

## ASAS 062726+0111.6: a new Double-mode Cepheid

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<b>Star Name:</b>	ASAS 062726+0111.6, HD 288719, BD+01 1350, TYC 0133 01103 1
<b>Coordinates (J2000):</b>	06 27 25.25, +01 11 32.5
<b>Variability type:</b>	CEP(B);
<b>Period:</b>	(see Remarks) d;
<b>Limits, System:</b>	10.11-10.37 (V);
<b>Spectrum:</b>	G0
<b>Epoch(max):</b>	JD (see Remarks)

### Remarks:

According to ASAS-3 data (Pojmanski et al., 2005), HD 288719, listed in the ASAS catalog of variable stars as a fundamental mode Cepheid, is actually a double-mode Cepheid. The phased light curves plotted for the following elements:

HJD(max)=2453753.684+2.26571xE (fundamental mode) and

HJD(max)=2453724.711+1.61404xE (first overtone mode),

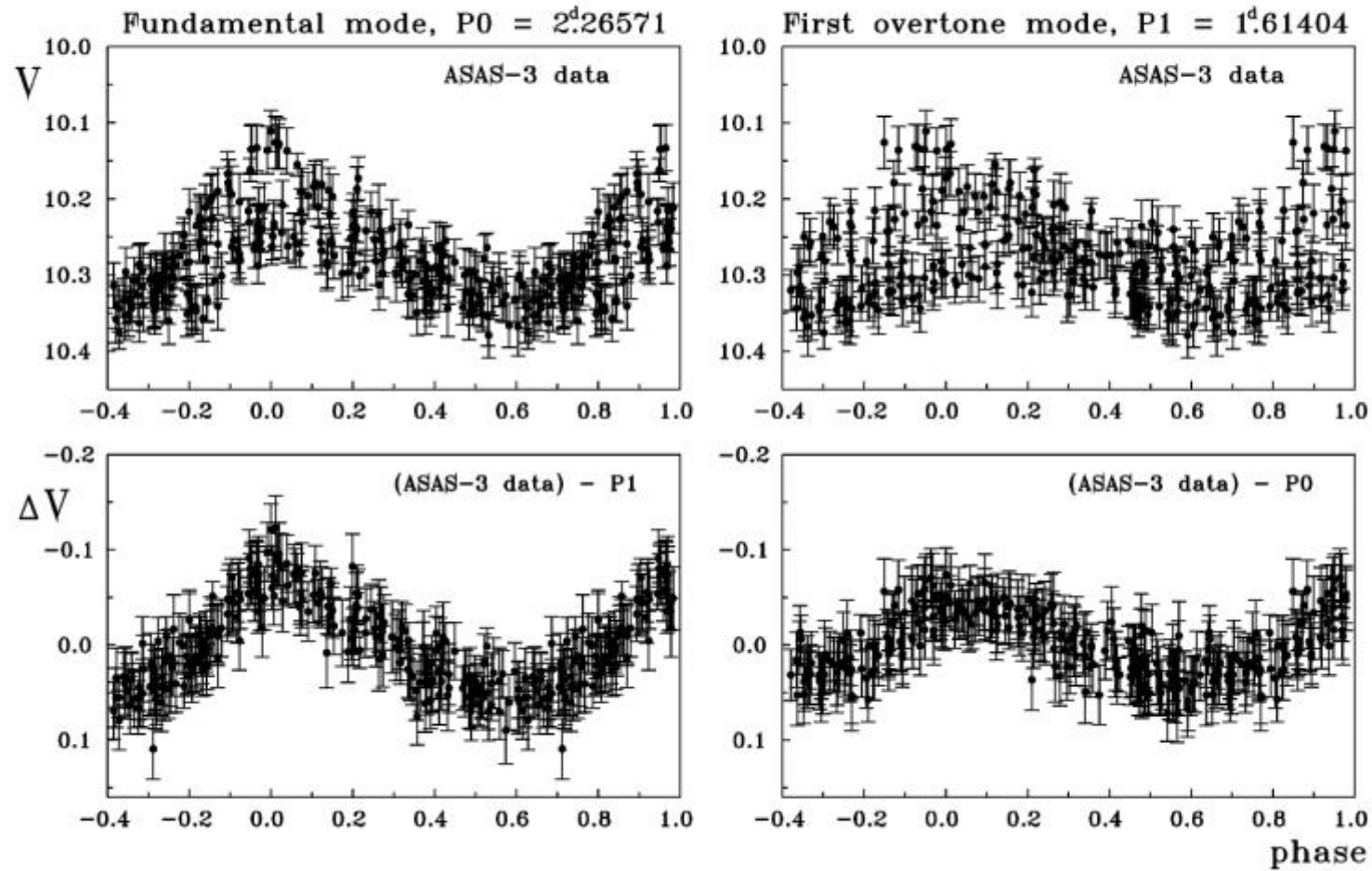
are given in the Figure. The period ratio  $P1/P0=0.712$  is typical for beat Cepheids. ROTSE-I observations (NSVS 12488333, NSVS 12496743; Wozniak et al., 2004) are in agreement with the suggested classification and periods. However, I did not use the NSVS data for analysis and period determination because of the short interval and small number of good observations.

### References:

Pojmanski, G., Pilecki, B., Szczygiel, D., 2005, Acta Astronomica, 55, 275  
Wozniak, P.R., Vestrand, W.T., Akerlof, C.W. et al., 2004, Astron. J., 127, 2436

### Light Curve

# HD 288719 = ASAS 062726+0111.6



The phased light curves. Top panels: ASAS-3 data folded with the fundamental-mode and the first overtone periods. Bottom panels: the same curves after prewhitening the other oscillation; additionally, the frequency connected with the interaction mode ( $1/P_1 + 1/P_0$ ,  $P = 0.94254$  d) has been whitened.