Put Captions Here

Moving Forward to P5

J. Hewett

Snowmass Community Summer Study

Seattle, WA July 2022

P5 Pre-Charge

Put Captions Here

Considerations for Next P5

- Grand, long-term, and global vision for U.S. particle physics
- Realistic budget scenarios
- Balanced portfolio of small/mid-scale/large projects
- Must consider a holistic view of program
  - Project costs
  - Operations costs
  - Research program to deliver the science
  - Technology R&D for the future
- Community engagement, including this week's Snowmass study process, remains critical to success

H. Kung

Passing the Baton

Put Captions Here

Snowmass was WONDERFUL!!!

Snowmass results will be critical input to P5

- The hard work was impressive and is an important documentation of visions for our field

Turning towards P5

- Every idea presented at Snowmass will receive due consideration
- Report is not written
- Decisions are not made
- P5 will take a fresh look at our project program
- P5 is a process and the process will be followed

Blueprint for P5 process

Put Captions Here

Preliminary timeline

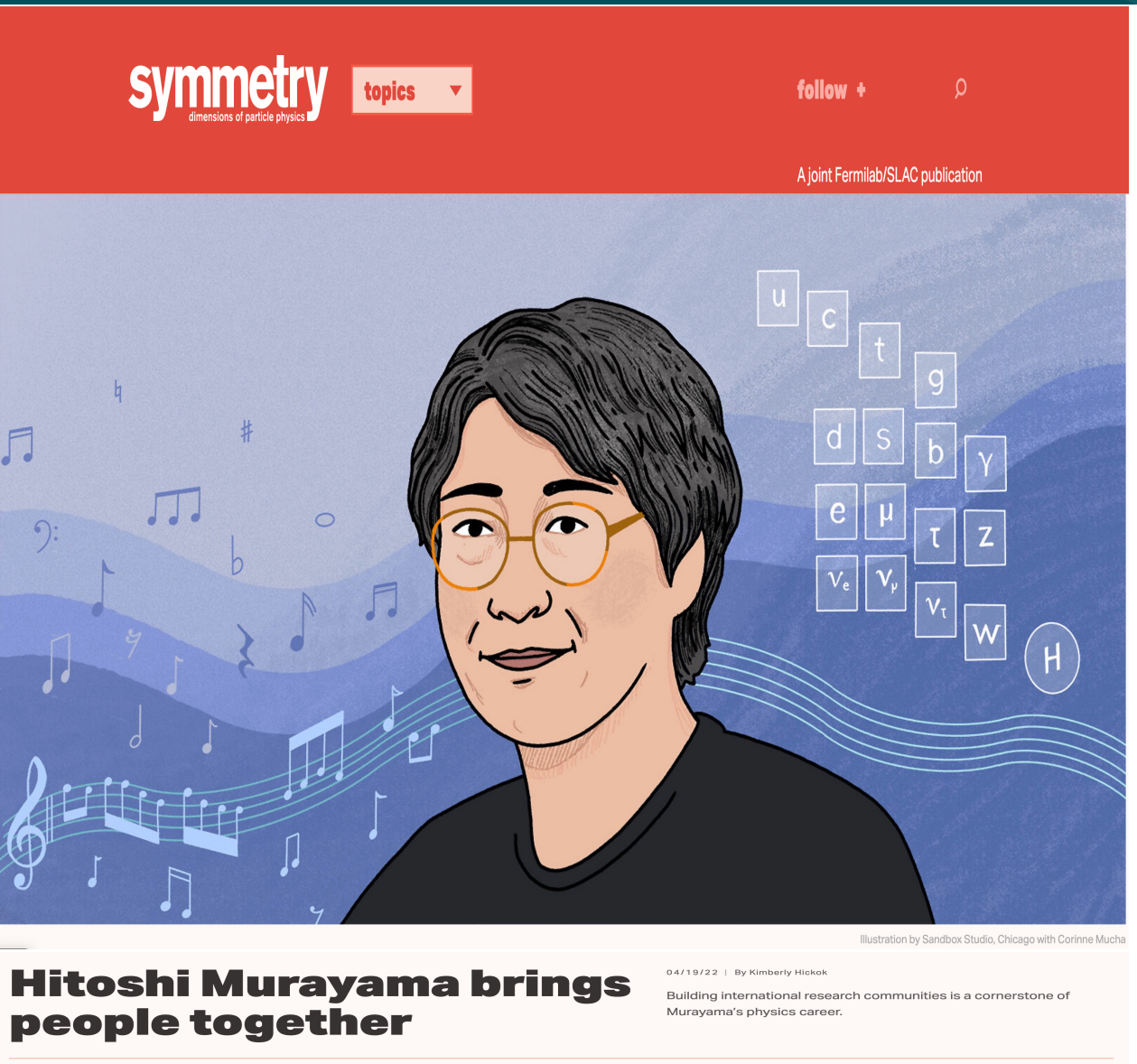
- Form panel by early Fall
  - Call for nominations for P5 members in early Aug 2022
  - Panel members wear a community hat
- Hold hybrid in-person/virtual townhalls in Fall 2022
  - Aim for further community input and further information on potential future projects
  - Opportunity for each panel member to start with equal footing covering all frontiers
- Deliberations Winter/Spring 2023
  - Will provide ample opportunity for further community input
- Aim for report late Spring/Early Summer 2023 for HEPAP to approve and submit to DOE/NSF

Process to select a chair

- Developed a set of criteria/attributes
  - Broad understanding of the field scientifically
  - Well respected
  - Understanding of the agencies and how they work
  - Experience with both universities and labs, and projects
  - Responsible
  - No bias or major project/institution in the race – wears a “big hat” for the good of the whole field
  - Helps people to work together
  - Will see the program through and able to follow up after the report.
- Agreement between DOE, NSF, HEPAP Chair

Hitoshi Murayama

Put Captions Here



- MacAdams Professor of Physics at the University of California, Berkeley
- Faculty Senior Staff at Lawrence Berkeley National Lab
- University Professor, Kavli Institute for the Physics and Mathematics of the Universe, University of Tokyo
  - Member, American Academy of Arts and Sciences
  - Fellow, American Association for the Advancement of Science
  - Fellow, American Physical Society
  - Humboldt Research Prize
  - Breakthrough Prize (KamLAND)
  - Yukawa Commemoration Prize
  - Sloan Research Fellowship
  - Served on SLAC Policy Committee, HEPAP & subpanels, Fermilab Physics Advisory Committee, CERN Scientific Policy Committee, CEPC/SppC International Advisory Committee

Hitoshi Murayama

Put Captions Here

- Theorist, BSM, QFT, EW, cosmology, neutrino
  Theory Frontier
- KamLAND neutrino experiment
  Neutrino Frontier, Rare and Precision Frontiers
  Underground Facilities
- Developed software HELAS (engine of MadGraph)
  Energy Frontier, Computing Frontier,
  Accelerator Frontier
- PI of Prime Focus Spectrograph for Subaru Telescope
  Cosmic Frontier, Instrumentation Frontier
- Government outreach, active in DEI, many public lectures, TV shows
  Community Engagement Frontier
- Invited to speak at the United Nations Headquarters in New York about how science unites the world

KamLAND Control Room
inside Kamioka mine