CPM status update

NF CPM prep meeting 09/16/2020 Patrick Huber

CPM goals

The primary goal of the Community Planning Meeting is to develop plans and steps to take ("Snowmass Planning") between October 2020 and the Snowmass Community meeting in July 2021, leading to a final report in October 2021.

Other goals include:

- Inspire the community about the field, and encourage them to engage broadly in the Snowmass process
- Inform the community about plans from other regions and from related fields and planned
 Snowmass activities
- Listen to the community
- Provide space for members across the field to talk to each other and to discuss, promote, and develop new ideas
- Establish cross working-group connections and identify gaps

From the CPM indico page https://indico.fnal.gov/event/44870/

| | | 11:00 | Report from Early Careers | D . 4 | |
|---|---------------------|-------|--|----------------------------|----------------------|
| About Snowmass and Snowmass Planning Meeting | Day 1 | | Virtual | Day 4 | 11:00 - 11 |
| Virtual | Day 1 11:00 - 11:20 | | Report from Energy Frontier | | |
| Exciting Physics Before Us | JoAnne Hewett | | Virtual | | 11:20 - 1: |
| Virtual | 11:20 - 11:45 | | | | 11.20 - 11 |
| Strategies and Plans in Other Regions: Europe and Russia | Jorgen D'Hondt | | Report from Neutrino Frontier | | |
| Virtual | 11:45 - 12:10 | 12:00 | Virtual | | 11:40 - 1 |
| Strategies and Plans in Other Regions: Asia and Pacific | Geoffrey Taylor | 12.00 | Report from Rare Processes and Precis | sion Measurements Frontier | |
| Virtual | 12:10 - 12:35 | | Virtual | | 12:00 - 12 |
| Break and Chat | | | Break and Chat | | |
| Virtual | 12:35 - 13:00 | | Virtual | | 12:20 - 12 |
| Strategies and Plans in Other Regions: Canada | Brigitte Vachon | | Report from Cosmic Frontier | | |
| Virtual | 13:00 - 13:10 | 13:00 | Virtual | | 12:45 - 1 |
| Strategies and Plans in Other Regions: Latin America | Rogério Rosenfeld | | Report from Theory Frontier | | |
| Virtual | 13:10 - 13:20 | | Virtual | | 13:05 - 13 |
| Strategies and Plans in Other Regions: Africa and Middle East | Shaaban Khalil | | Report from Accelerator Frontier | | |
| Virtual | 13:20 - 13:30 | | Virtual | | 13:25 - 13 |
| Strategies and Plans in Related Fields: Astrophysics | Fiona Harrison | | Report from Theory Frontier | | |
| Virtual | 13:30 - 13:45 | 14:00 | Virtual | | 13:45 - 1 |
| Strategies and Plans in Related Fields: Nuclear Physics | Kate Scholberg | | Break and Chat | | |
| Virtual | 13:45 - 14:00 | | Virtual | | 14:05 - 1 |
| Remarks from Funding Agencies to the Snowmass Process: DOE | Jim Siegrist | | Report from Computing Frontier | | |
| Virtual | 14:00 - 14:10 | | Virtual | | 14:30 - 14 |
| Remarks from Funding Agencies to the Snowmass Process: NSF | Saul Gonzalez | | Report from Underground Facilities and | d Infrastructure Frontier | |
| Virtual | 14:10 - 14:20 | 15:00 | Virtual | | 14:50 - 19 |
| Break and Chat | | | Report from Community Engagement F | Frontier | Ketevi Adikle Assama |
| Virtual | 14:20 - 14:45 | | Virtual | | 15:10 - 1 |
| Plenary Three: Voices from the Community | | | Engaging the Community to Define the | Future (1) | Steve |
| Young-Kee Kim Kim | | | Virtual | | 15:30 - 19 |
| | | | Engaging the Community to Define the | Future (2) | Jim Gi |
| | | | Virtual | ,, | 15:40 - 19 |
| | | | | | |
| | | | Closing Remarks | | |

Voices from the community

- 75 minutes on day 1
- 20-25 3 minute presentations
- Focus on smaller, newer and less known projects/ideas
- Room also for general comments
- Goal is have a representative cross section of the field
- Selected from submitted abstracts by the Snowmass Steering Committee
- For details, see recent email from Joel Butler

CPM parallels

- 9 hour parallel time on days 2 & 3
- 75 minutes for Outreach & Community engagement
- 45 agreed-on cross-cutting sessions, 11 with NF involvement
- 2 hour NF exclusive time to come up with and/or refine plan towards CSS 21
- 30 minutes at the start of day 2 for orientation
- 90 minutes at the end of day 3 to consolidate

Community Engagement Across the Frontiers

- Over the next decade it will be vital to ensure that neutrino physics is well represented to the public, government, and in other community engagement areas:
 - A majority of Americans are indifferent to US leadership in STEM research
 - The public feels that it's their right to pick and choose what science is valid, based upon the payoff (not the data)
 - Source: https://www.youtube.com/watch?v=J1NJG98PaXY Dr Christopher Volpe, SciComm2020 keynote
- There will be a 75 minute plenary session at the beginning of day 3 of the CPM.
 - Brief 15 minute talk to start
 - 60 minute panel discussion in which we discuss the concerns/ideas/positions on CEF issues in our respective Frontiers.
 - Panelists are all the CEF liaisons (Claire Lee for NF)

Topical groups

- CommF1: Applications & Industry
- CommF2: Career Pipeline & Development
- CommF3: Diversity & Inclusion
- · CommF4: Physics Education
- CommE5: Public Education & Outreach
- CommF6: Public Policy and Government Engagement
- We're now preparing for the panel session, focusing on CEF from a NF perspective.
 - Is there a particular CEF issue that is on your mind?
 - Is there something in particular you would like to highlight, or get people involved in?
 - Please get in touch with Claire Lee claire.lee@cern.ch to make sure it's represented at the discussion!

Slide courtesy Claire Lee

Sessions with NF involvment

| 3 | ID | Frontiers | Inter Frontier Theme | Topical Groups | Meeting time |
|----|-----|----------------------------------|--|--|-----------------|
| 4 | 29 | EF, TF, RF, NF | Low-energy precision experiments | EF04, RF03, TF02, TF05, TF06, NF05, NF03 | 60' |
| 5 | 51 | IF, NF, RF | Detector requirements with NF | IF01, IF02, IF04, IF05, IF07, IF08, IF09, NF, RF4 | 60' |
| 6 | 61 | AF, NF (same as #112) | Energy and Power and Time structure goals for Neutrino Frontier programs | AF2, AF7, NF | 90 |
| 7 | 77 | CF, TF, IF, UF, NF | Dark matter and quantum sensors | CF1, CF2, CF3, IF1, IF2, TF, UF, NF10, NF05 | 60 |
| 8 | 97 | TF, CompF, NF, CF | Neutrino and astroparticles | TF11, NF01-06, NF09, TF05, TF07, CompF2, CompF7, CF7 | 60 |
| 9 | 108 | RF, TF, CF, EF, NF | Light dark matter (keV-GeV) (or maybe light BSM at neutrino experiments) | EF09,EF10, EF4, CF1, RF6, TF11, TF09, NF02, NF03, NF05, NF09, AF05 | 120 |
| 10 | 109 | RF, TF, NF | Neutrino mass and Dirac/Majorana nature | RF, CF7, TF11 | 120 |
| 11 | 110 | NF, UF, RF | Lepton and baryon number violation | NF, RF4, UF1 | 60 |
| 12 | 81 | NF (same as #114), | Computing Requirements/Opportunities NF | NF, CompF1, CompF4, CompF2, CompF3, | 60 |
| 13 | 115 | NF, UF | Neutrinos and underground facilities | NF, all UF | 60 |
| 14 | 119 | All Frontiers + Early Careers | HEP Workforce Staffing and Training | CommF4,CommF3, CommF2, all other Frontiers + early careers, , CompF1, CompF2, CompF3, CompF4, CompF5, CompF6, CompF7 | 90' |

Note, titles are not necessarily accurate reflection of content at this stage and may change, look at the detailed program on Indico once available

CPM parallels cont'd

- How to organize these sessions?
- Several frontiers are together, need to be mindful of different goals and physics perspectives
- 60-120 minutes and many topics to cover
- Can not be 1 talk per 1 LOI!
- At least 1/3 of the time should be for discussion/questions
- Please, make yourself available if asked to present
- Participate in the discussions