

To arrive at the original value, Mrs. Wills had a total of 52 observations; Miss Harwood a total of 112. In plotting the light curve for AA Scuti, I had scrutinized over 900 Nantucket plates. The appearance of the light curve produced from these data, displaying well-defined maxima and minima, contradicts a 153 day period. I can only assume that in updating the period, a sample of observations was made which showed maxima occurring in the predicted intervals, and that these observations were taken as confirmation of a 153 day period.

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REFERENCES

- Harwood, M. 1930, Bulletin Harvard Coll. Obs., No. 880, 10.
 _____ 1960, Ann. Sterrew. Leiden, 21, 387.

S4693, A POSSIBLE Z CAMELOPARDALIS STAR IN CYGNUS

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Abstract

The variability of S4693 has been confirmed. It is conjectured to be a Z Camelopardalis star.

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I estimated S4693, $\alpha = 19^{\text{h}}25^{\text{m}}44^{\text{s}}$, $\delta = +42^{\circ}53'2$ (1900) in Cygnus on 650 plates taken from JD 2,424,680 to 2,443,691 at the Maria Mitchell Observatory. The star exhibits irregular outbursts of more than 2.5 magnitudes. The duration of these outbursts is between 3 and 14 days. All rises to maximum are very steep, occurring in about 1 day. This description fits well with the Z Cam type stars.

A distinctive feature of the Z Cam light curve is the occasional halt at an intermediate magnitude on the descending side of the outburst. This has not been observed in S4693 but may well be happening below plate limit.

Further observations of this star's light variation and spectral type are necessary for convincing classification.

Selected parts of the light curve (Figure 1) and a finder chart (Figure 2) are given.

I would like to thank Dr. Hoffleit for her patient assistance with this research.

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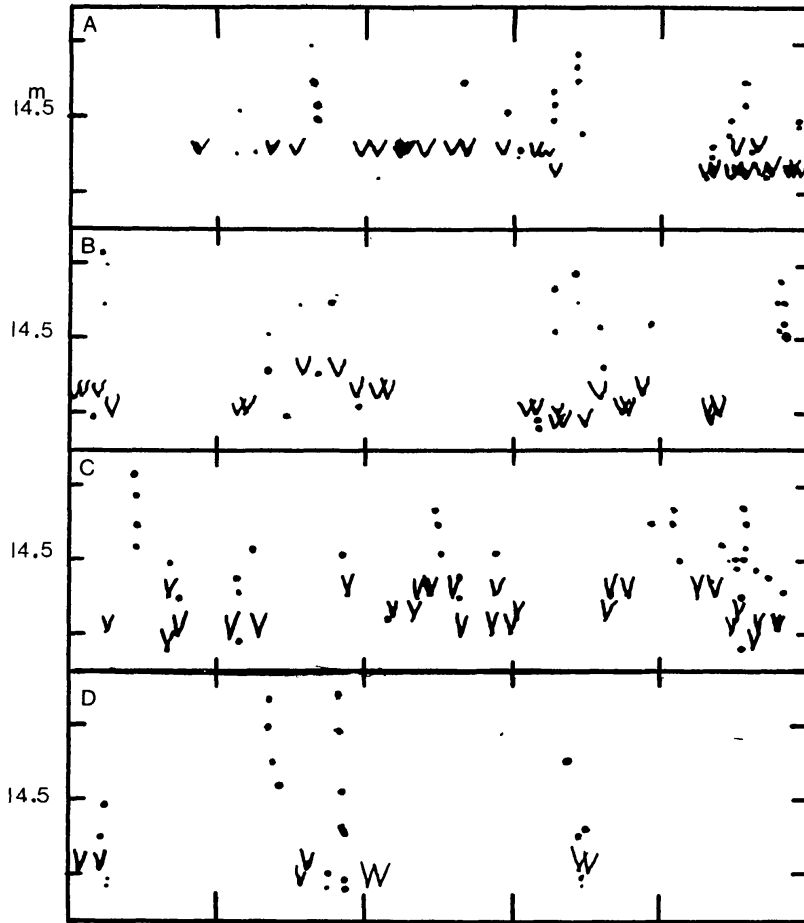
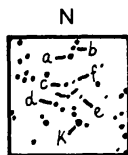


Figure 1. Selected parts of the light curve for S4693. The abscissa is marked in 200 day intervals and the ordinate is marked in 1 magnitude intervals. Small dots are questionable observations. A--JD26000-27000; B--27000-28000; C--29000-30000; D--43000-44000.



Comparison stars: K - 13^m0
 a - 13.5 d - 15.3
 b - 14.5 e - 15.5
 c - 15.0 f - 15.7

Figure 2. Finder chart for S4693. Approx. 10' x 10'.

(magnitudes for a and b are from Beljawski, 1936)

REFERENCE

Beljawski, S. 1936, Perem. Zvezdy, 5, 36.