GSC 0752.2349 IS AN ECLIPSING BINARY OF W UMa TYPE

BERNHARD, K.[1,5]; KIYOTA, S.[2]; LLOYD, C.[3]; FRANK, P.[4,5]

[1] A–4030 Linz, Austria, e-mail: kl.bernhard@aon.at

[2] Tsukuba, 305-0031 Japan, skiyota@nias.affrc.go.jp

[3] Space Science & Technology Department, Rutherford Appleton Laboratory, Chilton, Didcot, Oxon. OX11 0QX, UK, e-mail: cl@astro1.bnsc.rl.ac.uk

[4] D–84149 Velden, Germany, e-mail: frank.velden@t-online.de

[5] Bundesdeutsche Arbeitsgemeinschaft für Veränderliche Sterne e.V. (BAV), Munsterdamm 90, D–12169 Berlin, Germany

Name of the object:
GSC 0752.2349

Equatorial coordinates:	Equinox:
R.A.= $06^{h}58^{m}10\overset{s}{.}8$ **DEC.**= $+10°13'58''$	2000

Observatory and telescope:
S. Kiyota: Private observatory, 25-cm Schmidt–Cassegrain telescope; K. Bernhard: Private observatory, 20-cm Schmidt–Cassegrain telescope; P. Frank: Private observatory, 30-cm flat-field camera

Detector:	S. Kiyota: Apogee AP-7 CCD camera; K. Bernhard: Starlight Xpress SX camera; P. Frank: OES-LcCCD11 camera

Filter(s):	S. Kiyota: Johnson-Cousins V; K. Bernhard: none; P. Frank: none

Comparison star(s):	K. Bernhard: GSC 0752.2661, $V \approx 12^{m}6$

Check star(s):	K. Bernhard: GSC 0752.2295

Transformed to a standard system:	No

Availability of the data:
Upon request

Type of variability:	W UMa

Remarks:

The variability of GSC 0752.2349 has been found as part of a programme to discover and classify new variables using CCD observations of selected fields on the edge of the northern Milky Way, during a survey phase in January-February 2000, for the programme see Bernhard & Lloyd 2000. Further observations were performed on 4 nights in March 2000 (S. Kiyota), on one night in April 2000 (P. Frank) and on 3 nights in March-April 2000 (K. Bernhard). This star has previously been referred to as Brh V37 (Bernhard 2000).

The ephemeris was calculated using the "Phase Dispersion Minimization" method. The light curve, reduced with the period given below, shows variations of a W UMa-type eclipsing binary.

$$\mathrm{Min\,I} = \mathrm{HJD}\ 2451621.072 + 0\overset{\mathrm{d}}{.}5263 \times E.$$
$$\phantom{\mathrm{Min\,I} = \mathrm{HJD}\ 24}\pm 5 \pm 3 \tag{1}$$
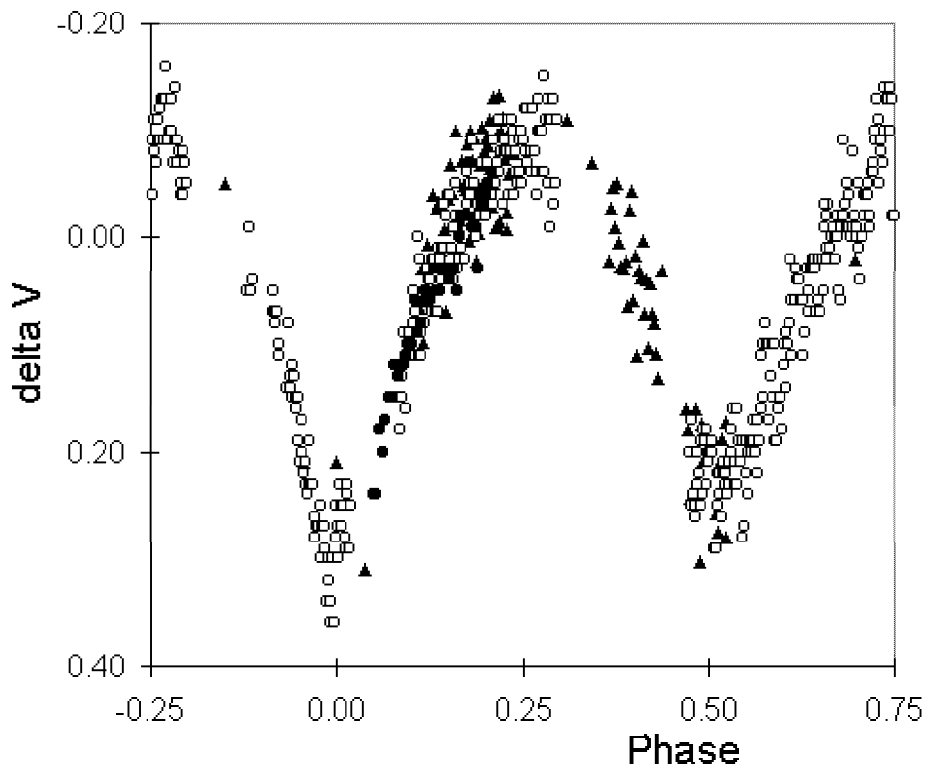
Figure 1. Differential light curve of GSC 0752.2349; filled triangles: K. Bernhard, filled circles: P. Frank, open circles: S. Kiyota

References:

Bernhard, K., 2000, *vsnet-newvar*, No. 276,
        http://www.kusastro.kyoto-u.ac.jp/vsnet/Mail/vsnet-newvar/msg00276.html
Bernhard, K., Lloyd. C., 2000, *IBVS*, No. 4920