

cies entering the adaptive optics band-pass, is that of deformations of very thin primaries due to wind buffets. The possibilities and limitations of active optics in this area are still under investigation.

7. Acknowledgements

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References

- [1] Wilson, R.N., Franza, F., Noethe, L., 1987, "Active Optics I", ESO Preprint No. 484

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- [2] Noethe, L., Franza, F., Giordano, P., Wilson, R.N., Citterio, O., Conti, G., Mattaini, E., 1987, "Active Optics II", ESO Preprint No. 560, accepted for publication in *Journal of Modern Optics*.
- [3] Franza, F., Le Luyer, M., Wilson, R.N., 1977, "3.6-m Telescope: The Adjustment and Test on the Sky of the PF Optics with the Gascoigne Plate Correctors", ESO Technical Report No. 8.
- [4] Wilson, R.N., Noethe, L., 1988, "Mirrors and Supports", Proc. ESO Conf. on "Very Large Telescopes and their Instrumentation", Garching, March 1988, to appear shortly.

The 3rd ESO/CERN Symposium

G. SETTI, ESO

The 3rd ESO/CERN Symposium on "Astronomy, Cosmology and Fundamental Physics" was held in Bologna (16–20 May, 1988) at the invitation of the University of Bologna celebrating its 900-year anniversary. It was attended by approximately 250 participants, but on many occasions the audience was much larger due to the presence of local scientists and students.

The Symposium was focused on the various subjects important to cosmology and particle physics which were covered by a set of comprehensive review lectures, contributed papers and posters. The reviews included a critical discussion of the value of the Hubble constant (A. Dressler), the large scale distribution of galaxies (M. Geller), a discussion on the distribution and properties of classes of objects at high redshifts (R. Kron), the microwave background (B. Partridge) and the formation of structures in the Universe (N. Vittorio, A. Starobinsky), the evidence and particle constituents of dark matter (D. Lynden-Bell, M. Turner), the status of the standard model of particle physics (R. Peccei), the implications both for the inflationary model of the Universe and of particle physics of going well beyond the standard model (D. Nanopoulos), the fascinating results of ultrarelativistic nuclear collisions (M. Satz) and a review of the underground physics experiments (E. Bellotti). One afternoon was dedicated to the discussion of the Supernova 1987A, this extraordinary event which took place in the Large Magellanic Cloud and for which ESO has accumulated an impressive amount of observational material.

The introductory lecture was given by Prof. A. Salam, Nobel Prize for Physics, who, among other things, emphasized the fundamental importance of studying the Universe for the understanding of the basic laws of physics. As he put it, the extreme conditions to be found in the hot "big-bang" scenario would require man-made particle accelerators having sizes up to the distance to the nearby stars, which is obviously outside of any foreseeable technological development. The main results of the Symposium were beautifully summarized in the Closing Lecture by L. Van Hove.

According to many unsolicited comments the meeting was extremely successful, both scientifically and organizationally, and for this last point a special thanks should be addressed to the local organizers, the Departments of Astronomy and Physics of the University of Bologna. The organization of the meeting greatly benefitted from the generous support provided, among others, by the University of Bologna, the City Authorities of Bologna, the National Research Council of Italy (C.N.R.) and the National Institute of Nuclear Physics (I.N.F.N.).

The Proceedings will be published by Reidel towards the end of this year. Their availability will be announced in the *Messenger*.

At the end of the Symposium, in a ceremony that took place at 12 a.m. on May 20, the Rector of the University of Bologna presented Professor L. Van Hove, former Director General of CERN, and Professor L. Woltjer, former Director General of ESO, with a laurea "honoris

causa" respectively in Astronomy and in Physics.

In parallel with the ESO/CERN Symposium, and on the same premises, the Departments of Physics and Astronomy of the Bologna University had organized an exhibition in astronomy and particle physics at which both ESO and CERN participated with their exhibition material. The exhibition was officially opened on May 7 by the Rector of the University and local authorities and was extremely successful, attracting about 30,000 visitors, including many organized school tours.

List of ESO Preprints

June–August 1988

592. P. Bouchet et al.: Infrared Photometry and Spectrophotometry of SN 1987A: March to October 1987 Observations. *Astronomy and Astrophysics*.
593. L. Milano et al.: Search for Contact Systems Among EB-Type Binaries. I: TT Herculis. *Astronomy and Astrophysics*.
594. R. Buonanno et al.: On the Ages of Globular Clusters and the Sandage Period-Shift Effect. *Astronomy and Astrophysics*.
595. J. Melnick et al.: The Galactic Giant HII Region NGC 3603. *Astronomy and Astrophysics*.
596. P.A. Shaver et al.: The Evolution of Structure. Paper presented at a meeting on "Large-Scale Structure and Motions in the Universe", Trieste, April 1988 (to be published by Reidel; eds. G. Giuricin et al.).