your own for which you would be interested in helping write an LOI, please contact the appropriate Topical Group Conveners (contact info on our [wiki](#)). The CEF is also in the process of creating a professional survey to gather additional feedback on our field's current activities and challenges for Community Engagement. Be sure to visit our [calendar](#) and [Indico pages](#) to find all the upcoming open meetings, chats, and townhalls for each Topical Group.

## ***Energy Frontier***

The first [EF Community Workshop on "Open Questions and New Ideas"](#) took place on July 20-22. The goal of the Workshop was to develop a focused physics program that will define the strategy and activities of the Energy Frontier during Snowmass 2021. The workshop included a chat between early career

members on mechanisms for engaging in the EF groups and a very stimulating panel discussion on "The importance of the Energy Frontier in the US HEP future planning". It was attended by about 450 people with peak attendance around 180 people, and generated a rich spectrum of ideas and proposals both through talks and discussions. Preparatory [Joint Sessions of the EF Topical Groups](#) were organized on July 7-8 to provide extra space for contributions that informed the discussion of the parallel sessions during the July 20-22 workshop. EF has also been focusing on reaching across frontiers to identify common points of interests and fruitful interactions. The [second joint meeting with the Accelerator Frontier \(AF\)](#) took place on July 1 (the [first meeting](#) having been on June 24) and a cross frontier [joint meeting of EF, AF, and RF \(Frontier of Rare Processes and Precision Measurements\) on "Dark Sector and Light Long Lived Particles"](#) was held on July 15-16. EF will continue building connections across frontiers and has started planning activities with the Instrumentation Frontier and Computational Frontier.

### ***Neutrino Frontier***

The Neutrino Frontier held a Town Hall meeting on July 17. More than 400 people were registered, and about 250 were connected at the peak. [A recording is available](#). Various topics in the categories of "physics motivation", "theory" and "structure of the program" were discussed. The conveners will summarize some common themes in an LOI for the record. In part as a result of community input at the Town Hall, after discussion by NF and TF (Theory Frontier) conveners, the NF08 Neutrino Theory topical group has been transferred to the Theory Frontier, as TF11 (but of course will retain strong connections to NF). Liaisons will stay in place. This change is welcomed by both frontiers as sending a positive signal for neutrino theory as a natural part of the overall theory program. The NF spring meeting dates and host will be announced shortly.

### ***Cosmic Frontier***

The Cosmic frontier is up and running, with all of the working groups organizing meetings to discuss topics that need attention and attract working group members to participate and submit Letters of Interest. Please see the Snowmass wiki page, and [the Cosmic Frontier google calendar for details](#).

### ***Theory Frontier***

The Theory Frontier held its kick-off town hall on July 30 with nearly 500 participants at its peak, including an open mic session and breakout meetings for each topical group. The main Theory Frontier conference is now officially taking place at the KITP from March 17-19, 2021, providing a focal point for both Theory Frontier activities and coordination between theorists working across the Snowmass frontiers. Irina Mocioiu and Kaladi Babu were named as liaisons to the Neutrino Frontier, completing the establishment of liaisons between the TF and other frontiers. Conveners of the Theory and Neutrino Frontiers jointly agreed to transfer the NF topical group NF-08 (Neutrino Theory) into TF topical group TF-11 (Neutrino Theory) and look forward to cultivating strong connections between the two frontiers throughout the Snowmass process.

### ***Computational Frontier***

The Computational Frontier will hold an all-frontier virtual workshop on August 10-11: <https://indico.fnal.gov/event/43829/>. Please register if you would like to participate! The workshop will feature parallel sessions by each of the topical groups within the frontier as well as plenary sessions related to frontier goals and cross-cutting topics. Furthermore, we will have sessions dedicated to community feedback. Additionally, many of the topical groups have held dedicated meetings (see <https://indico.fnal.gov/category/1107/>), which are announced on our email lists and Slack channels. Information about joining can be found on our wiki.

### ***Instrumentation Frontier***

The Instrumentation Frontier has started holding regular meetings within its topical groups. In addition, we are looking forward to the next big workshops. The IF Cross Cutting topical group is organizing the interdisciplinary [MultiHEP](#) workshop from September 30 to October 2, 2020 at the Berkeley Experimental Particle Physics Center. Another important gathering will be the next CPAD workshop, which is planned for the week of March 14, 2021. If it can be held as an in-person meeting, it will take place at Stony Brook University. This workshop will be in support of the Snowmass Instrumentation Frontier and will see parallel sessions for each of its topical groups. It will also enable cross-fertilization with the NP community, in particular with the Electron Ion Collider effort, as well as with the QIS community.