

Panel questions and members

Panel 1. Standard active oscillations

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The panel should take stock of the properties of the "present" LBL program (T2K+SK+NOvA, JUNO, T2K upgrade, HyperK and DUNE, atmospheric experiments). Questions to address are for instance:

- What are the relevant physics questions to be addressed by the LBL program?
- In physics terms, identifying and quantify who measures what and how well?
- What is the complementarity in quantitative and qualitative terms and under which time scale?
- What risks are involved (technological and physics-related)?
- What is needed from the theory community? What can we learn with increasing precision on the measurements?
- What would be a continuation of that program in the long term what are big issues that could require a parallel experimental program. (Complementarity and possible synergies)

Panel 2. Beyond PMNS (Majorana and/or Dirac mass term, Heavy Neutral lepton searches from meV to ZeV, NSI, etc...)

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Questions to address are for instance:

- Which extensions of the SM can we probe (Majorana masses, light and heavy sterile neutrinos, neutrinos as dark matter)
- What are the relevant experiments (0nu2beta, SBL oscillations, SHiP and other fixed-target experiments, LHC and future colliders)
- What is needed from the theory community?
- What risks are involved (technological and physics-related)?
How do you see this field develop?

Panel 3. Neutrinos and the Universe (N_ν , m_ν , BAU, etc..)

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Questions to address are for instance:

- What are the relevant questions (neutrino masses, number of neutrino species, leptogenesis/baryogenesis, origin of UHE neutrinos, ...)
- What are the relevant experiments, measurements, and observations now and in the future (CMB, BBN, Neutrino Telescopes, KATRIN, Project 8, ...)
- What is needed from the theory community?
- What is the complementarity between different approaches?
- What risks are involved (technological and physics-related)?

Panel 4. Ancillary measurements (cross-sections, Nustorm, NA61, etc.)

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Questions to address are for instance:

- What are the requirements and opportunities raised by the LBL, SBL, and other neutrino programs neutrino fluxes and neutrino cross sections, energy response function and calibration, for $(\nu_e/\nu_\mu/\nu_\tau)$? ...
- What is their relevance to other neutrino experiments (e.g. LBL)?
- What are the relevant experiments (NA61 and other hadroproduction, near detectors, NUPRISM, HPTPC, NuSTORM, ...)?
- What is needed from the theory community?
- What is the complementarity between different approaches?
- What risks are involved (technological and physics-related)?