

## **Bulletin #2**

January 31<sup>st</sup>, 2010

# **GLA2010**

## **1<sup>st</sup> International Workshop towards the Giant Liquid Argon Charge Imaging Experiment**

The **1<sup>st</sup> International Workshop towards the Giant Liquid Argon Charge Imaging Experiment** jointly organized by KEK and ETHZ will be held in Tsukuba, Japan from March 28<sup>th</sup> to 31<sup>st</sup>, 2010. This workshop is supported by JSPS Invitation Training Program for Advanced Japanese Research Institutes.

### Update from Bulletin #1

- Tentative agenda is updated.
- Abstract submission deadline is changed.
- Information about the workshop proceedings is updated.
- Registration web page is now available.
- Hotel reservation web page is now available.
- Registration web page for J-PARK trip is now available.

### Purpose of the workshop

The aim of the workshop is to bring together researchers having common interest in realizing a giant neutrino observatory based on the liquid Argon time projection chamber technology combining next-generation searches for proton decay and neutrino physics with natural and artificial sources. The workshop will review the current worldwide efforts towards large liquid Argon detectors and aims at fostering collaborations on the medium and long time scales.

## Workshop venue

The 1st workshop will take place at KEK, Tsukuba.

## Schedule

- Sunday March 28<sup>th</sup> Evening  
Reception at OKURA FRONTIER HOTEL TSUKUBA
- Monday March 29<sup>th</sup>  
Sessions at KEK
- Tuesday March 30<sup>th</sup>  
Sessions at KEK  
Trip to J-PARC (Main Ring and Neutrino Beam Facility)  
Workshop dinner
- Wednesday March 31<sup>st</sup> Morning  
Sessions at KEK

## Tentative agenda

The workshop will comprise the following sessions:

- Main goals of Giant Liquid Argon Charge Imaging Experiments
  - Results from massive underground detectors(non accelerator)
  - Present long baseline neutrino experiments
  - Physics goals of the next generation massive underground experiments
  - Near detectors for long baseline neutrino experiments
- Special session
  - The ICARUS Liquid Argon TPC

- Lessons on Liquid Argon Charge Imaging technology from ongoing developments
  - WARP
  - ArDM
  - From ArgoNeuT to MicroBooNE
  - 250L
  - The DEAP/CLEAN project
  - The DarkSide project
  
- Lessons from Xe based Liquids Imaging detectors
  - MEG
  - The XENON project
  - XMASS
  
- Ways to improve the Liquid Argon Charge Imaging technology
  - Liquid Argon LEM TPC and DAQ development with CAEN
  - Micromegas
  - GEM
  - Optical readout of the ionization
  - Scintillation light readout
  - Development of cold electronics
  - Electronics, signal feed-through and DAQ
  - Development of a frontend ASIC and DAQ system
  - Purity achievements
  - Results from the materials test stand and status of LAPD
  - Purging and purification: 6 m<sup>3</sup> @CERN
  - LANND R&D
  - ArgonTube and UV laser ionization
  - Detector magnetization
  - HV systems
  - HV multiplier
  
- Studies on physics performance
  - Analysis of the ICARUS 50L neutrino data
  - Analysis of the ArgoNeuT neutrino data
  - Electron appearance searches
  - Proton decay
  - Supernovae neutrino detection

- Atmospheric neutrino detection
- Neutrino event reconstruction
  
- Localization studies
  - LAGUNA sites study
  - Site study in Japan
  - FNAL/DUSEL project
  
- Future steps towards the realization of Giant Liquid Argon Charge Imaging detectors
  - LBNE Liquid Argon option
  - Towards a 100 kton Liquid Argon detector
  - Discussion

### Abstract submission

Abstract submission is open at the workshop web site <http://neutrino.kek.jp/GLA2010>.

**Abstract submission deadline is February 28<sup>th</sup>, 2010.**

### Proceedings

The workshop proceedings will be published in Journal of Physics, Conference Series.

### Registration

Registration is now open at the workshop web site <http://neutrino.kek.jp/GLA2010>.

**On-line Registration deadline is March 12<sup>th</sup>, 2010.**

### **Registration Fee**

15,000 Yen/person

(Registration by March 12 with on-line registration.)

20,000 Yen/person

(Registration at Workshop on site. Only as for the cash.)

The workshop fee covers a welcome reception, workshop dinner, transportation for J-PARC trip and transportation from hotel to KEK.

### Accommodation

Hotels around Tsukuba Station are block reserved. For detail, please visit the workshop web site <http://neutrino.kek.jp/GLA2010>.

**Hotel reservation deadline is March 12<sup>th</sup>, 2010.**

### Registration for J-PARC trip

To enter J-PARC, it is necessary to submit a form from each individual person. For detail, please visit the workshop web site <http://neutrino.kek.jp/GLA2010>.

**J-PARC trip registration deadline is March 12<sup>th</sup>, 2010.**

### Organizing committee

Alessandro Curioni (ETH Zurich)

Takuya Hasegawa (KEK)

Sosuke Horikawa (ETH Zurich)

Takashi Kobayashi (KEK)

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For further information, please visit the GLA2010 workshop web site <http://neutrino.kek.jp/GLA2010> or contact workshop secretariat: [GLA2010@neutrino.kek.jp](mailto:GLA2010@neutrino.kek.jp).