

Five New RR Lyrae Stars in the Catalina Surveys Data Release 1

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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 1075-0212432	09 48 57.301, +17 31 42.10	RRAB	15.06	16.10	CV	0.536573	2454793.035	max		Comm. 1	lc_1.jpg	fc_1.jpg	data_1.txt
2		GSC 01964-01238	10 01 34.891, +25 29 59.73	RRC	14.70	15.08	CV	0.344072	2455203.01	max		Comm. 2	lc_2.jpg	fc_2.jpg	data_2.txt
3		USNO-B1.0 1128-0221607	10 22 41.651, +22 53 10.30	RRAB	15.64	16.60	CV	0.501144	2455980.756	max		Comm. 3	lc_3.jpg	fc_3.jpg	data_3.txt
4	BD+12 2717C	GSC 00913-00318	14 36 39.802, +12 10 32.68	RRAB	13.30	14.53	CV	0.435405	2456013.915	max		Comm. 4	lc_4.jpg	fc_4.jpg	data_4.txt
5		USNO-B1.0 1102-0261179	15 24 30.189, +20 14 29.38	RRC	15.24	15.58	CV	0.274596	2454536.95	max		Comm. 5	lc_5.jpg	fc_5.jpg	data_5.txt

Comments:

1. CSS_J094857.3+173141, 2MASS J09485729+1731422; J-K = 0.301 (2MASS).
2. CSS_J100134.9+252959, 2MASS J10013488+2529596; J-K = 0.261 (2MASS).
3. CSS_J102241.6+225310, 2MASS J10224166+2253105; J-K = 0.433 (2MASS).
4. CSS_J143639.8+121032, 2MASS J14363980+1210326; J-K = 0.254 (2MASS). Part of the visual triple star STF 1861 (ADS 9322, CCDM J14367+1210, WDS J14367+1210).
5. CSS_J152430.2+201429, 2MASS J15243018+2014294; J-K = 0.038 (2MASS).

Remarks:

Sloan Digital Sky Survey (SDSS) blue horizontal branch star candidates from the catalogue "Photometric identification of blue horizontal branch stars" (Smith et al. 2010) were checked against data from the Catalina Surveys Data Release 1 (Drake et al. 2009), which resulted in the discovery of five new RR Lyrae stars.

Each object was checked against the Strasbourg CDS VizieR service and the International Variable Star Index for pre-existence in variability catalogues. Period analyses were done using Period04 (Lenz and Breger 2005) and the Lafler-Kinman method (Lafler and Kinman 1965). Astrometric positions were derived from the UCAC4 catalog (Zacharias et al. 2012).

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References:

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