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UBVR OBSERVATIONS OF THE DOUBLE-MODE CEPHEID AS Cas

Recently we (Berdnikov, 1992) have decomposited available UBVR observations of all double-mode Cepheids into two oscillations. It was also pointed out that the number of existing observations is not sufficient for certain investigation of light curve variations for the majority of these stars. Therefore we continue to carry out the observations of all accessible double-mode Cepheids.

In Table 1 we present photoelectric BVR observations of AS Cas. All measurements were obtained in 1992 August-September at the Mt. Maidanak Observatory of the Tashkent Astronomical Institute. The 60-cm reflector was used and 184 observations were carried out; the accuracy of the individual data is near 0<sup>m</sup>.015 in all filters.

Table 1

JD hel	V	B-V	V-R	JD hel	V	B-V	V-R
2440000+				2440000+			
8852.4116	12.255	1.355	1.243	8874.3349	12.354	1.558	1.198
8854.3561	12.430	1.359	1.289	8874.4113	12.442	1.451	1.278
8854.4076	12.426	1.446	1.278	8874.4638	12.432	1.472	1.280
8854.4504	12.463	1.276	1.288	8875.3076	12.377	1.495	1.293
8856.3932	12.466	1.497	1.322	8875.3482	12.343	1.405	1.240
8856.4611	12.440	1.531	1.285	8875.3950	12.346	1.417	1.241
8858.3016	12.057	1.349	1.161	8876.2090	12.194	1.344	1.221
8858.3517	12.132	1.336	1.220	8876.2741	12.119	1.383	1.161
8858.3768	12.126	1.347	1.221	8876.3135	12.139	1.301	1.189
8858.4564	12.158	1.413	1.202	8876.3426	12.115	1.304	1.171
8860.2206	12.349	1.413	1.273	8876.4080	12.101	1.332	1.219
8860.2853	12.328	1.386	1.236	8876.5103	12.047	1.269	1.174
8860.3529	12.329	1.370	1.258	8877.1839	12.175	1.328	1.189
8860.4672	12.279	1.416	1.204	8877.2550	12.188	1.350	1.212
8862.3297	12.267	1.406	1.299	8877.2919	12.219	1.331	1.238
8862.3668	12.267	1.396	1.237	8877.3455	12.217	1.399	1.225
8862.4340	12.312	1.418	1.246	8877.4109	12.242	1.412	1.201
8870.2625	11.779	1.203	1.034	8877.5104	12.285	1.424	-
8870.3093	11.766	1.217	1.050	8878.1958	12.484	1.504	1.238
8870.3319	11.802	1.178	1.091	8878.2894	12.531	1.498	1.294
8870.3842	11.832	1.208	1.104	8878.3283	12.550	1.564	1.325
8870.4045	11.846	1.226	1.110	8878.3634	12.577	1.400	1.334
8870.4135	11.858	1.208	1.096	8879.2920	11.807	1.184	1.087
8870.4628	11.880	1.225	1.091	8879.3421	11.855	1.238	1.116
8870.5070	11.886	1.209	1.110	8879.3628	11.862	1.237	1.101
8872.1721	12.528	1.580	1.261	8879.3967	11.906	1.233	1.143
8872.3000	12.587	1.485	1.325	8879.4409	11.926	1.252	1.125
8872.3218	12.596	1.477	1.318	8879.5115	11.988	1.258	1.169
8872.3602	12.568	1.470	1.315	8880.1848	12.371	1.476	1.287
8872.3865	12.564	1.446	1.316	8880.2404	12.402	1.396	1.302
8872.4301	12.506	1.448	1.253	8880.2712	12.400	1.352	1.271
8874.1783	12.402	1.454	1.292	8880.3080	12.434	1.516	1.277
8874.2557	12.396	1.494	1.260	8880.3522	12.433	1.497	1.292
8874.3052	12.420	1.463	1.276	8880.3872	12.369	1.595	1.192

Table 1 (continued)

JD hel 2440000+	V	B-V	V-R	JD hel 2440000+	V	B-V	V-R
8880.4232	12.441	1.495	1.265	8888.3321	12.020	1.246	1.171
8880.4535	12.495	1.442	-	8888.3055	11.988	1.284	1.175
8880.5061	12.507	1.491	1.339	8888.3815	12.034	1.281	1.164
8881.1794	12.507	1.481	1.286	8888.4144	12.044	1.296	1.186
8881.2330	12.559	1.541	1.405	8888.5163	12.097	1.347	-
8881.2611	12.399	1.538	1.304	8889.2020	12.389	1.437	1.269
8881.3360	12.451	1.438	1.280	8889.2381	12.413	1.450	1.302
8881.3893	12.382	1.470	1.260	8889.2647	12.426	1.466	1.309
8881.4110	12.398	1.385	1.261	8889.2996	12.382	1.468	1.290
8881.5140	12.310	1.392	1.201	8889.3388	12.406	1.467	1.289
8882.1873	12.143	1.310	1.219	8890.1817	12.409	1.423	1.288
8882.2355	12.128	1.346	1.203	8890.2163	12.395	1.413	1.281
8882.2716	12.153	1.314	1.215	8890.2449	12.373	1.424	1.247
8882.3060	12.148	1.356	1.187	8890.2673	12.364	1.452	1.252
8882.3585	12.164	1.339	1.188	8890.3049	12.376	1.425	1.236
8882.4022	12.209	1.300	1.252	8890.3081	12.374	1.411	1.263
8882.4309	12.207	1.325	1.217	8890.3443	12.363	1.434	1.255
8883.2227	12.270	1.384	1.217	8890.3611	12.385	1.395	1.284
8883.2650	12.295	1.383	1.258	8890.3907	12.357	1.422	1.252
8883.3000	12.288	1.391	1.249	8890.4061	12.372	1.393	1.259
8883.3543	12.286	1.355	1.247	8890.5153	12.343	1.415	-
8883.3883	12.296	1.364	1.252	8891.1776	12.258	1.383	1.238
8883.4336	12.307	1.412	1.265	8891.2157	12.252	1.377	1.229
8883.5091	12.291	1.413	1.236	8891.2411	12.233	1.360	1.207
8884.1990	12.402	1.426	1.286	8891.2779	12.232	1.324	1.210
8884.2402	12.437	1.426	1.222	8891.3089	12.217	1.331	1.217
8885.1933	11.977	1.222	1.134	8891.3201	12.205	1.319	1.216
8885.2342	11.923	1.233	1.107	8891.3576	12.182	1.339	1.174
8885.2650	11.895	1.222	1.106	8891.3735	12.166	1.341	1.201
8885.3365	11.818	1.184	1.099	8891.4132	12.136	1.330	1.190
8885.3960	11.826	1.153	1.133	8891.1930	12.130	1.347	1.192
8885.4280	11.805	1.162	1.104	8892.1930	12.130	1.347	1.192
8885.5147	11.837	1.149	-	8892.2327	12.151	1.337	1.206
8886.1957	12.240	1.332	1.265	8892.2579	12.179	1.354	1.233
8886.2460	12.260	1.394	1.267	8892.2942	12.217	1.391	1.238
8886.2984	12.281	1.417	1.245	8892.3274	12.261	1.410	1.247
8886.3220	12.286	1.456	1.264	8893.1830	12.487	1.498	1.301
8886.3424	12.307	1.460	1.263	8893.2233	12.507	1.480	1.323
8886.3850	12.346	1.412	-	8893.2408	12.505	1.463	1.304
8886.4252	12.361	1.422	1.275	8893.2540	12.508	1.497	1.336
8886.5107	12.407	1.464	-	8893.2707	12.507	1.462	1.312
8887.2297	12.580	1.567	1.306	8893.2823	12.517	1.488	1.304
8887.2747	12.609	1.477	1.352	8893.3104	12.513	1.485	1.296
8887.3129	12.593	1.494	1.315	8893.3356	12.538	1.457	1.319
8888.1923	11.931	1.214	-	8893.3558	12.530	1.494	1.326
8888.2318	11.951	1.234	1.132	8893.3748	12.548	1.500	1.321
8888.2495	11.951	1.237	1.116	8893.4181	12.521	1.509	1.289
8888.2623	11.952	1.275	1.114	8894.1754	11.730	1.175	1.068
8888.2874	11.997	1.252	1.161	8894.1789	11.729	1.143	1.050
8888.3055	11.988	1.284	1.175	8894.2021	11.710	1.138	1.069

Table 1 (continued)

JD hel	V	B-V	V-R	JD hel	V	B-V	V-R
2440000+				2440000+			
8894.2090	11.712	1.162	1.073	8894.2729	11.719	1.151	1.071
8894.2189	11.700	1.174	1.044	8894.2808	11.711	1.132	1.046
8894.2228	11.690	1.152	1.041	8894.2849	11.718	1.160	1.043
8894.2424	11.703	1.149	1.055	8894.2926	11.723	1.160	1.067
8894.2472	11.704	1.141	1.056	8894.3023	11.735	1.170	1.059
8894.2576	11.705	1.154	1.062	8894.3183	11.779	1.167	1.067
8894.2643	11.692	1.160	1.052	8894.3333	11.803	1.155	1.087
8894.2698	11.720	1.153	1.062	8894.3441	11.807	1.152	1.076

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Reference:

Berdnikov, L. N., 1992, *Pisma v Astron. Zh.*, **18**, 654