

Community Engagement Frontier (CEF)

<https://snowmass21.org/community/start>



Dr. Kétévi A. Assamagan
(BNL)

CEF — 100 LOI

CEF CONVENERS

CEF — 35 CP (Contributed Papers)

CEF1 Applications & Industry (6 CP)



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Frontier Conveners



Kétévi A. Assamagan (BNL)



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CEF3 Diversity and Inclusion (9 CP)



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(UCI)



Carla Bonifazi
(UFRJ)



Yi-Hsuan C. Lin
(SNOLAB)



Johan S. Bonilla
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CEF2 Career Pipeline & Development (3 CP)



Julie Hogan
(Bethel Uni.)



Sudhir Malik
(UPRM)



Aneliya Karadzhinova-Ferrer
(Ruđer Bošković Institute)

CEF6 Public Policy and Government Engagement (5 CP)



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CEF4 Physics Education (5 CP)



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CEF5 Public Education and Outreach (4 CP)



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CEF7 Environmental & Societal Impacts (3 CP)



Veronique Boisvert
(URAL)



Ken Bloom (UNL)



Mike Headley
(SDSU/SURF/SDSTA)

CEF Liaisons to other Frontiers

Frontier	Liaisons
Accelerator	Jeroen van Tilborg (LBL)
Computational	David Bruhwiler (RadiaSoft)
Cosmic	Sijbrand de Jong (Radboud)
Early Careers	Mateus Carneiro (BNL) Scott Kravitz (LBL)
Energy	Daniel Whiteson (UCI) Sergei Gleyzer (UA)
Instrumentation	Farah Fahim (FNAL)
Neutrino Physics	Claire Lee (FNAL)
Rare Processes & Precision	Sophie Middleton (Caltech)
Theory	Devin Walker (Dartmouth)
Underground Facilities	

Snowmass Community Engagement Topical Groups

- ★ **CEF1 — Applications & Industry**
 - Develop and strengthen HEP/Industry relationships in both directions: form more partnerships to draw on industry expertise to further HEP goals, and build on programs to facilitate transfer of HEP technologies/techniques for use in the broader society.
- ★ **CEF2 — Career Pipeline & Development**
 - Not simply making young scientists aware of different opportunities, but also changing culture of HEP career paths
- ★ **CEF3 — Diversity & Inclusion**
 - Improve diversity, inclusion and equity in our field
- ★ **CEF4 — Physics Education**
 - Broader than simply how we teach physics courses. It is about what education and training our field needs to produce the physicists required for the HEP program to be successful (e.g. computational, beams, instrumentation; workshops, univ./lab/collaboration-level courses, etc.)
- ★ **CEF5 — Public Education & Outreach**
 - Work to see public education and engagement acknowledged as important work within our field, rewarded in the career paths of researchers, and integrated into our research practices such that it is a recognized component of what it means to be a physicist.
- ★ **CEF6 — Public Policy & Government Engagement**
 - Discuss all aspects of how the HEP community is impacted by public policy, and all aspects of how the community engages in advocacy.
- ★ **CEF7 — Environmental & Societal Impacts**
 - Impacts of HEP research on society and the environment

These topics are cross-cutting through all the other frontiers

CEF pause / slow down ... to full restart

- Some of our activities continued at a relaxed pace
- Others were on pause
- We added Topical Group 7 on “Environmental and Societal Impacts”
- From August 2021, we resumed all frontier activities
 - Contributed Paper topics defined and available on CEF Twiki pages. You are welcome to have a look and join ongoing efforts
 - Contributed paper study groups regular meetings started or being arranged
 - A few contributed papers already completed
 - Town hall meetings continued. Most recently, on August 24, about “**The Obstacles and Experiences of Asian Scientists in HEPA**”, and Sept 21 about “**Supporting Early Career People in Academia**” joint with SEC EDI
 - We are planning a CEF workshop next spring at the conclusion of the Contributed papers
 - Details will be forthcoming

List of specific tasks/roles CEF needs help with (1)

• CEF2 – Career Pipeline and Development - [Link](#) (3 CP)

• CP1 -HEP research at non-R1

- Stories from faculty members at 4-year institutions ("liberal arts colleges", no physics graduate students) or community colleges about participating in HEPA (High Energy Physics & Astrophysics) research.
- Stories from faculty members or scientists at research institutions who have organized/sponsored/facilitated HEPA research by students (or faculty) from 4-year/CC institutions.
- Stories from any community members who attended a 4-year/CC institution for physics education: were you exposed to HEPA research, and how did this exposure (or lack thereof) influence your educational trajectory?

• CP2 - Tackling Diversity and Inclusiveness in HEP

- Directly paper writers and interested people from the community

• CP3 - Facilitating Non-HEP Career Transition

- Presenting the need of wide unified platform supporting HEP, non-HEP job seeking and internship programs , Networking, Project collaboration and knowledge transfer, as well as Mentoring for Early Career Scientists and Engineers.
- Need participation from Snowmass Early Career Group as it is very relevant to them and overlaps
- Analysing and interpreting the data from the SEC survey
- Interviews with former members of the HEP community that have made the transition to non-HEP career and are willing to work towards developing Internship and Mentoring programs

List of specific tasks/roles CEF needs help with (2)

• CEF3 – Diversity & Inclusion (9 CP)

• Study Group Chairs: document observations and suggestions from each of the Town Halls dedicated to demographic groups

- Town Halls in Indico ([link](#))
- Ideally invite original panelists, but also recruit
- Hold ~few informal brainstorming sessions -> compile points/suggestions
- 1 Liaison per topic (~8-9 topics)

• Connections beyond physics (i.e. social sciences, education)

- Panel discussions are much more rich with experts from fields relating to topics covered
- Need folks who are aware of experts (or how to find them) in these fields to coordinate with Town Hall organizers to enrich panels, as well as the WP to come from the discussions

• We are in need of paper leads on

- CP2 "Measuring & Accounting for Existing Climate" and CP3 "Equitably Interacting with the Broader Scientific Community".

• Contributors welcome on all three papers

- CP1 "Creating Climate from the Top Down"

List of specific tasks/roles CEF needs help with (3)

CEF4 — Physics Education (5 CP)

- **CP1 Career and Education** – interested in discussion of Masters Degrees as a means of expanding career options in high energy physics and other scientific and technical domains and broadening participation.
 - I. Focus area: existing masters programs and their motivation, what works, what communities are served, career impact and New Ideas.
 - II. Participation welcome of experts and nonexperts, two or three new participants would be wonderful.
 - III. Contacts: Sudhir Mahlik (malik@fnal.gov), Randy Ruchti (rruchti@nd.edu)
- **CP3 Particle Physics Specific Education** – Survey/forum will be sent to the Snowmass Community, with a date expected to be in November 2021. Enthusiastic community participation and response will be both welcome and appreciated. Input desired from R1 universities, labs and also non-R1 smaller colleges too.
 - i. Needs include: expertise in survey design to review preparations and an additional faculty member to assist with the contributed paper writing. This group is led by our younger members, for which the twenty year vision of Snowmass has real meaning.
 - ii. Contacts: Yining You (youy@ufl.edu), Vetri Vehlan (vvelan@Berkeley/edu)
- **CP4, Global Software Issues and HEP** – interested in discussion of interconnections and models of collaboration of between high energy physics and experts in Data Science.
 - I. Focus areas: existing programs and their motivation, what works, what communities are served, career impacts, sustainability of programs.
 - II. Participation welcome of experts and nonexperts, two or three new participants would be wonderful.
 - III. Contacts: Sudhir Mahlik (malik@fnal.gov), David DeMuth (david.demuth@vcsu.edu)
- **CP5, International Connections and Public Education** – would welcome someone who can help us compile a list of international programs for students and teachers (primary, secondary and university) involving U.S. institutions.
 - i. Contacts: Ken Cecire (cecire@nd.edu), Sijbrand de Jong (sijbrand@hef.ru.nl)

List of specific tasks/roles CEF needs help with (4)

- **CEF5 — Public Education & Outreach (4 CP)**
 - **invites you to meet with APS President Professor Jim Gates on October 5 @3pm Central time.** We will hear about his vision for public engagement in physics, and we will communicate our plans to change the culture of physics. We aim to ensure public education and engagement are acknowledged as the important work that they are. Zoom link:
<https://stanford.zoom.us/j/93512070644?pwd=MXJZQWNRZG5qOVZ3WVE2ZEY0SEIBZz09>
- **CEF7 — Environmental and Societal Impacts (3 CP)**
 - **Enthusiastic wrap-up encouraging people to come and work with us**

List of specific tasks/roles CEF needs help with (5)

- **CEF6 — Public Policy & Government Engagement (PP&GE), 5 CP**

Seeking volunteers for these targeted roles:

- **Analysis of DOE and NSF HEP budget breakdowns since last P5**
- **Research on past PP&GE training and inreach**
- **Research on needs for future PP&GE training and inreach (post 2023 P5)**
- **Develop a mechanism to solicit PIs for recommendations on community communication with funding agencies**
- **Organize discussions with HEP leaders focused on maximizing community commitment to unified P5 messaging**

Conclusions

- **The topics addressed in CEF are cross-cutting through all the other frontiers**
- **Join us in the breakout session and in the CEF topical groups to discuss how you can contribute in CEF while maintaining your engagements in the physics frontiers**
 - **Zoom**
<https://cern.zoom.us/j/97666429141?pwd=N0ICTmIPcnAyd215Sk5ycExFTlZoQT09#success>