

COMMISSION 27 OF THE I. A. U.  
INFORMATION BULLETIN ON VARIABLE STARS

NUMBER 618

Konkoly Observatory  
Budapest  
1972 January 28

SUSPECTED DUPLICITY OF THE Ap STAR 53 Cam

The radial velocity measures of spectra taken during different cycles (1967-1969) did not satisfy the wellknown period of about 8 days of this magnetic and photometric variable (Inf.Bull.Var. Stars No.388.) A new series of spectra covering a little more than one cycle had been taken on February 1970 (dispersion 12 Å/mm). The 8<sup>d</sup>-period variations of radial velocity are evident from Fig.1.

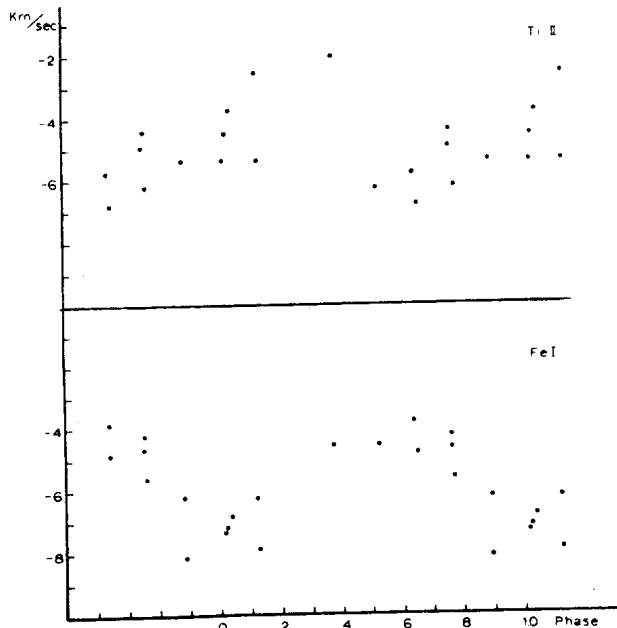


Figure 1

These variations appear to be superimposed on a longer still unknown period (see Fig.2); the radial velocity of Fe I lines shows a maximum positive value between October 1967 and March 1968, becomes negative again on March 1969 and is still negative on December 1971 (not plotted). A correction has been allowed for, in order to reduce all the observations to phase zero, assuming that the amplitude of the 8<sup>d</sup>-variations remains constant.

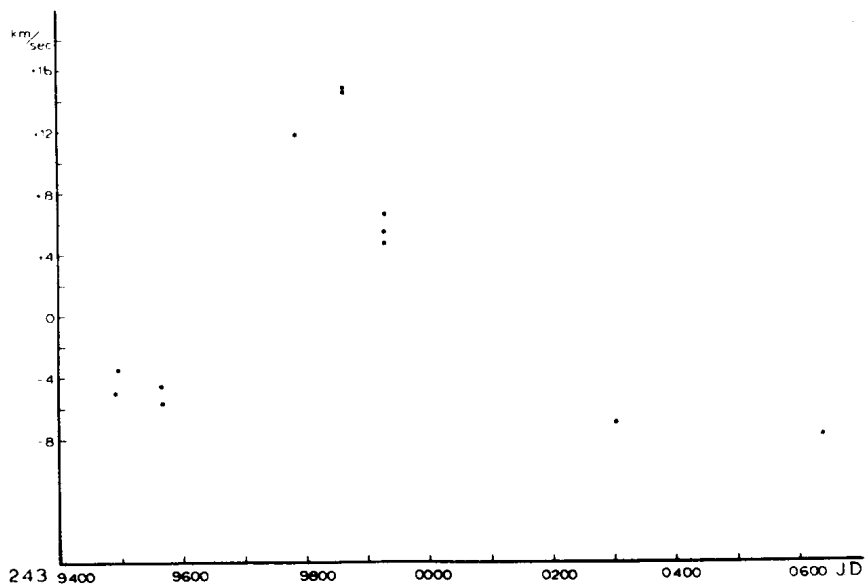


Figure 2

These observations can be explained with the hypothesis of a duplicity: 53 Cam should describe an eccentric orbit around an unseen companion. The period is probably of several years but more observations are needed to determine it.

21 st January 1972

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