COMMISSION 27 OF THE I. A. U.
INFORMATION BULLETIN ON VARIABLE STARS
NUMBER 682

Konkoly Observatory
Budapest
1972 May 25

PHOTOELECTRIC OBSERVATIONS OF THE FLARE STAR AD Leo DURING THE 1972, FEBRUARY 9-22 INTERNATIONAL PATROL

The preliminary results of the AD Leo photoelectric observations carried out at the Catania Astrophysical Observatory during the 1972 capaign proposed by the IAU Working Group on Flare Stars (I.B.V.S. No. 605) are here reported.

The observations were performed by a symultaneous three colour photometer equipped with an EMI 6256 A (S13) photomultiplier and the Schott filter combinations: UG1/1 (U), BG12/1+GG13/2(B), GG14/2(V). The above photometric equipment was fed by a 61 cm quasi-cassegrain universal type reflector.

Adopting averaged coefficients, transformation equations from the Catania photometric system to the standard UBV were applied.

In Table 1 the intervals of effective coverage, which give a total of 4.2 patrol hours, and in Table 2 the characteristics of the observed flare are given. The flare light curve is shown in the accompanying Figure.

The explanation of symbols and additional details both on the observing equipment and the Catania photometric system can be found in Cristaldi S. and Rodonò M., Astron.and Astrophys. Suppl. (in press).

C. Lo Presti and F. Spinella have collaborated to the present work.
May 15, 1972

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Table 1: Detailed coverage of 1972,February 19-20 observations

Light	Coverage UT	Total coverage	$3\sigma/I_o$
UBV	23^h10^m-2315;2319-2330;0010-0032; 0034-0153;0205-0301;0303-0400; 0411-0433.	$4^h.2$	.13/.03/.02

Table 2: Characteristics of the observed flare
Date: 1972 Febr. 20, Air mass: 1.19, Feature:double,Sky:clear, moonless.

Light	t_{max} UT	JD_{hel}	d_b	d_a	$3\sigma/I_o(I_f/I_o)$ max.	$P_{min.}$	Energy erg
U	$01^h25^m.8$	2441367.5652	$1^m.2$	$17^m.1$	0.12	1.22	5.88 0.38×10^{32}
B	01 25.9	1367.5653	1.3	6.0	0.03	0.17	0.49 0.22×10^{32}
V	01 25.5	1367.5650	0.9	6.0	0.02	0.03	0.14 0.14×10^{32}