

Snowmass Program Committee Meeting

June 17, 2022

J. Butler, Fermilab

Day 1 Agenda

- 09:00 – 9:30:
- CSS Welcome and meeting logistics 15 minutes – Gordon and Shih-Chieh
 - UW Welcome (UW Vice Provost of research) (5 min)
 - UW Welcome (UW Dean of Arts and Sciences) (5 min)
 - UW Welcome (UW physics department Chair) (5 min)
- 09:30 – 09:50: Introduction and Organization from DPF (Joel)
- 09:50 – 10:20: Two frontier workplans
 - Accelerator
 - Community Engagement
- 10:20 – 10:50: Coffee break
- 10:50 – 11:35: Three frontier workplans
 - Computational
 - Cosmic
 - Energy
- 11:35 – 12:00: Vision Talk **[Where will the next discoveries come from, are the drivers ok, should they be changed, augmented?]**
- 12:00 – 14:00: Lunch
- 14:00 – 14:30 Two Frontier Workplans
 - Instrumentation
 - Neutrino
- 14:30 – 14:45 Early Career viewpoint
- 14:45 – 15:15 Science talk
- 15:15 – 16:00 Three frontier Workplans
 - Rare Decays and Precision Measurements
 - Theory
 - Underground Facilities
- 16:00 – 16:30: Coffee break
- 16:30 – 18:30:
 - Snowmass/P5 2013/2014 retrospective, lessons learned
 - Snowmass2013, **Why it worked, what is the same/different about tsnowmass21**
 - P5, **How it became a model for a successful prioritization process and how we repeat its success**
 - View from NSF
 - View Fermilab Plans (from New Director)
 - View from DOE
 - View form HEPAP

Purpose of the various types of talks

- We envisage that the blocks labelled “I” will be where the Frontier groups deliver their main message to the entire community in simple, direct terms, including conveying the excitement and greatest challenges
 - **There should be ample time for discussion, at least 20 minutes**
 - We will hold speakers to their time so that the discussion and Q&A does not get sacrificed
 - We will use ways of allowing questions to be submitted in advance and allow remote participation, with priority given to those who are attending in-person
- The blocks labelled S will be for more detailed, but still of wide interest, issues
- The blocks labelled “G” are for community wide issues,
 - including information transfer, plans from international partners, funding agencies, national and international laboratories
 - topics that are shared by all, or many, frontiers or are field-wide issues
 - Career issues
 - DEA
 - Training the next generation
 - ...

NOTE: This schedule is not yet final

	Saturday, July 16	Sunday, July 17	Monday, July 18	Tuesday, July 19	Wednesday, July 20	Thursday, July 21	Friday, July 22	Saturday, July 23	Sunday, July 24	Monday, July 25	Tuesday, July 26	Wednesday, July 27
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10	
7:30 AM												
8:00 AM		Registration									National Study	
8:30 AM											NAS EPP Decadal study	
9:00 AM												
9:30 AM												
10:00 AM		Introductory Plenary	Parallel	Parallel	Parallel	Parallel	Parallel	Parallel			Snowmass Summary (Program under development)	
11:00 AM									Parallel		Snowmass Summary (Program under development)	
12:00 PM											Closing Remarks	
1:00 PM		Lunch	Lunch, Poster & Exhibit	Lunch, Poster & Exhibit	Lunch, Poster & Exhibit	Lunch	Lunch	Lunch & Communicating HEP to the public and the govt.	Lunch	Lunch		LIGO Hanford Tour
2:00 PM		Introductory Plenary	Parallel 1: AI/ML Parallel 2: Underground	Panel: Careers and Training the Next Generations	Parallel 1: Neutrino Parallel 2: Rare processes	Colloquium on Rare Processes and Precision Measurements	Colloquium on Underground Physics	Colloquium on Energy Frontier Physics	Presentation: Snowmass Early Career	Panel: Interconnections between frontiers and with other fields		
3:00 PM												
3:30 PM												
4:00 PM		Coffee	Parallel 1: The next accelerators Parallel 2: LQCD	Parallel 1: Lepton Colliders Parallel 2: Cosmic	Colloquium on Instrumentation	Colloquium on new Accelerators and R&D	Colloquium on Theory	Colloquium on Computing	Parallel 1: Underrepresented Minorities Parallel 2: Instrumentation projects	Coffee	Talks: National, International Leaders	
5:00 PM	Pre-Registration	Planning US HEP: past, present, future	Coffee	Coffee		Coffee	Coffee	Coffee	Coffee			
6:00 PM			DEI: Talks and Panel	Colloquium on Community Engagement		Colloquium on Cosmic Frontier Probes of Fundamental Physics	Colloquium on Neutrino Physics	Quantum Information Science in HEP	talks DOE, NSF, FNAL Director, other US labs	Panel International Status and Plans		
7:00 PM												
8:00 PM			Reception & Poster & Industry Partners		Adam Riess Public Lecture	Physics Slam		Colliderscope				
9:00 PM				Industry Networking			Conference Dinner					
10:00 PM												

Each row is 30 minutes long, starting from the listed time (e.g. 7:30am is 7:30-8:00am)

Summiting the Unknown (Ann Nelson Fest) finishes on July 14-16 <https://indico.fnal.gov/event/22915/>

Preliminary

Last Update June 11, 2022

Note: 1) the DOE and NSF program managers will hold talks and Q&A with their PIs and will meet with individual PIs. Days and times to be announced 2) The order of the talks on Monday July 25 may change 3) Morning Coffee Breaks have flexible times and will take place near the posters.

DOE/NSF Meetings during the CSS

There are three types of activities. While this may not be what one thinks of for a Snowmass, there is precedent from 2013, where these meetings were felt to be valuable and were well attended. This year, the agencies are trying to reconnect in-person with their PIs and this Snowmass provides a good opportunity. All the Program Managers from the main science sectors are showing up in-person, along with much of OHEP upper management.

- DOE Program Officers (HEP, Intensity, Cosmic, Theory) each want two hours to meet with their constituencies, i.e., PIs they support. The size of the groups will vary but will not exceed 100. They expect two of these to be in parallel on two evenings (e.g. Tuesday and Thursday). So, we need two rooms on each day for two hours.
- Small meetings with individual PIs or their groups, so up to 10 people. They need access to 5 small rooms for a few days. Could be during the mornings or afternoons.
- (This may not be something they decide they want) rooms for 1-2 hours for a large number of people to hear about major DOE programs such as FOAs, budget outlook early career issues,... Possibly during lunch, now that we can order in.
- Even without group 3, this requires a lot of rooms and occupy people for a lot of their time. However, the meetings were reasonably well attended in 2013. Tuesday and Thursday evening are the best days to do group 1. Group 2 would probably need to be over a few lunches during the week, if they are in fact needed.

Need to find out what NSF needs!

Days 9 and 10: Preliminary Thoughts – I

- We have 5 hours possibly available for Frontier summaries and other talks
 - This is reduced to 4.5 hours by the need for a morning coffee break
- If we allow 20'/frontier, we use , 3 hours and 20 minutes and have time for another talk session
 - The goal of the talk is to remind people of the major recommendations but mainly to focus on the state of your report for the Snowmass book, which should in general be “almost done”, so you could provide a “punchlist” of important tasks that are incomplete.
- **.This does not seem very attractive to me**

Days 9 and 10: Preliminary Thoughts – II

- We have 5 hours possibly available for Frontier summaries and other talks
 - This is reduced to 4.5 hours by the need for a morning coffee break
- Maybe we could focus on the 5 drivers (and any others we want to add) and have one 30 minute talk on each in which we cover all our proposals from this Snowmass and describe how we will advance HEP
- We could also say how we feel about the charge for P5 and whether we would like them to consider or even make recommendations on other issues critical to realizing the visions that are not project-like
 - HEPAP may want to work with the DOE and NSF and DPF outside of the find a way to addressing these issues

Organizing General Sessions

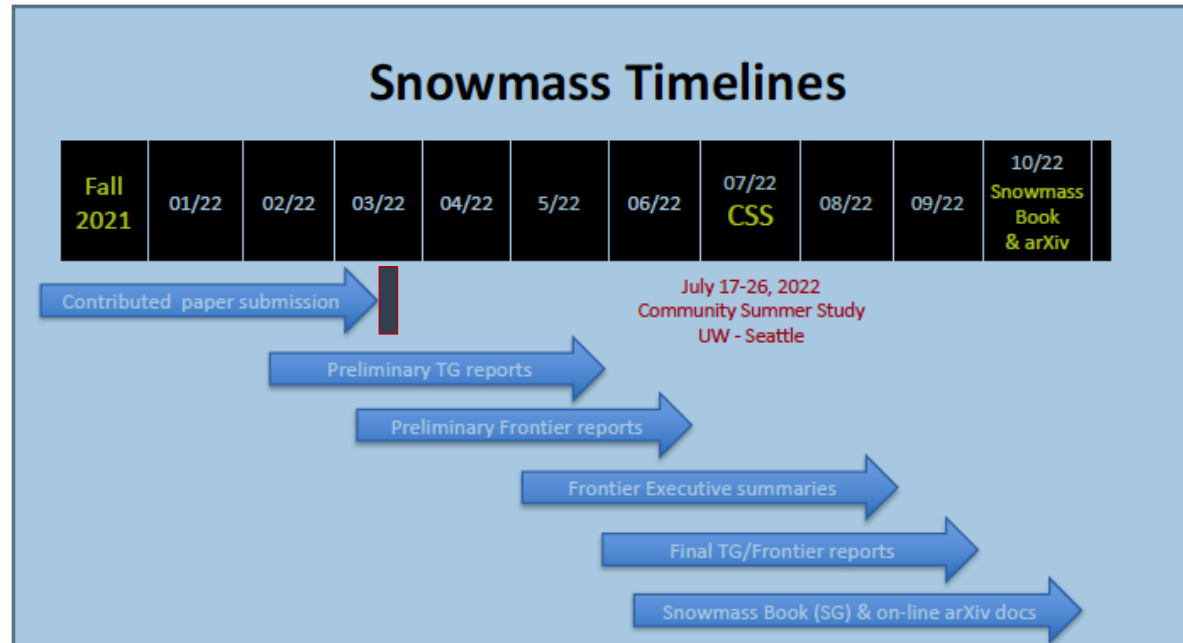
- Quantum: Maria Spiropulu, Martin Savage (with a long list of stakeholders to contact)
- Careers and Training the Next Generations: Petra Merkel, Vladimir Shiltsev (TBC) (with a list of stakeholders)
- Recruiting International participants for panel sessions

Useful Information

<https://docs.google.com/document/d/11F9W5JwVZLp9JfUN7EhVUg5orycYMN0036i1saqoFrg/edit-heading=h.80ikt0q8fhm3>

Backup Slides

Timeline for Snowmass Book



- **March 15: Contributed papers (a.k.a. White Papers)**
- **May 31: Preliminary Topical Group Reports**
- June 30: Preliminary Frontier Reports
- **July 17 – 26: Converge on reports for all the frontiers and produce executive summaries representing the views of their communities and providing the basic input needed for P5**
- September: draft Executive Summary and Report Summary
- October- November: Snowmass Book finalized and ready for submission

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	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10		
07:30 - 08:00 AM	Registration											in the scheduel and afor the mtend
08:00 - 08:30 AM										Snowmass Frontier Summaries	NAS EPP Decadal Study	
08:30 - 09:00 AM	Introductory Plenary										Snowmass Frontier Summaries	
09:00 - 09:30 AM		Parallel	Parallel	Parallel	Parallel	Parallel	Parallel		Snowmass Workshop Summary			
09:30 - 10:00 AM		Parallel	Parallel	Parallel	Parallel	Parallel	Parallel			Closing remarks		
10:00 - 10:30 AM		Parallel	Parallel	Parallel	Parallel	Parallel	Parallel	Parallel				
10:30 - 11:00 AM		Parallel	Parallel	Parallel	Parallel	Parallel	Parallel	Parallel				
11:00 - 11:30 AM	Parallel	Parallel	Parallel	Parallel	Parallel	Parallel	Parallel					
11:30 - 12:00 PM	Lunch and Communicating HEP to the public and the govt											
12:00- 12:30 PM	Lunch	Lunch, Poster & Exhibit	Lunch, Poster & Exhibit	Lunch, Poster & Exhibit	Lunch	Lunch	Lunch	Lunch	Lunch			
12:30 - 01:00 PM												
01:00 - 01:30 PM												
01:30 - 02:00 PM												
02:00 - 02:30 PM	Introductory Plenary	Parallel 1: AIML Parallel 2: Underground Science	Panel: Careers and Training the Next Generations	Parallel 1: Neutrino; Parallel 2: Rare processes	Colloquium on Rare Processes and Precision Measurements	Colloquium on Underground Physics	Colloquium on Energy Frontier	Presentation: Snowmass Early Career	Panel: Interconnections between frontiers and with other fields			
02:30 - 03:00 PM		Coffee	Parallel 1: The next accelerators; Parallel 2: LQCD	Parallel 1: Lepton Colliders Parallel 2: Cosmic	Colloquium on Instrumentation	Colloquium on new Accelerators and R&D	Colloquium on Theory	Colloquium on Computing	Parallel 1: Underrepresented Minorities; Parallel 2: Instrumentation projects	Coffee		
03:00 - 03:30 PM	Planning US HEP, past, present, future	Coffee	Coffee		Coffee	Coffee	Coffee	Coffee	Talks: national, International Leaders			
03:30 - 04:00 PM		DEI: Talks and Panel	Colloquium on Community Engagement		Colloquium on Cosmic Frontier	Colloquium on Neutrino Physics	Quantum Information Science in HEP	talks: DOE, NSF, FNAL Director, other US labs	Panel International Status and Plans			
04:00 - 04:30 PM												
04:30 - 05:00 PM		Reception and Poster and Industry	Industry Networking	Adam Riess Public Lecture	Physics Slam							
05:00 - 05:30 PM							Conference Dinner	ColliderScope				
05:30 - 06:00 PM												
06:00 - 06:30 PM												
06:30 - 07:00 PM												
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08:30 - 09:00 PM												
09:00 - 09:30 PM												
09:30 - 10:00 PM												
10:00 - 10:30 PM												
10:30 - 11:00 Pm												

Notes:
1) The DOE and NSF Program Managers will hold talks and Q&A with their PIs and will meet with individual PIs. Days and times to be announced.
2) The order of the talks on Monday July 25, may change

Preliminary
last updated June 7, 2022

Some scheduling issues

- The speakers at the general session are agency or international people or members of the political system or public that have constraints.
 - They may not be able to be at Snowmass for the whole time
 - ECFA meeting at CERN on July 20/21
 - We have information about three important leaders from Europe
 - Fabiola Gianotti (CERN DG), Karl Jacobs (ECFA chair) plan to be full time for the 24 and the 25 and leave early on the 26th.
 - Eliezer Rabinovici, president of the CERN Council will arrive on July 23, so will have approximately the same stay
- There are other constraints, such other conferences and workshops
- **We are likely to get new requests**
 - **We expect a request from DOE/NSF for the types of meetings they have held at previous conferences and workshops, including Snowmass 2013.**
 - **Same is true with NSF**
- If some Frontiers may be willing to reduce their requests that would help (no takers so far)

Notes

- Lunch break is two hours
- There is a 30-minute coffee break in the afternoon
- **Some of the evening events have been moved around and their starting time and duration may be changed to make sure that there is adequate time between the afternoon session and the event, and the event is placed appropriately for the intended audience.**
- Some rest and relaxation time is added on Wednesday, Friday, and Sunday
- I think some of the evening activities should be moved 30-60 minutes later

Suggestions for Plenary Sessions Organized by the Program Committee – Some examples

- RPF
 - Colloquium 1 (**full plenary block**):
 - Flavor physics and QCD
 - Discrete symmetries, baryon, and lepton number violation
 - Dark matter and rare processes
 - Colloquium 2 (**shared block**):
 - RPF+AMO
- CF
 - Colloquia 1: Dark Matter as a Science driver for fundamental physics (community wide, with representatives from energy, rare processes, theory, and neutrino, ~3 hours).
 - Colloquia 2: Cosmic Probes of Fundamental Physics (community wide, with representatives from energy, rare processes, theory, and neutrino, ~2 hours)
- CEF
 - Colloquium 2.5h. CEF will propose the topics and format after their April 29 meeting. This could be arranged as a panel discussion.
- IF
 - Special CPAD Awards ceremony with invited talks by 2021 DPF Instrumentation Award winners and GIRA award winners, highlighting recent achievements in instrumentation and current key challenges, as well as career pipeline
 - Colloquium: motivational talks about direction, technological key issues, career pipeline, facilities

<https://docs.google.com/document/d/11F9W5JwVZLp9JfUN7EhVUg5orycYMNOO36i1saqoFrg/edit>

Snowmass SLACK channel: ssss-program-committee

Categories for General Sessions – Preliminary Thoughts - DPF Chair Line

- **Domestic Program:**
 - Overview from US funding agencies
 - Overview from US Lab directors
 - View from HEPAP and Previous P5 chairs and members
 - DOE and NSF also want to do some focused activities, such as meeting with PIs to discuss grant issues
 - Perhaps a perspective from some people in Government, Congress,
- **International and Interdisciplinary Program**
 - Presentations and panels of foreign lab directors
 - Plans and planning process in other regions and nations
 - ICFA, ECFA, perspective etc
 - CERN and US collaboration
 - Possibly Ukraine, Russia impacts
 - Collaboration with Astrophysics (DAP), Nuclear (DNP), Gravity (DGRAV), DPB (also AF)
- **Special sessions on New and Evolving Technologies**
 - Special session on Quantum including academic and commercial participation. how can HEP contribute?
 - Special session on Gravitational Waves - HEP community is excited about this new way to experimentally probe the universe. How can HEP make the most out of this new opportunity?
 - Special session on AI – how can HEP contribute?
- **Engagement**
 - STEM,
 - Promoting DEI: Gender, race, sexual orientation,
 - supporting people with disabilities,
 - Careers issues in HEP,
 - How can we encourage people to work on “enabling technologies” in HEP? Instrumentation, computing, etc
 - Sustainability in the next round of HEP projects, current operations, etc,
 - A report on the US Congressional visits and other outreach activities to the government,
 - Outreach: do we do it well enough