

# Photometric follow-up of the FUor star HBC 722: Change in the brightness decreasing rate

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We continue the photometric monitoring of the FUor star HBC 722 (see also ATel #[2801](#), #[2808](#), #[2819](#), #[2854](#), #[3040](#), #[3165](#)) in the field of NGC 7000/IC 5070. The recent BVRI photometric data were obtained with the telescopes of the National Astronomical Observatory Rozhen (Bulgaria). The outburst of HBC 722 was detected during the summer of 2010 (Semkov et al., 2010, A&A, 523, L3; Miller et al. 2011, ApJ, 730, 80) and up to September 2010 the star brightness increased by 4.7 mag (V). Since October 2010, a slow fading was observed and up to February 2011 the star brightness decreased by 1.1 mag (V). The calculated by Kospal et al. (2011, A&A, 527, 133) fading in brightness is 0.25 mag/month (I) for the same period.

Our photometric observations obtained in the period February 6 - April 7, 2011 suggested that the fading is much slower than before. Our estimations give the values as follow: For I and R the fading is approximately 0.05 mag/month, for V - 0.07 mag/month, and for B - 0.11 mag/month. The light curve break happens in the late January/beginning of February. This change in the brightness decreasing rate indicates that the outburst of HBC 722 will continue much longer than the early estimates. We consider this result as one more another confirmation of the FUor nature of the observed outburst.