

THE 34TH LIÈGE INTERNATIONAL ASTROPHYSICS COLLOQUIUM

The Next-Generation Space Telescope – Science Drivers and Technological Challenges

Liège, Belgium, 15–18 June 1998

Following the recommendation of the “HST and beyond” Report, NASA is investing a considerable effort in the definition of a large aperture (8 meter class) near IR space telescope (known as the Next Generation Space Telescope) to study the Universe at high redshift ($5 < z < 30$) and in particular the formation and evolution of galaxies at that early epoch. ESA has recently decided to join NASA in these preliminary studies in view of a possible future collaboration in the construction and operation of such an important astronomical facility. ESA is also supporting a European participation in NGST because of the scientific complementarity between VLT and NGST observing programmes.

The main purpose of the Workshop (co-sponsored by ESA, ESO, NASA, STScI and Belgian organisations) is to offer the European and US astronomical communities a forum where they may discuss and better define the prime scientific objectives of the NGST, and its complementarity with other large space and ground facilities as well as reviewing the technological challenges, with particular emphasis on those areas where European industry can offer innovative contributions.

Topics to be covered include:

- reviews of the current NGST concept and capabilities
- status reports from the NASA and ESA NGST studies
- early formation of stars, galaxies, and quasars
- sub-mm observation of high- z galaxies
- structure and dynamics of galaxies at $z > 2$
- distant supernovae
- gravitational lensing
- stellar populations in the nearby universe
- extra-solar planets and young stars
- instrument concepts for NGST
- light-weight mirror technologies
- orbit and mission concepts for NGST

Preliminary list of invited speakers:

R. Angel, S. Beckwith, P. Bely, R. Bonnet, C. Burrows, S. Charlot, L. Cowie, S. Cristiani, R. Davies, A. Dressler, R. Ellis, A. Ferrara, M. Franx, R. Genzel, P. Jakobsen, R. Kennicutt, R. Kirshner, O. LeFevre, S. Lilly, A. Loeb, P. Madau, J. Mather, J.-L. Puget, M. Rees, A. Renzini, P. Schneider, C. Steidel, M. Stiavelli, P. Stockman, E. Weiler and S. White.

Organising committee:

P. Benvenuti (Co-chair), R. Fosbury, D. Fraipont-Caro, R. Hook, P. Jakobsen, P. Madau (Co-chair), B. Sjøberg, J. Surdej, J.-P. Swings (Chairman local organisation).

Further information: <http://ecf.hq.eso.org/ngst/ngst.html>

E-mail contact: ngstconf@eso.org

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International Staff

(1st January – 31st March 1998)

ARRIVALS

EUROPE

BECKERS, Jean-Louis (B), Project Controller
BOGUN, Stefan H. (D), Astronomical Data Reduction Specialist
DELL'ERBA, Anna (I/ZA), Secretary to the Office of the DG
(December 1997)
DONALDSON, Robert (GB), Software Engineer
FOURNIOL, Nathalie (F), Associate ST-ECF
JUNG, Yves (F), Coopérant
KASTELYN, Nathalie (B), Assistant to HoA
KURZ, Richard (USA), Chief Engineer
LEVEQUE, Samuel (F), Associate
MEHRGAN, Hamid (IR), Infrared Detector Engineer
MIGNANI, Roberto (I), Associate ST-ECF
ZAGGIA, Simone (I), Associate EIS

CHILE

CULLUM, Martin (GB), Temporary Transfer to Paranal
DUCHATEAU, Michel (F), Temporary Transfer to Paranal
FRANZA, Francis (F), Temporary Transfer to Paranal
GUNNARSSON, Lars-Göran (S), Associate SEST

SANDROCK, Stefan (D), Transfer to Paranal
WALLANDER, Anders (S), Temporary Transfer to Paranal
WINNBERG, Anders (S), Associate SEST

DEPARTURES

EUROPE

AGEORGES, Nancy (F), Fellow
BELHACHEMI, Khadidja (F), Archive Assisant
DOUBLIER, Vanessa (F), Student
SAVAGLIO, Sandra (I), Fellow
VAN DER STROOM, Margaretha (NL), Contract Officer
WOLFF, Norbert (D), Control Engineer

CHILE

BRILLANT, Stéphane (F), Student
MAUGIS, Michel (F), Electronics Technician
PEREZ, Isabel (E), Student
VAN DE STEENE, Griet (NL), Fellow

Local Staff

(1st January – 31st March 1998)

ARRIVALS

RAHMER BASS, Gustavo (RCH), Optical Detector Engineer
GUZMÁN TANAKA, Juan Carlos (RCH), Applicant Programmer
ARGOMEDO ZAZZALI, Javier (RCH), Applicant Programmer

ESO, the European Southern Observatory, was created in 1962 to . . . establish and operate an astronomical observatory in the southern hemisphere, equipped with powerful instruments, with the aim of furthering and organising collaboration in astronomy . . . It is supported by eight countries: Belgium, Denmark, France, Germany, Italy, the Netherlands, Sweden and Switzerland. It operates the La Silla observatory in the Atacama desert, 600 km north of Santiago de Chile, at 2,400 m altitude, where fourteen optical telescopes with diameters up to 3.6 m and a 15-m submillimetre radio telescope (SEST) are now in operation. The 3.5-m New Technology Telescope (NTT) became operational in 1990, and a giant telescope (VLT = Very Large Telescope), consisting of four 8-m telescopes is under construction. It is being erected on Paranal, a 2,600 m high mountain in northern Chile, approximately 130 km south of Antofagasta. Eight hundred scientists make proposals each year for the use of the telescopes at La Silla. The ESO Headquarters are located in Garching, near Munich, Germany. It is the scientific, technical and administrative centre of ESO where technical development programmes are carried out to provide the La Silla observatory with the most advanced instruments. There are also extensive facilities which enable the scientists to analyse their data. In Europe ESO employs about 200 international Staff members, Fellows and Associates; at La Silla about 50 and, in addition, 150 local Staff members.

The ESO MESSENGER is published four times a year: normally in March, June, September and December. ESO also publishes Conference Proceedings, Preprints, Technical Notes and other material connected to its activities. Press Releases inform the media about particular events. For further information, contact the ESO Information Service at the following address:

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