

COMMISSION 27 OF THE I. A. U  
 INFORMATION BULLETIN ON VARIABLE STARS  
 NUMBER 138

Konkoly Observatory  
 Budapest  
 9 June 1966

PHOTOELECTRIC OBSERVATIONS  
 OF THE NEW DELTA SCUTI VARIABLE  
 HD 107904

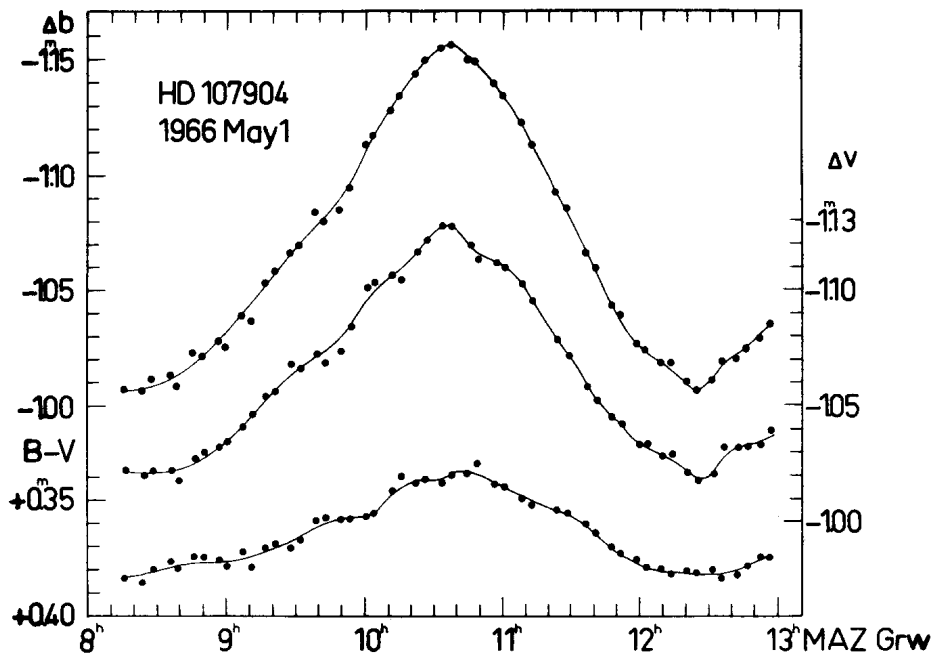
HD 107904 (Fo) belonging to the Hyades moving group was suggested by O. J. Eggen to be a  $\delta$  Scuti-variable. From 22 spectra taken with the 36" Yapp reflector D.H. P. Jones and C. M. Haslam (The Observatory 86, 34, 1966) derived a radial velocity curve of about 30 km/sec amplitude and a period of 0<sup>d</sup>.1707 - typical for a  $\delta$  Scuti-variable.

A first series of photoelectric b, v observations with the 24" reflector of the Lippert Astrograph (1966 May) covering a whole period show the respective light variation (figure). The comparison star used was BD +43°2221 of spectral type F2, for which star preliminary measurements give  $V = 7^m.098$  and  $B-V = 0^m.369$  in the B, V system.

The ordinates in the figure give the magnitude differences  $\Delta b = b_{var}^o - b_{comp}^o$  and  $\Delta v = v_{var}^o - v_{com}^o$  in the instrumental system. The color B-V refers to the B, V system. As it was an extraordinary photometric night the mean error of one observation turned out to be about  $\pm 0^m.002$ .

As yet photoelectric measurements have been made in 4 nights yielding the following results:

Maximum	$\Delta m_b^{\max}$	ampl. <sub>b</sub>	$\Delta m_v^{\max}$	ampl. <sub>v</sub>
243 9247.4423	-1 <sup>m</sup> .156	0 <sup>m</sup> .150	-1 <sup>m</sup> .127	0 <sup>m</sup> .110
9259.5075:	-1.070	0.029	-1.067	0.019
9262.4850	-1.100	0.065	-1.095	0.047
9266.4129	-1.111	0.056	-1.096	0.044



It is known that variations in form and amplitude of the light curve are quite usual for  $\delta$  Scuti variables. Further observations are urgently needed to get at the secondary period of these variations.

1966 May 29

A. A. WACHMANN

Hamburg Bergedorf  
Sternwarte

Ny. 1117/1966.