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PHOTOMETRIC VARIABILITY OF PRE-MAIN SEQUENCE STARS

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For several decades we have been performing photometric monitoring of some of the star formation regions. A significant part of our program is focused on young variable stars, such as FU Orionis, EX Lupi and UX Orionis objects. These three types of young variable stars show changes in brightness with large amplitudes and attract the attention of star formation researchers. But it is not always possible to distinguish them from each other without the presence of long-term multicolor photometric data. For this reason, we collect data from current CCD observations and supplement them with data from the photographic plates archives.

In this presentation, we show the latest data from optical photometric studies of several young variable objects made at the Rozhen Observatory. Our selection contains the following objects: V2493 Cyg, V733 Cep, V582 Aur, V900 Mon, V350 Cep, V1180 Cas, V1184 Tau and GM Cep. Our monitoring is carried out in BVRI filters, which allows studying the variability in color indexes also. By analysis the historical light curves of these objects we are trying to obtain information about the processes associated with the early stages of stellar evolution.