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Twenty-Six New Variables

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#	Name	Other	Coord (J2000)	Type	Max	Min	System	Period	Epoch (JD)	type	Sp	Comment	L.Curve	Find.Chart	Data
1		USNO-B1.0 1503-0008702	00 15 10.563, +60 21 20.72	DSCT:	13.52	13.66	-Ir	0.09468	2455029.410	max		Comm. 1	Cas_AG156r_G.png	Cas_AG156_K.png	Cas_AG156r.txt
2		GSC 3665-00296, USNO-B1.0 1492-0009970	00 21 58.758, +59 13 27.06	EW	12.77	12.93	-Ir	0.29784	2454830.3796	min		Comm. 2	Cas_AG134r_G.png	Cas_AG134_K.png	Cas_AG134r.txt
3		USNO-B1.0 1514-0040346	01 10 05.207, +61 24 31.09	EW	14.55	14.95	-Ir	0.46689	2454388.3737	min		Comm. 3	Cas_AG99r_G.png	Cas_AG99_K.png	Cas_AG99r.txt
4		GSC 3300-01931, USNO-B1.0 1380-0076175	02 44 37.577, +48 03 56.39	DSCT	12.03	12.20	-Ir	0.0969	2454504.343	max		Comm. 4	Per_AG102r_G.png	Per_AG102_K.png	Per_AG102r.txt
5		GSC 4339-01166, USNO-B1.0 1646-0034873	03 49 12.777, +74 36 50.56	EW	12.62	12.81	-Ir	0.5656	2455102.4011	min		Comm. 5	Cam_AG140r_G.png	Cam_AG140_K.png	Cam_AG140r.txt
6		USNO-B1.0 1646-0035146	03 51 21.762, +74 39 23.37	RRC	14.85	15.25	-Ir	0.2668	2454834.466	max		Comm. 6	Cam_AG139r_G.png	Cam_AG139_K.png	Cam_AG139r.txt
7		USNO-B1.0 1031-0151441	06 58 30.134, +13 11 30.82	EW	14.00	14.75	-Ir	0.330296	2454856.3476	min		Comm. 7	Gem_AG144r_G.png	Gem_AG144_K.png	Gem_AG144r.txt
8		GSC 2484-00139, USNO-B1.0 1217-0168969	08 38 47.732, +31 45 22.48	EW	13.65	14.33	-Ir	0.27634	2454175.3561	min		Comm. 8	Cnc_AG93r_G.png	Cnc_AG93_K.png	Cnc_AG93r.txt
9		GSC 2016-00444, USNO-B1.0 1128-0286282	14 47 25.330, +22 50 11.91	EW	12.63	12.74	-Ir	0.31377	2454968.5109	min		Comm. 9	Boo_AG150r_G.png	Boo_AG150_K.png	Boo_AG150r.txt
10		GSC 2610-00088, USNO-B1.0 1224-0357395	17 35 38.620, +32 26 31.98	DSCT:	12.40	12.52	-Ir	0.17507	2454947.49	max		Comm. 10	Her_AG152r_G.png	Her_AG152_K.png	Her_AG152r.txt
11		GSC 1615-00203, USNO-B1.0 1052-0526992	19 51 20.641, +15 14 36.58	RRC	12.45	12.65	-Ir	0.24624	2454389.376	max		Comm. 11	Aql_AG100r_G.png	Aql_AG100_K.png	Aql_AG100r.txt
12		USNO-B1.0 1092-0472807	19 55 19.948, +19 14 07.14	EW	14.3	14.6	-Ir	0.3811	2454023.3475	min		Comm. 12	Sge_AG49r_G.png	Sge_AG49_K.png	Sge_AG49r.txt
13		USNO-B1.0 1332-0399848	19 57 27.513, +43 17 43.87	EW	13.93	14.42	-Ir	0.246	2454697.4374	min		Comm. 13	Cyg_AG119r_G.png	Cyg_AG119_K.png	Cyg_AG119r.txt
14		USNO-B1.0 1316-0383362	20 04 06.256, +41 39 54.29	EW	13.25	13.77	-Ir	0.33191	2454697.406	min		Comm. 14	Cyg_AG120r_G.png	Cyg_AG120_K.png	Cyg_AG120r.txt
15		GSC 2670-04008, USNO-B1.0 1209-0459388	20 05 50.646, +30 58 57.43	DSCT	12.25	12.40	-Ir	0.0955	2455096.395	max		Comm. 15	Cyg_AG58r_G.png	Cyg_AG58_K.png	Cyg_AG58r.txt
16		GSC 2671-02149, USNO-B1.0 1208-0467383	20 08 01.601, +30 52 44.25	DSCT	12.45	12.53	-Ir	0.1166	2454697.4332	max		Comm. 16	Cyg_AG121r_G.png	Cyg_AG121_K.png	Cyg_AG121r.txt
17		USNO-B1.0 1383-0445772	21 38 46.381, +48 19 21.96	DSCT	13.28	13.50	-Ir	0.1280	2455074.494	max		Comm. 17	Cyg_AG161r_G.png	Cyg_AG161_K.png	Cyg_AG161r.txt
18		GSC 3197-00817, USNO-B1.0 1343-0478331	21 59 17.115, +44 18 59.02	DSCT	11.35	11.52	-Ir	0.174	2455032.441	max		Comm. 18	Cyg_AG98r_G.png	Cyg_AG98_K.png	Cyg_AG98r.txt
19		GSC 3210-01456, USNO-B1.0 1340-0460251	22 02 10.575, +44 01 23.19	EW	11.78	12.24	-Ir	0.3765	2455095.3968	min		Comm. 19	Lac_AG160r_G.png	Lac_AG160_K.png	Lac_AG160r.txt
20		USNO-B1.0 1362-0458803	22 06 03.033, +46 17 23.70	EB	12.79	12.98	-Ir	1.2616	2455071.3581	min		Comm. 20	Lac_AG127r_G.png	Lac_AG127_K.png	Lac_AG127r.txt
21		GSC 3619-00715, USNO-B1.0 1416-0457770	22 22 57.350, +51 37 00.18	EW	12.4	12.6	-Ir	0.48529	2453259.3909	min		Comm. 21	Lac_AG33r_G.png	Lac_AG33_K.png	Lac_AG33r.txt
22		USNO-B1.0 1400-0455467	22 24 31.768, +50 01 41.69	EB	14.7	15.2	-Ir	0.61418	2455039.5711	min		Comm. 22	Lac_AG159r_G.png	Lac_AG159_K.png	Lac_AG159r.txt
23		GSC 3619-00636, USNO-B1.0 1422-0506537	22 26 19.218, +52 15 01.87	DSCT	12.93	13.05	-Ir	0.1134	2454737.361	max		Comm. 23	Lac_AG128r_G.png	Lac_AG128_K.png	Lac_AG128r.txt
24		GSC 3619-00158, USNO-B1.0 1424-0504416	22 28 15.649, +52 24 46.36	DSCT:	12.66	12.80	-Ir	0.1521	2454737.489	max		Comm. 24	Lac_AG129r_G.png	Lac_AG129_K.png	Lac_AG129r.txt
25		GSC 3998-02091, USNO-B1.0 1441-0441871	23 07 45.691, +54 08 02.57	EW	12.83	13.05	-Ir	0.33697	2455141.5727	min		Comm. 25	Cas_AG131r_G.png	Cas_AG131_K.png	Cas_AG131r.txt
26		USNO-B1.0 1505-0372164	23 29 30.752, +60 31 38.62	EW	13.53	14.16	-Ir	0.31422	2454684.5940	min		Comm. 26	Cas_AG117r_G.png	Cas_AG117_K.png	Cas_AG117r.txt

Comments:

1. In the field of MU Cas and V363 Cas, discovered in 2009. Comparison star: a = GSC 4014-01167. Check star: b = GSC 4014-00807. Four maxima could be observed in 2009.

2. In the field of BH Cas, FQ Cas, FR Cas and V378 Cas, discovered in 2008. Comparison star: a = GSC 3665-01829. Check star: b = GSC 3665-00016. Six minima could be observed in 2008 and 2009. MinII = 12.87.

3. In the field of OX Cas, discovered in 2007. Comparison star: a = GSC 4030-00787. Check star: b = GSC 4030-00176. Six minima could be observed between 2005 and 2009. MinII = 14.93.

4. In the field of RY Per, discovered in 2008. Comparison star: a = GSC 3300-01410. Check star: b = GSC 3300-01123. Three maxima could be observed on one night.

5. In the field of UU Cam, discovered in 2009. Comparison star: a = GSC 4339-00750. Check star: b = GSC 4339-01690. Two minima could be observed in 2009. MinII = 12.80.

6. In the field of UU Cam, discovered in 2009. Comparison star: a = USNO-B1.0 1646-0035082. Check star: b = GSC 4339-02101.

7. In the field of EG Gem, discovered in 2009. Comparison star: a = GSC 0760-01254. Check star: b = GSC 0760-01150. Four minima could be observed in 2009 and 2010. MinII = 14.55.

8. In the field of RZ Cnc, discovered in 2007. Comparison star: a = GSC 2484-00376. Check star: b = GSC 2484-00324. Three minima could be observed in 2007 and 2008. MinII = 14.17. The tabulated period is not the only possible one.

9. In the field of GM Boo, discovered in 2009. Comparison star: a = GSC 2016-00812. Check star: b = GSC 2016-01086. Five minima could be observed in 2009. MinII = 12.72.

10. In the field of V502 Her, discovered in 2009. Comparison star: a = GSC 2610-00262. Check star: b = GSC 2610-02091. The tabulated period is not the only possible one.

11. In the field of V1045 Aql, discovered in 2007. Comparison star: a = GSC 1615-00641. Check star: b = GSC 1615-00338.

12. In the field of TU Sge, discovered in 2005. Comparison star: a = GSC 1624-01346. Check star: b = GSC 1624-00532. Three minima could be observed in 2005 and 2006. MinII = 14.5. The tabulated period is not the only possible one.

13. In the field of V393 Cyg and V1582 Cyg, discovered in 2008. Comparison star: a = USNO-B1.0 1333-0373119. Check star: b = GSC 3149-01697. Two minima could be observed in 2008. MinII = 14.35.

14. In the field of WW Cyg, discovered in 2008. Comparison star: a = GSC 3158-01188. Check star: b = GSC 3158-00794. Four minima could be observed in 2008 and 2009. MinII = 13.65.

15. In the field of V1034 Cyg, discovered in 2005. Comparison star: a = GSC 2671-02415. Check star: b = GSC 2670-01960. Three maxima in 2005 and three maxima in 2009 could be observed. The amplitude seems to vary.

16. In the field of V725 Cyg, discovered in 2008. Comparison star: a = GSC 2671-02107. Check star: b = GSC 2671-01906. Two maxima could be observed.

17. In the field of V635 Cyg, discovered in 2009. Comparison star: a = GSC 3595-00740. Check star: b = GSC 3595-00781. The variable was observed during 8 nights in 2009. The pulsations vary strongly in amplitude and vanish sometimes. This variable is possibly multiperiodic.

18. In the field of UZ Cyg, discovered in 2007. Comparison star: a = GSC 3197-00473. Check star: b = GSC 3197-00537. One maximum could be observed in 2007, and two in 2009. The amplitude is varying.

19. In the field of RT Lac, discovered in 2009. Comparison star: a = GSC 3210-00238. Check star: b = GSC 3210-00592. Five minima could be observed in 2009. MinII = 12.22.

20. In the field of CN Lac, discovered in 2008. Comparison star: a = GSC 3605-02646. Check star: b = GSC 3605-02642. Five minima could be observed in 2008 and 2009. MinII = 12.87.

21. In the field of ZZ Lac, discovered in 2004. Comparison star: a = GSC 3619-00083. Check star: b = GSC 3619-00255. Two minima could be observed in 2004. MinII = 12.56.

22. In the field of MP Lac, discovered in 2009. Comparison star: a = GSC 3615-02917. Check star: b = GSC 3615-02916. Three minima could be observed in 2009. MinII = 14.9.

23. In the field of AG Lac, discovered in 2008. Comparison star: a = GSC 3619-01158. Check star: b = GSC 3619-00264. Three maxima could be observed between on one night.

24. In the field of AG Lac, discovered in 2008. Comparison star: a = GSC 3619-00620. Check star: b = GSC 3619-00264. Four maxima could be observed in 2008 and 2009. EW type with twice longer period is possible.

25. In the field of IR Cas and V345 Cas, discovered in 2008. Comparison star: a = GSC 3998-01901. Check star: b = GSC 3998-01997. Five minima could be observed in 2008 and 2009. MinII = 13.02.

26. In the field of IS Cas, discovered in 2008. Comparison star: a = GSC 4280-02085. Check star: b = GSC 4280-01600. The periods 0.314218 and 0.311336 seem to fit the data almost equally well. Five minima could be observed in 2008 and 2009. MinII = 14.10.

Remarks:

This is a continuation of my recently published paper (Agerer 2010).

In the course of my investigation of known variable stars on a regular basis, nearby stars are sometimes detected as variables. The observations were carried out with two semiautomatic telescopes, 8-inch and 14-inch Schmidt-Cassegrain ones, operated at my private observatory. Before 2008, both telescopes were equipped with cooled SBIG ST6 CCD-cameras. Beginning with 2008, these cameras were replaced with SIGMA 1603 cameras, containing a cooled Kodak KAF1603ME chip. Normally, the exposures are 60s through a minus-Ir filter.

Differential magnitudes are calculated using a comparison star ("a" in the charts) with a B-R color index resembling that of the variable. The constancy of the comparison is controlled using several check stars in the field, one of them is labeled "b" in the charts. Rough instrumental magnitudes are calculated simply by adding the R-magnitude of the comparison star taken from the USNO-B1.0 catalogue to the differential magnitudes. The coordinates are also taken from the USNO-B1.0 catalogue. Concentric aperture photometry is carried out by means of a self-written program, after bias, dark- and flatfield correction of the exposures.

Least squares ephemerides are not given, as too few timings of extrema could be calculated from my observations.

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References:

Agerer, F., 2010, PZP, 10, No. 4