

A catalog of rotational and radial velocities for evolved stars^{*,**}

J.R. de Medeiros¹ and M. Mayor²

¹ Departamento de Física, Universidade Federal do Rio Grande do Norte, Campus Universitario, 59072–970 Natal R.N., Brazil

² Observatoire de Genève, CH–1290 Sauverny, Switzerland

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Abstract. Rotational and radial velocities have been measured for about 2000 evolved stars of luminosity classes IV, III, II and Ib covering the spectral region F, G and K. The survey was carried out with the CORAVEL spectrometer. The precision for the radial velocities is better than 0.30 km s^{-1} , whereas for the rotational velocity measurements the uncertainties are typically 1.0 km s^{-1} for subgiants and giants and 2.0 km s^{-1} for class II giants and Ib supergiants. These data will add constraints to studies of the rotational behaviour of evolved stars as well as solid informations concerning the presence of external rotational brakes, tidal interactions in evolved binary systems and on the link between rotation, chemical abundance and stellar activity. In this paper we present the rotational velocity $v \sin i$ and the mean radial velocity for the stars of luminosity classes IV, III and II.

Key words: stars: rotation; late-type; kinematics — techniques: radial velocities — catalogs

1. Introduction

The behaviour of the distribution of rotational velocities as a function of luminosity and color can provide important constraints for models of angular momentum as stars evolve through the HR diagram, as well as important information on the presence of external rotational brakes, tidal interactions in binary systems and the link between stellar activity and rotation.

Send offprint requests to: J.R. de Medeiros

* Based on observations collected at the Haute-Provence Observatory, Saint-Michel, France and at the European Southern Observatory, La Silla, Chile.

** Table 5 also available in electronic form at CDS via anonymous ftp to cdsarc.u-strasbg.fr (130.79.128.5) or via <http://cdsweb.u-strasbg.fr/Abstract.html>

Correspondence to: renan@dfte.ufrn.br

For the rotating evolved stars, one of the best known properties is that these ones rotate slowly, but little is known in detail. Herbig & Spalding (1953, 1955) have shown that a cutoff in the distribution of rotational velocities seems to be present in subgiant and giant stars, near the spectral type G0. Essentially, these authors pointed out that rotation rates decrease from late F–type toward early G–type stars in those luminosity classes.

In general, the pioneering works could only predict upper limits for the rotation rates of evolved stars. Uesugi & Fukuda (1982) have compiled 102 sources of $v \sin i$ data for 6472 stars. Although, among the stars quoted by these authors, there are for about 10% of G and K–type evolved stars with rotational velocity values, the vast majority of these measurements are unreliable, since the techniques used for these observations presented modest resolution, larger than what we know today to be the mean rotational velocities for these stars. In some cases, such as Herbig & Spalding (1953, 1955), Oke & Greenstein (1954), Huang (1953) and Alschuler (1975), the limits are typically near 20 km s^{-1} . Kraft (1965) predicted limits to 6.0 km s^{-1} for the Hyades giants and to 10.0 km s^{-1} for the yellow giants of NGC 2281 and NGC 6633. Most recently, D. Gray and co-workers obtained rotational velocities for about 170 stars of luminosity classes IV through Ib, from high-resolution spectroscopic observations (Gray 1989; Gray & Nagar 1985; Gray & Toner 1986, 1987), by using the Fourier deconvolution technique on single line profiles. These authors have obtained very accurate $v \sin i$ values, with typical velocity resolution of about 0.5 to 2.0 km s^{-1} . These observations concern mostly stars of spectral types G and K. Fekel (1997) has also obtained rotational velocity $v \sin i$ for about 60 evolved stars into the luminosity classes IV, III and II. As one can see from the works by D. Gray and co-workers, M. Mayor and co-workers and F. Fekel, rotation rates of the large majority of G and K stars are actually several times smaller than the $\sim 20 \text{ km s}^{-1}$ upper limits set by the early works.

Admittedly, extensive surveys of $v \sin i$ at high resolution are needed for the best comprehension of the rotational behaviour of evolved stars because, up to the present, the paucity of the samples have prevented a complete statistical analysis.

Since March 1986 we have undertaken at Geneva Observatory a vast observational program to obtain rotational velocities for a well-defined sample of evolved stars of luminosity classes IV, III, II and Ib/Ib-II large enough to allow a reliable study of their rotational characteristics. This paper presents the results of the survey, concerning essentially the observations for the subgiant, giant and bright giant stars. The results for the supergiants Ib/Ib-II will be published in a forthcoming supplement catalog. Although the initial aim of the present work is the study of the rotational behaviour of evolved stars our observational procedure has produced about 4000 radial velocity measurements. When this survey was planned, there were still some 30% of class II giant and Ib supergiant stars from our selected sample for which no radial velocity measurements were available. The present paper brings such information for these stars.

This catalog is arranged as follows. Section 2 presents the definition of the sample, the observational procedure used throughout this survey, the calibration of rotation rate values, with a discussion of their probable errors and a comparison of our $v \sin i$ measurements with those obtained by using other high resolution techniques. The list of the individual $v \sin i$ measurements and the mean radial velocity values are presented in Sect. 3.

2. The observational program

2.1. The stellar sample

For this observing program we have selected all stars covering the spectral range from middle F to middle K of luminosity classes IV, III and II listed in "The Bright Star Catalog" (Hoffleit & Jaschek 1982; Hoffleit et al. 1983) and in the list of supergiants compiled by Egret (1980), located north of declination zero degrees for the subgiant and giant stars, and north of declination -25 degrees for the bright giant stars. For the luminosity classes IV and III our sample is complete to apparent visual magnitude $m_v = 6.3$ (e.g. Bahcall et al. 1981), whereas for luminosity class II the sample is complete to apparent visual magnitude m_v of about 8.0 (De Medeiros et al. 1999). To have a better statistics in the spectral region of the Hertzsprung gap and for comparative purposes, we have added several dozen more of F5 to G5 stars of luminosity class III south of zero degrees from "The Bright Star Catalogue". A systematic radial velocity survey of cool supergiant stars has been carried out in the northern and southern hemispheres for about 10 years (Burki & Mayor 1983). This survey mostly devoted to a systematic study of binarity and variability will be used here to extend our research

Table 1. Comparison between CORAVEL and Gray's $v \sin i$ measurements for stars of luminosity classes III and IV

HD	$v \sin i$ (Gray)	$v \sin i$ (COR)	remark
87	3.8	3.8	SB
2114	3.9	3.2	
2507	4.2	4.4	
3546	2.5	4.2	SB
3817	3.2	1.7	
7672	4.5	2.9	SB
10761	2.9	2.1	
12929	3.1	1.0	SB
17878	3.6	2.6	SB
20825	7.9	8.0	
21120	4.8	5.9	SB
27348	3.1	1.8	
27371	2.4	1.0	
27697	2.5	1.2	SB
28305	2.5	2.4	
28307	3.4	1.5	
51000	4.7	4.0	
62509	2.5	1.0	
65448	2.4	2.5	SB
71369	2.4	4.3	SB
72561	3.8	6.0	
74485	6.0	6.6	
79452	4.6	4.5	
82210	4.9	5.5	
82328	6.4	8.3	SB?
85945	6.2	6.2	
89485	2.7	1.1	
94481	3.9	2.8	
95689	2.6	1.6	SB
113994	1.8	1.0	
119445	6.0	6.9	
119458	4.9	4.0	SB
124850	15	14.8	
124897	2.4	1.0	
130259	5.6	4.9	
133208	3.4	2.5	
135722	1.1	1.2	SB
140573	0.0	1.6	
142980	1.1	1.0	SB
144608	3.5	1.4	
147266	2.5	1.2	
148387	2.2	1.6	
148856	3.4	4.8	SB
150997	2.2	1.7	
151627	4.7	4.1	SB
153751	24	23	SB
157910	3.6	4.1	
160781	4.5	4.5	
161096	1.6	1.0	
161239	5.4	5.9	
161797	1.2	1.7	SB?
163993	3.5	3.2	
165760	3.9	2.2	
167768	4.6	3.9	
168656	2.6	1.0	
173920	7.7	8.0	

Table 1. continued

HD	$v \sin i$ (Gray)	$v \sin i$ (COR)	remark
182572	2.3	1.7	
185758	5.8	7.1	SB
185958	9.1	9.9	
186675	3.1	1.7	
188119	1.1	1.2	
188512	1.8	1.2	
194577	4.7	3.3	
196524	40.0	49.8	SB
196755	3.3	3.3	
197964	2.8	1.0	
197989	3.0	1.4	SB
198149	1.5	1.4	
198809	5.9	4.7	
200039	2.8	1.0	
200253	4.7	3.0	
202109	3.4	1.0	
203574	2.4	1.0	
205435	2.7	1.9	
208110	4.0	3.3	
210220	3.4	1.8	
214558	4.1	1.4	
215665	7.8	7.5	
216131	2.6	1.2	
218658	4.7	5.5	
219615	0.0	1.6	
220858	2.6	1.0	
221115	3.1	1.5	
222404	0.0	1.0	SB?

towards the Ib and Ib–II luminosity classes. For the latter luminosity classes the sample is complete to apparent visual magnitude m_v of about 8.0 (De Medeiros et al. 1999). With these criteria in hand we prepared a list of approximately 1960 stars. The total number for each luminosity class is:

1. 200 subgiant stars (classes IV and IV–V), in the spectral range F5 to K2.
2. 1100 giant stars (classes III and III–IV), in the spectral range F5 to K5.
3. 425 bright giant stars (classes II and II–III), in the spectral range F3 to K7.
4. 233 supergiant stars (classes Ib and Ib–II), in the spectral range F0 to K5.

In addition, a few dozen of G and K active evolved stars nearly brighter than $m_v = 8.0$ and north of -25° from Fekel et al. (1986) and Fekel (1997), as well as 4 G5III stars from Alschuler (1975) have been added to the observing list for comparison purposes. Thus, some 2000 evolved stars were taken for observation, which were selected regardless of binarity characteristics, radial velocity variations or some peculiarity pointed out in the literature.

The large amount of data presently available allowed a detailed comparative analysis of the spectral classifica-

tion. To check the different luminosity classes, the classifications of different authors for the classes IV, III, II and Ib were compared from data provided by the CDS “Centre de Données Stellaires” of Strasbourg Observatory. Essentially we have adopted the classification given by the “Bright Star Catalogue” for those stars with $m_v < 6.5$, and by Jaschek (1978) for stars with $m_v > 6.5$.

2.2. The observational method

The results presented in this catalog are based on the observations obtained with the CORAVEL spectrometer (Baranne et al. 1979), where the spectrum of a given star is cross-correlated with an adequate mask located in the focal plane of the instrument. Three free parameters can be derived from the resulting cross-correlation function: position of the minimum, half-width at half-minimum and the cross-correlation area. These parameters are clearly related to the physical quantities: radial velocity, atmospheric velocity fields and, in some cases, stellar metallicity. The large majority of the observations presented here were carried out from March 1986 to May 1994, except for those stars having a larger time base. All stars north of declination -25° , which represent approximately 80% of our program stars, were observed with the CORAVEL mounted on the Swiss 1-meter telescope at the Haute-Provence Observatory, Saint-Michel (France). The stars south of declination -25° have been measured with the southern CORAVEL at the Cassegrain focus of the 1.5 m Danish telescope at ESO La Silla (Chile).

As a rule, we tried to obtain two observations for each program star, separated by approximately one-year intervals, searching for spectroscopic variability. Several new spectroscopic binaries were discovered and, for some stars, the radial velocity variations have been followed up with a suitable cadence to derive the orbital elements. These data will be published in a separate paper which will deal with the spectroscopic binary stars in this program. The radial velocities are derived from a one-Gaussian-curve fitted to the correlation dip obtained with CORAVEL. However, for stars with very wide dips, mostly F stars exhibiting high rotation rates, a parabola is fitted. For double-lined spectroscopic binaries, radial velocities are derived through a fit with two Gaussians. The integration time for a CORAVEL observation in the present survey was typically 5 minutes for the bright stars later than the spectral type G0 and 15 minutes for the earlier ones. For some faint stars, namely $m_v > 10$, as well as blended double-lined spectroscopic binaries, moderate or high rotators, the integration time was typically 15 to 20 minutes.

2.3. The $v \sin i$ measurements

Although the CORAVEL spectrometer has been initially developed for measuring high-precision radial velocities of

Table 2. Comparison between CORAVEL and Gray's $v \sin i$ measurements for stars of luminosity classes II and Ib

HD	$v \sin i$ (Gray)	$v \sin i$ (COR)	remark
17506	6.8	5.8	
20902	17.9	16.8	
26630	7.4	8.8	
31398	3.5	3.8	
48329	7.1	8.8	
84441	4.2	5.7	
92125	4.7	7.7	
156283	3.7	1.3	
157999	3.2	4.2	SB
159181	7.3	10.7	SB
163770	3.4	6.3	
173009	6.5	5.1	SB
173764	5.2	7.8	SB
177249	5.2	5.0	
180809	3.6	3.5	
183912	3.0	1.4	
185758	5.2	7.1	SB
186791	3.2	3.8	
192876	6.2	7.3	
195295	6.4	9.5	SB
196725	0.0	2.9	
200905	1.6	3.5	
201223	5.6	7.9	
201251	3.1	6.3	SB
204075	6.2	7.6	SB
205349	6.7	6.4	
206731	6.2	5.2	
206778	6.5	6.0	
206859	5.7	6.1	
209750	6.7	7.8	
210745	7.8	8.0	
216206	5.8	5.4	
218356	3.9	4.4	SB
221861	7.8	7.9	
222047	7.1	6.4	
223173	4.1	4.2	
224165	3.9	2.6	

late-type stars, Benz & Mayor (1981, 1984) have shown that accurate $v \sin i$ measurements for dwarf stars could be deduced from the correlation function of this instrument.

The general procedure and calibration outlined by Benz & Mayor (1984) was applied here to determine the projected rotational velocities for the present stellar sample. A comparison with the $v \sin i$ values determined by Fourier transform analysis of the lines, allows an estimation of the effects of macroturbulence acting on stars of different luminosity classes. This procedure enables us to determine, if necessary, a correction for each luminosity class to apply to the rotational velocities derived from the standard calibration established by Benz & Mayor (1984). Let us recall that the Fourier transform technique is the

Table 3. Comparison between CORAVEL and Fekel's $v \sin i$ measurements for stars of luminosity classes IV, III and II

HD	$v \sin i$ (Fekel)	$v \sin i$ (COR)	remark
1833	18.2	16.3	SB
9746	9.0	8.7	
10909	3.0	2.7	SB
12929	1.8	1.0	SB
17144	21.3	18.9	
23249	0.6	1.0	
25893	5.2	5.1	
26162	2.2	1.0	
28591	28.8	27.2	SB
31993	33.4	31.1	
32357	13.1	11.5	SB
33021	0.7	2.0	
37160	0.4	1.0	
37824	14.9	13.1	SB
39743	9.5	9.8	SB
61421	4.9	6.1	SB
62345	2.8	1.6	
66141	2.5	1.1	
69267	4.0	2.1	
71369	3.4	4.3	SB
80953	4.0	1.2	SB
81410	27.1	26.1	SB
82210	5.9	5.5	
82328	6.4	8.3	SB?
94481	2.4	2.8	
95689	3.2	1.6	SB
104979	2.5	1.4	SB
106225	31.3	28.8	SB
107328	4.0	1.3	
113226	3.2	2.3	
113996	3.2	1.8	
120136	14.8	15.4	SB?
121107	15.8	14.5	
124570	4.1	5.6	
124897	3.3	1.0	
126868	15.7	14.4	SB?
136202	4.3	4.8	
142091	0.6	1.0	SB
142980	2.2	1.0	SB
144284	27.7	28.0	SB
145148	0.6	1.0	
148856	3.0	4.8	SB
150680	3.9	4.8	SB
160538	6.7	7.2	SB
161096	2.5	1.0	
161239	6.0	5.9	
161797	1.2	1.7	SB?
173009	6.4	5.1	SB
173920	8.4	8.0	
175225	2.2	1.0	SB?
176095	11.6	13.2	
180809	3.9	3.5	
181809	4.2	5.1	SB
182572	2.6	1.7	
185510	19.6	16.0	SB
185758	6.0	7.1	SB

Table 3. continued

HD	$v \sin i$ (Fekel)	$v \sin i$ (COR)	remark
188512	1.4	1.2	
188947	1.8	1.0	
196524	41.2	49.8	SB
196755	2.7	3.3	
197964	2.9	1.0	
197989	2.0	1.4	SB
198149	0.6	1.4	
203251	46.5	44.8	SB
208110	5.2	3.3	SB
212943	1.0	1.0	
213389	35.7	34.4	SB
215648	7.8	7.9	
216489	28.2	25.6	SB
217188	4.2	3.0	SB
218153	28.9	27.1	SB

Table 4. Comparison between CORAVEL and Alschuler's (1975) $v \sin i$ measurements for giant stars

HD	ST	$v \sin i$ (COR)	$v \sin i$ (Alschuler)
5137	G5III	2.0	22
97561	G5III	3.8	21
127742	G5III	5.9	26
210264	G5III	5.0	27

only direct method to deduce both rotation and macro-turbulence (e.g. Gray 1989).

In order to accomplish this study we compare firstly our $v \sin i$ measurements with those determined by Gray & Nagar (1985) and Gray (1989) for the subgiant and giant stars. Table 1 gives the stars with their rotational velocity values measured respectively by CORAVEL and Gray for these luminosity classes. A least-squares fit to the data yields the following relations:

Classes IV and III:

$$v \sin i \text{ (COR)} = -1.15 + 1.18 v \sin i \text{ (Gray)}$$

$$\sigma(\Delta v \sin i) = 1.3 \text{ km s}^{-1}$$

where $\sigma(\Delta v \sin i)$ is the rms of the rotational velocity differences. This comparison shows the excellent agreement between CORAVEL $v \sin i$ values and those of Gray. Furthermore, this comparison between CORAVEL $v \sin i$ and those derived by the Fourier transform of a line profile by D. Gray clearly demonstrates that the original $v \sin i$ calibration by Benz & Mayor (1984)

is valid from luminosity classes V to III. Taking into account the median error on Gray's measurements ($\epsilon_{v \sin i}$ (Gray) = 0.55 km s⁻¹ for the classes V, IV and III) we have a good estimation for the CORAVEL external precision of $\epsilon_{v \sin i} = 0.8 \text{ km s}^{-1}$, such an external precision being valid for bright stars of luminosity classes V to III. Up to magnitude 10 or 11 and typical integration time, photon noise adds very little to this typical uncertainty. For luminosity classes II and Ib/Ib-II the increase of the macroturbulence imposes to adapt a new calibration for the width of the correlation dip if we are to obtain reliable $v \sin i$ values. In the original calibration, the parameter σ_o is the characteristic width of the cross-correlation dip of a solar-type star without rotational broadening. Using the light of the sun reflected by minor planets Benz & Mayor (1981) have derived $\sigma_o = 6.88 \pm 0.03 \text{ km s}^{-1}$ for the luminosity class V. From the $v \sin i$ values measured by Gray & Toner (1986, 1987) for bright giants and Ib supergiants we can derive σ_o as a function of the luminosity classes. The value of σ_o is 7.16 and 7.98 km s⁻¹ respectively for the bright giants (luminosity class II) and the supergiants of luminosity class Ib/Ib-II (de Medeiros 1990).

The $v \sin i$ values listed in Table 2 have been derived from the cross-correlation dips using the Benz & Mayor (1984) calibration, where the σ_o parameter is a function of the luminosity class. A least-squares fit of the data gives:

Classes II and Ib:

$$v \sin i \text{ (COR)} = 1.45 + 0.86 v \sin i \text{ (Gray)}$$

$$\sigma(\Delta v \sin i) = 1.4 \text{ km s}^{-1}.$$

These results show an excellent agreement between CORAVEL $v \sin i$ measurements and those from Gray, also for the luminosity classes II and Ib/Ib-II.

If changes in the non-rotational part of the line broadening are not detected for the luminosity class V to III ($\sigma_o = 6.88 \text{ km s}^{-1}$), the variation is important for classes II to Ib/Ib-II with a $\Delta\sigma_o = 0.83 \text{ km s}^{-1}$. The adopted constant value of σ_o by luminosity class will probably add some noise to our $v \sin i$ measurements as a result of the discreteness of luminosity classes. However, the external comparison of Fourier transform $v \sin i$ and cross-correlation $v \sin i$ shows that the mean square difference is always about 1.3 to 1.4 km s⁻¹, independently of the luminosity class. From this comparison we can conclude that for cool bright stars the cross-correlation and Fourier transform techniques give $v \sin i$ measurements with an equivalent precision of about 1 km s⁻¹ and present the same lower limit for a significant detection.

Table 5. Rotational and radial velocities for evolved stars

Name HD or BD	Sp	(B - V)	RV km s ⁻¹	ϵ km s ⁻¹	σ km s ⁻¹	E/T	P(χ^2)	N	ΔT days	V sin i km s ⁻¹	ϵ_{rot} km s ⁻¹	Remark
+02 2583	K2II	1.24	-12.72	0.27	0.39	1.17	0.243	2	366	< 3.4		
-08 4652	G0II	1.09	16.50	2.55	5.11	5.36	0.000	4	1079	20.4	2.0	SB?
-14 1364	K2II	1.67	56.04	1.61	2.28	5.87	0.000	2	599	< 1.0		SB
+14 2619	G8II	0.96	4.80	0.31	0.29	0.66	0.508	2	344	< 1.0		
+14 2620	K2II	1.11	-13.05	0.26	0.14	0.38	0.704	2	308	2.8	1.0	
+14 2622	K0II	1.00	15.31	0.21	0.30	0.98	0.328	2	339	< 1.0		
-15 1326	K5II	1.73	53.37	0.24	0.01	0.02	0.984	2	335	1.1	1.0	
+15 1517	K5II	1.50	90.79	0.23	0.05	0.15	0.883	2	469	< 1.0		
+15 1529	K5II	1.50	-8.04	1.22	1.73	4.60	0.000	2	492	< 1.0		SB
+15 1538	K7II	1.60	-21.95	7.63	10.79	37.84	0.000	2	499	< 1.0		SB
+21 2354	K2II	1.07	8.78	0.69	1.39	3.81	0.000	4	345	< 1.0		SB
+23 719	G8II	1.85	22.65	0.27	0.18	0.47	0.641	2	471	< 1.0		
+24 4603	G8II	1.00	7.81	0.47	0.82	2.74	0.001	3	387	1.4	1.0	SB?
+25 4819	K0II	1.08	3.80	0.34	0.81	0.98	0.455	6	2454	14.9	1.0	
+27 3280	F4II	0.35	1.88	3.44	4.87	1.96	0.051	2	1095	57.1	9.0	
+28 3210	G8II	1.00	-16.31	0.20	0.12	0.35	0.885	3	385	7.3	1.0	
+29 3257	K2II	1.10	-12.22	0.20	0.26	0.76	0.565	3	380	< 1.0		
+29 3753	F3II	0.33	9.37	0.31	0.31	1.00	9.999	1	0	5.1	1.4	
+30 3482	F6II	0.55	-18.85	0.93	1.18	0.73	0.606	3	446	30.4	3.0	
+30 3646	G8II	1.00	-11.86	0.21	0.36	1.19	0.244	3	380	3.7	1.0	
+31 2471	K0II	0.92	3.34	0.55	0.74	0.78	0.554	3	344	13.8	1.7	
+33 2367	G8II	1.00	6.94	0.30	0.35	0.81	0.415	2	361	2.5	2.0	
+39 2724	K2II	1.28	22.23	0.22	0.39	1.26	0.205	3	347	< 1.0		
+39 2774	K2II	0.82	-48.25	0.35	0.49	1.57	0.117	2	402	3.0	3.1	
+39 4313	F4II	1.14	-13.63	0.64	0.99	0.89	0.476	3	454	22.3	2.2	
+41 3775	K0II	1.08	-6.96	0.17	0.05	0.16	0.975	3	456	< 1.0		
+43 1163	K0II	1.45	31.12	0.40	0.57	1.49	0.150	2	326	< 1.0		
+44 3602	K2II	1.29	-23.21	0.20	0.24	0.69	0.628	3	430	< 1.0		
+44 4157	F3II	0.33	-25.82	0.46	0.18	0.27	0.789	2	399	22.4	2.2	
+47 1584	K0II	1.08	6.85	0.22	0.23	0.74	0.458	2	280	< 1.0		
+47 3250	G5II	1.04	-20.60	0.18	0.23	0.77	0.554	3	395	< 1.0		
+59 12	G0II	1.02	-37.56	0.58	0.00	0.00	0.997	2	326	20.9	2.1	
+60 17	K2II	1.29	-34.11	0.22	0.12	0.38	0.708	2	326	< 1.0		
+60 142	K2II	1.29	12.37	0.20	0.32	0.94	0.419	3	358	< 1.0		
+60 152	K3II	1.40	-44.89	0.20	0.35	1.03	0.349	3	390	7.6	1.0	
+60 1598	F5II	0.44	-19.96	0.52	0.68	0.93	0.366	2	384	8.2	2.4	
+64 394	F4II	1.01	12.47	2.05	1.62	0.56	0.578	2	177	41.5	4.1	
+67 922	K0II	1.32	-147.46	0.79	3.54	7.30	0.000	20	3341	5.9	1.0	SBO
28	K1III	1.04	-7.98	4.76	8.25	28.69	0.000	3	13	< 1.9		SBO
87	G5III	0.90	1.08	0.45	0.77	2.55	0.001	3	361	3.8	1.4	SB?
371	G3II	1.03	-6.40	0.22	0.44	1.39	0.123	4	2554	7.5	1.0	
400	F8IV	0.48	-15.23	0.10	0.24	0.66	0.942	12	2892	5.6	1.0	
417	K0III	0.97	15.70	0.20	0.28	0.98	0.325	2	264	1.7	1.0	
448	G9III	1.04	-20.75	0.15	0.19	0.64	0.749	4	358	< 1.7		
645	K0IV	1.01	7.71	0.19	0.07	0.27	0.789	2	313	1.8	1.3	
787	K5III	1.48	-13.12	0.19	0.11	0.43	0.669	2	1575	1.9	1.3	
895	G0III	0.65	-5.89	0.23	0.74	1.87	0.000	10	3658	2.5	1.0	SB
936	G7.5II	1.12	0.14	2.60	7.34	21.55	0.000	8	2801	8.1	1.0	SB
1057	K2II	1.33	-4.07	0.18	0.07	0.23	0.951	3	360	< 1.0		
1227	G8II-III	0.92	-0.30	0.17	0.19	0.62	0.681	3	278	< 1.0		
1239	G8III	0.88	-2.02	0.43	0.75	2.56	0.001	3	360	4.4	1.0	SB?
1343	F4IV-V	0.37	-3.42	0.31	0.34	0.77	0.444	2	348	7.5	1.0	
1367	K0II	0.94	-9.88	0.21	0.08	0.28	0.783	2	828	< 1.0		
1375	G8II	1.00	-0.44	0.36	0.62	2.06	0.015	3	361	< 1.0		
1419	K0III	1.03	8.72	0.20	0.20	0.73	0.467	2	372	< 1.0		
1527	K1III	1.18	-38.48	0.20	0.19	0.68	0.496	2	281	< 1.0		
1632	K5III	1.59	-37.33	0.38	0.54	2.00	0.045	2	281	1.7	1.1	
1671	F5III	0.42	8.22	1.79	1.79	1.00	9.999	1	0	46.5	4.7	
1778	F3II	0.42	-33.37	0.30	0.56	0.93	0.459	4	1073	18.3	1.0	
1796	K3III	1.22	3.94	0.20	0.14	0.50	0.614	2	372	1.1	1.0	
1833	K1III	1.13	7.51	25.27	35.74	66.66	0.000	2	269	16.3	1.0	SBO
2084	G8II	0.96	3.70	0.21	0.25	0.85	0.398	2	328	< 1.0		
2114	G5III	0.86	-5.85	0.26	0.37	1.28	0.200	2	309	3.2	1.0	
2207	F3II	0.36	-10.41	2.21	3.83	9.38	0.000	3	359	10.8	1.0	SB
2507	G5III	0.92	12.34	0.24	0.49	1.61	0.052	4	358	4.4	1.0	
2589	K0IV	0.84	13.61	0.21	0.13	0.46	0.646	2	275	< 1.0		
2767	K1III	1.14	2.90	0.11	0.23	0.81	0.659	6	1111	< 1.0		
2774	K2III	1.15	-52.02	0.19	0.23	0.83	0.409	2	280	< 1.0		
2910	K0III	1.08	-13.50	0.20	0.05	0.18	0.858	2	366	1.5	1.0	
2942	K0III	1.00	-11.50	0.14	0.65	2.14	0.000	20	4080	1.6	1.0	SB
2952	K0III	1.04	-35.55	0.20	0.02	0.08	0.940	2	280	< 1.9		
3229	F5IV	0.44	11.71	0.24	0.54	1.45	0.080	5	2886	5.0	1.0	
3411	K2III	1.17	-0.06	0.19	0.23	0.85	0.394	2	275	< 1.0		
3457	K4III	1.33	8.26	0.19	0.26	0.95	0.341	2	365	< 1.0		
3546	G8IIIp	0.87	-84.56	0.14	0.49	1.59	0.003	13	3642	4.2	1.0	SB?
3627	K3III	1.28	-12.51	0.19	0.12	0.45	0.655	2	449	< 1.0		SBO
3690	K0III+F3V	1.16	-19.17	0.28	0.28	1.00	9.999	1	0	1.0	1.0	
3712	K0IIIa	1.17	-4.79	0.04	0.24	0.84	0.927	46	5224	5.1	1.0	
3817	G8III	0.89	-5.67	0.20	0.03	0.10	0.922	2	275	1.7	1.4	
3856	G9III-IV	1.04	-4.12	0.20	0.35	1.24	0.213	3	360	< 1.7		

Table 5. continued

Name HD or BD	Sp	(B - V)	RV km s ⁻¹	ϵ km s ⁻¹	σ km s ⁻¹	E/T	P(χ^2)	N	ΔT days	V sin i km s ⁻¹	ϵ_{rot} km s ⁻¹	Remark
4312	K5II	1.52	-22.21	0.38	0.65	2.18	0.009	3	359	1.6	1.0	SB?
4440	K0IV	1.01	0.99	0.20	0.06	0.20	0.843	2	280	< 1.0		
4482	G8II	0.97	-5.11	1.48	3.62	12.48	0.000	6	2652	< 1.0		SB
4502	K1IIe	1.12	-32.35	4.98	13.19	17.82	0.000	7	81	39.2	3.9	SBO
4526	G8III	0.94	25.85	7.04	9.96	35.39	0.000	2	309	1.7	1.0	SB
4627	G8III	1.10	1.14	0.22	0.31	1.14	0.256	2	309	1.2	1.0	
4656	K5III	1.50	31.97	0.33	0.57	2.05	0.015	3	438	1.4		
4813	F7IV-V	0.50	8.10	0.10	0.38	1.09	0.268	16	4550	3.9	1.0	
4928	K0III	1.07	3.93	0.20	0.18	0.62	0.535	2	435	< 1.0		
5156	F6IV-V	0.44	-5.47	0.39	0.04	0.08	0.938	2	355	15.8	1.0	
5234	K2III	1.21	-23.58	0.19	0.06	0.24	0.814	2	267	1.1	1.0	
5268	G5IV	0.92	45.95	0.20	0.18	0.64	0.520	2	455	< 1.9		
5286	K1IV	1.00	-1.32	0.12	0.16	0.55	0.913	6	3621	< 1.6		
5343	K3III	1.37	-35.18	0.20	0.13	0.48	0.629	2	280	1.1	1.0	
5418	G8II	0.98	5.03	0.17	0.18	0.63	0.673	3	359	< 1.0		
5526	K2III	1.02	4.77	0.19	0.01	0.03	0.980	2	283	< 1.0		
5612	G8III	0.89	18.32	0.45	0.90	2.64	0.000	4	359	3.0	1.2	SB
5747	G8II	0.95	7.50	0.21	0.42	1.32	0.163	4	358	< 1.0		
5848	K2II-III	1.21	7.88	0.19	0.26	0.95	0.340	2	419	< 1.0		
6073	G5II	1.19	2.30	0.30	0.53	1.55	0.096	3	358	1.2	1.6	
6186	K0III	0.96	7.04	0.20	0.06	0.20	0.838	2	366	< 1.0		
6301	F7IV-V	0.43	-3.13	0.54	0.77	1.10	0.270	2	344	20.3	2.0	
6497	K2III	1.18	-97.59	0.20	0.21	0.74	0.458	2	267	1.2	1.4	
6557	G8III	0.96	4.65	0.20	0.21	0.77	0.444	2	309	< 2.0		
6680	F5IV	0.40	-16.13	5.40	5.40	1.00	9.999	1	0	36.4	4.8	
6706	F7IV	0.43	20.36	1.34	0.72	0.38	0.706	2	479	66.0	6.6	
6903	G0III	0.69	-16.24	5.57	7.88	1.70	0.092	2	325	70.0	7.0	
7014	K4III	1.51	1.49	0.19	0.06	0.21	0.837	2	367	2.5	1.1	
7106	K0IIIb	1.09	34.01	0.19	0.16	0.59	0.552	2	376	< 1.0		
7229	G9III+G1V	1.00	36.21	0.20	0.11	0.40	0.687	2	325	< 2.1		
7318	K0III	1.04	6.27	0.63	2.00	6.90	0.000	10	4117	3.6	1.0	SBO
7578	K1III	1.15	5.76	0.14	0.11	0.39	0.930	4	704	< 1.0		
7672	G5IIIe	0.90	-28.80	1.33	1.89	5.82	0.000	2	403	2.9	1.2	SBO
7732	G5III	0.92	-75.11	0.30	0.52	1.66	0.069	3	360	2.0	1.4	
8267	G8II	0.98	-2.51	0.26	0.37	1.32	0.188	2	338	< 1.0		
8334	K5IIIab	1.52	-17.39	0.23	0.45	1.60	0.054	4	2175	2.4	1.0	
8375	G8IV	0.83	3.94	1.82	3.63	12.55	0.000	4	2263	< 1.0		SB
8491	K0III	1.05	-13.35	0.20	0.01	0.05	0.960	2	282	1.5	1.0	
8507	G5II	1.03	-28.97	0.19	0.33	1.11	0.295	3	358	< 1.0		
8634	F5III	0.43	-13.09	2.56	11.45	9.95	0.000	20	3600	30.8	3.1	SBO
8701	K2IIIb	1.92	-17.11	0.19	0.39	1.28	0.183	4	358	4.2	1.0	
8763	K1III	1.11	-43.09	0.30	0.42	1.58	0.114	2	368	< 2.1		
8774	F7IVbvvs	0.46	13.73	0.81	1.15	1.94	0.052	2	358	19.0	1.0	
8779	K0IV	1.24	-4.61	0.07	0.32	1.14	0.164	22	5640	< 1.0		SB?
8791	K3II	1.54	-20.40	0.19	0.04	0.13	0.896	2	338	< 1.0		
8799	F5IV	0.42	11.42	2.14	0.34	0.11	0.911	2	355	65.9	6.6	
9057	K0III	1.00	-12.39	0.20	0.11	0.38	0.701	2	276	< 2.0		
9138	K4III	1.37	33.78	0.03	0.28	1.02	0.381	73	5187	< 1.0		
9146	K3II	1.59	-16.08	0.26	0.45	1.35	0.167	3	358	< 1.0		
9270	G7IIIa	0.97	13.38	0.21	0.02	0.06	0.953	2	308	8.1	1.0	
9408	G9IIIb	1.00	6.20	0.14	0.19	0.67	0.714	4	358	1.1	1.0	
9562	G2IV	0.64	-15.29	0.12	0.38	1.21	0.147	11	2614	4.2	1.0	
9638	K2II	1.14	-21.46	0.57	0.99	3.43	0.000	3	3253	< 1.0		SB
9712	K1III	1.11	66.51	0.26	0.37	1.26	0.207	2	285	6.5	1.0	
9746	K1III	1.21	-43.31	0.14	0.33	1.13	0.279	6	778	8.7	1.0	
9774	G8IIIa	0.96	-5.96	0.33	0.66	2.19	0.002	4	359	4.7	1.0	SB?
9900	G5II	1.38	-10.81	0.14	0.20	0.73	0.663	4	358	5.5	1.0	
10006	K1II	1.14	-12.47	0.19	0.38	1.19	0.245	4	358	< 1.0		
10072	G8III	0.89	7.10	0.37	0.74	2.53	0.000	4	358	2.0	1.0	SB
10110	K5III	1.61	-62.70	0.23	0.32	1.16	0.246	2	280	2.1	1.3	
10164	K2III	1.12	14.79	0.20	0.00	0.00	1.000	2	383	< 2.2		
10332	K2II	1.41	3.95	1.55	3.10	10.34	0.000	4	359	< 1.0		SB
10348	K0III	1.01	6.65	0.20	0.06	0.23	0.819	2	376	< 1.9		
10486	K2IV	1.01	8.57	0.20	0.03	0.10	0.919	2	339	< 1.0		
10588	G8III-IV	0.94	-14.68	8.59	19.20	62.48	0.000	5	341	3.3	1.0	SBO
10597	K5III	1.57	-20.67	0.20	0.06	0.23	0.819	2	282	1.5	1.0	
10697	G5IV	0.75	-46.58	0.07	0.30	1.02	0.406	17	2893	1.3	1.0	
10761	G8III	0.96	15.11	0.20	0.17	0.62	0.537	2	309	< 2.1		
10909	K0IV	0.96	-4.62	1.65	2.33	7.35	0.000	2	359	2.7	1.8	SBO
10975	K0III	0.97	34.55	0.20	0.16	0.56	0.578	2	285	1.5	1.0	
11037	G9III	0.97	4.50	0.20	0.09	0.31	0.755	2	309	1.5	1.0	
11103	K2II	1.29	-16.23	0.64	1.10	3.50	0.000	3	359	< 1.0		SB
11151	F5IV	0.43	-18.59	0.76	0.30	0.28	0.776	2	365	34.0	3.4	
11154	K1III+A6V	0.74	6.65	0.22	0.06	0.21	0.834	2	367	1.5	1.2	
11559	K0III	0.94	32.40	1.38	1.95	6.91	0.000	2	367	1.8	1.3	SBO
11749	K0III	1.06	61.13	0.28	0.28	1.00	9.999	1	0	< 2.7		
11763	K1III	1.19	15.71	0.27	0.27	1.00	9.999	1	0	1.8	1.0	
11949	K0IV	1.01	-1.15	0.17	0.30	1.07	0.316	3	2150	< 1.0		
12139	K0III-IV	1.03	-2.43	0.28	0.28	1.00	9.999	1	0	< 1.0		

Table 5. continued

Name HD or BD	Sp	(B - V)	RV km s ⁻¹	ϵ km s ⁻¹	σ km s ⁻¹	E/T	P(χ^2)	N	ΔT days	V sin i km s ⁻¹	ϵ_{rot} km s ⁻¹	Remark
12235	G2IV	0.62	-18.53	0.11	0.37	1.15	0.200	12	2967	5.2	1.0	
12339	G8III	0.95	-0.71	0.16	0.10	0.35	0.883	3	341	1.3	1.0	
12380	G5II	1.17	-15.21	0.17	0.16	0.53	0.752	3	345	< 1.0		
12558	F8IV	0.54	12.90	0.21	0.43	1.24	0.204	4	1843	3.9	1.0	
12568	G1II	0.76	8.27	0.80	1.13	2.64	0.009	2	307	12.0	1.0	SB?
12583	G3IV	0.98	7.03	0.16	0.19	0.67	0.642	3	2179	1.5	1.2	
12650	G2II	1.40	6.15	0.18	0.15	0.50	0.776	3	343	< 1.0		
12929	K2IIIabCa-I	1.15	-15.11	0.03	0.25	0.89	0.912	77	5627	< 1.0		
13013	G8III-IV	0.94	24.59	0.22	0.01	0.04	0.966	2	294	< 1.0		
13122	F5II	0.34	-6.09	2.85	4.03	1.10	0.271	2	4	66.1	10.4	
13137	G8III	0.95	11.85	0.27	0.38	1.29	0.197	2	307	1.1	1.3	
13222	G8III	0.91	-39.66	0.21	0.17	0.59	0.554	2	309	1.1	1.0	
13421	G0IV	0.56	-18.91	0.24	0.53	1.45	0.078	5	2272	9.9	1.0	
13437	G5II	1.21	9.33	0.41	1.36	4.32	0.000	11	5475	4.3	1.0	SB
13530	G8III.v	0.93	23.62	1.69	11.80	37.69	0.000	49	4881	< 1.0		SBO
13565	K0II	1.01	14.86	0.21	0.26	0.86	0.392	2	295	< 1.0		
13611	G6II-IIIcN-2	0.89	-4.36	3.60	5.10	17.95	0.000	2	336	1.5	1.0	SBO
13725	K4II	1.86	-10.15	0.38	0.54	1.81	0.071	2	303	< 2.2		SBO
13818	G9III-IV	0.98	17.90	0.20	0.26	0.92	0.356	2	298	< 1.0		
13871	F6IV-V	0.44	25.44	0.26	0.33	0.89	0.373	2	447	9.1	1.0	
13982	K3III	1.17	0.21	0.19	0.06	0.21	0.837	2	419	< 1.0		
13994	G7III	1.05	-13.16	0.11	0.23	0.70	0.840	8	1819	11.5	1.0	
14067	G9III	1.02	-12.42	0.19	0.02	0.06	0.951	2	298	< 1.0		
14173	G5II	0.95	2.98	0.12	0.20	0.62	0.889	7	2830	2.0	1.0	
14346	K0II	1.08	11.07	0.88	1.24	3.66	0.000	2	305	5.2	1.2	SBO
14415	G5II	0.89	4.90	3.00	4.25	11.96	0.000	2	297	2.6	1.8	SB
14544	K2II	1.29	-3.35	2.40	3.39	11.01	0.000	2	353	< 1.0		SB
14738	F6II	0.50	-13.22	4.05	8.10	3.25	0.000	4	609	76.3	7.6	SB?
14770	G8III	0.98	-14.15	0.21	0.00	0.01	0.988	2	316	1.9	1.3	
14794	G8II	1.00	0.43	0.23	0.19	0.58	0.565	2	308	1.8	1.6	
14949	K2II	1.11	2.43	0.21	0.07	0.24	0.811	2	301	1.8	1.0	SBO
15000	F5II	0.40	-15.64	1.28	1.18	0.65	0.521	2	316	44.8	4.5	
15022	K3II	1.40	-3.30	0.22	0.08	0.26	0.792	2	308	< 1.0		
15152	K5III	1.43	-48.82	0.19	0.23	0.85	0.395	2	386	2.3	1.2	
15328	K0III	0.97	19.70	0.25	0.35	1.21	0.226	2	328	3.7	1.0	
15453	K2III	1.02	-11.33	0.40	0.57	2.01	0.045	2	328	1.0	1.0	
15464	K1III	1.07	4.92	0.20	0.26	0.94	0.348	2	285	1.0	1.0	
15596	G5III-IV	0.90	-122.22	0.85	1.20	4.15	0.000	2	301	1.6	1.0	SB
15656	K5III	1.47	-36.08	0.19	0.16	0.58	0.563	2	285	2.1	1.2	
15694	K3III	1.27	25.10	0.26	0.37	1.37	0.171	2	328	< 1.8		
15755	K0III	1.07	2.70	9.31	13.17	48.04	0.000	2	285	1.0	1.0	SB
15784	F4II	0.47	1.62	0.38	0.54	1.15	0.250	2	308	16.1	1.0	
15798	F4IV	0.45	-27.21	1.72	4.21	11.89	0.000	6	1847	7.2	1.0	SB
15883	K0II	1.22	-10.37	0.22	0.39	1.28	0.192	3	1842	< 1.0		
15920	G8III	0.88	-4.15	0.14	0.04	0.14	0.996	4	2556	2.5	1.0	
16024	K5III	1.56	41.64	0.12	0.28	1.02	0.388	6	3220	2.5	1.0	
16028	K3III	1.39	-6.42	0.27	0.38	1.42	0.155	2	285	1.6	1.1	
16139	G8II	1.00	18.68	0.22	0.08	0.25	0.802	2	293	1.6	1.0	
16161	G8III	0.87	3.14	4.76	6.73	23.72	0.000	2	302	2.7	1.1	SB
16246	F6III	0.41	14.46	1.03	0.53	0.30	0.914	3	1026	40.6	4.1	SBO
16327 A	F6III	0.47	12.29	0.68	1.35	0.89	0.529	5	1522	46.8	4.7	
16399	F6IV	0.44	20.76	4.05	5.72	10.81	0.000	2	447	16.5	1.8	SB
16467	G9III	1.00	4.72	0.52	0.74	2.64	0.008	2	312	1.1	1.0	SB?
16735	K0II-III	1.12	-14.37	0.29	0.29	1.00	9.999	1	0	< 1.0		
16765	F7IV	0.52	6.66	0.53	0.98	0.93	0.461	4	2149	33.0	3.3	
17017	K2III	1.07	-34.87	0.29	0.42	1.50	0.133	2	265	1.3	1.0	
17144	G8III-IV	1.21	4.64	0.10	0.37	0.82	0.861	19	2856	18.9	1.0	
17228	G8III	0.93	22.13	0.20	0.07	0.26	0.796	2	302	< 1.8		
17234	K0II	1.08	13.70	0.24	0.11	0.32	0.750	2	308	4.1	1.3	
17346	G9II	1.26	-6.99	0.22	0.12	0.38	0.704	2	308	2.7	1.6	
17361	K1III	1.11	-16.00	0.19	0.06	0.21	0.837	2	285	1.6	1.0	
17459	K1III	1.20	46.21	0.19	0.27	0.98	0.328	2	265	< 1.8		
17484	F6III-IV	0.43	7.02	1.44	2.04	4.51	0.000	2	302	11.0	1.0	SB
17656	G8III	0.89	-12.49	0.21	0.11	0.35	0.726	2	313	< 2.1		
17878	G4III+A4V	0.74	2.03	2.83	4.00	12.73	0.000	2	308	2.6	1.3	SBO
18145	G8II	1.05	13.41	0.16	0.17	0.59	0.703	3	739	< 1.0		
18153	K5III	1.56	4.05	0.20	0.05	0.18	0.858	2	267	1.0	1.4	
18175	K0II	1.14	-34.67	0.16	0.21	0.74	0.581	3	740	< 1.0		
18262	F7IV	0.48	27.52	0.26	0.30	0.83	0.409	2	447	9.9	1.0	
18404	F5IV	0.41	27.00	0.59	0.25	0.30	0.766	2	447	24.7	2.5	
18449	K2III	1.23	-37.39	0.20	0.06	0.20	0.842	2	265	< 1.9		
18749	K0II	1.08	-49.57	0.22	0.31	1.00	0.316	2	320	< 1.0		
18991	G9III	1.02	-12.01	0.21	0.23	0.77	0.444	2	316	< 1.0		
19066	K0III	1.01	-32.57	0.20	0.04	0.15	0.880	2	419	1.3	1.0	
19080	K3III	1.40	-31.72	0.20	0.21	0.74	0.459	2	265	2.6	1.2	
19089	K0II	1.08	-37.69	0.23	0.41	1.21	0.235	3	320	2.1	1.0	
19121	K0III	1.04	1.10	0.22	0.32	1.13	0.257	2	328	< 1.9		
19270	K3III	1.08	-16.08	0.27	0.39	1.42	0.155	2	265	1.4	1.0	
19476	K0III	0.98	28.03	0.25	0.35	1.26	0.206	2	265	1.1	1.0	

Table 5. continued

Name HD or BD	Sp	(B - V)	RV km s ⁻¹	ϵ km s ⁻¹	σ km s ⁻¹	E/T	P(χ^2)	N	ΔT days	V sin i km s ⁻¹	ϵ_{rot} km s ⁻¹	Remark
19525	G9III	1.06	39.32	0.20	0.18	0.62	0.536	2	317	1.0	1.0	
19637	K3III	1.28	-16.78	0.19	0.19	0.70	0.486	2	265	< 1.0		
19656	K1III	1.11	6.12	0.20	0.18	0.64	0.523	2	265	< 2.0		
19735	K5III	1.43	-40.63	0.19	0.00	0.00	1.000	2	265	< 2.0		
19754	G8III-IV	1.12	18.63	9.80	16.97	47.51	0.000	3	436	7.0	1.0	SBO
19787	K2IIIv	1.03	22.64	0.20	0.19	0.68	0.494	2	265	1.1	1.3	
19789	K0IIIp	1.02	7.65	0.32	0.46	1.64	0.101	2	265	1.1	1.3	
19826	K0IV	0.93	9.26	1.79	2.53	8.78	0.000	2	330	2.7	1.8	SB
19845	G9III	0.97	-11.15	0.20	0.02	0.09	0.932	2	317	1.5	1.0	
19926	K1IIIep+A6	1.08	-9.21	7.44	16.65	41.97	0.000	5	3656	13.7	1.0	SBO
20063	K2III	1.07	26.57	1.33	1.89	6.85	0.000	2	265	1.4	1.0	SB
20084	G3IIIp:+F0:V	0.92	32.21	0.69	0.98	3.24	0.001	2	315	< 2.2		SBO
20123	G5II	1.15	1.17	0.22	0.13	0.41	0.680	2	316	7.9	1.0	
20192	G9II	1.04	1.85	0.21	0.25	0.85	0.396	2	332	< 2.6		
20277	G8IV	0.99	17.55	3.25	4.59	14.87	0.000	2	358	10.0	1.0	SB
20468	K2IIICN2Ba	1.49	1.29	0.19	0.18	0.67	0.505	2	317	5.9	1.0	
20559	G9IV	1.04	31.05	0.18	0.40	1.34	0.131	5	4028	< 1.0		
20618	G8IV	0.86	-5.08	0.20	0.06	0.20	0.842	2	358	< 1.0		
20644	K2II-III	1.55	-3.92	0.53	0.75	2.75	0.006	2	419	1.4	1.0	SB?
20825	G5III	1.10	6.47	0.21	0.26	0.90	0.370	2	304	8.0	1.0	
20893	K3III	1.24	2.03	0.59	0.83	3.03	0.002	2	419	1.3	1.0	SB?
21018	G5III	0.86	9.16	1.41	7.97	16.62	0.000	32	4058	22.7	2.3	SBO
21051	K0III-IV	1.23	17.89	0.49	0.69	2.41	0.016	2	330	5.1	1.0	
21120	G6IIIFe-1	0.89	-22.45	2.06	2.91	10.06	0.000	2	327	5.9	1.0	SBO
21467	K0IV	0.95	47.91	0.20	0.10	0.35	0.727	2	385	< 1.0		
21552	K3III	1.35	13.88	0.19	0.08	0.29	0.775	2	265	< 1.0		
21754	K0II-IIIFe	1.12	16.79	2.76	3.91	14.19	0.000	2	328	< 1.0		SBO
21755	G8III	0.96	10.46	0.21	0.03	0.10	0.919	2	317	2.2	1.3	
21970	G9III-IV	0.97	29.81	0.20	0.05	0.18	0.855	2	315	1.3	1.0	
22072	K1IVFe-1	0.89	10.13	0.67	0.95	3.30	0.001	2	330	< 1.0		SB?
22135	K5II	1.86	-3.43	0.22	0.04	0.11	0.910	2	316	< 1.0	1.0	
22695	K0II	1.00	14.31	0.61	0.87	3.07	0.002	2	328	< 1.7		SB?
22701	F5IV	0.37	-11.19	1.78	1.78	1.00	9.999	1	0	76.0	7.6	
23049	K4III	1.55	-7.68	0.14	0.20	0.73	0.663	4	337	1.7	1.0	
23089	G0III+A3V	0.80	-6.43	3.03	6.76	18.17	0.000	5	1748	10.7	1.0	SBO
23183	G8III	1.01	77.96	0.08	0.33	1.13	0.202	17	4055	2.0	1.0	
23230	F5II	0.42	-10.02	0.66	1.25	0.85	0.586	5	3693	48.9	8.2	
23249	K0IV	0.92	-6.82	0.11	0.28	0.95	0.513	8	5433	< 1.0		
23278	G8II	1.00	-6.30	0.26	0.03	0.09	0.926	2	308	1.9	1.0	
23526	G9III	0.99	-23.90	0.22	0.31	1.13	0.260	2	311	1.3	1.0	
24107	K1II	1.22	39.23	0.21	0.16	0.54	0.593	2	160	< 1.0		
24154	K0III	1.13	63.13	0.50	0.71	2.54	0.011	2	419	< 1.0		SB?
24240	K0III	1.05	8.94	2.65	3.75	13.53	0.000	2	419	< 2.3		SB
24350	G0II	0.71	9.51	0.29	0.38	0.92	0.363	2	315	< 3.4		
24399	G8II	1.00	1.16	2.55	3.61	11.33	0.000	2	306	6.2	1.0	SB
25007	G8III+A6V	0.56	3.94	0.29	0.41	1.09	0.276	2	314	3.5	1.0	
25140	G0II	1.36	-47.12	1.71	2.42	6.29	0.000	2	314	11.1	1.0	SB
25274	K2III	1.54	-48.88	0.26	0.37	1.35	0.176	2	267	2.2	1.2	
25296	G8II	0.95	-28.25	0.20	0.04	0.12	0.902	2	311	1.2	1.4	
25555	G0III+A4V	0.86	7.08	0.89	1.26	3.66	0.000	2	313	6.1	1.2	SBO
25602	K0III-IV	0.99	-6.57	0.21	0.30	1.06	0.289	2	265	< 1.0		
25604	K0III	1.07	9.05	0.11	0.21	0.75	0.760	7	1525	< 1.3		
25621	F6IV	0.50	-18.49	0.35	0.01	0.01	0.989	2	262	15.3	1.0	
25834	K1II	1.54	16.98	0.19	0.26	0.80	0.539	3	1843	< 1.0		
25877	G8IIa	1.14	-13.03	0.20	0.09	0.30	0.761	2	314	4.5	1.0	
25893	G8IV	0.86	26.70	0.07	0.29	0.96	0.566	19	4447	5.1	1.0	
25975	K1III	0.95	-44.92	0.20	0.28	1.00	0.316	2	269	1.4	1.0	
26038	K5IIIb	1.50	-32.24	0.19	0.28	1.02	0.309	2	264	1.9	1.3	
26076	K1III	1.01	-5.99	0.17	0.33	1.20	0.231	4	2086	< 1.6		
26081	G8II	1.42	-2.97	1.36	2.36	7.70	0.000	3	473	5.6	1.0	SB
26162	K2III	1.07	24.39	0.03	0.26	0.94	0.780	92	5220	< 1.0		
26311	K1II-III	1.44	18.73	0.96	1.36	4.96	0.000	2	268	< 1.0		SB
26546	K0III	1.08	25.16	0.19	0.15	0.54	0.589	2	263	< 1.0		
26605	G9III	1.12	28.55	0.64	0.90	3.13	0.002	2	312	< 1.0		SB?
26659	G8III	0.87	-27.39	0.71	1.58	5.11	0.000	5	2037	4.7	1.0	SB
26673	G5II	1.01	-17.54	3.27	4.63	14.41	0.000	2	312	10.6	1.2	SBO
26722	G5III	0.80	-8.02	0.21	0.46	1.50	0.061	5	2097	5.1	1.0	
26755	K1III	1.09	-42.15	4.75	6.72	24.62	0.000	2	267	< 1.0		SB
26913	G5IV	0.70	-7.37	0.19	0.46	1.35	0.105	6	2935	3.9	1.0	
26923	G0IV	0.59	-7.49	0.17	0.38	1.11	0.300	5	2170	4.3	1.3	
27022	G5IIb	0.81	-19.74	0.14	0.29	0.95	0.467	5	3683	< 1.0		
27278	K0III	0.94	30.41	1.85	2.62	9.13	0.000	2	267	< 2.0		SB
27348	G8III	0.94	-26.96	0.15	0.30	1.06	0.340	4	2561	1.8	1.0	
27371	K0III	0.99	37.57	0.22	0.38	1.33	0.171	3	885	< 1.0		
27382	K1III	1.15	0.77	0.27	0.39	1.43	0.154	2	267	< 1.0		
27497	G8III-IV	0.92	3.84	1.56	3.12	11.07	0.000	4	3637	1.4	1.1	SB
27536	G8IV:	0.91	6.62	0.09	0.16	0.58	0.955	9	686	< 1.0		
27697	K0IIICN0.5	0.98	37.20	0.33	0.47	1.67	0.094	2	263	1.2	1.2	SBO
27971	K1III	0.97	28.14	0.16	0.24	0.86	0.478	3	1371	1.2	1.0	

Table 5. continued

Name HD or BD	Sp	(B - V)	RV km s ⁻¹	ϵ km s ⁻¹	σ km s ⁻¹	E/T	P(χ^2)	N	ΔT days	V sin i km s ⁻¹	ϵ_{rot} km s ⁻¹	Remark
28085	G8II	1.22	-10.99	0.26	0.37	1.17	0.245	2	314	1.2	1.6	
28100	G7IIIaFe-1	0.98	30.95	0.20	0.17	0.59	0.556	2	314	3.9	1.0	
28191	K1III	1.09	21.72	0.20	0.16	0.56	0.574	2	265	1.3	1.0	
28292	K2IIIv	1.13	15.78	0.20	0.25	0.92	0.356	2	263	< 1.0		
28305	K0III	1.02	37.68	0.25	0.49	1.75	0.027	4	885	2.4	1.0	
28307	K0IIIbFe-0	0.95	36.36	0.20	0.10	0.35	0.730	2	263	1.5	1.2	
28322	G9III	1.02	31.38	0.20	0.27	0.95	0.344	2	314	1.3	1.0	
28505	G8III	1.03	-62.93	0.20	0.29	0.99	0.321	2	366	1.5	1.0	
28591	K1III	0.90	5.54	4.04	21.77	45.43	0.000	29	1475	27.2	2.7	SBO
28930	G8III	1.06	-27.06	0.21	0.25	0.85	0.394	2	366	3.7	1.0	
29094	K4III+A3V	1.22	9.35	0.22	0.14	0.47	0.640	2	316	11.0	1.0	SBO
29139	K5III	1.54	53.98	0.04	0.19	0.70	0.997	39	4370	2.0	1.0	
29169	F5IV	0.38	63.16	2.61	2.61	1.00	9.999	1	0	6.9	5.3	SB
29317	K0III	1.07	-51.90	14.66	20.73	72.58	0.000	2	267	6.7	1.0	SBO
29613	K1IVa	1.06	58.30	0.16	0.10	0.37	0.872	3	1896	< 1.0		
29859	F7IV-V	0.54	8.12	0.25	0.18	0.49	0.621	2	373	9.0	1.0	
30138	G9III	0.93	42.29	1.24	1.76	5.81	0.000	2	329	4.4	1.3	SB
30197	K4III	1.21	40.14	5.08	8.80	32.57	0.000	3	592	< 1.0		SBO
30338	K3III	1.28	-8.80	0.28	0.40	1.45	0.146	2	289	1.0	1.0	
30454	K2III	1.12	22.11	0.19	0.20	0.73	0.467	2	268	1.1	1.0	
30504	K4II	1.44	-25.25	0.48	0.69	2.48	0.013	2	316	1.6	1.0	
30545	K1III	1.19	-18.30	0.40	0.57	2.06	0.039	2	265	1.0	1.3	
30557	G9III	0.99	26.48	0.20	0.12	0.42	0.676	2	316	1.0	1.4	
30736	F8III	0.55	23.01	0.37	0.48	0.91	0.372	2	321	15.2	1.1	
30834	K2.5III	1.41	-17.83	0.16	0.10	0.36	0.876	3	1440	2.7	1.0	
31312	K5III	1.57	-55.89	0.29	0.41	1.51	0.132	2	267	1.5	1.2	
31398	K3II	1.53	17.38	0.25	0.44	1.61	0.074	3	2077	3.8	1.0	
31421	K2III	1.15	1.14	0.25	0.36	1.31	0.191	2	263	< 1.0		
31534	K1II	1.53	-22.92	0.23	0.27	0.84	0.401	2	314	3.9	1.3	
31579	K4III	1.46	-1.11	0.37	0.52	1.91	0.056	2	267	1.6	1.2	
31767	K2II	1.40	14.85	0.24	0.34	1.26	0.206	2	314	1.1	1.3	
31993	K2III	1.28	13.10	0.10	0.54	1.03	0.399	32	2856	31.1	3.1	
32068	K4II+B8V	1.22	-1.70	1.55	3.47	11.23	0.000	5	3165	6.8	1.0	SBO
32356	K5II	1.37	-46.82	0.92	1.31	4.73	0.000	2	288	< 1.0		SB
32357	K0III	1.12	2.00	10.90	15.41	48.35	0.000	2	288	11.5	1.0	SBO
32406	K0II-III	1.21	15.07	0.42	0.60	1.97	0.049	2	1771	3.0	1.1	
32503	K1IV	1.20	32.69	0.85	1.21	4.41	0.000	2	330	< 1.0		SB
32518	K1III	1.11	-7.53	0.35	0.50	1.81	0.070	2	267	1.2	2.0	
33021	G1IV	0.62	-23.00	0.36	0.51	1.58	0.114	2	372	< 2.0		
33554	K5III	1.49	-7.76	0.19	0.02	0.08	0.938	2	328	1.1	1.0	
33618	K2III-IV	1.18	-0.89	0.31	0.45	1.61	0.107	2	288	< 1.0		
33856	K3III	1.19	42.79	6.35	8.98	33.06	0.000	2	328	< 2.3		SBO
33924	F5III	0.45	15.55	1.12	1.43	0.90	0.368	2	322	59.0	5.9	
34198	K0III	1.12	3.94	0.11	0.34	0.93	0.571	10	2855	18.7	1.0	
34334	K3III	1.27	-33.23	8.04	11.38	41.15	0.000	2	288	< 1.0		SBO
34411	G2IV-V	0.63	66.44	0.07	0.28	0.92	0.654	19	4786	1.9	1.0	
34559	G8III	0.93	19.29	0.20	0.26	0.93	0.353	2	385	2.1	1.2	
34579	G8II-III+G	1.01	-52.05	0.20	0.26	0.93	0.353	2	384	< 1.0		
34810	K0III	1.23	-0.44	0.14	0.26	0.96	0.431	4	3163	< 1.8		
35072	F7III-IV	0.51	43.95	0.21	0.08	0.29	0.774	2	356	5.6	1.0	
35186	K4III	1.42	-20.32	0.23	0.33	1.22	0.222	2	269	2.5	1.1	
35238	K1III	1.24	40.60	0.26	0.37	1.31	0.191	2	288	< 1.0		
35620	K3IIICN+2	1.40	30.34	0.21	0.41	1.52	0.074	4	1020	< 1.6		
35984	F6III	0.45	13.58	0.87	0.66	0.54	0.603	2	317	44.9	8.2	
36040	K0IIIp	1.11	13.36	0.25	0.35	1.27	0.203	2	288	< 1.0		
36041	G9III	0.97	12.65	0.12	0.24	0.82	0.650	6	1440	2.5	1.0	
36067	K1II	1.14	-7.16	1.21	1.71	5.74	0.000	2	314	< 2.4		SB
36079	G5II	0.82	-14.43	0.01	0.27	0.98	0.716	398	7044	5.2	1.0	
36217	K2IIIv	1.27	13.68	0.20	0.21	0.75	0.455	2	264	< 1.0		
36931	F8II	1.10	2.82	0.89	1.26	3.10	0.002	2	314	8.4	1.1	SB?
36994	F5III	0.43	3.43	5.83	5.83	1.00	9.999	1	0	56.1	11.5	
37160	K0IIIbCN-2	0.95	98.75	0.03	0.24	0.82	0.988	78	5656	< 1.0		
37171	K4III	1.58	-113.18	4.08	5.78	19.80	0.000	2	367	3.9	1.0	SB
37329	G9III	0.98	16.19	0.35	0.49	1.71	0.088	2	315	< 2.1		
37434	K2III	1.16	15.26	0.27	0.95	1.15	0.201	12	3685	65.3	6.5	
37601	K0III	0.95	-32.22	0.20	0.22	0.77	0.440	2	289	< 1.0		
37824	K1III	1.14	40.96	12.64	21.89	58.81	0.000	3	436	13.1	1.0	SBO
37984	K1III	1.17	86.99	0.24	0.35	1.25	0.213	2	264	1.1	1.0	
38099	K4III	1.47	24.03	1.16	1.65	5.80	0.000	2	1108	5.9	1.0	SBO
38232	F5II	0.69	-4.68	1.56	3.49	8.57	0.000	5	1421	9.0	1.0	SB
38527	G8III	0.88	-25.92	0.21	0.03	0.09	0.929	2	367	2.4	1.2	
38645	G9III	0.95	0.07	0.15	0.26	0.90	0.483	4	2303	1.3	1.0	
38656	G8III	0.94	-19.74	0.20	0.16	0.57	0.572	2	316	1.0	1.9	
38750	K2II	1.44	-10.24	1.15	2.29	8.00	0.000	4	1893	< 1.0		SB
38765	K1III	1.05	-29.10	0.28	0.40	1.41	0.160	2	289	< 1.0		
39003	K0III	1.13	10.91	0.20	0.25	0.90	0.371	2	289	< 1.0		
39007	G8III	0.87	47.32	0.50	0.70	2.37	0.018	2	367	3.9	1.0	

Table 5. continued

Name HD or BD	Sp	(B - V)	RV km s ⁻¹	ϵ km s ⁻¹	σ km s ⁻¹	E/T	P(χ^2)	N	ΔT days	V sin i km s ⁻¹	ϵ_{rot} km s ⁻¹	Remark
39118	G8III+A0IV	0.91	36.27	3.37	7.53	21.84	0.000	5	1742	7.4	1.0	SBO
39152	K0II	1.08	-22.73	0.22	0.31	1.02	0.307	2	315	8.0	1.0	
39400	K2II	1.38	11.06	0.19	0.15	0.55	0.580	2	554	3.5	1.0	
39455	F5II	0.46	-14.02	0.69	0.58	0.59	0.557	2	604	31.5	3.2	
39632	G9II	1.47	12.17	0.14	0.19	0.67	0.722	4	3946	7.8	1.0	
39743	G8III	0.99	0.68	2.81	4.87	14.99	0.000	3	1067	9.8	1.0	SB
39758 A	G8II	1.00	-9.42	0.43	0.61	1.34	0.181	2	356	3.5	2.8	
39775	K0III	1.34	20.74	0.20	0.20	0.72	0.474	2	328	1.9	1.3	
39853	K5III	1.53	81.11	0.17	0.37	1.38	0.109	5	940	3.1	1.0	
39881	G5IV	0.65	0.09	0.08	0.24	0.76	0.909	17	2716	1.4	1.0	
40020	K2III	1.10	17.97	0.19	0.04	0.15	0.878	2	328	< 1.0		
40035	K0III	1.00	5.98	1.39	1.97	7.02	0.000	2	288	1.7	1.0	SB
40083	K2III	1.20	-6.50	0.19	0.12	0.44	0.663	2	251	< 1.0		
40325	K2III+K0II	1.12	2.12	0.19	0.15	0.55	0.586	2	255	< 1.0		
40369	K2III+A5V	0.89	3.88	0.22	0.18	0.57	0.566	2	328	< 2.1		
40801	K0II	0.97	33.32	0.20	0.18	0.65	0.516	2	255	< 1.0		
40827	K1III-IV	1.10	31.17	0.20	0.20	0.71	0.478	2	284	< 1.8		
41162	K0III+A2	0.82	-1.48	0.22	0.04	0.13	0.894	2	290	1.2	1.3	
41380	G4III	1.04	29.09	3.61	6.25	17.88	0.000	3	1079	14.2	1.0	SB
41467	K0III	1.22	6.75	0.20	0.22	0.79	0.429	2	188	1.8	1.4	
41597	G8III	1.09	30.82	0.36	0.51	1.85	0.064	2	649	1.5	1.2	
41636	G9III	1.05	-86.72	0.22	0.31	1.03	0.301	2	360	3.8	1.0	
41927	K2II-III	1.34	0.13	0.29	0.29	1.00	9.999	1	0	3.3	1.4	
41994	G5II	1.02	5.54	0.55	0.77	2.42	0.016	2	379	6.5	1.0	
42351	K1II	1.35	-2.59	0.27	0.54	1.89	0.013	4	2526	2.5	1.0	
42398	K0III	1.11	11.45	0.20	0.14	0.51	0.608	2	265	< 1.0		
42466	K1III	1.06	11.85	0.22	0.32	1.14	0.256	2	284	1.4	1.2	
42633	K3III	1.34	8.05	0.29	0.42	1.52	0.128	2	284	2.2	1.2	
42841	G5II	1.23	-4.40	0.27	0.71	1.97	0.001	7	3186	8.5	1.0	SB?
42981	K2II	1.29	-11.80	0.25	0.24	0.69	0.494	2	362	4.3	1.4	
43261	G8III	0.90	-21.18	0.21	0.05	0.17	0.867	2	370	4.3	1.3	
43282	G5II	1.32	-5.16	1.39	8.09	24.03	0.000	34	3305	8.5	1.0	SBO
43335	K5II	1.58	42.95	0.20	0.16	0.58	0.561	2	370	2.1	1.7	
43380	K2III	1.11	-3.86	0.20	0.13	0.45	0.652	2	279	1.6	1.2	
43386	F5IV-V	0.42	9.52	0.57	0.81	1.16	0.248	2	263	18.8	1.2	
43480	G5II	0.97	34.85	0.23	0.11	0.34	0.735	2	476	< 2.5		
43581	K0II	1.08	42.04	0.20	0.17	0.61	0.545	2	497	< 1.0		
43670	K0II	1.21	33.05	0.22	0.18	0.56	0.577	2	353	< 1.0		
43839	G5II	1.09	8.61	0.25	0.20	0.57	0.572	2	468	4.7	1.3	
43905	F5III	0.43	1.36	6.25	23.40	51.23	0.000	14	717	13.2	1.0	SBO
44341	F5II	0.38	17.44	0.83	0.84	0.71	0.483	2	712	29.0	2.9	
44708 A	K4III	1.53	-5.01	0.10	0.20	0.74	0.774	7	4032	2.9	1.0	
44867	G9III	1.08	70.78	0.20	0.13	0.46	0.644	2	477	1.2	1.3	
45046	K0II	1.02	-11.98	0.22	0.15	0.50	0.621	2	499	< 1.0		
45207	F8II	0.59	-35.95	0.42	0.59	1.06	0.289	2	370	16.2	1.6	
45410	K0III-IV	0.94	39.23	0.20	0.08	0.27	0.784	2	282	< 1.0		
45415	G9III	1.04	52.28	0.32	0.45	1.65	0.099	2	317	1.3	1.0	
45416	K1II	1.18	31.69	0.33	0.46	1.71	0.088	2	317	1.9	1.3	
45512	K2III-IV	1.15	-21.82	0.20	0.17	0.61	0.544	2	265	< 2.1		
45800	G8II	1.00	7.69	0.23	0.06	0.17	0.864	2	493	7.5	1.0	
45951	K2III	1.16	23.70	0.19	0.07	0.26	0.797	2	265	1.1	1.0	
46101	K0III:	1.60	-17.23	9.53	13.48	38.14	0.000	2	282	19.8	1.0	SB
46136 A	F8III	0.53	1.40	0.76	1.07	1.52	0.155	2	479	20.6	2.1	
46277	K0II	1.23	-4.09	0.21	0.14	0.47	0.636	2	384	2.0	1.5	
46480	G8IV-V	0.89	-50.58	0.21	0.01	0.02	0.981	2	363	1.6	1.0	
46509	K0III	1.19	-24.60	0.19	0.06	0.23	0.817	2	282	1.5	1.2	
46709	K4III	1.51	37.65	0.19	0.18	0.64	0.520	2	188	3.5	1.0	
46947	K2II	1.30	-10.08	0.27	0.38	1.11	0.268	2	309	< 1.0		
47070	K5III	1.35	31.22	0.19	0.04	0.13	0.896	2	255	< 1.0		
47174	K3III	1.23	15.62	0.19	0.25	0.94	0.349	2	189	< 1.0		
47220	K1III	1.08	-7.73	0.31	0.44	1.54	0.125	2	188	< 1.8		
47270	K1III	1.07	-36.11	0.20	0.19	0.69	0.491	2	284	< 2.1		
47358	G9III	1.03	-10.08	0.20	0.05	0.19	0.848	2	385	1.5	1.2	
47418	G5II	0.96	36.47	0.27	0.22	0.57	0.575	2	309	2.1	1.0	
47667	K2II	1.50	28.52	0.34	0.48	1.52	0.128	2	313	3.9	1.3	
47758	K2II	1.62	17.40	0.48	0.69	2.40	0.016	2	332	2.5	1.4	
47914	K5III	1.48	-77.40	0.19	0.11	0.39	0.697	2	284	< 2.2		
48432	K0III	0.96	17.88	0.20	0.18	0.63	0.530	2	284	< 1.0		
48433	K0IIICN1Ca	1.16	12.08	0.20	0.25	0.92	0.356	2	189	< 1.0		
48450	K4III	1.45	14.36	0.19	0.04	0.13	0.895	2	265	2.4	1.1	
48781	K0III	1.12	-6.92	0.36	0.51	1.85	0.064	2	284	1.3	1.0	
49161	K4III	1.40	45.78	0.03	0.23	0.83	0.982	75	5616	2.5	1.0	
49293	K0IIIBa0.1	1.11	10.83	0.25	0.35	1.28	0.202	2	188	< 2.0		SBO
49367	K1II	1.14	-3.92	0.21	0.14	0.48	0.635	2	309	< 1.0		
49380	K3II	1.29	-16.91	0.19	0.13	0.49	0.621	2	256	< 1.0		
49520	K3III	1.27	59.16	0.25	0.35	1.30	0.193	2	189	< 1.0		
49618	G4III+A2V	0.65	16.06	0.18	0.51	1.46	0.038	8	3781	3.5	1.0	
49633	G8II	1.05	9.29	0.34	0.49	1.63	0.104	2	472	1.7	1.0	
49878	K4III	1.36	-30.08	0.19	0.04	0.13	0.896	2	286	1.4	1.0	
49968	K5III	1.45	32.98	0.19	0.03	0.11	0.916	2	265	1.0	1.3	

Table 5. continued

Name HD or BD	Sp	(B - V)	RV km s ⁻¹	ϵ km s ⁻¹	σ km s ⁻¹	E/T	P(χ^2)	N	ΔT days	V sin i km s ⁻¹	ϵ_{rot} km s ⁻¹	Remark
50056	K3III:	1.45	-2.83	0.28	0.40	1.45	0.147	2	188	1.3	1.0	
50310	K0III	1.20	34.06	0.18	0.21	0.78	0.433	2	1083	2.2	1.2	SBO
50371	K0III	0.97	-33.14	0.20	0.25	0.86	0.390	2	189	1.5	1.0	
50372	G6II	1.14	16.29	0.23	0.28	0.87	0.388	2	313	8.7	1.0	
50384	K0III-IV	0.94	27.29	0.13	0.22	0.75	0.694	5	1678	< 1.5		
50522	G5III-IV	0.85	10.40	0.40	0.56	1.84	0.066	2	474	3.2	1.1	
50551	K3III	1.49	-55.95	0.26	0.37	1.35	0.178	2	286	2.3	1.2	
50571	F7III-IV	0.46	22.20	1.20	0.76	0.45	0.656	2	350	57.5	6.4	
50785	F5II-III	0.42	29.59	6.81	9.63	3.49	0.000	2	2507	67.8	6.8	
51000	G5III	0.88	-9.64	0.28	0.39	1.33	0.184	2	384	4.0	1.0	
51250	G5III+A2	1.18	17.62	0.02	0.29	1.08	0.065	188	6613	4.2	1.0	
51440	K2III	1.23	23.98	0.21	0.06	0.19	0.847	2	189	< 1.0		
51814	G8III	1.06	17.23	0.20	0.27	0.96	0.339	2	313	2.6	1.2	
52030	K0III	1.58	20.44	0.41	0.58	2.11	0.035	2	222	< 1.0		
52265	G0III-IV	0.57	53.25	0.15	0.11	0.38	0.933	4	4755	5.2	1.0	
52497	G5IIa-Ib	0.94	-9.56	0.25	0.35	1.18	0.236	2	385	8.0	1.0	
52708	G8III:	1.19	18.40	0.20	0.07	0.26	0.794	2	475	1.8	1.5	
52938	K3.5IIb	1.71	5.36	0.25	0.26	0.72	0.472	2	469	3.9	1.5	
52960	K3III	1.39	19.18	0.29	0.42	1.54	0.123	2	256	< 2.0		
53329	G8IV	0.91	3.00	0.20	0.18	0.63	0.526	2	373	1.3	1.0	
53925	K1III	1.21	9.95	0.16	0.13	0.46	0.806	3	2562	< 1.6		
54131	G8III	1.03	-19.36	0.20	0.25	0.91	0.364	2	366	1.0	1.3	
54716	K4III-IIIa	1.45	-28.39	0.04	0.34	1.26	0.003	62	5815	1.7	1.0	SB?
54719	K2III	1.26	21.20	0.19	0.24	0.89	0.374	2	255	< 1.0		
54825	K0II	1.08	42.11	0.28	0.39	1.40	0.162	2	384	< 1.9		
55080	G8II	1.00	13.41	1.16	1.64	5.52	0.000	2	389	< 1.0		SB
55184	K0III	1.14	20.20	0.20	0.23	0.83	0.409	2	255	< 1.0		
55280	K2III	1.07	23.70	0.19	0.02	0.08	0.939	2	222	< 1.0		
55438	F5II	0.55	22.65	5.02	5.02	1.00	9.999	1	0	25.3	11.7	
55730	G6III	1.01	29.03	0.22	0.31	1.11	0.268	2	477	< 2.2		
55751	K2II	1.19	36.35	0.19	0.23	0.82	0.412	2	188	< 1.0		
56003	G5III	0.90	-5.12	0.20	0.35	1.21	0.231	3	1237	2.3	1.0	
56989	G9III	1.07	23.31	1.13	2.53	8.49	0.000	5	2325	5.7	1.0	SB
57048	G5II	0.95	-2.04	0.21	0.09	0.29	0.774	2	603	2.3	1.4	
57264	K0III	1.08	21.38	0.16	0.24	0.86	0.478	3	2495	< 1.0		
57268	F3II	0.33	-36.07	0.31	0.40	0.91	0.360	2	715	1.9	2.2	
57623	F6II	0.79	22.50	0.17	0.21	0.73	0.587	3	2123	11.8	1.0	
57646	K5III	1.61	19.42	0.85	1.20	4.40	0.000	2	219	2.6	1.1	SB
57669	K0IIIaCN1	1.23	22.17	0.25	0.36	1.31	0.189	2	286	4.5	1.0	
57727	G8III	0.90	5.18	0.20	0.10	0.35	0.727	2	477	1.5	1.2	
57728	G2II	0.87	-0.94	0.93	1.32	4.36	0.000	2	604	1.6	1.0	SB
58207	G9IIbH	1.03	6.75	0.20	0.18	0.65	0.517	2	370	1.5	1.2	
59294	K1IIIBa0.5	1.28	-16.81	0.19	0.11	0.41	0.680	2	189	1.7	1.4	
59878 A	K0II-III+F	1.01	33.82	0.53	0.76	2.66	0.008	2	188	< 1.0		SB?
60294	K2III	1.12	0.05	0.19	0.04	0.13	0.897	2	222	< 1.0		
60532	F6IV	0.51	60.76	0.10	0.24	0.69	0.910	11	5101	8.1	1.0	
60986	K0III	0.93	-36.96	0.20	0.25	0.89	0.372	2	219	1.1	1.3	
61064	F6III	0.44	45.12	0.64	1.29	1.65	0.044	4	836	30.1	3.0	
61106	K5III	1.46	-17.18	0.19	0.04	0.13	0.897	2	222	1.6	1.0	
61295	F6II	0.35	26.87	1.39	1.96	1.73	0.086	2	367	34.9	4.0	
61338	K5IIIFe-0.5	1.56	24.84	0.19	0.15	0.54	0.588	2	189	1.9	1.3	
61363	K0III	1.01	38.71	0.20	0.24	0.85	0.394	2	219	< 2.2		
61421	F5IV-V	0.42	-3.36	0.33	0.40	0.85	0.395	2	332	6.1	1.0	SBO
61772	K3II	1.55	-0.08	0.21	0.30	1.11	0.268	2	2876	< 2.2		
62044	K1III	1.12	36.65	10.79	26.44	55.44	0.000	6	4308	25.8	2.6	SBO
62141	K0III	0.93	0.70	0.15	0.34	1.15	0.257	5	1427	< 1.0		
62264	K0III	1.02	7.97	0.21	0.11	0.36	0.719	2	188	1.4	1.0	
62345	G8IIIa	0.93	18.27	0.20	0.07	0.24	0.809	2	380	1.6	1.1	
62509	K0IIIb	1.00	2.81	0.02	0.24	0.87	0.987	155	6946	< 1.0		
62721	K5III	1.45	80.68	4.63	6.55	23.71	0.000	2	189	1.2	1.0	SBO
63208	G2III+A4V	0.58	3.60	0.27	0.22	0.58	0.565	2	374	5.7	1.0	
63660	G0III	0.76	2.54	2.97	5.15	17.76	0.000	3	1401	2.9	1.0	SB
64067	G5II	1.13	19.12	1.74	3.02	11.21	0.000	3	1437	7.6	1.0	SB
64307	K3III	1.42	33.11	0.19	0.11	0.39	0.695	2	222	< 2.0		
64938	G8III	0.98	16.20	0.20	0.29	1.01	0.314	2	314	< 2.7		
64960	K3III	1.28	13.06	0.19	0.05	0.18	0.857	2	189	< 1.0		
65066	K0III	1.00	-37.34	0.22	0.32	1.12	0.261	2	188	1.4	1.0	
65228	F7II	0.72	12.96	0.13	0.32	1.01	0.406	6	4064	13.8	1.0	
65345	K0III	0.92	42.29	0.20	0.00	0.00	1.000	2	188	< 1.0		
65448	G1III	0.59	10.07	5.43	7.67	19.51	0.000	2	171	2.5	3.5	SB
65735	K1III	1.11	28.67	0.19	0.21	0.74	0.457	2	188	< 1.0		
65757	K1III-IV	1.00	28.94	0.20	0.02	0.08	0.940	2	188	1.2	1.0	
66011	G0IV	0.57	10.91	0.18	0.28	0.69	0.753	5	1943	13.6	1.0	
66141	K2III	1.25	71.16	0.01	0.28	1.05	0.102	407	7068	1.1	1.0	
66216	K2III	1.12	-12.79	1.83	2.59	9.47	0.000	2	411	< 1.9		SBO
66242	G0III	0.62	-15.92	0.22	0.19	0.60	0.546	2	4074	6.9	1.5	
67249	G5II	1.21	26.79	0.22	0.31	1.12	0.265	2	365	6.5	1.0	
67447	G7II	1.04	-11.64	0.28	0.40	1.40	0.163	2	171	4.4	1.0	
67523	F6IIp	0.43	46.98	3.60	5.10	15.15	0.000	2	358	14.6	1.0	SB

Table 5. continued

Name HD or BD	Sp	(B - V)	RV km s ⁻¹	ϵ km s ⁻¹	σ km s ⁻¹	E/T	P(χ^2)	N	ΔT days	V sin i km s ⁻¹	ϵ_{rot} km s ⁻¹	Remark
67542	G0II	0.81	19.37	0.21	0.04	0.12	0.907	2	272	5.9	1.0	
68077	G9III	1.01	5.96	0.26	0.52	1.70	0.037	4	820	4.3	1.0	
68375	G8III	0.90	3.87	0.21	0.27	0.91	0.363	2	171	1.3	1.4	
68752	G5II	1.07	16.39	0.19	0.14	0.53	0.599	2	355	6.9	1.0	
68776	G8III	1.04	23.81	0.23	0.03	0.09	0.932	2	165	8.9	1.0	
69148	G8III	0.89	-25.06	4.52	6.39	20.49	0.000	2	169	3.0	1.4	SBO
69267	K4IIIBa0.5	1.48	22.48	0.19	0.04	0.16	0.874	2	267	2.1	1.2	
69478	G8III	0.98	28.22	0.24	0.30	0.91	0.365	2	165	7.9	1.0	
69976	K0III	0.97	-6.22	0.20	0.23	0.84	0.401	2	265	1.6	1.0	
69994	K1III	1.13	-20.24	0.19	0.17	0.62	0.536	2	411	1.6	1.0	
70013	G8III	0.97	-45.38	0.22	0.08	0.25	0.806	2	174	2.3	1.7	
70442	G2III+A3	0.77	-1.17	2.00	14.71	42.54	0.000	54	6373	6.5	1.0	SB
70647	K5III	1.59	28.72	0.10	0.38	1.31	0.055	14	3914	2.5	1.0	
71071	K1IV	0.95	27.63	5.05	8.74	29.19	0.000	3	1498	2.3	1.1	SBO
71088	G8III	0.97	-3.58	0.21	0.09	0.31	0.755	2	171	1.2	1.0	
71093	K5III	1.40	24.77	0.19	0.05	0.18	0.855	2	411	1.3	1.2	
71095	K5III	1.53	11.61	0.26	0.37	1.35	0.177	2	411	< 2.2		
71115 A	G8II	0.94	15.26	0.10	0.29	1.04	0.378	8	3097	< 1.2		
71243	F5III	0.39	-13.28	0.80	1.39	1.25	0.213	3	2120	28.6	2.9	
71369	G5III	0.84	18.50	0.17	0.39	1.33	0.134	5	3408	4.3	1.0	
71952	K0IV	1.01	39.60	0.20	0.21	0.75	0.451	2	336	< 1.0		
72094	K5III	1.56	44.06	0.19	0.16	0.59	0.554	2	410	2.1	1.3	
72184	K2III	1.11	15.88	2.56	3.62	13.17	0.000	2	410	< 1.0		SB
72292	K3III	1.25	21.99	0.19	0.23	0.86	0.388	2	411	< 1.0		
72324	G9III	1.02	73.42	0.33	0.47	1.29	0.198	2	181	2.7	1.0	
72505	K0III	1.17	29.88	0.20	0.18	0.64	0.522	2	411	1.5	1.0	
72561	G5III	1.07	1.23	0.24	0.08	0.25	0.805	2	181	6.0	1.4	
72582	G7III	1.02	-4.31	0.21	0.28	0.91	0.361	2	171	< 2.7		
72688	K0III	0.95	6.40	4.95	7.00	24.74	0.000	2	390	7.4	1.0	SBO
72742	K0II	1.08	-47.23	0.22	0.11	0.34	0.735	2	280	< 1.0		
72907	G8II	1.00	-11.38	0.21	0.26	0.87	0.384	2	272	< 1.0		
72908	G9III	1.02	-6.06	0.33	0.46	1.53	0.126	2	309	2.8	1.3	
73017	G8IV	0.96	-48.25	0.28	0.40	1.41	0.160	2	265	1.2	1.0	
73108	K1IIIbCN-0.5	1.17	14.15	0.19	0.21	0.76	0.449	2	265	< 1.0		
73471	K2III	1.21	26.84	0.19	0.08	0.29	0.772	2	267	< 1.9		
73593	G8IV	0.99	-38.70	0.27	0.38	1.39	0.164	2	373	< 1.0		
73599	K1III	1.08	18.20	0.20	0.28	1.01	0.312	2	411	< 1.0		
73665	K0III	0.98	33.30	0.22	0.25	0.82	0.418	2	412	1.1	1.6	
73710	K0III	1.02	33.97	0.20	0.03	0.10	0.922	2	412	3.1	1.1	
73752	G6IV	0.73	47.85	1.48	2.96	9.67	0.000	4	759	4.4	1.0	SB
73898	G4III	0.90	-30.28	0.19	0.11	0.43	0.669	2	354	1.1	1.3	
73971	G8III	0.96	-3.46	0.23	0.33	1.12	0.262	2	174	< 2.4		
74442	K0III-IIIb	1.08	16.69	0.19	0.20	0.75	0.455	2	411	< 1.0		
74485	G5III	0.94	-13.52	0.18	0.19	0.60	0.696	3	1842	6.6	1.0	
74772	G5III	0.87	-2.31	0.16	0.22	0.82	0.507	3	1440	5.8	1.0	
74874	G5III	0.68	34.41	0.94	5.51	16.06	0.000	34	6298	4.0	1.0	SBO
75487	F5IV-V	0.39	8.30	0.45	0.58	0.91	0.364	2	280	20.9	2.1	
75506	K0III	0.98	13.07	0.20	0.20	0.70	0.482	2	410	1.7	1.5	
75523	K0III	1.26	10.52	0.19	0.11	0.39	0.697	2	410	< 1.0		
75556	K0III	1.25	52.27	0.19	0.26	0.95	0.341	2	410	1.2	1.0	
75605	G5III	0.87	-6.70	1.09	1.89	7.17	0.000	3	1440	< 2.0		SB
75958	G6III	0.86	3.22	1.17	1.65	5.52	0.000	2	171	1.1	1.5	SB
75959	G7III	1.05	-59.74	0.22	0.31	1.11	0.266	2	172	1.8	2.0	
76219	G8II-III	1.00	15.87	0.21	0.04	0.14	0.885	2	172	6.3	1.0	
76291	K1IV	1.09	56.94	0.30	0.43	1.55	0.121	2	373	1.2	1.0	
76294	G9II-III	1.00	22.53	0.42	0.59	2.15	0.032	2	172	2.3	1.0	
76494	G8II-III	1.00	-11.48	0.23	0.32	1.07	0.283	2	172	4.6	1.1	
76508	K1III	1.00	20.26	0.24	0.34	1.20	0.229	2	410	2.7	1.1	
76629	G8III	0.98	-8.18	2.86	4.96	16.55	0.000	3	2290	4.7	1.0	SB
76813	G8III	0.93	20.71	0.20	0.05	0.17	0.862	2	172	2.7	1.9	
77250	K1II-III+F	1.11	32.70	0.13	0.10	0.36	0.971	5	3760	1.6	1.0	
77800	K5III	1.51	14.12	0.19	0.01	0.03	0.979	2	265	1.2	1.2	
77996	K2II-III	1.22	23.36	0.89	1.26	4.53	0.000	2	408	2.3	1.2	SB
78154 A	F6IV	0.49	-2.92	0.12	0.39	1.07	0.334	10	3680	5.8	1.0	
78194	K1II	1.17	56.85	0.21	0.30	1.02	0.306	2	272	< 1.0		
78235	G8III	0.89	-14.42	0.15	0.25	0.82	0.576	4	2254	2.7	1.0	
78515	K0III	0.97	-6.98	2.07	2.93	10.51	0.000	2	410	2.1	1.2	SBO
78633	G8III-IV	0.96	7.19	0.39	0.56	1.96	0.050	2	240	< 2.2		
78715	G5III	0.90	-13.30	0.20	0.06	0.20	0.843	2	82	2.0	1.7	
78791	F9II	0.61	23.40	1.63	2.83	2.07	0.014	3	2156	66.5	6.6	
78887	K0II	1.11	-5.89	0.21	0.24	0.82	0.411	2	272	< 1.0		
79354	K5III	1.56	-32.08	0.19	0.25	0.94	0.345	2	265	3.0	1.0	
79452	G9III	0.86	54.17	0.19	0.24	0.71	0.607	3	2054	4.5	1.0	
79517	G8III	1.05	56.51	0.20	0.14	0.51	0.612	2	240	1.1	1.0	
79554	K1III	1.32	27.03	0.19	0.11	0.39	0.698	2	410	1.3	1.0	
80546	K3III	1.09	33.13	0.20	0.19	0.67	0.501	2	410	1.5	2.2	
80953	K2III	1.46	11.57	3.13	4.43	16.25	0.000	2	265	1.2	1.3	SB
80956	G5IV	0.87	2.49	0.22	0.28	0.89	0.375	2	265	2.0	1.0	
81025	G2III	0.75	-27.27	5.26	7.44	23.29	0.000	2	339	5.0	1.2	SBO
81146	K2III	1.23	27.49	0.20	0.19	0.69	0.489	2	410	< 1.9		

Table 5. continued

Name HD or BD	Sp	(B - V)	RV km s ⁻¹	ϵ km s ⁻¹	σ km s ⁻¹	E/T	P(χ^2)	N	ΔT days	V sin i km s ⁻¹	ϵ_{rot} km s ⁻¹	Remark
81410	K1III	1.02	-10.19	7.37	30.39	40.86	0.000	17	3015	26.1	2.6	SBO
81688	K0III-IV	0.98	38.23	0.20	0.04	0.15	0.879	2	265	1.2	1.3	
81817	K3III	1.48	-7.53	0.10	0.35	1.27	0.100	11	3287	5.5	1.0	
82074	G6IV	0.84	-13.29	0.22	0.31	1.04	0.299	2	262	< 2.1		
82210	G4III-IV	0.77	-27.35	0.08	0.23	0.73	0.910	14	5124	5.5	1.0	
82308	K5III	1.54	23.82	0.19	0.09	0.34	0.737	2	410	2.9	1.0	
82328 A	F6IV	0.46	14.68	0.12	0.43	1.05	0.353	13	4354	8.3	1.0	
82381	K3III	1.37	18.08	0.10	0.18	0.65	0.865	7	4167	1.0	1.0	
82395	K0III-IIIb	1.05	34.46	0.26	0.37	1.32	0.186	2	409	1.1	1.0	
82734	K0IV	1.02	15.02	0.11	0.24	0.83	0.654	7	2250	3.8	1.0	
82741	K0III	0.99	-13.91	0.20	0.04	0.15	0.882	2	409	< 1.7		
82885	G8IIIv	0.77	14.30	0.09	0.17	0.56	0.982	12	4807	2.6	1.0	
83108	F7III-IV	0.42	12.71	0.27	0.02	0.05	0.961	2	347	11.7	1.0	
83240	K1IIIv	1.05	11.71	0.20	0.17	0.60	0.548	2	265	< 2.2		SBO
83425	K3III	1.32	44.43	0.20	0.22	0.79	0.427	2	409	1.2	1.0	
83506	K0III	1.04	-19.52	0.24	0.35	1.25	0.213	2	265	5.7	1.0	
83550	K2III	1.35	-29.80	0.19	0.14	0.52	0.600	2	265	< 1.8		
83805	G8III	0.95	28.22	0.20	0.09	0.32	0.751	2	210	1.2	1.3	
84117	F9IV	0.53	34.40	0.26	0.13	0.37	0.711	2	262	5.6	1.0	
84441	G1II	0.80	4.24	0.04	0.28	0.91	0.854	72	5852	5.7	1.0	
85015	F3II	0.40	-6.21	2.01	2.84	5.18	0.000	2	280	8.3	1.2	SB
85503	K2IIIbCN1Ca1Ba	1.22	12.98	0.19	0.23	0.84	0.399	2	267	1.2	1.2	
85505	G9III	0.94	19.72	1.50	3.01	9.67	0.000	4	2309	3.4	1.0	SB
85945	G5III	0.89	-45.68	1.06	2.38	8.17	0.000	5	2868	6.2	1.0	SB
86166	K0III	1.11	1.67	0.36	0.51	1.83	0.068	2	378	< 1.0		
86378	K5III	1.46	-16.67	0.19	0.21	0.76	0.445	2	419	< 2.1		
87682	K1III	0.94	20.98	0.20	0.22	0.77	0.440	2	412	1.7	1.2	
88009	G8II	1.07	-19.11	0.30	0.30	1.00	9.999	1	0	< 2.5		
88284	K0III	1.01	18.83	3.12	4.42	16.57	0.000	2	1068	1.9	1.3	SBO
88786	G8III	0.85	16.19	0.41	1.09	3.56	0.000	7	2612	4.4	1.0	SB
89010	G2IV	0.67	-35.47	0.83	2.34	7.43	0.000	8	6988	3.5	1.0	SB
89268	K1III	1.19	-20.09	0.20	0.25	0.91	0.364	2	378	1.3	1.0	
89449	F6IV	0.45	6.30	0.07	0.61	1.08	0.180	69	5089	17.3	1.0	
89485	G7IIICN-I	1.12	-36.67	0.23	0.33	1.23	0.217	2	166	1.1	1.3	
89962	K3III	1.12	-27.21	0.20	0.27	0.96	0.339	2	409	< 1.0		
89993	G8III	1.09	-14.28	0.26	0.37	1.26	0.207	2	166	< 2.0		
90537	G9IIIab	0.90	5.70	0.20	0.13	0.46	0.647	2	166	4.0	1.0	SBO
91135	F7III	0.54	15.20	0.54	0.50	0.66	0.509	2	341	28.0	2.8	
91612	G9IIICN-1.5Fe	0.94	5.31	0.20	0.13	0.48	0.634	2	166	1.5	1.2	
91840	K3II	1.09	-35.35	0.18	0.32	1.08	0.314	3	340	< 1.0		
92095	K3III	1.27	41.11	0.19	0.15	0.54	0.590	2	378	1.5	1.0	
92125	G2IIa	0.81	-8.50	0.20	0.34	1.16	0.258	3	699	7.7	1.0	
92424	K2IIIv	1.20	-17.53	0.19	0.15	0.55	0.581	2	419	1.0	1.0	
92523	K3III-IIIb	1.38	-1.52	0.19	0.10	0.37	0.712	2	419	< 1.0		
92588	K1IV	0.88	42.35	0.04	0.22	0.73	0.999	63	5185	< 1.0		
92841	K3III+K0II	1.17	-2.70	0.31	0.44	1.53	0.127	2	409	2.6	2.1	
93102	K4III	1.21	8.85	0.19	0.11	0.39	0.699	2	412	< 1.0		
93471	K2II	1.19	-24.57	0.20	0.11	0.38	0.704	2	267	< 1.0		
93497	G5III+G2V	0.90	5.58	0.16	0.19	0.69	0.620	3	1497	6.4	1.0	
93859	K2III	1.12	10.25	0.77	1.09	4.00	0.000	2	419	< 1.0		SB
93875	K2III	1.14	-20.97	0.19	0.19	0.71	0.480	2	419	< 1.0		
94084	K2III	1.11	-7.80	0.20	0.20	0.70	0.484	2	378	3.1	1.0	
94132	G9IV	0.99	12.02	0.52	0.74	2.64	0.008	2	353	< 1.0		SB?
94237	K5III	1.50	7.44	0.19	0.11	0.41	0.680	2	412	< 1.8		
94247	K3III	1.36	-0.73	0.19	0.23	0.83	0.406	2	378	1.1	1.3	
94264	K0III-IV	1.04	15.25	0.19	0.05	0.18	0.857	2	412	< 1.0		
94386	K3IV	1.16	-1.69	0.49	0.69	2.51	0.012	2	262	< 1.0		
94481	G4III	0.83	-2.09	0.16	0.20	0.72	0.592	3	1498	2.8	1.0	
94600	K1III	1.10	-23.54	0.19	0.10	0.36	0.718	2	412	1.3	1.0	
94669	K2III	1.13	-56.17	0.19	0.10	0.36	0.717	2	412	< 1.0		
94860	G9III	0.97	-53.16	0.41	0.59	2.01	0.045	2	175	< 1.8		
95212	K5III	1.47	3.68	0.19	0.11	0.42	0.677	2	378	1.3	1.2	
95233	G9III	1.02	1.17	0.21	0.16	0.54	0.587	2	175	2.2	1.5	
95345	K1IIICN-0.5	1.16	5.48	0.05	0.21	0.76	0.957	26	3036	< 1.0		
95689	K0IIa	1.07	-10.08	0.20	0.25	0.89	0.375	2	320	1.6	1.4	SBO
95725	K1II	1.05	-11.79	0.44	0.62	2.21	0.027	2	407	< 1.0		
95849	K3III	1.22	-0.19	0.16	0.11	0.39	0.856	3	2162	< 1.5		
96234	K0II	1.08	15.80	0.43	0.62	1.95	0.051	2	340	< 1.0		
96436	G9IIICN-1	0.97	56.25	0.21	0.13	0.46	0.643	2	99	< 2.3		
96833	K1III	1.14	-3.91	0.14	0.17	0.60	0.784	4	1890	1.1	1.0	
97501	K2III	1.15	12.22	0.35	0.49	1.73	0.083	2	244	1.5	1.0	
97561	G5III	0.75	41.35	0.47	0.82	2.58	0.001	3	640	3.8	1.2	SB?
97605	K3III	1.12	15.60	0.20	0.04	0.15	0.879	2	410	< 2.2		
97907	K3III	1.20	9.61	1.96	2.77	9.77	0.000	2	333	1.9	1.8	SBO
98217	G8II	0.97	-15.36	0.42	0.59	1.93	0.054	2	342	2.0	1.0	
98262	K3IIIBa0.3	1.40	-10.19	0.38	0.54	1.96	0.050	2	247	2.7	1.0	
98839	G8II	0.98	-2.36	0.20	0.01	0.05	0.960	2	369	4.0	1.0	
99028	F4IV	0.41	-11.48	0.20	0.50	0.95	0.491	7	2217	16.0	1.0	
99055	G8IIICN-0.5	0.94	-10.37	0.20	0.01	0.05	0.961	2	99	1.5	1.2	

Table 5. continued

Name HD or BD	Sp	(B - V)	RV km s ⁻¹	ϵ km s ⁻¹	σ km s ⁻¹	E/T	P(χ^2)	N	ΔT days	V sin i km s ⁻¹	ϵ_{rot} km s ⁻¹	Remark
99196	K4III	1.38	40.80	0.20	0.12	0.43	0.665	2	333	< 2.3		
99283	K0III	1.00	-6.83	0.20	0.01	0.05	0.960	2	320	1.5	1.2	
99491	K0IV	0.79	3.79	0.09	0.26	0.86	0.720	13	4754	2.6	1.0	
99648	G8II-III	1.00	-9.32	0.20	0.23	0.83	0.409	2	99	1.4	1.0	
99913	K0III	0.94	-20.61	2.21	3.13	10.74	0.000	2	320	< 2.4		SB
99967	K2IIICN-1	1.27	18.88	18.61	26.31	67.96	0.000	2	244	18.0	1.0	SBO
100006	K0III	1.05	23.95	0.20	0.23	0.82	0.414	2	247	< 1.9		
100030	G9IV	0.88	38.01	0.58	0.82	2.65	0.008	2	355	< 1.0		SB?
100055	G9III	0.93	6.50	0.21	0.00	0.00	1.000	2	334	2.6	1.3	
100219	F7IV	0.54	12.23	0.50	0.86	2.43	0.003	3	1496	5.2	1.0	SB?
100418	F9III	0.60	-7.36	1.67	3.72	4.25	0.000	5	1803	33.6	3.4	SB
100470	K0III	1.05	19.84	0.25	0.36	1.28	0.201	2	247	< 1.0		
100615	K0III	1.02	19.67	0.41	0.59	2.07	0.038	2	320	< 1.0		
100655	G9III	1.01	-5.58	0.20	0.24	0.84	0.398	2	99	1.6	1.0	
100696	K0III	1.01	-3.95	0.23	0.33	1.17	0.241	2	320	1.2	1.3	
100953	F6III-IV	0.46	14.93	1.79	3.09	2.98	0.000	3	1444	12.7	1.0	SB
101112	K1III	1.08	11.35	0.20	0.16	0.55	0.580	2	410	2.2	1.3	
101133	F5IIIs	0.38	-24.35	0.74	0.42	0.40	0.690	2	336	33.5	3.3	
101151	K2III	1.32	-6.77	0.19	0.06	0.21	0.835	2	323	< 1.0		
101379	G2III+A0V	0.80	18.17	0.39	0.55	1.52	0.129	2	352	11.6	1.2	SBO
101484	K1III	0.98	9.05	0.20	0.25	0.91	0.361	2	410	1.7	1.0	
101673	K3III	1.28	2.24	0.19	0.13	0.47	0.640	2	320	1.2	1.0	
101828	G5II	0.89	-17.06	0.22	0.07	0.23	0.818	2	412	2.1	1.6	
101841	F3II	0.34	-11.97	2.85	12.76	4.97	0.000	20	713	66.3	6.6	SBO
101980	K5III	1.53	-1.50	0.20	0.27	0.97	0.334	2	324	2.4	1.3	
102224	K2III	1.18	-9.60	0.20	0.06	0.20	0.839	2	320	1.1	1.3	
102328	K3III	1.27	0.16	0.19	0.05	0.18	0.855	2	320	1.1	1.0	
102713	F5IV	0.46	-22.86	10.54	18.25	34.16	0.000	3	1179	11.5	1.9	SBO
103462	G4III	0.88	-10.61	0.16	0.21	0.76	0.560	3	1409	2.4	1.0	
103605	K1III	1.10	16.46	0.16	0.07	0.26	0.933	3	1410	2.4	1.0	
103736	G8III	0.96	17.44	0.20	0.14	0.49	0.623	2	335	< 2.1		
103953	K0III	1.00	-25.95	0.19	0.18	0.64	0.521	2	391	< 1.0		
104055	K2IV	1.26	14.84	0.19	0.13	0.47	0.640	2	430	< 2.0		
104075	K1III	1.15	-6.72	0.29	0.51	1.80	0.039	3	1422	< 1.7		
104304	G8-K0IV	0.77	-0.13	0.09	0.29	0.97	0.490	10	4774	2.0	1.0	
104307	K0IV	1.22	3.51	6.17	8.72	31.11	0.000	2	408	1.1	1.0	SB
104438	K0III	1.01	27.12	1.25	1.77	6.10	0.000	2	243	1.1	1.0	SB
104452	G0II	0.64	10.62	0.76	1.71	1.03	0.378	5	1078	69.2	6.9	
104979	G8IIIaCN-1	0.98	-30.72	0.07	0.32	1.12	0.203	20	3296	< 1.4		
104985	G9III	1.01	-20.73	0.20	0.29	1.02	0.308	2	344	2.7	1.1	
105043	K2III	1.17	-27.77	0.19	0.16	0.57	0.568	2	391	< 1.0		
105639	K3III	1.12	1.30	0.20	0.05	0.18	0.858	2	410	< 1.0		
105678	F6IV	0.50	-15.32	0.96	1.36	1.32	0.192	2	355	29.6	3.0	
105981	K4III	1.41	16.99	11.12	15.73	54.19	0.000	2	243	3.9	3.5	SB
106057	K0II-III	0.95	-26.30	0.20	0.06	0.22	0.826	2	243	< 1.0		
106225	K0IV	1.02	7.74	9.82	24.05	25.78	0.000	6	1462	28.8	2.9	SBO
106556	G5II	1.01	-21.76	0.23	0.33	1.04	0.297	2	407	8.9	1.0	
106714	G8IIIaCN-0.5	0.97	-28.47	0.16	0.17	0.60	0.701	3	659	1.7	1.1	
106926	K4III	1.37	-44.62	0.20	0.23	0.82	0.414	2	435	1.3	1.3	
107295	G3IV	0.82	-3.50	0.22	0.39	1.26	0.205	3	1465	3.7	1.0	
107325	K2II-IV	1.09	-15.05	0.59	1.18	4.30	0.000	4	4306	< 1.0		SBO
107328	K0IIIbCN-1	1.16	36.10	0.03	0.25	0.89	0.906	74	5617	1.3	1.0	
107383	G8III	1.01	42.90	0.20	0.02	0.06	0.956	2	310	1.2	1.0	
107465	K5III	1.43	-46.64	0.19	0.21	0.78	0.435	2	390	< 2.2		
107700	G0II-IV+A	0.49	-5.28	14.16	24.53	53.86	0.000	3	655	3.9	1.0	SBO
107950	G6IIIbA0.2	0.87	-14.66	0.20	0.04	0.14	0.891	2	344	6.6	1.0	
108063	G5III+F-G	0.65	34.48	0.16	0.24	0.85	0.488	3	1462	5.4	1.0	
108123	K0III	1.10	-4.21	0.20	0.13	0.47	0.635	2	439	2.2	1.2	
108150	G8III	0.91	-2.63	0.21	0.20	0.67	0.502	2	341	6.1	1.0	
108225	G9III	0.96	-4.98	0.20	0.05	0.20	0.844	2	311	1.4	1.2	
108381	K2IIICN+1	1.13	2.92	0.13	0.30	1.07	0.336	5	2270	1.6	1.0	
108471	G8III	0.93	-5.37	0.20	0.19	0.68	0.497	2	309	4.1	1.0	
108861	G8III-IV	0.98	-15.55	0.20	0.08	0.29	0.776	2	344	1.3	1.8	
109217	G8III	0.95	-1.06	0.20	0.13	0.45	0.656	2	311	1.0	1.4	
109317	K0IIICN-1	1.00	-21.71	0.20	0.04	0.12	0.901	2	439	< 1.8		
109345	K0III	1.05	-42.92	0.11	0.23	0.81	0.685	7	2582	1.0	1.0	
109379	G5II	0.89	-7.90	0.02	0.28	1.03	0.243	319	6958	4.2	1.0	
109492	G3III	0.73	3.59	0.16	0.04	0.16	0.975	3	2536	4.2	1.0	
109519	K1III	1.22	-22.31	1.77	2.51	8.98	0.000	2	435	2.7	1.1	SBO
109551	K2III	1.31	6.23	3.41	4.83	17.18	0.000	2	390	1.7	1.5	SB
109742	K5III	1.41	-12.03	0.19	0.07	0.26	0.796	2	435	< 2.0		
109996	K1III	1.10	-27.50	0.20	0.01	0.05	0.960	2	435	1.7	1.2	
110024	G9III	0.96	-24.43	8.26	11.68	41.68	0.000	2	311	1.4	1.2	SBO
111028	K1III-IV	0.99	51.60	0.20	0.25	0.86	0.391	2	410	1.5	1.0	
111067	K3III	1.35	50.28	0.19	0.13	0.46	0.643	2	435	1.2	1.3	
111295	G5II-IV	0.95	-11.25	0.15	0.00	0.00	1.000	3	1463	1.9	1.0	
111486	K0II	1.08	10.74	0.31	0.44	1.31	0.190	2	343	2.7	1.0	
111591	K0III	1.00	5.19	0.36	0.52	1.81	0.070	2	439	< 1.0		
111812	G0IIp	0.67	-1.25	4.11	9.20	3.61	0.000	5	2447	66.5	6.6	SB?
112033	G8III+F6V	0.90	-7.17	0.47	1.93	6.55	0.000	17	6854	3.3	1.0	SBO

Table 5. continued

Name HD or BD	Sp	(B - V)	RV km s ⁻¹	ϵ km s ⁻¹	σ km s ⁻¹	E/T	P(χ^2)	N	ΔT days	V sin i km s ⁻¹	ϵ_{rot} km s ⁻¹	Remark
112127	K2IIICN+2	1.26	5.16	0.34	0.48	1.73	0.084	2	247	1.6	1.0	
112570	K0III-IV	1.01	5.98	0.20	0.14	0.50	0.619	2	390	1.4	1.3	
112754	G4II	0.86	12.03	0.23	0.33	1.08	0.280	2	402	1.1	1.0	
112989	G9IIICN-2F	1.17	-14.82	0.21	0.13	0.44	0.657	2	340	11.0	1.0	
113049	K0III	0.99	-19.09	1.44	2.88	10.25	0.000	4	1838	1.6	1.0	SB
113092	K2III	1.29	-33.59	0.23	0.33	1.18	0.237	2	391	2.1	1.2	
113095	K0III	0.96	-6.16	0.20	0.04	0.12	0.901	2	435	2.4	1.2	
113226	G8IIlab	0.94	-14.67	0.14	0.18	0.64	0.749	4	1554	2.3	1.0	
113847	K1III	1.13	-20.37	0.20	0.21	0.76	0.448	2	434	1.3	1.3	
113994	G7III	0.99	13.38	0.21	0.30	1.05	0.295	2	341	< 1.0		
113996	K5III	1.48	-16.23	0.03	0.29	1.07	0.191	72	5856	1.8	1.0	
114092	K4III	1.36	-12.79	0.19	0.16	0.57	0.570	2	435	< 2.1		
114256	K0III	1.00	-1.10	0.20	0.23	0.83	0.407	2	435	1.2	1.3	
114326	K5III	1.45	-17.90	0.27	0.39	1.40	0.162	2	435	1.4	1.2	
114357	K3III	1.15	-24.00	0.36	0.51	1.80	0.073	2	439	3.6	1.0	
114401	K1II	1.19	-5.03	0.21	0.16	0.54	0.587	2	340	< 1.0		
114642	F5III-IV	0.46	-12.42	0.19	0.35	0.93	0.463	4	1562	13.3	1.0	
114724	K1III	0.98	-19.15	0.20	0.11	0.37	0.711	2	435	2.5	1.2	
114793	G8III	0.88	-17.88	0.53	0.75	2.61	0.009	2	309	1.3	1.3	SB?
114889	G8III	1.20	-23.36	0.19	0.23	0.85	0.393	2	309	< 1.0		
114988	G2II	0.78	-2.20	0.26	0.18	0.50	0.620	2	407	< 2.8		
115004	K0III	1.06	-22.59	0.20	0.19	0.66	0.509	2	434	5.8	1.0	
115019	K2II	1.20	-20.15	0.22	0.01	0.05	0.963	2	342	< 1.0		
115319	G8III	0.98	-48.23	0.20	0.21	0.72	0.469	2	309	< 2.4		
115478	K3III	1.31	-25.60	0.19	0.18	0.67	0.502	2	410	1.7	1.4	
116010	K1III	1.20	-21.34	0.20	0.25	0.87	0.383	2	319	1.4	1.3	
116204	K1III	1.16	2.31	5.11	8.85	26.60	0.000	3	430	15.4	1.0	SBO
116594	K0III	1.06	-3.67	5.28	7.47	26.91	0.000	2	390	1.3	1.3	SBO
117261	G8III	0.92	-58.57	0.21	0.04	0.13	0.895	2	307	3.0	1.1	
117304	K0III	1.05	0.11	0.20	0.28	1.00	0.319	2	390	< 1.0		
117710	K2III	1.05	-22.58	0.20	0.06	0.23	0.820	2	320	< 2.7		
117876	G8III	0.96	9.98	0.20	0.08	0.29	0.773	2	307	< 2.8		
118266 A	K1III+F6V	1.03	33.27	0.10	0.22	0.75	0.808	9	1841	< 1.0		
118536	K1III	1.20	-10.44	0.20	0.28	1.04	0.298	2	390	< 1.9		
118643	K3II	1.35	-9.69	0.20	0.29	1.03	0.305	2	342	< 1.0		
118686	K5III	1.52	-13.96	0.19	0.09	0.34	0.737	2	391	1.9	1.3	
118839	K3III	1.20	-12.52	0.19	0.08	0.31	0.754	2	390	< 1.0		
118888	G2II	0.81	-22.99	0.24	0.10	0.29	0.770	2	402	1.7	1.0	
119035	G5II:	0.96	-19.43	0.20	0.07	0.26	0.795	2	307	< 1.0		
119081	K3III	1.28	-62.83	0.19	0.25	0.90	0.370	2	439	1.3	1.2	
119126	G9III	1.01	3.60	0.19	0.11	0.39	0.693	2	307	1.3	1.0	
119425	K2III	1.11	-41.99	0.20	0.13	0.46	0.649	2	320	< 1.9		
119445	G6III	0.86	-32.30	0.29	0.41	1.37	0.172	2	307	6.9	1.0	
119458	G5III	0.85	-17.06	10.45	18.11	61.22	0.000	3	337	4.0	1.0	SBO
119584	K4III	1.42	5.34	0.19	0.20	0.74	0.461	2	390	1.1	1.3	
119992	F7IV-V	0.47	-5.19	0.31	0.28	0.63	0.526	2	355	8.3	1.0	
120048	G9III	0.94	-15.15	0.13	0.19	0.65	0.793	5	2471	3.0	1.0	
120136	F6IV	0.48	-16.20	0.11	0.61	1.42	0.001	32	5618	15.4	1.0	SB?
120164 A	K0III+F8V	1.03	-11.55	0.09	0.26	0.90	0.617	11	4403	< 1.0		
120420	K0III	1.01	10.30	0.20	0.03	0.10	0.921	2	435	< 1.0		
120477	K5IIIv	1.52	-6.38	0.19	0.05	0.18	0.856	2	435	2.2	1.2	
120539	K4III	1.43	-4.32	0.46	0.66	2.39	0.017	2	435	2.0	1.3	SBO
120544	G5III-IV:+A5	0.51	-33.00	2.52	11.56	14.89	0.000	21	5833	23.6	2.4	SB
120565	G9III	1.01	-45.28	0.88	1.24	4.25	0.000	2	341	2.6	1.2	SB
120933	K5III	1.66	-44.35	0.20	0.21	0.74	0.461	2	435	5.1	1.0	
121107	G5III	0.84	-12.14	0.11	0.21	0.61	0.949	10	2580	14.5	1.0	
121146	K2IV	1.17	-47.25	0.11	0.20	0.72	0.764	6	3721	< 1.0		
121370	G0IV	0.58	-3.08	2.03	5.75	14.75	0.000	8	3004	13.0	1.0	SBO
121710	K3IIIv	1.42	-41.63	0.19	0.13	0.49	0.623	2	435	1.3	1.2	
121980	K5III	1.44	-40.83	0.19	0.10	0.36	0.718	2	435	1.9	1.3	
122563	F8IV	0.90	-26.47	0.78	2.21	3.84	0.000	8	3782	3.3	2.6	SB
122675	K2III	1.32	-50.87	0.21	0.36	1.27	0.202	3	1857	1.3	1.0	
122744	G9III	0.94	-19.25	0.20	0.18	0.63	0.529	2	335	3.2	1.0	
123977	K0III	1.02	7.18	0.20	0.08	0.27	0.784	2	412	1.4	1.3	
124186	K4III	1.26	-21.17	0.33	0.57	2.01	0.017	3	1912	< 1.0		
124547	K3III	1.36	-0.03	2.67	3.78	13.66	0.000	2	393	2.2	1.3	SBO
124570	F6IV	0.54	-39.73	0.15	0.18	0.59	0.790	4	1446	5.6	1.0	
124679	K1III	1.00	15.90	0.65	0.92	3.25	0.001	2	410	< 2.3		SB?
124850	F6III	0.52	12.59	0.22	0.44	1.07	0.339	4	662	14.8	1.0	
124897	K1IIIbCN-1	1.23	-5.80	0.03	0.24	0.89	0.910	74	7008	< 1.0		
125184	G5IV	0.73	-12.81	0.14	0.45	1.45	0.022	11	3294	1.3	1.0	
125351	K0III	1.06	-20.57	1.98	2.81	10.04	0.000	2	440	< 1.0		SBO
125451	F5IV	0.38	-1.02	1.38	2.39	1.42	0.137	3	696	46.0	5.4	
125538	G9IV	1.06	-12.01	0.20	0.25	0.86	0.388	2	357	< 1.0		
125560	K3III	1.23	-8.79	0.43	0.61	2.24	0.025	2	410	< 1.0		
125728	G8II	0.91	29.48	2.37	4.11	13.07	0.000	3	343	< 1.0		SB
125918	G9II	1.01	-18.81	0.31	0.44	1.31	0.192	2	385	< 1.0		
126271	K4III	1.20	-31.34	0.52	0.74	2.71	0.007	2	410	1.0	1.0	SB?
126868 A	G2IV	0.70	-10.07	0.21	0.66	1.57	0.009	10	2267	14.4	1.0	SB?

Table 5. continued

Name HD or BD	Sp	(B - V)	RV km s ⁻¹	ϵ km s ⁻¹	σ km s ⁻¹	E/T	P(χ^2)	N	ΔT days	V sin i km s ⁻¹	ϵ_{rot} km s ⁻¹	Remark
127065	K0III	1.16	-17.39	0.19	0.24	0.90	0.370	2	391	< 2.0		
127243	G3IV	0.85	-8.63	0.21	0.18	0.62	0.538	2	357	3.6	1.0	
127665	K3III	1.30	-14.53	0.37	0.52	1.92	0.055	2	410	1.3	1.0	
127700	K4IIIBa0.3	1.44	8.85	0.19	0.15	0.55	0.582	2	393	1.9	1.3	
127742	G5III	0.86	14.82	2.16	4.32	13.86	0.000	4	940	5.9	1.0	SB
127821	F4IV	0.41	-15.27	2.75	2.75	1.00	9.999	1	0	45.5	5.8	
127986	F8IVw	0.51	6.05	0.25	0.00	0.01	0.989	2	357	5.7	1.0	
128902	K2III	1.48	-51.09	0.21	0.30	1.07	0.284	2	412	1.0	1.4	SB
129245	K3III	1.30	-26.33	0.20	0.16	0.58	0.565	2	712	1.5	1.2	
129312	G8III	1.00	-22.94	0.20	0.01	0.05	0.960	2	307	6.5	1.0	
129336	G8III	0.94	-23.75	0.20	0.25	0.89	0.375	2	335	2.6	1.1	
129430	G8III-IV	0.94	-16.15	0.38	0.54	1.72	0.087	2	261	< 1.0		
129846	K4III	1.39	10.92	0.19	0.05	0.18	0.855	2	393	1.5	1.0	
129989	K0II-III	0.97	-17.50	0.48	0.68	2.27	0.023	2	410	8.4	1.0	
130259	G5III	0.94	-1.48	0.16	0.15	0.57	0.723	3	1463	4.9	1.0	
130458	G5III	0.82	30.75	1.52	2.63	9.72	0.000	3	2555	3.6	1.0	SB
130701	G3II+B8:	0.72	-20.80	5.66	8.01	24.20	0.000	2	252	12.0	1.0	SB
130766	K3II	1.34	-13.81	0.57	0.81	2.91	0.004	2	348	< 1.0		SB?
130945	F7IVw	0.48	-5.28	0.39	0.34	0.61	0.542	2	357	18.7	1.2	
130970	K3III	1.40	-20.68	0.32	0.46	1.67	0.094	2	424	< 2.1		
131040 A	F5IV	0.40	-6.77	0.30	1.27	1.12	0.241	18	3777	29.2	2.9	
131111	K0III-IV	1.02	-68.87	0.08	0.26	0.93	0.569	12	4395	1.1	1.0	SB
131507	K4III	1.36	9.62	0.19	0.06	0.23	0.815	2	412	1.6	1.0	
131873	K4IIIBa0.3	1.47	16.49	0.19	0.12	0.44	0.658	2	392	1.7	1.4	
132132	K1III	1.13	19.15	0.10	0.27	0.96	0.493	9	3333	2.0	1.0	
133124	K4IIICa0.5	1.50	11.97	0.19	0.02	0.08	0.938	2	436	1.6	1.0	
133208	G8IIIa:Ba0.4	0.97	-18.99	0.16	0.15	0.53	0.753	3	1342	2.5	1.0	
133484	F6IV	0.46	-25.50	0.63	0.89	1.24	0.216	2	359	21.2	2.1	
133485	G8III-IV	1.02	-26.45	0.20	0.06	0.23	0.819	2	339	1.6	1.0	
133582	K2III	1.24	-26.99	0.36	0.52	1.88	0.060	2	436	1.6	1.0	
133683	F6II	0.69	-16.28	0.20	0.04	0.15	0.881	2	351	11.3	1.0	
134047	K0III	0.94	1.91	3.15	4.45	15.51	0.000	2	731	3.2	1.0	SB
134282	G8II	1.00	-11.17	0.23	0.33	1.07	0.287	2	349	< 1.0		
134335	K1III	1.24	-18.74	0.23	0.33	1.20	0.231	2	410	1.1	1.0	
134493	K0III	1.03	-26.83	0.20	0.06	0.20	0.841	2	742	< 1.8		
135482	K0III	1.09	-34.24	0.20	0.01	0.05	0.961	2	731	1.5	1.2	
135722 A	G8IIICN-1	0.95	-13.46	0.90	2.98	10.32	0.000	11	5213	< 1.2		SB
135962	G8II	1.00	-5.19	0.27	0.38	1.16	0.246	2	348	< 1.0		
136064	F9IV	0.53	-48.20	0.10	0.35	1.07	0.326	13	4785	5.0	1.0	
136138	G8IIIaBa0.3	0.97	-3.33	2.64	5.28	17.61	0.000	4	996	5.5	1.0	SB
136202	F8III-IV	0.54	54.22	0.02	0.29	0.92	0.989	393	7255	4.8	1.0	
136512	K0III	1.02	-55.19	0.39	0.56	1.97	0.049	2	410	< 2.0		
136514	K3III	1.19	9.24	0.19	0.28	1.01	0.313	2	731	< 1.0		
136726	K4III	1.37	-18.45	0.19	0.16	0.61	0.545	2	708	1.5	1.0	
136901	K1III	1.24	-34.93	2.24	3.17	3.55	0.000	2	304	42.3	4.2	SBO
136905	K1III	1.03	35.22	10.03	14.19	14.73	0.000	2	302	35.6	3.6	SBO
137052	F5IV	0.44	-10.53	2.38	4.13	10.51	0.000	3	1000	10.2	1.0	SBO
137390	K2III	1.20	-12.18	0.20	0.09	0.33	0.740	2	742	< 1.0		
137465	G2II	1.09	-16.60	0.13	0.29	0.99	0.413	5	1042	10.9	1.0	
137510	G0IV-V	0.60	-6.83	0.77	1.08	3.33	0.001	2	357	6.9	1.0	SB?
137704	K4III	1.40	-49.61	0.10	0.16	0.59	0.915	7	1390	1.0	1.0	
137759	K2III	1.16	-11.25	0.20	0.16	0.59	0.558	2	833	1.5	1.0	
138265	K5III	1.44	-48.04	0.28	0.40	1.47	0.141	2	833	2.8	1.6	
138481	K5III	1.59	-11.65	0.16	0.04	0.13	0.984	3	1883	4.2	1.0	
138525	F6III	0.50	-46.92	4.70	6.64	15.82	0.000	2	215	12.4	1.0	SB
138852	K0III-IV	0.96	4.29	0.20	0.09	0.32	0.746	2	742	1.2	1.0	
139195	K0III:CN1B	0.95	5.22	0.44	2.62	9.07	0.000	36	3665	< 1.0		SBO
139460	F6IV-V	0.53	0.60	0.32	0.27	0.58	0.560	2	357	8.8	1.4	
139641	G8III-IV	0.88	-10.44	0.17	0.14	0.47	0.804	3	2544	< 1.0		
139669	K5III	1.58	-26.96	0.90	1.28	4.76	0.000	2	708	3.1	1.0	SB
139777 A	G0IV-V+G8IV-V	0.67	-16.39	0.16	0.31	0.86	0.561	5	3766	5.4	1.0	
139906	G8III	0.83	-10.17	2.43	5.43	18.07	0.000	5	2514	3.1	1.0	SB
140027	G8III	0.90	3.21	0.20	0.06	0.20	0.841	2	340	1.2	1.3	
140117	K1III	1.09	-7.81	0.17	0.30	1.04	0.340	3	1501	1.2	1.0	
140227	K5IIIb	1.35	-31.47	0.19	0.01	0.03	0.979	2	742	1.9	1.4	
140301	K0IV	1.16	18.13	0.31	0.54	1.88	0.030	3	2244	< 1.0		
140438	G5III	0.86	-6.26	0.34	0.58	1.74	0.049	3	1068	5.8	1.0	
140573	K2IIIbCN1F	1.17	2.13	0.16	0.42	1.53	0.029	7	2515	< 1.6		
140815	K0III	1.19	15.01	0.29	0.41	1.48	0.138	2	731	< 1.0		
140861	G5III-IV	0.88	-26.18	0.16	0.10	0.35	0.887	3	1494	2.9	1.0	
141680	G8III	1.02	-4.34	0.20	0.16	0.58	0.561	2	336	< 1.9		
141767	G5IIa	1.13	3.38	0.19	0.15	0.55	0.580	2	350	8.7	1.0	
142049	G5II-III+A3	0.35	-13.23	42.64	60.30	120.79	0.000	2	350	16.3	1.1	SB
142091	K1IVa	1.00	-26.08	0.56	0.80	2.91	0.004	2	249	< 1.0		SB?
142267	G0IV	0.60	36.33	1.30	3.69	10.12	0.000	8	2996	2.0	1.0	SBO
142357	F5II-III	0.41	-2.60	0.54	0.52	0.55	0.738	3	426	27.4	2.7	
142941	F8II	0.78	-0.03	4.13	7.16	21.16	0.000	3	2557	14.9	1.2	SB
142980	K1IV	1.14	-71.75	0.61	0.87	3.15	0.002	2	249	< 1.0		SB?
143107	K3IIIab	1.23	-33.53	0.19	0.13	0.46	0.644	2	410	< 1.0		
143666	G8III	0.99	-17.29	0.50	0.86	3.10	0.000	3	339	< 1.0		SB

Table 5. continued

Name HD or BD	Sp	(B - V)	RV km s ⁻¹	ϵ km s ⁻¹	σ km s ⁻¹	E/T	P(χ^2)	N	ΔT days	V sin i km s ⁻¹	ϵ_{rot} km s ⁻¹	Remark
144046	G9III	0.96	-43.04	0.21	0.06	0.21	0.831	2	339	< 2.4		
144069	F5IV	0.45	-32.56	0.81	1.14	1.73	0.084	2	357	19.4	1.0	SBO
144284	F8IV	0.52	-6.90	3.53	17.64	21.34	0.000	25	2978	28.0	2.8	SBO
144585	G4IV-V	0.66	-15.54	0.44	0.62	1.69	0.093	2	357	3.7	1.5	
144608	G3II-III	0.84	-5.13	0.16	0.12	0.44	0.825	3	1490	1.4	1.0	
144889	K4III	1.37	57.57	0.96	1.36	4.90	0.000	2	375	1.0	1.0	SBO
145000	K1III	1.14	31.79	0.16	0.27	0.96	0.398	3	2216	< 1.0		
145001	G8III	0.95	-10.72	0.04	0.27	0.83	0.984	74	5179	9.9	1.0	
145148	K0IV	1.00	-4.21	0.20	0.01	0.05	0.960	2	329	< 1.0		
145328	K0III-IV	1.01	-18.27	0.81	4.49	15.62	0.000	31	6925	< 1.0		SB
145802	K2III	1.20	0.03	0.20	0.21	0.74	0.462	2	2882	2.1	1.3	
145849	K3III	1.34	-36.24	0.89	1.25	4.40	0.000	2	3184	3.2	1.0	SBO
145931 A	K4II+F6-8V	1.45	-22.54	0.22	0.62	2.22	0.000	8	2950	< 1.0		SB
146084	K2III	1.15	-22.04	0.34	0.34	1.00	9.999	1	0	1.4	1.0	
146388	K3III	1.12	-20.00	0.28	0.28	1.00	9.999	1	0	1.6	1.0	
146603	G8III	0.99	-8.35	0.38	0.54	1.92	0.055	2	289	1.9	1.0	
146815	G7II	1.03	45.32	16.92	29.31	99.78	0.000	3	349	< 1.0		SB
146836	F6III	0.47	-0.66	0.38	0.54	1.20	0.230	2	351	16.5	1.0	
147142	K2IV	1.29	-29.57	0.20	0.05	0.18	0.861	2	299	1.1	1.0	
147225	G3II	1.16	-10.69	0.12	0.21	0.76	0.676	5	1308	7.2	1.0	
147266	G7IIIb	0.94	-24.05	0.07	0.29	1.01	0.434	17	3970	< 1.2		
147677	K0III	0.97	-29.75	0.20	0.27	0.92	0.357	2	360	1.6	1.0	
147767	K5III	1.53	-41.69	0.20	0.28	0.99	0.321	2	360	3.1	1.0	
148228	G8III	1.03	-16.32	0.20	0.07	0.27	0.789	2	641	1.6	1.2	
148287	G8III	0.92	5.14	0.20	0.04	0.12	0.901	2	340	< 2.3		
148293	K2III	1.12	-9.94	0.23	0.33	1.16	0.244	2	343	1.2	1.3	
148374	G8III	0.96	-25.37	0.20	0.14	0.49	0.621	2	343	3.3	1.0	
148387 A	G8IIlab	0.91	-15.36	0.12	0.35	1.24	0.142	9	2696	< 1.6		
148451	G5III	0.91	-4.47	0.17	0.19	0.63	0.672	3	2351	1.2	1.2	
148513	K4IIp	1.46	6.43	0.19	0.04	0.15	0.878	2	330	< 1.0		
148856	G7IIIa	0.94	-32.41	0.20	0.01	0.05	0.963	2	724	4.8	1.0	SBO
148880	G9III	1.05	-16.69	0.19	0.33	1.18	0.251	3	2616	< 1.0		
148897	G8IIp	1.29	15.86	0.68	0.96	3.24	0.001	2	267	< 1.9		SB?
149067	G8II	1.00	-5.51	0.18	0.09	0.29	0.921	3	354	< 1.0		
149132	K2II	1.13	-25.09	0.30	0.52	1.72	0.052	3	353	< 1.0		
150010	K2III	1.32	-36.45	0.21	0.16	0.55	0.581	2	342	< 2.0		
150012	F5IV	0.41	-19.03	0.75	0.28	0.27	0.791	2	357	35.5	3.6	
150030	G8II	1.04	-16.89	0.20	0.23	0.83	0.409	2	342	3.6	1.0	
150275	K1III	1.00	-35.46	0.25	0.36	1.17	0.241	2	342	1.9	1.5	
150331	G3III	0.65	-6.70	0.17	0.22	0.77	0.552	3	1497	7.0	1.0	
150449	K1III	1.08	-26.21	0.27	0.38	1.32	0.186	2	359	5.2	1.0	
150680	G0IV	0.65	-69.88	0.29	1.47	4.60	0.000	25	6201	4.8	1.0	SBO
150997	G8IIbCN-1	0.92	8.11	0.07	0.23	0.77	0.880	16	4527	1.7	1.0	
151217	K5III	1.53	-21.73	0.20	0.13	0.45	0.651	2	355	2.3	1.2	
151388	K4III	1.40	-13.73	0.21	0.18	0.60	0.550	2	340	1.0	1.5	
151623	G9III	1.14	-21.94	0.09	0.22	0.77	0.826	11	2995	< 1.0		
151627	G5III	0.87	-5.01	4.52	6.39	21.43	0.000	2	333	4.1	1.0	SB
151769	F7IV	0.47	-1.67	0.65	1.13	2.83	0.001	3	999	11.3	1.0	SB?
152153	K0IV	1.26	-21.59	0.27	0.39	1.31	0.190	2	300	1.4	1.4	
152224	K0III	1.01	-23.90	0.21	0.04	0.15	0.882	2	360	1.6	1.0	
152748	G8II	0.97	-20.69	0.17	0.10	0.35	0.882	3	344	< 1.7		
152781	K0IV	0.92	-0.01	0.30	0.42	1.35	0.178	2	330	1.8	1.4	
152812	K2III	1.32	-65.88	0.36	0.51	1.82	0.068	2	344	1.2	1.0	
152815	G8III	0.97	-2.93	0.55	0.78	2.72	0.007	2	261	2.1	1.4	SB?
152863 A	G5III	0.92	-0.91	0.11	0.25	0.83	0.665	7	2928	2.9	1.0	
152879	K4III	1.41	10.55	0.20	0.22	0.78	0.437	2	355	< 2.3		
153210	K2III	1.15	-56.52	0.19	0.17	0.62	0.533	2	298	< 1.0		
153312	K0III	1.10	-22.96	0.20	0.06	0.19	0.845	2	359	1.2	1.3	
153472	K3III	1.28	25.01	0.33	0.47	1.67	0.094	2	359	< 2.1		
153751	G5III	0.89	-14.69	3.94	22.63	48.77	0.000	33	1494	23.0	2.3	SBO
154160	G5IV:	0.76	-53.45	0.20	0.12	0.43	0.667	2	355	1.2	1.0	
154278	K1III	1.03	45.36	0.54	0.77	2.47	0.015	2	345	< 1.0		
154391	K1III	1.00	-17.11	0.20	0.19	0.67	0.502	2	357	< 1.0		
154610	K5III	1.45	-7.53	0.20	0.29	1.03	0.302	2	343	1.4	1.0	
154619	G8III-IV	0.88	-22.75	0.17	0.04	0.14	0.979	3	335	1.3	1.1	
154635	K0II	1.01	-53.34	0.19	0.33	1.10	0.299	3	347	< 2.1		
154732	K1III	1.09	8.06	3.01	4.26	15.08	0.000	2	344	1.7	1.0	SBO
154733	K4III	1.30	-97.97	0.53	0.74	2.74	0.006	2	343	< 1.0		SB?
155078	F5IV	0.52	-6.03	3.64	5.15	3.44	0.001	2	353	52.5	9.9	SB?
155410	K3III	1.28	-58.78	1.42	2.01	7.32	0.000	2	339	< 1.0		SBO
155500	K0III	1.04	-4.25	0.21	0.11	0.36	0.716	2	338	< 1.0		
155646	F6III	0.50	60.90	0.27	0.15	0.39	0.693	2	210	6.9	1.1	
155878	G8II	1.04	-2.00	1.27	2.19	7.21	0.000	3	347	1.3	1.2	SB
156015	G5III+F2V	0.86	-32.72	0.72	1.01	3.04	0.002	2	639	15.6	1.0	SBO
156283	K3IIab	1.44	-26.17	0.20	0.13	0.45	0.654	2	281	1.3	1.0	
156284	K2III	1.31	-45.14	0.20	0.15	0.53	0.594	2	358	1.3	1.0	
156331	F8III+B9V	0.41	10.81	1.37	2.37	1.78	0.042	3	2347	38.3	3.8	SB
156350	F6IV-V	0.51	-29.94	0.30	0.42	1.48	0.140	2	422	2.8	1.1	
156681	K4II-III	1.55	38.76	0.46	0.65	2.40	0.017	2	390	< 1.0		
156846	G3IV	0.58	-68.92	0.21	0.47	1.43	0.088	5	4623	4.9	1.0	

Table 5. continued

Name HD or BD	Sp	(B - V)	RV km s ⁻¹	ϵ km s ⁻¹	σ km s ⁻¹	E/T	P(χ^2)	N	ΔT days	V sin i km s ⁻¹	ϵ_{rot} km s ⁻¹	Remark
156874	K0III	0.98	-13.09	0.20	0.16	0.56	0.574	2	360	< 1.0		
157347	G5IV	0.68	-36.46	0.08	0.38	1.19	0.093	23	3397	1.1	1.0	
157358	G0III	0.70	-8.48	0.32	0.45	1.38	0.169	2	334	< 1.0		
157681	K4III	1.47	-8.20	0.23	0.33	1.18	0.238	2	357	1.7	1.2	
157853	F8IV	0.73	-24.09	0.38	0.45	0.82	0.411	2	354	3.2	2.2	
157910 A	G5III+F0V	0.88	-16.90	0.12	0.19	0.63	0.855	6	2926	4.1	1.0	
157999	K2II	1.50	-28.38	0.35	0.79	2.86	0.000	5	1475	4.2	1.0	SB
158038	K2II	1.04	13.04	0.16	0.25	0.89	0.455	3	347	< 1.0		
158170	F5IV	0.58	-63.95	0.59	0.83	2.17	0.030	2	353	8.0	1.0	
158837	G8III	0.84	-42.75	1.95	10.12	31.59	0.000	27	3308	3.5	1.0	SBO
158974	G8III	0.95	-30.73	0.20	0.10	0.36	0.721	2	275	2.4	1.1	
158996	K5III	1.50	-9.28	0.55	0.78	2.82	0.005	2	357	2.5	1.1	SB?
159181	G2II	0.98	-21.56	0.16	0.54	1.70	0.001	12	3992	10.7	1.0	SB?
159330	K2III	1.19	-13.71	0.16	0.20	0.74	0.582	3	2196	1.2	1.0	
159925	G9III	0.98	3.27	0.20	0.14	0.51	0.611	2	273	1.9	1.3	
159966	K0III	1.08	-74.66	0.20	0.07	0.25	0.805	2	357	< 1.0		
160315	K0III+F4IV	1.03	-2.20	0.10	0.20	0.68	0.866	8	3998	< 1.2		
160365	F6III	0.56	7.36	10.35	17.92	3.20	0.000	3	1829	30.0	5.1	SB
160538	K2III	1.05	-10.43	2.31	3.27	11.48	0.000	2	289	7.2	1.0	SBO
160781	G7III	1.26	-31.12	0.19	0.25	0.93	0.353	2	274	4.5	1.0	
160822	K0III	1.05	-5.91	0.21	0.05	0.17	0.865	2	356	< 1.0		
160835 A	K1III+F4V	1.20	-38.26	0.17	0.15	0.50	0.780	3	3316	< 2.2		
161074	K4III	1.46	-29.18	0.20	0.25	0.90	0.366	2	355	< 2.3		
161096	K2III	1.16	-13.03	0.03	0.31	1.12	0.031	120	5852	< 1.0		
161149	F5II	0.42	-53.93	2.30	2.47	0.76	0.462	2	308	65.8	15.2	
161178	G9III	1.01	6.47	0.64	0.91	3.10	0.002	2	279	1.7	1.0	SB?
161239	G2IIb	0.65	-23.80	0.18	0.44	1.40	0.080	6	1832	5.9	1.0	
161268	K1II	1.14	-25.71	0.17	0.15	0.51	0.772	3	356	< 1.0		
161369	K4III	1.54	-61.72	0.21	0.22	0.75	0.453	2	341	3.3	1.1	
161592	F7II	0.80	-26.21	2.60	3.68	5.58	0.000	2	1495	27.1	4.5	SB?
161797 A	G5IV	0.75	-16.78	0.06	0.29	1.00	0.451	22	4141	1.7	1.0	
161832	K3III+F7V	1.39	-18.41	2.09	9.80	28.03	0.000	22	3762	15.5	1.0	SBO
162003	F5IV - V	0.42	-13.61	0.13	0.43	0.88	0.703	15	2563	12.9	1.0	
162076	G5IV	0.94	-27.29	0.12	0.27	0.92	0.522	6	2237	3.2	1.0	
162113	K0III	1.24	-60.53	0.31	0.44	1.56	0.120	2	303	< 1.0		
162211	K2III	1.16	-25.70	0.20	0.18	0.62	0.537	2	356	1.6	1.2	
162391	G8III	1.13	-17.68	3.44	6.88	23.87	0.000	4	3875	8.3	1.0	SB
162468	K1III - IV	1.25	-49.69	0.27	0.38	1.37	0.172	2	313	< 1.0		
162555	K1III	1.05	-15.36	0.20	0.17	0.59	0.554	2	356	< 1.0		
162734	K0III	1.06	-43.46	0.21	0.08	0.28	0.777	2	354	1.7	1.5	
162774	K5III	1.58	-66.58	0.20	0.11	0.38	0.702	2	303	1.2	1.0	
163075	K0III	1.09	-27.42	0.38	0.54	1.74	0.082	2	339	2.1	1.6	
163217	K3III	1.18	-36.30	0.20	0.26	0.92	0.360	2	340	1.8	1.4	
163588	K2III	1.18	-26.97	0.20	0.35	1.25	0.208	3	2181	< 1.0		
163770	K1IIaCN+2	1.35	-28.93	0.16	0.21	0.76	0.558	3	365	6.3	1.0	
163989	F6IV - Vs	0.49	-25.28	0.24	0.17	0.51	0.610	2	354	5.0	1.0	
163993	G8III	0.94	-2.17	0.12	0.14	0.48	0.948	6	1850	3.2	1.0	
164058	K5III	1.52	-28.50	0.19	0.16	0.59	0.556	2	342	1.2	1.2	
164507	G5IV	0.69	5.34	0.44	0.62	2.06	0.039	2	354	2.2	1.3	
164668	G8III	0.95	-33.60	0.26	0.45	1.45	0.126	3	1013	5.7	1.0	
164824	K5III	1.55	-12.14	0.20	0.16	0.56	0.574	2	357	1.3	1.3	
165435	F3II	0.47	-21.98	6.27	10.87	16.68	0.000	3	295	20.5	2.0	SB
165438	K1IV	0.96	-27.57	0.31	0.44	1.55	0.120	2	302	< 1.0		
165473	K0II	1.05	16.52	0.15	0.24	0.81	0.583	4	348	< 1.0		
165683	K0III	1.16	-1.10	0.20	0.07	0.26	0.798	2	372	< 1.9		
165760	G8III	0.96	-3.91	0.14	0.39	1.39	0.059	8	3681	2.2	1.0	
166093	K3II	1.35	-25.71	0.31	0.54	1.90	0.027	3	385	< 1.0		
166207	K0III	1.04	-58.77	1.17	1.66	5.85	0.000	2	276	1.6	1.2	SB
166208	G8IIICN - 0.3CH	0.91	-16.51	0.63	1.09	3.85	0.000	3	338	3.2	1.0	SBO
166229	K2III	1.17	-8.46	0.20	0.22	0.79	0.430	2	372	< 1.0		
166460	K2III	1.19	5.36	0.19	0.19	0.70	0.483	2	334	< 1.9		
166640	G8III	0.91	-24.22	0.57	0.99	3.15	0.000	3	1011	2.2	1.4	SB
167042	K1III	0.94	-18.51	0.17	0.10	0.34	0.892	3	1839	< 1.0		
167193	K4III	1.47	-90.80	0.44	0.62	2.19	0.028	2	372	1.6	1.0	
167304	K0III	1.03	-49.51	0.20	0.18	0.64	0.522	2	372	1.7	1.0	
167768	G3III	0.89	1.18	0.28	0.28	1.00	9.999	1	0	3.9	1.3	
167782	G8II	1.09	-20.99	0.49	0.70	2.26	0.024	2	186	< 1.0		
168097	K0II	1.19	3.90	0.24	0.35	1.04	0.298	2	345	< 1.0		
168245	G7II	0.96	25.22	0.17	0.23	0.78	0.545	3	349	< 1.0		
168322	G9III	0.99	-73.78	0.59	2.76	9.41	0.000	22	5542	1.8	1.0	SB
168387	K2III - IV	1.07	-8.99	0.19	0.08	0.31	0.758	2	334	< 1.0		
168393	F5II	0.55	26.93	2.05	1.80	0.62	0.535	2	277	70.1	7.0	
168532	K3III:Ba0.4	1.53	-7.81	3.04	4.31	15.03	0.000	2	361	3.9	1.0	SBO
168656	G8III	0.91	3.93	0.21	0.24	0.82	0.412	2	299	< 1.0		
168775	K2IIIabCN1	1.17	-24.73	0.20	0.12	0.43	0.670	2	361	< 1.8		
168815 A	K5 - II	0.99	-22.94	0.26	0.13	0.36	0.718	2	345	8.6	1.0	
169191	K3III	1.27	-19.73	0.20	0.12	0.42	0.674	2	361	1.2	1.0	
169221	K1III	1.07	-14.68	1.99	2.82	9.94	0.000	2	339	2.0	1.0	SB
170053	K2II	1.43	-30.07	0.20	0.35	1.09	0.304	3	383	< 1.0		
170137	K3III	1.62	-21.66	0.21	0.30	1.12	0.265	2	296	< 2.0		
170289	K1II	1.14	-49.68	0.23	0.21	0.66	0.512	2	382	< 1.0		

Table 5. continued

Name HD or BD	Sp	(B - V)	RV km s ⁻¹	ϵ km s ⁻¹	σ km s ⁻¹	E/T	P(χ^2)	N	ΔT days	V sin i km s ⁻¹	ϵ_{rot} km s ⁻¹	Remark
170547	G8II-III	0.95	24.47	10.95	15.49	55.59	0.000	2	720	1.7	1.0	SBO
170693	K2III	1.19	31.74	0.20	0.19	0.67	0.500	2	276	< 1.0		
170811	K0IV	0.99	-11.33	0.22	0.31	1.09	0.275	2	299	< 1.8		
170829	G8IV	0.79	-51.18	1.57	2.22	7.54	0.000	2	350	1.7	1.0	SBO
171745	G9III+G7II	1.00	11.92	0.24	0.42	1.48	0.114	3	995	2.3	1.0	
171779	K0III	1.09	-24.42	0.20	0.08	0.27	0.786	2	276	4.8	1.0	
171874	F6II	0.50	-48.93	0.40	0.69	1.04	0.349	3	384	17.7	1.0	
171994	G8IV	0.90	-43.63	0.31	0.44	1.50	0.133	2	350	2.0	1.0	
172171	K1III+M6II	1.32	-72.19	0.27	0.17	0.44	0.663	2	334	8.8	1.3	
172424	G8III	0.96	-40.09	0.59	1.03	3.41	0.000	3	372	1.5	1.0	SB
172744	K2II	1.29	-41.89	0.27	0.47	1.50	0.105	3	384	< 1.0		
172831	K1III	1.00	23.21	4.64	6.56	23.89	0.000	2	729	1.3	1.3	SBO
173009	G8II	1.12	-9.13	0.53	0.92	3.18	0.000	3	348	5.1	1.0	SB
173132	G8II	1.00	13.14	0.19	0.32	1.07	0.322	3	332	< 1.0		
173398	K0III	0.98	-25.55	0.17	0.16	0.55	0.738	3	2157	< 1.0		
173526	G4II	1.00	11.34	0.26	0.44	1.40	0.142	3	332	2.5	1.1	
173764	G5II	1.10	-15.29	9.34	16.18	55.64	0.000	3	348	7.8	1.0	SBO
173780	K3III	1.20	-17.63	0.20	0.18	0.62	0.535	2	361	< 1.0		
173920	G5III	0.82	6.67	0.21	0.36	1.16	0.261	3	1024	8.0	1.0	
173949	G7IV	0.96	-27.81	0.21	0.26	0.90	0.371	2	354	2.6	1.2	
174022	G8II	0.89	-22.01	0.29	0.50	1.64	0.068	3	379	1.4	1.3	
174126	K2II	1.29	-16.27	0.17	0.05	0.18	0.968	3	381	< 1.0		
174569	K5III+K3II	1.44	-26.21	0.20	0.21	0.74	0.462	2	344	1.6	1.2	
174980	K0II-III	0.92	0.44	0.20	0.22	0.79	0.429	2	264	< 1.0		
175225	G9IVa	0.84	-1.60	0.07	0.40	1.37	0.002	32	4801	< 1.0		SB?
175306	G9IIIbCN-0.5	1.19	-31.71	14.21	20.10	57.75	0.000	2	335	14.7	1.0	SBO
175443	K4II	1.35	12.81	0.30	0.42	1.55	0.121	2	385	< 1.0		
175492	G4III+A6V	0.78	-13.13	2.62	3.70	12.13	0.000	2	301	4.2	1.0	SBO
175515	K0III	1.04	23.90	0.65	1.96	6.80	0.000	9	4068	< 1.2		SBO
175535	G8III	0.90	6.83	1.51	3.69	12.79	0.000	6	2579	2.3	1.0	SB
175635	G8III+A2	0.91	-20.46	2.12	11.24	28.95	0.000	28	3938	16.4	1.0	SBO
175679	G8III	0.97	15.94	0.21	0.47	1.58	0.041	5	1737	1.7	1.0	
175743	K1III	1.09	45.31	0.09	0.29	1.01	0.422	10	4072	< 1.4		
176095	F5IV	0.46	-4.09	0.44	0.62	1.38	0.166	2	351	13.2	1.0	
176230	K1II	1.25	-46.75	0.17	0.28	0.96	0.397	3	381	< 1.0		
176408	K1III	1.15	-37.21	2.22	3.84	13.77	0.000	3	2170	< 1.0		SB
176411	K1IIICN0.5	1.08	-49.53	1.54	3.78	13.24	0.000	6	3144	2.1	1.0	SBO
176524	K0III	1.15	-14.66	0.27	0.39	1.40	0.162	2	347	< 2.1		SBO
176527	K2III	1.24	-23.41	0.20	0.06	0.23	0.821	2	343	< 1.0		
176598	G8III	0.95	-8.59	0.16	0.32	1.09	0.310	4	2526	3.1	1.0	
176668	G5IV+G8V	0.93	-8.14	0.21	0.27	0.91	0.360	2	354	1.6	1.3	
176707	G8III	0.98	-21.85	0.61	0.86	2.99	0.003	2	264	< 1.0		SB?
176776	K1III	1.14	-30.19	0.16	0.18	0.63	0.669	3	358	1.3	1.0	
176903	F5IV-V	0.48	18.12	1.36	1.19	0.62	0.536	2	353	46.4	7.6	
176981	K2III	1.67	-8.26	2.77	3.91	13.90	0.000	2	295	1.8	1.5	SB
177199	K1III	1.34	-8.20	0.57	0.81	2.92	0.004	2	340	< 1.9		SB?
177249	G5IIbCN-	0.86	7.30	0.18	0.27	0.90	0.447	3	2549	5.0	1.0	
178208	K3III	1.27	2.62	7.29	10.31	37.12	0.000	2	338	1.4	1.0	SB
180006	G8III	1.01	-17.91	1.16	2.85	9.86	0.000	6	3260	3.7	1.0	SB
180242	G8III	0.88	-1.52	0.25	0.36	1.23	0.220	2	300	< 1.0		
180262	G8II-III	1.07	-25.58	0.44	0.63	2.21	0.027	2	301	1.4	1.3	
180610	K2III	1.16	-27.74	0.16	0.22	0.79	0.536	3	2170	< 1.0		
180656	K1II	1.14	-46.85	0.21	0.08	0.29	0.771	2	383	< 1.0		
180660	K2II	1.35	-9.67	1.97	2.78	8.75	0.000	2	379	< 1.0		SB
180711	G9III	1.00	24.34	0.19	0.04	0.13	0.897	2	314	1.2	1.2	
180756	G8III	0.93	7.08	0.23	0.33	1.18	0.237	2	313	1.4	1.2	
180809	K0II	1.26	-28.02	0.19	0.13	0.50	0.620	2	378	3.5	1.0	
180972	K2II-III	1.15	-23.70	0.19	0.10	0.36	0.719	2	323	< 1.0		
181053	K0IIIa:Ba0.3CH	1.05	-25.15	0.20	0.04	0.15	0.884	2	295	< 1.0		
181096	F6IV:	0.44	-44.59	0.18	0.29	0.69	0.754	5	1540	6.6	1.0	
181122	G9III	1.05	-11.33	0.34	0.47	1.49	0.140	2	301	< 2.4		
181276	G9III	0.96	-29.81	0.40	0.69	2.36	0.004	3	371	< 1.0		SB?
181386	G5II	1.08	8.69	4.88	6.90	18.82	0.000	2	379	< 2.9		SB
181391	G8III-IV	0.92	-28.33	16.62	28.79	106.25	0.000	3	729	2.8	1.0	SBO
181475	K5II	2.07	2.99	0.27	0.47	1.54	0.093	3	1081	8.4	1.0	
181597	K1III	1.12	-14.30	0.20	0.07	0.25	0.799	2	361	< 1.0		
181809	K1III	1.03	-9.59	3.81	6.59	23.20	0.000	3	1094	5.1	1.0	SBO
181984	K3IIICN1	1.25	-34.32	0.23	0.33	1.20	0.229	2	331	< 1.8		
182056	K2II	1.20	-1.36	0.21	0.04	0.12	0.905	2	382	< 1.0		
182272	K0III	1.03	-14.38	0.20	0.11	0.37	0.708	2	340	1.2	1.0	
182572	G8IV	0.77	-101.03	0.03	0.26	0.86	0.988	133	7009	1.7	1.0	
182635	K1III	1.12	-34.10	0.20	0.11	0.40	0.689	2	339	< 1.0		
182762	K0III	0.98	0.19	0.20	0.19	0.67	0.504	2	340	< 1.8		
182900	F6III	0.47	-35.43	0.37	1.10	1.25	0.141	9	2896	26.7	2.7	
182901	F5III	0.41	-44.66	0.46	0.41	0.63	0.528	2	209	19.9	1.0	
183491	K0III	1.03	-29.14	0.20	0.22	0.77	0.442	2	337	< 2.8		
183492	K0III	1.05	-42.86	0.20	0.01	0.05	0.959	2	295	< 1.0		
183611	K5III	1.39	-49.99	1.21	1.71	6.07	0.000	2	331	< 2.1		SB
183753	K3II	1.35	26.43	0.17	0.18	0.61	0.693	3	384	< 1.0		
183754	K2II	1.29	23.26	0.21	0.07	0.24	0.809	2	334	< 1.0		

Table 5. continued

Name HD or BD	Sp	(B - V)	RV km s ⁻¹	ϵ km s ⁻¹	σ km s ⁻¹	E/T	P(χ^2)	N	ΔT days	V sin i km s ⁻¹	ϵ_{rot} km s ⁻¹	Remark
183791	G2II	1.15	6.01	4.16	9.31	23.33	0.000	5	1094	12.3	1.0	SB
183912	K3II+B0.5V	1.13	-24.33	0.20	0.16	0.55	0.583	2	373	1.4	1.2	
184010	K0III-IV	0.93	5.42	0.22	0.32	1.13	0.258	2	337	< 1.0		
184406	K3IIIb	1.17	-25.28	0.17	0.30	1.10	0.296	3	3578	< 1.0		
184663	F6IV	0.41	5.41	3.49	3.49	1.00	9.999	1	0	69.0	6.9	
184936	K4III	1.57	-18.56	0.09	0.23	0.81	0.726	9	1616	3.4	1.0	
184944	K0II-III	1.04	-45.31	0.85	1.69	5.80	0.000	4	1869	< 1.0		SB
185194	G8IIIv	1.02	-33.70	0.21	0.21	0.73	0.466	2	300	2.1	1.4	
185264	G9III	1.06	8.15	0.27	0.46	1.61	0.075	3	2560	< 1.0		
185351	G9IIIbCN-0.5	0.93	-6.41	0.12	0.29	1.02	0.396	6	1784	< 1.0		
185436	K0III	0.96	6.03	0.20	0.19	0.69	0.490	2	334	< 1.0		
185510	K0III-IV	1.13	-25.43	4.06	7.03	14.98	0.000	3	320	16.0	1.0	SBO
185663	K2II	1.38	19.48	0.17	0.30	1.04	0.339	3	332	< 1.0		
185758	G1III	0.78	1.38	0.11	0.38	1.22	0.125	13	4387	7.1	1.0	
185958	G8IIIaCN0.5	1.05	-22.64	0.10	0.19	0.65	0.887	8	4779	9.9	1.0	
186155	F5II-III	0.40	-21.79	0.87	0.17	0.14	0.891	2	383	59.1	5.9	
186185	F5IV	0.46	17.23	1.40	1.98	3.62	0.000	2	353	15.6	1.0	SB
186486	G8III	0.93	-11.26	0.38	0.86	2.94	0.000	5	2562	2.9	1.0	SB
186518	G4III	1.10	-19.33	0.40	0.68	2.20	0.008	3	1017	6.7	1.0	SB?
186675	G7III	0.95	-24.30	0.19	0.10	0.36	0.718	2	310	1.7	1.4	
186791	K3II	1.52	-3.18	0.06	0.57	2.06	0.000	79	5485	3.8	1.0	SB
186815	K2III	0.88	-27.86	0.17	0.10	0.34	0.890	3	1842	1.2	1.0	
186927	K0II-III+A	1.06	-21.79	0.19	0.01	0.03	0.980	2	284	< 1.0		
187193	K0II-III	0.99	-18.54	0.20	0.05	0.18	0.860	2	284	< 1.0		
187401	G5II	1.18	-17.09	0.22	0.13	0.44	0.663	2	377	1.1	1.0	
187505	G5II	0.87	-29.11	0.23	0.07	0.21	0.831	2	377	7.4	1.0	
188056	K3IIICN1	1.28	-22.34	0.16	0.02	0.08	0.993	3	2182	1.0	1.0	
188119	G7IIIbCN-2	0.89	1.70	0.33	0.47	1.63	0.103	2	305	1.2	1.8	
188149	K4III	1.43	-23.33	0.19	0.20	0.73	0.466	2	334	1.4	1.2	
188310	K0IIIb	1.05	-42.77	0.20	0.07	0.25	0.803	2	294	2.0	1.3	
188512	G8IV	0.86	-40.75	0.12	0.23	0.78	0.697	6	3927	< 1.2		
188947	K0III	1.02	-26.68	0.31	0.53	1.95	0.022	3	358	< 1.0		
189127	G9III	1.02	-19.08	0.52	0.74	2.58	0.010	2	305	1.6	1.0	SB?
189251	G8II	1.00	-13.23	0.22	0.14	0.44	0.657	2	383	4.2	2.0	
189276	K5II-III	1.59	3.78	0.34	0.48	1.78	0.076	2	257	< 1.7		
189301	K4II	1.55	12.17	0.20	0.13	0.47	0.636	2	332	1.1	1.4	
189322	G8III	1.13	3.79	2.34	3.30	11.78	0.000	2	312	< 1.0		SB
189475	K2II	1.41	-47.34	0.20	0.14	0.51	0.609	2	380	< 1.0		
189671	G8II	1.15	-21.88	0.20	0.01	0.05	0.960	2	335	3.6	1.0	
189695	K5III	1.52	-42.01	0.22	0.31	1.08	0.281	2	295	2.0	1.5	
189753	K4II	1.51	-7.08	0.20	0.14	0.49	0.624	2	335	< 1.0		
189942	K0III	1.31	-18.24	0.20	0.13	0.47	0.642	2	333	1.3	1.3	
190147	K1II-III	1.11	-1.13	0.20	0.10	0.35	0.730	2	1058	< 1.0		
190211	K3II-III	1.42	7.40	0.19	0.16	0.57	0.571	2	385	< 1.0		
190252	G8III	0.88	-11.96	0.32	0.63	2.14	0.003	4	2561	1.0	1.0	SB?
190360 A	G6IV+M6V	0.73	-45.93	0.22	0.38	1.20	0.236	3	370	1.7	1.2	
190430	K1II	1.36	5.91	0.17	0.20	0.67	0.636	3	1094	< 1.0		
190536	G5II	1.05	9.30	0.22	0.12	0.38	0.702	2	381	< 2.1		
190540	K0III	1.20	-27.52	22.63	32.00	53.43	0.000	2	360	21.6	2.2	SBO
190608	K2III	1.06	-41.34	0.20	0.05	0.17	0.863	2	333	< 1.0		
190771	G5IV	0.65	-27.08	0.23	0.25	0.78	0.435	2	344	2.7	1.2	
190842	G8II	1.16	-2.91	0.34	0.48	1.49	0.138	2	383	< 1.0		
190940	K3III	1.32	-10.36	0.43	0.61	2.23	0.026	2	352	< 1.8		
191026	K0IV	0.85	-33.32	0.21	0.01	0.02	0.981	2	321	1.3	1.0	
191047	G5II	1.00	10.70	0.18	0.32	1.02	0.365	3	383	1.1	1.4	
191067	K1IV	1.02	-1.22	2.88	4.07	14.60	0.000	2	321	< 1.0		SB
191226	K2II	1.80	-22.70	2.47	3.50	9.94	0.000	2	378	5.4	1.3	SB
191277	K3III	1.18	4.08	0.19	0.25	0.93	0.355	2	352	< 1.0		
191290	K0II	1.10	3.67	0.22	0.16	0.50	0.619	2	432	< 1.0		
191493	K5II	1.63	-24.26	0.52	0.74	2.29	0.022	2	660	6.9	1.0	
191511	G5II	0.91	-1.22	0.22	0.09	0.29	0.772	2	457	< 1.0		
191570	F5IV	0.38	-42.98	0.86	0.39	0.26	0.935	3	1494	33.6	3.4	
192004	K3II-III	1.41	-19.98	0.20	0.13	0.48	0.630	2	386	3.4	1.0	
192041	K2II	1.45	-22.19	0.21	0.08	0.27	0.790	2	432	2.0	1.0	
192078	G5II	1.53	4.10	0.07	0.31	1.04	0.364	18	2579	11.4	1.0	
192404	K0II	1.22	-4.87	0.67	0.95	3.21	0.001	2	433	< 1.0		SB?
192535	K4III	1.50	-25.11	0.29	0.41	1.48	0.140	2	356	1.2	1.3	
192787	K0III	0.91	-9.41	0.21	0.18	0.60	0.552	2	332	1.4	1.0	
192806	K3IIICN-1Ba0.3	1.26	1.14	0.36	0.94	3.31	0.000	7	3981	3.7	1.0	SB
192836	K1III	1.04	-5.30	0.20	0.02	0.08	0.940	2	315	1.7	1.0	
192944	G8III	0.95	14.65	0.20	0.04	0.13	0.899	2	358	2.4	1.2	
193092	K5II	1.65	-20.48	0.65	0.93	3.36	0.001	2	659	5.4	1.0	SB?
193094	G9III	1.01	-19.11	0.32	0.46	1.64	0.102	2	367	1.3	1.0	
193217	K4II	1.64	-19.02	0.20	0.23	0.84	0.398	2	431	3.4	1.0	
193515	K1II	1.14	39.50	0.21	0.01	0.04	0.969	2	431	< 1.0		
193556	G8III	0.91	11.28	0.20	0.11	0.40	0.691	2	366	1.5	1.2	
194013	G8III-IV	0.97	-12.00	0.19	0.19	0.71	0.478	2	368	< 1.7		
194069	G5III+A	1.07	-5.87	1.00	2.23	6.84	0.000	5	1140	9.0	1.0	SB
194152	K0IIIv	1.08	-26.31	1.30	1.84	6.57	0.000	2	359	2.1	1.2	SB
194220	K0IIIv	0.95	-20.48	0.20	0.16	0.58	0.561	2	394	1.1	1.0	

Table 5. continued

Name HD or BD	Sp	(B - V)	RV km s ⁻¹	ϵ km s ⁻¹	σ km s ⁻¹	E/T	P(χ^2)	N	ΔT days	V sin i km s ⁻¹	ϵ_{rot} km s ⁻¹	Remark
194298	K5III	1.56	27.12	0.31	0.44	1.62	0.106	2	363	2.0	1.3	
194317	K3III	1.33	-12.00	0.23	0.65	2.36	0.000	8	4020	1.2	1.0	SB
194379	K5II	1.50	-60.25	0.21	0.05	0.17	0.868	2	432	< 1.0		
194526	K5IIIv	1.56	-80.65	0.62	0.88	3.13	0.002	2	359	2.1	1.3	SB?
194577	G6III	0.93	-22.37	0.26	0.37	1.29	0.198	2	358	3.3	1.0	
194616	K0III	1.02	-31.46	0.32	0.46	1.61	0.107	2	317	< 2.3		
194937	G9III	1.08	-11.40	0.20	0.22	0.77	0.440	2	356	< 1.0		
194953	G8III	0.90	-28.63	0.26	0.37	1.27	0.205	2	368	2.4	1.2	
195040	K2III	1.14	-4.55	13.13	22.75	30.59	0.000	3	1152	26.1	2.6	SBO
195295	F5II	0.40	-17.91	0.20	0.56	1.55	0.019	8	5044	9.5	1.0	
195338	G7II	1.17	-25.47	0.20	0.49	1.42	0.075	6	3516	10.5	1.0	
195432	G0II	0.64	-24.85	0.15	0.27	0.76	0.719	6	1591	12.8	1.0	
195506	K2III	1.13	-34.33	0.20	0.01	0.03	0.980	2	385	< 1.0		
195820	K0III	1.01	-10.96	0.20	0.16	0.55	0.580	2	371	< 1.8		
195834	K3II	1.34	-5.87	0.18	0.26	0.83	0.503	3	431	< 1.0		
195835	K0II	1.08	-12.91	0.20	0.05	0.16	0.871	2	388	1.7	1.2	
196134	K0III-IV	1.00	0.97	0.20	0.20	0.68	0.495	2	294	< 1.8		
196321	K5II	1.60	-9.69	0.36	0.51	1.89	0.059	2	395	1.9	1.3	
196524	F5IV	0.44	-33.88	1.23	1.45	0.83	0.406	2	342	49.8	5.0	SBO
196574	G8III	0.95	-6.39	7.03	9.95	36.50	0.000	2	731	3.7	1.0	SBO
196642	K0III	0.99	-37.68	0.20	0.02	0.07	0.941	2	294	1.6	1.0	
196755	G5IV+K2IV	0.72	-53.91	0.17	0.37	1.19	0.227	5	3333	3.3	1.0	
196758	K1III	1.06	-44.70	1.94	2.74	9.95	0.000	2	377	1.8	1.3	SB
196787 A	G9III	1.02	-5.83	0.87	3.02	10.59	0.000	12	3637	2.9	1.0	SB
196819	K3II	1.87	-4.93	0.25	0.43	1.39	0.145	3	430	3.7	1.0	
196852	K2III	1.09	11.06	0.31	0.44	1.57	0.117	2	317	< 1.0		
196885	F8IV:	0.55	-33.13	0.68	1.67	4.69	0.000	6	5158	7.8	1.0	SB
196925	K0III+F8V	0.92	-15.07	0.13	0.39	1.36	0.063	9	4089	< 1.0		
196972	K0II	1.08	13.17	0.18	0.31	1.06	0.326	3	429	< 1.0		SBO
197139	K2III	1.19	-24.43	0.19	0.06	0.21	0.836	2	386	< 1.0		
197177	G8IIb	0.88	-26.20	0.18	0.32	1.12	0.285	3	395	1.7	1.1	
197249	G8III	0.94	1.14	0.21	0.30	1.03	0.304	2	357	< 1.0		
197373	F6IV	0.46	-14.94	0.80	1.14	1.15	0.252	2	313	30.9	3.1	
197605	F5II	0.57	-14.39	0.94	0.63	0.48	0.632	2	388	40.5	4.0	
197752	K2III	1.18	29.64	0.83	2.75	9.68	0.000	11	4021	< 1.5		SBO
197912	K0III	1.05	-1.24	0.10	0.20	0.74	0.776	7	3975	2.0	1.0	
197964	K1IV	1.04	-6.91	0.09	0.25	0.87	0.636	9	3669	< 1.0		
197989	K0III	1.03	-12.13	0.17	0.51	1.82	0.001	9	4020	1.4	1.0	SB?
198134	K3III	1.32	-24.68	0.19	0.18	0.65	0.514	2	366	1.0	1.3	
198149	K0IV	0.92	-88.23	0.11	0.22	0.76	0.752	7	1838	< 1.4		
198236	G8III	0.93	-8.54	0.67	0.95	2.92	0.004	2	357	1.6	2.0	SB?
198237	K3III	1.61	-6.43	0.20	0.12	0.42	0.674	2	378	2.2	1.3	
198345	K5III	1.46	-33.01	0.19	0.25	0.91	0.361	2	371	1.7	1.4	
198809	G7IIICN-1	0.83	4.09	2.73	3.86	12.79	0.000	2	358	4.7	1.0	SB
199098	K0II	1.10	-29.48	0.29	0.50	1.65	0.065	3	1114	10.7	1.0	
199169	K4III	1.48	5.05	0.50	0.71	2.63	0.008	2	366	2.5	1.1	SB?
199223	G6III-IV	0.82	-33.16	0.21	0.30	1.00	0.317	2	356	< 1.0		
199253	K0III	1.12	-11.76	0.20	0.15	0.56	0.578	2	377	3.0	1.0	
199394	G5II	1.01	-2.17	0.29	0.58	1.95	0.010	4	1067	< 1.0		SBO
199437	K1III	1.12	-27.10	0.19	0.20	0.73	0.465	2	316	1.4	1.0	
199442	K2III	1.22	-26.47	0.20	0.20	0.73	0.465	2	379	< 1.0		
199547	K0III	1.13	-5.77	0.22	0.01	0.04	0.966	2	1081	< 1.0		SBO
199612	G8II-III	1.04	-19.37	4.17	9.32	30.25	0.000	5	3649	1.3	1.0	SB
199766	F6IV	0.46	4.30	3.65	5.16	1.70	0.094	2	316	32.2	3.2	SBO
199870	K0IIIbCN-0.5	0.97	-21.28	0.42	0.60	2.07	0.038	2	378	1.2	1.3	SBO
200039	G5III	0.93	-25.14	0.54	0.77	2.60	0.009	2	353	< 1.0		SB?
200253	G5III	0.98	-9.44	0.31	0.53	1.80	0.039	3	356	3.0	1.0	
200448	K1II	1.25	-35.02	0.20	0.20	0.71	0.475	2	395	< 1.0		
200577	G8III	1.01	-4.32	0.26	0.36	1.22	0.222	2	353	1.3	1.4	
200644	K5III	1.65	-15.79	0.24	0.34	1.22	0.224	2	379	6.0	1.0	
200817	K0III	0.99	-23.46	2.81	3.98	14.71	0.000	2	366	2.2	1.2	SB
200844	K0II	1.08	-21.89	0.34	0.48	1.58	0.115	2	391	< 1.0		
201094	K2II	1.32	9.34	0.36	0.52	1.69	0.092	2	391	1.3	1.0	
201196	K2IV	1.01	-34.79	0.20	0.17	0.59	0.556	2	387	< 1.0		
201251	K4II	1.57	-26.90	0.21	0.59	2.10	0.000	8	2954	6.3	1.0	SB
201298	K5III	1.66	17.94	0.33	0.47	1.64	0.101	2	379	4.5	1.0	
202109	G8II-IIIa	0.99	19.17	0.20	0.18	0.64	0.521	2	392	< 1.0		SBO
202582	G2IV+G2IV	0.60	30.55	0.17	0.26	0.80	0.590	4	2190	3.1	1.0	
202951	K5III	1.65	-38.71	3.62	5.12	18.14	0.000	2	370	4.4	1.0	SB
202987	K3III	1.45	-22.13	0.16	0.25	0.92	0.427	3	1826	3.6	1.0	
203251	K2III	1.21	17.49	0.24	1.05	1.14	0.189	20	2145	44.8	4.5	
203344	K1III	1.05	-89.11	0.20	0.07	0.26	0.799	2	369	1.1	1.3	
203358	G8IV	1.08	-26.92	0.13	0.26	0.86	0.566	5	1104	< 1.0		
203399	K5III	1.50	15.31	0.19	0.23	0.87	0.385	2	316	1.5	1.2	
203504 A	K1III	1.11	-77.79	0.08	0.26	0.91	0.605	11	4037	1.2	1.0	
203574	G5III	1.00	-26.19	0.21	0.29	0.98	0.325	2	359	< 1.0		
203630	K1III	1.08	-25.55	0.25	0.36	1.30	0.193	2	371	< 1.9		
203644	K0III	1.10	-4.76	0.19	0.16	0.57	0.569	2	374	< 1.0		
203886	K0III	1.04	-23.43	0.19	0.08	0.28	0.778	2	367	< 2.2		
204075	G5II	1.00	1.35	1.50	2.60	9.19	0.000	3	1886	7.6	1.0	SBO
204509	F4II	0.38	-22.66	0.46	0.45	0.70	0.488	2	395	19.1	1.0	
204771	K0III	0.97	-22.06	0.19	0.25	0.93	0.352	2	374	1.0	1.0	
204878	K0II	1.08	1.14	0.21	0.28	0.91	0.361	2	83	1.5	1.0	

Table 5. continued

Name HD or BD	Sp	(B - V)	RV km s ⁻¹	ϵ km s ⁻¹	σ km s ⁻¹	E/T	P(χ^2)	N	ΔT days	V sin i km s ⁻¹	ϵ_{rot} km s ⁻¹	Remark
204509	F4II	0.38	-22.66	0.46	0.45	0.70	0.488	2	395	19.1	1.0	
204771	K0III	0.97	-22.06	0.19	0.25	0.93	0.352	2	374	1.0	1.0	
204878	K0II	1.08	1.14	0.21	0.28	0.91	0.361	2	83	1.5	1.0	
205249	K1III	0.90	-23.41	8.83	17.66	52.21	0.000	4	376	7.3	1.0	SBO
205435	G8IIICN-0.5	0.89	6.69	0.12	0.20	0.68	0.805	6	2057	1.9	1.0	
205603	G8II	1.06	-6.49	0.20	0.06	0.20	0.839	2	90	< 1.0		
205688	G8III-IV	1.24	-19.26	0.35	0.50	1.70	0.090	2	354	1.3	1.0	
206027	G9III	1.02	-9.73	0.24	0.06	0.17	0.864	2	359	1.3	1.8	
206040	K1III	0.99	3.69	0.21	0.36	1.25	0.212	3	1826	1.3	1.0	
206067	K0III	1.04	-35.80	0.17	0.38	1.23	0.196	5	4373	< 1.8		
206121	G5II	0.83	-5.84	0.18	0.31	0.85	0.542	4	1120	14.9	1.0	
206312	K1II	1.22	-19.75	0.21	0.30	1.09	0.276	2	390	4.6	1.0	SB
206445	K2III	1.44	7.64	0.19	0.01	0.05	0.958	2	367	2.4	1.1	
206509	K0III	1.16	6.78	0.16	0.17	0.62	0.684	3	1826	1.1	1.1	
206731	G8II	1.00	1.45	0.17	0.20	0.67	0.641	3	390	5.2	1.0	
206842	K1III	1.34	-5.43	0.19	0.28	1.00	0.315	2	374	2.2	1.2	
206952	K0III	1.10	-38.96	0.19	0.26	0.97	0.334	2	315	< 1.0		
207088	G8III	1.00	-4.88	0.37	0.74	2.56	0.000	4	357	< 1.0		SB
207130	K0III	1.05	-41.21	0.16	0.27	1.00	0.368	3	334	1.2	1.0	
207134	K3III	1.21	-47.96	0.19	0.08	0.31	0.756	2	367	1.3	1.0	
207978	F6IV-Vvw	0.42	19.13	0.12	0.35	0.74	0.906	15	3220	7.2	1.0	
208110	G0IIIs	0.80	-5.57	1.56	3.81	11.58	0.000	6	1844	3.3	1.0	SB
208202 A	K0III+F7V	0.97	1.23	0.18	0.43	1.48	0.053	6	3688	< 1.4		
208411	G8II	1.00	-10.12	0.56	0.79	2.62	0.009	2	441	1.9	1.4	SB?
208703	F5IV	0.37	0.04	0.39	0.55	0.99	0.324	2	341	15.4	1.4	
209747	K4III	1.44	-19.43	0.20	0.21	0.77	0.444	2	340	2.3	1.2	
209761	K2III	1.25	-29.31	0.19	0.08	0.29	0.775	2	281	< 2.4		
209813	K0III	1.08	-15.92	23.04	32.59	64.21	0.000	2	727	21.1	2.1	SBO
209942	F6IV-V	0.52	-24.42	0.27	0.01	0.02	0.985	2	316	5.8	1.0	
209945	K5III	1.57	-24.42	0.19	0.03	0.10	0.917	2	375	3.3	1.0	
209960	K4III	1.41	-23.86	0.19	0.04	0.16	0.874	2	369	< 1.9		
210220	G6III	0.88	-7.31	4.97	7.03	23.72	0.000	2	381	1.8	1.5	SB
210264	G5III	0.86	5.26	0.15	0.41	1.35	0.093	7	1401	5.0	1.0	
210289	K5III	1.62	15.18	1.18	1.67	6.11	0.000	2	374	2.0	1.3	SB
210461	K0III	1.08	-45.11	0.20	0.08	0.30	0.762	2	369	< 2.1		
210702	K1III	0.95	15.57	0.14	0.30	0.96	0.456	5	4373	1.0	1.0	
210807	G7II-III	0.92	-16.66	0.22	0.14	0.45	0.653	2	377	6.5	1.0	
210885	G8II	1.00	-5.14	0.21	0.27	0.91	0.363	2	416	2.9	1.2	
210889	K2III-IIIb	1.13	-8.06	0.19	0.23	0.88	0.379	2	367	1.5	1.0	
210905 A	K0III	1.13	-30.92	0.09	0.25	0.90	0.612	10	5249	< 1.0		
210939	K1III	1.17	-5.58	0.19	0.02	0.08	0.938	2	370	1.6	1.0	
211006	K2III	1.15	-19.80	0.19	0.11	0.41	0.678	2	367	< 1.0		
211073	K3III	1.39	-11.69	0.13	0.51	1.80	0.000	15	4379	2.9	1.0	SB
211300	K0II-III+A	1.01	-3.27	0.16	0.09	0.33	0.897	3	1828	< 1.0		
211388	K3II-III	1.46	-9.24	0.19	0.01	0.05	0.958	2	367	3.2	1.0	
211432	G9III	0.99	13.70	0.30	0.52	1.81	0.038	3	358	< 1.0		
211554	G8III	0.93	-8.91	0.36	0.62	2.14	0.010	3	378	3.4	1.0	SB?
211606	K5II	1.63	-10.81	0.17	0.19	0.65	0.660	3	383	< 1.7		
211833	K3III	1.26	-5.64	0.33	0.47	1.76	0.079	2	371	< 2.0		
212289	K1II	1.23	0.73	0.16	0.27	0.95	0.408	3	390	< 1.0		
212487	F5IV:	0.49	7.17	0.28	0.37	0.94	0.348	2	350	8.8	1.0	
212943	K0III	1.05	53.85	0.02	0.23	0.82	0.999	135	6162	< 1.0		
213051	F6IV	0.40	17.80	2.61	3.69	1.40	0.161	2	337	68.0	6.8	
213119 A	K5IIIa	1.55	-30.76	0.11	0.08	0.29	0.998	7	1413	2.2	1.0	
213177	K0II	1.09	-3.53	0.17	0.15	0.51	0.772	3	390	< 1.0		
213179	K2II	1.25	-45.69	0.16	0.11	0.41	0.844	3	383	< 1.0		
213389	K2III	1.15	-2.96	12.07	31.94	51.78	0.000	7	3309	34.4	3.4	SBO
213720	G8III	1.06	-9.54	1.70	2.94	9.97	0.000	3	2540	1.3	1.1	SB
213930	G8III-IV	0.96	-8.21	0.44	0.77	2.57	0.001	3	2540	3.3	1.0	SB?
214434	K2II	1.27	-4.27	0.16	0.22	0.80	0.525	3	383	< 1.0		
214558	G2III+A4V	0.80	7.39	0.44	0.89	2.54	0.000	4	354	1.4	1.0	SB
214567	G8II	0.92	-18.80	0.44	0.76	2.56	0.001	3	390	< 1.0		SB?
214868	K3III	1.33	-11.60	0.19	0.10	0.37	0.709	2	373	< 1.0		
214878	K0III	0.93	-6.98	0.20	0.15	0.53	0.595	2	373	1.5	1.0	
215030	G9III	0.97	-14.84	0.21	0.04	0.12	0.903	2	813	1.6	1.0	
215182	G2II-III+F	0.86	6.73	1.76	4.64	15.04	0.000	7	4356	1.7	1.0	SBO
215243	G8IV	0.48	-5.60	0.69	0.97	2.70	0.007	2	343	8.0	1.0	SB?
215359	K5III+K2II	1.48	-25.62	0.24	0.35	1.25	0.212	2	281	2.1	1.6	
215373	K0III	0.96	12.31	0.20	0.29	1.02	0.310	2	281	2.1	1.2	
215648 A	F6III-IV	0.50	-5.99	0.14	0.18	0.44	0.992	9	2911	7.9	1.0	
215665	G8IIIa	1.07	-4.83	0.20	0.04	0.12	0.903	2	308	7.5	1.0	
216131	G8III	0.93	13.14	0.20	0.03	0.10	0.921	2	308	1.2	1.0	
216174	K1III	1.17	-33.84	0.16	0.03	0.13	0.984	3	1818	< 1.0		
216218	G9II	1.04	-20.04	1.85	3.21	10.53	0.000	3	408	< 1.0		SB
216219	G0II	0.64	-7.46	0.52	0.90	2.73	0.001	3	384	1.0	1.3	SB
216228	K0III	1.05	-13.11	0.20	0.06	0.20	0.838	2	372	< 1.0		
216331	G5II	0.95	-7.29	0.45	0.90	2.74	0.000	4	388	9.7	1.0	SB
216380	G8III-IV+G	0.78	-0.82	0.19	0.42	1.37	0.112	5	3103	7.1	1.0	
216385	F7IV	0.48	11.53	0.16	0.25	0.67	0.770	5	2947	5.9	1.0	
216446	K3III	1.26	-32.48	0.26	0.37	1.36	0.172	2	316	< 1.0		

Table 5. continued

Name HD or BD	Sp	(B - V)	RV km s ⁻¹	ϵ km s ⁻¹	σ km s ⁻¹	E/T	P(χ^2)	N	ΔT days	V sin i km s ⁻¹	ϵ_{rot} km s ⁻¹	Remark
216489	K2II-III	1.12	-8.72	8.53	24.12	49.67	0.000	8	3986	25.6	2.6	SBO
216646	K0III	1.13	-8.86	0.19	0.08	0.31	0.756	2	281	1.0	1.0	
216756	F5II	0.42	-28.32	0.34	0.11	0.22	0.825	2	310	12.3	1.0	
217014	G2.5IV	0.67	-27.23	0.32	1.07	3.71	0.000	11	6201	6.5	1.0	SB
217019	K1III	1.12	11.82	0.20	0.13	0.48	0.634	2	283	1.7	1.0	
217107	G8IV	0.74	-13.96	0.61	0.87	2.91	0.004	2	349	1.7	1.0	SBO
217188	K0III	1.10	-18.46	1.43	7.98	26.43	0.000	31	843	3.0	1.0	SBO
217382	K4III	1.43	1.99	0.73	1.04	3.90	0.000	2	334	< 1.0		SB
217459	K4III	1.34	17.92	0.51	0.72	2.56	0.011	2	349	< 1.0		
217673	K2II	1.50	-6.46	0.16	0.12	0.42	0.840	3	383	3.2	1.0	
217944	G8IV	0.90	13.64	0.20	0.26	0.90	0.366	2	320	< 1.0		
218029	K3III	1.26	-9.08	0.19	0.21	0.80	0.425	2	321	1.5	1.0	
218031	K0IIIbFe-0.5	1.06	-35.31	0.20	0.22	0.79	0.428	2	382	< 1.0		
218043	F4II	0.37	-10.46	0.40	0.25	0.37	0.874	3	432	20.1	2.0	
218101	G8IV	0.83	-29.18	0.20	0.20	0.69	0.488	2	349	1.1	1.0	
218103	G9III	0.94	-10.59	0.16	0.13	0.48	0.794	3	314	< 1.9		
218153	G8II	1.12	-80.49	0.15	1.12	2.30	0.000	56	1627	27.1	2.7	SBO
218199	K1II	1.05	-6.93	0.16	0.12	0.42	0.839	3	432	< 1.0		
218356	K0II	1.34	-27.71	0.27	0.89	3.09	0.000	11	6201	4.4	1.0	SB
218416	K0III	1.05	5.27	0.20	0.29	1.06	0.289	2	382	< 1.0		
218452	K5III	1.41	-12.14	0.25	0.36	1.33	0.183	2	281	< 1.0		
218454	K4II	1.52	-22.47	0.16	0.22	0.80	0.529	3	387	< 1.0		
218640	G2IV+A2	0.65	-2.41	0.24	0.16	0.46	0.646	2	288	6.4	1.0	
218658	G2III	0.80	-1.46	15.25	26.42	81.98	0.000	3	241	5.5	1.0	SBO
218792	K4III	1.34	2.02	0.19	0.08	0.29	0.776	2	348	< 1.0		
218804	F5IV	0.44	-35.24	1.68	2.38	3.77	0.000	2	349	17.8	1.0	SB
218935	G8III-IV	0.94	-11.08	0.23	0.33	1.16	0.246	2	243	< 1.0		
219110	G8III	0.93	-0.88	0.20	0.02	0.07	0.941	2	243	1.3	1.0	
219291	F6IVw	0.45	-2.68	8.34	8.34	1.00	9.999	1	0	53.1	16.2	
219310	K2III	1.22	-28.39	0.19	0.19	0.71	0.478	2	348	< 1.0		
219477	G5II-III	0.85	0.81	0.22	0.18	0.60	0.548	2	243	5.1	1.0	
219615	K0III:CN-1	0.92	-14.91	0.10	0.27	0.88	0.650	10	3692	1.6	1.0	
219668	K0IV	1.07	-39.94	0.19	0.01	0.03	0.979	2	352	< 1.0		
219834 A	G5IV	0.80	10.43	0.78	3.72	12.24	0.000	23	6567	3.1	1.0	SBO
219916	K0III	0.84	-18.67	0.35	0.49	1.72	0.086	2	375	< 2.1		
219945	K0III	1.03	9.63	0.19	0.28	1.01	0.314	2	380	1.0	1.0	
219962	K1III	1.12	19.33	0.19	0.22	0.80	0.421	2	380	< 1.0		
220009	K2III	1.20	39.94	0.20	0.29	1.03	0.303	2	283	< 1.0		
220102	F5II	0.63	-30.09	0.56	3.49	8.61	0.000	39	6160	7.7	1.0	SB
220130	K2III	1.61	-25.48	0.19	0.06	0.21	0.833	2	375	6.7	1.0	
220180	G7II	0.96	-7.65	0.20	0.34	1.21	0.230	3	428	< 1.0		
220363	K3III	1.31	-4.43	0.25	0.35	1.32	0.188	2	348	< 1.0		
220369	K3II	1.68	-10.77	0.19	0.04	0.13	0.895	2	406	3.2	1.0	
220657	F8III	0.61	-20.34	3.28	4.64	1.60	0.111	2	3314	33.7	15.9	
220858	G7III	1.02	-8.88	0.32	0.46	1.65	0.100	2	243	< 1.0		
220954	K1III	1.07	5.57	0.19	0.15	0.54	0.589	2	348	< 1.0		
221039	K0II	1.05	12.53	0.17	0.24	0.83	0.504	3	431	< 1.0		
221113	G9III	0.99	21.13	0.26	0.37	1.31	0.190	2	308	< 1.0		
221115	G7III	0.94	-13.80	1.68	2.38	8.25	0.000	2	241	1.5	1.2	SB
221246	K5III	1.46	-8.99	0.19	0.14	0.53	0.599	2	380	2.1	1.2	
221293	G9III	0.99	-10.30	0.21	0.42	1.41	0.117	4	358	2.4	1.0	
221345	K0III	1.02	-60.63	0.20	0.28	1.03	0.303	2	349	1.4	1.0	
221661	G8II	0.98	7.91	0.16	0.25	0.91	0.435	3	385	< 1.0		
221673	K4IIIb	1.38	-25.31	0.22	0.70	2.46	0.000	10	3675	1.4	1.0	SB
222107	G8III-IV	1.01	3.32	1.72	4.87	16.64	0.000	8	3240	6.9	1.0	SBO
222387	G8III	0.89	11.63	0.30	0.52	1.77	0.044	3	377	1.2	1.1	
222404	K1III-IV	1.03	-46.29	0.24	1.01	3.61	0.000	17	4758	< 1.0		SB
222618	G8III	0.99	-9.41	0.26	0.52	1.78	0.023	4	1083	6.7	1.0	
222682	K2III	1.24	-14.43	0.83	1.18	4.29	0.000	2	287	< 1.0		SB
222842	K0III	0.95	-8.84	0.23	0.33	1.18	0.238	2	402	1.1	1.3	
223165	K1IIIa	1.11	-21.42	0.16	0.17	0.63	0.671	3	822	1.1	1.0	
223173	K3IIIb	1.65	-5.40	0.26	0.45	1.67	0.062	3	431	4.2	1.0	
223332	K5II	1.46	11.02	0.21	0.36	1.25	0.211	3	427	< 1.0		
223346	F5III-IV	0.44	-18.41	0.30	0.41	0.61	0.827	5	2889	18.5	1.0	
223460	G1IIIe	0.79	-2.47	0.07	0.41	0.87	0.862	40	1580	21.5	2.1	
223524	K0IV	1.13	-18.01	0.20	0.25	0.91	0.363	2	427	< 1.0		
223719	K4III-IIIa	1.53	3.82	0.12	0.28	1.01	0.400	5	749	2.1	1.0	
224342	F8III	0.69	-11.03	0.33	0.58	1.39	0.149	3	356	12.8	1.0	
224617	F4IV	0.42	-2.37	1.49	2.58	1.65	0.066	3	700	49.9	5.8	
224784	G9III-IV	1.01	-33.90	0.21	0.36	1.26	0.207	3	383	1.5	1.0	
224870	G7II-III	0.97	-20.31	0.27	0.46	1.48	0.112	3	362	6.8	1.0	
224981	K2II	1.29	-11.05	0.29	0.49	1.58	0.084	3	362	< 1.0		
225009	G8III	1.09	-17.36	0.19	0.39	1.37	0.133	4	1118	6.1	1.0	
225216	K1III	1.07	-28.99	0.20	0.01	0.05	0.959	2	325	< 1.0		
225276	K4IIIb	1.40	-4.85	0.62	0.88	3.21	0.001	2	317	< 1.8		SB?
225292	G8II	0.97	13.00	2.10	3.63	12.25	0.000	3	357	< 1.0		SBO
227472	K0II	1.58	-25.00	1.09	1.54	4.80	0.000	2	252	1.0	1.0	SB
227535	G0II:	1.11	-8.69	0.25	0.43	1.24	0.216	3	399	1.5	1.5	
227730	G0II:	0.71	-12.98	0.41	0.58	1.92	0.054	2	459	< 1.0		

Table 5. continued

Name HD or BD	Sp	(B - V)	RV km s ⁻¹	ϵ km s ⁻¹	σ km s ⁻¹	E/T	P(χ^2)	N	ΔT days	V sin i km s ⁻¹	ϵ_{rot} km s ⁻¹	Remark
227776	K0II	1.19	-5.41	0.20	0.17	0.61	0.545	2	459	< 1.0		
228019	G8II	1.00	9.75	0.33	0.57	1.66	0.063	3	443	2.6	1.4	
228188	G2II:	0.81	-4.17	0.70	1.39	3.31	0.000	4	443	21.1	2.1	SB
228852	K3II	1.40	-9.46	0.17	0.18	0.63	0.674	3	457	< 1.0		
229114	G8II	1.00	-6.45	0.23	0.27	0.82	0.414	2	432	< 1.0		
231762	F3II	0.33	-89.45	0.23	0.30	0.92	0.357	2	289	1.4	1.0	
232848	G8II	1.33	-17.25	0.25	0.14	0.39	0.694	2	308	< 1.0		
232862	G8II	0.87	-1.80	0.20	0.50	0.91	0.589	8	1811	20.6	2.1	
235870	G8II	1.00	-32.72	0.17	0.18	0.62	0.678	3	416	3.0	1.0	
236433	F4II	0.96	-41.90	6.46	12.92	23.62	0.000	4	1116	17.1	2.0	SBO
236678	K0II	1.08	1.87	0.17	0.20	0.67	0.638	3	342	< 1.0		
237065	F4II	0.57	29.97	4.85	4.85	1.00	9.999	1	0	18.1	10.5	
237180	K2II	1.29	-4.90	0.81	1.97	6.00	0.000	6	3633	< 1.0		SB
237201	K3II	1.40	-11.23	5.04	7.13	19.47	0.000	2	308	1.9	1.0	SB
256871	K7II	1.60	-21.36	0.21	0.22	0.74	0.457	2	494	< 2.4		
259922	G8II	1.00	-4.76	0.21	0.22	0.73	0.467	2	336	< 1.0		
276743	K0II	1.08	-13.39	3.99	7.97	23.01	0.000	4	2105	< 1.0		SB
283578	K2II	1.29	69.16	0.52	0.73	2.42	0.016	2	753	< 1.0		
283703	K0II	1.08	44.98	0.26	0.14	0.32	0.901	3	209	< 1.0		
283710	K2II	1.29	-14.50	0.40	0.69	1.94	0.027	3	1080	2.3	1.0	
283859	G0II	0.71	-12.15	0.59	0.83	1.80	0.075	2	463	9.0	1.2	
284434	K5II	1.50	42.60	0.27	0.20	0.52	0.604	2	309	1.9	1.0	
284845	K2II	1.29	112.16	0.22	0.19	0.61	0.542	2	727	< 1.0		
284857	K2II	1.29	9.63	0.28	0.39	1.03	0.305	2	463	8.0	1.3	
284863	K2II	1.29	61.41	0.23	0.33	1.01	0.313	2	727	< 1.0		
333506	K2II	1.17	-24.34	0.23	0.29	0.88	0.381	2	383	< 1.0		
338230	F4II	0.35	-6.42	2.92	2.92	1.00	9.999	1	0	11.2	8.9	
338289	K2II	1.29	-68.37	0.20	0.27	0.93	0.353	2	334	< 1.0		
345024	F4II	0.92	-2.40	1.62	2.63	0.94	0.429	3	1046	39.5	4.0	

The Fourier transform technique has the advantage to allow the distinction between the rotation and macro-turbulence effects on line profiles, but unfortunately this method requires very high signal-to-noise ratio and is therefore applicable only to bright stars. The cross-correlation technique does not allow separation between rotation and macro-turbulence but has the advantage to be applicable to faint stars. The signal-to-noise ratio is sufficiently high to analyse accurately the line profile of stars down to about magnitude 14. Experience has shown that on a 1.5-meter telescope, using the CORAVEL spectrometer, such a method gives $v \sin i$ values for stars of magnitude 11, within a few minutes, and for stars of magnitude 14, within an hour, with a precision of 1 km s⁻¹.

We have carried out a similar comparison between CORAVEL $v \sin i$ values and those obtained by Fekel et al. (1986) for chromospherically active stars and Fekel (1997) for normal stars. Table 3 gives the list of the stars with their $v \sin i$ values measured respectively with CORAVEL and then by Fekel and collaborators for the luminosity classes IV, III and II. The relationship between $v \sin i$ (COR) and $v \sin i$ (Fekel) is given by:

$$v \sin i \text{ (COR)} = -0.37 + 0.99 v \sin i \text{ (Fekel)}$$

with a rms of the velocity difference of about 1.4 km s⁻¹.

The correlation between the $v \sin i$ values determined respectively by CORAVEL and Fekel is clearly as good as that between CORAVEL and Gray. However, one should be careful here because Fekel has calibrated his rotational

velocity measurements by using $v \sin i$ data from D. Gray and co-workers.

As we have already recalled, prior to the determination of rotational velocities by cross-correlation and Fourier transform techniques a few studies employed somewhat low or moderate spectral resolution to the $v \sin i$ measurements. In general, the lowest limit of such measurements was set by the spectral resolution. We have observed a few stars in common with some of those studies, which allow a comparison showing clearly that there is no sense to combine $v \sin i$ values obtained by cross-correlation or Fourier transform techniques with those measured by poor or moderate resolution techniques. This is true at least for $v \sin i$ values smaller than about 25 km s⁻¹, as we can see from Table 4 which shows a comparison between CORAVEL and Alschuler (1975) $v \sin i$ values.

2.4. Errors

The radial-velocity uncertainty is derived from an instrumental error quadratically added to the photon noise and the scintillation noise, estimated from observational parameters (Baranne et al. 1979). At least for the low rotators, which represent the great majority of our sample, the radial-velocity measurements present a precision better than 0.30 km s⁻¹ (see Duquennoy et al. 1991). With an increase of $v \sin i$ the

uncertainty on the radial velocity increases as a consequence of the decrease of the cross-correlation dip contrast and the increase of its width.

Concerning the rotational velocities the external comparison with Fourier transform indicates an uncertainty of about 1.0 km s^{-1} for the CORAVEL $v \sin i$ of bright stars. For fainter stars we evidently should take into account the contribution of the photon noise. Nevertheless, as most of our integrations are relatively long, about 10 minutes or more for faint stars, the scintillation noise is not dominant. Despite this point, we take into account these contributions by adopting

$$\epsilon_{v \sin i} = \max(\epsilon_{v \sin i}, \epsilon_{\min, v \sin i}) \text{ (luminosity class)}$$

where $\epsilon_{\min, v \sin i}$ is determined from the rms of the different determinations and where $\epsilon_{\min, v \sin i}$ is a lower limit depending on the luminosity class. For classes IV and III, the $\epsilon_{\min, v \sin i}$ has been conservatively fixed to 1.0 km s^{-1} . Independently of the excellent agreement of our $v \sin i$ values with the Fourier transform $v \sin i$ for bright giant and supergiant stars, with $\sigma(\Delta v \sin i)$ between 1.3 and 1.4 km s^{-1} , we prefer to adopt a more pessimistic uncertainty for the luminosity classes II and Ib/Ib-II, with $\epsilon_{v \sin i} = 2.0 \text{ km s}^{-1}$ for both luminosity classes, because it is not possible to define precisely what are the limits on rotation and macroturbulence. In this context, such limiting values should be considered only to set extreme boundaries on the errors, without any physical meaning. In fact, these uncertainties are adopted for the $v \sin i$ values lower than 30 km s^{-1} independently of the luminosity class. For rotations above 30 km s^{-1} the measurement of the dip becomes difficult (see Benz & Mayor 1981) and differences between the fitted Gaussian and such dip are observed. Consequently, the error for $v \sin i$ measurements will be more important than those estimated in the discussion above. For these high rotators our best estimations indicate an uncertainty of about 10%, these errors representing the precision with which the Gaussian matches the observations.

3. Contents

The catalog contains a main table, namely Table 5, where stars appear in order of increasing HD number, except for those stars presenting only a BD number in the literature. The latter appear in order of increasing right-ascension according to the 1950 epoch. Table 5 also presents the CORAVEL rotational velocity measurements as well as the mean radial velocity for single stars and for the single-lined spectroscopic binaries. The columns mean:

1. HD or BD number;
2. Spectral type;
3. $(B - V)$ color index;
4. Mean radial velocity and its uncertainty. In this case the uncertainty is given by $\max(\epsilon_1 \sqrt{N}, \sigma \sqrt{N})$, where

Table 6. Double-lined spectroscopic binary systems SB2 with evolved component

HD	$(B - V)$	ST
2436	1.58	K5III
5137	0.86	G5III
5516	0.94	G8IIIb
8357	0.87	G8IV
8949	1.12	K1III
13480	0.78	G5III+F5V
17904	0.41	FIV
18894	0.60	G0IV-V
18925	0.70	G8III+A2V
23838	0.76	G2III+F2:V
24546	0.41	F5IV
29104	0.74	G5II-III+A
31738	0.71	G5IV
32453	0.88	G5III
34029	0.90	G1III/K0III
37847	1.07	K2III
38751	1.01	G8IIIv
40084	1.23	G5III
41116	0.82	G7III
43358	0.46	F5IV:
46178	1.07	K0III
47415	0.53	F8IV
47703	0.49	F8III
56200	0.40	F4II
57364	1.08	K0II
58972	1.43	K3III
59148	1.11	K2III
59878	1.01	K0II-III+F
60318	1.01	K0III
63799	1.12	K1III
64235	0.41	F5IV
68461	0.89	G8III
73596	0.40	F5III
78418	0.66	G5IV-V
81873	1.04	K0III
82543	0.62	F7IV-V
92787	0.33	F5III
102509	0.55	G5III-IV+A7V
106677	1.14	K0III
109511	1.15	K2III
115781	1.14	K0III
122703	0.45	F5III
123999	0.54	F9IV
139862	0.94	G8II
151237	0.49	F8II
152830	0.34	F5II
155638	1.07	K0III
158614	0.72	G9IV-V
169268	0.34	F6III-IV
169689	0.92	G8III-IV+A
169985	0.50	G0III+A6V
171802	0.37	F5III
172088	0.55	F9IV
174881	1.18	K1II-III
178619	0.52	F5IV-V
179094	1.09	K1IV
182549	0.90	G6II

Table 6. continued

HD	$(B - V)$	ST
184398	1.16	K2II-IIIe
185151	1.25	K0III
185734	0.97	G8III-IV
192577	1.18	K2II+B3V
196753	0.98	K0II-III+A
198084	0.54	F8IV-V
201051	1.05	K0II-III
202447	0.53	G0III+A5V
206901	0.43	F5IV
210334	0.72	G2IV+K0III
212280	0.70	G0IV-V
218527	0.91	G8III-IV
283533	0.71	G0II

ϵ_1 is the typical error for one single radial velocity measurement;

5. The radial velocity dispersion (rms) σ ;
6. $P(\chi^2)$, the probability that the velocity of the star is constant;
7. The number N of observations for each star;
8. The time span Δt of the observation;
9. Rotational velocity and its uncertainty;
10. Remarks.

The remark SBO indicates those single-lined spectroscopic binaries for which the orbital parameters are available in the literature.

The individual radial-velocity measurements are available at the CDS “Centre de Données Stellaires” of Strasbourg Observatory. Several new double-lined spectroscopic binary (SB2) candidates were detected from the present CORAVEL survey. These stars are listed in Table 6, as well as other stars from this program already known as SB2 and confirmed by the present survey. The rotational velocity for these SB2 binary systems will be given in a forthcoming paper. Table 7 gives those F and G evolved stars for which no correlation dip was obtained with CORAVEL. The latter are certainly high rotators.

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Table 7. Evolved stars with no CORAVEL dip

HD/BD	ST
+01 1876	F5II
+20 4010	F8II
+33 3998	F4II
+37 4115	F4II
1671	F5III
4758	F5III
11443	F6IV
17918	F5III
23010	F5II
34658	F5II
36994	F5III
48737	F5III
55052	F5III-IV
72779	G0III
77601	F6II-III
84607	F4IV
104425	F6II
108722	F5III
110834	F6IV
144070	F5IV
159026	F6III
169985	G0III+A6V
192871	F3II
194708	F6III
203842	F5III
208177	F5IV
210459	F5III
215807	F5II
220657	F8III
254429	F8II
345740	F4II

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