

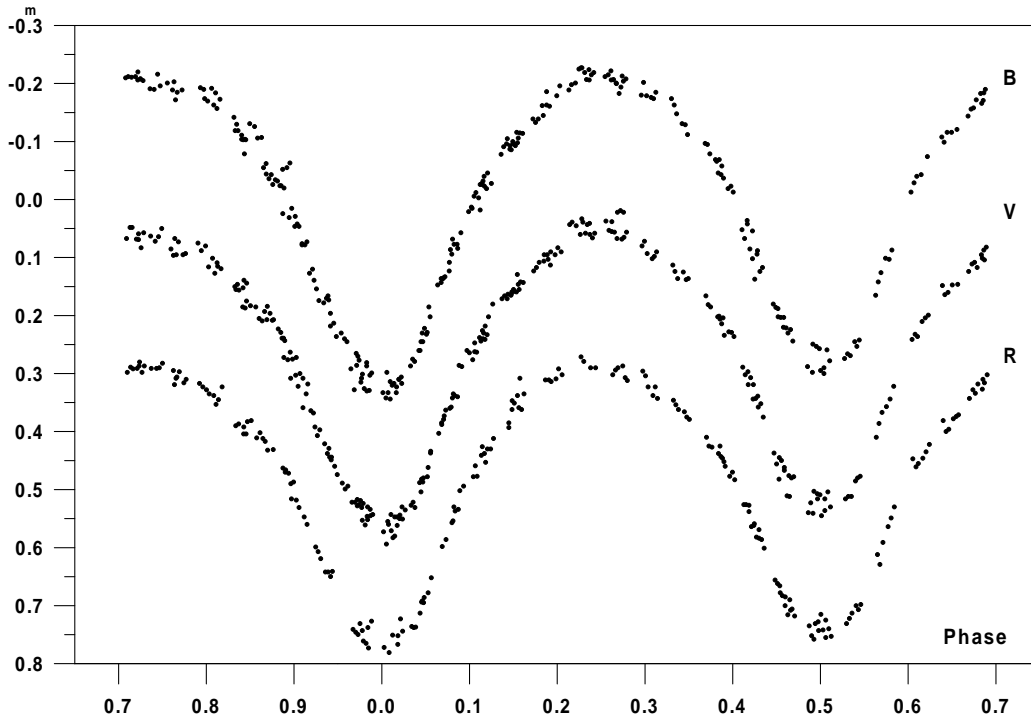
**FIRST PHOTOMETRIC OBSERVATIONS OF  
YY CORONAE BOREALIS**

SİPAHİ, ESİN; KESKİN, VAROL; YAŞARSOY, BÜLENT

Ege University, Science Faculty, Astronomy & Space Sciences Department, Bornova 35100, İzmir, Turkey  
sipahi@astronomy.sci.ege.edu.tr

<b>Name of the object:</b>
YY CrB = BD +38°2706 = HIP 77598 = HD 141990

<b>Equatorial coordinates:</b>	<b>Equinox:</b>
R.A.= 15 <sup>h</sup> 50 <sup>m</sup> 32 <sup>s</sup> .43 DEC.= +37°50'07".6	2000



**Figure 1.** Observations of YY Crb in *B*, *V* and *R* bands. 0<sup>m</sup>2 and 0<sup>m</sup>4 values added to *V* and *R* light curves respectively, in order to plot all curves detached.

<b>Observatory and telescope:</b>	
Ege University Observatory, 48-cm Cassegrain telescope	
<b>Detector:</b>	Hamamatsu, R 4457 (PMT)
<b>Filter(s):</b>	Johnson <i>B</i> , <i>V</i> and <i>R</i>
<b>Comparison star(s):</b>	BD +37°2687 = HIP 78028
<b>Check star(s):</b>	BD +37°2693 = HIP 78214
<b>Transformed to a standard system:</b>	No
<b>Availability of the data:</b>	
Upon request	
<b>Type of variability:</b>	EW
<b>Remarks:</b>	
<p>The relatively bright EW type eclipsing binary YY CrB was discovered by HIPPARCOS (ESA, 1998). The photometric observations of the system by HIPPARCOS show a regular W UMa type light curve. The variation range of this light curve is between from 8<sup>m</sup>643 to 9<sup>m</sup>134 and the light curve has almost equal minima and maxima. The mean orbital period derived by HIPPARCOS from the light curve fit is 0<sup>d</sup>376565 and the epoch is given as JD 2448500.2960 (ESA, 1998). Spectral type of the system is given as G5. YY CrB was observed in 1 and 8 July 1999 at the Ege University Observatory and in 10 and 12 July 1999 at TÜBİTAK (Scientific and Technical Research Council of Turkey) National Observatory. It can be seen from the figure that the maxima of all light curves seem to be equal and there are no significant asymmetry. There are continuous variations in the light curves. Due to the irregular brightness variations, one can not observe the same brightness in the same phase in every consecutive observation. Three primary and one secondary minima were obtained during the observations. These minima were given among the other systems' minima in Keskin et al. (2000).</p>	
<b>Acknowledgements:</b>	
We would like to present our thanks to the TÜBİTAK National Observatory for partial financial and equipment support.	

#### References:

- ESA, 1998, The Hipparcos & Tycho Catalogues, SP-1220  
 Keskin, V., Yaşarsoy, B., Sipahi, E., 2000, *IBVS*, No. 4855