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Variability of TCP J04283707+3157578

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Star Name:	USNO-A2.0 1200-02285460,		
Coordinates (J2000):	04 28 37.10, +31 57 57.5		
Variability type:	UG;	**Limits, System:**	17.0–20 (unfiltered);
Period:		**Epoch:**	JD

Remarks:

During observations of the field in Perseus, we discovered a new cataclysmic variable star TCP J04283707+3157578 (Kryachko et al. 2011). Our observations were carried out at the Astrotel–Caucasus observatory, located at the Astronomical station of the Kazan Federal university, using the 300-mm Ritchey–Chretien telescope, equipped with an unfiltered Apogee Alta U9000 CCD camera. A total of 256 images with 5-minute exposures were obtained on JD 2455826–2455906. For basic reductions for dark current, flat fields, bias and for removing cosmic rays hits, we used IRAF routines.

For photometry of the star, we applied VaST software by Sokolovsky and Lebedev (2005). The comparison star was USNO-A2.0 1200-02275475 = USNO-B1.0 1224-0079451 ($\alpha = 04^h27^m46^s.76$, $\delta = +32°25' 34''.2$ (J2000), 2MASS), $R_1=13^m.97$, $R_2=13^m.60$ (USNO-B1.0). Unfiltered magnitudes were calibrated using the comparison star, assuming $R_{comp}=13^m.785$.

In this article, we present photometric observations of TCP J04283707+3157578 and, based on the light curve, we assume that the type of variability is UG. We observed 3 outbursts of the cataclysmic variable. The times of maximum brightness are presented in the additional table.

#	JD
1	2455826:
2	2455864
3	2455891:

To search for epochs of outbursts, we used Peranso software.

Because the amount of our photometrical observations is insufficient to determine the subtype of variability (UGSS or UGZ), we hope that the present study will stimulate new observations of this interesting and very active star.

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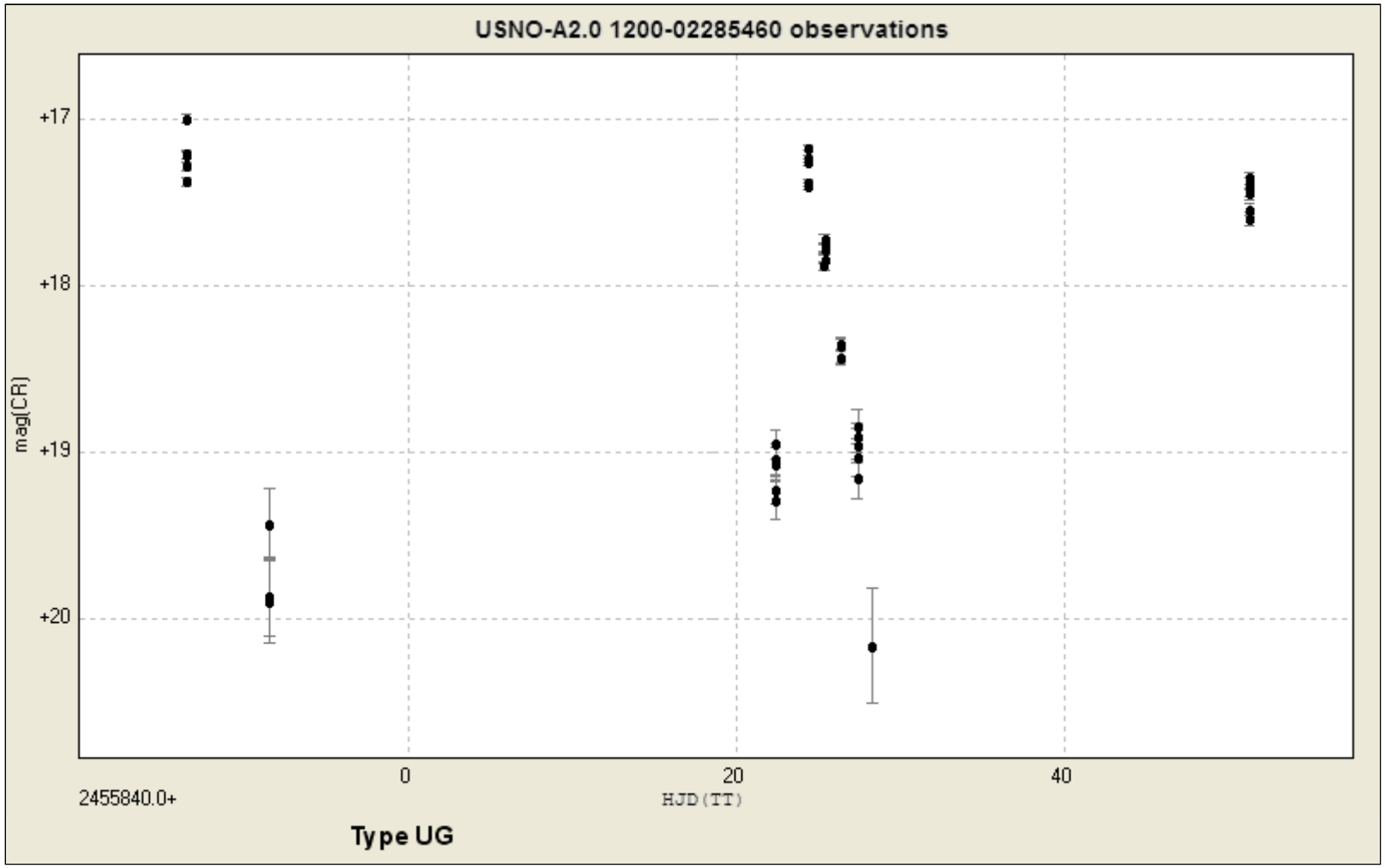
References:

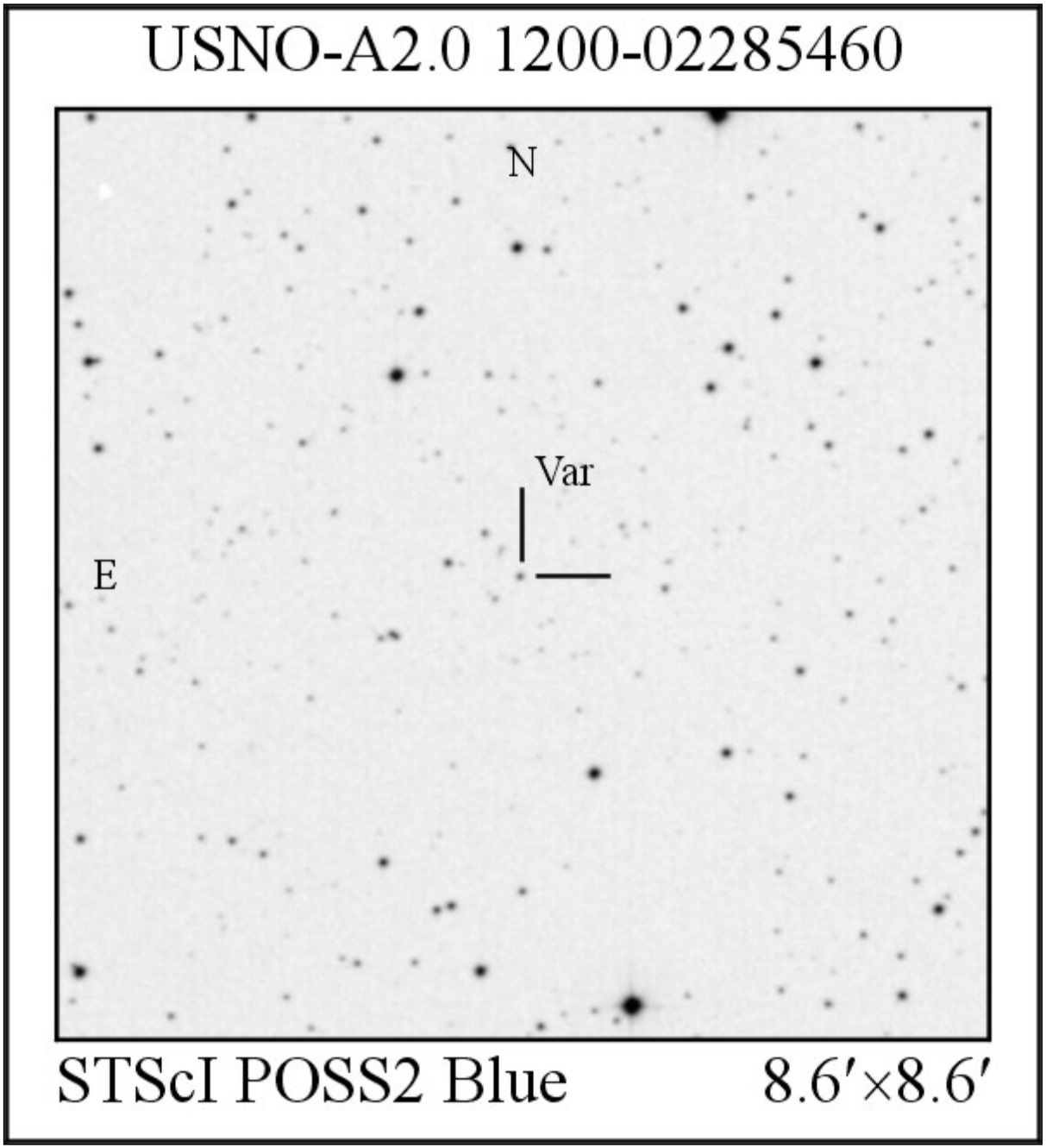
Kryachko, T., Satovsky, B., Brimacombe, J., 2011, Central Bureau Electronic Telegrams, 2840, 1
Sokolovsky, K., Lebedev, A., 2005, in 12th Young Scientists' Conference on Astronomy and Space Physics, Kyiv, Ukraine, April 19-23, 2005, eds.: Simon, A.; Golovin, A., p.79.

Light Curve



3 outbursts of TCP J04283707+3157578

Finding Chart



Data Source

1. usno-a2.0-1200-02285460_data.txt