

From: [Wang, Daria](#)
To: "[Randal Ruchti](#)"; [Sudhir](#); "[sijbrand@hef.ru.nl](#)"
Cc: "[Assamagan, Ketevi](#)"; "[Breese Quinn](#)"
Subject: Physics Education Meeting 1.19.2021 - Summary and Action Items
Date: Tuesday, January 19, 2021 4:46:00 PM
Attachments: [image001.png](#)

Dear Randy and All,

Below is a summary and action items from today's meeting.

Physics Education Meeting

Tuesday, January 19, 2021

1:00 PM – 2:21 PM EST

Attended: Randal Ruchti, Yining You, Marge Bardeen, Chris Rosenzweig, Vetri Velan, David Bruhwiler, Breese Quinn, Ketevi Assamagan, Sijbrand de Jong, Sudhir Malik, Kenneth Cecire, Olivia Bitter, Daria Wang (ORISE)

Summary:

- Frontier level activities are to be suspended for several months, therefore CEF Town Halls will be taking place on a less regular schedule. The next one is expected on January 29, 2021. Topical Groups (TGs) have freedom as to how they want to schedule their activities and meetings. Some TGs will not change their schedule, for example Applications & Industry. On January 25th there will be an All Conveners meeting – some more information may come to light from that meeting. Updates from that meeting will be discussed at the CEF Town Hall on January 29th. It might still be beneficial to continue having CEF Town Halls if some of the TGs are continuing their work. Can push back on the recommendation not to have any activities on the frontier level. CEF is different in that regard. This will be discussed at the All Convener's meeting on Jan 25th which Breese and Ketevi will attend.
- Draft White Paper Template/Logistics/Checklist. This is open for discussion. Suggestions are welcome. Feel free to comment, suggest changes etc. We will discuss all ideas in 2 weeks during the next meeting.

CEF4: WP Title		
WP Coordinators		
WP Participant List and Contact Information		
Topic Driver(s)	Topic Leaders	
Work Organization	What Needs to be Accomplished Timeline Meeting Schedule Presentations/Reporting	Deliverables Data to support deliverables Snowmass Meetings, Elsewhere To Snowmass groups To outside groups
Connections/Links	Links to other LOI Links to other CEF groups	
Resources and Materials	Data Collection External Expert Input Reference Documentation Funding needs (if any)	Input from other CEF groups Input from other Frontier groups Liaison assistance Input from APS, DPF, AAPT Input from DOE or NSF National Academy Studies, Snowmass2013 reports For information gathering
Document Preparation	Editor(s) selection Methodology	Googledoc...
	Draft Abstract	Have this right away, then modify as work gets done?
	References	

- Suggestion to create a common place for all WP documents so that all conveners can view and access at any time. Can create a shared folder in Google Docs. Vetri Velan can start the folder.
- WP# 3 (see full presentation attached on the [indico page](#)):
 - o LOI 18 Understanding and Maximizing Access to Particle Physics at the Undergraduate Level
 - Current issue: Undergraduate education lacks particle physics curriculum. Graduate education includes few chances for students to explore different subfields.
 - Result: Large barrier for students to enter the field during graduate education, especially for URM students.
 - Solution(Curriculum): Include small introduction course at the end of the semester for modern physics. Lecture/Lab based seminars to introduce research frontiers.
 - Solution(Research): Career sessions for undergrads in meetings. More realistic lab work for undergrad research. Summer/winter break workshops for undergrad, course + research projects.
 - Justification: Do we need data to support the claim "Undergraduate education lacks particle physics curriculum"? What should the white paper focus on? Design formats for the courses and workshops? Look for existing events? Call for extra teaching resources?
 - From Olivia Bitter: Interested in designing a specific course or seminar which introduces particle physics. Contact a professor who

- o LOI 23 Enhancing Particle Physics Education at the Graduate Level
 - Current issue: Graduate education lacks the training of skills required for careers within/out of particle physics. Missing: Non-physics topics required for physics research. Courses of advanced theory required for research. Professional skill training vital for physics career. Preparation for jobs outside of academia.
 - Outcome - Survey: collect the needs from students and postdocs. Collect opinions from mid and late career physicist. Curriculum:
 - 1.Design "toolset" of courses/training.
 - 2.Look for materials for self-education.
 - 3.Design curriculum baseline for feedback to departments.
 - Justification: How does the training of professional skills impact particle physics PhD graduates? (Mentioned in LOI) Is a survey enough? Are providing all those trainings the responsibility of (particle) physics community?
 - From Vetri Velan:
 - 1.What is the strategy for writing the WP(3rd)? Writing the WP in unison, or splitting up the work by LOI
 - 2.How much coordination with other WPs hosted in CEF4?
 - 3.About the survey: Launch a survey for LOI 23 or combine survey with other LOIs and WPs in CEF(4) if possible? Will there be duplication with Snowmass survey group?
 - 4.Q – How to form the "toolset"? A – Find as many helps as possible. Not only ask seniors for a list of material.
- CPD TG is integrating some of their survey questions into the EC survey since it will reach wider audience. List of CPD questions is [here](#). Can add 1 or 2 more questions if needed. If questions are similar to the existing ones, they may be removed or merged. Provide input ASAP. Mark questions in a different color if adding them to the document directly to differentiate from other questions, or send questions to Sudhir.
- Physics Education meetings will be taking place every other week. Next meeting on Tuesday, February 2, 2021. White Paper working groups can meet on their own schedule.

Action items:

- Review Draft White Paper Template/Logistics/Checklist and provide suggestions and edits to discuss during the next meeting in 2 weeks (February 2, 2021).

Please, let me know if any changes are needed.

Thank you,

Daria Wang, CMP, DES

Event Project Planner

Scientific and Technical Resource Integration (STRI)



865-839-7754 (cell)

Daria.Wang@ornl.gov

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