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

Number 5734

Konkoly Observatory Budapest 22 November 2006

 $HU\ ISSN\ 0374-0676$

FIRST COMPLETE BVRI LIGHT CURVES OF THE SHORT-PERIOD ALGOL-TYPE BINARY DF Pup

MANIMANIS, V.N.; NIARCHOS, P.G.

Dept. of Astrophysics, Astronomy and Mechanics, Faculty of Physics, National & Kapodistrian University of Athens, Athens, Greece. e-mail: vmaniman@phys.uoa.gr

Name of the object:		
DF Pup		
Equatorial coordinates:		Equinox:
R.A. = $07^{h}53^{m}50^{s}$ DEC. = $-19^{\circ}41'00''$		2000
Observatory and telescope:		
South African Astronomical Observatory Sutherland Station, 1.0-m Cassegrain telescope		
Detector:	CCD camera, liquid nitrogen cooled at 180.5 K, 1024×1024 imaging pixels binned to 512×512 , $5'.3 \times 5'.3$ FOV.	
Filter(s):	BVRI	
Date(s) of the observation(s): 2006.01.10, 2006.01.14, 2006.01.15, 2006.01.19, 2006.01.23 Comparison star(s): Uncatalogued star 208" SW to the variable		
Transformed to a standard system: No		
Availability of the data:		
Available at the IBVS website, after 2007.03.27		
Type of variability: EA		
Remarks:		
The period of the system is 0.7714568 days. The heights of the two maxima are equal within the observational error in all bands. The secondary minimum is shallow and deepens considerably at longer wavelengths; this fact indicates a large temperature difference between the components. DF Pup is known to have a spectral type of A7+[G5IV].		

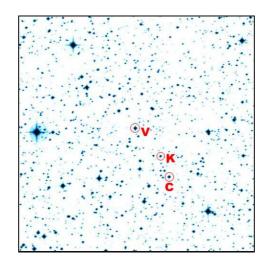


Figure 1. $14' \times 14'$ finding chart with the comparison (C) and check (K) stars marked; DF Pup is marked with a V

Acknowledgements:

This research was included in the project for the support of research groups in the universities, co-funded by the European Social Fund (ESF) and National Resources (EPEAEK II) — *PYTHAGORAS*. This paper uses observations made at the South African Astronomical Observatory (SAAO).

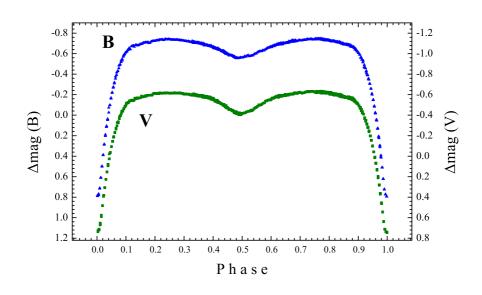


Figure 2. The complete B (upper) and V (lower) light curves of DF Pup

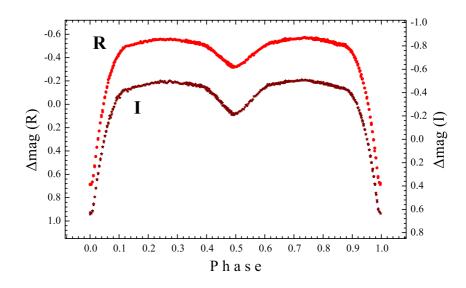


Figure 3. The complete R (upper) and I (lower) light curves of DF Pup

Reference:

Budding, E., Erdem, A., Çiçek, C., Bulut, I., Soydugan, F., Soydugan, E., Bakış, V., Demircan, O., 2004, $A \mathscr{C} A, \, {\bf 417}, \, 263$