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VYSS 124 AS A BY Dra VARIABLE

The star Vyss 124 (AC +22<sup>o</sup>214-129, Yale 2399.1) was included in the search program on red dwarfs of the I.T.A. Astronomical Observatory (Ferraz-Mello, S. and Torres, C.A.O., 1971) due to its hydrogen emission lines (Bidelmann, W.P., 1954). It was observed photoelectrically in B and V colours in 14 different nights against two comparison stars (BD +21<sup>o</sup>2173 and BD +20<sup>o</sup>2457). At that time we found a rather large dispersion in the data.

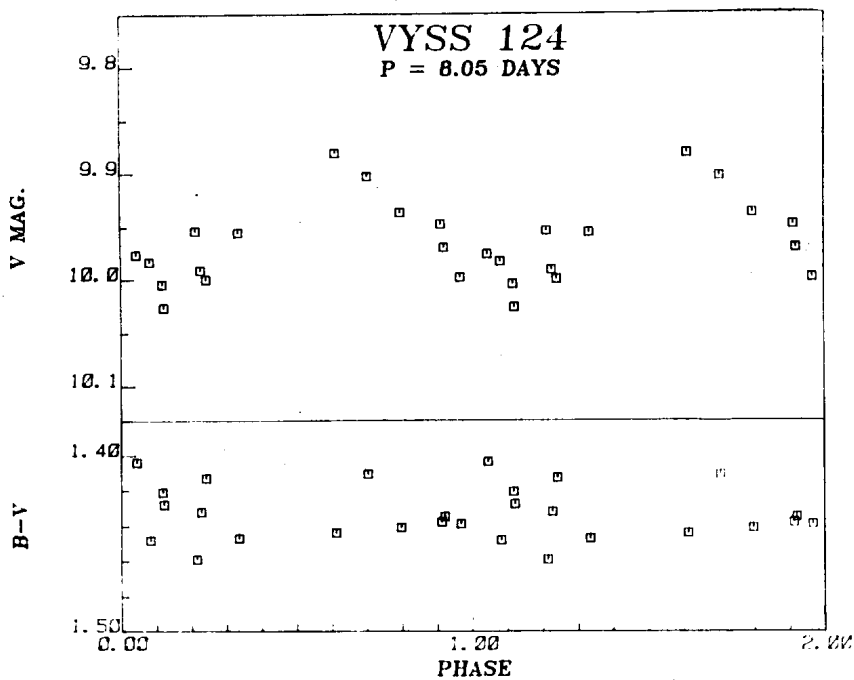


Figure 1: Light curve of Vyss 124

We now reanalysed the data and used more refined period search techniques. In both colours, and against both comparison stars there appears a variation with a period of 8.05 days. Fig. 1 shows the light curve using the first comparison star; it can be seen that the amplitude is on the order of 0.1 mag. We note that with a period of 8.05 days this star will be one of the slowest BY Dra variables and it therefore deserves more attention. Nevertheless, an inspection of Fig. 1 shows that the points are not well distributed in phase, so more observations are needed.

Our adopted magnitudes and colour indices for the comparison stars were:

BD +21 <sup>o</sup> 2173	V = 9 <sup>m</sup> .35	B-V = 1 <sup>m</sup> .17
BD +20 <sup>o</sup> 2457	V = 9.57	B-V = 1.35

Eggen (1968) published photometric observations of Vyss 124 (V = 10.20, B-V = 1.365) which are fainter and bluer compared with our results. The spectral classification of Joy and Abt (1974) is dM0e, which is compatible with both measures. Gliese and Jahreiss (1979) use Eggen's values to estimate a distance of 20 pc. Our results may imply that the star is nearer.

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