

Session #115

Neutrinos, dark matter and underground facilities

Cross frontier: NF / CF / UF

Hugh Lippincott (moderator), Tim Bolton, Patrick Decowski, Alvine Kamaha, Brianna Mount, Gabriel Orebi Gann, Danielle Speller

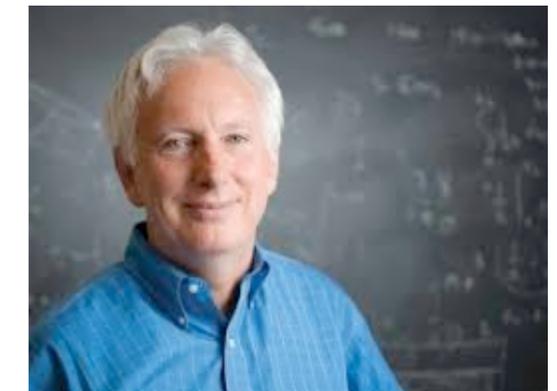
7th Oct, 2020

Panel discussion

Panel discussion of needs for underground facilities for future neutrino and cosmic frontier experiments

Panelists included both science and facility experts:

- Mary Bishai, BNL (DUNE)
- Laura Marini, UC Berkeley (CUORE)
- Elaine McCluskey, FNAL/SURF (LBNF/DUNE)
- Sean Paling, Boulby Director
- Kim Palladino, Oxford (LZ)
- Nigel Smith, SNOLAB Director
- Bob Svoboda, UC Davis (ANNIE, AIT/NEO, SNO+, DUNE)
- Great community turnout: 110 participants, active discussion, many questions



Session summary

- Desired outcomes from Snowmass
 - Communication and coordination across the community and between labs
 - Support for full realization of US-based facility at SURF, including 4 DUNE modules and a broad range of smaller projects
 - Opportunity to bring in a different technology for the 4th module if it meets DUNE physics goals
 - Balance of small- and large-scale projects
 - Strong support for smaller-scale projects
 - Labs set up to accommodate them, enthusiastic to provide support
 - Important to balance rapid turnaround of science and development with longer-term planning needed for larger projects
 - Options and science need for greater depth or other expansion
 - SNOLAB have explored option for a 4th cavern, positive news for hosting another large experiment
 - SURF exploring the possibility of 7400 level, part of a long-term vision
 - Importance of a safe and underground working environment
 - Benefit of a community-driven coordinated approach to low background assays and other general resources & facilities
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