THE UBV PHOTOMETRY FOR A NEW RR-TYPE VARIABLE IN Leo

A new RR-type variable in Leo, discovered by Huruhata (1983), was observed on February, March and May using UBV photometer attached to the 91 cm reflector at McDonald Observatory. The results from about 420 observations show that the period is $0.^{d}6738459$ instead of $0.^{d}402132$ given by Huruhata. The derived elements are as follows:

$$\text{Max} = \text{J.D. (H)} 2445741.159(\pm 0.^{d}002) + 0.^{d}6738495(\pm 0.^{d}0000100).$$
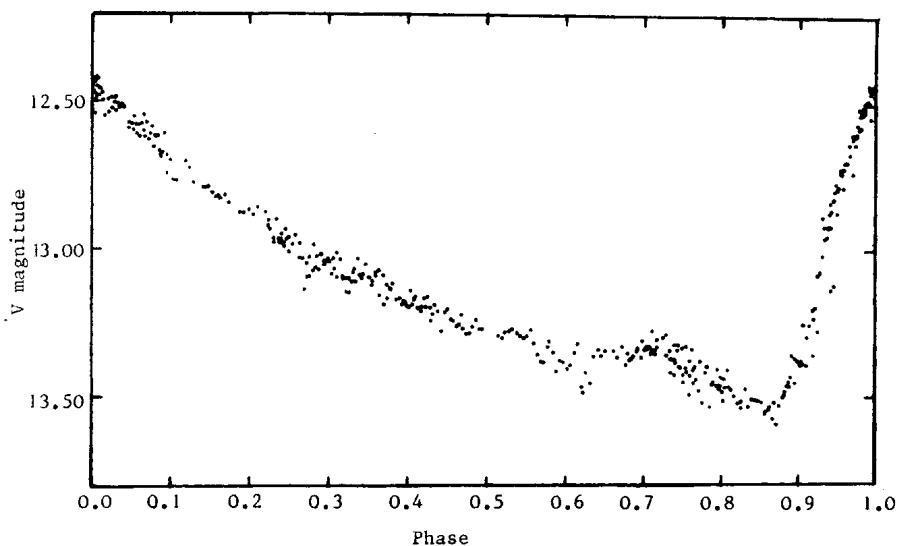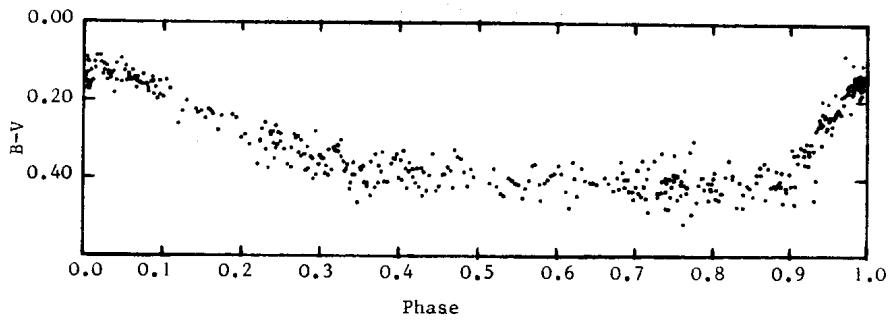

Figure 1
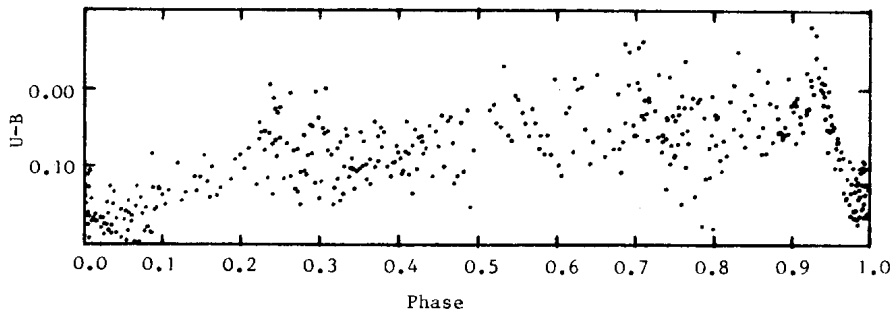
The light curve of V magnitude

Figure 2

The variation of (B-V)

Figure 3

The variation of (U-B)

The magnitude and the colour indexes at maximum are: $V_{max} = 12^{m}_{\cdot}44$, $(B-V)_{max} = 0^{m}_{\cdot}10$, $(U-B)_{max} = -0^{m}_{\cdot}03$. The amplitudes are: $\Delta V = 1^{m}_{\cdot}10$, $\Delta(B-V) = 0^{m}_{\cdot}34$, $\Delta(U-B) = 0^{m}_{\cdot}21$. The skewness of light curve, $\varepsilon = 0.14$. These characters show it is an RRa-type variable. The light curve is shown in Figure 1.

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Reference:

Masaaki Huruhata, 1983, I.B.V.S. No. 2402