COMMISSION 27 OF THE I. A. U.
INFORMATION BULLETIN ON VARIABLE STARS
Number 1851

Konkoly Observatory
Budapest
1980 October 6
HU ISSN 0374-0676

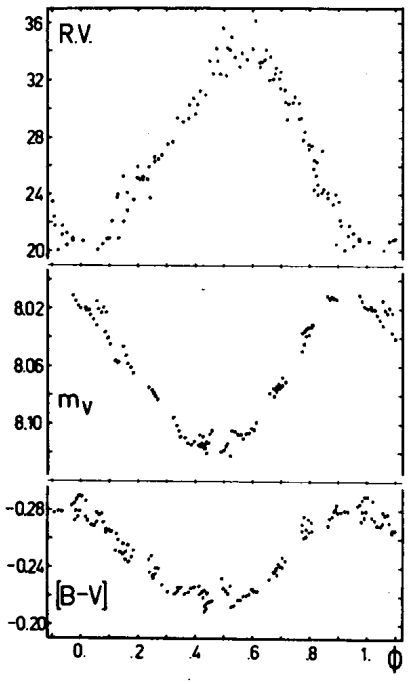
HD 37819, A NEW δ SCUTI STAR

Because of its erroneous spectral classification (F5Ib), HD 37819, a 8th magnitude star, has been included in the observational program of study of the supergiant variability carried on at the Geneva Observatory. A variation of short period (P ≅ 4.5 h) was detected in radial velocity the 5th of March 1980 by means of the spectrophotometer CORAVEL (see Baranne et al., 1979) from the Geneva station at the Haute-Provence Observatory (France). The same period was found for the light and colour variability the 15th of March 1980 from the Jungfraujoch Observatory (Switzerland). Spectra at 65 Å/mm were taken at the Haute-Provence Observatory with the 120 cm telescope the 21 of March 1980 (Goy, 1980). The revised spectral classification for HD 37819 is F4 III p - δ Delphini - (Jaschek, 1980). Consequently, HD 37819 is a new δ Scuti-type star.

The radial velocity of HD 37819 was measured 105 times, during the nights of March 5, 7, 9, 12, 16 and 17, 1980. In addition, 110 photometric measurements in the U,B,V filters of the Geneva system were obtained during the nights of March 15, 16 and 17, 1980.

Fourier analysis reveals a single frequency of $5.28653 d^{-1}$, thus the period is

$$Po = 0.18916 \text{ d} \simeq 4.5398 \text{ h}$$



The curves of variation in radial velocity, apparent magnitude and Geneva colour index [B-V] are shown in the Figure. The peak-to-peak amplitudes are respectively 13.5 km/sec, $0^m.103$ and $0^m.064$.

G. BURKI, M. MAYOR

Geneva Observatory
CH-1290 Sauverny,
Switzerland

References :

Baranne, A., Mayor, M., Poncet, J.L.: 1979, Vistas in Astronomy 23, 279

Goy, G.: 1980, private communication

Jaschek, M.: 1980, private communication