

**Talk ID: Pre/Obs2**

Submitted by: Wolfgang Gaessler

Partner: LBTB

Instrument (for science papers):

**A unified Observation Preparation Software for the LBT**

Aleksei Pavlov, Wolfgang Gaessler, Jan Trowitzsch

**Abstract**

A software tool to prepare the observations of LINC-NIRVANA is developed at MPIA.

This software helps the astronomer to select the targets, defines the instrument setup and put it into an observation sequence. Targets and guide

stars can be imported from existing on-line catalogs and databases. The interface is based on the Virtual Observatory standards. The preparation

process is assisted by different high-level modules with advanced graphical user interfaces such as elevation plot, exposure time calculator, guide stars selector and others. One very unique module we plan on is the performance estimator for adaptive optics. This module shall give to the user a first indication on the performance of the AO system with the selected guide stars under certain seeing conditions.

The software runs independent of other LINC-NIRVANA software and stand alone. The underlying framework is based on a plug-in system and very flexible by design so that it can be adapted to prepare observations with other instruments.

We will present the existing and planned modules of the LINC-NIRVANA observation preparation software. Without going into implementation details, we will demonstrate how this software can be easily accommodated to other LBT instruments and therefore provide a generic user interface for the LBT observation preparation.

**Talk ID: Pre/Obs3**

Submitted by: Roberto Speziali

Partner: INAF

Instrument (for science papers):

**The INAF Service Mode Observations**

R. Speziali et al.

**Abstract**

Organization, tools, outcomes of the Italian Team for service mode observation at LBT.

**Talk ID: Pre/Obs1**

Submitted by: Elena Masciadri

Partner: INAF

Instrument (for science papers):

**Optical turbulence forecasts: perspectives for an efficient management of observing programs at LBT**

Elena Masciadri

**Abstract**

Most of observatories hosting top-class and new-generation telescopes are planning observing operations through the Service Mode. It follows that, to optimize the flexible-scheduling of scientific observations, the optical turbulence prediction is mandatory, particularly when observations are supported by AO facilities. Without such a tool the risk is that all potential advantages provided by an AO facility would be neutralized. In this contribution I will review the most important scientific challenges of such a technique, what it can do for an efficient management of LBT and its facilities and which is the principle on which the technique is based on. I will show a few of the most important results we obtained in studies carried out so far at Mt.Graham and other top-class astronomical sites in the world and I will briefly summarize the goals we aim to achieve in the forthcoming activities planned for LBT.