

Neutrino Workshop and Meeting

On

Hosting a Unit/Center for High Energy Physics Instrumentation

at Panjab University

Jan 23-24, 2013

Department of Physics
Panjab University, Chandigarh, India

Charge: The Indian Institutions and Fermilab Collaboration (IIFC) and VCs of Panjab and Delhi Universities, after consultation with the Department of Science and Technology and the Department of Atomic Energy, had submitted a proposal to build an Inter Institutional Center in Physical Sciences (IICPS) on the campus of the Panjab University (PU). This Neutrino workshop is being organized by the Department of Physics, Panjab University on behalf of the DST, Govt. of India to present the status of Neutrino Physics - the Indian participation and discuss the establishment of a Unit/Center for High Energy Physics Instrumentation, as an extramural pilot project. The potential of this Unit/Center as a scientific manpower multiplier and training program in the field of detector R&D and instrumentation will be discussed. The initial focus would be on the detector development for the Long Baseline Neutrino Experiment's Near Detector. The goal of the meeting is also to discuss, recognize and endorse the unique role such a unit/center, if nucleated, can play to harness the expertise available in and around Chandigarh.

Agenda:

Jan 23, 2014,

9:00 AM – 10:30 AM

1. Welcome and Introduction, Prof. Arun Grover, VC, Panjab University, 10 min
2. Overview of Physics Department, Prof. Manjit Kaur, Chairperson, 15 min
3. Human Resource Development and IICPS, Dr. Anil Kakodkar, 30 mins, **By ReadyTalk**
4. DAE-DOE Discovery Science Collaboration, Dr. R. B. Grover, 15 mins, **By ReadyTalk**
5. Indian Institutional View, Prof. Dinesh Singh, VC, Delhi University, 15 mins , **By ReadyTalk**

10:30 – 11:00 AM Tea Break

6. Presentations by the VCs/Nominees of the prospective collaborating Institutes in the unit/center
- Univ of Hyderabad, DU, BHU, JU, MU, HPU, KU, NITH 60 mins (10 mins each)
7. Status of Indian Institutions and Fermilab Accelerator Collaboration, Pitamber Singh, BARC, 30 mins (**ReadyTalk**)
8. Indian Institutions and Fermilab Collaboration and the Inter-Institutional Center in Physical Sciences, Shekhar Mishra, 45mins

1:15- 2:30 PM lunch

2:30 – 4:30 PM

1. Physics at the Intensity Frontier
 - a. Neutrino Program at Fermilab (MINOS, NOvA and LBNE) – Brajesh Choudhary (30 min)
 - b. The Long Baseline Neutrino Experiment and India's role in it– Raj Gandhi (30 min)
2. India Based Neutrino Observatory - Naba Mondal, TIFR (30 min)
3. Fermilab Collaboration: Human Resource Development
 - a. MINOS Physics Analysis, Richa Sharma, 10 min
 - b. MIPP Physics Analysis, Sonam Mahajan, 10 min
 - c. MIPP Physics Analysis, Amandeep Singh, 10 min

4:30 – 5:00 PM, Tea Break

5:00 – 7:00 PM

4. Potential of Inter Institutional Center
 - a. Physical and Medical Science, Vinod Sahni, 30 min
 - b. Theoretical High Energy Physics, C. S. Aulakh, PU, 20 min
 - c. Material Science and Nuclear Physics, S. K. Tripathi, PU, 20 min
 - d. Condensed Matter Physics, S. Srivastava, PU, 20 min
5. Thoughts on the Center & Summary - Dr. Vinod Sahni, BARC, 30 min

8:00 PM Dinner and Dinner discussions

Jan 24th, 2014,

9:00 AM – 11:30 PM (With a Tea Break for 30 min)

**1st major project at the Center for High Energy Physics: Detector and Instrumentation
Intensity Frontier Physics Program Collaboration**

1. Long Baseline Neutrino Physics Experiment- Near Detector
 - a. Development of Straw Tube Tracker, Vipin Bhatnagar, PU, 30 min
 - b. Resistive Plate Chamber R&D, Zubayer Ahammed, VECC, 30 min
 - c. Electromagnetic Calorimeter, Bipul Bhuyan, IITG, 30 min
 - d. Magnet, BARC, Sanjay Malhotra, BARC, 30 min
 - e. Electronics and DAQ, V. B. Chandratre, BARC, 30 min

12:00 – 1:00 PM

2. Project Planning, Budget allocation and discussion, Shekhar Mishra

1:00 – 2:00 PM Lunch

2:00 – 6:00 PM Discussions on the report