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ANONYMOUS IRREGULAR VARIABLE IN PUPPIS

In the course of photoelectric UBV observations of dwarf novae at the European Southern Observatory (1 m and Bochum 61 cm telescope) a comparison star near BV Pup was frequently measured. However, after the reduction of the long series of data it turned out that this reference star is variable also, with an amplitude of about  $0^m.15$  in a time scale of hours to days. These variations exceed the error of the measurement ( $\leq 0^m.02$ ) significantly. A periodogram analysis in the range  $0^d.01 - 10^d$  revealed no significant periodic variation. Therefore the variable seems to be of irregular type.

The 82 individual observations listed in Table I yield the following mean values and standard deviations:

$$\begin{aligned}V &= 12.044 \pm 0.034 \\B-V &= 0.403 \pm 0.037 \\U-B &= -0.015 \pm 0.031\end{aligned}$$

The approximate position is

$$\begin{aligned}\alpha &= 7^h 44^m 40^s \quad (1900) \\ \delta &= -23^\circ 17' 6''\end{aligned}$$

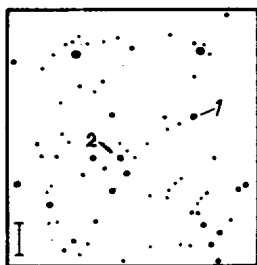


Figure 1

Finding chart. 1: New variable 2: Dwarf nova BV Pup

North is top, east is left. The bar corresponds to the size of one minute of arc.

Table I

The individual observations

HJD- 244 0000	V	B-V	U-B	HJD- 244 0000	V	B-V	U-B
618.6709	12.022	0.356	0.018	1369.6896	12.063	0.375	-0.019
619.5626	12.026	0.389	-0.023	1370.7251	12.070	0.375	-0.010
619.5751	12.027	0.387	-0.017	1381.5844	11.979	0.425	0.024
619.5830	12.024	0.399	-0.030	1381.6434	11.984	0.444	0.025
619.5938	12.015	0.397	-0.019	1382.5804	12.024	0.431	-0.016
619.6017	12.033	0.385	-0.020	1383.5818	12.104	0.398	0.013
619.6121	12.029	0.398	-0.007	1384.6496	12.041	0.414	-0.028
619.6225	12.029	0.405	-0.013	1385.6156	12.032	0.422	-0.003
619.6291	12.043	0.395	-0.039	1386.6307	12.042	0.401	0.003
619.6382	12.009	0.431	-0.022	1387.5710	12.016	0.401	-0.021
619.6457	12.033	0.401	-0.027	1387.6819	11.993	0.446	0.003
619.6611	12.027	0.410	-0.032	1388.6356	12.028	0.398	0.035
619.6694	12.027	0.408	-0.011	1389.6942	12.050	0.366	0.002
619.6806	12.032	0.398	-0.003	1391.6272	12.082	0.460	-0.062
619.6894	12.036	0.400	0.007	1393.5313	12.030	0.386	-0.033
619.7006	12.019	0.417	-0.026	1396.7366	12.038	0.415	-0.016
619.7089	12.024	0.412	-0.008	1396.7470	12.067	0.379	-0.050
619.7164	12.035	0.406	-0.005	1397.6777	12.035	0.381	0.044
619.7284	12.048	0.402	0.021	1398.6899	12.040	0.433	-0.021
619.7358	12.043	0.398	0.023	1399.6825	12.003	0.398	-0.022
619.7463	12.043	0.413	-0.035	1416.6612	12.105	0.348	0.000
619.7538	12.041	0.389	0.000	1417.5740	12.017	0.440	-0.030
619.7629	12.036	0.401	-0.019	1419.6058	11.993	0.418	-0.006
620.5441	12.018	0.390	-0.043	1421.5650	12.041	0.393	-0.014
620.6667	12.037	0.411	-0.025	1423.5427	12.037	0.405	0.017
620.7967	12.075	0.391	-0.041	1439.5685	12.068	0.403	-0.012
621.5463	12.019	0.384	-0.032	1440.5940	12.075	0.381	-0.057
622.5428	12.026	0.369	-0.005	1442.5219	12.061	0.388	-0.020
623.5495	11.998	0.379	-0.030	1661.8397	12.046	0.443	-0.050
625.5627	12.051	0.396	0.032	1664.8452	12.073	0.484	-0.089
626.5567	12.042	0.385	-0.034	1665.6590	12.196	0.447	-0.161
627.7533	12.079	0.347	-0.020	1669.7348	12.086	0.636	-0.079
628.7348	12.106	0.364	0.013	1669.8504	12.092	0.438	-0.056
630.6662	12.022	0.379	-0.033	2047.6961	11.980	0.420	-0.003
631.6987	12.052	0.388	-0.017	2162.5292	12.064	0.412	-0.037
633.7588	12.061	0.397	-0.016	2164.5167	12.080	0.373	-0.033
1364.6897	12.057	0.393	0.025	2165.5222	12.035	0.390	-0.022
1365.5594	12.039	0.379	0.031	2167.5616	12.123	0.365	-0.015
1366.6933	12.012	0.455	0.063	2168.5692	12.107	0.393	-0.012
1367.6931	12.093	0.381	-0.018	3260.5292	12.069	0.399	0.019
1368.7210	12.024	0.422	0.005	3557.6155	12.041	0.371	-0.008

A finding chart according to Vogt (1977) is given in Fig. 1. The star is also included in the Sky Survey reproductions prepared for the field of BV Pup by Vogt and Bateson (1982).

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