COMMISSIONS 27 AND 42 OF THE IAU
INFORMATION BULLETIN ON VARIABLE STARS
Number 4038

Konkoly Observatory
Budapest
1 June 1994

HU ISSN 0324 - 0676

CALL FOR OBSERVATIONS OF BH Cas

Observations of BH Cas were collected on 19 February 1994 from the Steward Observatory 0.91-meter telescope on Kitt Peak. Nine frames were obtained over a period of $\sim$ 1.3 hours using a Tektronics 2048 $\times$ 2048 CCD (no filter). The IRAF routine *imexamine* was used to gather the background-subtracted fluxes of BH Cas and of the reference and check stars, GSC 01629 and GSC 01134 respectively. The data is given in Table I.

Table I : Flux Values

UT	BH Cas	GSC 01629	GSC 01134
02:48:40	265568	121795	96509
02:59:24	262178	118351	93634
03:08:06	265406	116603	93170
03:17:21	272431	116974	93379
03:25:54	280967	118128	93628
03:33:31	270747	113479	90062
03:44:07	281462	116563	92990
03:52:19	268233	111837	88710
04:05:38	262414	108613	86909

Plots of flux ratio against time were made in order to detect any possible variation in the brightness of BH Cas. In Figure 1 the ratio of the flux of BH Cas to that of the reference star is shown; in Figure 2 the ratio of the flux of the reference star to that of the check star is shown. Both figures are plotted to the same vertical scale.

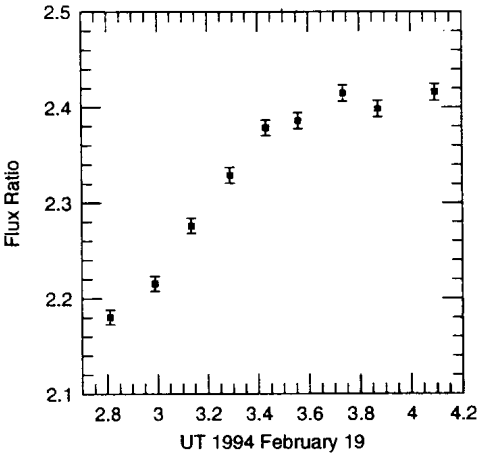

Figure 1. BH Cas/GSC 01629

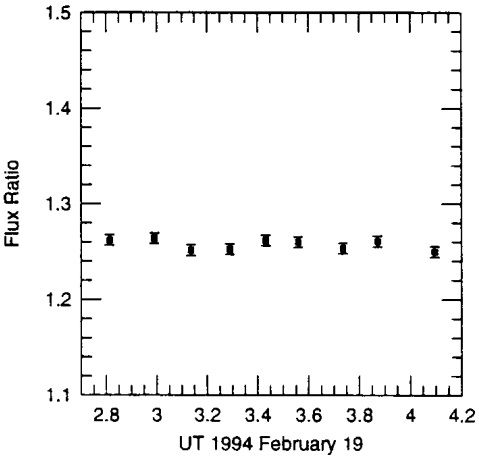

Figure 2. GSC 01629/GSC 01134

The discovery observations of the variability of BH Cas were made by Beljawsky (1931) and were confirmed by Kukarkin (1938) who concluded that the star was possibly of W UMa type with period $\sim 0\overset{d}{.}5$ and amplitude $\sim 0\overset{m}{.}4$. A later paper by Ahnert and Hoffmeister (1943) concluded that no star in the given area showed variation in brightness. No published observations of BH Cas have appeared since that time until this paper. Although further investigation is necessary, it is questionable whether the conclusion of Ahnert and Hoffmeister is valid.

The presence of a star of appreciable brightness within 10 arcseconds of BH Cas poses a potential problem for accurate photoelectric observations. An attempt will be made to use a CCD with filters designed to produce a standard (U,B,V) response in order to reconstruct the entire light and color curves. Please contact the undersigned for finder charts or additional information.

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