

Snowmass Early Career Longterm Organization

Going Beyond the Snowmass Process

Garvita Agarwal¹, Joshua Barrow^{*2,3}, Mateus F. Carneiro⁴, Kristi L. Engel^{†5,6}, Antonia Hubbard⁷, Manolis Kargiantoulakis^{‡3}, Tiffany R. Lewis⁸, Maria E. S. Pereira⁹, Fernanda Psihas^{§3}, Sara M. Simon^{¶3}, and Pranava Teja Surukuchi¹⁰

¹SUNY University at Buffalo

²The University of Tennessee at Knoxville

³Fermi National Accelerator Laboratory

⁴Brookhaven National Laboratory

⁵University of Maryland, College Park

⁶Los Alamos National Laboratory

⁷Lawrence Livermore National Laboratory

⁸Universities Space Research Association

⁹Brandeis University

¹⁰Yale University

On the Behalf of Snowmass Early Career
August 31st, 2020

Suggested Snowmass Topical Groups:

- (CommF2) Community Engagement Frontier: Career Pipeline & Development
- (CommF5) Community Engagement Frontier: Public Education & Outreach
- (CommF6) Community Engagement Frontier: Public Policy & Government Engagement

Abstract

During the Snowmass process, the Snowmass Early Career (SEC) group has represented the early career (EC) community. However, no overarching group exists to provide broad representation for EC colleagues outside or beyond Snowmass. The SEC leadership, on behalf of the EC community and based on their input, is taking steps to ensure the continuity of a field-wide EC representative group beyond 2021. This document summarizes initial planning steps taken by SEC leadership for the creation of a long-term organization with the purpose of expanding the scope and mission of SEC, including the actions taken, based upon broad community input, for the expansion of SEC leadership to represent and liaise between EC communities, groups, and individuals across all areas of the field. We also provide examples of goals that have been outlined by the community and will be pursued by SEC in the future, including direct engagement with existing EC organizations across the US (astro)particle physics community. This nomination-based collective volunteer organization will be a means to advocate for EC physicists' needs and wants outside of existing organizations, creating new communication and advocacy channels to better represent EC members' interests across the US (astro)particle physics community.

*jbarrow3@vols.utk.edu

†klengel@terpmail.umd.edu

‡ekargian@fnal.gov

§psihhas@fnal.gov

¶smsimon@fnal.gov

The 2021 Snowmass Early Career (SEC) group was formed earlier this year in accordance with input gathered from the community regarding the following topics: feedback on the appropriate mission and tasks for the group, nominations of early career (EC) representatives for leadership positions, and feedback for the selection process and structure of the SEC leadership. One of the most widely supported feedback items from the community has been the need to establish an inclusive and representative organization of EC members in the field beyond the Snowmass process. In this document, we outline the main ideas emerging from community feedback, the steps taken to form a long-term organization in accordance with that feedback, and possible next steps in evolving SEC to become an organization that can serve the EC community for the long term.

Community Feedback and Implementation

The nomination process for SEC leadership was open from April 7th to June 7th, 2020, which resulted in over 250 nominees. A town hall meeting open to all EC members was held on May 22nd, 2020, and a nominee meeting was held on June 5th, 2020 to gather community input on the format and charge for SEC. The main points from the feedback included: (1) the establishment of a representative group for the EC high-energy physics (HEP) community is needed beyond the Snowmass process, (2) the necessity of an election process to down-select nominees was perceived as unfairly skewed to favor members of large experiments and large universities, (3) an agreement that SEC representatives for each Snowmass Frontier would benefit the EC community and the Snowmass process, (4) input on key initiatives which will form the core structure of SEC and the more permanent HEP EC organization it will evolve into, and (5) input on who should be included under the umbrella of EC.

Based on this feedback, we have roughly defined EC as up to ~ 10 years post-PhD as a *guideline*. To account for career gaps and alternative paths (e.g. those without a PhD), we encourage anyone who feels that the title of EC applies to them to join the organization. The community feedback also formed around four key initiatives that will extend beyond the Snowmass process:

1. **Inreach:** Professional development and building cohesion within the EC community
2. **Diversity, Equity, and Inclusion (DEI):** Work on initiatives to make the HEP community representative, welcoming, inclusive, and equitable to all
3. **Survey:** A scientific survey of Snowmass members' demographics and physics outlooks
4. **Long-Term Organization:** Defining the long-term structure of the EC organization after the close of the Snowmass process

In addition to the above continuing initiatives, there is a fifth, temporary initiative focused on Snowmass coordination to help galvanize EC members' involvement in the Snowmass process. The SEC leadership consists of the current and previous year DPF executive committee EC members and 2–3 leaders per key initiative. Nominees signed up for the key initiatives they wished to participate within or lead, and each initiative group defined its leadership structure with oversight from the DEI initiative. Part of the charge of Long-term Organization is to help shape how the four continuing key initiatives will develop and mature to serve the EC community beyond the Snowmass process.

Mission and Goals of Long Term Representation

SEC aims to provide long-term EC representation to all members of the (astro)particle physics community. Toward this goal, we strive to foster a welcoming, inclusive, collaborative, and multidisciplinary community within HEP. Initiatives that benefit EC members of the particle physics community benefit the community at-large. Creating an inclusive space that promotes equity, respect, and representation across the discipline is of the utmost importance.

The EC community has expressed the necessity of continuing and extending the organization and community established during Snowmass process. The organizational structure and community established by SEC will serve as a starting point for this long-term organization. Based on community feedback, we plan to continue and adapt the SEC Inreach, DEI, Survey, and Long-term Organization key initiatives beyond the Snowmass process, and we will solicit and add new key initiatives as we further develop the long-term structure of the EC community. Collaborations and organizations with established EC organizations have demonstrated the benefits of these groups to the community at large. Our mission to pursue initiatives supporting the EC community on a large scale would thus be a boon to the whole of the (astro)particle physics community. We therefore put forward the following goals to ensure that this critical mission not only continues beyond the Snowmass 2021 process, but also empowers members of the EC community and functions effectively.

Goals for Extending SEC Beyond Snowmass

To extend SEC beyond the Snowmass process, we will (1) define long-term goals for each of the SEC key initiatives; (2) assess and adapt the leadership structure developed by SEC for a long-term organization; (3) develop communication channels and network with existing EC groups; and (4) explore ways to make a long-term organization inclusive and representative to the entire EC community, including parts of the community that do not currently have any EC organizations. Each of these will require broad community feedback, and regular meetings hosted by SEC throughout the Snowmass process are planned to gather information and feedback on this proposed long-term EC organization. We invite those interested in contributing to this effort to join.

Ideas for long-term goals from the community include networking opportunities at APS events; building community; assessing the impact of COVID-19 on members of the EC community; increasing the accessibility of opportunities world-wide; working to make the HEP community accessible, representative, welcoming, inclusive, and equitable; and assessing what groups need representation.

One of the immediate next steps will be developing a network of existing EC groups (e.g. the Fermilab Student and Postdoc Organization, Young NOVA, Young DUNE, Young Mu2e, Young CMS, etc.). In our collective experience, such groups act as excellent tools to inform and empower EC scientists and provide them with a platform to promote their interests and needs. These organizations make it easier for EC members to contribute and have their work recognized, greatly enabling networking and connection opportunities across and outside the field. Maintaining such self-led representational groups within management, publication, and conference committees removes career barriers, promotes equity and inclusion, offers professional development opportunities, and gives EC scientists a voice among their more established peers. We have found that senior colleagues largely recognize these benefits and go out of their way to support these efforts.

A network between these EC groups currently does not exist. The envisioned network could take the form of roughly two points of contact from each EC organization. Information and opportunities gathered across the broader HEP community would be a valuable resource, especially to those without current EC representation and those seeking to establish an EC group of their own. This network of contacts could be maintained by the EC member(s) on the DPF executive committee and could be leveraged within the HEP-wide EC organization that SEC aims to establish beyond Snowmass. Based on input from the EC community, potential functions and aims of such a network could include but are not limited to:

- Establish and communicate best practices among existing EC groups. The innovative ideas and successful practices developed by individual groups could be shared widely throughout this network and benefit others across the field. This would collectively improve the efficacy of sharing ideas across organizations.
- Inspire and support EC members who do not have EC organizations to develop them. These structures empower and support young colleagues, and make their science and the science of the community stronger.
- Extend the benefits and opportunities of an EC organization to communities where such organizations are difficult to develop, including colleagues working in theory or in small-scale collaborations. Networking opportunities are arguably even more critical to EC members with limited exposure due to the size of their collaborations.
- Announcements and opportunities could be shared throughout this network, including seminars, job openings, and collective EC initiatives. With more information flow across the community, opportunities would be more accessible. Additionally, this network would improve the efficacy of organizing support for critical initiatives and efforts.
- This network could facilitate coordinated initiatives and opportunities that may have been previously out of reach. EC groups in the same geographic area could coordinate outreach activities and pool resources, and groups working within the same field globally can connect in scientific dialogue.
- This network would enable policies of mutual respect, inclusivity, equity, justice, human dignity, and freedom of inquiry to be more easily universalized and supported across the field. Effort on ideas and initiatives could be distributed, lessening the workload and enabling new/more ambitious initiatives.

We propose to have a focused, roughly annual meeting of leaders in this network open to all in the EC community and facilitated by the long-term HEP organization formed by SEC to exchange ideas and best practices. A first meeting could be planned for late 2021 following Snowmass.

The work to extend the SEC organization beyond the Snowmass process will address a pressing need for broad representation in the HEP EC community. We plan to leverage the community that the Snowmass process has brought together to build a permanent structure and community that can provide new opportunities and support to EC members, fundamentally changing the face of the HEP community as a whole.