

## Recent Maxima of 61 Short Period Pulsating Stars

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**Abstract** This paper contains times of maxima for 61 short period pulsating stars (primarily RR Lyrae and  $\delta$  Scuti stars). This represents a portion of the CCD observations received by the AAVSO Short Period Pulsator (SPP) section in 2011 along with some earlier data.

### 1. Recent observations

This accompanying list contains times of maxima calculated from CCD observations made by participants in the AAVSO's Short Period Pulsator (SPP) Section. This list will be web-archived and made available through the AAVSO ftp site at <ftp://ftp.aavso.org/public/datasets/gsamoj411b.txt>. The error estimate is included. RR Lyr stars in this list, along with data from earlier AAVSO publications, are included in the GEOS database at: [http://rr-lyr.ast.obs-mip.fr/dbrr/dbrr-V1.0\\_0.php](http://rr-lyr.ast.obs-mip.fr/dbrr/dbrr-V1.0_0.php). This database does not include  $\delta$  Scuti stars. These observations were reduced by the writer using the PERANSO program (Vanmunster 2007). Column F indicates the filter used.

The linear elements in the *General Catalogue of Variable Stars* (GCVS; Kholopov *et al.* 1985) were used to compute the O–C values for most stars. For a few exceptions where the GCVS elements are missing or are in significant error, light elements from another source are used: VY CrB (Antipin 1996), DG Hya (Samolyk 2010), AH Leo (Schmidt *et al.* 1995), and VY LMi (Henden and Vidal-Sainz 1997).

### References

- Antipin, S. V. 1996, *Inf. Bull. Var. Stars*, No. 4343, 1.  
Henden, A. A., and Vidal-Sainz, J. 1997, *Inf. Bull. Var. Stars*, No. 4535, 1.  
Kholopov, P. N., *et al.* 1985, *General Catalogue of Variable Stars*, 4th ed., Moscow.  
Samolyk, G. 2010 *J. Amer. Assoc. Var. Star Obs.*, **38**, 12 .  
Schmidt, E. G., Chab, J. R., and Reiswig, D. E. 1995, *Astron. J.*, **109**, 1239.  
Vanmunster, T. 2007, PERANSO period analysis software (<http://www.peranso.com>).

Table 1. Recent times of maxima of stars in the AAVSO Short Period Pulsator program.

<i>Star</i>	<i>JD(max)</i> <i>Hel.</i> <i>2400000 +</i>	<i>Cycle</i>	<i>O-C</i>	<i>F</i>	<i>Observer</i>	<i>Error</i>
SW And	56156.9224	85974	-0.4028	V	R. Sabo	0.0009
SW And	56165.7721	85994	-0.3988	V	R. Sabo	0.0012
SW And	56173.7282	86012	-0.4036	V	R. Sabo	0.0018
SW And	56183.9025	86035	-0.4018	V	R. Sabo	0.0012
XX And	55930.5875	23304	0.2510	V	R. Sabo	0.0020
XX And	55943.5967	23322	0.2508	V	R. Sabo	0.0018
XX And	56169.8182	23635	0.2523	V	G. Samolyk	0.0021
XX And	56208.8501	23689	0.2559	V	R. Sabo	0.0014
ZZ And	56158.9461	56499	0.0297	V	R. Sabo	0.0016
ZZ And	56212.7292	56596	0.0232	V	R. Sabo	0.0011
AT And	56164.7728	22404	-0.0058	V	G. Samolyk	0.0025
AT And	56167.8568	22409	-0.0063	V	R. Sabo	0.0020
TZ Aur	55937.6845	92003	0.0125	V	K. Menzies	0.0009
TZ Aur	55938.8599	92006	0.0129	V	R. Sabo	0.0015
TZ Aur	56040.6955	92266	0.0130	V	R. Sabo	0.0006
TZ Aur	56213.8152	92708	0.0125	V	K. Menzies	0.0006
TZ Aur	56249.8496	92800	0.0129	V	K. Menzies	0.0006
BH Aur	55936.7427	28909	0.0007	V	G. Samolyk	0.0012
BH Aur	55936.7441	28909	0.0021	V	R. Sabo	0.0013
BH Aur	55964.5671	28970	0.0036	V	K. Menzies	0.0019
BH Aur	56173.9129	29429	0.0042	V	R. Sabo	0.0021
RS Boo	55962.9554	37612	-0.0076	V	R. Sabo	0.0013
RS Boo	56040.6882	37818	-0.0065	V	R. Sabo	0.0011
RS Boo	56061.8211	37874	-0.0046	V	R. Sabo	0.0010
ST Boo	56059.7761	59262	0.0994	V	R. Sabo	0.0016
ST Boo	56102.6970	59331	0.0822	V	R. Sabo	0.0008
SW Boo	55997.8409	26146	0.3752	V	K. Menzies	0.0012
SW Boo	56055.8736	26259	0.3793	V	R. Sabo	0.0010
SZ Boo	56006.8747	54257	0.0098	V	K. Menzies	0.0009
TV Boo	52763.6631	90076	0.0512	V	G. Lubcke	0.0013
TV Boo	56005.8676	100449	0.0775	V	K. Menzies	0.0011
TV Boo	56020.8994	100497	0.1064	V	R. Sabo	0.0017
TV Boo	56028.7226	100522	0.1157	V	R. Sabo	0.0017
TV Boo	56090.9164	100721	0.1101	V	R. Sabo	0.0031
TW Boo	55932.0214	54560	-0.0697	V	R. Sabo	0.0011
TW Boo	56042.7346	54768	-0.0693	V	R. Poklar	0.0011
UU Boo	56066.7075	43732	0.2502	V	R. Sabo	0.0011

*Table continued on following pages*

Table 1. Recent times of maxima of stars in the AAVSO Short Period Pulsator program, cont.

<i>Star</i>	<i>JD(max)</i> <i>Hel.</i> <i>2400000 +</i>	<i>Cycle</i>	<i>O-C</i>	<i>F</i>	<i>Observer</i>	<i>Error</i>
UY Cam	55928.7325	76256	-0.0872	V	R. Poklar	0.0034
UY Cam	56195.7742	77256	-0.0879	V	G. Samolyk	0.0032
RW Cnc	55930.9037	29925	-0.3404	V	K. Menzies	0.0011
RW Cnc	55935.8343	29934	-0.3346	V	R. Sabo	0.0021
RW Cnc	55962.6417	29983	-0.3399	V	R. Sabo	0.0018
RW Cnc	55969.7686	29996	-0.3266	V	R. Sabo	0.0018
RW Cnc	55975.7902	30007	-0.3242	V	R. Sabo	0.0020
RW Cnc	55986.7198	30027	-0.3386	V	R. Sabo	0.0011
RW Cnc	56009.7135	30069	-0.3272	V	R. Sabo	0.0018
RW Cnc	56061.6917	30164	-0.3329	V	R. Sabo	0.0010
TT Cnc	55961.6644	28427	0.1213	V	R. Sabo	0.0018
TT Cnc	55996.5749	28489	0.0979	V	N. Simmons	0.0013
TT Cnc	56010.6696	28514	0.1064	V	R. Sabo	0.0017
TT Cnc	56260.8363	28958	0.1016	V	K. Menzies	0.0013
VZ Cnc	55929.8441	89886	0.0196	V	G. Samolyk	0.0010
VZ Cnc	55934.8402	89914	0.0215	V	R. Sabo	0.0013
VZ Cnc	56039.6981	90502	0.0016	V	R. Sabo	0.0018
VZ Cnc	56054.6808	90586	0.0017	V	R. Sabo	0.0011
SS CVn	56020.7876	34269	-0.3536	V	K. Menzies	0.0018
RZ Cap	56185.6846	11972	-0.0014	V	G. Samolyk	0.0017
YZ Cap	51451.6199	28238	0.0199	V	G. Samolyk	0.0051
YZ Cap	52504.7154	32089	0.0352	V	G. Samolyk	0.0052
AN Cap	56185.6913	4672	0.0004	V	G. Samolyk	0.0016
RR Cet	56258.7249	41729	0.0096	V	R. Poklar	0.0016
RX Cet	56225.6336	28063	0.3216	V	R. Poklar	0.0036
RX Cet	56283.5717	28164	0.3168	V	G. Samolyk	0.0019
RZ Cet	56193.8411	43648	-0.1885	V	G. Samolyk	0.0015
RZ Cet	56236.7251	43732	-0.1958	V	R. Poklar	0.0019
UU Cet	56227.7121	24781	-0.1571	V	R. Poklar	0.0021
VY CrB	56094.6126	30928	-0.1315	V	K. Menzies	0.0021
XX Cyg	55712.7225	83471	0.0022	V	K. Menzies	0.0005
XX Cyg	56064.8558	86082	0.0026	V	G. Samolyk	0.0005
XZ Cyg	55698.8139	24805	-2.1196	V	G. Samolyk	0.0009
XZ Cyg	55713.7486	24837	-2.1193	V	G. Samolyk	0.0010
XZ Cyg	55719.8130	24850	-2.1220	V	G. Samolyk	0.0012
XZ Cyg	56061.8335	25583	-2.1926	V	G. Samolyk	0.0009
DM Cyg	56086.8546	32164	0.0715	V	G. Samolyk	0.0013

*Table continued on following pages*

Table 1. Recent times of maxima of stars in the AAVSO Short Period Pulsator program, cont.

<i>Star</i>	<i>JD(max)</i> <i>Hel.</i> <i>2400000 +</i>	<i>Cycle</i>	<i>O-C</i>	<i>F</i>	<i>Observer</i>	<i>Error</i>
DM Cyg	56112.8858	32226	0.0714	V	R. Sabo	0.0015
DM Cyg	56120.8640	32245	0.0723	V	R. Sabo	0.0012
DM Cyg	56152.7829	32321	0.0819	V	R. Sabo	0.0030
DM Cyg	56157.8133	32333	0.0739	V	R. Sabo	0.0010
DM Cyg	56168.7320	32359	0.0763	V	R. Sabo	0.0014
DM Cyg	56208.6164	32454	0.0740	V	R. Sabo	0.0015
DM Cyg	56261.5181	32580	0.0733	V	K. Menzies	0.0010
RW Dra	55657.8715	36757	0.1803	V	R. Sabo	0.0006
RW Dra	55692.8947	36836	0.2131	V	R. Sabo	0.0006
RW Dra	56081.7503	37714	0.1876	V	G. Samolyk	0.0016
RW Dra	56096.8480	37748	0.2261	V	R. Sabo	0.0010
RW Dra	56146.9016	37861	0.2300	V	R. Sabo	0.0007
RW Dra	56210.6560	38005	0.2045	V	R. Sabo	0.0010
XZ Dra	55713.7789	28931	-0.1298	V	G. Samolyk	0.0013
XZ Dra	56076.8746	29693	-0.1248	V	R. Sabo	0.0014
XZ Dra	56129.7762	29804	-0.1144	V	R. Sabo	0.0028
SV Eri	53000.8150	24444	0.6668	V	G. Samolyk	0.0039
SV Eri	53322.7803	24895	0.7100	V	G. Samolyk	0.0023
SV Eri	55146.6423	27450	0.8221	V	G. Samolyk	0.0029
SS For	56185.7957	35357	-0.1445	V	G. Samolyk	0.0016
RR Gem	55928.8997	36677	-0.4662	V	R. Sabo	0.0011
RR Gem	55929.6928	36679	-0.4677	V	R. Poklar	0.0010
RR Gem	55931.6759	36684	-0.4712	V	R. Sabo	0.0009
RR Gem	55961.8696	36760	-0.4731	V	R. Sabo	0.0013
RR Gem	55964.6537	36767	-0.4701	V	K. Menzies	0.0009
RR Gem	55965.8462	36770	-0.4696	V	R. Sabo	0.0017
RR Gem	55970.6103	36782	-0.4732	V	N. Simmons	0.0007
RR Gem	55985.7089	36820	-0.4724	V	R. Sabo	0.0010
VX Her	55648.8954	74441	0.0046	V	G. Samolyk	0.0010
VX Her	55654.8135	74454	0.0029	V	K. Menzies	0.0020
VX Her	55969.9237	75146	-0.0049	V	N. Simmons	0.0008
VX Her	56058.7193	75341	-0.0070	V	R. Sabo	0.0016
VX Her	56058.7194	75341	-0.0069	V	G. Samolyk	0.0012
VZ Her	56059.9200	43765	0.0718	V	R. Sabo	0.0008
VZ Her	56112.7588	43885	0.0713	V	R. Sabo	0.0009
AR Her	56049.7174	31055	-1.3492	V	R. Poklar	0.0016
AR Her	56054.8888	31066	-1.3480	V	R. Sabo	0.0016

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Table 1. Recent times of maxima of stars in the AAVSO Short Period Pulsator program, cont.

<i>Star</i>	<i>JD(max)</i> <i>Hel.</i> <i>2400000 +</i>	<i>Cycle</i>	<i>O-C</i>	<i>F</i>	<i>Observer</i>	<i>Error</i>
AR Her	56062.8644	31083	-1.3629	V	G. Samolyk	0.0012
AR Her	56081.6828	31123	-1.3456	V	G. Samolyk	0.0021
AR Her	56126.7858	31219	-1.3653	V	R. Sabo	0.0017
DL Her	56028.8900	30121	0.0390	V	R. Sabo	0.0021
DL Her	56105.8197	30251	0.0571	V	R. Sabo	0.0029
DL Her	56121.7700	30278	0.0335	V	R. Sabo	0.0017
DY Her	55605.8963	149137	-0.0243	V	K. Menzies	0.0012
DY Her	55646.7653	149412	-0.0289	V	K. Menzies	0.0012
DY Her	55713.6509	149862	-0.0274	V	N. Simmons	0.0006
DY Her	55975.9851	151627	-0.0276	V	R. Sabo	0.0012
DY Her	56039.8966	152057	-0.0276	V	R. Sabo	0.0009
DY Her	56066.7988	152238	-0.0276	V	R. Sabo	0.0008
DY Her	56085.6743	152365	-0.0283	V	G. Samolyk	0.0013
DY Her	56099.7930	152460	-0.0296	V	R. Sabo	0.0007
DY Her	56106.7804	152507	-0.0279	V	R. Sabo	0.0009
DY Her	56109.6040	152526	-0.0282	V	K. Menzies	0.0005
LS Her	55629.8955	119688	0.0353	V	K. Menzies	0.0011
LS Her	56085.6908	121663	-0.0146	V	G. Samolyk	0.0033
V365 Her	56184.5269	44276	-0.2092	V	K. Menzies	0.0018
SZ Hya	56000.7178	28519	-0.2480	V	R. Poklar	0.0015
SZ Hya	56007.6615	28532	-0.2885	V	R. Poklar	0.0026
SZ Hya	56283.8522	29046	-0.2392	V	G. Samolyk	0.0010
DG Hya	56001.7278	4809	0.0097	V	R. Poklar	0.0022
DH Hya	55981.7371	50727	0.0814	V	R. Poklar	0.0012
XZ Lac	56182.6388	29029	0.0230	V	K. Menzies	0.0011
RR Leo	55963.8890	28003	0.1174	V	R. Sabo	0.0008
RR Leo	55969.7716	28016	0.1189	V	N. Simmons	0.0010
SS Leo	56008.7359	22715	-0.0794	V	R. Poklar	0.0013
SS Leo	56020.6340	22734	-0.0818	V	K. Menzies	0.0009
SS Leo	56055.7087	22790	-0.0824	V	R. Sabo	0.0007
ST Leo	56005.6300	58752	-0.0216	V	K. Menzies	0.0008
ST Leo	56014.7121	58771	-0.0212	V	R. Poklar	0.0010
ST Leo	56037.6559	58819	-0.0206	V	K. Menzies	0.0007
TV Leo	55991.7273	28164	0.1166	V	R. Poklar	0.0020
WW Leo	56008.5450	35044	0.0414	V	K. Menzies	0.0011
AA Leo	55999.7311	27400	-0.0901	V	R. Sabo	0.0012
VY LMi	55963.6418	10408	0.0072	V	K. Menzies	0.0016

*Table continued on following pages*

Table 1. Recent times of maxima of stars in the AAVSO Short Period Pulsator program, cont.

<i>Star</i>	<i>JD(max)</i> <i>Hel.</i> <i>2400000 +</i>	<i>Cycle</i>	<i>O-C</i>	<i>F</i>	<i>Observer</i>	<i>Error</i>
SZ Lyn	55570.6471	144740	0.0245	V	R. Poklar	0.0008
SZ Lyn	55601.6239	144997	0.0239	V	G. Samolyk	0.0007
SZ Lyn	55639.7115	145313	0.0224	V	G. Samolyk	0.0011
SZ Lyn	55654.6578	145437	0.0224	V	N. Simmons	0.0010
SZ Lyn	55932.6119	147743	0.0230	V	R. Poklar	0.0010
SZ Lyn	55932.7321	147744	0.0226	V	R. Poklar	0.0007
SZ Lyn	55935.6269	147768	0.0246	V	G. Samolyk	0.0008
SZ Lyn	55936.5888	147776	0.0222	V	N. Simmons	0.0006
SZ Lyn	55958.5270	147958	0.0231	V	G. Samolyk	0.0006
SZ Lyn	55958.6474	147959	0.0229	V	G. Samolyk	0.0006
SZ Lyn	55969.6165	148050	0.0233	V	N. Simmons	0.0005
SZ Lyn	55995.6533	148266	0.0246	V	N. Simmons	0.0007
SZ Lyn	55999.6306	148299	0.0243	V	R. Poklar	0.0007
RR Lyr	56185.6431	23396	-0.2143	V	G. Samolyk	0.0018
RZ Lyr	56076.9016	29132	-0.0350	V	R. Sabo	0.0020
RZ Lyr	56093.7780	29165	-0.0297	V	R. Sabo	0.0010
RZ Lyr	56093.7806	29165	-0.0271	V	K. Menzies	0.0011
RZ Lyr	56096.8460	29171	-0.0291	V	R. Sabo	0.0016
RZ Lyr	56115.7562	29208	-0.0349	V	R. Sabo	0.0012
RZ Lyr	56160.7298	29296	-0.0506	V	R. Sabo	0.0008
RZ Lyr	56164.8245	29304	-0.0458	V	R. Sabo	0.0015
RZ Lyr	56180.6776	29335	-0.0412	V	R. Sabo	0.0013
AV Peg	55716.7874	30551	0.1339	V	K. Menzies	0.0008
AV Peg	56102.8760	31540	0.1420	V	R. Sabo	0.0008
AV Peg	56111.8564	31563	0.1438	V	R. Sabo	0.0012
AV Peg	56164.9459	31699	0.1422	V	R. Sabo	0.0015
AV Peg	56170.8037	31714	0.1444	V	K. Menzies	0.0015
AV Peg	56183.6860	31747	0.1444	V	R. Sabo	0.0008
AV Peg	56223.5041	31849	0.1443	V	K. Menzies	0.0006
BF Peg	56115.8573	26531	-0.1091	V	R. Sabo	0.0029
BH Peg	56256.6193	26352	-0.1082	V	K. Menzies	0.0061
DF Ser	56054.8451	60185	0.0918	V	R. Sabo	0.0011
DF Ser	56076.7354	60235	0.0924	V	R. Sabo	0.0013
DF Ser	56086.8055	60258	0.0932	V	G. Samolyk	0.0015
DF Ser	56100.8151	60290	0.0933	V	R. Sabo	0.0016
DF Ser	56111.7548	60315	0.0881	V	R. Sabo	0.0006
RV UMa	55929.9506	23190	0.1282	V	G. Samolyk	0.0019

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Table 1. Recent times of maxima of stars in the AAVSO Short Period Pulsator program, cont.

<i>Star</i>	<i>JD(max)</i> <i>Hel.</i> <i>2400000 +</i>	<i>Cycle</i>	<i>O-C</i>	<i>F</i>	<i>Observer</i>	<i>Error</i>
RV UMa	55931.8213	23194	0.1267	V	R. Sabo	0.0013
RV UMa	55938.8391	23209	0.1236	V	R. Sabo	0.0014
RV UMa	55944.9241	23222	0.1238	V	G. Samolyk	0.0013
RV UMa	55968.7941	23273	0.1227	V	G. Samolyk	0.0016
RV UMa	56040.8752	23427	0.1226	V	R. Sabo	0.0013
AE UMa	55931.7145	236318	-0.0019	V	G. Samolyk	0.0007
AE UMa	55931.8061	236319	0.0037	V	G. Samolyk	0.0008