

Recent Maxima of 81 Short Period Pulsating Stars

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Abstract This paper contains times of maxima for 81 short period pulsating stars (primarily RR Lyrae and δ Scuti stars). This represents the CCD observations received by the AAVSO Short Period Pulsator (SPP) Section in 2023.

1. Recent observations

Table 1 contains times of maxima of 81 short period pulsating stars (primarily RR Lyrae and δ Scuti variables) 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/gsamj521spp81.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.irap.omp.eu/dbrr/>

This database does not include δ Scuti stars. These observations were reduced by the writer using the PERANSO program (Vanmunster 2007). Column F indicates the filter used. A "C" indicates a clear filter.

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: V377 Boo, V488 Gem, and EH Lib (AAVSO VSX site, Watson *et al.* 2014); RZ Cap and DG Hya (Samolyk 2010); V2416 Cyg (Samolyk 2018); EF Cnc and GO Hya (GEOS Database); and GW UMa (Hintz *et al.* 2001).

References

- Groupe Européen d'Observation Stellaire (GEOS). 2021, GEOS RR Lyr Database, (<http://rr-lyr.irap.omp.eu/dbrr/index.php>).
- Hintz, E. G., Bush, T. C., and Rose, M. B. 2005, *Astron. J.*, **130**, 2876.
- 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.
- Samolyk, G. 2018, *J. Amer. Assoc. Var. Star Obs.*, **46**, 70.
- Vanmunster, T. 2021, light curve and period analysis software, PERANSO v.2.50 (<http://www.cbabelgium.com/peranso>).
- Watson, C., Henden, A. A., and Price, C. A. 2014, AAVSO International Variable Star Index VSX (Watson+, 2006–2014; <https://www.aavso.org/vsx>).

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

Table with 14 columns: Star, JD (max) Hel., Cycle, O-C (day), F, Observer, Error (day). The table is split into two sections by a vertical line, each containing a list of stars and their associated pulsator data.

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

<i>Star</i>	<i>JD (max) Hel. 2400000 +</i>	<i>Cycle</i>	<i>O-C (day)</i>	<i>F</i>	<i>Observer</i>	<i>Error (day)</i>	<i>Star</i>	<i>JD (max) Hel. 2400000 +</i>	<i>Cycle</i>	<i>O-C (day)</i>	<i>F</i>	<i>Observer</i>	<i>Error (day)</i>
AR Her	60165.3815	39811	-1.2502	V	T. Arranz	0.0009	EH Lib	60119.5188	301775	0.0037	V	T. Arranz	0.0008
AR Her	60181.4046	39845	-1.2081	V	T. Arranz	0.0010	SZ Lyn	59975.6174	181285	0.0462	V	G. Samolyk	0.0008
DL Her	60085.6988	36978	0.0556	V	G. Samolyk	0.0021	SZ Lyn	59975.7376	181286	0.0459	V	G. Samolyk	0.0005
DL Her	60117.6465	37032	0.0554	V	G. Samolyk	0.0024	SZ Lyn	59975.8581	181287	0.0458	V	G. Samolyk	0.0005
DL Her	60123.5665	37042	0.0591	V	T. Arranz	0.0009	SZ Lyn	59985.5004	181367	0.0453	V	T. Arranz	0.0005
DL Her	60126.5335	37047	0.0680	V	T. Arranz	0.0009	SZ Lyn	59987.5502	181384	0.0460	V	T. Arranz	0.0008
DL Her	60158.4747	37101	0.0613	V	T. Arranz	0.0016	SZ Lyn	59990.5641	181409	0.0466	I	K. Menzies	0.0005
DL Her	60161.4374	37106	0.0658	V	T. Arranz	0.0010	SZ Lyn	59990.5645	181409	0.0470	V	K. Menzies	0.0017
DL Her	60177.4075	37133	0.0620	V	T. Arranz	0.0008	SZ Lyn	60008.7643	181560	0.0460	V	G. Samolyk	0.0007
DL Her	60193.3797	37160	0.0602	V	T. Arranz	0.0013	SZ Lyn	60278.7558	183800	0.0393	V	G. Samolyk	0.0006
DY Her	60018.8954	178828	-0.0387	V	G. Samolyk	0.0007	SZ Lyn	60278.8764	183801	0.0393	V	G. Samolyk	0.0006
DY Her	60047.8786	179023	-0.0386	V	G. Samolyk	0.0006	SZ Lyn	60305.7548	184024	0.0384	V	G. Samolyk	0.0007
DY Her	60061.8501	179117	-0.0385	V	G. Samolyk	0.0007	RR Lyr	60116.8209	30332	-0.8313	V	G. Samolyk	0.0014
DY Her	60090.8330	179312	-0.0387	V	G. Samolyk	0.0006	RR Lyr	60168.3952	30423	-0.8420	V	T. Arranz	0.0012
DY Her	60112.5332	179458	-0.0386	V	T. Arranz	0.0006	RZ Lyr	60115.6869	37032	-0.0640	V	G. Samolyk	0.0011
DY Her	60144.6378	179674	-0.0384	V	G. Samolyk	0.0006	RZ Lyr	60134.5999	37069	-0.0669	V	T. Arranz	0.0009
DY Her	60158.6088	179768	-0.0388	V	K. Menzies	0.0006	RZ Lyr	60135.6217	37071	-0.0676	V	T. Arranz	0.0011
LS Her	60132.4251	139196	-0.0319	V	T. Arranz	0.0034	RZ Lyr	60136.6438	37073	-0.0680	V	T. Arranz	0.0005
LS Her	60132.6660	139197	-0.0218	V	G. Samolyk	0.0033	RZ Lyr	60170.3942	37139	-0.0596	V	T. Arranz	0.0008
LS Her	60138.4577	139222	-0.0003	V	T. Arranz	0.0013	RZ Lyr	60171.4158	37141	-0.0605	V	T. Arranz	0.0007
SZ Hya	59976.7295	35920	-0.3512	V	G. Samolyk	0.0016	RZ Lyr	60173.4608	37145	-0.0604	V	T. Arranz	0.0010
SZ Hya	59983.7578	35933	-0.3070	V	G. Samolyk	0.0012	RZ Lyr	60192.3840	37182	-0.0532	V	T. Arranz	0.0008
SZ Hya	60018.6703	35998	-0.3151	V	G. Samolyk	0.0009	RZ Lyr	60216.4127	37229	-0.0529	V	T. Arranz	0.0010
SZ Hya	60032.6521	36024	-0.3016	V	G. Samolyk	0.0018	CX Lyr	60079.7732	43799	1.9761	V	K. Menzies	0.0010
SZ Hya	60051.4372	36059	-0.3199	V	T. Arranz	0.0016	ST Oph	60127.4319	70391	-0.0310	V	T. Arranz	0.0007
UU Hya	60036.5899	39242	0.0031	V	G. Samolyk	0.0016	AV Peg	60188.6342	42006	0.2386	V	G. Samolyk	0.0008
UU Hya	60048.6544	39265	0.0187	V	G. Samolyk	0.0012	AV Peg	60212.4481	42067	0.2396	V	T. Arranz	0.0008
UU Hya	60055.4653	39278	0.0193	V	T. Arranz	0.0007	BH Peg	60196.7797	32499	-0.1318	V	G. Samolyk	0.0019
DG Hya	59975.8735	10078	0.0506	V	G. Samolyk	0.0017	BH Peg	60215.3631	32528	-0.1372	V	T. Arranz	0.0017
DH Hya	59981.7947	58907	0.1337	V	G. Samolyk	0.0016	BH Peg	60292.2841	32648	-0.1354	V	T. Arranz	0.0017
DH Hya	60033.6290	59013	0.1342	V	G. Samolyk	0.0011	DY Peg	60218.5377	215512	-0.0248	V	G. Samolyk	0.0005
DH Hya	60046.3433	59039	0.1346	V	T. Arranz	0.0008	DY Peg	60218.6105	215513	-0.0250	V	G. Samolyk	0.0005
GO Hya	59987.7498	8589	0.0015	V	G. Samolyk	0.0019	DY Peg	60218.6837	215514	-0.0247	V	G. Samolyk	0.0005
GO Hya	60040.5753	8672	0.0028	V	G. Samolyk	0.0034	DY Peg	60218.7561	215515	-0.0253	V	G. Samolyk	0.0005
RR Leo	59989.8371	36902	0.2175	V	G. Samolyk	0.0007	DY Peg	60220.5799	215540	-0.0246	V	G. Samolyk	0.0005
RR Leo	60051.3639	37038	0.2189	V	T. Arranz	0.0006	DY Peg	60220.6528	215541	-0.0246	V	G. Samolyk	0.0004
RR Leo	60060.4126	37058	0.2197	V	T. Arranz	0.0008	DY Peg	60220.7253	215542	-0.0250	V	G. Samolyk	0.0004
SS Leo	60041.7176	29154	-0.1273	V	G. Samolyk	0.0012	DY Peg	60262.2943	216112	-0.0241	V	T. Arranz	0.0005
SS Leo	60072.4065	29203	-0.1293	V	T. Arranz	0.0010	DY Peg	60262.3654	216113	-0.0259	V	T. Arranz	0.0006
ST Leo	60008.7539	67127	-0.0162	V	G. Samolyk	0.0009	DF Ser	60034.8657	69276	0.1170	V	K. Menzies	0.0009
ST Leo	60075.6705	67267	-0.0174	V	K. Menzies	0.0014	DF Ser	60118.4832	69467	0.1156	V	T. Arranz	0.0009
ST Leo	60081.4066	67279	-0.0171	V	T. Arranz	0.0008	RV UMa	59976.8153	31836	0.1461	V	G. Samolyk	0.0008
TV Leo	60041.6510	34183	0.1406	V	G. Samolyk	0.0018	RV UMa	60043.7453	31979	0.1436	V	G. Samolyk	0.0010
TV Leo	60050.3986	34196	0.1411	V	T. Arranz	0.0014	RV UMa	60077.4492	32051	0.1471	V	T. Arranz	0.0010
TV Leo	60052.4157	34199	0.1396	V	T. Arranz	0.0012	RV UMa	60078.3862	32053	0.1480	V	T. Arranz	0.0010
WW Leo	60018.6942	41696	0.0638	V	G. Samolyk	0.0018	AE UMa	60008.6685	283715	0.0017	V	G. Samolyk	0.0004
WW Leo	60043.4094	41737	0.0624	V	T. Arranz	0.0014	AE UMa	60008.7511	283716	-0.0017	V	G. Samolyk	0.0005
WW Leo	60055.4652	41757	0.0613	V	T. Arranz	0.0018	AE UMa	60008.8410	283717	0.0022	V	G. Samolyk	0.0007
AA Leo	60054.3799	34173	-0.1363	V	T. Arranz	0.0011	AE UMa	60030.5130	283969	-0.0021	V	T. Arranz	0.0005
EH Lib	60119.4307	301774	0.0041	V	T. Arranz	0.0005	GW UMa	60075.6652	39744	0.0045	V	G. Samolyk	0.0017