Neutrino Frontier Community Feedback Meeting

01/26/2022

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Snowmass Report

- Giant package of documentation from the community to go to P5, summarizing aspirations
- Snowmass Book (~500 pages)
  - Snowmass Summary Report (~50 pages): NF gets a few-page executive summary (Frontier Conveners)
  - Frontier Summaries (<50 pages per Frontier): Frontier Conveners will synthesize Topical Group Report content
  - Multi-Frontier Topic Summaries
- Reports of Ten Frontiers + Multi-Frontier Topics
  - Each Frontier Summary (<50 pages)
  - Topical Group Reports (few tens of pages per report): Topical Group Conveners will synthesize community input: **these Community Feedback Meetings are for discussion of the content of the TG reports**
- Contributed Papers ("White papers")
  - March 15 deadline, to be posted to the arXiv (can be updated)
  - In the NF, we are not micro-managing these
  - No length limit, but *executive summaries will be very helpful for Topical Group conveners*

develop first draft messages, feedback

finalize the messages from NF to community

communicate to all-Snowmass community

finalize the message to P5 from NF in all-Snowmass context

NF Snowmass Timeline

Extended outline due (NF): Dec 18

Series of meetings for community feedback on TG reports : Jan-Feb

Topical Group Report drafts due (NF): March 11

Community feedback period: March 11-April 10

NF Workshop @ ORNL: March 16-18 [hybrid]

All-Snowmass Community NF Colloquium Series: March-April

Preliminary (TG & Frontier) Reports due (NF): May 10

Preliminary (TG & Frontier) Reports due (Snowmass): May 31

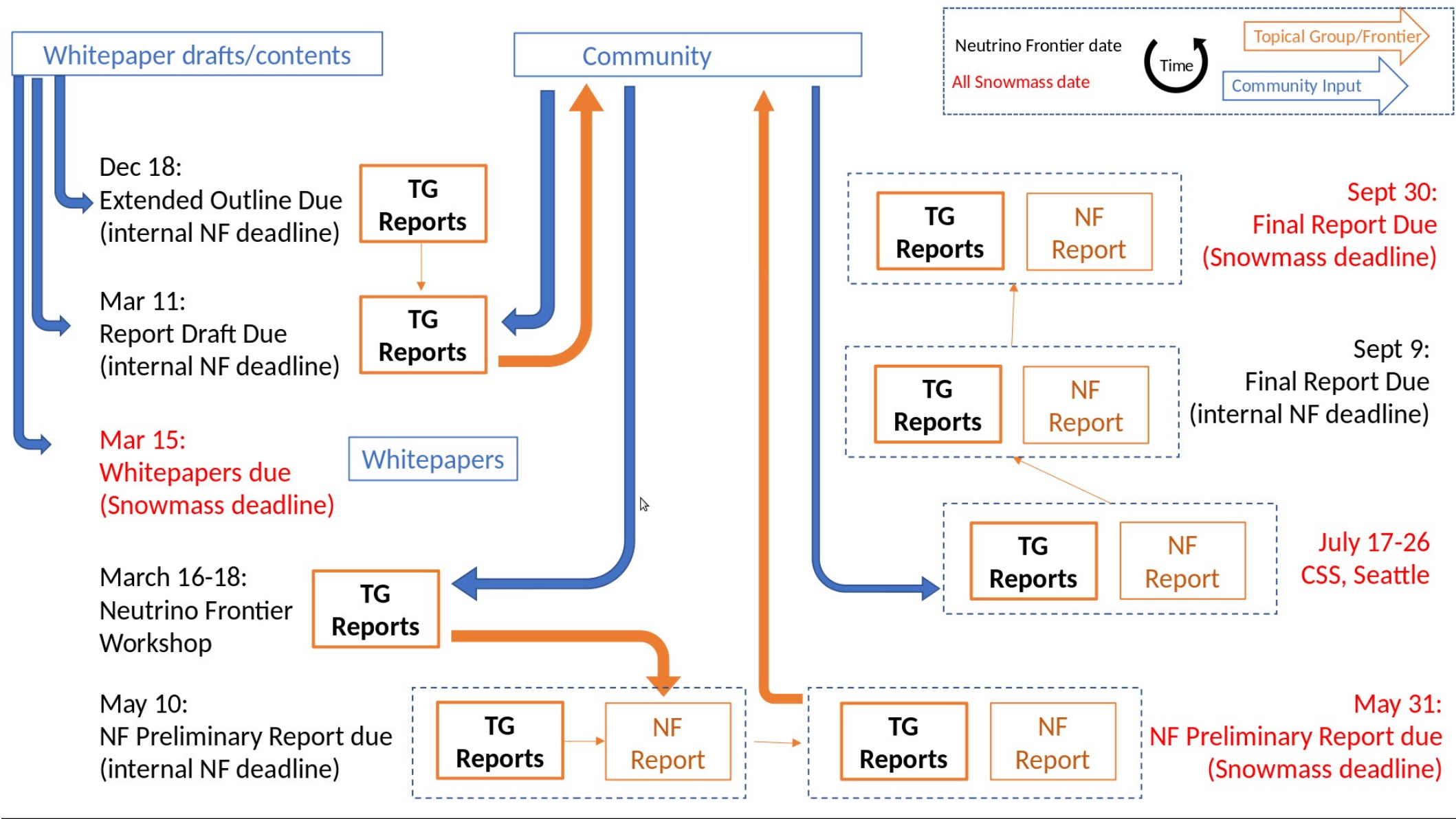
Community feedback period: June 1 – July 26

Community Summer Study (Seattle): July 17-26

Final (TG & Frontier) Reports due (NF): Sept 9

Final (TG & Frontier) Reports due (Snowmass): Sept 30

Neutrino Frontier dates
All Snowmass dates
(NF) community feedback dates


Whitepaper drafts/contents
Community
Neutrino Frontier date
All Snowmass date
Time
Topical Group/Frontier
Community Input
Dec 18:
Extended Outline Due
(internal NF deadline)
TG Reports
Mar 11:
Report Draft Due
(internal NF deadline)
TG Reports
Mar 15:
Whitepapers due
(Snowmass deadline)
Whitepapers
March 16-18:
Neutrino Frontier
Workshop
TG Reports
May 10:
NF Preliminary Report due
(internal NF deadline)
TG Reports
NF Report
TG Reports
NF Report
May 31:
NF Preliminary Report due
(Snowmass deadline)
TG Reports
NF Report
July 17-26
CSS, Seattle
Sept 9:
Final Report Due
(internal NF deadline)
Sept 30:
Final Report Due
(Snowmass deadline)

Community Feedback Workshops

- **Wednesday January 26, 2 pm**
- Intro/Status
- NF01: Neutrino Oscillations

- **Wednesday February 9, 10 am**
- NF02: Understanding Experimental Neutrino Anomalies
- NF10: Neutrino Detectors
- NF08/TF11: Theory of Neutrino Physics

- **Friday February 25, 2 pm**
- NF07: Applications
- NF09: Artificial Neutrino Sources
- NF04: Neutrinos from Natural Sources

- **Tuesday March 8, 2 pm**
- NF05: Neutrino Properties
- NF03: BSM
- NF06: Neutrino Interaction Cross Sections

<u>If more time is needed for any discussion, we can schedule additional sessions.</u>

Neutrino Frontier Meeting

- March 16-18, 2021 @ ORNL
- Will be hybrid format, limited attendance
- Please pre-register if you are interested in in-person (link in email)
- We will prioritize conveners and early career people
- Goal: **develop the NF message to the community**
- Plenary/parallels/plenary: content under development
  - Plenaries: DUNE, reports from Topical Groups
  - Parallels: cross cuts (not fine-grained), DM connections, DUNE strategy, slots for WP presentations …
  - Lots of discussion time

Snowmass Community-Wide Neutrino Colloquia

Purpose is to advertise our science and socialize our plan in the wider (non-neutrino) community

- March 30 2-4 pm, April 6 1-3 pm, April 20 10 am- noon, April 27 noon -2 pm (times Eastern)
- ~3 talks, 25'+15' per session. Time for questions and discussion.
- We will take care to selecting excellent speakers for non-technical presentations accessible to the whole community

Backup

Neutrino Physics Frontier

- Co-Conveners

Patrick Huber
Virginia Tech

Kate Scholberg
Duke University

Elizabeth Worcester
BNL

Topical Group	Co-Conveners			
Neutrino Oscillations	Peter Denton	Megan Friend	Mark Messier	Hiro Tanaka
Sterile Neutrinos	Georgia Karagiorgi	Bryce Littlejohn	Pedro Machado	Alex Sousa
Beyond the SM	Pilar Coloma	Lisa Koerner	Ian Shoemaker	Jae Yu
Neutrinos from Natural Sources	Yusuke Koshio	Gabriel Orebi Gann	Erin O'Sullivan	Irene Tamborra
Neutrino Properties	Carlo Giunti	Ben Jones	Lisa Kaufman	Diana Parno
Neutrino Cross Sections	Jonathan Asaadi	Baha Balantekin	Kendall Mahn	Jason Newby
Nuclear Safeguards and Other Applications	Nathaniel Bowden	Jon Link	Wei Wang	
Theory of Neutrino Physics	André de Gouvêa	Irina Mocioiu	Saori Pastore	Louis Strigari
Artificial Neutrino Sources	Laura Fields	Alysia Marino	Pedro Ochoa	Josh Spitz
Neutrino Detectors	Josh Klein	Ana Machado	Dave Schmitz	Raimund Strauss

- Also: "Liaisons" with other Frontiers