



PRC OLYMPUS Readiness Review 24 September 2012

Introduction

The OLYMPUS experiment has been set up to measure the ratio of positron proton and electron proton rates at the DORIS storage ring to determine the two photon exchange in elastic electron proton scattering. The experiment was proposed to the PRC in 2008. A technical review was conducted in Sep. 2009 by the PRC (<https://indico.desy.de/conferenceDisplay.py?confId=2302>) followed by the approval of the experiment. The BLAST detector was then shipped from MIT to DESY in 2010 and assembled with new components. In February 2012 a first data taking period started. Over the summer some improvements/modifications are planned before the second and final data taking period from 22 October – 21 December 2012 will take place.

PRC Readiness Review

The purpose of this review is to evaluate the preparedness of the experiment for the final data taking period and to advise the management of the OLYMPUS experiment on any additional actions that are needed to ensure that the last data taking can take place as planned. This will be a technical review of the status, progress and performance of the experiment and of the subsystems. The most critical items that were identified by the PRC are the luminosity discrepancy, the installation of the well-tested GEM tracker and the trigger upgrade to reach the luminosity goals.

The evaluation should cover these specific questions in-depth:

- General status of experiment and of the subsystems and their readiness for the data taking period
- Luminosity measurement discrepancy
- GEM-tracker tests and installation
- Trigger upgrade and dead time reduction
- Offline software status
- Offline analysis of the data taken in February 2012
- Understanding/expectations/anticipations of the DORIS beam

Format:

Half-day meeting with presentations/slides. Participants will be connected by EVO video conference.

Review Members:

Andy White, Chair of the PRC

Elke Aschenauer, designated PRC reviewer for OLYMPUS

Hideto En'yo, designated PRC reviewer for OLYMPUS

Joachim Mnich, Research Director particle and astroparticle physics at DESY

NN (further members/experts?)