

these clouds. Such studies illustrate the value of exploiting a temporarily bright source in order to study the physics of the intervening material.

These reflections are being written one week after the explosion. We still have much to learn. Does the LMC supernova represent a new, previously unknown class of supernova? Will we see changes in the interstellar lines that will indicate the size of these gas filaments? Can model calculations together with early observations accurately pinpoint the moment the envelope began to expand? If so, what is the time delay between the beginning of the expansion and neutrino burst detected by

A workshop will be held at the ESO Headquarters in Garching from July 6–8, 1987 on

“The Supernova in the LMC”

Data obtained during the first half year of the supernova will be presented and other evidence and theories about supernovae confronted with the data.

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the Mont Blanc Neutrino Observatory? When will we be able to see the inner part of the expanding envelope with its rich soup of the products of nuclear

fusion? Surely this supernova will be one of the most actively studied objects in the sky for years to come.

J. Wampler (ESO)

Walraven Photometry

| The measurements were converted from log intensity to magnitudes. | | | | | | | | | |
|---|------|-------|------|-------|------|-------|------|-------|------|
| UT | V | V-B | B | B-L | L | B-U | U | U-W | W |
| WAVEL. (Å) | 5467 | | 4325 | | 3838 | | 3633 | | 3255 |
| BANDW. (Å) | 710 | | 420 | | 220 | | 230 | | 160 |
| Feb. 25.02 | 4.64 | -0.19 | 4.83 | -0.12 | 4.95 | -0.13 | 4.96 | -0.14 | 5.10 |
| 25.15 | 4.57 | -0.19 | 4.76 | -0.11 | 4.87 | -0.11 | 4.87 | -0.10 | 4.97 |
| 26.01 | 4.55 | -0.26 | 4.81 | -0.24 | 5.05 | -0.31 | 5.12 | -0.18 | 5.30 |
| 26.20 | 4.53 | -0.26 | 4.79 | -0.28 | 5.07 | -0.33 | 5.12 | -0.14 | 5.26 |
| 27.01 | 4.48 | -0.39 | 4.87 | -0.48 | 5.35 | -0.65 | 5.52 | -0.57 | 6.09 |
| 27.17 | 4.45 | -0.40 | 4.95 | -0.50 | 5.45 | -0.71 | 5.66 | -0.65 | 6.31 |
| 28.01 | 4.46 | -0.56 | 5.02 | -0.72 | 5.74 | -1.26 | 6.28 | -1.09 | 7.37 |
| 28.10 | 4.45 | -0.54 | 4.99 | -0.72 | 5.71 | -1.27 | 6.26 | -1.02 | 7.28 |
| 28.24 | 4.45 | -0.56 | 5.01 | -0.76 | 5.77 | -1.35 | 6.36 | -1.02 | 7.38 |
| +/- | 0.02 | 0.02 | 0.04 | 0.02 | 0.04 | 0.02 | 0.06 | 0.02 | 0.09 |

Observed by F. Steeman on the Dutch 91-cm telescope on La Silla.

P. Monderen, H.E. Schwarz (ESO), and F. Steeman (Leiden).

Geneva Seven Colour Photometry

The Supernova 1987A in LMC was measured 46 times between February 25 and March 2 in the seven filter Gene-

va photometry (Golay, M., 1980, *Vistas in Astronomy*, vol. 24, 141) at the ESO La Silla observatory.

SN 1987A was measured together with the comparison star HD 37935, a Geneva standard star. It should be

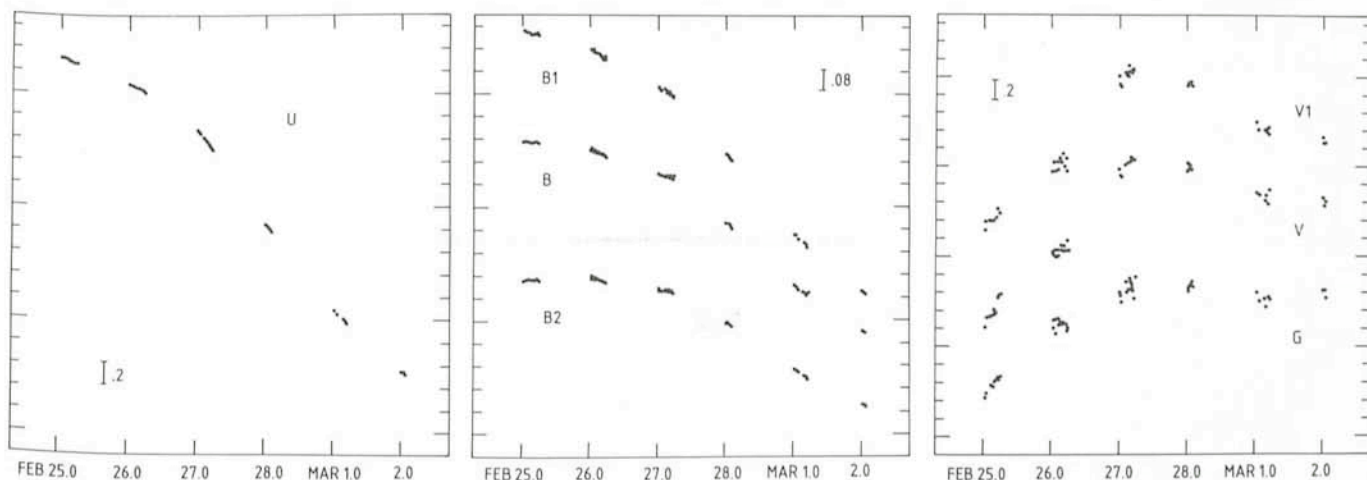


Figure 1: (a) U magnitude relative to the comparison star HD 37935; (b) B1, B and B2 magnitudes relative to the comparison star HD 37935; (c) V1, V and G magnitude relative to the comparison star HD 37935.