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PHOTOELECTRIC OBSERVATIONS OF THE FLARE STARS  
 AD Leo AND WX UMa (1974)

Continual photoelectric monitoring of the flare stars AD Leo and WX UMa were carried out at the Okayama Station of the Tokyo Astronomical Observatory. The observations were made with the simultaneous three-colour photometer attached to the 91 cm reflector.

AD Leo

During the 28 hours of monitoring in total, 10 flares were observed. The detailed coverages are given in Table I. The characteristics of the flares are given in Table II.

WX UMa

During the 12.3 hours of monitoring in total, no flare activity was detected. The detailed coverages are given in Table I.

Some more details will be published in the Tokyo Astronomical Bulletin.

Table I  
 Monitoring of AD Leo and WX UMa  
 Monitoring Intervals

Date 1974	Coverage (UT)	Total Coverage Time	$\sigma$ (mag)		
			U	B	V
Feb. 13d	11 <sup>h</sup> 24 <sup>m</sup> - 17 <sup>h</sup> 11 <sup>m</sup>	<u>AD Leo</u> 5 <sup>h</sup> 47 <sup>m</sup>	.09	.03	.01
14	12 35 - 16 25	3 50	.05	.01	.01
16	11 46 - 14 10	2 24	.10	.04	.02
17	13 25 - 20 20	6 55	.09	.03	.01
18	10 59 - 19 10	8 11	.07	.04	.02
21	11 10 - 11 30	0 56	.12	.07	.04
	12 56 - 13 32				
Apr.		<u>WX UMa</u>			
23	16 57 - 17 49	0 52	.15	.04	.02
26	11 22 - 16 31	5 09	.19	.04	.02
27	11 01 - 11 30	1 56	.16	.03	.01
	12 15 - 14 11				
29	10 58 - 15 23	4 25	.12	.04	.01

Table II  
Flares of AD Leo at Okayama

Flare No.	Time of Max. (UT)	Filter	$\frac{I_{0+f}-I_0}{I_0}$	Max.			$d_b$ min	$d_a$ min
				$\Delta m$ mag.	P min			
1	1974 Feb. 13 <sup>d</sup> 14 <sup>h</sup> 06 <sup>m</sup> 5	U	2.86	1.47	4.3	0.4	6.7	
		B	0.33	0.31	0.6	0.4	6.5	
		V	0.12	0.12	0.2	0.5	6.0	
2	13 15 55.3	U	2.94	1.49	1.5	0.3	4.5	
		B	0.39	0.36	0.2	0.3	4.0	
		V	0.12	0.12	<0.1	0.3	1.1	
3	13 16 55.0	U	1.42	0.96	2.7	1.1	>6.0	
		B	0.14	0.14	0.2	1.1	>3.5	
		V	0.03	0.03	<0.1	0.9	1.6	
4	14 15 38.4	U	1.25	0.88	4.6	2.7	8.0	
		B	0.14	0.14	0.3	2.3	5.0	
		V	0.02	0.02	*	*	*	
5	17 14 34.7	U	5.19	1.98		4.0	>180.0	
		B	0.61	0.52		3.0	>180.0	
		V	0.20	0.20		2.5	>180.0	
6	17 14 35.9	U	6.80	2.23				
		B	0.80	0.64				
		V	0.27	0.26				
7	17 14 40.3	U	5.08	1.96				
		B	0.66	0.55				
		V	0.24	0.23	U>1318			
8	17 15 01.4	U	100.00	5.01		B> 230		
		B	13.86	2.93	V> 65			
		V	3.57	1.65				
9	17 16 02.4	U	7.09	2.27				
		B	1.11	0.81				
		V	0.50	0.44				
10	17 16 03.8 17 16 03.6	U	7.32	2.30				
		B	1.07	0.79				
		V	0.47	0.42				

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