

First Announcement

"Science with Large Solar Telescopes"

1st EAST - ATST Workshop in Solar Physics

First Announcement, 19 May 2009

This workshop addresses the science to be done with solar telescopes of an aperture beyond 1 meter. It is held as a joint EAST-ATST workshop and demonstrates the common interests of the European and US solar physics community toward next-generation, large-aperture solar telescopes.

The workshop will summarize the scientific justification of these telescope projects, review the current status of relevant solar physics topics, establish new insights in solar physics theory that can only be verified with the new large telescopes. The workshop will furthermore present the status of current projects, reviews recent accomplishments with today's large facilities and discusses emerging techniques and tools.

Venue: University of Freiburg, Faculty of Physics.

Date: Wed., Oct 14 2009, morning, to Fri, Oct 16 2009, afternoon

Scientific Organizing Committee: Mats Carlsson, M. Collados Vera, A. Kucera, J. Kuhn, P. Goode, M. Knoelker, O. von der Luehe (chair), T. Rimmele, H. Socas Navarro, G. Scharmer, R. Schlichenmaier, W. Schmidt

Local Organization: Further information about registration, travel, proceedings, etc. will be provided in the Second Announcement, and on the conference web page: www.astro-east.org/index.php

Draft program:

1. Introductory Keynote talk

2. Big Science to be addressed with Big Telescopes

What are the scientific objectives with which we justify the expenses of the multi-meter class of solar telescopes? How have these objectives changed due to recent progress of physical insight and how may these objectives change due to future progress? Which discoveries are we expected to obtain with 4m-class telescopes? What do today's theories and numerical simulations tell us that can be verified only with telescopes exceeding today's apertures? To which extent can coordinated observations help improving our understanding of the Sun?

Summary of good, forward-looking science with current large telescopes.

3. Next Generation Large Telescopes

Presentations of ATST, EST, BBSO NST, Gregor, NLST India, COSMO

4. Tools and Techniques

Next generation instrumentation, data acquisition, analysis, and interpretation methods from adaptive optics to (magnetic field) diagnostic tools and modeling.