Snowmass Program Committee Meeting

July 6, 2022

J. Butler, Fermilab

Google Doc for Session Information

- https://docs.google.com/document/d/11F9W5JwVZLp9JfUN7EhVUg5orycYMNOO36i1saqoFrg/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
    - https://docs.google.com/document/d/1gBI3HHLDCG89V93byxzpyeQf66zI39pEIwREGYcsCTY/edit?usp=sharing
  - V. Participants - link to google doc
    - https://seattlesnowmass2021.net/participantList/

Day 1 Agenda

Need name of the convener who will give the work plan for each frontier – by Thursday morning. Will provide some guidance on content.

- 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 – 09:45: Introduction and Organization, DPF (J. Butler)
- 09:45 – 10:15: Two frontier workplans
- Accelerator (15 min)
- Community Engagement (15 min)
- 10:15 – 10:45 Coffee beak
- 10:45 – 11:30: Three frontier workplans
- Computational (15 min)
- Cosmic (15 min)
- Energy (15 min)
- 11:30 – 12:00: Vision Talk (Hitoshi Murayama)
- 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 **(pending)**
- 14:45 – 15:15 Science **talk [What is the current program, what is the timeline for projects undertaken by last round of decisions/P5]] – Andy Lankford**
- 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
  - Perspectives from Snowmass to P5 in 2013/14" (Steve Ritz) - 20 min
  - Perspectives from NSF (Jim Shank) – 25 min
  - Perspectives from DOE (Harriet Kung).- 25 min
  - Perspectives from Fermilab (Lia Merminga) - 20 min
  - Perspectives from HEPAP (JoAnne Hewett) - 20 min
  - Questions/discussion – 20 min

	Sunday, July 17	Monday, July 18	Tuesday, July 19	Wednsday, 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	
07:30 - 08:00 AM	Registration										in the scheduel and afor the mttend
08:00 - 08:30 AM		Parallel	Parallel	Parallel	Parallel	Parallel	Parallel		Snowmass Frontier Summaries	Int'nl Benchmark	
08:30 - 09:00 AM										NAS EPP Decadal Study	
09:00 - 09:30 AM	Introductory Plenary									Snowmass Frontier Summaries	
09:30 - 10:00 AM											
10:00 - 10:30 AM								Parallel			
10:30 - 11:00 AM										Snowmass Workshop Summary	
11:00 - 11:30 AM											
11:30 - 12:00 PM										Closing remarks	
12:00- 12:30 PM	Lunch	Lunch, Poster & Exhibit	Lunch, Poster & Exhibit, and FOA/DOE General Meeting	Lunch, Poster & Exhibit and NSF General Meeting	Lunch,1) DOE Prgrm Managers ,Astrophysics,2) NSF Special PI meeting	Lunch,DOE Prgrm Managers 1) Energy 2) Theory	Lunch and Communicating HEP to the public and the govt	Lunch and COVID Roundtable, lessons (to be) learned			
12:30 - 01:00 PM											
01:00 - 01:30 PM											
01:30 - 02:00 PM											
02:00 - 02:30 PM	Introductory Plenary	Parallel 1: AI/ML 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 with other fields		
02:30 - 03:00 PM											
03:00 - 03:30 PM											
03:30 - 04:00 PM		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		
04:00 - 04:30 PM	Coffee								Talks: national, International Leaders		
04:30 - 05:00 PM											
05:00 - 05:30 PM	If	Coffee	Coffee		Coffee	Coffee	Coffee	Coffee			
05:30 - 06:00 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		
06:00 - 06:30 PM											
06:30 - 07:00 PM		Reception and Poster and Industry	Industry Networking	Adam Riess Public Lecture	Physics Slam	Conference Dinner	ColliderScope				
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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 26, 2022

General Talks

- July 18: DEI (K. Assamagan, Mu-Chun Chen) (draft indico)
- July 19: Careers and training the next generation (P. Merkel, S. Lund)
- July 23: Quantum Science and Technology (M. Spiropulu, M. Savage) (draft indico)
- July 23: Communication HEP to the public and the Government (K. Jepson, B. Quinn??)
- July 24: Possible lunch roundtable on COVID (?,?)
- July 25: Connection with other disciplines (P. Cushman, G. Farrar, Y. Kolamenski)

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Agency Meetings

- DOE
  - Program Manager Meetings
    - July 19: DOE/FOA General Meeting (G. Crawford)
    - July 21: Astrophysics, cosmology (K. Turner)
    - July 22: Energy (A. Patwa)
    - July 22: Theory (W. Killgore)
- NSF
    - July 20: NSF General Meeting (K. Dienes, J. Shank)
    - July 21: NSF PI Meeting (K. Dienes, J. Shank)

Meetings start at 12:15 (may not be enough time! 12:30: 12:20?)and end at 13:45

Indico

- Will be able to enter your session and talks starting tomorrow for
  - Day 1 - workplans
  - Days 2- 8: Frontier plenaries and shared plenaries
    - According to talks entered into the Colloquium Googledock

Days 2-8

- All frontiers have specified their full plenaries and shared plenaries
  - Still some time allocations missing
  - Please identify your speakers
- “general talks” are circled in slide on slide 4

  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
- Agency lunch sessions are circled in purple on slide 6

Missing Frontier Plenaries

- S1a (UF): -1
  - International Underground Laboratories
- S1b (CompF): -1
  - Places where ML could have a big impact, but where it has not been widely used traditionally
- S2a,S2b complete
- S5a: Cosmic: -1
  - Third path
- S5b: EF Complete
- S6: CEF complete
- S7a, S7b: NF, RFP complete
- S8: IF. -4
- S10: RPF complete
- S11: AF complete
- S12: CF complete
- S13: UG -3
- S14: Theory complete
- S15: NF complete
- S16: EF complete
- S17: CompF -1
  - Computing challenges and R&D to bridge the resource/need gap in the next 10-15 years¶
- S19: SEC -3
- S20: CEF complete
- S21: IF complete

Mornings Days 9 and 10

- Talk by Meenakshi and backup
- https://docs.google.com/document/d/1p604GDokgFwZYde_tWBd1lwEzJi4xlSoHAyiboBRINY/edit

Backup Slides

Day 9,10: Panel 1

Panel discussion 1:

- **Time allocated: 1.5 hours**
- **Frontiers: CF, EF, NF, RPF, TF - each Frontier gets 7 minutes**
- **Title: Science Highlights from the Frontiers**
- **Abstract:** In this discussion, each of the Frontiers gives 5 slides in 5 minutes summary of the physics highlights / Big ideas, which defines their vision for 2025-2035 and 10 years after 2035. These physics highlights could be followed by a one slide summary on experiments proposed to investigate them and another slide which shows their proposed timelines (timelines=R&D, construction and data collection). Each Frontier should comment if any of the physics highlights do not map on the P5 drivers. Also state which P5 science drivers are related to the Frontier. The collective physics highlights may reaffirm the P5 science drivers or a need to extend them, which should be stated as part of the conclusion.
  - The presentations will be followed by a discussion, with questions collected ahead of time.
  - The presentations from each frontier should be posted within two days of their Frontier plenary session.

Day 9,10: Panel 2

Panel discussion 2:

- **Time allocated: 1.5 hours**
- **Frontiers: EF, CF, NF, RPF, AF - each Frontier gets 7 minutes**
- **Title: Large Experiments/Facilities and the proposed timelines**
- **Abstract:** Drawing on the proposed experiments and facilities, a 5 min 5 slide presentation from each participating Frontier on
    1. Which physics goal(s) does the facility/experiment support
    2. Elaborate on the timelines for R&D (machine and detector), construction and data collection
    3. Discuss machine and design challenges which have been solved and make the facility viable in the near future. [2025-2035]
    4. Discuss machine and design challenges which still need to be solved and proposed timeline for the R&D. Would these be in the 2025-2035 frame, or are they severely technologically limited and remain as long term challenges to be embarked upon ie, 2035+?
- The presentations will be followed by a discussion, with questions collected ahead of time.
- The presentations from each frontier should be posted within two days of their Frontier plenary session.

Day 9,10: Panel 3

Panel discussion 3:

- **Time allocated: 1 hour**
- **Frontiers: CF, NF, RPF, UF - each Frontier gets 5 minutes**
- **Title: Mid and Small scale Experiments/Facilities and the proposed timelines**
- **Abstract: Same as for panel 2 above, and add discussion on balancing these needs with large experiments.**
- The presentations will be followed by a discussion, with questions collected ahead of time.
- The presentations from each frontier should be posted within two days of their Frontier plenary session.
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Day 9,10: Panel 4

Panel discussion 4:

- **Time allocated: 1 hour**
- **Frontiers: AF, CF, CEF, COMPF, IF, TF - each Frontier gets 5 minutes**
- **Title: Enabling HEP Research**
- **Abstract:** Each Frontier describes briefly (5 min 5 slide presentation)
  - their goals and priorities
  - critical R&D or infrastructure needed during 2025-2035 to support and enable the physics vision discussed during panel 1 and will benefit from targeted funding.
  - R&D or infrastructure needs to support the proposed physics measurements in 2035+ and has time to be developed by next P5.

[one assumes that the blue sky R&D and its needs are already discussed in other plenaries]

- Each Frontier should comment if any of their goals do not map on the P5 drivers. Also state which P5 science drivers are related to the Frontier.
  - The presentations will be followed by a discussion, with questions collected ahead of time.
  - The presentations from each frontier should be posted within two days of their Frontier plenary session.