

COMMISSION 27 OF THE I. A. U.
 INFORMATION BULLETIN ON VARIABLE STARS
 NUMBER 299

Konkoly Observatory
 Budapest
 1968 September 12

MINIMA OF ECLIPSING VARIABLES

This report continues the one in IBVS 187, and contains 90 observed minima of 12 eclipsing variable stars. All are visual (v) and photographic (pg) estimates reduced by the tracing-paper method and by fitting the observations to the mean light curve unless otherwise specified.

Elements in the General Catalogue of Variable Stars were used to compute O-C's for YY Del, Z Dra, and RW Tau, and for the others the author's elements given below were used. The number of estimates is given under n.

J.D.hel. (2430000)		O - C	E	n
<u>XZ Andromedae</u> ¹⁾				
6609,3259	pg	+0,0085	97	8
6822,4148	"	+0,0022	254	8
6830,5590	"	+0,0027	260	14
6898,4231	"	+0,0020	310	13
7149,5247	"	+0,0041	495	14
7164,4507	"	-0,0001	506	11
7172,5959	"	+0,0014	512	13
7183,4534	"	+0,0005	520	11
7194,3133	"	+0,0021	528	7
7198,3813	"	-0,0018	531	6
7202,4560	"	+0,0010	534	12
7202,4577	v	+0,0027	534	21
7213,3260	"	+0,0126	542	5
7236,3875	pg	+0,0001	559	12
7240,4598	"	+0,0005	562	10
7270,3238	"	+0,0041	584	4
7506,4864	"	-0,0026	758	10
7506,4956	v	-0,0034	758	13
7514,6200	v	-0,0127	764	4
7548,5610	v	-0,0041	789	5
7555,3523	"	+0,0007	794	14
7571,6357	pg	-0,0034	806	7
7589,2820	v	-0,0019	819	4
8258,4297	pg	-0,0004	1312	12
8258,4260	v	-0,0041	1312	7
8296,4300	"	-0,0043	1340	7

J.D.hel.
(2430000)

O - C E n

XZ Andromedae (Continuation)

8638,4708	pg	-0,0017	1592	9
8699,5491	"	-0,0016	1637	6
9033,4340	v	-0,0112	1883	9
9037,5120	"	-0,0050	1886	13
9037,5229	pg	+0,0059	1886	8
9356,4830	"	+0,0018	2121	7
9367,3425	"	+0,0029	2129	8
9675,4430	"	-0,0024	2356	10
9709,3752	"	-0,0026	2381	4
9713,4460	"	-0,0036	2384	6
9781,3140	"	-0,0004	2434	9
9785,3883	"	+0,0014	2437	16
9808,4550	"	-0,0053	2454	8

AB Cassiopeiae

9763,378	pg	+0,007	10445	7
9778,413	"	+0,006	10456	7
9785,247	"	+0,006	10461	6

ZZ Cygni

9666,5395	pg	-0,0061	29476	6
9668,4260	"	-0,0054	29479	6
9675,3395	"	-0,0067	29490	8
9680,3685	"	-0,0085	29498	8

TT Delphini

4583,449	pg	+0,006	1371	10
4962,432	"	+0,003	1503	9
4985,405	"	+0,007	1511	4
4988,277	"	+0,008	1512	5
5005,492	"	-0,003	1518	5
5011,240	"	+0,002	1520	4
5700,297	"	-0,006	1760	6
7520,570	"	-0,015	2394	12
7546,431	"	+0,006	2403	17
8967,627	"	+0,004	2898	17
9682,533	"	+0,004	3147	11
9708,366	"	-0,003	3156	6

YY Delphini

9291,470	pg	+0,044	17017	12
9341,429	"	+0,039	17080	11
9391,392	"	+0,038	17143	12
9403,289	"	+0,038	17158	15

J.D.hel. (2400000)		O - C	E	n
<u>Z Draconis</u>				
9571,296	pg	+0,006 ^d	4643	9
9617,450	"	+0,007	4677	11
9670,387	"	+0,004	4716	6
9674,463	"	+0,008	4719	7
9708,399	"	+0,008	4744	8
<u>RZ Draconis</u>				
39666,443	pg	-0,005	18548	13
39667,550	"	+0,001	18550	4
<u>TU Herculis</u>				
39620,527	pg	-0,021	952	5
39654,525	"	-0,028	967	6
39670,400	"	-0,021	974	7
39686,268	"	-0,022	981	10
39763,345	"	-0,022	1015	8
<u>CC Herculis</u>				
39621,523	pg	-0,010	7786	15
39654,467	v	-0,012	7805	16
39668,342	pg	-0,009	7813	10
39680,483	"	-0,006	7820	12
39713,423	"	-0,011	7839	6
40013,4085	"	-0,0053	8012	11
40039,4175	"	-0,0061	8027	7
40046,3534	"	-0,0062	8031	15
40065,4275	"	-0,0059	8042	10
<u>RT Persei²⁾</u>				
39781,385	pg	-0,015	7472	10
39810,262	"	-0,017	7506	15
<u>RW Tauri</u>				
39022,390	pg	+0,012	1661	14
39404,487	"	+0,011	1799	14
<u>X Trianguli</u>				
39709,5820	pg	+0,0103	17485	8
39784,3815	"	+0,0018	17562	16
39786,3315	"	+0,0087	17564	20

Notes: Elements not contained in the GCVS:

XZ And 2436477,8598 + 1,^d3572944.E
AB Cas 2425486,350 + 1,3668761.E
ZZ Cyg 2421137,4377 + 0,62861764.E -2,^d961.10⁻¹¹.E²
TT Del 2430647,155 + 2,871107.E
RZ Dra 2429448,787 + 0,55087668.E
TU Her 2437462,3909 + 2,2669718.E
CC Her 2426120,718 + 1,733986.E
RT Per 2433434,6624 + 0,84940272.E
X Tri 2422722,3107 + 0,97153337.E

- 1) Studii si Cercetari de Astronomie vol.12(1967) nr.1,p.47
- 2) Acta Astronomica vol.18 (1968) nr.1, p.62

IOAN TODORAN
Astronomical Observatory
Cluj, Rumania