Letter to the Editor

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"Brighter Maxima of 30 Selected Mira-Type Variable Stars for the Period 1978–1997"

Observing the sky is my favorite hobby, although I think that all events in the sky catch my interest. Meteors were probably the first astronomical event that I saw when I was a child. I remember that it was a summer night and I was returning home to a little town near Lake Maggiore. Since that time my interest in the sky has been constant. After many years of observations, all of them registered in a diary, I decided to review my more than 10,000 observations of variable stars. Most of these data concern Mira-type variable stars. All observations were sent to the American Association of Variable Star Observers.

A number of Mira-type variable stars are very peculiar in having a bright maximum (when they can be observed with binoculars or naked eye) and a very deep minimum (when a large telescope is required). For example, the variable star χ Cygni changes its brightness from 4th magnitude to 13th magnitude and back to 4th in a period of about 400 days.

Table 1 summarizes my observations of 30 selected Mira-type variable stars. I have only reported my observations of some of the brighter maxima.

It is interesting to see that references report different values for the brighter maxima of these stars. Stars were selected in order to have a lot of observations, and the coverage varies from 172 observations for R Leonis to 24 observations for R Ophiuchi.

With the contributions of many observers, the AAVSO can cover many light curves, and it is obviously important to send all observations to a world center such as the AAVSO.

References

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Table 1. Brighter Maxima of 30 Selected Mira-Type Variable Stars.

Desig.	Name	Author Code (see notes) Fl	P	B	Ca	A	Observed Magnitude	Julian Date 2400000+	No. of Obs.
1901+08	R Aql	5.3	5.5	5.3	5.5	6.1	5.8	45703.5	154
1432+27	R Boo	6.7	5.9	6.7	6.2	7.2	6.8	44068.5	58
								45190.5	
0214–03	o Cet	3.0	2.0	3.0	2.0	3.4	2.3	50500.5	140
0220–00	R Cet	8.3	7.0	7.4	7.2	8.1	7.6	48566.5	50
0703+10	R CMi	7.5	7.2	7.3	7.2	8.0	7.8	49728.5	89
0727+08	S CMi	7.6	7.0	7.0	6.6	7.5	7.0	47206.5	55
0811+12	R Cnc	6.3	6.0	6.1	6.0	6.8	6.9	44963.5	37
0816+17	V Cnc	6.8	7.1	7.5	7.5	7.9	7.6	50590.5	28
1517+31	S CrB	6.9	6.0	6.0	5.8	7.3	6.5	49287.5	38
1946+32	χ Cyg	4.5	4.2	3.6	3.3	5.2	4.2	46654.5	146
1934+49	R Cyg	6.9	5.6	6.6	6.1	7.5	6.9	49719.5	28
2009+38	RS Cyg	—	6.8	6.6	6.5	7.2	6.9	50275.5	129
2038+16	S Del	8.5	8.4	8.3	8.3	8.8	8.5	45690.5	49
1647+15	S Her	6.3	5.9	6.5	6.4	7.6	6.7	49460.5	58
1621+19	U Her	7.1	6.7	6.5	6.4	7.5	7.1	50280.5	57
0942+11	R Leo	5.8	5.0	5.2	4.4	5.8	5.5	45105.5	172
0455–14	R Lep	6.5	6.0	5.9	5.5	6.8	6.0	43831.5	66
1811+36	W Lyr	—	7.3	7.5	7.5	7.9	7.7	45086.5	33
1702–15	R Oph	7.8	6.0	7.0	7.0	7.6	6.9	48846.5	24
1621–12	V Oph	—	7.3	7.3	7.3	7.5	7.4	49234.5	33
0549+20A	U Ori	—	5.4	5.4	4.8	6.3	6.1	47114.5	95
1546+15	R Ser	6.6	5.6	5.7	5.1	6.9	6.0	45187.5	106
								45890.5	
1602+10	U Ser	—	7.7	7.8	7.8	8.5	7.4	46588.5	36
0231+33	R Tri	—	5.3	5.7	5.4	6.2	5.8	50023.5	27
1037+69	R UMa	7.0	5.9	6.7	6.5	7.5	7.1	47700.5	41
1239+61	S UMa	7.9	7.0	7.4	7.1	7.8	7.4	45763.5	75
1231+60	T UMa	7.6	5.5	6.5	6.6	7.7	7.1	49728.5	49
1233+07	R Vir	7.0	6.2	6.2	6.1	6.9	6.5	44407.5	42
1327–06	S Vir	6.7	6.0	6.2	6.3	7.0	6.7	46590.5	36
1220+01	SS Vir	—	7.2	6.0	6.0	6.8	7.2	48609.5	57

Author Codes: C. Flammarion (1904), Fl; R. Prager (1934), P; R. Burnham (1978), B; General Catalogue of Variable Stars *(1985), Ca;* AAVSO Bulletin 62 *(1999), A*
(References Flammarion and Prager do not reflect the current behavior of the star; they are historical data.)