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PHOTOELECTRIC OBSERVATIONS OF UV Ceti

During the UV Ceti international patrol, planned for 1968 by Working Group on Flare Stars, we carried out continuous photoelectric monitoring of this star with the 91 cm cassegrain telescope at our stellar station in Serra La Nave (Catania).

The same photometer was used as for the observations of YZ CMi (IBVS n° 274). From October 11 to October 28 we have made about 50^h.0 of patrol in thirteen nights. The photoelectric coverage is given in Tab.I. The patrol times do not include the sky measurements.

For the time intervals enclosed under uncertain coverage, we can only exclude the happening of flares greater than 0^m.3. This is due to the bad quality of the seeing.

The characteristics of 64 observed flares are reported in Tab.II. The times d and D are the rise time and the total duration of the flare, respectively.

The times d' and D' are both referred to that part of the flare for which we have:

$$I_{\text{flare}}/I_{\text{min}} \geq 20 \% \quad I_{\text{flare max}}/I_{\text{min}}$$

Some more details will be published in the "Memorie della Societa Astronomica Italiana".

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Tab I
Photoelectric Coverage (October 1968)

N	Day	Coverage	Un- certain coverage	Number of observed flares	
				certain	uncertain
1	11	1 ^h 54 ^m 8	1 ^h 00 ^m 2	2	-
2	12	3 40.0	30.8	-	2
3	13	3 57.1	-	6	3
4	14	6 28.7	4.3	4	-
5	15	6 24.3	4.9	4	2
6	16	6 10.3	1.5	10	5
7	17	5 15.6	3.0	3	-
8	18	6 51.7	-	7	3
9	23	2 06.5	-	2	1
10	24	1 01.4	35.4	2	-
11	27	2 02.4	6.8	4	-
12	28	4 06.3	39.1	4	-
		49 ^h 59 ^m 1	3 ^h 06 ^m 0	48	16

Tab II
Characteristics of the Observed Flares (October 1968)

No.	Day	d	D	d'	D'	I_{\max}/I_{\min}	Remarks
1	11	0 ^m 50	1 ^m 60	0 ^m 28	0 ^m 80	2.30.	
2		0.40	10.00	0.28	2.50	1.79	
3	12	0.15	0.85	0.10	0.48	1.46	(1)
4		0.20	5.00	0.08	2.50	1.52	(1)
5	13	0.10	5.00	0.09	1.13	2.25	
6						2.27	
7		0.10	2.00	0.09	1.10	1.48	
8						2.31	
9		0.10	4.15	0.07	1.32	2.07	
10		0.05	1.20	0.04	0.75	1.38	(1)
11		0.05	3.70	0.04	0.30	1.64	(1)
12		0.05	0.50	0.04	0.40	1.48	(1)
13		0.05	1.70	0.04	0.28	3.06	
14	14	0.10	1.70	0.08	0.80	1.67	
15						1.69	(2)
16						1.71	(2)
17		0.10	1.50	0.08	0.43	1.77	
18	15					1.43	(2)
19						2.20	(2)
20						1.76	(2)
21		0.05	1.40	0.04	0.68	1.15	(1)
22		0.80	4.70	0.65	3.83	1.13	

Tab II (Cont.)

No.	Day	d	D	d'	D'	I_{\max}/I_{\min}	Remarks
23	15					1.63	(1) (2)
24	16	0. ^m 05	0. ^m 60	0. ^m 04	0. ^m 58	1.22	(1)
25						1.51	(2)
26						1.28	(2)
27		0.05	0.20	0.03	0.13	1.25	(1)
28		0.20	0.50	0.10	0.28	1.18	(1)
29		0.10	0.70	0.08	0.30	1.21	(1)
30						1.49	(2)
31		0.10	1.10	0.09	0.17	1.67	
32						1.29	(1) (2)
33		0.15	0.60	0.12	0.20	1.32	
34		0.05	0.70	0.04	0.50	1.58	
35						1.76	(2)
36						1.58	(2)
37		0.20	4.10	0.17	0.60	1.60	
38		0.15	2.10	0.08	0.35	1.75	
39	17	0.10	1.00	0.08	0.50	1.68	
40		0.00	0.40	0.00	0.22	1.51	
41		0.10	0.10	0.08	0.45	1.84	
42	18	0.20	3.20	0.13	0.72	1.43	
43		1.10	2.00	0.60	1.00	1.18	(1)
44		0.45	1.30	0.35	1.00	1.17	(1)
45						1.46	(1)
46						1.73	(2)
47						2.07	(2)
48						1.53	(2)
49		0.30	6.20	0.25	3.40	1.41	
50						1.59	(2)
51						4.47	(2)
52	23	0.20	1.50	0.07	0.62	1.63	
53		0.60	1.10	0.20	0.70	1.20	(1)
54		0.60	2.50	0.50	1.65	1.30	
55	24	0.05	1.80	0.05	0.11	2.02	
56		0.30	0.50	0.09	0.20	1.80	
57	27					1.51	(2)
58		0.05	1.35	0.05	0.50	1.49	
59		0.20	1.90	0.19	0.50	1.57	
60						1.44	(2)
61	28	0.15	0.40	0.14	0.22	2.10	
62						1.96	(2)
63						1.29	(2)
64		0.10	1.80	0.08	0.95	1.42	

Remarks: (1) uncertain; (2) complex structure.