

ANNOUNCEMENT OF AN ESO CONFERENCE

**Scientific Importance of High Angular Resolution  
at Infrared and Optical Wavelengths**

The European Southern Observatory is organizing an international conference on the subject "SCIENTIFIC IMPORTANCE OF HIGH ANGULAR RESOLUTION AT INFRARED AND OPTICAL WAVELENGTHS", to be held in the ESO building at Garching bei München during the period of 24-27 March 1981.

The purpose of this conference is to discuss, on the one hand, the systems in use or under construction and possible future developments to achieve high angular resolution and, on the other hand, to discuss the areas of astrophysics which, in the next decades, will most benefit from observations at high angular resolution.

**PROGRAMME**

**I. Light Propagation in the Atmosphere and Image Formation**

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|-------------------------|------------------------------------------------------------|
| F. Roddier (Nice)       | Atmospheric Limitations to High Angular Resolution Imaging |
| J.W. Hardy (ITEK Corp.) | Active Optics in Astronomy                                 |

**II. Speckle Interferometry**

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|------------------------|-----------------------------------------------|
| A. Labeyrie (CERGA)    | Review of the Field and Trends                |
| G. Weigelt (Erlangen)  | Speckle Interferometry and Speckle Holography |
| P. Léna (Meudon)       | Speckle Interferometry in the Infrared        |
| J.E. Nelson (Berkeley) | Coherent Large Telescopes                     |

**III. Interferometry with Multiple Systems**

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|------------------------|-------------------------------------------------------------------------------|
| C.H. Townes (Berkeley) | Multiple Telescope Interferometry in the Infrared                             |
| A. Labeyrie (CERGA)    | Multiple Telescope Interferometry: Compact or Diluted Telescopes?             |
| F.J. Low (Tucson)      | Interferometry with the Multiple Mirror Telescope and Conventional Telescopes |
| O. Citterio (Milan)    | Infrared Observations with a 12 m baseline Interferometer                     |

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|----------------------|---------------------------------------------------------------------------|
| C. Froehly (Limoges) | Coherence through Fiber Optics                                            |
| D. Dravins (Lund)    | Search for fine Structure on Stellar Surfaces by Intensity Interferometry |

**IV. Scientific Importance of High Angular Resolution**

*1. Planets and Asteroids*

- T. Encrenaz (Paris)

*2. Stars and Star Formation*

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|----------------------------|--------------------------------------------------------------|
| B. Zuckerman (Maryland)    | Circumstellar Envelopes                                      |
| H.W. Yorke (Göttingen)     | Evolution and Appearance of Protostars and their Envelopes   |
| H.J. Habing (Leiden)       | Current and Future Observations of Pre-Main-Sequence Objects |
| P.A. Strittmatter (Tucson) | Preplanetary Disks                                           |
| A. Blaauw (Leiden)         | Binary Stars                                                 |
| E. Schatzman (Nice)        | Observations of Stellar Winds and Coronae                    |

*3. Extragalactic Objects*

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|------------------------|--------------------------------------------------------|
| G.A. Tammann (Basel)   | Normal Galaxies                                        |
| M.H. Ulrich (ESO)      | Nearby Seyfert Galaxies                                |
| A. Boksenberg (London) | Radio Galaxies and Quasars: Present and Future Results |
| M.J. Rees (Cambridge)  | Highly Compact Structures in Galaxy Nuclei and Quasars |

**V. Discussions**

Panel discussions will take place on Friday. Topics may include:

- High Resolution in the Space Telescope Era.
- The Future of Interferometry Using Existing Telescopes or Conventional Telescopes under Construction.
- The Scientific Case for Large Interferometers.
- Building Infrared and Optical Interferometers and Budgetary Considerations.

Scientific Organizing Committee: A. Boksenberg, D. Dravins, A. Labeyrie, P. Léna, M.H. Ulrich (Chairman), G. Weigelt.

**List of Preprints Published at ESO Scientific Group**

**December 1980 - February 1981**

- |                                                                                                                                                                 |                                                                                                                                                                                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 126. A.C. Danks and M. Dennefeld: Near-infrared Spectroscopy of Comet Bradfield (1979L). <i>Astronomical Journal</i> . December 1980.                           | 130. D. Engels, W.A. Sherwood, W. Wamsteker and G.V. Schultz: Infrared Observations of Southern Bright Stars. <i>Astronomy and Astrophysics Suppl.</i> December 1980.             |
| 127. P. Véron, M.P. Véron and E.J. Zuiderwijk: NGC 4507: A Weak Seyfert 1 and X-ray Galaxy. <i>Astronomy and Astrophysics</i> , Research Note. December 1980.   | 131. D. Maccagni and M. Tarengi: X-ray Observations of Six BL Lacertae Fields. <i>Astrophysical Journal</i> . December 1980.                                                      |
| 128. E.G. Tanzi, G. Chincarini and M. Tarengi: Infrared Observations of AE Aqr. <i>Publications of the Astronomical Society of the Pacific</i> . December 1980. | 132. W. Wamsteker: Standard Stars and Calibration for JHKLM Photometry. <i>Astronomy and Astrophysics</i> , Main Journal. January 1981.                                           |
| 129. J.H. Oort, H. Arp and H. de Ruiter: Evidence for the Location of Quasars in Superclusters. <i>Astronomy and Astrophysics</i> . December 1980.              | 133. J. Danziger, W.M. Goss, P. Murdin, D.H. Clark and A. Boksenberg: The Supernova Remnant in 30 Dor B. <i>Monthly Notices of the Royal Astronomical Society</i> . January 1981. |
|                                                                                                                                                                 | 134. G. Chincarini and M.F. Walker: Image Tube Spectroscopic Studies of Rapid Variables. IV. Spectroscopic and Photome-                                                           |