

Breaking of Ground Heralds New Premises for Blank Manufacture



Dr. Tietze, Technical Head of the SCHOTT Optics Division, breaks the ground at a location point of the new factory. With Dr. Tietze from left to right are Mr. Schuster and Mr. Adolphs, both members of the SCHOTT Board of Directors, and Dr. Eden, a former member of the SCHOTT Board of Directors, now retired.



This photograph was taken at the location of the future casting tank. Around the first 1.8-m Zerodur blank produced with the new spin-casting technique developed at SCHOTT are, from left to right: M. Tarenghi of ESO, Dr. Tietze, Technical Head of the SCHOTT Optics Division, Mr. Schuster of the SCHOTT Board of Directors, Dr. Eden, a now retired former member of the SCHOTT Board of Directors, Dr. Adolphs, also of the SCHOTT Board of Directors, Dr. Muller, Project Manager of the 8-m Blank Production and Mr. Hubler, Commercial Head of the SCHOTT Optics Division.

A major milestone for the VLT Project took place in Mainz on 6 July 1989 with a symbolic turning of the soil at the location of the future VLT mirror blank manufacturing site. The importance and complexity of such a production re-

quires the construction of a complete new factory designed and dedicated to the manufacture of the VLT 8 m Zerodur blanks. A building measuring 70 m x 40 m will house the entire complex. It will include the casting tank, the anneal-

ing furnaces, the grinding machine, and all other equipment necessary. Completion of the new factory will be at the end of 1990 when the casting of the first blank will take place.

M. Tarenghi (ESO)

NTT News

The commissioning time of the NTT following the first light reported in the last issue of the *Messenger* has continued with modifications and improvements to the hardware and software of the telescope and building. New additions include two rails which will be used for the installation and maintenance of the EMMI instrument which have been installed on a floor of the instrumentation room. A carbon fiber sky baffle for the M3 unit has also been implemented; it will have two working positions, one for optical observations and the second for infrared observations.

More tests of pointing and tracking were performed and by the end of July the telescope pointed better than 1.6 arcseconds r.m.s. In the months to come, the final tuning will be completed, and October/November will be dedi-

cated to the erection of the first of the two adapters. We expect to have EFOSS 2 working at full capacity by the

end of this year; see also the article about this new instrument on page 66 in this *Messenger* issue. M. Tarenghi (ESO)

Status Report on EMMI

The ESO Multi-Mode Instrument for one Nasmyth focus of the NTT is in the final phase of its integration and testing in the laboratory in Garching. All of the mechanical functions have been thoroughly tested and installed. The electronic hardware has also been integrated and an engineering version of the control software is fully operating. The coated optics for the red arm (high efficiency in the range 400–1000 nm) have been delivered and will be installed in

September; the final tests with the detector, a 1024 x 1024 Thomson TH 31156 CCD, will then start. The blue arm optics (high efficiency in the range 300–500 nm) have been manufactured and coated: they are expected to arrive at ESO in October. Integration of the instrument in Chile is foreseen for the beginning of 1990. The form for Applications for Observing Time for Period 45 includes a description of the observing modes of the instrument which are likely

to be offered initially. These are direct imaging and medium dispersion spectroscopy in the blue and red channels and grism, long slit or slitless spectroscopy in the red channel.
August 1989.

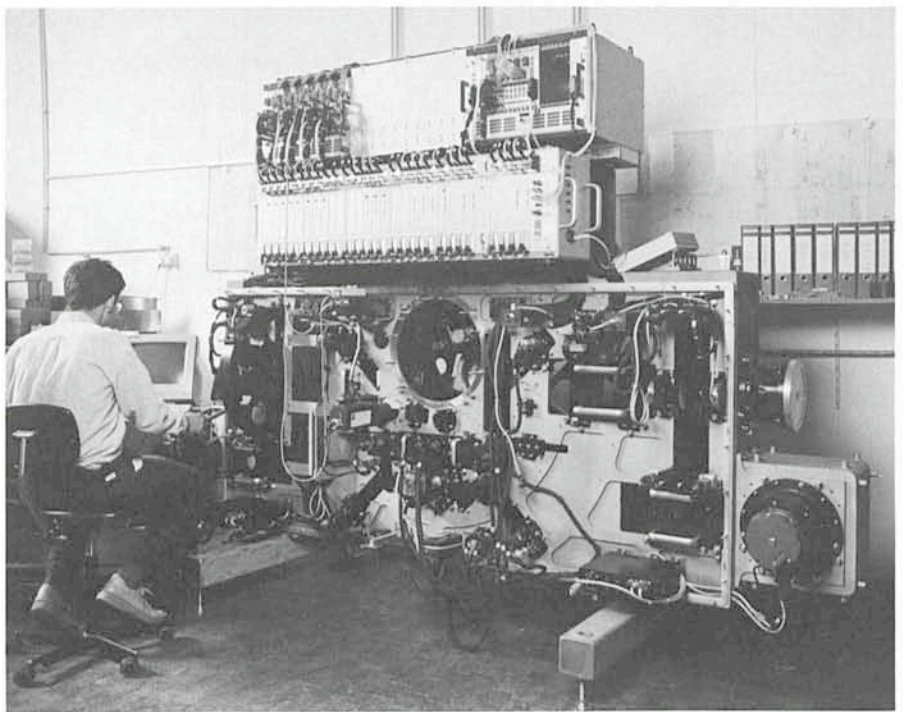
Optical Instrumentation Group

New ESO Preprints

June – August 1989

SCIENTIFIC PREPRINTS

654. G. Contopoulos and B. Barbanis: Lyapunov Characteristic Numbers and the Structure of Phase-Space. *Astronomy and Astrophysics*.
655. R. M. West and M. Tarenghi: The Optical Counterpart of the Strong Southern Radiosource PKS 1343–601 (13S6A). *Astronomy and Astrophysics*.
656. I. V. Igumenshchev, B. M. Shustov and A. V. Tutukov: Dynamics of Supershells: Blow-out. *Astronomy and Astrophysics*.
657. D. Baade: A Search for Line Profile Variability in Dwarfs and Giants of Spectral Types B8–B9.5 (I.) Observations and Measurements; *Astronomy and Astrophysics Suppl.* (II.) Results and Discussion; *Astronomy and Astrophysics*.
658. J. H. Lutz et al.: He 2–104: Link Between Symbiotic Stars and Planetary Nebulae? *Publ. Astron. Soc. Pac.*
659. M. Tapia et al.: Three-Micron Spectroscopy of Three Highly Reddened Field Stars. *Astronomy and Astrophysics*.
660. B. Reipurth and S. Heathcote: HH 123 – a Herbig-Haro Object in the High-Latitude Cloud L1642. *Astronomy and Astrophysics*.
661. T. Le Berre et al.: Optical and Infrared Observations of Four Suspected Protoplanetary Objects. *Astronomy and Astrophysics*.
662. M.-H. Ulrich: Observational Evidence for Accretion Disks in Galactic Nuclei. Invited Review to appear in "Theory of Accretion Disks", NATO Advanced Research Workshop, MPA Garching, March 1989 (F. Meyer, W. Duschl, J. Frank and E. Meyer-Hofmeister, eds.; Kluwer Academic Publishers, Dordrecht, the Netherlands).
663. L. B. Lucy et al.: Dust Condensation in the Ejecta of SN 1987A. Paper presented at IAU Colloquium No. 120 "Structure and Dynamics of Interstellar Medium". Eds. G. Tenorio-Tagle, M. Moles and J. Melnick. Lecture Notes in Physics (Springer-Verlag).
664. (I.) S. di Serego Alighieri et al.: Polarized Light in High Redshift Radio Galaxies. Submitted to *Nature*.
(II.) S. di Serego Alighieri: Imaging Polarimetry. To appear in the Proceedings of the 1st ESO/ST-ECF Data Analysis Workshop, Grosbøl et al. eds. ESO Conference and Workshop Proceedings No. 31. 1989.
665. P. Crane et al.: Cosmic Background Radiation Temperature at 2.64mm, 1.32mm and 0.6mm. To appear in the



A picture of EMMT as it stands in the integration laboratory in Garching in late July 1989. The mechanical functions are mounted and cabled and they are being tested with an engineering version of the control software. On the top of the instrument the control electronics for the 29 moving functions. At the bottom right of the instrument the grating unit of the red arm, with the attachment for the detector above it.

- Proceedings of the Moribond Astrophysics Conference.
666. B. Binggeli, M. Tarenghi and A. Sandage: The Abundance and Morphological Segregation of Dwarf Galaxies in the Field. *Astronomy and Astrophysics*.
667. C. Tadhunter and Z. Tsvetanov: Anisotropic Ionizing Radiation in NGC 5252. Submitted to *Nature*.
668. F. Ferrini, F. Palla and U. Penco: Fragmentation Theories and the IMF. To appear in *Physical Processes in Fragmentation and Star Formation*, Rome, June 1989, eds. R. Capuzzo-Dolcetta, C. Chiosi and A. Di Fazio, Reidel, Dordrecht.
669. R. M. West: Post-Perihelion Observations of Comet Halley. II ($r = 10.1$ AU). *Astronomy and Astrophysics*.
670. P. Benvenuti and I. Porceddu: Diffuse Absorption Bands and the 2175 Å Feature. *Astronomy and Astrophysics*.

TECHNICAL PREPRINTS

3. J. M. Beckers and F. Merkle: A Survey of Present Efforts in Astronomical Adaptive Optics. To be published in the SPIE Proceedings No. 1130. International Congress on "Optical Science and Engineering", Paris, 24–28 April 1989.
4. M. Sarazin and F. Roddier: The ESO Differential Image Motion Monitor. *Astronomy and Astrophysics*.
5. M. Tarenghi and R. N. Wilson: The ESO NTT (New Technology Telescope): The First Active Optics Telescope. To be published in the SPIE Proceedings No. 1114 (1989). Symposia on "Aerospace Sensing", Orlando, 27–31 March 1989.

6. L. Noethe et al.: Active Optics: From the Test Set Up to the NTT in the Observatory. To be published in the SPIE Proceedings No. 1114 (1989). Symposia on "Aerospace Sensing", Orlando, 27–31 March 1989.
7. R. N. Wilson and L. Noethe: Closed Loop Active Optics: Its Advantages and Limitations for Correction of Wind-Buffer Deformations of Large Flexible Mirrors. To be published in the SPIE Proceedings No. 1114 (1989). Symposia on "Aerospace Sensing", Orlando, 27–31 March 1989.
8. F. Merkle and J. M. Beckers: Application of Adaptive Optics to Astronomy. To be published in the SPIE Proceedings No. 1114 (1989). Symposia on "Aerospace Sensing", Orlando, 27–31 March 1989.
9. M. Faucherre, F. Merkle and F. Vakili: Beam Combination in Aperture Synthesis from Space: Field of View Limitations and (U, V) Plane Coverage Optimization. To be published in the Proc. of the SPIE Intern. Congress on Opt. Science and Engin., Top. Conf. 1130: New Technology for Astronomy", Sept. 1989.
10. J. M. Beckers: Plans for High Resolution Imaging with the VLT. Paper presented at the 1989 Frühjahrstagung der Astronomischen Gesellschaft on April 11–14 in Friedrichshafen.
11. J. M. Beckers: Polarization Effects in Astronomical Spatial Interferometry. Paper presented at the SPIE Conference No. 1166 on "Polarization Considerations for Optical Systems II" on August 9–11 in San Diego.