

Question 3: It was decided to continue to have a Round Table Discussion at NUFACT2017 on the long term vision on neutrino physics with accelerators.

Please send us by 12 December your suggestions for explicit questions to be asked to the panel as well a suggestion for who would be a suitable person to lead these Round Table discussions.

Proposed Panel Members

Lab directors (with accelerators) and spokespersons on the experiments running or will be running at those labs

Jenny Thomas from UCL. She is a proponent of larger next-generation water Cerenkov detectors and would as some interesting diversity of opinion.

Janet is also a good idea based on her interest in low energy neutrino production ideas.

Andre has a wide vision for the future (as does Patrick Huber).

Silvia Pascoli, Durham UK

Jean-Pierre Delahaye, CERN

André de Gouvêa, Northwestern Univ

Tommy Ohlsson, Stockholm University

Invite the leading accelerator physicists from Fermilab, CERN, IHEP and KEK

Invite some theorists to lead the discussions. The names are already suggested in SPC and SAC.

Andre de Gouvea (Northwestern IL - USA), Marcelo Guzzo (Unicamp - BR), Carlo Giunti (Torino University - IT)

Sam Zeller

Proposed Panel Questions

- 1. How can we realize Multi-MW beam?*
- 2. How to realize Megaton/ new tech detectors?*
- 3. Necessary supporting experiments (flux prediction/ cross section)?*
- 4. Do we need a dedicated neutrino scattering program? How should such a program look like?*
- 5. Are we responding appropriately to the evidence for a light sterile neutrino?*
- 6. Can we live without sterile neutrinos?*
- 7. Future prospect of accelerator technology for the neutrino beams*
- 8. Potential of new physics searches in the upcoming neutrino experiments.*
- 9. The path for a full explanation on matter- antimatter asymmetry with observations of CP violation in neutrino experiments*
- 10. What are the critical issues to realize multi-MW beam?*
- 11. How do the requirements on systematic errors for long-baseline experiments, including precise knowledge of neutrino cross sections, depend on the value of delta-CP?*
- 12. If accelerator neutrino projects discover CPV what can we do thereafter? Is this enough to explain the matter-antimatter asymmetry in the Universe? If not, what else do we need?*
- 13. The next accelerator neutrino facilities are quite expensive, what synergies do we have with other important projects?*
- 14. Using the same facilities, what else can we do after neutrino Super Beams?*
- 15. What new technologies could help to produce more powerful neutrino beams*

16. *How are the DUNE and Hyper-Kamiokande programs complementary and how are they redundant?*
17. *What progress in accelerator physics is of most relevance to the future of the international neutrino program?*