

COMMISSIONS G1 AND G4 OF THE IAU
 INFORMATION BULLETIN ON VARIABLE STARS

Volume 63 Number 6300 DOI: 10.22444/IBVS.6300

Konkoly Observatory
 Budapest
 9 October 2017

HU ISSN 0374 – 0676

REPORTS ON NEW DISCOVERIES

Date: 18 April 2017			
Observer(s) and affiliation(s): Gazeas, K. - Department of Astrophysics, Astronomy and Mechanics, National and Kapodistrian University of Athens, GR 15784, Zografos, Athens, Greece, kgaze@phys.uoa.gr Karmi, S. - Department of Astrophysics, Astronomy and Mechanics, National and Kapodistrian University of Athens, GR 15784, Zografos, Athens, Greece, phohal@hotmail.com			
RA(J2000) 21 14 49.143	Dec(J2000) +44 34 16.13	type EW	Mag. 15.9(Rmag -USNO A2.0)
Period 0.50069(9)		Epoch 2456815.424(2)	
Cross-identification(s): USNO-A2.0 1275-15108427 = GSC 2.3 N31H089347 = UCAC4 673-095718			

Remark: Detected on 31 May 2014 in the FoV of GSC 3181:2419.

RA(J2000) 21 16 34.235	Dec(J2000) +44 37 27.22	type DSCT	Mag. 13.9(Rmag -USNO A2.0)
Period 0.1689(2)		Epoch 2456833.518(14)	
Cross-identification(s): USNO-A2.0 1275-15192807 = GSC 3181:2781 = UCAC4 674-095557			

Remark: Detected on 31 May 2014 in the FoV of GSC 3181:2419. Epoch refers to maximum light.

RA(J2000) 02 39 44.562	Dec(J2000) +48 57 37.18	type EW	Mag. 16.2(Rmag -USNO A2.0)
Period 0.350221(19)		Epoch 2457339.5375(14)	
Cross-identification(s): USNO-A2.0 1350-02565514 = GSC 2.3 NCHW044927			

Remark: Detected on 10 November 2015 in the FoV of KL Per.

RA(J2000) 02 41 13.043	Dec(J2000) +48 58 46.79	type DSCT	Mag. 15.1(Rmag -USNO A2.0)
Period 0.0766(2)		Epoch 2457337.355(2)	
Cross-identification(s): USNO-A2.0 1350-02593309 = GSC 2.3 NCHZ031290 = UCAC4 695-018090			

Remark: Detected on 10 November 2015 in the FoV of KL Per. Epoch refers to maximum light.

RA(J2000) 02 41 48.085	Dec(J2000) +48 47 22.39	type EW	Mag. 16.1(Rmag -USNO A2.0)
Period 0.33652(2)		Epoch 2457339.3488(18)	
Cross-identification(s): USNO-A2.0 1350-02604882 = GSC 2.3 NCHW043104 = UCAC4 694-017475			

Remark: Detected on 10 November 2015 in the FoV of KL Per. Epoch refers to maximum light.

Date: 18 April 2017			
Observer(s) and affiliation(s): Gazeas, K. - Department of Astrophysics, Astronomy and Mechanics, National and Kapodistrian University of Athens, GR 15784, Zografos, Athens, Greece, kgaze@phys.uoa.gr			
RA(J2000) 20 00 57.378	Dec(J2000) +19 06 55.55	type EW	Mag. 13.8(Rmag -USNO A2.0)
Period 0.20633(10)		Epoch 2457235.399(4)	
Cross-identification(s): USNO-A2.0 1050-16046558 = GSC 2.3 N1U0066500 = UCAC4 546-115254			

Remark: Detected on 24 July 2015 in the FoV of CW Sge.

Date: 18 April 2017			
Observer(s) and affiliation(s): Paschalis I. Nikolaos - Nunki Private Observatory, GR 37002 Xanemos, Skiathos, Greece nikolaospaschalis@gmail.com Gazeas, K. - Department of Astrophysics, Astronomy and Mechanics, National and Kapodistrian University of Athens, GR 15784, Zografos, Athens, Greece, kgaze@phys.uoa.gr			
RA(J2000) 06 29 37.41	Dec(J2000) +29 12 34.54	type EW	Mag. 12.82(VTmag -TYC2)
Period 0.41852(1)		Epoch 2457515.2961(3)	
Cross-identification(s): GSC 1891-0714 = TYC 1891-0714-1 = 2MASS J06293740+2912347			

Remark: Detected on 21 December 2015 in the FoV of the exoplanet WASP-12b.

RA(J2000) 06 30 10.25	Dec(J2000) +30 03 29.9	type EA	Mag. 12.80(R mag USNO-A2)
Period 1.42536(5)		Epoch 2457519.2922(3)	
Cross-identification(s): GSC 2422-1063 = USNO-A2.0 1200-04854379 = 2MASS 06301026+3003296			

Remark: Detected on 21 December 2015 in the FoV of the exoplanet WASP-12b.

Date: 21 April 2017			
Observer(s) and affiliation(s): Serebryanskiy, A. - Fesenkov Astrophysical Institute, Observatory 23, 050020 Almaty, Kazakhstan aserebryanskiy@yahoo.com Reva, I. - Fesenkov Astrophysical Institute, Observatory 23, 050020 Almaty, Kazakhstan			
RA(J2000) 07 59 49.22	Dec(J2000) -10 39 30.77	type DSCT	Mag. 14.71 (R mag)
Period -		Epoch -	
Cross-identification(s): UCAC4 397-036372			

Remark: The preliminary image reduction which includes dark subtraction, flat fielding and registration was made in IRAF. The combined CCD image in filter V is show on Figure 6300-f17.jpg. The world coordinate system was assigned to the images using `wcstools` package (D.Mink 1997, 1999, 2002). The sources on the frames were identified by `sextractor` software (Bertin & Arnouts 1996). Totally about 2700 sources were identified. The coordinates of the stars in ICRS system were determined by `wcstools/imcat` utilizing UCAC4 catalog. The photometric information was extracted with IRAF `noao.daophot` package using the method of PSF photometry. Before we compute differential photometric light curves for each star we identify the known variables on the filed (see, for example Arentoft et al., 2007 and references therein) and visually inspect each initial light curve for selection of possible reference stars and check stars. The differential light curves for each star were calculated using method of improved reference light curve (Fernández et al., 2012). 12 stars were selected as reference stars and 77 stars as the auxiliary stars. The light curve of the UCAC4 397-036372 is shown in Figure 6300-f18.jpg. The star's location is indicated by red square in finding chart (6300-f19.jpg).

Date: 16 May 2017			
Observer(s) and affiliation(s): Gazeas, K. - Department of Astrophysics, Astronomy and Mechanics, National and Kapodistrian University of Athens, GR 15784, Zografos, Athens, Greece, kgaze@phys.uoa.gr Karampotsiou, E. - Department of Astrophysics, Astronomy and Mechanics, National and Kapodistrian University of Athens, GR 15784, Zografos, Athens, Greece, sevi.kar@gmail.com			
RA(J2000) 22 07 16.884	Dec(J2000) +26 55 23.64	type EB	Mag. 15.8(Rmag - USNO A2.0)
Period 0.6078(1)		Epoch 2457266.3921(4)	
Cross-identification(s): USNO 1125-19083473 = 2MASS J22071685+2655235 = GSC2.2 N033000118553			

Remark: Detected on 27 August 2015 in the FoV of 1SWASP J220734.47+265528.6.

RA(J2000) 22 07 48.657	Dec(J2000) +26 49 19.01	type EW	Mag. 14.6(Rmag -USNO-A2.0)
Period 0.44247(4)		Epoch 2457262.3547(4)	
Cross-identification(s): USNO 1125-19090391 = 2MASS J22074863+2649185 = GSC2.2 N0330001721			

Remark: Detected on 27 August 2015 in the FoV of 1SWASP J220734.47+265528.6.

Date: 18 September 2017			
Observer(s) and affiliation(s): Liakos, A. - National Observatory of Athens, Institute for Astronomy, Astrophysics, Space Applications, and Remote Sensing, I. Metaxa & Vas. Pavlou St., GR-152 36, Palaia Penteli, Athens, Hellas (Greece) alliakos@noa.gr			
RA(J2000) 22 26 20.47	Dec(J2000) +54 48 25.2	type EW	Mag. 15.9 (r)
Period -		Epoch -	
Cross-identification(s): UCAC4 725-090762 = 2MASS J22262047+5448251 = XPM 289-0675303 = IPHAS J222620.47+544825.2			

Remark: Detected in the FoV of the planetary nebula A66 79 (PNG 102.9-02.3).

Date: 11 December 2017			
Observer(s) and affiliation(s): Liakos, A. - National Observatory of Athens, Institute for Astronomy, Astrophysics, Space Applications, and Remote Sensing, I. Metaxa & Vas. Pavlou St., GR-152 36, Palaia Penteli, Athens, Hellas (Greece) alliakos@noa.gr			
RA(J2000) 22 16 56.85	Dec(J2000) +57 21 25.8	type EW	Mag. 18.9 (J) (UGPS catalogue)
Period 0.42572		Epoch 2458031.45394	
Cross-identification(s): UGPS J221656.43+572125.5			

Remark: Detected in the FoV of the planetary nebula M2-51 (PNG 103.2+00.6).

RA(J2000) 22 16 19.6	Dec(J2000) +57 23 58.3	type DSCT	Mag. 15.2 (R) (USNO A2.0)
Period 0.091110(3)		Epoch -	
Cross-identification(s): USNO A2.0 1425-13112208 = NOMAD1 1473-0485131 = 2MASS J22161965+5723582			

Remark: Detected in the FoV of the planetary nebula M2-51 (PNG 103.2+00.6).

RA(J2000) 22 16 03.84	Dec(J2000) +57 26 13.8	type EB	Mag. 16.8 (R) (USNO A2.0)
Period 0.41338		Epoch 2458039.24476	
Cross-identification(s): USNO-A2.0 1425-13104193 = NOMAD1 1474-0478834			

Remark: Detected in the FoV of the planetary nebula M2-51 (PNG 103.2+00.6).

Date: 29 January 2018			
Observer(s) and affiliation(s): Kendurkar, Malhar Raghunath - College of New Caledonia, Prince George Astronomical Observatory, Prince George, BC, Canada malhar.kendurkar@gmail.com Nelson, Robert H. - Mountain Ash Observatory, Prince George, BC, Canada bob.nelson@shaw.ca			

RA(J2000)	Dec(J2000)	type	Mag.
07 11 54.54	+07 40 01	DSCT	
Period		Epoch	
0.092 ± 0.001		24058095.935	
Cross-identification(s):			
GSC 0762-2924			

Remark: GSC 0762-2924 was discovered to be variable by the lead author during a routine ‘data mining’ search of many past images taken by the co-author during eclipsing binary studies. We classify the star, in the field of BX CMi, as a pulsating variable star because of the asymmetric shape of the light curve. The period of 0.092 ± 0.001 days is typical for a Delta Scuti star (Hoffmeister et al., 1985), but the amplitude in the R (Cousins) filter of about 0.06 magnitudes puts it at the low amplitude end (ibid). The light curve changed noticeably between the two runs. Times of maximum light were $JD_{hel}(\max) = 24\,58095.935 \pm 0.001$ and 58078.004 ± 0.001 (spanning 195 cycles). The comparison star was GSC 0762-2154. The search and follow-up images were taken at observatories described in Nelson (2017a, 2017b), respectively.

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