

OPEN QUESTIONS IN COSMOLOGY: THE FIRST BILLION YEARS

22–26 August 2005, Garching, Germany

The accepted lore about the state of modern cosmology is that existing data constrain models well enough that few important questions remain to be either asked or solved. In the last year, a wealth of new data about the cosmological background radiation, early star and galaxy formation as well as cosmological evolution in general has been generated. The theoretical prejudice is that the current concordance cosmological model provides a description of our universe consistent with most of these observations. But does it provide the definitive framework against which these new observations can be tested? This meeting will present the latest data, confront them with conventional and alternative models, and review emerging technologies and expected data for their potential to challenge our current understanding of the universe.

Invited Speakers: K. Adelberger (OCIW), J. Bergeron (IAP), V. Bromm (U. Texas, Austin), P. Cox (IAS), L. Cowie (U. Hawaii), R. Ellis (Caltech), X. Fan (U. Arizona), A. Ferrara (SISSA), K. Gorski (JPL), Z. Haiman (Columbia), P. Jakobsen (ESA), K. Jedamzik (U. Montpellier), C. Lawrence (JPL), P. Madau (UCSC), S. Malhotra (STScI), K. Olive (U. Minnesota), J.-L. Puget (IAS), S. Ryan (Open University, UK), A. Songaila (U. Hawaii), J. Schaye (IAS), R. Schneider (OAA), C. Steidel (Caltech), F. Walter (MPIA), S. D. M. White (MPA)

Scientific Advisory Committee: X. Fan (U. Arizona), A. Ferrara (SISSA), K. Gorski (JPL), P. Jakobsen (ESA), B. Leibundgut (ESO), A. Loeb (Harvard), J. Silk (Oxford), A. Songaila (U. Hawaii), M. Umemura (U. Tsukuba), S. D. M. White (MPA)

Local Organising Committee: A. J. Banday, B. Ciardi, S. D. M. White (MPA); W. Freudling, B. Leibundgut, P. Shaver (ESO); M. Lehnert (MPE); E. D'Onghia (USM)

Further information can be found at: <http://www.mpa-garching.mpg.de/~cosmo/2005/>

Deadline for registration and abstract submission: 20 May 2005

ESO Conference on

SCIENCE PERSPECTIVES FOR 3D SPECTROSCOPY

10–14 October 2005, ESO Headquarters, Garching

The expansion in 3D instrumentation – obtaining spatially resolved spectra over an area of the sky – on large telescopes has been phenomenal over the past few years. Examples at ESO on the VLT are SINFONI, the Integral Field Unit (IFU) of VIMOS, the Argus mode of FLAMES; at Gemini the GMOS instrument has an IFU mode; OSIRIS is soon to reach Keck. There are also powerful consortium instruments such as SAURON and CIRPASS which were designed for rather specific problems. Several new tunable filters will see first light this year and sterling work continues to be carried out by facility IFU instruments on 4 m class telescopes such as at La Palma (INTEGRAL) and Calar Alto (PMAS). Accompanying this leap in instrumental capabilities, the volume of data delivered is set to increase as larger or multiple IFU's are planned, such as the MUSE or KMOS instruments for the VLT.

It is over five years since the last conference on 3D spectroscopy and time to assess where the technique is going and what are the current and future perspectives for science from 3D spectrographs. This conference will focus on the current science and the plans for the near future. All areas of astrophysics will be covered for which 3D spectroscopy brings special benefits – from the Solar System out to high redshift galaxies. There will be brief presentations of new instruments and techniques but the primary emphasis will be on the science from 3D spectroscopy.

The conference is co-sponsored by Euro3D, which is a European Union funded Research Training Network. Euro3D currently employs 10 post-docs at centres throughout Europe to work on integral field spectroscopy (<http://www.aip.de/Euro3D/>).

The meeting will consist of longer invited reviews with shorter contributed talks and posters. The proceedings will be published in the Springer ESO Astrophysics Symposia series.

SOC members: J. Allington-Smith (Durham), S. Arribas (IAC, STScI), A. Bunker (Exeter), R. Bacon (Lyon), G. Cecil (North Carolina), R. Davies (Oxford), C. Dumas (ESO), P. Ferruit (Lyon), R. Genzel (MPE), J. Bland-Hawthorn (AAO), A. Quirrenbach (Leiden), G. Wright (Edinburgh)

LOC members: J. Walsh (ESO), M. M. Roth (AIP), M. Kissler-Patig and C. Stoffer (ESO)

Further details are available at <http://www.eso.org/3Dspec05> or by e-mail to 3Dspec05@eso.org

Deadline for pre-registration: 15 May 2005

Deadline for final registration: 01 September 2005

