



## “ESO Frontpages”

Pictures of Supernova 1987A were made available to the media in early March 1987, as soon as they arrived from La Silla. A colour photo of the supernova and the Tarantula Nebula, obtained with the ESO Schmidt telescope by H.-E. Schuster and Guido and Oscar Pizarro and prepared by C. Madsen was repeatedly requested and appeared in a large number of journals and newspapers. The ESO photos also “made it” to quite a few frontpages; here is a selection from various countries.

## List of ESO Preprints

(September – November 1987)

529. D. Baade: (A) Doppler Imaging of Variable Early-Type Stars; (B) Nonradial Pulsations and the Be Phenomenon. Two invited talks presented at IAU Colloquium 132 “The Impact of Very High S/N Spectroscopy on Stellar Physics”, Paris-Meudon, 29 June – 3 July 1987. September 1987.
530. G. Meylan: Internal Dynamics of Globular Clusters: From Our Galaxy to the Magellanic Clouds. Invited talk pre-

- sented at the ESO Workshop on “Stellar Evolution and Dynamics in the Outer Halo of the Galaxy, Garching, 7–9 April 1987. September 1987.
531. R.A.E. Fosbury: Active Extragalactic Objects. Invited review talk at the Tenth European Regional Meeting of the IAU, Prague, 24–29 August 1987. September 1987.
532. M.H. Ulrich: Far Ultraviolet Absorption Lines in Active Galaxies. *Monthly Notices of the Royal Astronomical Society*. September 1987.
533. M.H. Ulrich: Galactic Nuclei and Quasars at High Angular Resolution. Invited paper prepared for the ESA Work-

- shop on “Optical Interferometry in Space”, Granada, Spain, 16–18 June 1987. September 1987.
534. P.A. Shaver: Quasar Clustering and the Evolution of Structure. Paper presented at IAU Symposium 130, June 1987, “Evolution of Large Scale Structures in the Universe”. September 1987.
535. P.A. Shaver: Opacity of the Universe. Paper presented at the 3rd IAP Astrophysics Meeting, “High Redshift and Primeval Galaxies” (Paris, June 1987). September 1987.
536. E.J.A. Meurs et al.: (A) Observational Consequences of Precessing Relativistic Jets in Extragalactic Radio Sources; (B) [O III]-Line Emission Associated with Radio Structures in Seyfert Galaxies. Contributions presented at the 10th European Regional Astronomy Meeting of the IAU, 24–29 August 1987, Prague. September 1987.
537. E. Giraud: I. The Price of Keeping the Hubble Constant ... Constant (presented at the Symposium “New Ideas in Astronomy” celebrating the 60th birthday of Halton Arp, 5–8 May 1987, Venice, Italy); II. Dark Matter Around the Local Group?; III. Observed Distortions (from Linearity) of the Hubble Flow and Bias in the Data (contributions presented at the IAU Symposium No. 130 “Evolution of Large Scale Structures in the Universe”, 15–20 June, 1987, Balatonfüred, Hungary). October 1987.
538. E. Palazzi, N. Mandolesi and P. Crane: Interstellar CH Towards zeta Ophiuchi. *Astrophysical Journal*. October 1987.
539. J. Melnick, R. Terlevich and M. Moles: Giant H II Regions as Distance Indicators II. Application to H II Galaxies and the Value of the Hubble Constant. October 1987.
540. M. Heydari-Malayeri: Ionized Gas Properties of the Peculiar Southern H II Region RCW 34. *Astronomy and Astrophysics*. October 1987.
541. D. Baade and P. Magain: Very Low Upper Limits on the Strength of Interstellar Lithium Lines Towards SN 1987A. *Astronomy and Astrophysics*. October 1987.
542. M. Spite et al.: High Resolution Observations of Stars in the Peculiar Globular Cluster  $\omega$  Cen. *Astronomy and Astrophysics Suppl.* November 1987.
543. P. François, M. Spite and F. Spite: High Resolution Study of Different Groups of Stars in the Peculiar Globular Cluster  $\omega$  Cen. *Astronomy and Astrophysics*. November 1987.
544. J. Surdej et al.: Observations of the New Gravitational Lens System UM 673 = Q 0142-100. *Astronomy and Astrophysics*. November 1987.
545. P.A. Shaver: Quasar Clustering and Gravitational Lenses. Paper presented at the NATO ASI “The Post-Recombination Universe”, Cambridge, July 1987. November 1987.
546. P. Magain: The Chemical Composition of the Extreme Halo Stars. I. Blue Spectra of 20 Dwarfs. *Astronomy and Astrophysics*. November 1987.
547. E.J.A. Meurs: Precessing Radio Jets in AGNs. Invited talk at the COSPAR/IAU

Symposium "The Physics of Compact Objects: Theory versus Observation", Sofia, Bulgaria, July 1987. November 1987.

548. B. Reipurth: Pre-Main Sequence Binaries. Review presented at the NATO ASI meeting "Formation and Evolution of Low Mass Stars", 21 Sept. - 2 Oct. 1987, Viano do Castelo, Portugal. November 1987.
549. E. Oliva and A. F. M. Moorwood: Detection of New, High Excitation, Emission Lines of H<sub>2</sub> in the 2.0-2.4 μm Spectrum

of the Orion Nebula. *Astronomy and Astrophysics*. November 1987.

#### NOTE TO OUR READERS

When requesting ESO preprints, please do not forget to indicate the corresponding ESO preprint number. This will greatly facilitate our work. Thank you.

## A Timely Reminder

There has recently been much concern among astronomers about two proposed, commercial space projects. A "Ring of Light" would celebrate the 100th anniversary of the Eiffel Tower, and the Celestis capsule is supposed to carry the cremated remains of humans into space. The International Astronomical Union (IAU) has reacted strongly through its Commission 50 which deals with the safeguard of the best possible observing conditions. Whereas it now appears that the "Ring" will not materialize, less is known about the status of the Celestis project. In any case, there has been a renewed interest in "pollution" of the skies and the astronomers who work with the ESO Schmidt telescope were recently asked by the President of IAU Commission 50 to comment on the number of satellite trails they see on ESO Schmidt plates.

When the counting of satellite trails was nearly finished (Result: there is hardly any long-exposure plate without at least one trail, but since they are thin, they normally do not interfere with the measurements), the triple trail reproduced here was registered on a 2-hour Schmidt plate, exposed for the ESO(R) half of the joint ESO/SERC Atlas of the Southern Sky, now nearing completion. Nothing like it had ever been seen before on any plates obtained at La Silla. In particular, the multiple appearance was puzzling - each trail was double - which three (or six!) satellites were moving in such a perfect procession?

Thanks to the experience of ESO photographer Hans H. Heyer, who also experiments with astrophotography in his spare time and who lives near the Munich airport, the "mystery" was quickly solved. The triple trail was registered sometime between 19:47 and 21:47 (Chilean time) in the evening of Thursday, August 20, 1987, about 40° above the horizon, directly towards south. That evening, at about 19:10, flight PL 696 took off from the Santiago international airport and followed a

northerly course towards Lima, Peru. The DC-8 jet with a wing-span of 43 metres flew through the Schmidt field-of-view less than an hour later.

Supposing that the speed was about 900 km/h and also that the plane passed almost directly over La Silla, the angular distances between the trails of the navigational lights on the wing tips

and below the body indicate that the distance from the ESO telescope was about 13 km; this corresponds to a flight altitude of 11 km. The lights are double for safety reasons and the red lights on the left wing show up more strongly on the red-sensitive plate than the green lights on the right wing. In addition, the strobe lights, which are seen as bright spots at intervals of 0.8 along the wing light trails, flash each 1.1 seconds during 8 milliseconds. The angular distance between the double lights is 7 arc-seconds (projected distance 40 cm), illustrating in an unusual way the resolving power of astronomical instruments.

The loss of a plate for the Sky Survey due to a high flying aircraft is a pity, but not a disaster. However, the fact that this event is the first of its kind recorded at La Silla is a timely reminder. It underlines the nearly perfect "remoteness" of the ESO site, but it also demonstrates the need to preserve these optimal conditions by continued vigilance against all intrusions in space or closer to the ground.

R. M. W.

