

## LONG-TERM PERIOD AND AMPLITUDE VARIATIONS IN $\beta$ CEPHEI STARS

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We first consider all  $\beta$  Cephei stars for which long-term behavior of their pulsation periods is known from observations. As it turns out, these objects fall into two categories: one consisting of stars with complex period variations, and the other, with a constant and non-negative rate of period change,  $\dot{P} = \text{const} \geq 0$ . The problem is that stars with  $\dot{P}$  close to that predicted for the hydrogen-shell burning phases of evolution are over-represented. We then compare the five  $\beta$  Cephei stars which exhibit long-term variations of the pulsation amplitudes and note that in each case the cause may be individual. In one star, 16 (EN) Lac, two different effects are responsible for the observed variation of the amplitudes.

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