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THE MASSES OF BM CAS, X CYG, RT AUR, RR LYR

Prosecuting the program of study on giant variables stars (1), we present the curves $\sigma = \sigma(M)_{T_e, R}$ (T_e, R of the static model) obtained applying our computational method to the following stars: BM Cas (Fig. 1), X Cyg (Fig. 2), RT Aur (Fig. 3) and RR Lyr (Fig. 4).

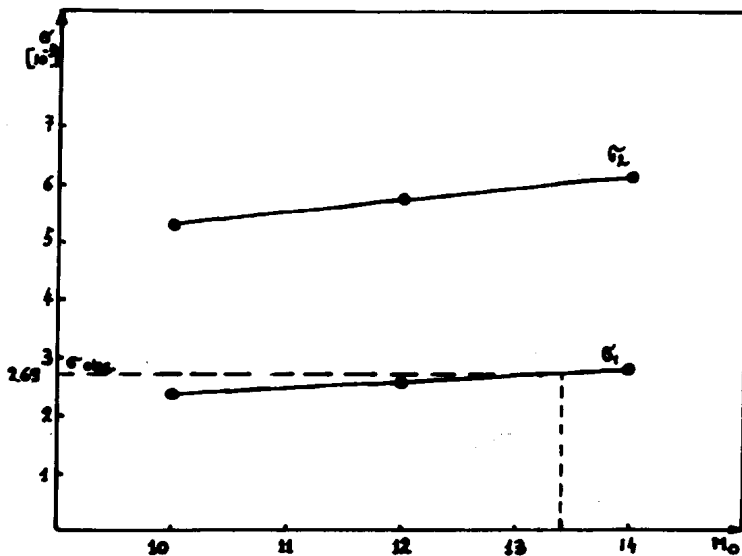


Fig. 1

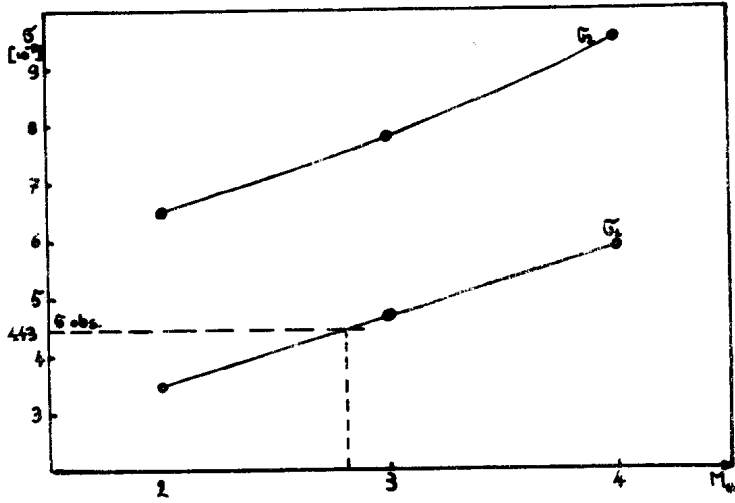


Fig. 2

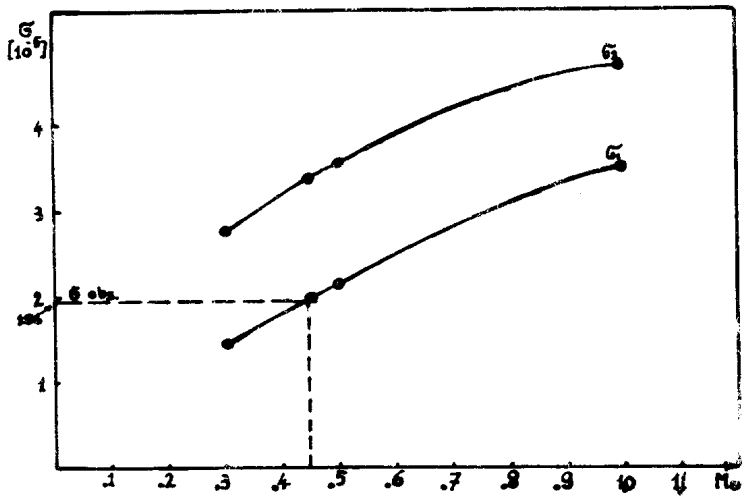


Fig. 3

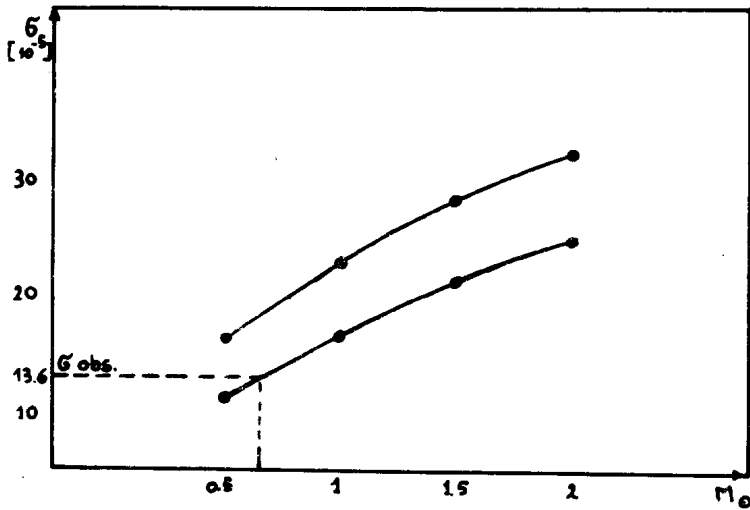


Fig. 4

From the curves it follows that if the stars oscillate on the fundamental mode the deduced masses are:

	T_e	R	M/M_\odot
BM Cas	4400	1.56×10^{13}	13.5
X Cyg	5000	4.77×10^{12}	2.8
RT Aur	6000	9.6×10^{11}	0.45
RR Lyr	8000	3.75×10^{11}	0.65

The masses of BM Cas and RR Lyr are very close to those deduced by Thiessen (2) and R.F. Christy (3).

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- (1) Inf. Bull. on Variable Stars N° 251
- (2) Zeit. f. Astr. 39, 65, 1956
- (3) Bamberg 77 (1965)