

VLT OPENING SYMPOSIUM

Antofagasta, Chile, 1–4 March 1999

To mark the beginning of the VLT era, the European Southern Observatory is organising a VLT Opening Symposium that will take place in Antofagasta on 1–4 March 1999, just before the start of regular observations with the VLT.

The Symposium will occupy four full days and consist of plenary sessions (invited talks only) on “Science in the VLT Era and Beyond” and three parallel Workshops (invited and contributed talks) on “Clusters of Galaxies at High Redshift”, “Star-way to the Universe” and “From Extrasolar Planets to Brown Dwarfs”.

During the Symposium, participants will have the opportunity to see the VLT in operation. Special visits to the Paranal Observatory will be organised each afternoon and early evening. After the Symposium, there will be an Official Inauguration Ceremony at Paranal on March 5. The Ceremony is intended largely for official guests from the member states and Chile and will be by invitation only.

Plenary Sessions: SCIENCE IN THE VLT ERA AND BEYOND

Scientific Organising Committee: D. Alloin, I. Appenzeller, J. Bergeron (co-Chairperson), C. de Bergh, B. Fort, R. Kudritzki, M. Mayor, G. Miley, P. Nissen, H. Quintana, A. Renzini (co-Chairperson), R. Sancisi

List of topics:

- Cosmology: where do we stand? – *S. White*
 - The most distant galaxies – *M. Pettini*
 - Galaxy evolution and nuclear activity – *G. Miley*
 - Probing active galaxies in the infrared – *A. Moorwood*
 - Supernovae at high redshift – *R. Kirshner**
 - The cosmic history of star formation – *P. Madau*
 - The centres of nearby galaxies – *R. Bender*
 - Nucleosynthesis in the young Universe – *B. Gustafsson*
 - New frontiers in the solar system – *A. Barucci*
 - Science with the Large Southern Array – *K. Menten*
 - Synergy between the VLT and the NGST – *H. Stockman*
- * *Tentative speaker*

The last plenary session will include a presentation of the highlights of the three workshops:

- Clusters of Galaxies at High Redshift
- Star-way to the Universe
- From Extrasolar Planets to Brown Dwarfs

Parallel Workshop 1: CLUSTERS OF GALAXIES AT HIGH REDSHIFT

SOC: H. Böhringer, A. Cavaliere, B. Fort (co-Chairperson), P. Katgert, P. Rosati (co-Chairperson), P. Schneider, M. Tarengi

Preliminary list of topics:

- Clusters at $z > 1$ (optical, IR)
- X-ray clusters at high z
- SZ clusters and surveys
- LSS at high- z and cluster formation (theory)
- LSS at very high redshift (observations)
- Clustering from absorption systems
- Clustering around high- z radio galaxies
- Galaxy populations and galaxy evolution in high- z clusters
- Cluster masses and dynamics
- Weak lensing
- Probing very distant galaxies with lensing clusters
- ICM physics and evolution
- Fundamental plane at high z
- ESO Imaging Survey
- 2dF Survey

Parallel Workshop 2: STAR-WAY TO THE UNIVERSE

SOC: I. Appenzeller, C. Chiosi, R. Kudritzki (co-Chairperson), J.-C. Mermilliod, P. Nissen, L. Pasquini (co-Chairperson), M. Spite

Preliminary list of topics:

- The VLT-UT2: a unique machine for stellar studies
- Distance Indicators: Cepheids. Improvement of Cepheids as distance indicators. Eclipsing binaries as precise distance indicators. Eclipsing binaries. Supergiants. Extragalactic planetary nebulae and what to do with them. Novae and GC systems
- Age Indicators: Age of globular clusters. MC's clusters. Globular clusters in the Galactic bulge. Bulge of our Galaxy. Other galaxies. Star forming regions. WR stars in star forming regions. Age indicators in solar-type and low-mass stars
- Abundance Indicators: Massive stars and their role in spectra and abundances of high redshift galaxies. Massive stars: observation. Intermediate/low mass in Sagittarius. Intermediate/low mass in MC's. The deep thick disk as seen by UVES. Intermediate/low mass in the Bulge. Stars versus HII regions: extragalactic HII regions. Stars versus HII regions: extragalactic stars

Parallel Workshop 3: THE SEARCH FOR EXTRASOLAR PLANETS WITH THE VLT/VLTI

SOC: F. Allard, P. Artymowicz, M. Mayor (co-Chairperson), F. Paresce (co-Chairperson), M.-T. Ruiz, P. Sackett

Preliminary list of topics:

Formation and Evolution: Reviews

- Theory: Diversity of planetary systems: formation scenarios. Brown dwarfs formation and evolution theories. Unsolved problems and future directions in theory. Solar nebulae and replenished disks with planets. Pulsar planet theories. Evolution of brown dwarfs and giant planets: contribution to the Galactic mass budget. The stellar and substellar IMF: theory
- Observations: Reviews: Protoplanetary disks. Replenished dust disks. The low-mass stellar IMF. The substellar IMF. The spectra of giant planets and brown dwarfs

Techniques

- Radial Velocity Searches: The large planet survey with CORALIE at La Silla. The Keck radial velocity search for extrasolar planets and brown dwarfs. Visible or infrared VLT high-resolution spectrographs (UVES and CRIRES). Towards 1 m/s with the 3.6-m telescope at La Silla
- Astrometric Detections: From PTI to KECK Interferometer. Astrometry with the VLTI. Astrometry with the NPOI. Astrometry from space: GAIA. Astrometry from space: SIM
- Planetary Microlensing and Transits: Planetary microlensing: present status and long term goals. Planetary transits
- Direct Detections: Brown dwarfs with DENIS. Brown dwarfs with 2MASS. Brown dwarfs in open clusters. Interferometric detections of giant planets and brown dwarfs with the VLTI. Adaptive optics from the ground or from space. NAOS-CONICA. VIZIR. IRSI

Local Organising Committee: D. Alloin, D. Hofstadt

Closing date for registration is December 31, 1998. More details and a registration form can be found at: URL <http://www.eso.org/gen-fac/meetings/vltos99/> or contact vltos99@eso.org for further information.