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SUPPLEMENT

Astrometry of minor planets made at the Skalnaté Pleso Observatory in the year 2001

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Abstract. The paper presents the results of position determinations of minor planets carried out at the Skalnaté Pleso Observatory in the year 2001. 158 CCD observations of 9 minor planets are given together with the list of reference stars.

Key words: astrometry – asteroids

1. Introduction

The presented paper is a continuation of the previous papers which gave the results of positional CCD observations of minor planets obtained at the Skalnaté Pleso Observatory (the last paper of this series: Neslušan, 2002) and contains the observations made in the year 2000.

The reference stars were selected from the USNO-A2.0 Star Catalog (Monet et al., 1998).

The reduction was made using the method of plate constants within computer program *Astrometrica* (Raab, 1993).

A total of 158 accurate positions of 9 minor planets are given. A list of reference stars and a list of collaborators are included, too. The list of collaborators informs about their share in exposing, measuring, and reducing the positions.

2. Positions of minor planets

The data have been arranged according to serial numbers of minor planets. The individual columns of the table contain the following:
N – serial number of observation,
MP – number of minor planet (if unnumbered, yet, the preliminary designation is given in parentheses),
Date U.T. – date and time of the middle of the exposure,
$R.A._{2000}$ – right ascension for equinox 2000.0 (in h,m,s),
$Decl._{2000}$ – declination for equinox 2000.0 (in °,′, ″),
dα – the mean residual in R.A. in arc seconds,
dδ – the mean residual in Decl. in arc seconds.

N	MP	Date U.T.	$R.A._{2000}$	$Decl._{2000}$	dα	dδ
1	16	2001 Jan. 2.67519	04 33 42.45	+17 36 26.5	0.3	0.2
2	16	2001 Jan. 2.69001	04 33 41.98	+17 36 26.7	0.1	0.1
3	16	2001 Jan. 4.71604	04 32 42.37	+17 37 25.8	0.3	0.3
4	16	2001 Jan. 4.72155	04 32 42.20	+17 37 26.0	0.2	0.2
5	16	2001 Jan. 4.73308	04 32 41.88	+17 37 26.5	0.3	0.3
6	16	2001 Jan. 12.82935	04 29 49.24	+17 44 15.8	0.3	0.3
7	16	2001 Jan. 12.83898	04 29 49.11	+17 44 16.2	0.1	0.2
8	16	2001 Jan. 15.73506	04 29 13.52	+17 47 47.1	0.2	0.3
9	16	2001 Jan. 15.74678	04 29 13.40	+17 47 48.2	0.1	0.2
10	16	2001 Jan. 16.73137	04 29 04.50	+17 49 07.8	0.2	0.2
11	16	2001 Jan. 16.75455	04 29 04.28	+17 49 09.7	0.1	0.2
12	16	2001 Jan. 18.73193	04 28 51.27	+17 52 01.2	0.1	0.2
13	16	2001 Jan. 18.74774	04 28 51.17	+17 52 02.7	0.1	0.2
14	16	2001 Jan. 19.68750	04 28 47.37	+17 53 29.1	0.2	0.2
15	16	2001 Jan. 19.70649	04 28 47.25	+17 53 31.7	0.3	0.2
16	16	2001 Jan. 20.69031	04 28 44.84	+17 55 05.5	0.2	0.2
17	16	2001 Jan. 20.71104	04 28 44.78	+17 55 07.6	0.1	0.3
18	16	2001 Jan. 21.69172	04 28 43.94	+17 56 45.7	0.1	0.3
19	16	2001 Jan. 21.70591	04 28 43.93	+17 56 47.0	0.2	0.3
20	16	2001 Feb. 14.77531	04 36 15.15	+18 52 00.7	0.2	0.2
21	16	2001 Feb. 14.78784	04 36 15.59	+18 52 02.7	0.2	0.2
22	16	2001 Feb. 15.78509	04 36 52.13	+18 54 47.4	0.1	0.2
23	16	2001 Feb. 15.79698	04 36 52.56	+18 54 49.3	0.1	0.2
24	107	2001 Mar. 22.90079	11 07 43.61	+04 59 01.7	0.0	0.1
25	107	2001 Mar. 23.01297	11 07 39.61	+04 59 44.7	0.0	0.1
26	125	2001 Jan. 2.70516	04 13 56.69	+14 36 48.8	0.2	0.2
27	125	2001 Jan. 2.72215	04 13 56.17	+14 36 49.2	0.2	0.2
28	125	2001 Jan. 4.75597	04 12 59.66	+14 37 38.2	0.2	0.2
29	125	2001 Jan. 4.78287	04 12 58.93	+14 37 39.1	0.2	0.1
30	125	2001 Jan. 12.84912	04 10 15.49	+14 44 24.7	0.3	0.3
31	125	2001 Jan. 12.85880	04 10 15.34	+14 44 25.9	0.1	0.0
32	125	2001 Jan. 15.78882	04 09 40.32	+14 48 15.5	0.3	0.2
33	125	2001 Jan. 15.80256	04 09 40.16	+14 48 16.6	0.3	0.3
34	125	2001 Jan. 15.82689	04 09 39.91	+14 48 18.6	0.3	0.3
35	125	2001 Jan. 16.79208	04 09 31.33	+14 49 42.9	0.2	0.1
36	125	2001 Jan. 16.80939	04 09 31.17	+14 49 44.5	0.2	0.1
37	125	2001 Jan. 18.75596	04 09 18.16	+14 52 48.6	0.2	0.2
38	125	2001 Jan. 18.79457	04 09 17.91	+14 52 52.5	0.2	0.2
39	125	2001 Jan. 19.72314	04 09 13.86	+14 54 26.7	0.2	0.3
40	125	2001 Jan. 19.74288	04 09 13.76	+14 54 28.8	0.2	0.2
41	125	2001 Jan. 20.72073	04 09 10.82	+14 56 13.0	0.2	0.3
42	125	2001 Jan. 20.73821	04 09 10.77	+14 56 14.9	0.1	0.1
43	125	2001 Jan. 21.71404	04 09 09.40	+14 58 01.3	0.2	0.2
44	125	2001 Jan. 21.73278	04 09 09.37	+14 58 03.5	0.2	0.1
45	587	2001 Nov. 17.72086	04 38 55.69	+62 52 33.5	0.1	0.2
46	587	2001 Nov. 17.77745	04 38 49.78	+62 52 45.9	0.1	0.1

N	MP	Date U.T.	$R.A._{2000}$	$Decl._{2000}$	dα	dδ
47	696	2001 Jan. 2.73619	06 22 13.56	+31 18 35.6	0.2	0.2
48	696	2001 Jan. 2.75676	06 22 12.29	+31 18 29.2	0.2	0.2
49	696	2001 Jan. 4.79752	06 20 09.19	+31 07 13.4	0.2	0.1
50	696	2001 Jan. 4.81289	06 20 08.27	+31 07 08.3	0.1	0.1
51	696	2001 Jan. 12.86969	06 12 46.01	+30 19 34.8	0.0	0.2
52	696	2001 Jan. 12.88406	06 12 45.34	+30 19 29.2	0.1	0.3
53	696	2001 Jan. 15.83868	06 10 24.87	+30 01 10.9	0.2	0.2
54	696	2001 Jan. 15.86017	06 10 23.87	+30 01 02.9	0.2	0.3
55	696	2001 Jan. 16.81571	06 09 41.40	+29 55 03.2	0.1	0.2
56	696	2001 Jan. 16.83081	06 09 40.73	+29 54 57.5	0.1	0.2
57	696	2001 Jan. 19.75498	06 07 39.88	+29 36 30.3	0.2	0.2
58	696	2001 Jan. 19.76890	06 07 39.31	+29 36 25.4	0.2	0.1
59	696	2001 Jan. 20.74655	06 07 02.14	+29 30 13.7	0.2	0.3
60	696	2001 Jan. 20.76982	06 07 01.24	+29 30 05.1	0.2	0.3
61	696	2001 Jan. 21.75259	06 06 25.58	+29 23 50.7	0.1	0.2
62	696	2001 Jan. 21.76957	06 06 24.97	+29 23 44.4	0.2	0.3
63	696	2001 Feb. 3.73412	06 01 21.27	+28 02 49.5	0.3	0.2
64	696	2001 Feb. 3.73755	06 01 21.19	+28 02 48.3	0.3	0.2
65	696	2001 Feb. 3.74786	06 01 21.01	+28 02 43.8	0.2	0.1
66	696	2001 Feb. 16.77291	06 01 29.18	+26 48 01.8	0.2	0.3
67	696	2001 Feb. 16.79131	06 01 29.37	+26 47 55.9	0.2	0.2
68	696	2001 Feb. 17.78116	06 01 42.17	+26 42 37.0	0.1	0.1
69	696	2001 Feb. 17.79091	06 01 42.24	+26 42 33.7	0.1	0.1
70	696	2001 Feb. 17.79885	06 01 42.41	+26 42 31.6	0.1	0.3
71	696	2001 Mar. 2.84389	06 06 56.66	+25 37 15.0	0.0	0.1
72	696	2001 Mar. 2.85920	06 06 57.14	+25 37 10.7	0.2	0.2
73	696	2001 Mar. 12.75990	06 13 35.10	+24 52 43.5	0.2	0.1
74	696	2001 Mar. 12.77456	06 13 35.77	+24 52 40.1	0.2	0.2
75	696	2001 Mar. 16.89247	06 16 55.29	+24 35 06.2	0.1	0.2
76	696	2001 Mar. 16.90840	06 16 56.11	+24 35 02.4	0.2	0.2
77	696	2001 Mar. 18.91876	06 18 40.15	+24 26 37.5	0.2	0.1
78	696	2001 Mar. 20.85003	06 20 24.09	+24 18 36.8	0.1	0.2
79	696	2001 Mar. 20.86325	06 20 24.80	+24 18 33.2	0.1	0.2
80	696	2001 Apr. 1.82017	06 32 23.94	+23 29 58.6	0.1	0.1
81	696	2001 Apr. 1.83133	06 32 24.62	+23 29 55.6	0.3	0.0
82	696	2001 Apr. 1.83957	06 32 25.17	+23 29 54.0	0.2	0.1
83	696	2001 Apr. 3.79278	06 34 33.77	+23 22 01.2	0.1	0.1
84	696	2001 Apr. 3.80922	06 34 34.82	+23 21 57.6	0.2	0.3
85	893	2001 Jan. 2.77822	05 02 45.44	+00 55 31.7	0.2	0.2
86	893	2001 Jan. 2.79179	05 02 44.91	+00 55 37.1	0.3	0.2
87	893	2001 Jan. 4.82106	05 01 31.58	+01 08 03.9	0.1	0.2
88	893	2001 Jan. 4.85219	05 01 30.44	+01 08 15.7	0.3	0.3
89	893	2001 Jan. 12.89323	04 57 31.28	+02 02 45.9	0.1	0.2
90	893	2001 Jan. 12.90904	04 57 30.84	+02 02 52.1	0.1	0.2
91	893	2001 Jan. 15.87961	04 56 24.62	+02 24 45.8	0.1	0.3
92	893	2001 Jan. 15.89150	04 56 24.35	+02 24 51.1	0.1	0.3

N	MP	Date U.T.	$R.A._{2000}$	$Decl._{2000}$	dα	dδ
93	893	2001 Jan. 16.83531	04 56 05.97	+02 31 58.2	0.1	0.2
94	893	2001 Jan. 16.85843	04 56 05.51	+02 32 09.0	0.1	0.2
95	893	2001 Jan. 18.80526	04 55 31.59	+02 47 05.3	0.3	0.3
96	893	2001 Jan. 18.83080	04 55 31.14	+02 47 17.2	0.3	0.3
97	893	2001 Jan. 19.77935	04 55 16.72	+02 54 37.9	0.2	0.1
98	893	2001 Jan. 19.79685	04 55 16.44	+02 54 46.0	0.2	0.1
99	893	2001 Jan. 20.77894	04 55 02.82	+03 02 28.5	0.2	0.3
100	893	2001 Jan. 20.79789	04 55 02.53	+03 02 37.3	0.2	0.2
101	893	2001 Jan. 21.79156	04 54 50.25	+03 10 28.4	0.1	0.2
101	893	2001 Jan. 21.81537	04 54 49.91	+03 10 39.7	0.2	0.1
103	893	2001 Feb. 14.79332	04 57 06.40	+06 29 42.3	0.2	0.2
104	893	2001 Feb. 14.82236	04 57 07.01	+06 29 58.2	0.2	0.2
105	893	2001 Feb. 16.74369	04 57 52.14	+06 45 56.6	0.1	0.3
106	893	2001 Feb. 16.76497	04 57 52.65	+06 46 07.3	0.1	0.2
107	893	2001 Feb. 17.80835	04 58 19.11	+06 54 45.9	0.3	0.3
108	893	2001 Feb. 17.84001	04 58 19.90	+06 55 01.8	0.2	0.2
109	893	2001 Feb. 25.90113	05 02 29.44	+08 00 47.6	0.3	0.2
110	893	2001 Feb. 25.91095	05 02 29.80	+08 00 51.4	0.3	0.1
111	893	2001 Feb. 26.80759	05 03 02.35	+08 08 02.0	0.3	0.3
112	893	2001 Feb. 26.82519	05 03 03.01	+08 08 10.4	0.3	0.3
113	893	2001 Feb. 26.83800	05 03 03.47	+08 08 17.0	0.3	0.3
114	893	2001 Mar. 12.73648	05 13 15.46	+09 54 22.0	0.1	0.3
115	893	2001 Mar. 12.74462	05 13 15.88	+09 54 24.8	0.2	0.3
116	893	2001 Mar. 12.75081	05 13 16.20	+09 54 27.8	0.1	0.2
117	893	2001 Mar. 14.74174	05 14 59.11	+10 08 46.3	0.2	0.2
118	893	2001 Mar. 14.75476	05 14 59.78	+10 08 51.6	0.2	0.2
119	893	2001 Mar. 16.77505	05 16 47.76	+10 23 07.5	0.1	0.1
120	893	2001 Mar. 16.79120	05 16 48.63	+10 23 14.3	0.1	0.3
121	893	2001 Mar. 20.81559	05 20 34.19	+10 50 50.2	0.2	0.2
122	893	2001 Mar. 22.84528	05 22 32.87	+11 04 22.0	0.2	0.2
123	893	2001 Mar. 22.85732	05 22 33.57	+11 04 26.9	0.3	0.3
124	893	2001 Apr. 1.80291	05 32 59.84	+12 06 26.6	0.1	0.1
125	893	2001 Apr. 1.81565	05 33 00.59	+12 06 31.2	0.1	0.2
126	893	2001 Apr. 3.76343	05 35 11.16	+12 17 49.3	0.2	0.3
127	893	2001 Apr. 3.77831	05 35 12.16	+12 17 54.9	0.2	0.2
128	1620	2001 Oct. 25.80215	23 45 52.85	+31 20 31.5	0.2	0.3
129	1620	2001 Oct. 25.81393	23 45 52.10	+31 20 20.5	0.3	0.3
130	1620	2001 Oct. 27.78501	23 43 53.21	+30 48 16.6	0.1	0.1
131	1620	2001 Oct. 27.79996	23 43 52.31	+30 48 01.7	0.2	0.1
132	1620	2001 Nov. 4.74475	23 39 18.32	+28 47 04.5	0.1	0.1
133	1620	2001 Nov. 10.74321	23 38 56.79	+27 27 35.1	0.2	0.3
134	1620	2001 Nov. 10.75859	23 38 56.89	+27 27 24.3	0.3	0.3
135	1620	2001 Nov. 11.72638	23 39 06.43	+27 15 41.5	0.3	0.2
136	1620	2001 Nov. 11.74120	23 39 06.62	+27 15 31.2	0.3	0.2
137	1620	2001 Dec. 14.67482	00 08 29.27	+23 39 01.9	0.2	0.3
138	1620	2001 Dec. 14.68613	00 08 30.17	+23 39 00.6	0.3	0.3

N	MP	Date U.T.		$R.A._{2000}$	$Decl._{2000}$	dα	dδ
139	3200	2001 Oct.	20.94032	04 52 41.97	+39 34 21.1	0.2	0.1
140	3200	2001 Oct.	20.94858	04 52 41.26	+39 34 22.7	0.2	0.1
141	3200	2001 Nov.	11.80652	04 04 20.94	+39 38 42.4	0.2	0.2
142	3200	2001 Nov.	11.81752	04 04 18.93	+39 38 40.5	0.1	0.1
143	3200	2001 Nov.	11.82978	04 04 16.80	+39 38 36.7	0.3	0.3
144	3200	2001 Nov.	18.84019	03 42 30.42	+38 47 31.6	0.1	0.1
145	3200	2001 Nov.	18.85377	03 42 27.74	+38 47 24.0	0.1	0.1
146	3200	2001 Nov.	27.06330	03 15 34.98	+37 03 31.8	0.3	0.3
147	3200	2001 Nov.	27.07141	03 15 33.35	+37 03 25.5	0.3	0.2
148	3200	2001 Dec.	3.70926	02 54 30.89	+35 07 32.4	0.1	0.1
149	3200	2001 Dec.	4.69006	02 51 32.69	+34 48 26.8	0.1	0.3
150	3200	2001 Dec.	4.70611	02 51 29.80	+34 48 08.4	0.2	0.3
151	3200	2001 Dec.	6.71699	02 45 33.56	+34 07 42.8	0.2	0.1
152	3200	2001 Dec.	6.73259	02 45 30.82	+34 07 23.5	0.2	0.2
153	7341	2001 Nov.	4.70142	23 16 08.69	+19 12 57.3	0.2	0.2
154	7341	2001 Nov.	4.71609	23 16 06.78	+19 12 48.3	0.3	0.2
155	7341	2001 Nov.	10.80642	23 04 12.16	+18 09 52.9	0.2	0.3
156	7341	2001 Nov.	10.82045	23 04 10.48	+18 09 43.1	0.3	0.2
157	7341	2001 Nov.	11.75309	23 02 31.41	+17 59 40.1	0.3	0.3
158	7341	2001 Nov.	11.76796	23 02 29.75	+17 59 32.2	0.2	0.2

3. Reference stars

The individual columns of the table contain the following:
N – serial number of the observation in agreement with the Section 2,
Numbers of reference stars in the USNO-A2.0 Star Catalog,
$\Delta\alpha$ – the O–C difference in R.A. in arc seconds,
$\Delta\delta$ – the O–C difference in Decl. in arc seconds.

The position of each reference star in the field of other reference stars is determined within the used method of plate constants. $\Delta\alpha$ and $\Delta\delta$ are the differences between observed (O) and calculated (C) coordinates. Except of a common measurement error, these differences are caused by an inaccuracy of position of a given star in the catalog and by the time shift between the catalog and considered epochs.

N	Number of star	$\Delta\alpha$	$\Delta\delta$	Number of star	$\Delta\alpha$	$\Delta\delta$
1	A 1050.01311289	+0.4	+0.3	A 1050.01310296	+0.3	−0.1
	A 1050.01309709	−0.3	−0.7	A 1050.01306868	+0.2	+0.1
	A 1050.01306897	−0.4	+0.3	A 1050.01307811	+0.0	−0.1
	A 1050.01312921	+0.5	+0.1	A 1050.01312936	−0.2	−0.1
	A 1050.01313993	−0.2	+0.0	A 1050.01314458	−0.3	+0.1

N	Number of star	$\Delta\alpha$	$\Delta\delta$	Number of star	$\Delta\alpha$	$\Delta\delta$
2	A 1050.01312109	+0.2	+0.2	A 1050.01311289	+0.1	−0.0
	A 1050.01309823	−0.3	+0.0	A 1050.01306868	+0.0	−0.1
	A 1050.01306897	+0.1	+0.0	A 1050.01307811	−0.1	−0.1
	A 1050.01309278	−0.0	+0.0	A 1050.01312099	+0.2	+0.4
	A 1050.01313320	−0.2	−0.1	A 1050.01313993	−0.0	−0.3
	A 1050.01314458	+0.0	+0.0			
3	A 1050.01304064	−0.2	+0.2	A 1050.01301753	−0.0	−0.2
	A 1050.01299906	−0.3	−0.4	A 1050.01305561	+0.5	−0.1
	A 1050.01306334	−0.4	+0.3	A 1050.01306546	+0.1	−0.3
	A 1050.01308094	−0.3	−0.1	A 1050.01306897	+0.5	+0.5
	A 1050.01306868	−0.1	−0.3	A 1050.01299825	+0.3	+0.5
4	A 1050.01304064	−0.1	+0.0	A 1050.01301753	−0.0	−0.1
	A 1050.01299906	−0.2	−0.4	A 1050.01305561	+0.2	+0.1
	A 1050.01306334	−0.0	+0.1	A 1050.01306546	+0.0	−0.2
	A 1050.01308094	−0.5	−0.0	A 1050.01306897	+0.2	+0.2
	A 1050.01306868	+0.4	−0.1	A 1050.01299825	+0.2	+0.5
5	A 1050.01300543	−0.3	+0.3	A 1050.01301021	−0.3	+0.1
	A 1050.01302261	+0.2	−0.1	A 1050.01307480	+0.2	+0.0
	A 1050.01308094	−0.6	−0.2	A 1050.01306868	+0.1	−0.5
	A 1050.01302904	+0.5	−0.4	A 1050.01306897	+0.2	+0.8
6	A 1050.01285079	+0.0	−0.1	A 1050.01287377	+0.3	−0.3
	A 1050.01286467	−0.7	+0.4	A 1050.01285807	+0.2	+0.2
	A 1050.01287109	+0.1	−0.0	A 1050.01281573	+0.3	−0.7
	A 1050.01279763	−0.2	+0.5			
7	A 1050.01285079	−0.1	+0.0	A 1050.01287377	+0.0	−0.1
	A 1050.01285807	+0.1	+0.2	A 1050.01287109	−0.1	+0.1
	A 1050.01281573	+0.3	−0.6	A 1050.01279763	−0.2	+0.4
8	A 1050.01279643	−0.0	+0.1	A 1050.01282071	+0.0	−0.1
	A 1050.01281498	+0.1	+0.1	A 1050.01278494	−0.3	−0.1
	A 1050.01277706	−0.2	+0.2	A 1050.01277084	+0.3	−0.1
	A 1050.01277806	+0.3	−0.3	A 1050.01276328	−0.5	+0.7
	A 1050.01275608	+0.3	−0.5			
9	A 1050.01279643	+0.0	−0.1	A 1050.01282071	−0.1	+0.0
	A 1050.01281498	+0.1	−0.0	A 1050.01278494	−0.2	−0.2
	A 1050.01277706	−0.1	+0.1	A 1050.01277084	+0.2	−0.3
	A 1050.01277806	+0.2	+0.3	A 1050.01276328	−0.3	+0.5
	A 1050.01275608	+0.1	−0.4			
10	A 1050.01277818	−0.0	−0.1	A 1050.01279643	−0.0	+0.0
	A 1050.01279614	−0.3	−0.3	A 1050.01277806	+0.5	+0.5
	A 1050.01274978	−0.2	+0.1	A 1050.01274009	−0.0	−0.2
	A 1050.01275608	+0.0	+0.0			
11	A 1050.01276430	+0.1	+0.1	A 1050.01277818	+0.0	+0.1
	A 1050.01279643	−0.1	−0.1	A 1050.01279614	−0.3	−0.4
	A 1050.01277806	+0.5	+0.5	A 1050.01274978	−0.1	+0.2
	A 1050.01274009	−0.0	−0.3	A 1050.01275608	−0.1	−0.2

N	Number of star	$\Delta\alpha$	$\Delta\delta$	Number of star	$\Delta\alpha$	$\Delta\delta$
12	A 1050.01275592	+0.0	+0.0	A 1050.01279368	+0.1	−0.2
	A 1050.01279643	−0.1	+0.1	A 1050.01278973	−0.1	+0.1
	A 1050.01279614	−0.3	−0.5	A 1050.01277806	+0.5	+0.6
	A 1050.01274978	−0.1	+0.0	A 1050.01274009	−0.1	−0.2
	A 1050.01274218	−0.0	−0.0			
13	A 1050.01275592	+0.0	+0.1	A 1050.01279368	−0.0	−0.1
	A 1050.01279643	−0.1	+0.0	A 1050.01278973	+0.1	+0.1
	A 1050.01279614	−0.4	−0.4	A 1050.01277806	+0.6	+0.5
	A 1050.01274978	−0.1	+0.1	A 1050.01274009	−0.1	−0.2
	A 1050.01274218	+0.0	−0.1			
14	A 1050.01272964	+0.1	−0.1	A 1050.01272845	−0.2	+0.1
	A 1050.01273091	+0.1	+0.1	A 1050.01275983	+0.0	−0.4
	A 1050.01278385	−0.1	+0.4	A 1050.01279368	+0.5	−0.3
	A 1050.01279291	−0.5	−0.0	A 1050.01278973	+0.1	+0.1
15	A 1050.01277995	+0.2	−0.2	A 1050.01272964	+0.1	−0.1
	A 1050.01272845	−0.3	+0.2	A 1050.01273091	−0.0	+0.2
	A 1050.01275983	+0.3	−0.6	A 1050.01278385	+0.1	−0.0
	A 1050.01279368	+0.2	+0.1	A 1050.01279291	−0.7	+0.4
16	A 1050.01277818	+0.1	−0.3	A 1050.01275608	+0.1	−0.3
	A 1050.01272845	+0.1	+0.1	A 1050.01273091	−0.0	−0.3
	A 1050.01278385	−0.1	+0.1	A 1050.01279368	+0.4	−0.4
	A 1050.01279291	−0.3	+0.0	A 1050.01278973	+0.2	+0.1
	A 1050.01276965	−0.4	+0.6	A 1050.01275960	+0.0	+0.3
17	A 1050.01277818	+0.0	+0.1	A 1050.01275608	−0.0	−0.4
	A 1050.01272845	−0.0	+0.1	A 1050.01273091	+0.1	−0.2
	A 1050.01278385	−0.1	+0.3	A 1050.01279368	+0.3	−0.1
	A 1050.01279291	−0.2	−0.6	A 1050.01278973	−0.0	+0.2
	A 1050.01276965	+0.0	+0.4	A 1050.01275960	−0.1	+0.2
18	A 1050.01277818	−0.3	+0.2	A 1050.01275608	−0.1	−0.4
	A 1050.01274218	+0.0	−0.2	A 1050.01273593	+0.1	+0.6
	A 1050.01277934	−0.2	+0.2	A 1050.01280391	−0.0	−0.4
	A 1050.01279368	+0.5	+0.1	A 1050.01279291	+0.0	+0.2
	A 1050.01275056	−0.1	−0.0	A 1050.01273297	+0.1	−0.4
19	A 1050.01277818	−0.2	+0.1	A 1050.01275608	−0.1	−0.3
	A 1050.01274218	+0.2	−0.3	A 1050.01273593	+0.0	+0.5
	A 1050.01277934	−0.2	+0.2	A 1050.01280391	−0.0	−0.3
	A 1050.01279368	+0.6	+0.0	A 1050.01279291	−0.2	+0.3
	A 1050.01275056	−0.0	−0.2			
20	A 1050.01333295	−0.1	+0.2	A 1050.01333651	+0.1	−0.2
	A 1050.01334039	+0.1	+0.0	A 1050.01334055	−0.4	+0.3
	A 1050.01330491	+0.6	−0.3	A 1050.01326490	−0.3	−0.0
	A 1050.01326894	−0.0	−0.2	A 1050.01325302	−0.1	+0.2
	A 1050.01325624	+0.2	+0.2	A 1050.01327998	−0.1	−0.2

SUPPLEMENT

N	Number of star	$\Delta\alpha$	$\Delta\delta$	Number of star	$\Delta\alpha$	$\Delta\delta$
21	A 1050.01333295	−0.1	+0.2	A 1050.01333651	+0.1	−0.1
	A 1050.01334039	+0.0	+0.1	A 1050.01334055	−0.4	+0.2
	A 1050.01330491	+0.6	−0.4	A 1050.01326490	−0.3	−0.1
	A 1050.01326894	−0.1	−0.2	A 1050.01325302	−0.1	+0.1
	A 1050.01325624	+0.3	+0.5	A 1050.01327998	−0.1	−0.3
22	A 1050.01335707	+0.1	−0.0	A 1050.01336648	−0.2	−0.3
	A 1050.01339485	+0.1	+0.2	A 1050.01339497	−0.1	+0.0
	A 1050.01336454	−0.0	+0.2	A 1050.01334928	+0.2	−0.6
	A 1050.01333651	−0.1	+0.3	A 1050.01333295	+0.0	+0.2
23	A 1050.01335707	+0.2	−0.0	A 1050.01336648	−0.1	−0.1
	A 1050.01339497	+0.0	+0.2	A 1050.01336454	−0.1	+0.0
	A 1050.01334928	+0.1	−0.6	A 1050.01333651	−0.0	+0.4
	A 1050.01333295	−0.1	+0.1			
24	A 0900.06853647	+0.0	−0.3	A 0900.06853987	−0.0	+0.5
	A 0900.06854151	−0.0	−0.1	A 0900.06855448	+0.1	+0.0
	A 0900.06856058	−0.0	−0.0	A 0900.06851504	−0.0	−0.0
	A 0900.06855532	−0.0	−0.1			
25	A 0900.06853647	+0.0	−0.2	A 0900.06853987	−0.1	+0.3
	A 0900.06854151	+0.0	−0.0	A 0900.06855448	+0.1	−0.0
	A 0900.06856058	−0.0	−0.0	A 0900.06851504	−0.0	−0.0
	A 0900.06855532	−0.0	−0.0			
26	A 0975.00936462	+0.3	+0.3	A 0975.00936148	+0.3	−0.2
	A 0975.00934764	−0.1	+0.1	A 0975.00935196	−0.6	−0.1
	A 0975.00935172	+0.3	+0.2	A 0975.00936194	−0.0	−0.3
	A 0975.00937196	−0.1	+0.1	A 0975.00938642	+0.2	+0.1
	A 0975.00938921	−0.0	+0.1	A 0975.00938878	−0.3	−0.2
	A 0975.00939115	−0.1	+0.1			
27	A 0975.00936462	+0.2	+0.1	A 0975.00936148	+0.3	+0.2
	A 0975.00934764	−0.4	+0.1	A 0975.00935172	+0.3	+0.3
	A 0975.00936194	−0.1	−0.3	A 0975.00937196	−0.1	+0.2
	A 0975.00938642	+0.2	+0.1	A 0975.00938921	+0.2	−0.1
	A 0975.00938878	−0.3	−0.2	A 0975.00939115	−0.1	+0.1
	A 0975.00935154	−0.1	−0.5			
28	A 0975.00933825	+0.1	+0.3	A 0975.00933052	−0.1	−0.3
	A 0975.00931599	+0.3	+0.3	A 0975.00931449	−0.2	−0.2
	A 0975.00932023	+0.1	+0.2	A 0975.00935172	+0.0	+0.0
	A 0975.00935196	−0.3	−0.2	A 0975.00935154	+0.3	+0.2
	A 0975.00932423	−0.1	−0.2			
29	A 0975.00933825	−0.1	+0.2	A 0975.00933052	−0.3	−0.2
	A 0975.00931599	+0.2	+0.2	A 0975.00931449	+0.1	−0.2
	A 0975.00932023	−0.0	+0.0	A 0975.00935172	+0.0	+0.0
	A 0975.00935196	−0.5	−0.2	A 0975.00935154	+0.6	+0.1
	A 0975.00932423	−0.0	−0.0			
30	A 0975.00922857	+0.7	−0.1	A 0975.00923790	−0.2	+0.2
	A 0975.00920786	+0.3	+0.4	A 0975.00920519	−0.2	−0.2
	A 0975.00920095	−0.1	−0.4	A 0975.00920138	−0.0	+0.3
	A 0975.00923053	−0.4	−0.2			

N	Number of star	$\Delta\alpha$	$\Delta\delta$	Number of star	$\Delta\alpha$	$\Delta\delta$
31	A 0975.00924137	+0.0	−0.0	A 0975.00923053	−0.0	+0.0
	A 0975.00920519	+0.1	−0.0	A 0975.00920095	−0.2	+0.0
	A 0975.00920103	+0.1	−0.0			
32	A 0975.00920103	+0.4	+0.0	A 0975.00920138	−0.5	+0.0
	A 0975.00921191	+0.0	−0.1	A 0975.00921676	+0.3	−0.2
	A 0975.00920786	+0.2	+0.6	A 0975.00920519	−0.2	−0.4
	A 0975.00919559	−0.8	+0.2	A 0975.00918711	+0.4	−0.4
	A 0975.00918621	+0.2	+0.2			
33	A 0975.00920103	+0.3	−0.1	A 0975.00920138	−0.3	+0.1
	A 0975.00921191	+0.0	−0.0	A 0975.00921676	+0.5	+0.2
	A 0975.00920786	−0.1	+0.4	A 0975.00920519	−0.6	−0.8
	A 0975.00918711	+0.0	−0.2	A 0975.00918621	+0.3	+0.3
34	A 0975.00920103	+0.1	−0.1	A 0975.00920138	−0.1	−0.0
	A 0975.00921191	+0.0	+0.1	A 0975.00921676	+0.3	+0.0
	A 0975.00920786	+0.0	+0.4	A 0975.00920519	−0.2	−0.7
	A 0975.00919559	−0.9	+0.5	A 0975.00918711	+0.3	+0.2
	A 0975.00918621	+0.4	−0.3			
35	A 0975.00918851	−0.1	+0.1	A 0975.00919112	+0.1	−0.0
	A 0975.00920979	−0.3	−0.4	A 0975.00921353	+0.6	+0.3
	A 0975.00921780	−0.3	+0.1	A 0975.00919559	−0.1	−0.1
	A 0975.00918711	+0.1	+0.1			
36	A 0975.00918851	−0.1	+0.0	A 0975.00919112	+0.1	+0.0
	A 0975.00920979	−0.2	−0.4	A 0975.00921353	+0.5	+0.2
	A 0975.00921780	−0.3	+0.1	A 0975.00919559	−0.1	−0.1
	A 0975.00918711	+0.1	+0.0			
37	A 0975.00918800	+0.1	−0.3	A 0975.00918851	−0.1	+0.3
	A 0975.00919112	−0.2	+0.1	A 0975.00920136	−0.3	+0.1
	A 0975.00920103	+0.7	−0.2	A 0975.00920138	−0.3	+0.1
	A 0975.00917522	+0.0	+0.1	A 0975.00917634	−0.1	−0.2
	A 0975.00917912	+0.1	+0.2			
38	A 0975.00918800	+0.2	−0.1	A 0975.00918851	−0.1	+0.2
	A 0975.00919112	−0.1	+0.0	A 0975.00920136	−0.5	−0.0
	A 0975.00920103	+0.7	−0.3	A 0975.00920138	−0.1	+0.3
	A 0975.00917522	+0.1	+0.1	A 0975.00917634	−0.1	−0.3
	A 0975.00917912	+0.0	+0.1			
39	A 0975.00920136	−0.2	+0.0	A 0975.00920103	+0.4	−0.2
	A 0975.00918215	−0.2	+0.6	A 0975.00916770	+0.1	−0.7
	A 0975.00916676	+0.1	+0.5	A 0975.00918638	−0.2	+0.2
	A 0975.00920455	+0.2	+0.1	A 0975.00920710	+0.0	−0.0
	A 0975.00920215	−0.3	−0.2	A 1050.01156808	−0.0	−0.3
40	A 0975.00920136	−0.4	+0.1	A 0975.00920103	+0.4	−0.2
	A 0975.00918215	+0.1	+0.6	A 0975.00916770	+0.0	−0.6
	A 0975.00916676	−0.2	+0.4	A 0975.00918638	+0.2	+0.1
	A 0975.00920455	+0.0	+0.1	A 0975.00920710	−0.1	−0.2
	A 0975.00920215	−0.1	−0.1	A 1050.01156808	+0.1	−0.2

N	Number of star	$\Delta\alpha$	$\Delta\delta$	Number of star	$\Delta\alpha$	$\Delta\delta$
41	A 0975.00917522	+0.3	−0.1	A 0975.00917508	+0.2	−0.2
	A 0975.00918800	−0.5	+0.5	A 0975.00918851	−0.1	+0.5
	A 0975.00919112	+0.0	−0.4	A 0975.00919704	+0.2	−0.3
	A 0975.00916770	−0.3	−0.0			
42	A 0975.00917522	+0.1	−0.0	A 0975.00917508	+0.0	−0.1
	A 0975.00918800	+0.3	+0.2	A 0975.00918851	−0.0	+0.3
	A 0975.00919112	−0.2	−0.2	A 0975.00919704	−0.1	−0.1
	A 0975.00916770	−0.1	−0.0			
43	A 0975.00919112	+0.2	+0.1	A 0975.00917912	−0.3	+0.0
	A 0975.00916161	+0.2	−0.1	A 1050.01155462	−0.4	+0.3
	A 1050.01156152	+0.4	−0.3	A 0975.00919515	−0.1	+0.3
	A 0975.00919704	−0.0	−0.4			
44	A 0975.00919112	+0.2	−0.0	A 0975.00917912	−0.2	−0.1
	A 0975.00916161	+0.1	+0.1	A 1050.01155462	−0.3	+0.1
	A 1050.01156152	+0.3	−0.1	A 0975.00919515	−0.0	−0.1
	A 0975.00919704	−0.1	+0.2			
45	A 1500.03826471	−0.3	+0.2	A 1500.03820845	−0.0	−0.1
	A 1500.03816330	+0.0	+0.0	A 1500.03816362	+0.1	−0.1
	A 1500.03820718	−0.2	+0.1	A 1500.03826831	+0.1	−0.1
	A 1500.03827603	−0.0	+0.5	A 1500.03829631	−0.1	−0.4
	A 1500.03828496	+0.3	−0.1			
46	A 1500.03826471	−0.2	+0.3	A 1500.03820845	−0.0	−0.1
	A 1500.03816330	+0.0	+0.1	A 1500.03816362	+0.0	−0.2
	A 1500.03820718	−0.1	+0.1	A 1500.03826831	+0.0	+0.1
	A 1500.03827603	+0.1	+0.0	A 1500.03829631	−0.2	−0.3
	A 1500.03828496	+0.3	−0.0			
47	A 1200.04689090	+0.3	−0.2	A 1200.04682509	+0.2	−0.2
	A 1200.04682791	−0.4	+0.1	A 1200.04685919	−0.1	−0.0
	A 1200.04688027	+0.4	+0.0	A 1200.04695991	−0.2	−0.1
	A 1200.04697723	−0.0	+0.0	A 1200.04697560	+0.2	−0.1
	A 1200.04694463	−0.4	+1.0	A 1200.04698909	+0.1	−0.4
48	A 1200.04689090	+0.2	−0.2	A 1200.04682509	+0.2	−0.2
	A 1200.04682791	−0.4	+0.2	A 1200.04685919	−0.1	−0.1
	A 1200.04688027	+0.3	−0.0	A 1200.04695991	−0.2	−0.1
	A 1200.04697723	+0.0	+0.1	A 1200.04697560	+0.3	−0.2
	A 1200.04694463	−0.3	+0.8	A 1200.04698909	−0.0	−0.4
49	A 1200.04644206	−0.4	−0.2	A 1200.04638445	+0.2	−0.0
	A 1200.04637093	+0.1	+0.3	A 1200.04639138	−0.1	−0.2
	A 1200.04648841	+0.1	−0.0	A 1200.04653210	+0.1	+0.1
	A 1200.04654662	−0.4	+0.0	A 1200.04654952	+0.4	−0.2
	A 1200.04651205	−0.0	+0.2			
50	A 1200.04644206	−0.2	−0.1	A 1200.04638445	+0.2	−0.2
	A 1200.04637093	−0.1	+0.4	A 1200.04639138	−0.0	−0.2
	A 1200.04648841	+0.2	+0.0	A 1200.04653210	−0.1	+0.1
	A 1200.04654662	−0.2	−0.1	A 1200.04654952	+0.3	−0.1
	A 1200.04651205	−0.0	+0.1			

N	Number of star	$\Delta\alpha$	$\Delta\delta$	Number of star	$\Delta\alpha$	$\Delta\delta$
51	A 1200.04498430	−0.0	+0.0	A 1200.04496567	−0.0	+0.2
	A 1200.04484534	+0.0	−0.6	A 1200.04479037	−0.0	+0.3
	A 1200.04479936	−0.0	+0.1			
52	A 1200.04498430	+0.0	+0.1	A 1200.04496567	−0.1	+0.2
	A 1200.04484534	+0.2	−0.8	A 1200.04479037	−0.1	+0.5
	A 1200.04479936	−0.0	+0.1	A 1200.04484148	−0.0	−0.1
53	A 1200.04425385	−0.6	+0.4	A 1200.04426319	+0.3	+0.0
	A 1200.04428216	+0.1	−0.1	A 1200.04437174	−0.2	−0.4
	A 1200.04438784	+0.2	+0.6	A 1125.03531293	−0.1	−0.1
	A 1125.03525529	−0.1	−0.1	A 1125.03515382	+0.2	+0.0
	A 1200.04424569	+0.1	−0.3			
54	A 1200.04425385	−0.6	+0.5	A 1200.04426319	+0.4	+0.1
	A 1200.04428216	+0.0	−0.1	A 1200.04437174	−0.2	−0.3
	A 1200.04438784	+0.2	+0.6	A 1125.03531293	−0.0	−0.2
	A 1125.03525529	−0.1	−0.0	A 1125.03515382	+0.2	+0.0
	A 1200.04424569	+0.1	−0.4			
55	A 1125.03484248	−0.1	−0.2	A 1125.03486996	−0.1	+0.3
	A 1125.03500075	+0.1	−0.1	A 1125.03507516	+0.1	−0.1
	A 1125.03505487	−0.0	+0.3	A 1125.03494246	+0.1	−0.1
	A 1125.03488713	−0.2	−0.4	A 1125.03482263	−0.3	+0.5
	A 1125.03478130	+0.2	−0.2	A 1125.03476814	+0.2	−0.0
56	A 1125.03484248	−0.0	−0.2	A 1125.03486996	−0.0	+0.3
	A 1125.03500075	+0.0	−0.1	A 1125.03507516	+0.0	−0.2
	A 1125.03505487	−0.1	+0.3	A 1125.03494246	+0.1	−0.1
	A 1125.03488713	−0.2	−0.3	A 1125.03482263	−0.1	+0.4
	A 1125.03478130	+0.1	−0.2	A 1125.03476814	+0.1	+0.0
57	A 1125.03420950	+0.2	−0.3	A 1125.03412146	−0.0	+0.2
	A 1125.03408701	−0.1	+0.1	A 1125.03413124	+0.0	−0.2
	A 1125.03430491	+0.3	+0.0	A 1125.03436358	−0.4	+0.1
	A 1125.03440561	+0.1	−0.1	A 1125.03438452	+0.4	−0.2
	A 1125.03437032	−0.5	+0.3			
58	A 1125.03420950	+0.1	−0.1	A 1125.03408701	−0.1	+0.2
	A 1125.03413124	−0.0	−0.2	A 1125.03430491	+0.2	+0.2
	A 1125.03436358	−0.2	−0.1	A 1125.03440561	+0.0	−0.1
	A 1125.03438452	+0.4	−0.2	A 1125.03437032	−0.4	+0.3
59	A 1125.03409036	+0.4	−0.5	A 1125.03388286	−0.1	+0.1
	A 1125.03382818	−0.0	−0.1	A 1125.03388618	−0.0	−0.2
	A 1125.03394057	−0.1	+0.2	A 1125.03409016	+0.3	+0.5
	A 1125.03412732	+0.2	−0.3	A 1125.03419981	−0.7	−0.4
	A 1125.03415202	+0.2	+0.6	A 1125.03404587	−0.1	+0.1
60	A 1125.03409036	+0.1	−0.3	A 1125.03388286	+0.1	−0.0
	A 1125.03382818	+0.1	+0.0	A 1125.03388618	+0.0	−0.1
	A 1125.03394057	+0.0	+0.1	A 1125.03409016	−0.2	+0.7
	A 1125.03412732	−0.1	−0.8	A 1125.03419981	+0.6	+0.4
	A 1125.03415202	−0.3	−0.3	A 1125.03404587	−0.2	+0.3

SUPPLEMENT

N	Number of star	$\Delta\alpha$	$\Delta\delta$	Number of star	$\Delta\alpha$	$\Delta\delta$
61	A 1125.03367315	−0.2	+0.0	A 1125.03365988	+0.1	−0.1
	A 1125.03377750	+0.2	+0.1	A 1125.03389302	−0.1	+0.2
	A 1125.03393376	+0.0	−0.4	A 1125.03396423	+0.1	+0.1
	A 1125.03393439	−0.3	−0.2	A 1125.03384229	+0.0	+0.3
	A 1125.03379126	+0.4	+0.1	A 1125.03365326	−0.2	−0.2
62	A 1125.03367315	−0.0	+0.2	A 1125.03365988	+0.2	−0.1
	A 1125.03377750	+0.0	+0.1	A 1125.03389302	−0.0	+0.2
	A 1125.03393376	+0.1	−0.4	A 1125.03396423	−0.2	+0.1
	A 1125.03393439	−0.2	−0.4	A 1125.03384229	+0.0	+0.3
	A 1125.03379126	+0.6	+0.3	A 1125.03365326	−0.5	−0.5
63	A 1125.03207664	−0.7	−0.1	A 1125.03191534	+0.3	−0.3
	A 1125.03184107	+0.1	+0.2	A 1125.03182946	−0.4	+0.2
	A 1125.03188283	+0.4	+0.1	A 1125.03196927	−0.1	−0.4
	A 1125.03208963	−0.1	+0.1	A 1125.03212064	−0.1	+0.1
	A 1125.03213135	+0.6	+0.2			
64	A 1125.03191534	−0.3	−0.1	A 1125.03184107	+0.4	+0.1
	A 1125.03182946	−0.4	−0.3	A 1125.03188283	+0.1	+0.1
	A 1125.03208963	+0.0	+0.1	A 1125.03212064	−0.1	+0.0
	A 1125.03213135	−0.4	−0.5	A 1125.03201420	+0.2	+0.1
	A 1125.03204894	+0.6	+0.4			
65	A 1125.03191534	+0.0	−0.0	A 1125.03184107	+0.1	−0.0
	A 1125.03188283	+0.2	−0.2	A 1125.03213135	+0.3	+0.2
	A 1125.03201420	−0.3	+0.1	A 1125.03204894	−0.4	−0.1
	A 1125.03181347	−0.1	+0.2	A 1125.03216378	+0.0	−0.1
66	A 1125.03198655	−0.1	+0.2	A 1125.03201933	−0.2	+0.4
	A 1125.03202413	+0.2	−0.3	A 1125.03217280	−0.0	−0.4
	A 1125.03221047	−0.0	+0.4	A 1125.03219182	+0.2	+0.1
	A 1125.03211659	−0.5	−0.3	A 1125.03210531	−0.1	+0.2
	A 1125.03204979	+0.4	−0.2	A 1125.03201816	−0.1	−0.0
67	A 1125.03198655	−0.2	+0.4	A 1125.03201933	−0.3	+0.2
	A 1125.03202413	+0.3	−0.3	A 1125.03217280	−0.0	−0.3
	A 1125.03221047	−0.1	+0.3	A 1125.03219182	+0.3	+0.3
	A 1125.03211659	−0.4	−0.3	A 1125.03210531	−0.2	+0.0
	A 1125.03204979	+0.3	−0.3	A 1125.03201816	+0.2	+0.0
68	A 1125.03198655	+0.1	+0.3	A 1125.03215348	−0.4	+0.0
	A 1125.03219182	+0.3	−0.0	A 1125.03221812	−0.0	−0.1
	A 1125.03210076	−0.0	+0.0	A 1125.03200362	+0.1	−0.0
	A 1125.03196965	−0.1	+0.2	A 1125.03196215	+0.0	−0.5
69	A 1125.03198655	+0.1	+0.1	A 1125.03215348	−0.4	+0.1
	A 1125.03219182	+0.3	+0.1	A 1125.03221812	+0.0	−0.2
	A 1125.03214527	−0.0	+0.0	A 1125.03200362	+0.0	+0.1
	A 1125.03196215	−0.1	−0.2			
70	A 1125.03198655	+0.1	+0.4	A 1125.03215348	−0.4	+0.2
	A 1125.03219182	+0.3	+0.1	A 1125.03221812	−0.0	−0.3
	A 1125.03214527	−0.0	+0.0	A 1125.03200362	+0.0	+0.3
	A 1125.03196215	−0.1	−0.6			

N	Number of star	$\Delta\alpha$	$\Delta\delta$	Number of star	$\Delta\alpha$	$\Delta\delta$
71	A 1125.03400013	−0.0	−0.0	A 1125.03404809	+0.0	+0.1
	A 1125.03411366	−0.0	−0.1	A 1125.03408227	+0.0	+0.1
	A 1125.03403839	−0.0	−0.0			
72	A 1125.03385618	+0.1	−0.1	A 1125.03400013	+0.1	−0.1
	A 1125.03404809	−0.1	+0.2	A 1125.03411366	−0.2	+0.1
	A 1125.03408227	−0.0	−0.0	A 1125.03403839	+0.1	+0.1
	A 1125.03386361	+0.3	−0.3	A 1125.03382418	+0.1	−0.1
	A 1125.03372123	−0.5	+0.5	A 1125.03377571	+0.2	−0.2
73	A 1125.03613460	+0.0	−0.1	A 1125.03607149	−0.0	+0.1
	A 1125.03602130	+0.0	−0.0	A 1125.03596719	+0.0	+0.1
	A 1125.03597820	−0.3	−0.1	A 1125.03605228	+0.2	+0.2
	A 1125.03612444	+0.3	−0.2	A 1125.03616732	−0.9	+0.4
	A 1125.03615200	+0.4	−0.2	A 1125.03614136	+0.3	+0.0
74	A 1125.03613460	+0.1	+0.3	A 1125.03607149	−0.1	+0.2
	A 1125.03602130	+0.0	−0.1	A 1125.03596719	+0.0	+0.0
	A 1125.03597820	−0.2	−0.2	A 1125.03605228	+0.1	+0.1
	A 1125.03612444	+0.2	+0.3	A 1125.03616732	−0.6	−0.4
	A 1125.03615200	+0.4	−0.0	A 1125.03614136	+0.0	−0.1
75	A 1125.03691859	−0.1	−0.3	A 1125.03688462	−0.2	−0.1
	A 1125.03682380	−0.0	+0.2	A 1125.03683254	−0.1	+0.3
	A 1125.03684418	+0.1	−0.4	A 1125.03693624	−0.0	+0.1
	A 1125.03695988	+0.1	+0.0	A 1125.03701117	−0.1	+0.0
	A 1125.03692489	+0.3	+0.2			
76	A 1125.03691859	+0.0	−0.2	A 1125.03688462	−0.5	−0.3
	A 1125.03682380	+0.5	+0.4	A 1125.03683254	+0.0	−0.1
	A 1125.03684418	−0.1	−0.1	A 1125.03693624	−0.2	+0.1
	A 1125.03695988	+0.2	−0.1	A 1125.03701117	+0.2	+0.2
	A 1125.03692489	−0.1	−0.0			
77	A 1125.03743024	−0.2	+0.0	A 1125.03735243	−0.2	−0.3
	A 1125.03723148	+0.2	+0.1	A 1125.03725088	−0.3	+0.3
	A 1125.03722752	+0.4	−0.1	A 1125.03730756	−0.0	−0.1
	A 1125.03738686	−0.3	−0.1	A 1125.03747608	+0.2	+0.0
	A 1125.03749752	+0.2	+0.1			
78	A 1125.03800230	+0.0	+0.2	A 1125.03795284	−0.2	+0.1
	A 1125.03792016	+0.2	+0.1	A 1125.03777392	−0.1	−0.2
	A 1125.03778622	+0.1	+0.1	A 1125.03781505	+0.1	−0.3
	A 1125.03805323	+0.0	−0.4	A 1125.03800830	+0.1	+0.2
	A 1125.03785501	−0.1	+0.2			
79	A 1125.03800230	−0.0	−0.0	A 1125.03795284	+0.2	+0.1
	A 1125.03792016	−0.1	+0.2	A 1125.03777392	−0.0	−0.3
	A 1125.03778622	+0.0	+0.3	A 1125.03781505	+0.1	−0.4
	A 1125.03805323	−0.1	−0.3	A 1125.03800830	+0.1	+0.2
	A 1125.03785501	−0.1	+0.2			

N	Number of star	$\Delta\alpha$	$\Delta\delta$	Number of star	$\Delta\alpha$	$\Delta\delta$
80	A 1125.04131386	−0.2	+0.1	A 1125.04132785	+0.1	−0.1
	A 1125.04148340	−0.1	+0.0	A 1125.04149348	+0.1	−0.0
	A 1125.04148938	−0.0	+0.4	A 1125.04144255	+0.1	−0.4
	A 1125.04131637	−0.2	−0.1	A 1125.04128091	+0.1	+0.2
	A 1125.04128178	+0.1	+0.0			
81	A 1125.04132785	+0.2	−0.0	A 1125.04145813	−0.4	+0.0
	A 1125.04139912	+0.6	−0.1	A 1125.04134242	−0.1	+0.0
	A 1125.04127477	−0.3	+0.0			
82	A 1125.04132785	+0.2	+0.1	A 1125.04145813	−0.3	−0.1
	A 1125.04139912	+0.5	+0.1	A 1125.04134242	−0.0	−0.0
	A 1125.04127477	−0.2	−0.1			
83	A 1125.04191468	+0.0	−0.1	A 1125.04179722	−0.0	−0.0
	A 1125.04177905	+0.0	−0.0	A 1125.04189547	+0.0	−0.0
	A 1125.04192484	−0.1	+0.1	A 1125.04203007	−0.0	−0.1
	A 1125.04202069	+0.3	−0.1	A 1125.04202035	−0.3	−0.2
	A 1125.04199873	+0.1	+0.5			
84	A 1125.04191468	−0.5	+0.2	A 1125.04179722	+0.2	−0.1
	A 1125.04177905	+0.0	+0.3	A 1125.04189547	+0.0	−0.1
	A 1125.04192484	−0.1	−0.4	A 1125.04202069	+0.5	+0.3
	A 1125.04202035	−0.3	+0.1	A 1125.04199873	+0.1	−0.6
	A 1125.04201206	−0.0	+0.4			
85	A 0900.01314588	−0.4	−0.2	A 0900.01323028	−0.3	−0.0
	A 0900.01322489	+0.2	+0.0	A 0900.01320430	−0.2	−0.0
	A 0900.01314215	+0.1	+0.0	A 0900.01317130	+0.4	+0.6
	A 0900.01321370	+0.0	+0.1	A 0900.01318059	+0.0	−0.5
86	A 0900.01314588	−0.5	−0.2	A 0900.01323028	−0.2	+0.0
	A 0900.01322489	+0.4	+0.2	A 0900.01320430	−0.2	−0.1
	A 0900.01314215	−0.0	−0.1	A 0900.01317130	+0.5	+0.5
	A 0900.01321370	−0.3	−0.1	A 0900.01318059	+0.3	−0.4
	A 0900.01313284	+0.1	+0.2			
87	A 0900.01308331	+0.3	−0.0	A 0900.01306868	−0.3	−0.2
	A 0900.01302629	+0.1	+0.4	A 0900.01303754	−0.1	−0.2
	A 0900.01305426	+0.0	−0.0	A 0900.01309004	−0.0	−0.1
	A 0900.01310643	+0.1	−0.0	A 0900.01310701	−0.2	+0.5
	A 0900.01308503	+0.1	−0.3			
88	A 0900.01308331	+0.2	−0.2	A 0900.01306868	−0.3	−0.0
	A 0900.01302629	+0.3	−0.1	A 0900.01303754	−0.5	+0.4
	A 0900.01305426	+0.4	−0.4	A 0900.01309004	−0.2	+0.3
	A 0900.01310643	+0.3	−0.4	A 0900.01310701	−0.1	+0.4
89	A 0900.01267208	−0.0	−0.1	A 0900.01274554	−0.0	+0.1
	A 0900.01272917	−0.1	−0.1	A 0900.01269754	+0.2	+0.1
	A 0900.01265603	−0.1	−0.4	A 0900.01264586	+0.0	+0.5
	A 0900.01264546	−0.0	−0.0			
90	A 0900.01267208	+0.1	−0.1	A 0900.01271238	+0.0	−0.0
	A 0900.01274554	−0.1	+0.2	A 0900.01272917	−0.1	−0.2
	A 0900.01269754	+0.3	+0.2	A 0900.01265603	+0.1	−0.3
	A 0900.01264586	−0.3	+0.3			

N	Number of star	$\Delta\alpha$	$\Delta\delta$	Number of star	$\Delta\alpha$	$\Delta\delta$
91	A 0900.01254044	+0.0	−0.1	A 0900.01256261	−0.0	−0.5
	A 0900.01257053	−0.1	+0.7	A 0900.01257854	+0.2	−0.1
	A 0900.01255007	+0.1	−0.0	A 0900.01254062	−0.2	−0.3
	A 0900.01250055	−0.1	+0.3	A 0900.01249100	+0.2	+0.2
	A 0900.01247939	+0.1	−0.5	A 0900.01248018	−0.1	+0.3
92	A 0900.01254044	−0.0	+0.0	A 0900.01256261	+0.1	−0.4
	A 0900.01257053	−0.1	+0.5	A 0900.01257854	+0.1	−0.2
	A 0900.01255007	+0.2	+0.0	A 0900.01254062	−0.2	−0.2
	A 0900.01250055	−0.3	+0.3	A 0900.01249100	+0.2	+0.2
	A 0900.01247939	+0.1	−0.6	A 0900.01248018	−0.1	+0.2
93	A 0900.01251092	−0.1	+0.2	A 0900.01251547	+0.1	−0.5
	A 0900.01251756	+0.0	+0.1	A 0900.01252502	−0.1	+0.3
	A 0900.01252020	+0.0	−0.2	A 0900.01250995	−0.0	+0.0
	A 0900.01245752	+0.0	+0.0			
94	A 0900.01251092	−0.1	+0.2	A 0900.01251547	+0.1	−0.4
	A 0900.01251756	+0.0	+0.2	A 0900.01252502	−0.1	+0.2
	A 0900.01252020	+0.1	−0.2	A 0900.01250995	+0.0	+0.0
	A 0900.01245752	−0.0	+0.0			
95	A 0900.01245502	+0.3	−0.3	A 0900.01248989	−0.3	+0.7
	A 0900.01249821	−0.2	−0.5	A 0900.01252360	+0.5	−0.3
	A 0900.01252293	−0.1	+0.2	A 0900.01249885	−0.2	+0.4
	A 0900.01248483	−0.1	−0.3	A 0900.01245158	+0.4	−0.1
	A 0900.01243885	−0.3	+0.2			
96	A 0900.01245502	+0.3	−0.3	A 0900.01248989	−0.2	+0.6
	A 0900.01249821	−0.2	−0.3	A 0900.01252360	+0.4	−0.3
	A 0900.01252293	−0.1	+0.1	A 0900.01249885	−0.1	+0.4
	A 0900.01248483	−0.2	−0.2	A 0900.01245158	+0.4	−0.2
	A 0900.01243885	−0.3	+0.2			
97	A 0900.01243300	+0.0	−0.2	A 0900.01241923	−0.1	+0.0
	A 0900.01238008	−0.1	−0.2	A 0900.01237626	+0.2	+0.3
	A 0900.01239007	−0.1	−0.0	A 0900.01239204	+0.1	+0.1
	A 0900.01244835	+0.4	−0.1	A 0900.01245807	−0.3	+0.0
	A 0900.01246286	−0.2	+0.0	A 0900.01246927	+0.2	+0.1
98	A 0900.01243300	+0.0	−0.2	A 0900.01241923	−0.2	−0.1
	A 0900.01238008	−0.1	−0.2	A 0900.01237626	+0.2	+0.3
	A 0900.01239007	−0.2	−0.1	A 0900.01239204	+0.1	+0.1
	A 0900.01244835	+0.3	+0.1	A 0900.01245807	−0.3	−0.1
	A 0900.01246286	−0.1	−0.0	A 0900.01246927	+0.2	+0.2
99	A 0900.01239735	−0.2	−0.8	A 0900.01238455	+0.4	+0.3
	A 0900.01236155	−0.3	+0.0	A 0900.01237765	−0.2	−0.5
	A 0900.01240972	+0.1	−0.0	A 0900.01242626	+0.1	+0.3
	A 0900.01242994	−0.1	+0.0	A 0900.01243767	−0.1	+0.1
	A 0900.01241814	+0.1	+0.1	A 0900.01234487	+0.2	+0.4

N	Number of star	$\Delta\alpha$	$\Delta\delta$	Number of star	$\Delta\alpha$	$\Delta\delta$
100	A 0900.01239735	−0.1	−0.8	A 0900.01238455	+0.6	+0.4
	A 0900.01236155	−0.5	+0.2	A 0900.01240972	+0.1	+0.1
	A 0900.01242626	+0.2	−0.1	A 0900.01243767	−0.1	+0.3
	A 0900.01241814	+0.1	+0.1	A 0900.01234487	+0.0	−0.0
	A 0900.01243897	−0.3	−0.0			
101	A 0900.01240972	−0.0	−0.0	A 0900.01233866	+0.0	+0.1
	A 0900.01232785	+0.2	−0.1	A 0900.01231697	+0.3	−0.3
	A 0900.01232413	−0.5	+0.3	A 0900.01236470	+0.1	+0.0
	A 0900.01237405	+0.0	+0.2	A 0900.01240566	−0.0	−0.2
102	A 0900.01240972	−0.0	−0.2	A 0900.01233866	+0.2	−0.0
	A 0900.01232785	−0.0	−0.1	A 0900.01233235	+0.0	+0.1
	A 0900.01236231	+0.0	−0.1	A 0900.01239458	−0.7	+0.2
	A 0900.01239920	+0.6	−0.3	A 0900.01241176	+0.2	+0.2
	A 0900.01237765	−0.3	+0.2			
103	A 0900.01257606	+0.0	−0.0	A 0900.01259319	−0.2	+0.3
	A 0900.01260891	+0.3	+0.1	A 0900.01263504	−0.4	−0.5
	A 0900.01261125	+0.0	+0.0	A 0900.01259423	+0.2	+0.5
	A 0900.01254509	−0.0	−0.1	A 0900.01253127	−0.4	−0.1
	A 0900.01255740	+0.5	−0.2			
104	A 0900.01257606	−0.1	−0.3	A 0900.01259319	−0.2	+0.4
	A 0900.01260891	+0.3	+0.0	A 0900.01263504	−0.2	−0.3
	A 0900.01261125	−0.1	−0.1	A 0900.01259423	+0.3	+0.5
	A 0900.01254509	−0.1	−0.1	A 0900.01253127	−0.1	−0.1
	A 0900.01255740	+0.2	+0.0			
105	A 0900.01264170	−0.0	−0.1	A 0900.01272742	−0.0	−0.0
	A 0900.01266986	+0.1	+0.4	A 0900.01266107	−0.2	−0.6
	A 0900.01265375	+0.1	+0.3			
106	A 0900.01264170	−0.1	+0.0	A 0900.01274050	+0.0	−0.0
	A 0900.01272742	−0.1	+0.1	A 0900.01271361	+0.1	−0.2
	A 0900.01266986	−0.1	+0.7	A 0900.01266107	−0.1	−0.6
	A 0900.01265375	+0.3	+0.0			
107	A 0900.01268625	−0.0	−0.2	A 0900.01271835	−0.2	+0.4
	A 0900.01277051	+0.1	+0.2	A 0900.01277370	−0.2	−0.2
	A 0900.01276155	+0.1	−0.2	A 0900.01275132	+0.5	−0.3
	A 0900.01272114	−0.3	+0.2	A 0900.01270297	−0.5	+0.8
	A 0900.01268245	+0.4	−0.6	A 0900.01267840	+0.2	−0.1
108	A 0900.01268625	−0.2	−0.3	A 0900.01271835	−0.3	+0.2
	A 0900.01277051	+0.2	+0.2	A 0900.01277370	−0.2	−0.2
	A 0900.01275132	+0.3	−0.3	A 0900.01272114	−0.4	+0.5
	A 0900.01268245	+0.2	−0.2	A 0900.01268366	+0.4	+0.1
	A 0900.01274892	+0.0	+0.1	A 0900.01276155	+0.1	−0.1
109	A 0975.01298459	+0.0	−0.1	A 0975.01291820	−0.2	+0.3
	A 0975.01290023	+0.1	−0.3	A 0975.01290405	−0.1	+0.1
	A 0975.01297705	−0.4	+0.2	A 0975.01298206	+0.6	−0.3
	A 0975.01299520	−0.4	+0.1	A 0975.01298013	+0.2	−0.0

N	Number of star	$\Delta\alpha$	$\Delta\delta$	Number of star	$\Delta\alpha$	$\Delta\delta$
110	A 0975.01298459	+0.4	−0.2	A 0975.01291820	−0.2	+0.0
	A 0975.01290023	+0.2	−0.0	A 0975.01290405	−0.1	−0.0
	A 0975.01297705	−0.3	+0.2	A 0975.01298206	+0.6	−0.2
	A 0975.01299520	−0.4	+0.1	A 0975.01298013	−0.1	+0.1
111	A 0975.01297376	−0.4	+0.5	A 0975.01303205	+0.1	−0.0
	A 0975.01307467	−0.0	−0.3	A 0975.01304086	+0.2	+0.2
	A 0975.01298804	−0.3	+0.3	A 0975.01297705	−0.3	+0.0
	A 0975.01295883	+0.7	−0.8			
112	A 0975.01301696	+0.6	+0.0	A 0975.01304140	−0.6	−0.0
	A 0975.01306647	+0.2	−0.0	A 0975.01307271	+0.0	−0.1
	A 0975.01306507	+0.0	−0.0	A 0975.01301643	−0.0	+0.3
	A 0975.01299895	−0.1	−0.3	A 0975.01296572	−0.4	+0.7
	A 0975.01295883	+0.6	−0.9	A 0975.01297452	−0.4	+0.4
113	A 0975.01301696	+0.4	+0.0	A 0975.01304140	−0.5	−0.1
	A 0975.01306647	+0.3	+0.0	A 0975.01307271	−0.1	−0.1
	A 0975.01306507	+0.1	−0.0	A 0975.01301643	−0.0	+0.3
	A 0975.01299895	−0.1	−0.4	A 0975.01296572	−0.4	+0.6
	A 0975.01295883	+0.6	−0.7	A 0975.01297452	−0.3	+0.3
114	A 0975.01436252	+0.0	−0.2	A 0975.01429857	−0.0	−0.3
	A 0975.01429549	+0.1	+0.3	A 0975.01429394	−0.1	+0.1
	A 0975.01429831	+0.2	−0.1	A 0975.01432715	−0.2	−0.3
	A 0975.01436381	+0.0	+0.0	A 0975.01438780	+0.1	+0.3
	A 0975.01439220	−0.2	−0.1	A 0975.01439751	+0.3	−0.5
	A 0975.01438171	−0.2	+0.6			
115	A 0975.01436252	+0.0	−0.4	A 0975.01429857	−0.1	−0.1
	A 0975.01429549	+0.2	+0.3	A 0975.01429394	−0.1	+0.1
	A 0975.01429831	+0.3	−0.2	A 0975.01432715	−0.4	+0.0
	A 0975.01436381	+0.1	−0.1	A 0975.01438780	−0.0	+0.1
	A 0975.01439220	−0.1	+0.2	A 0975.01439751	+0.3	−0.6
	A 0975.01438171	−0.2	+0.8			
116	A 0975.01436252	+0.1	−0.1	A 0975.01429857	−0.0	−0.0
	A 0975.01429549	+0.0	−0.0	A 0975.01429394	−0.1	+0.1
	A 0975.01429831	+0.2	−0.1	A 0975.01432715	−0.1	+0.1
	A 0975.01436381	+0.1	−0.0	A 0975.01438780	−0.1	+0.3
	A 0975.01439220	+0.1	−0.1	A 0975.01439751	+0.1	−0.5
	A 0975.01438171	−0.2	+0.5			
117	A 0975.01456643	−0.2	+0.1	A 0975.01452685	−0.1	−0.5
	A 0975.01451363	+0.3	+0.4	A 0975.01452194	−0.1	+0.2
	A 0975.01452331	+0.2	−0.3	A 0975.01454787	−0.3	+0.1
	A 0975.01458593	+0.2	+0.1	A 0975.01461186	+0.3	+0.0
	A 0975.01459392	−0.1	−0.2	A 0975.01458120	−0.2	+0.0
118	A 0975.01456643	−0.2	+0.3	A 0975.01452685	−0.4	−0.3
	A 0975.01451363	+0.6	+0.0	A 0975.01452194	−0.1	+0.1
	A 0975.01452331	+0.0	−0.1	A 0975.01454787	−0.1	+0.0
	A 0975.01458593	+0.1	−0.1	A 0975.01461186	+0.3	−0.4
	A 0975.01459392	−0.1	+0.2	A 0975.01458120	−0.1	+0.3

N	Number of star	$\Delta\alpha$	$\Delta\delta$	Number of star	$\Delta\alpha$	$\Delta\delta$
119	A 0975.01475496	−0.0	+0.0	A 0975.01474240	−0.0	+0.2
	A 0975.01473847	−0.1	−0.2	A 0975.01477502	+0.1	+0.0
	A 0975.01481865	−0.3	+0.2	A 0975.01484127	+0.3	−0.1
	A 0975.01483406	+0.1	−0.3	A 0975.01483089	−0.3	+0.4
	A 0975.01479879	+0.2	−0.2	A 0975.01473056	+0.1	+0.0
120	A 0975.01475496	+0.1	−0.1	A 0975.01474240	−0.0	+0.2
	A 0975.01473847	−0.1	−0.5	A 0975.01477502	+0.1	+0.0
	A 0975.01481865	−0.3	+0.4	A 0975.01484127	+0.2	−0.1
	A 0975.01483406	+0.3	−0.6	A 0975.01483089	−0.2	+0.3
	A 0975.01479879	−0.1	+0.1	A 0975.01473056	+0.1	+0.2
121	A 0975.01525566	−0.0	−0.0	A 0975.01518956	−0.3	+0.3
	A 0975.01516565	+0.2	−0.3	A 0975.01517772	+0.2	−0.2
	A 0975.01519871	−0.4	+0.6	A 0975.01523577	+0.5	−0.4
	A 0975.01526796	−0.3	+0.1	A 0975.01523070	+0.2	−0.1
	A 0975.01515781	−0.1	+0.1			
122	A 0975.01551136	+0.2	+0.6	A 0975.01547649	−0.3	−0.5
	A 0975.01542067	+0.2	+0.2	A 0975.01540419	−0.3	+0.1
	A 0975.01543159	+0.3	−0.1	A 0975.01550876	+0.1	−0.1
	A 0975.01550573	−0.1	+0.2	A 0975.01551150	−0.3	−0.1
	A 0975.01551513	−0.1	+0.1	A 0975.01551904	+0.3	−0.3
123	A 0975.01551136	+0.3	+0.9	A 0975.01547649	−0.4	−0.5
	A 0975.01542067	+0.1	+0.1	A 0975.01540419	+0.4	+0.1
	A 0975.01543159	−0.4	−0.1	A 0975.01550876	+0.2	+0.2
	A 0975.01550573	+0.1	−0.1	A 0975.01551150	−0.3	−0.0
	A 0975.01551513	−0.2	+0.2	A 0975.01551904	+0.3	−0.7
124	A 0975.01696407	+0.1	+0.0	A 0975.01695034	−0.1	−0.1
	A 0975.01695435	−0.0	+0.1	A 0975.01708990	−0.1	−0.0
	A 0975.01695054	+0.3	+0.1	A 0975.01692532	−0.3	−0.1
125	A 0975.01696407	+0.1	+0.5	A 0975.01695034	−0.0	−0.5
	A 0975.01695435	−0.0	−0.2	A 0975.01707975	−0.1	−0.1
	A 0975.01708990	+0.1	−0.1	A 0975.01705139	−0.0	+0.1
	A 0975.01695054	+0.1	+0.3	A 0975.01692532	−0.0	−0.1
126	A 0975.01742655	+0.3	−0.7	A 0975.01736175	−0.3	+0.4
	A 0975.01735484	+0.5	−0.3	A 0975.01736876	−0.2	+0.1
	A 0975.01743008	−0.0	+0.1	A 0975.01748843	−0.2	+0.2
	A 0975.01751020	+0.3	−0.4	A 0975.01749286	+0.1	−0.0
	A 0975.01746406	−0.2	+0.5	A 0975.01751486	−0.2	+0.1
127	A 0975.01746990	−0.2	+0.4	A 0975.01742655	+0.3	−0.5
	A 0975.01736175	−0.4	+0.2	A 0975.01734124	+0.1	+0.3
	A 0975.01735484	+0.4	−0.4	A 0975.01751020	+0.0	−0.1
	A 0975.01751478	+0.2	+0.0	A 0975.01745906	+0.1	−0.2
	A 0975.01743008	−0.4	+0.2	A 0975.01739944	+0.0	+0.1

N	Number of star	$\Delta\alpha$	$\Delta\delta$	Number of star	$\Delta\alpha$	$\Delta\delta$
128	A 1200.20032407	+0.4	+0.3	A 1200.20032390	−0.4	−0.4
	A 1200.20032650	+0.2	+0.5	A 1200.20035735	−0.0	−0.1
	A 1200.20038097	−0.1	−0.1	A 1200.20034470	−0.3	−0.4
	A 1200.20038868	+0.2	+0.3			
129	A 1200.20033895	+0.3	−0.3	A 1200.20032407	+0.3	+0.1
	A 1200.20035121	+0.2	+0.5	A 1200.20035365	−0.7	−0.9
	A 1200.20032650	−0.2	+0.0	A 1200.20032390	−0.0	+0.2
	A 1200.20038097	+0.2	+0.3			
130	A 1200.20019997	−0.0	−0.1	A 1200.20018981	+0.1	+0.2
	A 1200.20017936	−0.0	−0.1	A 1200.20017446	−0.0	−0.0
131	A 1200.20019997	−0.2	−0.1	A 1200.20018981	+0.4	+0.2
	A 1200.20017936	−0.2	−0.1	A 1200.20017446	+0.1	+0.0
	A 1200.20019421	−0.1	−0.0			
132	A 1125.19891349	−0.1	+0.2	A 1125.19889860	+0.2	−0.1
	A 1125.19889485	−0.2	−0.1	A 1125.19891166	+0.0	+0.1
	A 1125.19892761	+0.2	−0.2	A 1125.19893863	−0.1	+0.0
	A 1125.19892765	−0.0	+0.0			
133	A 1125.19888382	+0.2	+0.3	A 1125.19889934	+0.1	+0.1
	A 1125.19891922	−0.3	−0.4	A 1125.19893854	+0.3	+0.3
	A 1125.19891437	−0.3	−0.0	A 1125.19890751	+0.1	−0.3
	A 1125.19888098	+0.2	+0.5	A 1125.19886795	−0.2	−0.4
134	A 1125.19888382	+0.3	+0.1	A 1125.19889934	+0.0	+0.2
	A 1125.19893854	+0.2	+0.0	A 1125.19893540	−0.7	−0.5
	A 1125.19891437	+0.3	−0.2	A 1125.19890751	+0.3	+0.7
	A 1125.19888098	+0.1	+0.1	A 1125.19886795	−0.5	−0.5
135	A 1125.19888530	+0.4	+0.3	A 1125.19892129	−0.1	−0.1
	A 1125.19892212	−0.3	−0.2	A 1125.19889944	+0.3	+0.2
	A 1125.19887804	+0.2	+0.1	A 1125.19887155	+0.1	+0.0
	A 1125.19886360	−0.6	−0.4	A 1125.19885586	+0.0	+0.0
136	A 1125.19886233	+0.5	−0.3	A 1125.19889040	−0.2	−0.0
	A 1125.19892301	+0.2	−0.1	A 1125.19893150	−0.1	−0.0
	A 1125.19892212	+0.0	+0.3	A 1125.19892335	−0.1	−0.0
	A 1125.19888197	+0.6	−0.6	A 1125.19886790	−0.6	+0.4
	A 1125.19886360	−0.3	+0.3			
137	A 1125.00056342	+0.3	−0.5	A 1125.00054830	+0.1	+0.4
	A 1125.00053223	−0.1	−0.3	A 1125.00053091	+0.2	−0.1
	A 1125.00053475	−0.2	+0.3	A 1125.00055355	−0.1	−0.4
	A 1125.00055812	+0.3	+0.1	A 1125.00056476	−0.2	+0.2
	A 1125.00055610	−0.4	+0.2			
138	A 1125.00054830	−0.1	+0.1	A 1125.00053223	+0.3	+0.2
	A 1125.00053091	+0.3	−0.3	A 1125.00053475	−0.2	+0.4
	A 1125.00055355	−0.1	−0.5	A 1125.00055812	+0.2	−0.2
	A 1125.00056476	−0.1	+0.5	A 1125.00055610	−0.6	−0.1
	A 1125.00057921	+0.4	+0.0			

N	Number of star	$\Delta\alpha$	$\Delta\delta$	Number of star	$\Delta\alpha$	$\Delta\delta$
139	A 1275.03901723	+0.1	−0.1	A 1275.03893259	−0.0	+0.1
	A 1275.03888533	+0.4	+0.1	A 1275.03885929	−0.4	−0.2
	A 1275.03888423	+0.1	+0.1	A 1275.03904955	+0.1	+0.0
	A 1275.03906641	+0.0	−0.2	A 1275.03905593	−0.2	+0.2
140	A 1275.03901723	+0.1	−0.1	A 1275.03893259	−0.1	+0.2
	A 1275.03888533	+0.4	+0.1	A 1275.03885929	−0.3	−0.2
	A 1275.03888423	+0.0	+0.1	A 1275.03904955	+0.0	−0.0
	A 1275.03906641	+0.1	−0.1	A 1275.03905593	−0.2	+0.2
141	A 1275.02916776	−0.1	−0.1	A 1275.02916456	+0.0	−0.2
	A 1275.02929099	+0.1	−0.2	A 1275.02922416	+0.2	+0.2
	A 1275.02922519	−0.0	−0.2	A 1275.02917695	−0.3	−0.3
	A 1275.02926603	−0.1	+0.3	A 1275.02915018	+0.3	+0.4
142	A 1275.02928368	−0.1	−0.1	A 1275.02927676	+0.3	+0.2
	A 1275.02927748	−0.2	−0.1	A 1275.02922416	+0.0	+0.0
	A 1275.02911536	−0.0	−0.0			
143	A 1275.02916776	+0.2	+0.1	A 1275.02916456	+0.1	−0.0
	A 1275.02929099	+0.1	−0.2	A 1275.02922416	−0.7	−0.8
	A 1275.02922519	+0.6	+0.4	A 1275.02917695	+0.3	+0.4
	A 1275.02926603	−0.1	+0.3	A 1275.02915018	−0.4	−0.3
144	A 1275.02581659	−0.1	+0.0	A 1275.02577595	+0.2	+0.0
	A 1275.02575430	−0.1	−0.2	A 1275.02580127	+0.0	+0.1
	A 1275.02586348	+0.0	+0.0	A 1275.02589986	−0.0	+0.0
	A 1275.02590842	−0.1	−0.1	A 1275.02588439	+0.2	−0.3
	A 1275.02586660	−0.0	+0.2			
145	A 1275.02581659	−0.1	+0.1	A 1275.02577595	+0.2	−0.0
	A 1275.02575430	−0.1	−0.1	A 1275.02580127	+0.0	+0.1
	A 1275.02586348	+0.0	+0.0	A 1275.02589986	−0.0	+0.0
	A 1275.02590842	−0.1	−0.0	A 1275.02588439	+0.2	−0.2
	A 1275.02586660	−0.0	+0.2			
146	A 1200.01467478	−0.3	+0.2	A 1200.01472241	+0.2	−0.2
	A 1200.01473067	+0.1	−0.1	A 1200.01467838	−0.0	+0.2
	A 1200.01466264	−0.5	+0.1	A 1200.01464703	+0.3	+0.2
	A 1200.01463763	+0.2	−0.3	A 1200.01464736	+0.5	−0.6
	A 1200.01465749	−0.5	+0.5			
147	A 1200.01467478	−0.3	+0.1	A 1200.01472241	+0.1	−0.1
	A 1200.01473067	+0.3	+0.0	A 1200.01467838	−0.6	−0.2
	A 1200.01466264	−0.0	+0.2	A 1200.01464703	−0.0	+0.4
	A 1200.01463763	+0.5	−0.4	A 1200.01464736	+0.3	−0.3
	A 1200.01465749	−0.3	+0.3			
148	A 1200.01270606	+0.1	−0.1	A 1200.01270850	+0.0	−0.1
	A 1200.01273979	−0.0	+0.3	A 1200.01275136	−0.0	+0.0
	A 1200.01275690	+0.0	−0.3	A 1200.01275419	+0.4	−0.1
	A 1200.01274938	−0.4	+0.1	A 1200.01273597	−0.0	+0.2

N	Number of star	$\Delta\alpha$	$\Delta\delta$	Number of star	$\Delta\alpha$	$\Delta\delta$
149	A 1200.01246996	+0.1	−0.4	A 1200.01243397	−0.0	+0.4
	A 1200.01243589	−0.0	−0.4	A 1200.01243715	−0.1	−0.1
	A 1200.01244080	+0.1	+0.2	A 1200.01244923	−0.0	+0.1
	A 1200.01248668	−0.2	+0.0	A 1200.01248434	+0.2	−0.4
	A 1200.01248360	−0.2	+0.6	A 1200.01246980	−0.0	+0.1
150	A 1200.01246996	−0.1	−0.2	A 1200.01243397	+0.1	+0.3
	A 1200.01243589	−0.1	−0.5	A 1200.01243715	−0.0	−0.1
	A 1200.01244080	+0.1	+0.3	A 1200.01244923	+0.2	−0.0
	A 1200.01248668	+0.1	+0.1	A 1200.01248434	+0.5	−0.5
	A 1200.01248360	−0.2	+0.4	A 1200.01246980	−0.4	+0.2
151	A 1200.01195063	−0.1	−0.0	A 1200.01198656	−0.2	+0.3
	A 1200.01199477	+0.5	−0.2	A 1200.01200361	−0.2	−0.1
	A 1200.01200357	−0.1	+0.1	A 1200.01195369	+0.2	+0.0
	A 1200.01193579	+0.1	+0.1	A 1200.01192008	−0.2	−0.0
	A 1200.01191473	+0.3	+0.1	A 1200.01193920	−0.3	−0.2
152	A 1200.01195063	+0.0	−0.3	A 1200.01198656	−0.2	+0.3
	A 1200.01199477	+0.5	−0.2	A 1200.01200361	−0.3	+0.1
	A 1200.01200357	−0.0	+0.0	A 1200.01195369	+0.1	+0.0
	A 1200.01193579	+0.1	−0.0	A 1200.01192008	−0.2	+0.0
	A 1200.01191473	+0.2	+0.3	A 1200.01193920	−0.3	−0.3
153	A 1050.20615291	−0.1	+0.3	A 1050.20612242	−0.1	+0.4
	A 1050.20611662	−0.2	−0.3	A 1050.20615187	+0.3	+0.0
	A 1050.20615138	−0.5	−0.3	A 1050.20614094	+0.5	−0.2
	A 1050.20611966	−0.0	+0.1	A 1050.20611368	+0.1	−0.0
154	A 1050.20612242	−0.0	+0.3	A 1050.20611662	−0.2	−0.3
	A 1050.20615187	+0.3	+0.1	A 1050.20615138	−0.5	+0.0
	A 1050.20614094	+0.6	+0.1	A 1050.20611966	−0.1	−0.3
	A 1050.20611368	+0.2	+0.4	A 1050.20613617	−0.2	−0.2
155	A 1050.20550885	−0.0	−0.1	A 1050.20552725	+0.0	+0.1
	A 1050.20552718	−0.1	−0.4	A 1050.20551594	+0.4	+0.7
	A 1050.20549422	−0.7	−0.6	A 1050.20547541	+0.3	+0.1
	A 1050.20547682	+0.1	+0.3	A 1050.20545622	−0.1	−0.0
156	A 1050.20550885	−0.0	−0.0	A 1050.20552725	−0.0	+0.1
	A 1050.20552718	−0.1	−0.5	A 1050.20551594	+0.4	+0.5
	A 1050.20549422	−0.8	+0.1	A 1050.20547541	+0.2	−0.1
	A 1050.20547682	+0.4	−0.2	A 1050.20545622	−0.1	+0.1
157	A 1050.20537367	+0.1	+0.1	A 1050.20537667	+0.2	−0.1
	A 1050.20543079	+0.2	−0.5	A 1050.20543373	−0.2	+0.5
	A 1050.20543502	+0.1	+0.2	A 1050.20542813	−0.2	−0.1
	A 1050.20539642	+0.0	−0.6	A 1050.20538601	+0.6	+0.5
	A 1050.20537559	−0.8	+0.1			
158	A 1050.20537367	+0.0	+0.3	A 1050.20537667	−0.1	−0.2
	A 1050.20543891	−0.1	+0.1	A 1050.20543502	+0.5	−0.2
	A 1050.20542813	−0.4	+0.2	A 1050.20537559	+0.1	−0.1

4. List of collaborators

Name	Exposures	Measurements	Reductions
G. Červák	68	68	–
M. Husárik	3	3	–
M. Jakubík	2	2	–
M. Kamenický	5	5	–
L. Neslušan	–	–	158
P. Rychtarčík	79	79	–
J. Svoreň	1	1	–

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