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OPTICAL BEHAVIOUR OF THE POLAR ST LEONIS MINORIS = CW 1103 + 254 IN THE  
 SEASON 1986/87

Using the sequence of comparison stars given in the IBVS No. 2735 the star was measured on 22 blue-sensitive plates (ORWO-ZU21 + GG13 + BG12) from 14 nights obtained with the 50/70/172 cm Schmidt camera of Sonneberg Observatory covering the time interval between 27 November 1986 and 23 May 1987. The individual observations are listed in Table I.

Table I

J.D. hel	$m_B$	J.D. hel	$m_B$	J.D. hel	$m_B$
244....		244....		244....	
6762.612	15. <sup>m</sup> 06	6877.460	15. <sup>m</sup> 76	6909.431	15.34
6763.613	14.85	6877.481	15.84	6909.450	16.16
6769.617	14.73	6881.474	16.04	6910.425	16.27
6826.636	15.70	6881.493	16.00	6910.443	15.83
6826.656	15.70	6884.437	15.82	6913.409	16.39
6827.622	15.77	6884.460	16.05	6939.391	16.02
6827.643	16.05	6885.449	15.68	6939.411	16.09
6828.615	15.4 :				

The long time-scale light curve in B is shown in Figure 1.

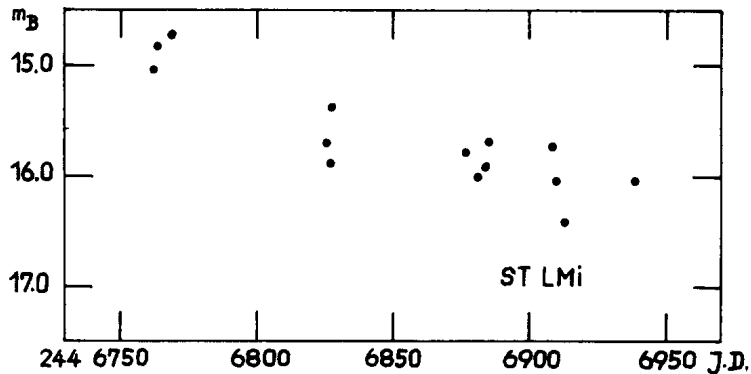


Figure 1.

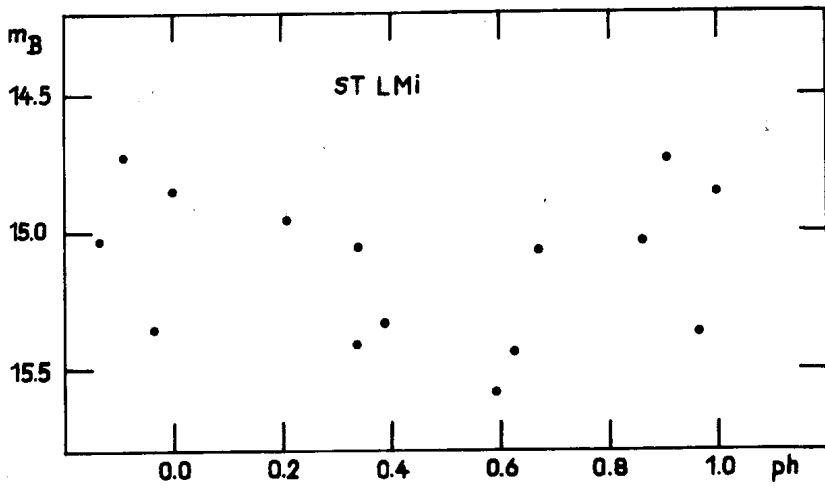


Figure 2

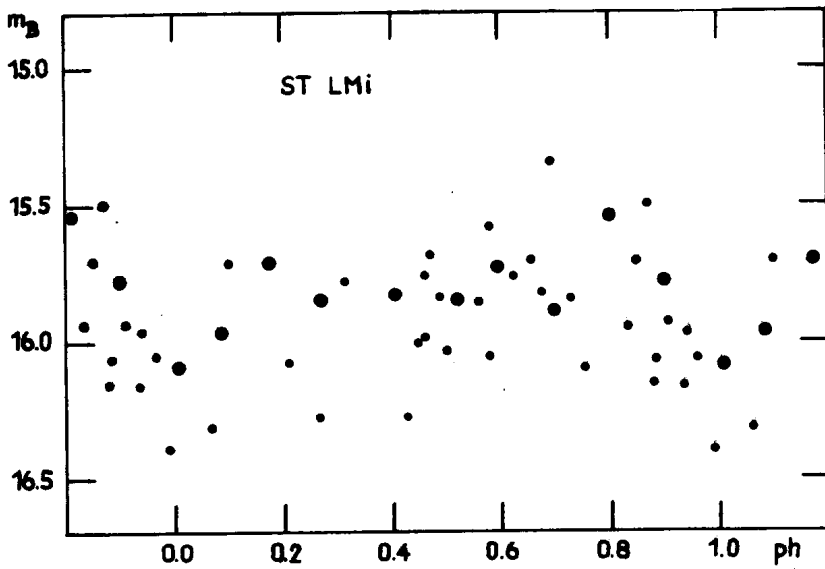


Figure 3

There a slow decrease of brightness from  $\bar{m}_B = 14.^m9$  to  $\bar{m}_B = 16.^m1$  within the given time interval can be seen. A similar behaviour, which can be explained as a decrease from the X-ray heated high state to the mean brightness state could be shown also from the observations of 1986, which are published in the IBVS No. 2955.

The observations of the high and the mean brightness state were reduced to one common epoch by means of the orbital elements given in the IBVS No. 2735. The results are shown in the Figures 2 and 3, where the individual observations (small dots) and the mean magnitudes (large dots) obtained from series of the time interval between 1983 and 1985 (IBVS No. 2735) are plotted against the phase. Both, the individual observations and the mean magnitudes correspond to the given orbital elements.

From Figure 2 it can be presumed that the minimum phase of the high state is displaced to phase  $\sim 0.5$ . More observations are needed to make statements about the behaviour of the orbital light changes in the low state ( $m_B \sim 16.^m7$ ).

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