

Round table discussion on Neutrino facilities in the global context 1 August 2011 at CERN

Questions from the panel to the NUFACT11 participants

Sergio Bertolucci:

I hear that international collaboration on coordinated R&D is lacking.

Could the community propose a realistic plan for common and staged neutrino R&D?

Sachio Komamiya:

Physics question: θ_{13} & δ are similar to V_{ub} and CP phase in the quark sector. In heavy flavors, angles are not really the interesting thing – CP violation there is found to be insufficient to generate Baryogenesis. How about neutrinos? We know about lepto-genesis, is there further fundamental physics in neutrinos beyond the numerical values of the angle and phase?

Steve Myers:

As an accelerator physicist, there are too many options – we need to kill some to make progress. Need to make a choice, define the next steps, define critical R&D and move on. What is it that the community really wants to build?

Tatsuya Nakada:

In the incremental approach, where does a Betabeam fit? This question is in regard both to the physics case and the R&D needs.

Koichiro Nishikawa:

In the near term, the international framework should be bottom up and not top down? At what point should an international framework be forced from the top?

Jim Strait:

If you didn't have a neutrino factory, how precise a measurement of parameters can be done with superbeams before reaching their limitations? What "external" measurements, e.g. particle production, neutrino cross sections, etc., can be done to improve the current systematic error limits on superbeam experiments, and what are the ultimately limiting systematic errors?

John Womersley:

- Do I need to worry whether neutrino and antineutrino oscillation parameters are the same, or worry about the LSND anomaly?
- Do neutrinos play a role in dark matter, especially if there is no light neutralino?
- Since STFC and funding agencies from other countries in Europe, the US, and Japan are investing substantially in MICE, please consider, given the new indications that θ_{13} may be large, the importance of continuing to support R&D for the Neutrino Factory (and ionization cooling in particular).