# Snowmass Program Committee Meeting

June 22, 2022

J. Butler, Fermilab

#### Google Doc for Session Information

- https://docs.google.com/document/d/11F9W5JwVZLp9JfUN7EhVUg5 orycYMNOO36i1saqoFrg/edit#
- Index of topics:
  - I. Suggestions for Plenary Sessions Organized by Frontiers (and Snowmass Early Career)
  - II. Suggestions for Plenary Sessions Organized by the Program Committee
  - III. Status of Topical Subgroup report Submissions
  - IV. Link to list of proposed people to invite Google doc
    - <a href="https://docs.google.com/document/d/1gBI3HHLDCG89V93byxzpyeQf66zI39pElwREGYcs">https://docs.google.com/document/d/1gBI3HHLDCG89V93byxzpyeQf66zI39pElwREGYcs</a> <a href="https://docs.google.com/document/d/1gBI3HHLDCG89V93byxzpyeQf66zI39pElwREGYcs">LTY/edit?usp=sharing</a>
  - V. Participants link to google doc
    - https://seattlesnowmass2021.net/participantList/

## Day 1 Agenda

- 09:00 9:30:
- CSS Welcome and meeting logistics 15 minutes G. Watts and Shih-Chieh Hsu
  - 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, DPF (J. Butler)
- 09:50 10:20: Two frontier workplans
- Accelerator (15 min)
- Community Engagement (15 min)
- 10:20 10:50: Coffee beak
- 10:50 11:35: Three frontier workplans
- Computational (15 min)
- Cosmic (15 min)
- Energy (15 min)
- 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 (15 min)
  - Neutrino (15 min)
- 14:30 14:45 Early Career viewpoint

Need suggestions for the topics and speakers for the two talks in red

- 14:45 15:15 Science talk [What facilities might we need for the next discoveries?]
- 15:15 16:00 Three frontier Workplans
  - Rare Decays and Precision Measurements (15 min)
  - Theory (15 min)
  - Underground Facilities (15 min)
- 16:00 16:30: Coffee break
- 16:30 18:30:
- Snowmass/P5 2013/2014 retrospective, lessons learned
  - Snowmass2013/P5 2014, Why it worked, How it became a model for a successful prioritzation process and how we repeat its success this success
  - View from NSF (TBD)
  - View Fermilab
  - View from DOE
  - View form HEPAP

#### Purpose of the various types of talks

- We envisage the that the Frontier plenary blocks 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 shared plenary blocks will be for more detailed, but still of wide interest, issues
- The plenary blocks not associated with Frontiers 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
    - Diversity, Equity, Inclusion
    - Training the Next Generation
    - Quantum Information Systems
    - Interdisciplinary Panel
    - International Leadership panel/discussion

	Sunday July 17	Manday July 19	Tuesday, July 10	Wadneday July 20	Thursday, July 21	Eriday July 22	Caturday July 22	Sunday July 24	Manday July 25	Tuesday, July 26	Wednesday July 27
	Sunday, July 17	10 700 000	1	Wednsday, July 20		227,539,139	Saturday, July 23	Sunday, July 24	Monday, July 25		Wednesday, July 27
7:30 - 08:00 AM	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10	
8:00 - 08:30 AM	Registration			Parallel	Parallel	Parallel	Parallel	1	Snowmass Frontier Summaries	Int'ni Benchmark	
8:30 - 09:00 AM			Parallel							NAS EPP Decadal Study	
9:00 - 09:30 AM	Introductory Plenary	Parallel								Snowmass	
9:30 - 10:00 AM								Parallel			
0:00 - 10:30 AM										Frontier	
0:30 - 11:00 AM										Summaries	
1:00 - 11:30 AM										Snowmass	
1:30 - 12:00 PM										Workshop	
2:00- 12:30 PM					Lunch and DOE	Lunch and DOE	Lunch and			Closing remarks	
2:30 - 01:00 PM	Lunch	Lunch, Poster & Exhibit	Lunch, Poster & Exhibit	Lunch, Poster & Exhibit	Program	Program	Communicating HEP to the public and the govt	Lunch	Lunch		in the scheduel ar afor the mttend
1:00 - 01:30 PM					Managers	Managers					
1:30 - 02:00 PM					Session A,B	Session C,D					
2:00 - 02:30 PM	Introductory	Parallel 1: AVML Parallel 2: Underground Science	Panel: Careers and Training the Next Generations	Parallel 2: Rare	and Processes Unde	Colloquium on	Colloquium on Energy Frontier	Presentation: Snowmass Early Career	Panel:		
2:30 - 03:00 PM						Underground Physics			Interconnections between frontiers and with other fields		
3:00 - 03:30 PM				processes	Measurements						
3:30 - 04:00 PM		Parallel 1: The	Parallel 1: Lepton	Colleguium on	Colloquium on	Collegeiden on	Collegation	Parallel 1:	Coffee		
4:00 - 04:30 PM	Coffee	next accelerators;	Colliders Parallel 2: Cosmic	Colloquium on Instrumentation	new Accelerators and R&D	Colloquium on Theory	Colloquium on Computing	Underrepresented Minorities; Parallel 2: Instrumentation projects	Talks: national,	0.	
4:30 - 05:00 PM	Di	Parallel 2: LQCD		matidifferitation					International		
5:00 - 05:30 PM	Planning US HEP, past,	Coffee	Coffee		Coffee	Coffee	Coffee	Coffee	Leaders		
5:30 - 06:00 PM	present, future	DEI: Talks and Panel	Colloquium on Community		Colloquium on Cosmic Frontier	Colloquium on Neutrino Physics	Quantum Information	talks: DOE, NSF, FNAL Director,	Panel		
6:00 - 06:30 PM									International		
6:30 - 07:00 PM			Engagement			Trouble Trijulos	Science in HEP	other US labs	Status and Plans		
7:00 - 07:30 PM		Pecentian and									
7:30 - 08:00 PM		Reception and Poster and		Adam Riess Public	Physics Slam		9.1				
8:00 - 08:30 PM		Industry	Industry Networking	Lecture	T Hydrod Olam	Conference	ColliderScope				
8:30 - 09:00 PM											
9:00 - 09:30 PM					Dinner	Dinner					
9:30 - 10:00 PM											
0:00 - 10:30 PM											
0:30 - 11:00 Pm	Note		contract of the second								
	1) Th	e DOE and NSF F talks and Q&A with	rogram Managers	s will							
		taiks and Q&A with individual Pls. Days		meet							
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	2) Th	e order of the talks	on Monday July 2	25, may	Pre		ıaı v				
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		9			last unda	ted June 16	3 2022				

## 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 Pi's 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 lunch periods (e.g. Thursday and Friday). So, we need two rooms on each day for 1.5 hours that can also be used for lunch
- 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 2-8

- All frontiers have specified their full plenaries and shared plenaries
  - Still some time allocations missing
  - Please identify your speakers
  - We will start populating the indico this week
- Four "general talks" are circled in red
  - 2/4 have organizers appointed and will circulate abstracts of what they are planning
  - One more has one organizer with a second organizer about to be named
  - The fourth one will be discussed at the SG today
- One or two lunch sessions
  - One on outreach to the public, has an organizer
  - Possible round table on COVID not on calendar -

#### General Talks

- July 18: DEI (Assamagan, TBD)
- July 19: Careers and training the next generation (Merkel, TBD)
- July 23: Quantum Science and Technology (Spiropulu, Savage)
- July 23: Communication HEP to the public and the Government (Jepson, Quinn??)
- July 25: Connection with other disciplines (TBD, TBD)
- Possible lunch roundtable on COVID

### 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

- Mornings still being planned
- Afternoon of Day 9 will have talks/panel discussions by international leaders
  - More and more VIPs are planning to attend
- Discussion on "lasttwodaydiscussion"
- My current understanding
  - I think we should do one hour one whether P5 drivers are still relevant (I agree that they have aged well, but let's show that is the community consensus). That session could include a brief discussion of whether the P5 charge should extend to a consideration of community societal issues or if not whether some other entity should (e.g. NAS) should do that. We would allow a lot of time for discussion/questions. Then we could have 2-3 X 1.0 1.5 hour sessions on integrative themes as suggested at the Conveners meeting. One could be the them that we all do BSM physics. Another could be an overview of all large projects we are putting before P5. We could conclude with a session on how we identify and develop the skills we need.

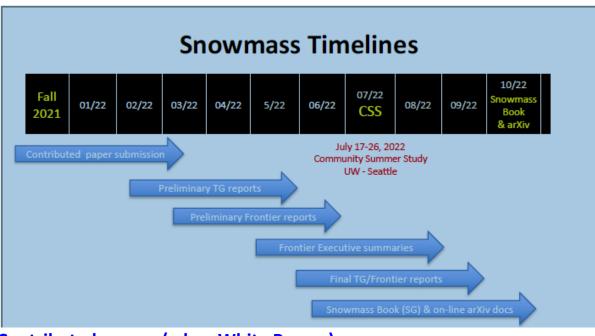
22/06/22

### What will happen in Seattle

- The Summer Study workshop will be the first time each frontier will have a chance—in the form of an hour-and-a-half-long plenary session—to present their main conclusions to the entire community.
  - They will try to make their specific case so scientists who are not in that particular field can understand why it's important.
  - They will also explain why their work benefits other fields of HEP, how they benefit from others, and where they can work together to common goal.
- The biggest part of what we do will be to talk to each other to find a common understanding of what the future should look like.

22/06/22

#### Timeline for Snowmass Book

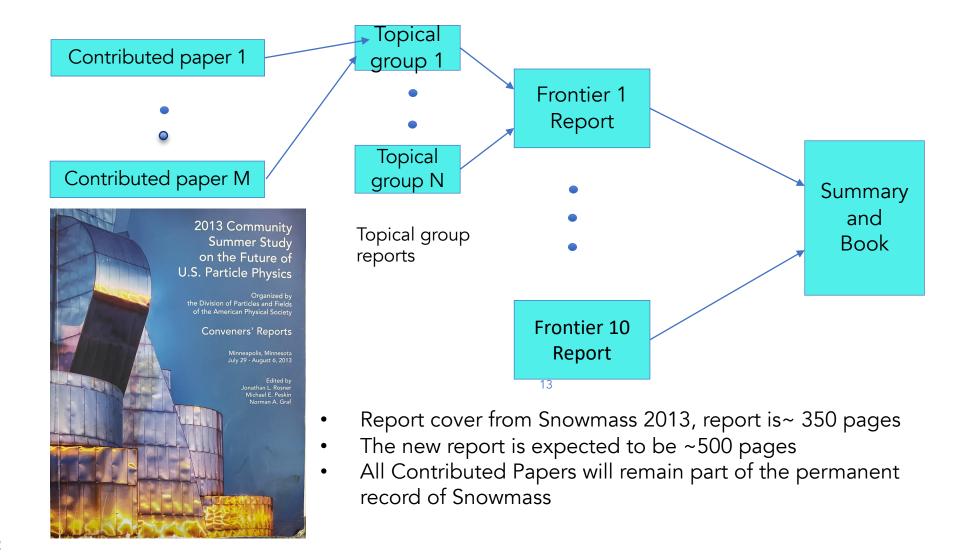


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Please update status of Topical Group reports.

- 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

#### The Snowmass REPORT - 2021



## Writing the summary

- We will set up a drafting team
- They will probably have to work mornings and evenings
- Will need some small (class)rooms to meet periodically

22/06/22

## Backup Slides

	Sunday, July		Tuesday, July 19	Wednsday, July 20	Thursday, July 21		Saturday, July 23		Monday, July 25		Wednesday, July 27
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07:30 - 08:00 AM											
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12:00- 12:30 PM			Lunch, Poster & Exhibit	Lunch, Poster & Exhibit	Lunch	Lunch	Lunch and Communicating HEP to the public and the govt	Lunch	Lunch	Closing remarks	in the scheduel and afor the mttend
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01:30 - 02:00 PM											
02:00 - 02:30 PM		Parallel 1: Al/ML	Panel: Careers	Parallel 1: Neutrino;	Rare Processes	Colloquium on	Colloquium on	Presentation:	Panel: Interconnections		
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07:30 - 08:00 PM		Reception and	Industry Networking	Adam Riess Public Lecture Physi	Dhysics Clam						
08:00 - 08:30 PM		Poster and Industry			Physics Slam	Conference Dinner	ColliderScope				
08:30 - 09:00 PM		industry									
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	1) The DOE and NSF Program Managers will										
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		th individual Pls. Day	s and times to be		Dra	limir	200				
	with individual PIs. Days and times to be announced. 2) The order of the talks on Monday July 25, may change										
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### 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 wil 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

#### The Snowmass Book - 2021

