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

Number 4988

Konkoly Observatory
Budapest
21 November 2000

HU ISSN 0374 – 0676

FIRST PHOTOELECTRIC OBSERVATIONS OF GQ DRACONIS

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Name of the object:
GQ Dra = HIP 85277 = HD 158260

Equatorial coordinates:	**Equinox:**
R.A.= $17^h25^m29^s.44$ **DEC.**= $+51°29'35''.3$	2000

Observatory and telescope:
TUBITAK† National Observatory (TUG), 40-cm Cassegrain telescope

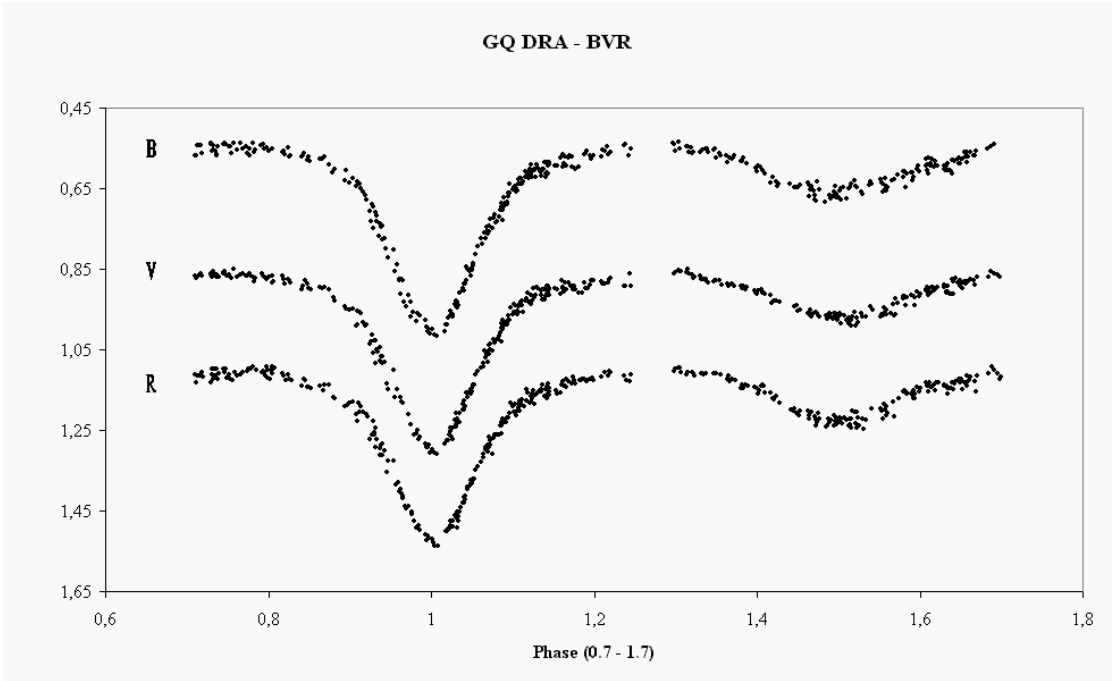

Figure 1. All nights observations in three filter. $B - 0^m.2$, V and $R + 0^m.2$ plotted respectively

†TUBITAK: The Scientific and Technical Research Council of Turkey

Detector:	OPTEC, Inc. SSP-5A Photometer

Filter(s):	Johnson B, V and R

Comparison star(s):	BD +51°2234 = HIP 86191

Transformed to a standard system:	No

Availability of the data:
Upon request

Type of variability:	EB

Remarks:

GQ Dra is a double star and the brighter companion is an EB type eclipsing variable. Its variability was discovered by Hipparcos (ESA, 1997). We carried out photoelectric photometry of that variable. Mean V band magnitude derived from Tycho photometry is $8\overset{m}{.}94$. The system has a $0\overset{d}{.}765899$ orbital period and a Hipparcos epoch is given as JD 2448500.5641 (ESA, 1997). GQ Dra was observed in 21, 22, 23, 24, 26, 29, 30 September and 1 October 2000 from TUBITAK National Observatory by the authors Alis and Atay. HIP 86191 was used as a comparison star which is defined constant by Hipparcos (ESA, 1997). We made two times 10-second integrations in each filter. Each observation set contains six variable and two comparison star measurements. Differential atmospheric corrections were made in the usual way. The comparison star has the same spectral type as the variable, therefore we did not use the second-order extinction coefficients. GQ Dra shows a Beta Lyrae type light curve. The folded light curve is displayed on Figure 1 in three filters. During this observing session we observed one primary and one secondary minimum. Times of minima were determined by the Kwee and van Woerden (1956) method. The minimum times for V band are given below in Heliocentric Julian Date:

$$\text{Min I} = \text{HJD } 2451812.31325 \pm 0.00038$$
$$O - C \text{ (Min I)} = 0.0024$$
$$\text{Min II} = \text{HJD } 2451817.28809 \pm 0.00109$$
$$O - C \text{ (Min II)} = 0.0009$$

Acknowledgements:

We would like to thank TUBITAK National Observatory for their kind support. This work is also supported by the Research Fund of Istanbul University. Project no. OR-104/07032000.

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