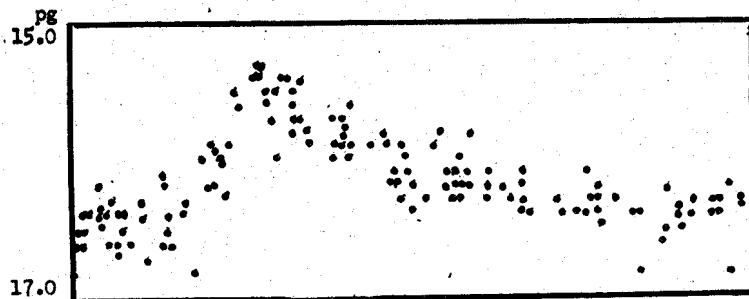


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PERIODS FOR TWELVE NEW VARIABLE STARS IN SAGITTARIUS

Periods have been determined for twelve new variable stars in Sagittarius, listed in the Table. The variables have been examined on Harvard and Nantucket plates by the persons noted in the column headed "Obs." Two of the stars are of special interest. The observations of Var.No.5 cannot be represented by a constant period but are adequately satisfied by the small additional secular term. The earliest observation is for 1899, the latest, 1951. This star is a member of the globular cluster, M28. The semi-regular star, No.12, shows two intervals of regularity separated by an interval of seemingly random phases.



Observations of Var.5 represented by $Ep. + \text{Phase} = 1^m 47.29305 + 2 \cdot 10^{-9} (J.D. - 28000)^2$

No	RA(1900)	Dec	Max	Min	Type	Per	J.D.	ep	Sp
	18 ^h								
1	11 ^m 29 ^s	-27°51'16"	11.1	12.1	SRa	57 ^d .3	36050	76	M2
2	14 02	-22 58.2	13.7	[15.0	EA	21.466	32473.23	463	
3	15 09	-23 08.4	14.3	16.3:	SRa	186	24400	70	M:
4	18 23	-22 21.3	14.0	15.5	SRa	112.5	32063	88	M
5	18 34	-24 55.8	15.4	16.6	RR	0.5782670	28022.400		
6	18 47	-26 32.4	13.7	[14.5	M	189	33850	50	M8
7	18 50	-26 39.0	15.0	[16.0	M	262	27980	38	M:
8	18 56	-26 29.6	14.0	15.5	SR	117.5:	25775		
9	19 58	-23 03.7	14.4	16.3	C	14.40	28022	611	
10	20 59	-22 21.1	15.0	[16.0	M	281	26560	32	
11	23 58	-25 38.0	14.0	15.0	RR	0.565429	33858.392		
12	25 36	-26 22.8	14.1	[15.5	SRa	149	{26200		M2:
							{36100		

*Observers and computers are Linda Deery (observer for No.5); Hoffleit (observer for Nos.1,2,3,6,7,9,10,12 and computer for Nos.1,2,4-12); Joann Lawless (observer for No. 11); Joyce Pasdoe (observer for No.5); Zora Prochazka (observer for Nos.8,11); Ethel Richardson (observer for Nos.3,8).

Notes:

- No.5. Changing period: $\text{Max} = 28022.400 + P_o \cdot E + 4.10^{-10} E^2$
6. Images affected by companion
11. Large magnitude scatter from blended images
12. The period represents all observations for J.D. 2423500-27000, and J.D.33000-40100, but with a 70 day shift of phase between the two groups. J.D.2427000-33000 not well represented.

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