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PHOTOELECTRIC OBSERVATIONS OF THE FLARE STAR AD Leo DURING THE
1973 JANUARY 27 - FEBRUARY 9 INTERNATIONAL PATROL

Photoelectric observations of the flare star AD Leo have been carried out at the stellar station of the Catania Astrophysical Observatory according to the observing schedule proposed by the IAU Working Group on Flare Stars (Chugainov 1972).

The preliminary results are here reported.

In Table 1 the detailed coverage is given. During the 18.6 hours of observations two flares were detected. Their characteristics and light curves are given in Table 2, and in Figure 1, respectively.

The explanation of the symbols and details, both on the observing equipment and on the reduction procedure are given in a preceding number of this Bulletin (Cristaldi S., Rodonò M. 1971).

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References:

Chugainov, P.F. 1972. Comm.27 IAU, I.B.V.S. No.744.
Cristaldi, S., Rodonò, M. 1971, Comm.27 IAU, I.B.V.S. No.525.

Table 1
Detailed Coverage

| Date | Tel. | Light | Coverage (UT) | Total coverage | $\frac{3\sigma}{I_0}$ |
|---------------|------|-------|---|----------------|-----------------------|
| Jan. 30-31 | 61 | U/B/V | 21 ^h 30 ^m -2146; 2149-2218; 2227-2230; 2232-2249; 2254-0115; 0130-0141; 0157-0336; 0347-0406. | 335 | .04/.02/.02 |
| Feb. 6-7 | 61 | U/B/V | 2037-2114; 2125-2346; 0025-0121; 0134-0149; 0156-0159; 0202-0239; 0248-0431. | 392 | .17/.02/.02 |
| Feb. 7-8 | 61 | U/B/V | 2041-2306; 2309-2327; 2330-2345; 2348-0034; 0036-0057; 0100-0153; 0155-0224; 0225-0252; 0256-0430; 0432-0444. | 460 | .11/.02/.02 |
| Feb. 8-9 | 61 | U/B/V | 2051-2123; 2137-2146; 2149-2200; 2237-2242; 2246-2253; 2256-2314; 2316-2324; 2327-2339; 2342-2351; 2354-2359; 0007-0009; 0113-0116; 0156-0207; 0210-0213; 0217-0231; 0233-0246; 0301-0440. | 261 | .09/.04/.02 |

Table 2
Flare Characteristics

| no. | Tel. | Light | t_{max} (UT) | J.D. | d_b | d_a | $3\sigma/I_0$ | I_f/I_0 | $\max p$ | Energy erg | Air mass | f | sky |
|-----------|------|-------|---------------------------------------|-----------|-------|-------|---------------|-----------|----------|----------------------|-------------|-------|-----|
| Feb. 1973 | | | | | | | | | | | | | |
| 1 | 61 | u | 7; 02 ^h 02 ^m 60 | 1720.5905 | 1.5 | 9.8 | 0.12 | 0.53 | 1.56 | | 1.16 | 0 | 0 |
| | | b | 02.60 | | 0.3 | 0.1 | 0.03 | 0.08 | 0.02 | | | | |
| | | v | (not detectable) | | | | 0.02 | 0.02 | 0.00 | | | | |
| | | U | | | | | | 0.49 | 1.44 | 9.2×10^{30} | | | |
| | | B | | | | | | 0.07 | 0.01 | 5.9×10^{29} | | | |
| 2 (b) | 61 | u | 8; 23 40.70 | 1722.4961 | 0.8 | - | 0.15 | 1.93 | 17.23 | | 1.03 | 3-4-5 | 0 |
| (d) | | b | 23 50.05 | | 1.0 | - | 0.03 | 0.42 | 3.87 | | | | |
| (d) | | v | 23 50.50 | | 1.5 | - | 0.02 | 0.16 | 1.44 | | | | |
| | | U | | | | | | 1.76 | 16.02 | 1.0×10^{32} | | | |
| | | B | | | | | | 0.38 | 3.56 | 1.6×10^{32} | | | |
| | | V | | | | | | 0.13 | 1.17 | 1.1×10^{32} | | | |

