

New RS CVn Stars without Eclipses

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#	Name	Other	Coord (J2000)	Type	Max	Min	System	Period	Epoch (JD)	type	Sp	Comment	L.Curve	Find.Chart	Data
1		GSC 4350-00064	05 07 18.76, +71 45 21.6	RS:	12.6	12.85	R	7.27	2451441.0	max		Comm. 1	1.gif	chart1.gif	NSVS 543058
2		GSC 4367-00629	06 53 18.11, +72 45 41.6	RS	12.1	12.25	R	5.617	2451525.5	max		Comm. 2	2.gif	chart2.gif	NSVS 670047
3		TYC 4364 01028 1	07 13 17.07, +70 16 34.3	RS	10.9	11.1	R	12.38	2451474.5	max		Comm. 3	3.gif	chart3.gif	NSVS 675159
4		GSC 3868-01078	15 24 15.08, +53 07 53.2	RS	12.95	13.2	R	7.29	2451333.1	max		Comm. 4	4.gif	chart4.gif	NSVS 2804798 NSVS 5182963
5		GSC2.2 N022030223863	18 19 28.22, +36 52 47.1	E:/RS	13.25	13.6	R	4.925	2451390.8	max		Comm. 5	5.gif	chart5.gif	NSVS 8105471

Comments:

1. The X-ray source 1RXS J050730.9+714503 is somewhat far from the variable.
2. 1RXS J065321.1+724558.
3. 1RXS J071314.2+701627. (B-V)(Tycho)=0.874.
4. 1RXS J152416.0+530806.
5. 1RXS J181928.2+365235. An eclipse (13.7m) at phase 0.35 is not excluded.

Remarks:

I present the discovery of 5 new RS CVn stars without eclipses. This classification is in agreement with the stars' relatively small amplitudes and with our identification of the stars with X-ray sources. A search for variables was carried out in the publicly available data of the Northern Sky Variability Survey (NSVS, Wozniak et al., 2004, also see <http://skydot.lanl.gov/nsvs>). These observations were analyzed using the period-search software developed by Dr. V.P. Goranskij for Windows environment. The coordinates were drawn either from the Tycho-2 or 2MASS catalogs. The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis. In the cases of GSC 4350-00064 and TYC 4364 01028 1, the use of these data considerably increases the number of available observations without deteriorating quality and allows us to determine their periods more accurately.

References:

Wozniak, P.R., Vestrand, W.T., Akerlof, C.W. et al., 2004, *Astron. J.*, 127, 2436