

NBI 2012

6th-10th of November 2012
CERN, Geneva, Switzerland



8th International Workshop on Neutrino Beams and Instrumentation

Regional Liaison

S. Childress (FNAL)
J. Hylan (FNAL)
T. Ishida (KEK)
E.D. Zimmerman (Univ. of Colorado)

Local Organizing Committee

M. Calviani
I. Efthymiopoulos (co-chair)
F. Girard-Madoux
E. Gschwendtner (co-chair)
O. Hansen
C. Lazaridis
M. Meddahi
M. Morer-Olafsen
A. Pardons
H. Vincke



NBI2012, 6-10 November 2012

The NBI series workshops started in 1999: the **forum where**

- Neutrino Beam specialists gather together to review and share design and operational experience of the increasingly challenging accelerator neutrino beams for short or long baseline detectors.

Topics which are and have been discussed

- **Reports from current projects and future project planning**
- Primary and secondary beam lines
- Target design and experiences
- Horn design and operation
- **Radiation Protection**, radioactive component handling and waste treatment
- **Remote handling** and installation maintenance

Introductory comments:

- Welcome to our neutrino **beam specialists from USA, Japan and CERN/Europe**
- The last **NBI workshop organized at CERN was in September 2006, right at the startup of CNGS**. This one comes 6 years later, with CNGS having gone through **some initial “teething problems” but then smooth cruising until today**.
- **Thanks to CNGS “teething problems” on R2E, LHC profited by launching an enormous R2E programme which has allowed us to mitigate against SEUs and produce the integrated luminosities needed for the Higgs discovery.**
- CNGS and LNGS have had excellent performance over the past 5-6 years **with the detection of few tau neutrinos**.
- Running high-intensity facilities is very challenging. **The CNGS operation pushed SPS but also its injectors to their limits**
- This workshop is the forum to **talk about this experience and lessons learned, strengthen the collaboration with colleagues from other facilities**.

Introductory comments

- CERN is about to enter an **almost two year shutdown** to repair definitively the magnet interconnects of the LHC and allow us to safely increase the beam energy to around the design.
- In the ~ **five years of physics operation, CNGS** has produced close to its initial target of **delivered protons (81%)**.
- No formal decision taken yet for running after LS1.
- At the same time proposals for new facilities using the CNGS technology have been submitted to the CERN committees
- Neutrino facilities are also in operation in the other labs: Fermilab (NUMI beam) and J-PARK (T2K beam) and upgrade proposals also are under consideration.
- Neutrino physics is part of the discussion for the European Strategy (first meeting in Krakow with several new possibilities and proposals). The final report of the Strategy group is under preparation, will be available sometime in 2013.
- **As future neutrino beam facilities become more and more challenging (accelerators, target, horn, etc.) new projects will almost certainly need global coordination and collaboration.**

Welcome and Good Hunting