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Fundamental parameters of Cepheids.* I. Photometric data in the Geneva system**

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Abstract. — Photometric data in the Geneva system for 26 Cepheid stars are given, representing 869 individual measurements. After a short explanation on the analysis, the choice of the period and the quality of the fit of the light curve are discussed. The data and the fitted light- and colour curves are given, as well as the Fourier coefficients of the best fit for each star.

Key words: stars: Cepheids, oscillations

1. Introduction

The Cepheids are a very important group of variable stars because the variation of their global observational parameters (magnitudes, colour indices, radial velocity) allows the determination of their fundamental stellar parameters (radius, temperature, luminosity, mass). Moreover, the study of the properties of the pulsation of the Cepheids is one of the most powerful tests of the stellar evolutionnary theory.

In this context, the Baade-Wesselink method (Baade 1928; Wesselink 1946) is a great support since it allows the determination of the mean radius of a pulsating star. The additional photometric determination of the effective temperature variation and of the interstellar extinction towards it then leads to the absolute magnitude of the star. This is one way to establish the period-luminosity-colour relation, which is one of the most important rungs of the extragalactic distance scale.

Recall that the Baade-Wesselink method requires very accurate "simultaneous" determination of the light, colour and radial velocity curves of the pulsating star. In this first paper of the series, 869 measurements on 26 Cepheids in the 7 colours Geneva photometric system (Golay 1980; Rufener 1988) are presented. They have been obtained from the Gornergrat and Jungfraujoch high altitude observatories (Switzerland) and from the Swiss telescope at La Silla (European Southern Observatory, Chile). In Paper II (Bersier et al. 1994) the radial velocity measurements obtained on 40 Cepheids with the spectrophotometer CORAVEL are given.

In Sect. 2 , the method of analysis is presented. The period giving the best fit for each star is discussed in Sect. 3 and the fits to the light and $[B-V]$ colour curves are shown. Previously published data have been used to produce these fits. Table 1 contains the data, in Table 2 the Fourier coefficents of the fit to the V magnitude are given.

2. Fourier analysis and period search

For each observed Cepheid, a Fourier transform has been made to determine the period and a function of the form

$$f(t) = A_0 + \sum_{k=1}^{n} A_k \cos(2\pi k\nu_0(t - T_0) + \phi_k) \qquad (1)$$

has been fitted to the V magnitude measurements. These periods have been compared to those determined by Szabados (1977, 1980, 1981, 1989, 1991, respectively SI, SII, SIII, SIV and SV) in his extensive study of the period variations of Cepheids. Often his values of the period have been used rather than ours because of the much longer time baseline covered by his data.

The quality of the fit, $\epsilon_{\rm fit}$, is given by the standard deviation of the data around the fitted curve. We required that $\epsilon_{\rm fit}$ must be of the order of the uncertainty of the measurements to consider the fit being reasonable. The uncertainty on the period was determined by varying it and looking at the increase of $\epsilon_{\rm fit}$. When it rose to $\sim 10\%$

*Based on observations made at the Gornergrat and Jungfraujoch Observatories (Switzerland) and at the European Southern Observatory (La Silla, Chile)

**Table 1 is also available in electronic form. See the Editorial in A&AS 1994, Vol. 103, No. 1

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above its minimum value, we considered that the period was no longer appropriate. This gives a typical uncertainty of $\sim 10^{-4}$ days.

Some measurements of lower quality have been rejected for the fit, but they are nevertheless published here. They have a weight 0 in Table 1 (see Rufener [1988] for the definition of the weights P and Q). Some additional data on these stars have already been published, the references are given in Sect. 3.

The Fourier coefficients of the light curves are given in Table 2. It is important to mention that for several stars, the Fourier coefficients have been modified according to the method of Lanczos (e.g. Arfken 1970), in order to reduce the oscillations of the fitted curve. Practically, a Lanczos coefficient is a number, smaller than 1, that multiplies the amplitude of a Fourier harmonics. Since, with this procedure, all amplitudes are smaller than what they would be without Lanczos' factors, this introduces a bias that forces to use a high number of harmonics. This technique is then designed to give *a mathematical description of the curve* but the amplitudes and phases should be used with extreme caution when studying the structural properties of the Cepheids light curves.

The presentation of the measurements in Table 1 follows the form adopted by Rufener (1988) for the Geneva photometric catalogue, except that we have given the colour indices with their explicit notation (e.g. $[U-B]$ instead of U). The magnitudes in the seven passbands can be calculated from the m_V magnitude in the V filter and the six colour indices in the following manner

$$m_i = m_V - [V-B] + [i-B] \qquad (2)$$

where i represents one of the seven filters U, B, V, B_1, B_2, V_1, G.

3. Results and discussion

CO Aur. The data and periods of Babel & Burki (1987) have been used, since no new measurements have been acquired since then. All data have been published in their paper.

V636 Cas. No new measurements has been added since the list published by Burki & Benz (1982). The period given in their paper has been used to do the fit.

V1 ω Cen. This is a population II Cepheid situated in the globular cluster ω Cen. The period mentionned in the literature for this star, 29.34 days, is taken from Bailey (1902). Our measurements span 30 days, that is only one cycle.

R Cru. This is one of four bright southern Cepheids that have been intensively monitored in Geneva photometry. For this star, an excellent light curve is obtained with a period $P = 5.82540$ days and six harmonics.

S Cru. For the data at HJD[1] > 7980 (105 measurements), the period giving the best fit is 4.689816 days. Seven measurements are subsequent to HJD < 7980; as these points do not strongly influence the Fourier analysis, this period has been adopted. Szabados' value (SIV) of the period gave an $\epsilon_{\rm fit}$ twice as large as with our value. As the possible decrease of the period proposed by Szabados is not strongly constrained by his data, it is therefore preferable to use our value of the period.

T Cru. The period given by the Fourier analysis is very close to Szabados' value (SIV). One can conclude that the pulsation period of this star has been constant until HJD ~ 8400.

X Cru. The Fourier analysis yields a period of 6.22011 days. An excellent fit with six harmonics is obtained with $\epsilon_{\rm fit} = 0.005$ mag.

X Cyg. The fit is obtained with the period found in Szabados (SV). The rather poor agreement ($\epsilon_{\rm fit} = 0.033$mag) between the fit and the data is due to the fact that the luminosity increase is very poorly constrained; there are only two points between the minimum and the maximum. With more than three harmonics, there are additional, unrealistic bumps. With the best period of the Fourier analysis, we obtain the same results and the same $\epsilon_{\rm fit}$.

DT Cyg. The Fourier analyses of the velocity and photometric data give periods that differ by $\sim 10^{-4}$. Szabados' period (SV) seems to represents a good compromise between these values. This period gives a good fit to the velocity data (see Paper II) as well as to the photometric data.

BB Gem. Szabados' period (SI) gives very good fits to both light- and velocity curves, with the use of the Lanczos coefficients.

DX Gem. Szabados' period (SV) was chosen because it gave the best fit to the radial velocity data, taking into account the "orbital motion" of this binary (in fact, we only introduced a slow drift of the center-of-mass velocity, not an orbit, see Paper II). It also gives a very good fit to the photometric data, as good as with the period supplied by the Fourier analysis.

ζ Gem. The period was computed from Szabados' ephemeris (SV) for the date HJD $= 4936$ since the period is varying. With the data in the range $4900 <$ HJD < 5000, the fit is very good. The measurements cover only 36 days, so the period change over this interval is negligible. If the three measurements at HJD < 1328 are taken into account, the fit is not as good since the period was longer at that time.

BE Mon. Since for both types of data (velocity and photometry), the measurements are done simultaneously, the evident requirement is that the same period has to be used for the velocity and light curves. The period given by the Fourier analysis is near Szabados' value (SI). This last value has been preferred because it is a compromise

[1] In this paper, all dates are heliocentric Julian Days−2440000

between the best periods for the velocity and photometric data (see Paper II). The resulting fit is very good.

V465 Mon. Since the light curve is almost sinusoidal only two harmonics were needed to obtain an excellent fit. Szabados' period has been used (SV) because our best period is very close to his value.

V508 Mon. The best period for the photometric data cannot be used for the velocity data. As explained in Paper II, we choosed Szabados' period (SI) because it was the best compromise.

S Nor. As for the velocity data, the best fit is obtained with Szabados' period (SIV). The small bumps on the descending and ascending parts of the light curve are real features (see Fig. 4c).

V340 Nor. The best period for the photometric data is very close to the best period for the velocity data. A compromise has been chosen that is roughly the mean of these periods.

V440 Per. With new radial velocity measurements, it is concluded in Paper II that Szabados' period is the best one (SV). In photometry this is also the case, so the period is 7.572498 days.

U Sgr. The best period is very close to the one of Szabados and this last value has been chosen.

W Sgr. As for the velocity curve (see Paper II), the period and the number of harmonics have been taken in Babel et al. (1989). Only one new measurement has been made since the publication of that paper.

EU Tau. The best fit in radial velocity (Paper II) is obtained with Szabados' period (SI). Since the photometric data is simultaneous to a part of the velocity data, the same period is used here.

ST Tau. As for the velocity curve, there were oscillations in the fit, and therefore Lanczos' factors were used to attenuate them. The period was taken in Szabados (SI) for consistency with the radial velocity data.

SW Tau. The light curve of this Cepheid presents a double maximum. Eight harmonics were necessary to obtain a satisfying light curve. The dashed lines in Fig. 5g and 5h around the maximum indicate that the fit is probably not realistic in this part of the curve and has to be taken with caution. Szabados' value of the period has been used (SV), computed from his ephemeris for HJD=4993 since the period varies.

SZ Tau. As explained in Paper II, Szabados' period (SV) has been chosen because it was a compromise that could fit fairly well both velocity and light curves.

T Vul. The Fourier analysis gives a period that is very close to the adopted Szabados value (SV).

SV Vul. The data covers an interval of only 66 days. This period has been computed from Szabados (SV), for the date HJD = 4480. Due to the small number of points, it was impossible to obtain a smooth fit. The Lanczos coefficients helped to obtain a satisfying fit with five harmonics.

4. Conclusion

For almost all the stars presented in this paper, we have radial velocity measurements. For many of them, the photometric and radial velocity measurements have been obtained simultaneously, giving an evident requirement on the periods deduced from the Fourier analysis of each type of data: they have to be equal. This has led sometimes to adopt a compromise between the "photometric" and "velocity" periods.

One of our requirements has been to obtain a good fit to the light and velocity curves. We had to use the Lanczos factors in 19% of the fits. In the evaluation of the quality of a fit, the naked eye remains an essential tool and the fitted curve should not present any unrealistic bumps, oscillations or features that could be introduced by a Fourier series fitted with too many harmonics.

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Table 1. Magnitudes and colours in the Geneva photometric system. In each case, our best choice for the period is given in days (see text). A † in superscript means that part of the data concerning this star has already been published elsewhere (see text for the exact reference). An asterisk means that the measurement has been rejected for the fit. The columns labelled P and Q give the weights of the magnitudes and colours respectively, from 0 to 4 (see Rufener 1988 for explanations). The dates are HJD – 2440000

Date	Q	m_V	P	$[U-B]$	$[V-B]$	$[B_1-B]$	$[B_2-B]$	$[V_1-B]$	$[G-B]$
V1 ω Cen		P = 29.34							
4622.868	3	10.701	3	2.092	-0.020	1.114	1.282	0.735	1.004
4623.850*	1	10.777	3	2.155	0.001	1.107	1.303	0.760	1.015
4623.868*	1	10.780	3	2.131	-0.016	1.101	1.299	0.741	1.001
4625.873	3	10.901	3	1.981	-0.046	1.127	1.354	0.710	0.964
4627.860*	0	12.159	0	1.635	-0.417	1.219	1.238	0.351	0.457
4629.839	3	11.170	3	2.144	-0.130	1.132	1.284	0.639	0.869
4630.826*	1	11.259	1	2.025	-0.141	1.107	1.255	0.647	0.853
4632.827	3	11.286	3	1.847	-0.131	1.135	1.286	0.653	0.859
4633.836	3	11.295	3	1.859	-0.068	1.086	1.303	0.702	0.924
4635.841	3	11.393	3	1.807	-0.003	1.106	1.324	0.751	1.005
4636.829	3	11.310	3	1.788	0.074	1.030	1.325	0.837	1.094
4637.845	3	11.135	3	1.807	0.143	1.050	1.357	0.881	1.166
4638.860	2	10.943	2	1.722	0.227	1.010	1.356	0.987	1.245
4639.856*	0	10.826	0	1.792	0.317	0.989	1.374	1.062	1.393
4640.858	3	10.472	3	1.831	0.413	0.944	1.422	1.150	1.485
4641.824*	0	10.393	0	1.900	0.459	0.939	1.440	1.182	1.524
4642.859	3	10.369	3	1.887	0.422	0.938	1.423	1.142	1.491
4643.838	3	10.453	3	1.877	0.371	0.952	1.407	1.106	1.431
4644.862	4	10.490	4	1.851	0.298	0.980	1.375	1.032	1.329
4645.841	2	10.547	2	1.893	0.243	1.005	1.380	0.985	1.303
4646.850*	1	10.626	0	1.955	0.159	1.025	1.360	0.914	1.186
4648.863	3	10.589	3	1.949	0.120	1.043	1.366	0.862	1.153
4649.864	3	10.607	3	1.975	0.112	1.052	1.332	0.847	1.113
4650.855	3	10.630	3	2.035	0.092	1.049	1.332	0.823	1.115
4651.769	3	10.689	3	2.038	0.017	1.093	1.315	0.775	1.050
R Cru		P = 5.82540							
7981.560	3	7.114	3	1.993	-0.261	1.249	1.191	0.509	0.696
7981.590	3	7.118	3	1.999	-0.267	1.245	1.184	0.504	0.694
7981.643	3	7.128	3	2.007	-0.258	1.246	1.200	0.512	0.701
7982.677	3	6.875	3	1.845	-0.023	1.136	1.271	0.733	0.965
7983.542	3	6.357	3	1.921	0.264	1.039	1.347	1.006	1.297
7984.781	3	6.636	3	1.906	0.032	1.130	1.287	0.787	1.036
7984.892	3	6.663	3	1.893	-0.007	1.137	1.275	0.747	0.991
7986.776	3	7.023	3	1.973	-0.216	1.233	1.207	0.547	0.751
7987.767	3	7.149	3	1.987	-0.254	1.246	1.205	0.518	0.713
7987.846	3	7.141	3	1.980	-0.241	1.235	1.199	0.526	0.718
7989.652	3	6.408	2	1.921	0.221	1.055	1.333	0.965	1.252
7989.700	3	6.421	3	1.889	0.213	1.053	1.327	0.953	1.233
7990.625	3	6.641	3	1.906	0.018	1.133	1.275	0.775	1.025
7990.736	3	6.661	3	1.902	0.002	1.137	1.271	0.756	1.001
7991.731	3	6.845	3	1.938	-0.130	1.193	1.234	0.634	0.852
7991.813	3	6.850	3	1.932	-0.132	1.190	1.235	0.623	0.843
7992.651	3	7.033	3	1.983	-0.223	1.228	1.208	0.547	0.740
7992.791	3	7.050	3	1.983	-0.238	1.232	1.200	0.530	0.727
7993.657	3	7.139	3	1.981	-0.255	1.230	1.190	0.517	0.712
7993.796	3	7.121	3	1.952	-0.219	1.223	1.210	0.550	0.744
7994.551	3	6.713	3	1.843	0.088	1.096	1.303	0.836	1.085
7994.685	3	6.608	3	1.861	0.147	1.078	1.315	0.898	1.160

Date	Q	M_V	P	$[U-B]$	$[V-B]$	$[B_1-B]$	$[B_2-B]$	$[V_1-B]$	$[G-B]$
R Cru (cont.)									
7995.587	3	6.433	3	1.925	0.195	1.060	1.322	0.941	1.217
7995.735	3	6.471	3	1.914	0.167	1.074	1.317	0.915	1.187
7996.549	3	6.665	3	1.905	0.004	1.136	1.269	0.759	0.993
7996.692	3	6.689	3	1.914	-0.025	1.145	1.263	0.738	0.972
7997.539	3	6.839	3	1.931	-0.124	1.186	1.241	0.641	0.856
7997.733	3	6.870	3	1.930	-0.136	1.197	1.236	0.623	0.843
7998.549	3	7.040	3	1.988	-0.225	1.235	1.211	0.543	0.739
7998.820	3	7.082	3	1.996	-0.246	1.247	1.198	0.530	0.717
8000.571	2	6.542	2	1.855	0.175	1.068	1.315	0.920	1.192
8000.761	2	6.420	3	1.891	0.247	1.041	1.348	0.997	1.288
8007.493	3	6.497	3	1.902	0.134	1.084	1.309	0.886	1.155
8008.534	3	6.741	3	1.911	-0.052	1.169	1.250	0.706	0.944
8008.711	3	6.774	3	1.921	-0.081	1.169	1.248	0.682	0.908
8009.507	3	6.887	3	1.937	-0.154	1.202	1.227	0.614	0.824
8010.518	3	7.089	3	1.979	-0.253	1.237	1.199	0.514	0.715
8010.749	3	7.128	3	2.006	-0.262	1.243	1.199	0.508	0.695
8011.504	3	7.063	3	1.916	-0.157	1.191	1.234	0.603	0.820
8011.691	3	6.968	3	1.871	-0.074	1.160	1.258	0.682	0.909
8012.505	3	6.380	3	1.907	0.264	1.040	1.346	1.007	1.303
8012.684	3	6.366	3	1.922	0.261	1.035	1.341	1.006	1.295
8013.552	2	6.554	2	1.905	0.096	1.102	1.299	0.848	1.111
8016.710	3	7.140	3	1.999	-0.262	1.242	1.193	0.510	0.692
8017.509	3	6.968	3	1.876	-0.083	1.156	1.257	0.676	0.898
8018.517	3	6.363	3	1.926	0.265	1.045	1.344	1.008	1.296
8018.685	3	6.390	3	1.929	0.241	1.049	1.335	0.981	1.270
8019.576	3	6.594	3	1.898	0.056	1.112	1.284	0.809	1.061
8019.721	3	6.624	3	1.902	0.032	1.133	1.277	0.785	1.031
8021.515	3	6.973	3	1.959	-0.207	1.218	1.200	0.561	0.759
8021.665	3	7.007	3	1.968	-0.214	1.220	1.212	0.550	0.751
8022.499	2	7.124	2	1.993	-0.265	1.249	1.195	0.510	0.702
8026.490	3	6.825	3	1.929	-0.115	1.186	1.233	0.645	0.866
8026.672	3	6.840	3	1.924	-0.129	1.185	1.227	0.634	0.847
8027.489	2	7.010	2	1.966	-0.217	1.224	1.209	0.546	0.749
8029.535	3	6.688	3	1.853	0.088	1.089	1.304	0.838	1.092
8030.490	3	6.418	3	1.918	0.208	1.055	1.330	0.954	1.234
8030.671	3	6.461	3	1.915	0.172	1.073	1.314	0.919	1.188
8031.493	3	6.661	3	1.913	0.003	1.136	1.258	0.755	0.992
8031.672	3	6.697	3	1.914	-0.029	1.148	1.258	0.729	0.969
8033.488	3	7.044	3	1.980	-0.229	1.218	1.205	0.534	0.728
8033.711	3	7.065	3	1.986	-0.257	1.223	1.188	0.514	0.717
8042.497	2	6.518	2	1.906	0.136	1.096	1.310	0.881	1.147
8042.534	2	6.516	2	1.900	0.124	1.097	1.312	0.874	1.134
8043.485	2	6.735	2	1.913	-0.062	1.157	1.242	0.686	0.910
8044.514	3	6.891	3	1.959	-0.168	1.197	1.209	0.589	0.795
8044.578	3	6.916	3	1.950	-0.174	1.208	1.220	0.593	0.800
8048.478	2	6.548	2	1.892	0.099	1.102	1.291	0.844	1.104
8048.556	2	6.559	2	1.903	0.086	1.107	1.300	0.842	1.104
8049.461	2	6.767	3	1.923	-0.080	1.166	1.242	0.675	0.904
8049.520	2	6.778	3	1.918	-0.087	1.171	1.244	0.678	0.908

Table 1. continued

Date	Q	m_V	P	$[U-B]$	$[V-B]$	$[B_1-B]$	$[B_2-B]$	$[V_1-B]$	$[G-B]$
R Cru (cont.)									
8050.471	2	6.930	3	1.959	-0.177	1.218	1.220	0.579	0.785
8050.532	2	6.945	3	1.959	-0.186	1.216	1.225	0.581	0.785
8051.468	2	7.104	2	2.009	-0.264	1.238	1.192	0.507	0.690
8051.540	2	7.116	2	1.988	-0.254	1.245	1.210	0.524	0.714
8055.468	2	6.795	3	1.930	-0.104	1.176	1.232	0.655	0.873
8055.586	2	6.819	3	1.922	-0.111	1.182	1.237	0.645	0.869
8056.627	1	7.020	1	1.951	-0.215	1.222	1.205	0.555	0.748
8057.513	1	7.131	2	2.010	-0.259	1.244	1.196	0.508	0.701
8057.617*	0	7.126	1	1.992	-0.256	1.233	1.202	0.517	0.704
8058.508	3	6.796	3	1.844	0.020	1.120	1.284	0.781	1.022
8058.627	3	6.714	3	1.852	0.073	1.100	1.293	0.828	1.076
8082.527	3	6.362	3	1.918	0.275	1.041	1.353	1.016	1.308
8371.648	3	7.086	3	1.988	-0.251	1.239	1.197	0.518	0.713
8372.637	3	7.079	3	1.926	-0.176	1.198	1.220	0.593	0.791
8373.670	3	6.374	3	1.902	0.264	1.038	1.344	1.011	1.292
8374.646	2	6.529	2	1.911	0.103	1.092	1.297	0.858	1.118
8375.651	2	6.765	2	1.917	-0.066	1.165	1.249	0.691	0.932
8377.634	3	7.100	3	1.996	-0.262	1.236	1.193	0.515	0.710
8378.659	2	6.985	2	1.887	-0.106	1.161	1.247	0.658	0.865
8382.648	1	6.956	1	1.951	-0.195	1.226	1.218	0.575	0.781
8383.652	2	7.123	2	2.002	-0.266	1.243	1.196	0.509	0.698
8384.614	3	6.895	3	1.867	-0.050	1.135	1.264	0.712	0.937
8389.527	3	7.138	3	1.988	-0.265	1.243	1.190	0.509	0.695
8389.589	3	7.130	3	1.988	-0.274	1.244	1.198	0.507	0.679
8389.642	3	7.143	3	1.998	-0.249	1.240	1.199	0.524	0.714
8393.593	3	6.831	3	1.927	-0.128	1.187	1.224	0.637	0.853
8394.713	3	7.042	3	1.979	-0.240	1.224	1.192	0.538	0.724
8398.511	1	6.654	1	1.916	-0.001	1.143	1.275	0.761	0.994
8400.575	2	7.046	2	1.979	-0.233	1.238	1.207	0.541	0.731
8408.569	3	6.399	3	1.902	0.251	1.046	1.347	0.999	1.287
8408.673	3	6.368	3	1.895	0.282	1.040	1.338	1.009	1.302
8411.499	1	6.892	2	1.938	-0.161	1.198	1.226	0.607	0.818
8411.645*	0	7.049	1	1.950	-0.178	1.205	1.212	0.588	0.789
8413.497	3	7.051	3	1.900	-0.144	1.187	1.244	0.625	0.832
8413.639	3	6.967	3	1.888	-0.085	1.166	1.248	0.684	0.895
8415.500	1	6.544	1	1.917	0.095	1.103	1.288	0.850	1.106
8415.657	2	6.586	2	1.907	0.068	1.111	1.290	0.818	1.065
8434.568	1	6.856	1	1.942	-0.120	1.194	1.242	0.644	0.871
8436.540	3	7.126	3	1.961	-0.234	1.222	1.198	0.542	0.733
8437.498	2	6.541	2	1.868	0.172	1.066	1.327	0.924	1.196
S Cru		P = 4.689816							
3656.568	3	6.772	3	1.927	-0.159	1.187	1.225	0.608	0.813
3934.787	3	6.867	3	1.897	-0.122	1.173	1.245	0.649	0.870
3942.740	4	6.794	3	1.926	-0.159	1.191	1.226	0.605	0.818
5781.737	3	6.886	2	1.955	-0.207	1.209	1.222	0.569	0.763
5808.636	2	6.662	2	1.907	-0.104	1.180	1.248	0.671	0.891
5861.492	3	6.889	3	1.930	-0.199	1.206	1.222	0.575	0.770
5862.518	3	6.697	3	1.834	0.000	1.122	1.281	0.765	1.004
7981.571	3	6.927	3	1.937	-0.201	1.202	1.212	0.562	0.760
7981.606	3	6.930	3	1.936	-0.198	1.209	1.220	0.567	0.768
7981.652	3	6.933	3	1.948	-0.199	1.206	1.216	0.569	0.769
7982.682	3	6.290	3	1.877	0.231	1.045	1.345	0.976	1.263
7983.559	3	6.357	3	1.897	0.131	1.081	1.307	0.878	1.140
7984.791	3	6.686	3	1.905	-0.112	1.175	1.253	0.654	0.879
7984.902	3	6.711	3	1.915	-0.133	1.181	1.248	0.630	0.849

Date	Q	M_V	P	$[U-B]$	$[V-B]$	$[B_1-B]$	$[B_2-B]$	$[V_1-B]$	$[G-B]$
S Cru (cont.)									
7986.786	3	6.828	3	1.874	-0.094	1.162	1.252	0.668	0.894
7987.778	3	6.215	3	1.921	0.253	1.047	1.347	0.999	1.288
7987.858	3	6.229	3	1.901	0.237	1.053	1.346	0.981	1.270
7989.663	3	6.729	2	1.919	-0.137	1.186	1.234	0.628	0.848
7989.710	3	6.736	3	1.892	-0.144	1.183	1.224	0.618	0.836
7990.636	3	6.879	3	1.949	-0.204	1.212	1.218	0.570	0.773
7990.746	3	6.897	3	1.937	-0.204	1.206	1.217	0.564	0.761
7991.740	3	6.610	3	1.839	0.052	1.103	1.293	0.805	1.049
7991.824	3	6.518	3	1.833	0.099	1.079	1.303	0.850	1.101
7992.662	3	6.269	3	1.912	0.211	1.060	1.333	0.954	1.233
7992.802	3	6.310	3	1.908	0.168	1.072	1.321	0.915	1.191
7993.667	3	6.566	3	1.892	-0.031	1.146	1.266	0.730	0.963
7993.813	3	6.596	3	1.890	-0.055	1.156	1.258	0.703	0.932
7994.561	3	6.767	3	1.922	-0.154	1.196	1.233	0.607	0.826
7994.693	3	6.785	3	1.940	-0.167	1.200	1.227	0.600	0.811
7995.746	3	6.928	3	1.931	-0.197	1.205	1.217	0.570	0.772
7996.558	3	6.486	3	1.851	0.128	1.077	1.315	0.877	1.134
7996.702	3	6.330	3	1.869	0.210	1.051	1.338	0.956	1.232
7997.548	3	6.332	3	1.907	0.159	1.075	1.323	0.907	1.173
7997.743	3	6.390	3	1.895	0.101	1.091	1.302	0.853	1.113
7998.558	3	6.612	3	1.889	-0.075	1.159	1.252	0.690	0.919
7998.844	2	6.686	2	1.911	-0.117	1.175	1.233	0.644	0.864
8000.582	2	6.919	2	1.928	-0.177	1.198	1.230	0.590	0.794
8007.502	3	6.504	3	1.882	0.009	1.125	1.270	0.766	1.005
8008.543	3	6.758	3	1.926	-0.148	1.189	1.231	0.614	0.829
8008.723	3	6.787	3	1.927	-0.155	1.196	1.226	0.608	0.818
8009.516	3	6.901	3	1.946	-0.203	1.206	1.217	0.567	0.767
8010.527	3	6.588	3	1.823	0.063	1.097	1.304	0.819	1.072
8010.759	3	6.351	3	1.850	0.205	1.054	1.334	0.946	1.221
8011.700	3	6.358	3	1.897	0.136	1.083	1.312	0.882	1.152
8012.514	3	6.588	3	1.891	-0.046	1.152	1.264	0.709	0.949
8012.693	3	6.633	3	1.902	-0.080	1.163	1.252	0.686	0.909
8013.563	2	6.805	2	1.939	-0.172	1.205	1.226	0.598	0.808
8016.721	3	6.454	3	1.895	0.049	1.110	1.288	0.801	1.054
8017.520	3	6.660	3	1.910	-0.102	1.173	1.252	0.666	0.888
8018.527	3	6.847	3	1.940	-0.187	1.208	1.219	0.577	0.784
8018.695	3	6.874	3	1.951	-0.195	1.209	1.220	0.567	0.772
8019.564	3	6.855	3	1.898	-0.114	1.172	1.246	0.649	0.861
8019.732	3	6.745	3	1.851	-0.037	1.137	1.276	0.724	0.948
8021.524	3	6.484	3	1.884	0.025	1.121	1.281	0.778	1.035
8021.675	3	6.529	3	1.893	0.003	1.137	1.273	0.756	0.995
8022.511	2	6.724	2	1.918	-0.144	1.190	1.234	0.625	0.838
8026.500	3	6.565	3	1.892	-0.032	1.144	1.267	0.727	0.962
8026.681	3	6.612	3	1.906	-0.057	1.161	1.253	0.695	0.924
8027.500	2	6.788	2	1.932	-0.163	1.193	1.224	0.597	0.808
8029.544	3	6.322	3	1.874	0.212	1.049	1.340	0.956	1.238
8030.500	3	6.365	3	1.901	0.124	1.082	1.307	0.873	1.137
8030.680	3	6.415	3	1.888	0.078	1.099	1.293	0.829	1.087
8031.502	3	6.648	3	1.914	-0.087	1.164	1.244	0.668	0.895
8031.686	3	6.687	3	1.915	-0.115	1.174	1.237	0.645	0.865
8033.498	3	6.907	3	1.916	-0.157	1.184	1.229	0.608	0.806
8033.722	3	6.799	3	1.869	-0.080	1.153	1.257	0.684	0.904
8042.507	2	6.930	2	1.952	-0.198	1.211	1.218	0.570	0.768
8042.543	2	6.926	2	1.945	-0.197	1.209	1.223	0.569	0.771
8043.494	2	6.444	2	1.851	0.132	1.068	1.305	0.878	1.137
8044.523	3	6.349	3	1.912	0.128	1.075	1.291	0.867	1.130

Table 1. continued

Date	Q	m_V	P	$[U-B]$	$[V-B]$	$[B_1-B]$	$[B_2-B]$	$[V_1-B]$	$[G-B]$
S Cru (cont.)									
8044.587	3	6.373	3	1.908	0.118	1.089	1.301	0.868	1.130
8048.485	2	6.212	2	1.903	0.268	1.035	1.348	1.009	1.299
8048.565	2	6.197	2	1.912	0.273	1.034	1.354	1.017	1.315
8049.469	2	6.429	3	1.893	0.068	1.106	1.286	0.819	1.072
8049.528	2	6.441	3	1.894	0.056	1.115	1.296	0.816	1.070
8050.480	2	6.693	3	1.920	-0.114	1.185	1.241	0.645	0.863
8050.541	2	6.710	3	1.930	-0.114	1.190	1.247	0.644	0.870
8051.478	2	6.868	2	1.953	-0.200	1.202	1.209	0.568	0.763
8051.549	2	6.876	2	1.955	-0.199	1.215	1.227	0.581	0.779
8055.478	2	6.755	3	1.932	-0.155	1.195	1.232	0.605	0.814
8055.595	2	6.775	3	1.930	-0.163	1.201	1.228	0.603	0.813
8056.638	1	6.928	1	1.930	-0.198	1.206	1.223	0.571	0.768
8057.522	1	6.485	2	1.855	0.118	1.080	1.311	0.868	1.127
8057.627*	0	6.372	1	1.854	0.180	1.061	1.322	0.931	1.199
8058.518	3	6.328	3	1.904	0.153	1.072	1.316	0.904	1.176
8058.637	3	6.365	3	1.900	0.123	1.090	1.307	0.869	1.140
8082.538	3	6.501	3	1.889	0.023	1.128	1.283	0.778	1.020
8371.651	3	6.574	3	1.831	0.069	1.097	1.300	0.828	1.069
8372.640	3	6.294	3	1.912	0.175	1.062	1.317	0.926	1.194
8373.673	3	6.590	3	1.905	-0.059	1.152	1.254	0.706	0.935
8374.649	2	6.798	2	1.950	-0.181	1.193	1.223	0.590	0.795
8375.658	2	6.926	2	1.945	-0.184	1.210	1.226	0.578	0.783
8377.640	3	6.398	3	1.898	0.101	1.099	1.297	0.856	1.111
8378.665	2	6.669	2	1.911	-0.107	1.177	1.246	0.656	0.875
8382.654	1	6.487	1	1.893	0.022	1.125	1.274	0.782	1.033
8383.658	2	6.730	2	1.925	-0.145	1.188	1.234	0.626	0.842
8384.620	3	6.894	3	1.962	-0.215	1.210	1.219	0.560	0.754
8389.534	3	6.919	3	1.964	-0.204	1.213	1.225	0.579	0.768
8389.596	3	6.925	3	1.956	-0.215	1.212	1.214	0.560	0.744
8389.648	3	6.926	3	1.943	-0.191	1.208	1.220	0.577	0.786
8393.600	3	6.831	3	1.943	-0.190	1.203	1.217	0.578	0.781
8394.721	3	6.861	3	1.894	-0.135	1.173	1.236	0.635	0.837
8398.519	1	6.865	1	1.948	-0.202	1.207	1.224	0.567	0.768
8400.591	2	6.245	2	1.918	0.227	1.050	1.344	0.973	1.246
8408.576	3	6.921	3	1.940	-0.189	1.205	1.224	0.587	0.773
8408.679	3	6.899	3	1.916	-0.151	1.194	1.233	0.609	0.809
8411.507	1	6.678	2	1.910	-0.109	1.177	1.234	0.654	0.869
8413.503	3	6.866	3	1.887	-0.115	1.173	1.238	0.646	0.863
8413.647	3	6.766	3	1.867	-0.051	1.149	1.262	0.718	0.942
8415.506	1	6.492	1	1.899	0.011	1.130	1.273	0.778	1.020
8415.664	2	6.545	2	1.892	-0.017	1.140	1.269	0.736	0.976
8434.576	1	6.582	1	1.887	-0.028	1.150	1.268	0.737	0.975
8436.547	3	6.931	3	1.942	-0.198	1.206	1.217	0.568	0.769
T Cru		P = 6.733196							
7981.594	3	6.427	3	1.949	-0.113	1.175	1.238	0.652	0.865
7981.645	3	6.438	3	1.947	-0.119	1.184	1.238	0.640	0.861
7982.690	3	6.532	3	1.980	-0.210	1.227	1.212	0.553	0.758
7983.545	3	6.633	3	2.003	-0.290	1.252	1.187	0.479	0.669
7984.784	3	6.804	3	2.050	-0.348	1.280	1.179	0.428	0.610
7984.895	3	6.813	3	2.067	-0.353	1.281	1.191	0.427	0.597
7986.780	3	6.421	3	1.901	-0.040	1.147	1.268	0.720	0.956
7987.771	3	6.355	3	1.940	-0.036	1.151	1.267	0.725	0.961
7987.851	3	6.355	3	1.925	-0.046	1.153	1.261	0.713	0.946
7989.655	3	6.570	2	1.979	-0.231	1.238	1.204	0.539	0.736
7989.703	3	6.570	3	1.954	-0.240	1.228	1.201	0.528	0.732

Date	Q	M_V	P	$[U-B]$	$[V-B]$	$[B_1-B]$	$[B_2-B]$	$[V_1-B]$	$[G-B]$
T Cru (cont.)									
7990.629	3	6.684	3	2.022	-0.313	1.265	1.187	0.464	0.644
7990.739	3	6.700	3	2.040	-0.312	1.267	1.184	0.457	0.646
7991.734	3	6.814	3	2.054	-0.350	1.276	1.178	0.425	0.608
7991.817	3	6.807	3	2.043	-0.346	1.268	1.179	0.427	0.607
7992.655	3	6.670	3	1.941	-0.204	1.208	1.223	0.563	0.761
7992.795	3	6.626	3	1.929	-0.171	1.199	1.229	0.594	0.792
7993.660	3	6.385	3	1.907	-0.028	1.139	1.268	0.733	0.966
7993.800	3	6.349	3	1.896	-0.009	1.133	1.271	0.748	0.982
7994.554	3	6.360	3	1.934	-0.041	1.153	1.265	0.717	0.953
7994.687	3	6.374	3	1.933	-0.064	1.155	1.248	0.692	0.926
7995.590	3	6.484	3	1.958	-0.179	1.205	1.216	0.590	0.801
7995.739	3	6.500	3	1.976	-0.184	1.209	1.216	0.579	0.792
7996.552	3	6.593	3	1.984	-0.249	1.243	1.205	0.521	0.714
7996.695	3	6.600	3	2.007	-0.266	1.246	1.194	0.506	0.696
7997.541	3	6.711	3	2.047	-0.322	1.265	1.181	0.450	0.636
7997.736	3	6.740	3	2.045	-0.339	1.269	1.172	0.435	0.618
7998.552	3	6.821	3	2.040	-0.336	1.276	1.173	0.433	0.611
7998.824	3	6.808	3	2.034	-0.314	1.260	1.193	0.458	0.635
8000.575	2	6.344	2	1.911	-0.006	1.132	1.271	0.747	0.992
8000.765	2	6.334	3	1.909	-0.012	1.139	1.267	0.751	0.994
8007.496	3	6.330	3	1.920	-0.006	1.130	1.272	0.755	0.988
8008.537	3	6.435	3	1.948	-0.108	1.183	1.240	0.651	0.874
8008.715	3	6.453	3	1.950	-0.130	1.198	1.235	0.634	0.851
8009.510	3	6.524	3	1.967	-0.203	1.222	1.214	0.563	0.768
8010.521	3	6.650	3	2.012	-0.287	1.253	1.200	0.484	0.678
8010.752	3	6.683	3	2.027	-0.298	1.265	1.191	0.472	0.658
8011.507	3	6.780	3	2.051	-0.352	1.282	1.174	0.420	0.608
8011.694	3	6.805	3	2.058	-0.351	1.279	1.176	0.418	0.599
8012.508	3	6.772	3	1.989	-0.282	1.242	1.196	0.490	0.674
8012.687	3	6.728	3	1.965	-0.250	1.221	1.202	0.520	0.712
8013.556	2	6.476	2	1.896	-0.080	1.153	1.251	0.682	0.909
8016.715	3	6.578	3	1.994	-0.245	1.238	1.206	0.522	0.719
8017.513	3	6.680	3	2.023	-0.306	1.258	1.183	0.468	0.651
8018.520	3	6.804	3	2.068	-0.351	1.286	1.173	0.424	0.603
8018.689	3	6.816	3	2.077	-0.345	1.277	1.174	0.426	0.605
8019.579	3	6.673	3	1.945	-0.213	1.212	1.220	0.559	0.757
8019.725	3	6.628	3	1.919	-0.174	1.196	1.232	0.593	0.792
8021.518	3	6.363	3	1.935	-0.049	1.156	1.258	0.707	0.944
8021.668	3	6.390	3	1.937	-0.063	1.163	1.255	0.688	0.917
8022.503	2	6.480	2	1.974	-0.176	1.205	1.223	0.595	0.806
8026.494	3	6.620	3	1.917	-0.171	1.195	1.236	0.591	0.793
8026.675	3	6.563	3	1.915	-0.133	1.180	1.248	0.631	0.840
8027.492	2	6.353	2	1.906	-0.007	1.135	1.265	0.747	0.984
8029.538	3	6.508	3	1.972	-0.195	1.213	1.215	0.567	0.775
8030.493	3	6.620	3	2.007	-0.269	1.243	1.195	0.499	0.695
8030.674	3	6.639	3	2.018	-0.280	1.249	1.199	0.489	0.681
8031.496	3	6.757	3	2.056	-0.338	1.276	1.170	0.432	0.616
8031.669	3	6.775	3	2.060	-0.347	1.285	1.175	0.427	0.609
8033.491	3	6.542	3	1.903	-0.118	1.173	1.245	0.642	0.855
8033.716	3	6.476	3	1.895	-0.086	1.151	1.238	0.674	0.903
8042.500	2	6.468	2	1.960	-0.153	1.198	1.232	0.616	0.823
8042.537	2	6.468	2	1.957	-0.158	1.202	1.227	0.609	0.822
8043.488	2	6.555	2	1.990	-0.244	1.229	1.197	0.517	0.711
8044.516	3	6.689	3	2.035	-0.316	1.264	1.172	0.444	0.624
8044.581	3	6.707	3	2.036	-0.316	1.262	1.185	0.452	0.638
8048.476	2	6.371	2	1.934	-0.054	1.154	1.246	0.697	0.929

Table 1. continued

Date	Q	m_V	P	$[U-B]$	$[V-B]$	$[B_1-B]$	$[B_2-B]$	$[V_1-B]$	$[G-B]$
T Cru (cont.)									
8048.559	2	6.373	2	1.930	-0.070	1.162	1.260	0.700	0.931
8049.463	2	6.486	3	1.972	-0.176	1.207	1.217	0.585	0.794
8049.522	2	6.489	3	1.973	-0.181	1.209	1.220	0.593	0.804
8050.474	2	6.591	3	1.999	-0.257	1.234	1.191	0.507	0.700
8050.535	2	6.603	3	2.001	-0.257	1.240	1.203	0.512	0.706
8051.472	2	6.719	2	2.052	-0.331	1.263	1.175	0.438	0.618
8051.543	2	6.728	2	2.047	-0.331	1.276	1.182	0.452	0.628
8055.471	2	6.397	3	1.946	-0.094	1.164	1.233	0.662	0.886
8055.589	2	6.413	3	1.946	-0.106	1.179	1.244	0.652	0.881
8056.630	1	6.525	1	1.977	-0.205	1.227	1.214	0.558	0.764
8057.516	1	6.625	2	2.014	-0.279	1.249	1.196	0.491	0.683
8057.620*	0	6.634	1	2.012	-0.291	1.246	1.186	0.477	0.672
8058.511	3	6.766	3	2.062	-0.347	1.284	1.168	0.429	0.612
8058.630	3	6.779	3	2.062	-0.355	1.284	1.172	0.418	0.600
8082.530	3	6.421	3	1.936	-0.105	1.176	1.241	0.656	0.880
8371.630	3	6.359	3	1.937	-0.047	1.153	1.254	0.713	0.944
8372.617	2	6.480	3	1.979	-0.177	1.207	1.219	0.592	0.799
8373.654	3	6.585	3	1.992	-0.250	1.235	1.199	0.525	0.712
8374.636	2	6.715	2	2.056	-0.328	1.269	1.179	0.445	0.633
8375.640	2	6.820	2	2.049	-0.326	1.276	1.180	0.447	0.626
8377.619	3	6.350	3	1.910	-0.009	1.136	1.263	0.747	0.981
8378.637	2	6.395	2	1.953	-0.094	1.171	1.240	0.667	0.890
8378.646	2	6.392	2	1.949	-0.091	1.165	1.249	0.668	0.888
8382.634	1	6.799	1	2.030	-0.318	1.254	1.188	0.460	0.634
8383.635	2	6.537	2	1.909	-0.125	1.174	1.242	0.647	0.855
8384.597	3	6.330	3	1.915	0.006	1.139	1.271	0.764	1.009
8389.513	3	6.772	3	2.001	-0.305	1.254	1.198	0.481	0.641
8389.573	3	6.761	3	1.995	-0.276	1.248	1.200	0.497	0.691
8389.624	3	6.754	3	1.991	-0.264	1.239	1.199	0.511	0.693
8393.579	3	6.549	3	1.992	-0.237	1.219	1.195	0.536	0.725
8394.684	3	6.696	3	2.029	-0.315	1.262	1.176	0.464	0.650
8398.494	1	6.349	1	1.933	-0.052	1.147	1.257	0.707	0.932
8400.562	2	6.585	2	2.005	-0.257	1.236	1.199	0.513	0.713
8408.548	3	6.749	3	2.050	-0.334	1.277	1.173	0.443	0.626
8408.653	3	6.762	3	2.050	-0.338	1.277	1.171	0.435	0.612
8411.486	1	6.325	2	1.913	-0.006	1.129	1.270	0.754	0.988
8411.628*	0	6.324	1	1.916	0.000	1.135	1.271	0.749	0.991
8413.482	3	6.528	3	1.970	-0.199	1.223	1.215	0.566	0.768
8413.624	3	6.537	3	1.971	-0.216	1.228	1.197	0.555	0.758
8415.483	1	6.776	1	2.073	-0.351	1.283	1.165	0.428	0.606
8415.626	2	6.791	2	2.067	-0.358	1.281	1.183	0.426	0.588
8434.552	1	6.630	1	2.006	-0.287	1.248	1.189	0.486	0.680
8436.528	3	6.793	3	2.021	-0.315	1.261	1.184	0.460	0.642
8437.486	2	6.541	2	1.896	-0.118	1.171	1.245	0.647	0.859
X Cru		P = 6.22011							
7981.577	3	8.609	3	2.043	-0.371	1.248	1.198	0.406	0.562
7981.614	3	8.603	3	2.018	-0.364	1.239	1.189	0.418	0.571
7981.658	3	8.601	3	2.060	-0.376	1.256	1.197	0.405	0.558
7982.694	3	8.181	3	1.979	-0.105	1.144	1.261	0.656	0.861
7983.564	3	8.159	3	1.996	-0.134	1.157	1.253	0.634	0.833
7984.796	3	8.364	3	2.064	-0.318	1.232	1.208	0.459	0.629
7984.908	3	8.377	3	2.063	-0.341	1.240	1.202	0.441	0.602
7984.914	3	8.366	3	2.051	-0.330	1.245	1.214	0.452	0.617
7986.793	3	8.633	3	2.134	-0.465	1.303	1.177	0.316	0.460
7987.784	3	8.628	3	2.097	-0.401	1.270	1.194	0.389	0.532

Date	Q	M_V	P	$[U-B]$	$[V-B]$	$[B_1-B]$	$[B_2-B]$	$[V_1-B]$	$[G-B]$
X Cru (cont.)									
7987.865	3	8.605	3	2.065	-0.385	1.256	1.195	0.395	0.550
7989.667	3	8.147	2	2.012	-0.121	1.157	1.266	0.651	0.856
7989.715	3	8.158	3	1.989	-0.126	1.158	1.249	0.632	0.841
7990.641	3	8.303	3	2.068	-0.276	1.227	1.215	0.496	0.674
7990.750	3	8.324	3	2.074	-0.286	1.230	1.210	0.482	0.663
7991.744	3	8.443	3	2.085	-0.382	1.258	1.181	0.395	0.563
7991.829	3	8.452	3	2.089	-0.391	1.265	1.188	0.391	0.543
7992.668	3	8.578	3	2.151	-0.447	1.300	1.172	0.339	0.480
7992.807	3	8.604	3	2.151	-0.461	1.299	1.147	0.325	0.466
7993.673	3	8.681	3	2.133	-0.463	1.299	1.156	0.324	0.459
7993.820	3	8.663	3	2.115	-0.447	1.287	1.169	0.339	0.477
7994.565	3	8.403	3	1.986	-0.245	1.192	1.224	0.526	0.704
7994.697	3	8.353	3	1.977	-0.225	1.177	1.232	0.550	0.734
7995.603	3	8.118	3	2.019	-0.092	1.139	1.266	0.674	0.881
7995.750	3	8.135	3	2.018	-0.101	1.153	1.259	0.666	0.872
7996.563	3	8.258	3	2.026	-0.225	1.198	1.228	0.546	0.729
7996.706	3	8.281	3	2.045	-0.254	1.209	1.218	0.520	0.697
7997.553	3	8.394	3	2.069	-0.342	1.247	1.192	0.437	0.595
7997.748	3	8.417	3	2.077	-0.366	1.261	1.188	0.415	0.573
7998.565	3	8.537	3	2.097	-0.417	1.282	1.179	0.365	0.513
7998.851	2	8.582	2	2.142	-0.444	1.289	1.176	0.340	0.484
8000.587	2	8.485	2	2.012	-0.293	1.215	1.215	0.480	0.646
8007.507	3	8.212	3	1.966	-0.124	1.145	1.254	0.641	0.836
8008.547	3	8.193	3	2.020	-0.155	1.176	1.249	0.609	0.810
8008.728	3	8.222	3	2.029	-0.183	1.184	1.239	0.579	0.772
8009.521	3	8.338	3	2.034	-0.299	1.225	1.207	0.477	0.650
8010.533	3	8.465	3	2.083	-0.393	1.265	1.182	0.388	0.547
8010.766	3	8.510	3	2.111	-0.416	1.275	1.179	0.365	0.518
8011.520	3	8.609	3	2.132	-0.464	1.290	1.165	0.315	0.463
8011.710	3	8.646	3	2.158	-0.475	1.308	1.159	0.310	0.450
8012.520	3	8.664	3	2.104	-0.426	1.282	1.182	0.359	0.506
8012.700	3	8.621	3	2.074	-0.403	1.260	1.179	0.381	0.528
8013.581	2	8.272	2	1.983	-0.159	1.166	1.253	0.610	0.804
8016.726	3	8.461	3	2.087	-0.398	1.277	1.182	0.388	0.547
8017.527	3	8.576	3	2.136	-0.454	1.290	1.167	0.331	0.475
8018.533	3	8.680	3	2.133	-0.455	1.294	1.174	0.331	0.468
8018.701	3	8.668	3	2.118	-0.439	1.280	1.176	0.341	0.483
8019.568	3	8.356	3	1.977	-0.215	1.180	1.238	0.561	0.744
8019.736	3	8.295	3	1.978	-0.179	1.165	1.243	0.593	0.785
8021.528	3	8.270	3	2.039	-0.241	1.206	1.228	0.532	0.718
8021.681	3	8.302	3	2.043	-0.269	1.224	1.208	0.504	0.679
8022.516	2	8.397	2	2.079	-0.362	1.246	1.189	0.422	0.582
8026.505	3	8.126	3	1.994	-0.089	1.136	1.272	0.682	0.880
8026.686	3	8.123	3	2.026	-0.083	1.141	1.268	0.682	0.885
8027.504	2	8.231	2	2.020	-0.206	1.192	1.235	0.563	0.753
8029.552	3	8.523	3	2.115	-0.422	1.274	1.172	0.356	0.506
8030.509	3	8.655	3	2.145	-0.478	1.298	1.158	0.310	0.443
8030.687	3	8.674	3	2.160	-0.483	1.303	1.156	0.300	0.433
8031.510	3	8.573	3	2.057	-0.364	1.240	1.189	0.411	0.566
8031.691	3	8.489	3	2.009	-0.305	1.217	1.217	0.471	0.641
8033.502	3	8.189	3	2.036	-0.167	1.175	1.246	0.604	0.793
8033.727	3	8.224	3	2.032	-0.215	1.187	1.229	0.559	0.754
8042.513	2	8.593	2	2.152	-0.459	1.300	1.169	0.332	0.472
8042.550	2	8.597	2	2.137	-0.459	1.298	1.166	0.329	0.474
8043.500	2	8.680	2	2.116	-0.459	1.291	1.158	0.320	0.452
8044.527	3	8.331	3	1.988	-0.208	1.170	1.223	0.552	0.734

Table 1. continued

Date	Q	m_V	P	$[U-B]$	$[V-B]$	$[B_1-B]$	$[B_2-B]$	$[V_1-B]$	$[G-B]$
X Cru (cont.)									
8044.591	3	8.308	3	1.984	-0.185	1.177	1.243	0.586	0.771
8048.490	2	8.561	2	2.123	-0.453	1.276	1.157	0.334	0.478
8048.571	2	8.573	2	2.140	-0.445	1.287	1.180	0.341	0.491
8049.476	2	8.685	3	2.159	-0.483	1.299	1.150	0.306	0.441
8049.534	2	8.683	3	2.162	-0.475	1.306	1.163	0.315	0.455
8050.485	2	8.425	3	2.007	-0.260	1.202	1.222	0.513	0.679
8050.546	2	8.402	3	1.999	-0.244	1.204	1.237	0.528	0.704
8051.481	2	8.122	2	2.012	-0.091	1.131	1.253	0.674	0.876
8051.553	2	8.123	2	2.024	-0.089	1.142	1.272	0.679	0.893
8055.484	2	8.665	3	2.164	-0.488	1.285	1.150	0.297	0.433
8055.601	2	8.676	3	2.165	-0.479	1.307	1.159	0.309	0.440
8057.526	1	8.138	2	2.014	-0.090	1.143	1.269	0.669	0.881
8057.631•	0	8.124	1	2.004	-0.088	1.141	1.265	0.675	0.884
8058.522	3	8.215	3	2.027	-0.191	1.192	1.227	0.578	0.770
8058.642	3	8.240	3	2.048	-0.215	1.202	1.232	0.553	0.747
8082.542	3	8.118	3	2.017	-0.078	1.139	1.270	0.687	0.902
8371.636	3	8.514	3	2.113	-0.425	1.282	1.172	0.364	0.507
8372.624	2	8.655	3	2.181	-0.477	1.296	1.164	0.318	0.446
8373.661	3	8.537	3	2.038	-0.346	1.240	1.202	0.440	0.585
8374.640	2	8.159	2	2.016	-0.098	1.142	1.271	0.665	0.876
8375.648	2	8.213	2	2.042	-0.180	1.172	1.243	0.587	0.789
8377.629	3	8.477	3	2.128	-0.399	1.275	1.181	0.394	0.547
8378.653	2	8.627	2	2.178	-0.481	1.304	1.158	0.309	0.438
8382.643	1	8.324	1	2.059	-0.296	1.231	1.209	0.485	0.651
8383.645	2	8.445	2	2.081	-0.386	1.269	1.182	0.397	0.552
8384.608	3	8.589	3	2.144	-0.464	1.294	1.165	0.332	0.463
8389.522	3	8.403	3	2.089	-0.359	1.257	1.192	0.419	0.581
8389.583	3	8.406	3	2.077	-0.364	1.259	1.193	0.420	0.573
8389.635	3	8.421	3	2.072	-0.354	1.258	1.180	0.423	0.587
8393.589	3	8.118	3	2.012	-0.094	1.140	1.261	0.678	0.871
8394.696	3	8.272	3	2.032	-0.239	1.205	1.222	0.537	0.716
8398.505	1	8.557	1	2.041	-0.363	1.240	1.198	0.423	0.567
8400.570	2	8.209	2	2.031	-0.177	1.180	1.246	0.589	0.789
8408.557	3	8.456	3	2.077	-0.394	1.260	1.176	0.399	0.544
8408.661	3	8.470	3	2.092	-0.384	1.278	1.186	0.393	0.545
8411.494	1	8.335	2	1.981	-0.204	1.180	1.241	0.572	0.749
8411.639•	0	8.292	1	1.968	-0.170	1.160	1.239	0.594	0.782
8413.491	3	8.297	3	2.048	-0.258	1.218	1.221	0.511	0.694
8413.633	3	8.312	3	2.060	-0.285	1.222	1.204	0.500	0.668
8415.494	1	8.556	1	2.127	-0.444	1.294	1.165	0.347	0.490
8415.637	2	8.585	2	2.157	-0.441	1.293	1.167	0.344	0.484
8415.654	2	8.580	2	2.134	-0.449	1.290	1.178	0.336	0.474
8434.563	1	8.619	1	2.133	-0.469	1.317	1.166	0.324	0.475
8436.536	3	8.280	3	1.967	-0.170	1.157	1.241	0.599	0.793
8437.494	2	8.149	2	2.024	-0.114	1.159	1.265	0.651	0.857
X Cyg		P = 16.385692							
1216.459	4	6.666	3	2.545	-0.819	1.475	1.064	-0.015	0.074
1248.296	2	6.569	2	2.475	-0.747	1.444	1.081	0.052	0.160
1572.575	3	6.225	4	2.275	-0.471	1.321	1.160	0.315	0.459
4456.544	1	6.185	1	2.233	-0.488	1.314	1.143	0.304	0.442
4457.552	2	6.291	3	2.310	-0.590	1.355	1.107	0.203	0.326
4458.431	3	6.396	3	2.372	-0.656	1.396	1.101	0.149	0.264
4461.431	3	6.749	3	2.554	-0.828	1.481	1.065	-0.021	0.067
4466.418	3	6.610	3	2.152	-0.520	1.293	1.165	0.277	0.395
4469.467	2	5.865	3	2.094	-0.074	1.123	1.265	0.689	0.898

Date	Q	M_V	P	$[U-B]$	$[V-B]$	$[B_1-B]$	$[B_2-B]$	$[V_1-B]$	$[G-B]$
X Cyg (cont.)									
4472.484	2	6.183	3	2.227	-0.457	1.280	1.138	0.317	0.473
4475.415	3	6.489	3	2.413	-0.699	1.412	1.086	0.103	0.220
4476.406	2	6.577	3	2.480	-0.766	1.441	1.079	0.038	0.144
4484.485	3	6.262	3	2.090	-0.236	1.184	1.226	0.536	0.719
4486.439	2	5.928	3	2.114	-0.130	1.151	1.254	0.638	0.843
4487.389	3	6.018	3	2.144	-0.253	1.208	1.205	0.520	0.709
4496.427	2	6.911	3	2.565	-0.866	1.478	1.051	-0.054	0.020
DT Cyg		P = 2.499086							
1226.355	2	5.853	3	1.803	0.241	1.076	1.318	0.990	1.296
1553.484	1	5.782	2	1.786	0.298	1.075	1.336	1.047	1.356
1555.460	2	5.648	3	1.791	0.377	1.026	1.368	1.114	1.439
4457.510	2	5.777	3	1.765	0.270	1.052	1.320	1.010	1.323
4457.619	2	5.814	3	1.772	0.246	1.051	1.311	0.990	1.290
4458.405	3	5.871	3	1.754	0.255	1.069	1.332	1.007	1.308
4458.593	3	5.807	3	1.757	0.285	1.052	1.340	1.031	1.340
4461.401	3	5.705	3	1.774	0.354	1.025	1.358	1.097	1.424
4461.564	3	5.650	3	1.788	0.366	1.018	1.351	1.106	1.444
4466.399	3	5.693	3	1.759	0.352	1.026	1.350	1.088	1.411
4466.568	3	5.644	3	1.780	0.365	1.015	1.355	1.103	1.431
4469.476	2	5.649	3	1.794	0.354	1.019	1.342	1.088	1.422
4472.516	2	5.795	3	1.779	0.274	1.058	1.332	1.015	1.323
4475.438	3	5.913	3	1.765	0.214	1.071	1.306	0.962	1.264
4476.421	2	5.680	3	1.775	0.355	1.023	1.344	1.098	1.420
4484.428	3	5.674	3	1.786	0.365	1.027	1.353	1.099	1.427
4486.396	2	5.694	3	1.772	0.356	1.026	1.358	1.094	1.419
4486.489	2	5.684	3	1.784	0.371	1.025	1.353	1.110	1.429
4487.550	3	5.824	3	1.771	0.265	1.061	1.320	1.002	1.309
4489.488	3	5.654	3	1.792	0.359	1.027	1.347	1.092	1.417
4490.402	3	5.905	4	1.754	0.222	1.069	1.310	0.964	1.265
4490.574	3	5.923	4	1.758	0.225	1.073	1.309	0.968	1.257
4491.404	2	5.689	2	1.773	0.351	1.022	1.345	1.093	1.416
BB Gem		P = 2.308207							
4914.821	3	11.364	3	2.174	-0.050	1.088	1.319	0.722	0.908
4926.802	3	11.629	3	1.986	-0.212	1.182	1.257	0.566	0.750
4927.781	3	11.707	3	1.929	-0.178	1.114	1.293	0.597	0.773
4928.777	3	11.450	3	1.984	-0.124	1.103	1.263	0.642	0.838
4929.778	3	11.870	3	1.977	-0.276	1.179	1.231	0.468	0.666
4930.774	3	11.185	3	2.068	0.049	1.059	1.321	0.802	1.039
4933.767	3	11.637	3	2.026	-0.220	1.151	1.284	0.590	0.727
4934.764	3	11.579	3	1.959	-0.105	1.110	1.305	0.687	0.859
4935.766	3	11.499	3	2.106	-0.141	1.100	1.274	0.634	0.810
4936.760	3	11.854	3	2.051	-0.294	1.177	1.236	0.468	0.644
4939.755	3	10.908	3	2.189	0.189	1.031	1.384	0.931	1.204
4940.748	3	11.672	3	1.960	-0.243	1.162	1.230	0.524	0.727
4942.778	3	11.538	3	1.984	-0.181	1.108	1.275	0.580	0.780
4943.794	3	11.853	3	2.082	-0.245	1.165	1.252	0.535	0.700
4954.739	4	11.725	3	1.944	-0.274	1.142	1.221	0.541	0.650
4961.772	3	11.752	2	1.973	-0.287	1.160	1.205	0.503	0.653
4962.741	3	10.837	3	2.132	0.233	1.011	1.380	0.984	1.248
4989.640	3	11.797	3	1.948	-0.311	1.166	1.242	0.488	0.650
4992.605	3	10.987	3	2.067	0.179	1.023	1.376	0.921	1.191
4996.635	3	11.828	3	1.986	-0.282	1.182	1.245	0.500	0.651
5002.673	3	11.490	3	2.008	-0.164	1.099	1.223	0.618	0.788
5017.568	1	11.901	1	2.027	-0.291	1.170	1.246	0.477	0.652

Table 1. continued

Date	Q	m_V	P	$[U-B]$	$[V-B]$	$[B_1-B]$	$[B_2-B]$	$[V_1-B]$	$[G-B]$
DX Gem		P = 3.136779							
4914.798	3	10.874	3	2.133	-0.338	1.236	1.245	0.460	0.596
4926.791	3	10.757	3	2.089	-0.279	1.134	1.241	0.509	0.669
4927.792	3	10.886	3	2.130	-0.305	1.177	1.261	0.484	0.629
4928.787	3	10.614	3	2.104	-0.149	1.103	1.288	0.610	0.783
4929.787	3	10.724	3	2.121	-0.235	1.142	1.258	0.549	0.708
4930.784	3	10.904	3	2.108	-0.330	1.189	1.243	0.459	0.597
4933.777	3	10.895	3	2.123	-0.323	1.197	1.231	0.453	0.592
4934.774	3	10.678	3	2.110	-0.187	1.134	1.270	0.593	0.745
4935.775	3	10.622	3	2.148	-0.190	1.113	1.274	0.590	0.770
4936.770	3	10.896	3	2.128	-0.332	1.194	1.212	0.446	0.586
4937.724	2	10.740	2	2.193	-0.212	1.110	1.299	0.571	0.729
4939.765	3	10.881	3	2.104	-0.317	1.167	1.240	0.454	0.596
4940.757	3	10.792	3	2.093	-0.246	1.142	1.245	0.525	0.709
4941.719	3	10.560	3	2.146	-0.137	1.113	1.270	0.629	0.816
4942.734	3	10.833	3	2.121	-0.293	1.180	1.267	0.484	0.632
4943.745	3	10.818	3	2.108	-0.275	1.129	1.244	0.495	0.669
4944.712	3	10.569	3	2.188	-0.140	1.124	1.302	0.638	0.822
4976.700	3	10.661	3	2.141	-0.223	1.166	1.313	0.579	0.742
5002.652	3	10.890	3	2.190	-0.363	1.189	1.232	0.423	0.582
5016.613	4	10.595	4	2.120	-0.149	1.115	1.289	0.629	0.814
5017.588	1	10.742	1	2.138	-0.259	1.158	1.273	0.517	0.693
ζ Gem		P = 10.150079							
1313.618	4	4.164	3	2.049	-0.256	1.289	1.158	0.507	0.710
1321.593	3	3.896	3	1.954	-0.117	1.223	1.196	0.636	0.885
1327.526	4	3.791	3	1.877	0.046	1.135	1.246	0.804	1.057
4912.834	3	3.671	3	1.828	0.066	1.146	1.271	0.817	1.090
4914.848	3	3.891	3	1.945	-0.133	1.243	1.209	0.631	0.864
4916.854	2	4.128	2	2.023	-0.274	1.298	1.167	0.494	0.712
4918.840	3	4.035	3	1.873	-0.117	1.218	1.210	0.640	0.870
4919.845	3	3.896	3	1.850	-0.020	1.178	1.244	0.739	0.988
4920.830	3	3.783	3	1.845	0.061	1.149	1.258	0.815	1.077
4921.837	2	3.685	2	1.831	0.103	1.134	1.277	0.853	1.128
4922.852	3	3.662	3	1.828	0.077	1.143	1.270	0.829	1.099
4923.848	3	3.729	3	1.864	-0.008	1.182	1.238	0.747	1.006
4926.808	3	4.118	3	2.015	-0.262	1.295	1.168	0.505	0.727
4927.803	3	4.164	3	1.995	-0.248	1.282	1.174	0.521	0.736
4928.797	3	4.062	3	1.897	-0.145	1.228	1.205	0.619	0.846
4929.794	3	3.931	3	1.840	-0.044	1.181	1.236	0.718	0.964
4930.790	3	3.805	3	1.829	0.053	1.150	1.261	0.805	1.065
4933.784	3	3.717	3	1.852	0.017	1.172	1.250	0.774	1.030
4934.780	3	3.827	3	1.903	-0.082	1.219	1.215	0.676	0.918
4935.781	2	3.977	2	1.969	-0.189	1.265	1.188	0.574	0.811
4936.777	2	4.105	2	2.012	-0.254	1.289	1.165	0.510	0.732
4939.771	2	3.958	2	1.845	-0.055	1.186	1.233	0.706	0.948
4940.764	2	3.827	2	1.837	0.039	1.154	1.255	0.795	1.058
4942.764	3	3.660	3	1.842	0.111	1.125	1.278	0.861	1.136
4944.779	3	3.821	3	1.908	-0.075	1.209	1.222	0.686	0.934
5047.534	3	3.990	3	1.968	-0.214	1.265	1.180	0.546	0.771
5048.518	3	4.123	3	2.020	-0.260	1.285	1.162	0.510	0.730
BE Mon		P = 2.70551							
4926.760	3	10.244	3	2.343	-0.257	1.152	1.276	0.519	0.692
4927.754	3	10.654	3	2.247	-0.555	1.259	1.189	0.249	0.357
4928.750	3	10.794	3	2.250	-0.555	1.241	1.199	0.245	0.353
4929.751	3	10.372	3	2.283	-0.360	1.196	1.244	0.427	0.571

Date	Q	M_V	P	$[U-B]$	$[V-B]$	$[B_1-B]$	$[B_2-B]$	$[V_1-B]$	$[G-B]$
BE Mon (cont.)									
4930.748	3	10.737	3	2.285	-0.580	1.268	1.164	0.225	0.325
4933.741	3	10.784	3	2.341	-0.610	1.289	1.160	0.195	0.300
4934.738	3	10.224	3	2.274	-0.255	1.145	1.287	0.530	0.707
4935.730	3	10.610	3	2.297	-0.517	1.249	1.233	0.279	0.380
4936.729	3	10.807	3	2.215	-0.588	1.249	1.174	0.199	0.313
4939.723	3	10.713	3	2.233	-0.500	1.224	1.220	0.287	0.410
4939.844	3	10.601	3	2.177	-0.432	1.227	1.223	0.363	0.491
4940.722	3	10.444	3	2.274	-0.411	1.205	1.226	0.378	0.509
4942.713	3	10.363	3	2.274	-0.312	1.151	1.236	0.476	0.640
4943.691	3	10.549	3	2.283	-0.504	1.219	1.205	0.289	0.426
4944.721	3	10.807	3	2.390	-0.619	1.254	1.168	0.181	0.288
4969.691	3	10.473	3	2.292	-0.380	1.183	1.236	0.415	0.559
5046.543	1	10.576	2	2.333	-0.514	1.257	1.227	0.280	0.401
5048.547	3	10.257	3	2.259	-0.272	1.147	1.261	0.509	0.681
V465 Mon		P = 2.713006							
4926.738	3	10.404	3	1.909	0.020	1.094	1.298	0.774	1.033
4927.734	3	10.227	3	1.951	0.084	1.070	1.310	0.835	1.099
4928.729	3	10.514	3	1.925	-0.085	1.113	1.276	0.678	0.920
4929.730	3	10.292	3	1.896	0.079	1.068	1.312	0.834	1.086
4930.728	3	10.303	3	1.931	0.043	1.096	1.321	0.792	1.054
4933.720	3	10.392	3	1.910	-0.022	1.108	1.287	0.732	0.975
4934.718	3	10.459	3	1.918	-0.034	1.092	1.294	0.736	0.968
4935.710	3	10.194	3	1.952	0.123	1.065	1.333	0.872	1.150
4936.708	3	10.482	3	1.899	-0.072	1.132	1.273	0.692	0.923
4937.748	3	10.328	3	1.897	0.050	1.076	1.323	0.818	1.068
4939.712	3	10.530	3	1.921	-0.095	1.126	1.262	0.682	0.913
4940.702	3	10.230	3	1.911	0.098	1.068	1.329	0.856	1.116
4941.747	3	10.359	3	1.930	0.004	1.107	1.310	0.770	0.996
4942.723	3	10.513	3	1.916	-0.051	1.122	1.283	0.696	0.942
4943.708	3	10.196	3	1.967	0.113	1.050	1.319	0.864	1.150
4944.731	3	10.443	3	1.914	-0.042	1.132	1.297	0.721	0.949
5047.553	3	10.353	3	1.948	0.006	1.103	1.297	0.764	1.012
5049.535	3	10.187	3	1.959	0.131	1.067	1.333	0.879	1.162
V508 Mon		P = 4.133608							
4912.816	3	10.594	3	1.959	-0.231	1.200	1.270	0.544	0.729
4914.832	3	10.264	3	1.904	-0.010	1.099	1.300	0.762	0.983
4926.726	3	10.519	3	1.887	-0.126	1.132	1.262	0.638	0.842
4927.724	3	10.297	3	1.930	-0.036	1.108	1.289	0.718	0.953
4928.718	3	10.498	3	1.971	-0.204	1.166	1.251	0.566	0.761
4929.720	3	10.641	3	1.980	-0.257	1.199	1.221	0.514	0.701
4930.719	3	10.586	3	1.908	-0.173	1.142	1.254	0.597	0.800
4933.711	3	10.626	3	1.926	-0.256	1.182	1.236	0.517	0.693
4934.709	3	10.645	3	1.946	-0.196	1.175	1.271	0.574	0.763
4935.701	3	10.253	3	1.937	0.020	1.111	1.315	0.779	1.016
4936.699	3	10.444	3	1.951	-0.169	1.157	1.238	0.603	0.823
4939.699	3	10.254	3	1.926	-0.005	1.079	1.305	0.756	0.995
4940.686	3	10.424	3	1.937	-0.133	1.152	1.267	0.622	0.844
4942.681	3	10.689	3	1.972	-0.226	1.182	1.227	0.533	0.720
4943.681	3	10.305	3	1.908	-0.025	1.094	1.304	0.746	0.980
4944.688	3	10.406	3	1.909	-0.121	1.125	1.275	0.646	0.836
4976.632	3	10.351	3	1.861	-0.052	1.090	1.301	0.713	0.926
4996.655	3	10.655	3	1.914	-0.241	1.160	1.225	0.537	0.734
5046.521	1	10.552	2	1.876	-0.148	1.150	1.288	0.627	0.822
5048.537	3	10.495	3	1.971	-0.191	1.156	1.261	0.582	0.783

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Table 1. continued

Date	Q	m_V	P	$[U-B]$	$[V-B]$	$[B_1-B]$	$[B_2-B]$	$[V_1-B]$	$[G-B]$
S Nor		P = 9.754244							
6111.882	3	6.731	3	2.098	-0.406	1.288	1.168	0.380	0.540
6113.872	3	6.361	3	1.970	-0.132	1.175	1.240	0.633	0.837
6114.868	3	6.273	3	1.978	-0.094	1.158	1.244	0.680	0.891
6115.868*	0	6.120	0	1.986	-0.045	1.136	1.279	0.723	0.941
6116.871	3	6.222	3	1.975	-0.131	1.183	1.247	0.644	0.847
6118.881	3	6.479	3	2.099	-0.349	1.284	1.184	0.431	0.608
6119.885	3	6.640	3	2.146	-0.442	1.324	1.156	0.341	0.503
6120.876	3	6.752	3	2.172	-0.467	1.329	1.152	0.320	0.471
6121.865	3	6.701	3	2.090	-0.379	1.276	1.174	0.409	0.569
6122.864	3	6.480	3	1.958	-0.208	1.202	1.230	0.564	0.751
6123.855	3	6.322	3	1.980	-0.098	1.168	1.258	0.671	0.882
6124.863	3	6.268	3	1.990	-0.087	1.165	1.254	0.676	0.895
6125.855	3	6.090	3	1.984	-0.014	1.130	1.272	0.750	0.980
6126.860	3	6.247	3	1.987	-0.160	1.193	1.244	0.615	0.810
6128.846	3	6.515	3	2.104	-0.374	1.287	1.171	0.407	0.581
6129.890	3	6.677	3	2.162	-0.464	1.324	1.146	0.325	0.476
6130.839	3	6.757	3	2.162	-0.456	1.322	1.155	0.331	0.481
6133.829	3	6.285	3	1.973	-0.088	1.158	1.258	0.679	0.894
6134.897	3	6.230	3	1.970	-0.065	1.153	1.270	0.700	0.923
6135.895	3	6.116	3	1.967	-0.046	1.144	1.262	0.714	0.937
6136.893	3	6.269	3	1.992	-0.177	1.197	1.230	0.595	0.792
6137.894	3	6.402	3	2.068	-0.304	1.252	1.191	0.474	0.662
6138.892	4	6.568	3	2.121	-0.407	1.306	1.160	0.371	0.546
6139.890	3	6.706	3	2.154	-0.472	1.324	1.140	0.310	0.466
6140.901	3	6.757	3	2.148	-0.436	1.307	1.160	0.349	0.506
6141.804	3	6.614	3	2.034	-0.313	1.240	1.197	0.475	0.644
6142.902	3	6.413	3	1.986	-0.150	1.187	1.241	0.620	0.821
6143.892	4	6.282	3	1.978	-0.087	1.156	1.258	0.676	0.892
6144.893	4	6.172	3	1.974	-0.047	1.140	1.270	0.721	0.945
6145.897	3	6.177	3	1.961	-0.097	1.165	1.251	0.671	0.886
6146.883	3	6.293	3	2.013	-0.208	1.216	1.218	0.563	0.759
6148.874	3	6.600	3	2.145	-0.423	1.309	1.162	0.358	0.522
6149.789	3	6.723	3	2.161	-0.475	1.332	1.147	0.314	0.465
6150.873	4	6.745	3	2.109	-0.411	1.293	1.161	0.375	0.531
6151.874	3	6.535	3	1.966	-0.257	1.210	1.207	0.515	0.696
6212.732	3	6.269	3	1.973	-0.094	1.161	1.255	0.673	0.889
6213.722	3	6.087	3	1.970	-0.017	1.131	1.275	0.746	0.973
6214.735	4	6.258	3	1.984	-0.165	1.191	1.233	0.600	0.804
6215.746	3	6.373	3	2.049	-0.281	1.240	1.193	0.487	0.674
6216.700	3	6.526	3	2.099	-0.387	1.297	1.159	0.393	0.566
6288.502	3	6.517	2	1.968	-0.234	1.214	1.220	0.537	0.719
6291.516	2	6.098	2	1.961	-0.007	1.131	1.284	0.756	0.989
6293.515	3	6.330	3	2.032	-0.244	1.228	1.209	0.525	0.719
6294.501	3	6.496	3	2.091	-0.364	1.289	1.163	0.407	0.584
6295.506	3	6.649	3	2.139	-0.456	1.316	1.142	0.324	0.485
6296.510	4	6.762	3	2.144	-0.474	1.321	1.142	0.309	0.465
6296.527	4	6.761	3	2.144	-0.475	1.319	1.142	0.312	0.465
6297.525	2	6.689	2	2.059	-0.367	1.267	1.179	0.416	0.583
6299.505	3	6.306	3	1.962	-0.094	1.162	1.249	0.669	0.881
V340 Nor		P = 11.28871							
5879.495	3	8.380	3	2.195	-0.536	1.301	1.145	0.261	0.372
5879.562	3	8.383	3	2.217	-0.543	1.309	1.148	0.260	0.378
5880.697	1	8.455	1	2.254	-0.601	1.334	1.124	0.200	0.308
5881.500	2	8.527	2	2.251	-0.595	1.332	1.131	0.203	0.310
6111.875	3	8.270	3	2.125	-0.350	1.215	1.207	0.438	0.577

Date	Q	M_V	P	$[U-B]$	$[V-B]$	$[B_1-B]$	$[B_2-B]$	$[V_1-B]$	$[G-B]$
V340 Nor (cont.)									
6113.861	3	8.235	3	2.127	-0.375	1.235	1.204	0.413	0.552
6115.855*	0	8.322	0	2.208	-0.495	1.282	1.179	0.314	0.424
6116.864	3	8.411	3	2.245	-0.523	1.316	1.164	0.271	0.389
6118.873	3	8.543	3	2.280	-0.580	1.335	1.137	0.226	0.326
6119.874	3	8.514	3	2.234	-0.551	1.306	1.149	0.247	0.354
6120.868	3	8.437	3	2.193	-0.469	1.287	1.187	0.329	0.440
6121.857	3	8.343	3	2.140	-0.404	1.245	1.202	0.392	0.523
6122.858	3	8.276	3	2.144	-0.370	1.235	1.209	0.419	0.558
6124.852	3	8.250	3	2.145	-0.378	1.241	1.198	0.408	0.546
6125.844	3	8.255	3	2.174	-0.409	1.261	1.194	0.384	0.514
6126.849	3	8.309	3	2.202	-0.465	1.288	1.173	0.327	0.448
6128.835	3	8.472	3	2.271	-0.571	1.330	1.145	0.228	0.337
6129.879	3	8.543	3	2.296	-0.601	1.342	1.136	0.199	0.297
6130.827	3	8.555	3	2.268	-0.564	1.329	1.148	0.236	0.337
6133.818	3	8.309	3	2.130	-0.380	1.239	1.202	0.411	0.546
6134.887	3	8.267	3	2.139	-0.364	1.229	1.212	0.430	0.559
6135.885	3	8.253	3	2.159	-0.377	1.236	1.193	0.409	0.544
6136.883	3	8.248	3	2.163	-0.396	1.252	1.190	0.393	0.529
6137.884	3	8.300	3	2.186	-0.449	1.278	1.179	0.343	0.474
6138.881	4	8.372	3	2.216	-0.516	1.299	1.154	0.276	0.402
6139.883	3	8.460	3	2.251	-0.578	1.338	1.141	0.217	0.325
6140.891	3	8.526	3	2.285	-0.601	1.354	1.146	0.204	0.297
6141.793	3	8.558	3	2.262	-0.585	1.331	1.141	0.210	0.313
6142.893	3	8.492	3	2.212	-0.529	1.310	1.162	0.269	0.375
6143.882	4	8.409	3	2.160	-0.466	1.268	1.179	0.326	0.452
6144.883	4	8.324	3	2.137	-0.412	1.252	1.193	0.386	0.512
6145.887	3	8.285	3	2.153	-0.383	1.237	1.202	0.409	0.543
6146.873	3	8.261	3	2.135	-0.378	1.235	1.194	0.411	0.546
6148.863	3	8.278	3	2.171	-0.442	1.269	1.187	0.356	0.483
6149.778	3	8.340	3	2.187	-0.484	1.291	1.165	0.312	0.432
6151.865	3	8.510	3	2.279	-0.602	1.331	1.126	0.198	0.304
6181.800	3	8.237	3	2.142	-0.390	1.241	1.198	0.399	0.538
6212.711	1	8.308	1	2.144	-0.390	1.230	1.202	0.396	0.537
6213.705	3	8.265	3	2.134	-0.389	1.225	1.201	0.402	0.542
6214.723	4	8.247	3	2.145	-0.383	1.242	1.202	0.403	0.550
6215.735	3	8.235	3	2.149	-0.415	1.243	1.184	0.379	0.517
6216.690	3	8.283	3	2.169	-0.447	1.263	1.182	0.349	0.482
6291.505	2	8.328	2	2.136	-0.414	1.245	1.202	0.371	0.511
6293.505	3	8.248	3	2.152	-0.386	1.240	1.200	0.403	0.544
6294.491	3	8.243	3	2.134	-0.399	1.249	1.190	0.386	0.526
6295.496	3	8.268	3	2.158	-0.437	1.256	1.178	0.346	0.480
6296.497	4	8.344	3	2.226	-0.499	1.291	1.171	0.295	0.429
6297.515	2	8.411	2	2.234	-0.557	1.318	1.142	0.242	0.358
6299.495	3	8.551	3	2.259	-0.618	1.338	1.120	0.176	0.278
8720.839	3	8.241	3	2.143	-0.378	1.234	1.195	0.405	0.557
8746.767	2	8.369	3	2.218	-0.511	1.299	1.165	0.276	0.415
U Sgr		P = 6.745229							
2895.796	3	6.643	3	2.177	-0.444	1.235	1.185	0.338	0.494
3379.594	4	6.382	3	2.152	-0.215	1.149	1.246	0.552	0.737
3389.590*	0	7.371	0	2.544	-1.040	1.452	1.071	-0.196	-0.194
5092.871	3	6.375	3	2.138	-0.216	1.152	1.262	0.561	0.753
5231.539	3	7.003	3	2.278	-0.657	1.345	1.144	0.140	0.249
5542.634	3	7.060	3	2.258	-0.635	1.330	1.149	0.163	0.269
5861.792	3	6.370	3	2.134	-0.203	1.146	1.266	0.571	0.758
5876.751	3	6.625	3	2.155	-0.438	1.242	1.189	0.340	0.485

Table 1. continued

Date	Q	m_V	P	$[U-B]$	$[V-B]$	$[B_1-B]$	$[B_2-B]$	$[V_1-B]$	$[G-B]$
U Sgr (cont.)									
5879.580	3	7.098	3	2.270	-0.665	1.342	1.138	0.140	0.236
5879.694	3	7.069	3	2.274	-0.658	1.339	1.146	0.143	0.247
5880.705*	0	6.920	0	2.094	-0.389	1.209	1.224	0.395	0.545
6143.897	4	6.687	3	2.085	-0.360	1.194	1.237	0.423	0.578
6144.897	4	6.344	3	2.147	-0.184	1.137	1.269	0.593	0.790
6145.898	3	6.524	3	2.141	-0.345	1.214	1.232	0.442	0.603
6146.889	3	6.639	3	2.162	-0.445	1.248	1.199	0.345	0.485
6148.890	3	7.002	3	2.289	-0.655	1.340	1.144	0.148	0.254
6149.865	3	7.035	3	2.231	-0.610	1.309	1.160	0.189	0.296
6150.887	4	6.566	3	2.094	-0.278	1.173	1.248	0.501	0.672
6151.876	3	6.378	3	2.136	-0.214	1.149	1.259	0.563	0.749
6197.883	3	6.672	3	2.080	-0.353	1.194	1.230	0.433	0.587
6212.789	3	6.407	3	2.157	-0.248	1.162	1.249	0.529	0.711
6213.735	3	6.599	3	2.143	-0.413	1.227	1.202	0.372	0.522
6214.772	4	6.686	3	2.178	-0.493	1.265	1.182	0.301	0.436
6215.764	3	6.901	3	2.248	-0.612	1.319	1.149	0.187	0.299
6217.778	3	6.857	3	2.126	-0.465	1.238	1.201	0.327	0.456
6217.797	3	6.844	3	2.108	-0.453	1.241	1.211	0.335	0.471
6218.763	3	6.349	3	2.117	-0.166	1.131	1.277	0.609	0.802
6220.826	3	6.620	3	2.151	-0.438	1.238	1.193	0.348	0.496
6222.794	3	6.942	3	2.270	-0.645	1.324	1.134	0.155	0.262
6223.791	3	7.065	3	2.253	-0.655	1.330	1.136	0.146	0.245
6224.806	2	6.697	2	2.096	-0.367	1.197	1.226	0.416	0.565
6225.681	3	6.332	3	2.138	-0.162	1.126	1.268	0.606	0.805
6229.678	3	6.969	3	2.274	-0.649	1.334	1.145	0.155	0.263
6232.752	3	6.368	3	2.139	-0.205	1.143	1.257	0.563	0.751
6241.786	3	6.704	3	2.181	-0.498	1.270	1.180	0.293	0.427
6242.657	3	6.890	3	2.238	-0.607	1.309	1.153	0.193	0.301
6246.648	3	6.437	3	2.121	-0.267	1.175	1.242	0.507	0.687
6248.749	1	6.772	1	2.173	-0.544	1.274	1.171	0.246	0.365
6248.779	3	6.775	3	2.184	-0.554	1.290	1.169	0.238	0.363
6249.721	2	6.922	2	2.251	-0.629	1.330	1.143	0.169	0.273
6251.719	3	6.731	3	2.089	-0.385	1.210	1.230	0.399	0.547
6253.707	3	6.502	3	2.144	-0.322	1.203	1.234	0.462	0.627
6254.703	3	6.637	3	2.161	-0.439	1.244	1.204	0.348	0.496
6292.580	3	6.530	3	2.100	-0.264	1.166	1.255	0.519	0.691
6295.618	3	6.675	3	2.172	-0.474	1.259	1.179	0.312	0.451
6297.558	2	7.045	2	2.283	-0.663	1.345	1.147	0.144	0.249
6299.548	3	6.402	3	2.107	-0.186	1.139	1.269	0.582	0.774
6304.568	3	7.065	3	2.276	-0.663	1.344	1.136	0.135	0.234
6305.569	3	6.784	3	2.094	-0.431	1.222	1.210	0.362	0.498
6545.881	3	6.849	3	2.214	-0.579	1.302	1.163	0.216	0.334
W Sgr†		P = 7.594935							
6305.537	3	4.592	3	1.819	0.137	1.091	1.311	0.893	1.158
EU Tau		P = 2.102482							
4912.797	3	8.090	3	1.826	0.142	1.061	1.324	0.895	1.169
4914.756	3	8.141	3	1.834	0.107	1.083	1.316	0.868	1.127
4916.779	2	8.202	2	1.825	0.068	1.080	1.298	0.824	1.081
4917.843	3	8.029	3	1.856	0.153	1.067	1.326	0.894	1.165
4918.776	3	8.222	3	1.820	0.062	1.090	1.298	0.821	1.069
4919.801	3	7.955	3	1.883	0.190	1.060	1.340	0.944	1.221
4920.775	3	8.237	3	1.824	0.043	1.115	1.297	0.799	1.039
4925.756	3	7.931	3	1.872	0.219	1.039	1.342	0.965	1.250
4926.770	3	8.216	3	1.843	0.061	1.097	1.293	0.811	1.066

Date	Q	M_V	P	$[U-B]$	$[V-B]$	$[B_1-B]$	$[B_2-B]$	$[V_1-B]$	$[G-B]$
EU Tau (cont.)									
4927.763	3	7.957	3	1.850	0.220	1.039	1.347	0.971	1.253
4928.759	3	8.177	3	1.832	0.069	1.092	1.303	0.820	1.076
4929.760	3	7.991	3	1.829	0.195	1.054	1.339	0.946	1.226
4930.757	3	8.150	3	1.840	0.085	1.082	1.306	0.838	1.089
4933.749	3	8.108	3	1.817	0.132	1.067	1.324	0.885	1.149
4934.747	3	8.055	3	1.845	0.136	1.073	1.316	0.888	1.155
4935.749	3	8.188	3	1.825	0.097	1.080	1.304	0.854	1.108
4936.743	3	8.032	3	1.855	0.155	1.065	1.324	0.902	1.180
4939.732	3	8.252	3	1.806	0.048	1.098	1.297	0.805	1.049
4940.731	3	7.964	3	1.864	0.198	1.053	1.337	0.953	1.231
4941.739	3	8.247	3	1.855	0.054	1.088	1.291	0.808	1.056
4942.742	3	7.926	3	1.881	0.227	1.039	1.339	0.973	1.262
4943.718	3	8.244	3	1.834	0.040	1.092	1.285	0.793	1.045
5002.573	3	8.228	3	1.826	0.031	1.099	1.293	0.789	1.043
5017.557*	1	8.292	1	1.836	0.028	1.104	1.301	0.781	1.024
ST Tau		P = 4.034299							
4912.760	3	7.789	3	2.039	0.138	1.036	1.342	0.892	1.143
4914.741	3	8.413	3	2.007	-0.294	1.211	1.227	0.482	0.646
4916.768	2	7.777	2	2.036	0.139	1.046	1.344	0.888	1.149
4917.788	3	8.119	3	1.982	-0.116	1.136	1.267	0.649	0.846
4918.763	3	8.414	3	1.997	-0.292	1.210	1.229	0.488	0.647
4919.783	3	8.554	3	1.992	-0.315	1.212	1.220	0.463	0.609
4935.741	3	8.550	3	2.002	-0.325	1.208	1.213	0.456	0.607
4936.737	3	7.901	3	1.990	0.095	1.059	1.330	0.850	1.087
4937.736	3	8.050	3	1.994	-0.062	1.111	1.287	0.713	0.921
4940.695	3	7.994	3	1.974	0.045	1.073	1.316	0.806	1.030
4941.682	3	8.014	3	2.019	-0.036	1.094	1.286	0.733	0.949
4942.669	3	8.339	3	1.996	-0.253	1.186	1.219	0.524	0.700
4954.711	4	8.317	3	1.993	-0.248	1.185	1.234	0.531	0.701
4956.702	2	8.188	2	1.934	-0.057	1.107	1.288	0.711	0.911
4963.679	3	8.510	3	2.025	-0.323	1.220	1.218	0.460	0.618
5002.554	3	8.145	3	1.990	-0.145	1.139	1.252	0.626	0.824
5016.572	4	8.557	4	2.006	-0.317	1.208	1.223	0.466	0.627
SW Tau		P = 1.583562							
4912.697	3	10.014	3	1.943	-0.035	1.139	1.280	0.725	0.963
4914.680	3	9.947	3	1.885	0.107	1.063	1.319	0.863	1.118
4916.752	2	9.380	2	2.070	0.346	0.997	1.384	1.077	1.394
4917.738	3	10.044	3	1.896	0.047	1.104	1.311	0.802	1.040
4918.711	3	9.762	3	1.962	0.079	1.086	1.289	0.839	1.082
4919.769	3	9.335	3	2.054	0.371	0.999	1.385	1.104	1.428
4925.735	3	10.048	3	1.838	0.041	1.081	1.292	0.804	1.034
4926.710	3	9.815	3	1.954	0.051	1.086	1.291	0.802	1.065
4927.707	3	9.339	3	2.079	0.381	0.988	1.395	1.118	1.428
4928.703	3	10.102	3	1.927	-0.030	1.128	1.280	0.731	0.947
4929.704	3	9.725	3	1.948	0.109	1.074	1.323	0.866	1.120
4930.704	3	9.383	3	2.055	0.385	0.980	1.395	1.120	1.454
4931.703	2	10.020	2	1.933	-0.041	1.133	1.271	0.717	0.967
4933.694	3	9.905	3	1.900	0.146	1.063	1.341	0.900	1.151
4934.694	3	9.877	3	1.946	0.033	1.123	1.294	0.791	1.030
4935.685	3	9.337	3	2.059	0.370	0.985	1.398	1.103	1.421
4936.685	3	10.084	3	1.898	0.002	1.112	1.274	0.767	1.000
4939.682	3	10.064	3	1.913	-0.054	1.141	1.253	0.714	0.952
4940.670	3	9.616	3	1.997	0.196	1.049	1.345	0.944	1.215
4941.697	3	9.512	3	2.029	0.347	1.003	1.384	1.080	1.394

Table 1. continued

Date	Q	m_V	P	$[U-B]$	$[V-B]$	$[B_1-B]$	$[B_2-B]$	$[V_1-B]$	$[G-B]$
SW Tau (cont.)									
4942.691	3	9.937	3	1.933	-0.016	1.114	1.264	0.747	0.986
4943.726	3	9.454	3	2.054	0.297	1.006	1.363	1.036	1.331
4960.678	3	9.601	3	1.981	0.289	1.005	1.361	1.032	1.334
4960.683	3	9.566	3	1.981	0.298	1.018	1.364	1.046	1.341
4984.540	2	9.382	2	2.073	0.377	0.982	1.382	1.109	1.421
5001.549	2	10.101	2	1.942	-0.046	1.128	1.256	0.717	0.942
5016.555	4	9.417	4	2.065	0.309	1.006	1.375	1.058	1.361
SZ Tau		P = 3.149138							
4912.728	3	6.379	3	1.989	-0.007	1.100	1.302	0.752	0.980
4914.691	3	6.569	3	1.950	-0.101	1.142	1.281	0.659	0.876
4916.761	2	6.613	2	1.976	-0.175	1.161	1.252	0.591	0.791
4917.777	3	6.586	3	1.975	-0.111	1.140	1.269	0.651	0.858
4918.737	3	6.342	3	1.981	0.023	1.097	1.306	0.786	1.012
4919.761	3	6.559	3	1.984	-0.152	1.161	1.258	0.620	0.819
4920.763	3	6.632	3	1.971	-0.167	1.154	1.252	0.604	0.805
4925.749	3	6.473	3	1.979	-0.091	1.136	1.275	0.675	0.890
4926.717	3	6.683	3	1.978	-0.200	1.178	1.246	0.571	0.768
4927.714	3	6.432	3	1.950	-0.029	1.107	1.295	0.741	0.967
4928.709	3	6.430	3	1.978	-0.049	1.123	1.283	0.717	0.935
4929.711	3	6.683	3	1.986	-0.205	1.180	1.242	0.566	0.761
4930.710	3	6.485	3	1.950	-0.051	1.118	1.289	0.713	0.932
4931.710	2	6.391	2	1.993	-0.029	1.110	1.291	0.734	0.966
4933.701	3	6.550	3	1.953	-0.080	1.133	1.281	0.679	0.892
4934.701	3	6.364	3	1.972	-0.005	1.106	1.292	0.755	0.983
4935.692	2	6.621	2	1.966	-0.175	1.174	1.257	0.600	0.798
4936.691	2	6.612	2	1.959	-0.122	1.142	1.260	0.642	0.851
4937.709	3	6.351	3	1.992	0.012	1.095	1.308	0.785	1.016
4939.689	3	6.638	3	1.949	-0.157	1.159	1.262	0.617	0.819
4940.677	2	6.359	2	1.957	0.008	1.100	1.301	0.771	1.002
4942.675	3	6.692	3	1.972	-0.182	1.170	1.242	0.583	0.781
4943.661	3	6.396	3	1.971	-0.003	1.089	1.278	0.755	0.991
5001.564	2	6.533	2	1.976	-0.154	1.155	1.253	0.620	0.821
T Vul		P = 4.435453							
1224.405	2	6.019	2	1.866	0.006	1.165	1.258	0.758	0.997
1233.373	3	6.023	3	1.855	-0.007	1.152	1.260	0.754	1.006
1553.471	1	5.992	2	1.817	0.095	1.139	1.283	0.840	1.114
1555.427	2	5.682	3	1.806	0.173	1.099	1.307	0.917	1.204
4456.449	1	5.724	1	1.789	0.120	1.109	1.286	0.875	1.155
4457.480	2	5.942	3	1.829	0.007	1.144	1.257	0.773	1.023
4458.419	3	6.055	3	1.821	0.013	1.146	1.267	0.777	1.025
4461.407	3	5.882	3	1.819	0.052	1.134	1.273	0.817	1.076
4461.575	3	5.900	3	1.827	0.032	1.141	1.264	0.791	1.059
4466.408	3	5.964	3	1.824	0.003	1.148	1.260	0.759	1.010
4466.577	3	5.986	3	1.835	-0.009	1.155	1.260	0.756	1.006
4469.459	2	5.662	3	1.810	0.176	1.076	1.304	0.926	1.210
4472.510	2	5.551	3	1.802	0.339	1.044	1.375	1.094	1.417
4475.428	3	6.015	3	1.832	-0.007	1.148	1.248	0.751	1.011
4476.414	2	5.989	3	1.794	0.061	1.104	1.264	0.817	1.077
4484.436	3	6.018	3	1.833	-0.013	1.151	1.250	0.748	0.997
4484.535	3	6.023	3	1.839	0.000	1.161	1.264	0.758	0.999
4486.389	2	5.440	3	1.837	0.363	1.014	1.357	1.102	1.426
4486.480	2	5.482	3	1.840	0.345	1.022	1.356	1.083	1.403
4487.398	3	5.713	3	1.807	0.141	1.104	1.297	0.893	1.171
4489.481	3	6.047	3	1.822	0.014	1.138	1.255	0.766	1.016

Date	Q	M_V	P	$[U-B]$	$[V-B]$	$[B_1-B]$	$[B_2-B]$	$[V_1-B]$	$[G-B]$
T Vul (cont.)									
4490.384	3	5.472	4	1.812	0.378	1.005	1.362	1.114	1.445
4490.565	3	5.415	4	1.824	0.402	1.001	1.368	1.138	1.463
4491.395	2	5.604	2	1.820	0.233	1.060	1.315	0.975	1.273
SV Vul		P = 45.00061							
4456.495	1	7.376	1	2.770	-1.152	1.529	1.040	-0.311	-0.334
4457.540*	2	6.805	3	2.747	-0.733	1.526	1.018	0.072	0.147
4458.443	3	7.440	3	2.829	-1.189	1.544	1.041	-0.340	-0.366
4461.444	3	7.543	3	2.840	-1.195	1.557	1.043	-0.347	-0.378
4466.428	3	7.698	3	2.875	-1.245	1.556	1.035	-0.392	-0.439
4469.398	2	7.783	3	2.861	-1.231	1.544	1.031	-0.380	-0.421
4474.392	3	7.606	3	2.641	-1.015	1.445	1.082	-0.185	-0.182
4476.363	2	7.221	3	2.460	-0.728	1.306	1.150	0.095	0.145
4484.381	3	6.837	3	2.457	-0.558	1.254	1.189	0.246	0.342
4489.463	3	7.000	3	2.546	-0.804	1.373	1.112	0.007	0.049
4490.391	3	7.034	4	2.570	-0.846	1.392	1.111	-0.027	0.016
4491.382	2	7.068	2	2.599	-0.890	1.412	1.096	-0.068	-0.039
4510.334	3	7.687	3	2.978	-1.252	1.571	1.022	-0.401	-0.444
4511.321	3	7.708	3	2.892	-1.241	1.567	1.024	-0.396	-0.441
4512.412	3	7.732	3	2.936	-1.249	1.553	1.014	-0.405	-0.453
4518.323*	0	7.708	1	2.744	-1.118	1.481	1.025	-0.293	-0.315

Table 2. The Fourier coefficients used on the fits of the light curves according to Eq. (1). For each star, we give the frequency, the residual $\epsilon_{\rm fit}$ expressed in magnitude, the amplitudes (A_i) and phases (ϕ_i) of each harmonics. We also give the Lanczos coefficients (L_i), when used (see Sect. 2)

Star name Frequency (d^{-1})	A_0 A_1 ⋮	$\epsilon_{\rm fit}$ L_1 ⋮	T_0 ϕ_1 ⋮
CO Aur (fund.)	7.7175	0.0096	5405.305
0.560849	0.1726		-3.467
	0.0308		-2.520
	0.0067		-1.691
CO Aur (1st harm.)	7.7175	0.0096	5384.453
0.700320	0.0371		0.649
CO Aur ($\nu_0+\nu_1$)	7.7175	0.0096	
1.261169	0.0132		-4.299
CO Aur ($\mid \nu_0-\nu_1 \mid$)	7.7175	0.0096	
0.139471	0.0149		-3.354
V636 Cas	7.1947	0.0079	4603.864
0.119396	0.0921		-3.000
	0.0079		0.584
	0.0015		1.423
V1 ω Cen	10.8610	0.0123	4642.353
0.03408316	0.4258		-4.082
	0.1433		-3.064
	0.0928		-2.633
	0.0427		-2.121
	0.0108		-0.939
R Cru	6.7906	0.0053	8030.152
0.171662	0.3262		-3.815
	0.1274		-3.105
	0.0421		-2.553
	0.0232		-1.986
	0.0046		-2.531
	0.0050		-1.842
S Cru	6.6155	0.0065	7987.658
0.213228	0.3118		-3.753
	0.1180		-3.201
	0.0501		-2.522
	0.0187		-2.044
	0.0087		-1.734
T Cru	6.5715	0.0045	8007.635
0.1485178	0.2128		-3.628
	0.0632		-2.430
	0.0091		-1.834
	0.0053		-3.549
X Cru	8.4092	0.0048	8014.219
0.160769	0.2412		-3.694
	0.0802		-2.711
	0.0159		-1.986
	0.0017		1.282
	0.0051		-2.711
	0.0033		-2.597
X Cyg	6.4467	0.0331	4470.025
0.06102826	0.4523		-3.561
	0.1084		-2.559
	0.0306		-2.376
DT Cyg	5.7765	0.0097	4459.255
0.4001462	0.1396		-3.279
	0.0098		-1.266
BB Gem	11.4751	0.0165	4962.725
0.4332367	0.4081	0.9865	-3.790
	0.1893	0.9465	-3.476
	0.0972	0.8821	-2.947
	0.0500	0.7962	-2.487
	0.0295	0.6932	-2.312
	0.0260	0.5776	-1.927
	0.0157	0.4550	-1.452
	0.0101	0.3308	-1.267
	0.0079	0.2103	-0.551
	0.0038	0.0986	0.583
DX Gem	10.7405	0.0100	4944.806
0.3187983	0.1685		-3.084
	0.0096		-2.918
	0.0051		-4.340
ζ Gem	3.9004	0.0082	4932.736
0.0985214	0.2433		-3.076
	0.0111		0.548
	0.0095		-3.331
BE Mon	10.5777	0.0048	4929.386
0.369616	0.2541		-3.689
	0.0894		-3.239
	0.0403		-2.668
	0.0160		-2.314
	0.0113		-2.031
V465 Mon	10.3607	0.0048	4938.299
0.368595	0.1697		-3.294
	0.0131		-1.763
V508 Mon	10.4944	0.0046	4939.823
0.2419194	0.1906		-3.600
	0.0644		-2.871
	0.0204		-2.175
S Nor	6.4354	0.0062	6291.711
0.1025194	0.2874		-3.099
	0.0191		-1.669
	0.0296		-3.579
	0.0144		-2.935
	0.0180		-3.265
	0.0159		-2.851
V340 Nor	8.3745	0.0082	5887.923
0.0885841	0.1499		-2.977
	0.0218		0.303
	0.0077		-3.668
V440 Per	6.2767	0.0055	4497.940
0.1320568	0.0462		-3.644
	0.0056		-2.592
	0.0063		-2.112
U Sgr	6.7142	0.0083	6239.232
0.1482529	0.3088		-3.804
	0.1100		-2.785
	0.0364		-2.423
	0.0049		1.151
	0.0130		-1.917
W Sgr	4.6803	0.0069	5501.257
0.1316667	0.3394		-3.918
	0.1065		-2.806
	0.0676		-2.374
	0.0284		-3.559
	0.0082		-2.534
	0.0136		-2.141
EU Tau	8.0920	0.0098	4938.462
0.4756283	0.1596		-3.302
	0.0169		-2.275
ST Tau	8.2443	0.0037	5005.549
0.2478745	0.3316		-3.804
	0.1244		-3.340
	0.0597		-2.776
	0.0317		-2.182
	0.0163		-1.732
	0.0083		-1.308
SW Tau	9.7289	0.0060	4930.877
0.6314877	0.3608		-3.431
	0.1204		-2.382
	0.0259		-0.894
	0.0395		0.457
	0.0309		1.307
	0.0228		-3.704
	0.0130		-2.116
	0.0125		-1.128
SZ Tau	6.5195	0.0086	4937.655
0.3175472	0.1669		-3.245
	0.0074		-1.346
	0.0043		-2.978
T Vul	5.7770	0.0066	4477.284
0.2254561	0.2745		-3.788
	0.0932		-3.134
	0.0424		-2.453
	0.0203		-1.835
	0.0097		-1.164
SV Vul	7.3097	0.0192	4482.604
0.02222192	0.4130	0.9355	-3.785
	0.1760	0.7568	-2.896
	0.0667	0.5046	-1.879
	0.0399	0.2339	-1.145

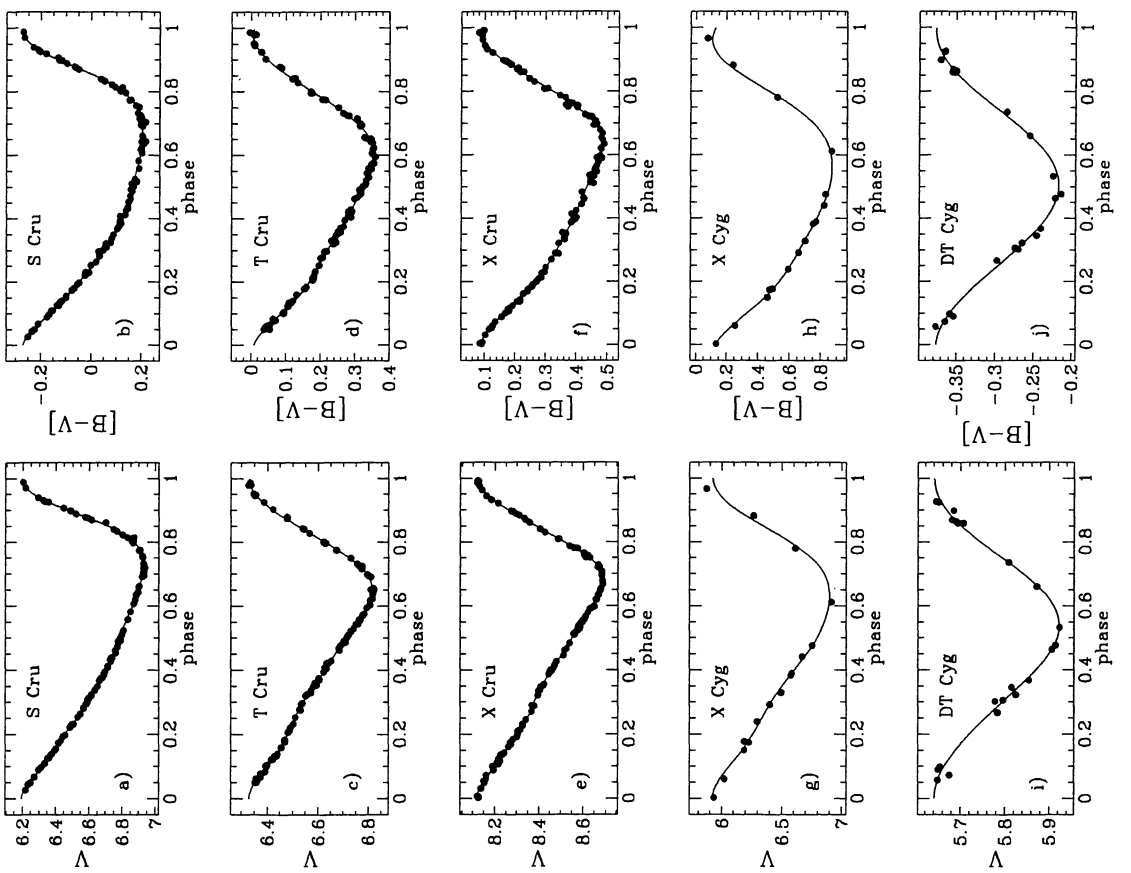

Fig. 2. Light (left) and colour (right) curves of S Cru, T Cru, X Cru, X Cyg, DT Cyg

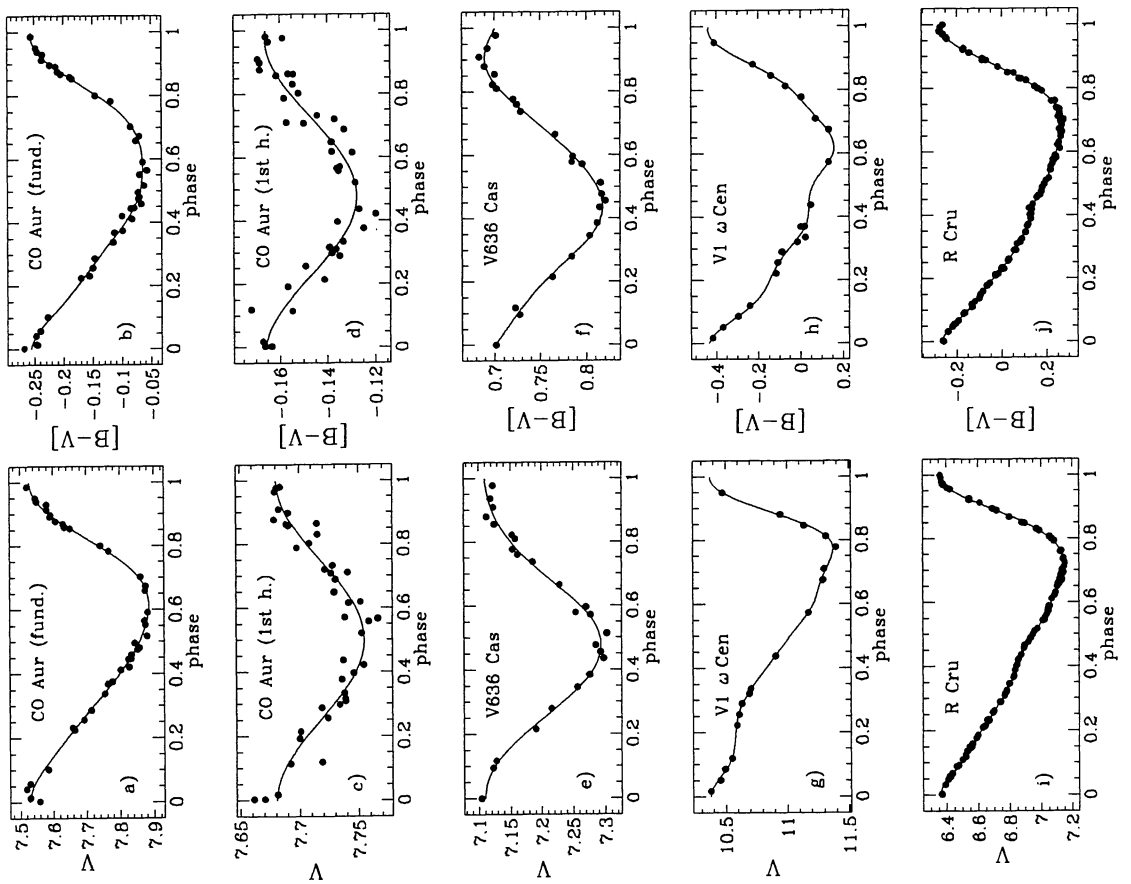

Fig. 1. Light (left) and colour (right) curves of CO Aur (fund.), CO Aur (1st harm.), V636 Cas, V1 ω Cen, R Cru

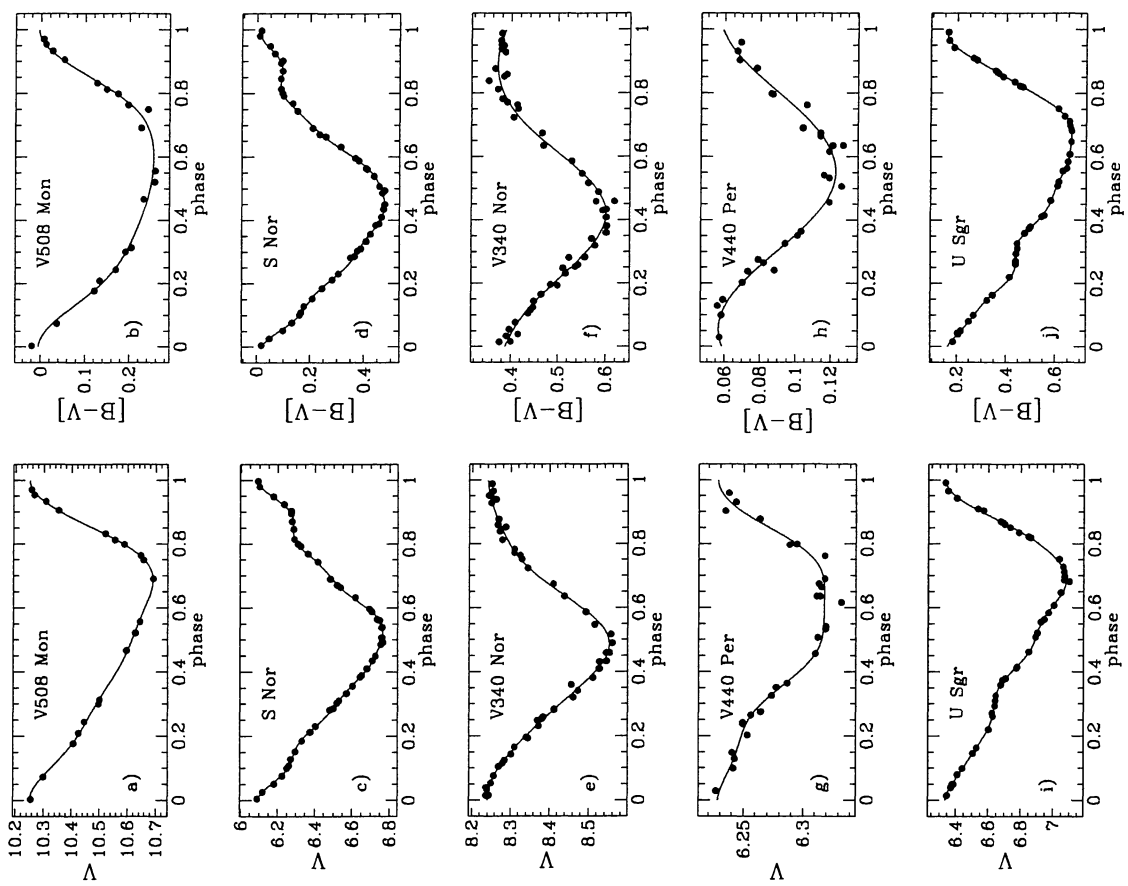

Fig. 4. Light (left) and colour (right) curves of V508 Mon, S Nor, V340 Nor, V440 Per, U Sgr

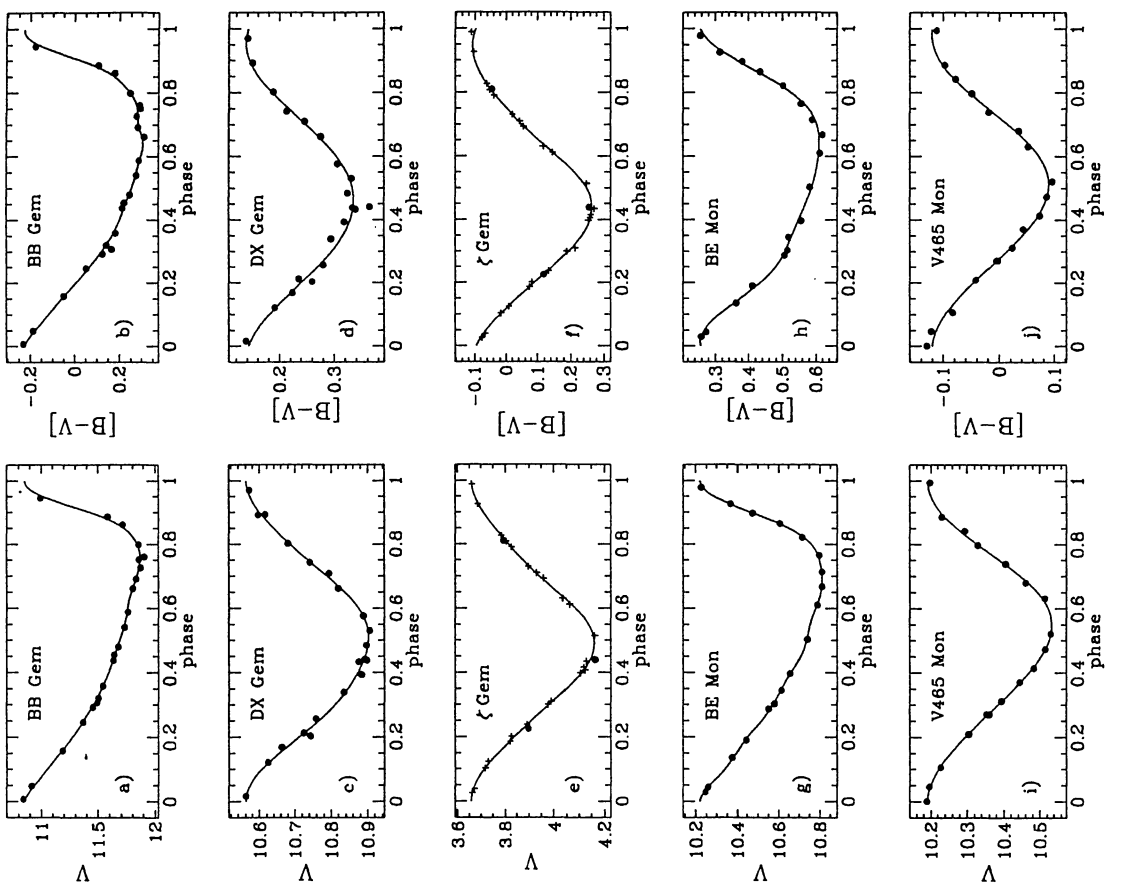

Fig. 3. Light (left) and colour (right) curves of BB Gem, DX Gem, ζ Gem (the points indicate the measurements made before HJD = 1328), BE Mon, V465 Mon

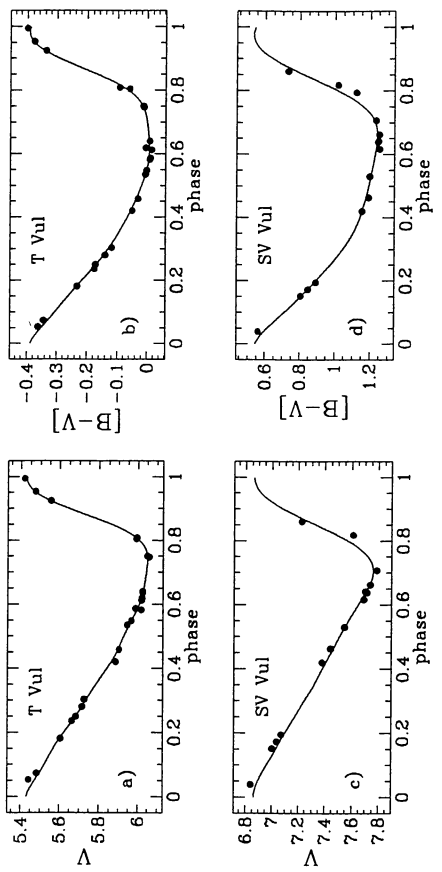

Fig. 6. Light (left) and colour (right) curves of T Vul, SV Vul

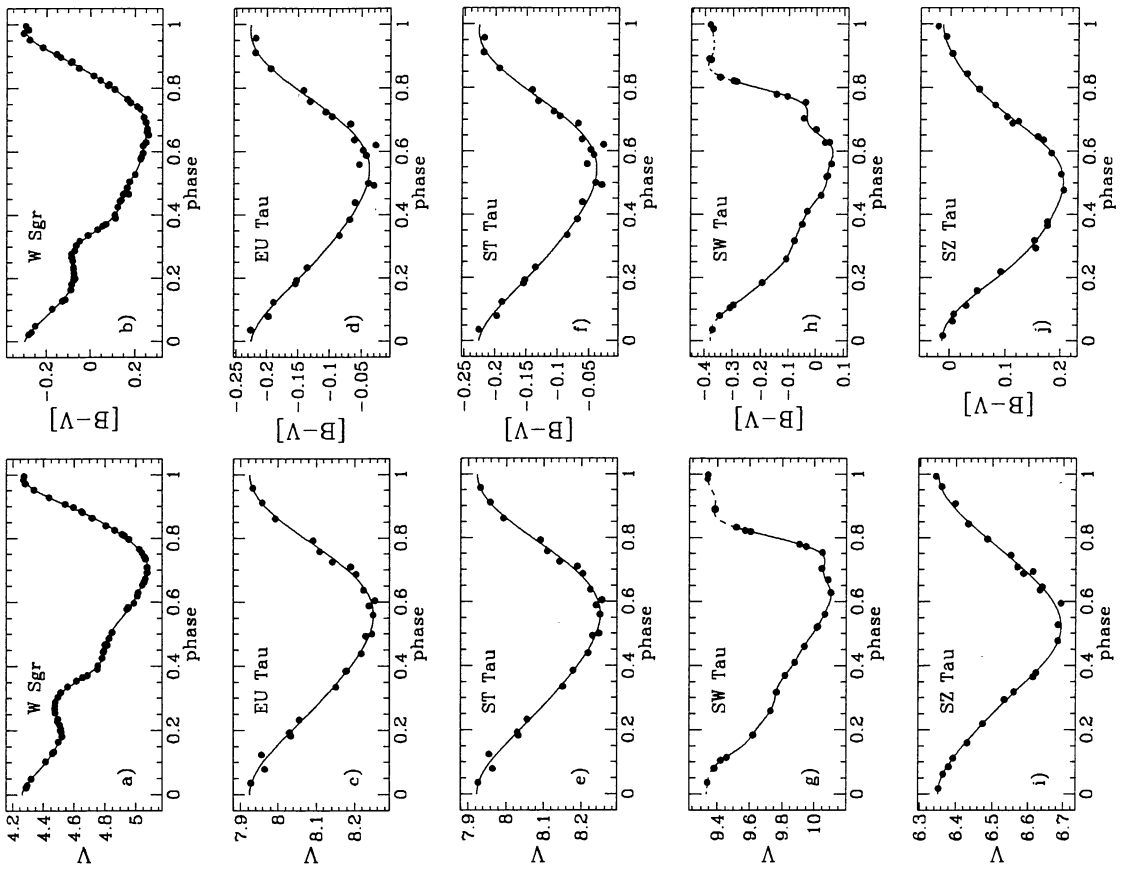

Fig. 5. Light (left) and colour (right) curves of W Sgr, EU Tau, ST Tau, SW Tau, SZ Tau. The portion of the fits indicated by dashed lines in Figs. 5g and 5h means that the Fourier series describe poorly the curves