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FLARE ACTIVITY OF YZ CMi

According to the proposal of the "Working group on flare stars" of the IAU Commission No 27 two series of continual observations of the star YZ CMi have been realized at the Burakan observatory. The Observations were done in the B colour during the periods 1968 Jan.22/Feb.6 and 1968 Feb.21/March 7 with the 20" Cassegrain telescope. The results of these observations are given in the table.

Date 1968	Observing time UT	Coverage	Δm	Time of max. UT	Duration of flares after max.	Remarks
22.I	19 ^h 15 ^m -20 ^h 02 ^m					
	20 07 -20 48	1 ^h 28 ^m				
25.I	20 33 -23 33	3 00	0,12 ?	21 ^h 55 ^m	1 min	
			0,16 ?	22 04	1 min	1)
26.I	18 10 -21 22	3 12	0,36	19 17	9,5 min	
4.II	18 43 -22 17	3 34	0,46	20 36.2	38,5 min	
			1,12	21 13.4	47,3 min	
5.II	20 33--23 08	2 35				
6.II	19 53 -22 40	2 47				
22.II	16 39 -20 40	4 01	0,16	17 45.5	6,5 min	
23.II	16 45 -22 00	5 15	0,33	16 51.3	1 min	2)
24.II	16 30 -21 00	4 30	3,21	16 51.5	cca 4 hours	
Total		30 22				

- 1) The measurements are not very reliable and must be checked with other observations.
- 2) Until 17^h20^m UT the star was about 0,1 magnitude brighter than before the flare.

Six reliable and two suspected flares were observed during a total coverage of $30^{\text{h}}22^{\text{m}}$. The mean frequency of flare appearance calculated from these data is:

a) one event per $5^{\text{h}} 04^{\text{m}}$ if considering the reliable flares only, or

b) one event per $3^{\text{h}} 48^{\text{m}}$ if taking into account the suspected flares as well.

The figure shows the smoothed light-curve of the strongest flare observed during these two series (24-II-1968). It should be noted, that on this evening the brightness of the star was already for about one magnitude above the normal one, as we started with our observations.



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