

TWO-COLOUR OBSERVATIONS OF SPIKES AND FLARES WITH HIGH TIME RESOLUTION

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Observations of flare stars with high time resolution permit to register spiky type flares and also to study in detail bright curves of flares. In Byurakan observatory observations of EV Lac have been made with 0.1 s time resolution simultaneously in two filters "U" and "B" [1-3]. These observations permitted to detect flares of a burst type (Fig.1) and also to reveal multipeak structure of long duration flares. It is necessary to stress that simultaneous observations in two colours increases appreciably the trustworthiness of the registered spiky flares.

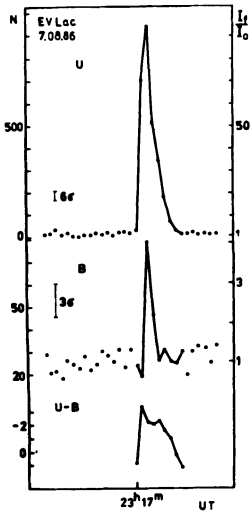


Figure 1.

On Fig.2 the dependance of the colour $U-B$ of the star at flare maximum from the amplitude ΔU of the flare is presented. The data on separate definite peaks on the light curves of a long duration flares agree with the data on single spikes, which permits to suggest that long duration flares may be a superposition of short flares.

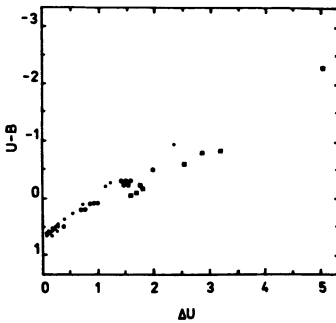


Figure 2. ○ - [5], ● - [4], ■ - our observations.

The data obtained by observations with 1 s [4] and 4 s [5] time resolutions are also presented in Fig.2. These data show that the slope of the colour - flare amplitude dependance decreases with the decrease of time resolution. The determination of the true slope of this dependance is very important for the interpretation of flare events.

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