

25 new small amplitude variable stars in Lacerta

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#	Name	Other	Coord (J2000)	Type	Max	Min	System	Period	Epoch (JD)	type	Sp	Comment	L.Curve	Find.Chart	Data
1		2MASS 22424522+5300596	22 42 45.223, +53 00 59.60	EB	13.543	13.592		0.5833	2456171.249	Min		Comm. 1	lc34693.png	ch34693.png	out34693.dat
2		2MASS 22431898+5118323	22 43 18.984, +51 18 32.34	DSCTC	13.155	13.201		0.076346	2456171.183	Max			lc13071.png	ch13071.png	out13071.dat
3		2MASS 22432856+5150349	22 43 28.567, +51 50 34.93	EW	13.638	13.680		0.32126	2456181.190	Min		Comm. 3	lc26520.png	ch26520.png	out26520.dat
4		2MASS 22451983+5131484	22 45 19.831, +51 31 48.49	DSCTC	13.764	13.790		0.17955	2456180.148	Max			lc18058.png	ch18058.png	out18058.dat
5		2MASS 22454896+5152320	22 45 48.966, +51 52 32.09	DSCTC	12.367	12.390		0.050681	2456159.337	Max			lc26702.png	ch26702.png	out26702.dat
6		2MASS 22460679+5222416	22 46 06.790, +52 22 41.66	DSCTC	14.516	14.573		0.12958	2456180.219	Max			lc57039.png	ch57039.png	out57039.dat
7		2MASS 22464503+5217303	22 46 45.039, +52 17 30.31	RRC	13.506	13.546		0.57988	2456175.129	Max			lc40992.png	ch40992.png	out40992.dat
8		2MASS 22491542+5137072	22 49 15.424, +51 37 07.30	DSCTC	12.935	12.992		0.13716	2456173.202	Max			lc19167.png	ch19167.png	out19167.dat
9		2MASS 22500550+5141155	22 50 05.504, +51 41 15.59	DSCTC	12.833	12.870		0.12300	2456173.312	Max			lc20870.png	ch20870.png	out20870.dat
10		2MASS 22501537+5106359	22 50 15.375, +51 06 35.96	DSCTC	12.389	12.402		0.076938	2456159.223	Max			lc06420.png	ch06420.png	out06420.dat
11		2MASS 22503723+5127380	22 50 37.238, +51 27 38.10	SR	12.228	12.284		26.6	2456162.2	Max			lc15018.png	ch15018.png	out15018.dat
12		2MASS 22512620+5203185	22 51 26.201, +52 03 18.52	EA	13.868	13.940		1.555:	2456174.187	Min			lc30123.png	ch30123.png	out30123.dat
13		2MASS 22513464+5113138	22 51 34.643, +51 13 13.80	GDOR:	12.009	12.042		0.7121	2456196.949	Max			lc08621.png	ch08621.png	out08621.dat
14		2MASS 22514584+5234098	22 51 45.840, +52 34 09.88	DSCTC	13.004	13.028		0.09883	2456175.237	Max			lc53884.png	ch53884.png	out53884.dat
15		2MASS 22530636+5257199	22 53 06.367, +52 57 19.96	EA	12.874	12.921		2.314	2456174.126	Min			lc38647.png	ch38647.png	out38647.dat
16		2MASS 22533097+5133357	22 53 30.972, +51 33 35.70	DSCTC	12.719	12.739		0.094294	2456181.343	Max			lc17123.png	ch17123.png	out17123.dat
17		2MASS 22534109+5147353	22 53 41.093, +51 47 35.36	DSCTC	12.859	12.876		0.09699	2456180.188	Max			lc23012.png	ch23012.png	out23012.dat
18		2MASS 22535274+5157086	22 53 52.741, +51 57 08.64	DSCTC	12.660	12.682		0.066441	2456174.164	Max			lc26981.png	ch26981.png	out26981.dat
19		2MASS 22540445+5117025	22 54 04.458, +51 17 02.54	DSCTC	14.775	14.847		0.12967	2456181.341	Max			lc10180.png	ch10180.png	out10180.dat
20		2MASS 22542439+5136067	22 54 24.395, +51 36 06.72	EB	13.657	13.708		0.81156	2456181.372	Min		Comm. 20	lc18093.png	ch18093.png	out18093.dat
21		2MASS 22542877+5205142	22 54 28.770, +52 05 14.21	DSCTC	14.768	14.828		0.08690	2456173.122	Max			lc30529.png	ch30529.png	out30529.dat

22	2MASS 22550221+5141411	22 55 02.215, +51 41 41.19	DSCTC	13.142	13.177		0.08451	2456180.227	Max			lc20313.png	ch20313.png	out20313.dat
23	2MASS 22550712+5128463	22 55 07.121, +51 28 46.37	BY:	14.051	14.107		3.148	2456173.763	Max			lc14892.png	ch14892.png	out14892.dat
24	2MASS 22554417+5230077	22 55 44.170, +52 30 07.76	DSCTC	13.380	13.417		0.11432	2456181.242	Max			lc55522.png	ch55522.png	out55522.dat
25	2MASS 22560807+5235004	22 56 08.073, +52 35 00.42	DSCTC	12.666	12.689		0.12132	2456159.333	Max			lc39871.png	ch39871.png	out39871.dat

Comments:

1. $\text{Min}_{\Pi} = 13^{\text{m}}.575$.

3. $\text{Min}_{\Pi} = 13^{\text{m}}.675$.

20. $\text{Min}_{\Pi} = 13^{\text{m}}.674$.

Remarks:

We restudied a field in Lacerta ([Lapukhin et al. 2013](#)) and found 25 small amplitude variable stars. Unfortunately we missed these objects while investigating the area for the first time. The observations were performed at the observatory of the Siberian State Aerospace University with a Hamilton telescope (D = 400 mm, F = 915 mm) equipped with an FLI ML9000 CCD chip (3056 × 3056 pixels, pixel size 12 μm). All CCD observations are unfiltered and were obtained from August to November 2012. Exposure times were 30 seconds for all frames. The size of the field is 2°.3 × 2°.3.

The magnitudes were referred to red magnitudes of comparison stars from the USNO-A2.0 catalog (Monet et al. 1998).

We used [VaST](#) (Sokolovsky & Lebedev 2005) software to search for new variable stars.

To find periods, we applied WinEfk software provided by Dr. V.P. Goranskij.

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