WHOLE EARTH TELESCOPE DATA ON G 117-B15A AND G 226-29

S.O. Kepler

*Instituto de Física, Universidade Federal do Rio Grande do Sul, 91501-970
Porto Alegre, RS - Brazil.*

Received August 1, 1993.

Key words: methods: observational – techniques: photometric – stars: white dwarfs – stars: oscillations – stars: individual: G 117-B15A, G 226-29

Abstract

G 117-B15A was observed with the WET for 86.4 h in March 1990 (XCOV4) and 9.1 h in March 1993 (XCOV9). The most recent result for the rate of period change for the 215 s pulsation mode is $\dot{P} = (3.2 \pm 2.8) \times 10^{-15} \text{ s/s}$, which includes the March 1993 data. We have taken Fourier spectra of all the data on G 117-B15A available since 1974. Besides the six multiplets known before (see Kepler et al. 1982, ApJ, 254, 676), we have found a few other peaks with probability of being due to noise smaller than 1 in 1000: 79.5 s, amp = 0.4 mma, frequency = $2f_1 + f_2$ (here f_1 is the frequency of the 215 s peak and f_2 is the frequency of the 304 s peak) and at 736.6 s, amp = 0.9 mma, frequency = $f_1 - f_2$.

For the six multiplets known before, we find that all, but perhaps the 215 s mode, are split into several components, but not simple multiplets. The low duty cycle of the WET campaign on G 117-B15A has introduced severe window effects, which, coupled with the complexity of the observed multiplets, require more WET observations to untangle.

G 226-29 was observed for 121 h in February 1992 (XCOV7), and we only detected the three previously known frequencies which are close to 109 s, down to 0.5 mma (see Fig. 1, this journal, p. 518). The results, together with an explanation of the False Alarm Probability on our FTs, will be published elsewhere.