NuFact 2019

Daegu, Republic of Korea
AUG 26 - 31, 2019

The 21st International Workshop on Neutrinos from Accelerators

Round Table Discussions

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- Goal: to review progress on current neutrino program and promote future neutrino program

- Panelist (five members)
  - Prof. Edward Blucher (U. of Chicago, DUNE Co-spokesperson)
  - Prof. Marcos Dracos (CNRS, ESSνSB Project Coordinator)
  - Prof. Soo-bong Kim (SNU, RENO spokesperson)
  - Prof. Takashi Kobayashi (KEK, T2K ex-spokesperson)
  - Prof. Raymond Volkas (Melbourne Univ., theorist)

- Moderator: Prof. Un-ki Yang (SNU, SPC Chair of NuFact19)

Questionnaire

1. What are the chance to determine the neutrino mass hierarchy and the CP Phase before DUNE and Hyper-K?

   If it is high,

   → Are we prepared modifying the long baseline experiment design for precise measurement on the CP angle?

   → What physics program should we have to understand the leptogenesis, if the maximal CP violation is found. (connection with high energy collider?)

Questionnaire

2. The current understanding on the neutrino interaction is still poor even though we have accumulated the data for more than 10 years and studied them. Now Minerva data taking is over. Can the Hyper-K and DUNE experiments have enough understanding on neutrino interaction to achieve the precision measurement of the CP violation?

→ Are we clear what are the missing measurements?

→ Is there a clear path from the existing data or from T2K or DUNE near detector data toward a satisfactory measurement of what is missing now?

→ Do we need a supplementary program like NUSTORM and ENUBET? When would its result become really useful?

Questionnaire

3. Do we really have appropriate and well motivated programs and keep our your neutrino physicists before DUNE and Hyper-K?

   T2K, Nova, SBN, JSN2, and others are good enough?

Questionnaire

4. The origin of the neutrino mass?

→ What can neutrino beam measurements teach us about the origin of neutrino masses? Have we planned enough physics program to understand the origin of the neutrino mass?

→ Should we more closely work with LHC, B factory, and neutrino-less double beta decay community?

Questionnaire

5. Do we have a realistic future neutrino program beyond DUNE and Hyper-K?

→ If not, what would be possible and significant projects to be considered. (if δ_{CP} is -45±5 degree or 0 degree)

→ If LHC show no new discovery by 2030, what projects?