Astrometry of minor planets made at the Skalnaté Pleso Observatory in the year 1995

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Abstract. The paper presents the results of position photographing of minor planets carried out at the Skalnaté Pleso Observatory in the year 1995.
149 observations of 18 minor planets are given together with the list of reference stars and dependences.

Key words: asteroids – astrometry

1. Introduction

The presented paper is a continuation of our previous papers which gave the results of positional observations of minor planets obtained at the Skalnaté Pleso Observatory (the last paper of this series: Svoreň; 1996) and contains the observations made in the year 1995. Missing observations since 1984 to 1994 will be published one after the other simultaneously with the new obtained positions.

The reference stars were selected from the Smithsonian Astrophysical Observatory Star Catalog (1966). The positions were measured in B1950.0 system and then converted to J2000.0 following the formulas published by System Transition Committee of the IAU Commission 20 (Yeomans, 1990). The formulas used are given in the preceding paper on astrometry of minor planets in this volume (Svoreň, 1996).

The reduction constants as well as methods of observation and processing and all the other necessary data are not repeated here. They are also given in Svoreň (1996).

A total of 149 accurate positions of 18 minor planets are given. A list of reference stars and dependences and a list of collaborators are given, together with their share in photographing, 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 - ordinal number of observation,

Contrib. Astron. Obs. Skalnaté Pleso **26**, (1996), 73– 86.

MP - number of minor planet,
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 °,′, ″),
A - the difference between independent determinations of R.A. in arc seconds,
B - the difference between independent determinations of Decl. in arc seconds.

N	MP	Date U.T.		$R.A._{2000}$	$Decl._{2000}$	A	B
1	16	1995 Dec.	15.74792	4 42 35.43	+17 31 01.4	0.7	0.1
2	16	1995 Dec.	15.90903	4 42 26.91	+17 30 54.2	0.5	0.2
3	16	1995 Dec.	16.74306	4 41 44.19	+17 30 16.3	0.4	0.1
4	16	1995 Dec.	16.91181	4 41 35.35	+17 30 08.6	0.6	0.2
5	16	1995 Dec.	17.95556	4 40 42.50	+17 29 26.5	0.1	0.4
6	16	1995 Dec.	18.00347	4 40 40.00	+17 29 24.3	0.3	0.6
7	16	1995 Dec.	28.96806	4 32 34.01	+17 25 48.9	0.4	0.1
8	16	1995 Dec.	29.04444	4 32 31.03	+17 25 48.2	0.2	0.3
9	21	1995 Mar.	11.08264	12 26 52.09	+ 2 10 37.9	0.5	0.2
10	21	1995 Mar.	11.13403	12 26 49.52	+ 2 10 55.3	0.2	0.3
11	21	1995 Apr.	21.83692	11 52 05.58	+ 5 34 31.9	0.1	0.3
12	21	1995 Apr.	22.83727	11 51 30.75	+ 5 36 51.9	0.8	0.1
13	43	1995 Sep.	24.96875	23 54 49.19	+ 6 40 13.0	0.7	0.1
14	43	1995 Sep.	24.99931	23 54 47.37	+ 6 40 00.7	0.8	0.3
15	43	1995 Oct.	13.72083	23 39 21.46	+ 4 27 56.5	1.1	0.6
16	43	1995 Oct.	13.76875	23 39 19.64	+ 4 27 38.1	1.1	0.4
17	69	1995 Mar.	11.07083	12 43 19.98	− 5 04 29.1	0.5	0.7
18	69	1995 Mar.	11.12292	12 43 18.05	− 5 04 06.5	0.6	0.1
19	69	1995 Mar.	28.98264	12 31 02.34	− 2 47 30.1	0.7	0.6
20	69	1995 Mar.	29.03681	12 30 59.83	− 2 47 03.5	0.1	0.3
21	69	1995 Apr.	21.82326	12 15 50.28	+ 0 02 23.5	0.1	0.3
22	69	1995 Apr.	21.84653	12 15 49.57	+ 0 02 30.9	0.2	0.9
23	97	1995 May	3.81354	14 29 44.45	+ 0 24 43.3	0.6	0.8
24	97	1995 May	3.83889	14 29 43.25	+ 0 24 49.7	0.4	0.2
25	97	1995 May	22.85058	14 15 47.22	+ 1 29 03.3	0.3	0.2
26	97	1995 May	22.87141	14 15 46.43	+ 1 29 05.6	1.0	0.2
27	97	1995 May	24.89097	14 14 33.16	+ 1 32 29.6	0.3	0.4
28	97	1995 May	24.97431	14 14 30.22	+ 1 32 37.6	0.1	0.2
29	97	1995 May	25.90556	14 13 57.97	+ 1 33 56.4	0.2	0.6
30	97	1995 May	25.97847	14 13 55.38	+ 1 34 01.1	0.4	0.3
31	97	1995 May	26.88611	14 13 24.84	+ 1 35 09.7	0.1	0.3
32	97	1995 May	26.95000	14 13 22.65	+ 1 35 14.6	0.3	0.3
33	97	1995 May	28.92361	14 12 19.11	+ 1 37 13.3	0.1	0.3
34	125	1995 Oct.	17.83681	2 00 10.99	+ 7 25 59.2	0.1	0.5
35	125	1995 Oct.	17.89931	2 00 07.84	+ 7 25 37.2	0.3	0.4
36	125	1995 Nov.	23.70515	1 34 15.75	+ 4 39 52.3	0.4	0.4

N	MP	Date U.T.		$R.A._{2000}$	$Decl._{2000}$	A	B
37	125	1995 Nov.	23.72569	1 34 15.23	+ 4 39 51.3	0.3	0.3
38	135	1995 Mar.	28.94444	10 12 21.40	+11 10 11.9	0.6	0.6
39	135	1995 Mar.	29.00069	10 12 19.43	+11 10 19.3	0.3	0.1
40	184	1995 Nov.	21.72431	3 55 36.80	+22 02 17.3	0.6	0.8
41	184	1995 Nov.	21.88750	3 55 28.37	+22 01 54.5	0.2	0.1
42	184	1995 Nov.	24.71389	3 53 03.82	+21 54 48.7	0.4	0.1
43	184	1995 Nov.	24.73472	3 53 02.75	+21 54 46.3	0.2	1.0
44	184	1995 Nov.	30.00764	3 48 35.15	+21 41 03.3	0.5	0.8
45	184	1995 Nov.	30.04931	3 48 33.13	+21 40 56.1	0.2	0.5
46	184	1995 Dec.	1.02014	3 47 44.79	+21 38 22.4	0.2	0.8
47	184	1995 Dec.	1.06389	3 47 42.65	+21 38 15.1	0.1	0.8
48	184	1995 Dec.	15.73472	3 36 43.80	+21 00 02.0	0.2	0.8
49	184	1995 Dec.	15.89514	3 36 37.46	+20 59 39.3	0.4	0.8
50	184	1995 Dec.	16.72639	3 36 05.80	+20 57 37.4	0.1	0.1
51	184	1995 Dec.	16.90000	3 35 59.07	+20 57 13.0	0.4	0.2
52	184	1995 Dec.	17.94167	3 35 20.43	+20 54 44.4	0.2	0.2
53	184	1995 Dec.	17.99167	3 35 18.57	+20 54 37.8	0.7	0.4
54	219	1995 May	22.86047	16 21 18.83	− 8 21 48.0	0.2	0.7
55	219	1995 May	22.88131	16 21 17.65	− 8 21 37.3	0.4	0.4
56	219	1995 May	25.91667	16 18 21.00	− 7 58 41.0	0.5	0.5
57	219	1995 May	25.96736	16 18 17.94	− 7 58 18.6	0.9	0.8
58	219	1995 May	26.89722	16 17 23.30	− 7 51 29.2	0.2	0.1
59	219	1995 May	26.96042	16 17 19.49	− 7 51 01.3	0.8	0.4
60	219	1995 June	19.94792	15 55 40.08	− 5 46 06.9	0.6	0.2
61	219	1995 June	19.97847	15 55 38.60	− 5 46 00.5	0.4	0.2
62	219	1995 June	29.89028	15 49 52.30	− 5 29 37.7	0.3	0.7
63	219	1995 June	29.94861	15 49 50.75	− 5 29 34.7	0.3	0.6
64	219	1995 June	30.89583	15 49 26.43	− 5 29 10.4	0.2	0.3
65	219	1995 June	30.95556	15 49 24.89	− 5 29 09.9	0.1	0.6
66	219	1995 July	1.93056	15 49 01.67	− 5 28 55.9	0.1	0.1
67	219	1995 July	1.96389	15 49 00.95	− 5 28 55.1	0.8	0.2
68	225	1995 Sep.	18.84375	23 43 06.81	+10 16 28.8	0.4	0.4
69	225	1995 Sep.	18.92639	23 43 03.73	+10 15 29.6	0.7	0.3
70	276	1995 Oct.	16.84653	2 12 07.83	+13 19 15.2	0.8	0.8
71	276	1995 Oct.	16.88403	2 12 06.20	+13 18 53.0	0.7	0.7
72	276	1995 Oct.	22.75139	2 07 58.25	+12 20 46.0	0.5	0.8
73	276	1995 Oct.	22.84167	2 07 54.37	+12 19 51.5	0.4	0.2
74	276	1995 Oct.	25.72517	2 05 49.52	+11 50 45.2	0.3	0.7
75	276	1995 Oct.	25.76979	2 05 47.47	+11 50 19.8	0.2	0.1
76	276	1995 Nov.	22.69063	1 48 11.19	+ 7 28 45.1	0.6	0.4
77	276	1995 Nov.	22.71771	1 48 10.51	+ 7 28 32.0	0.9	0.2
78	317	1995 Sep.	25.01736	1 23 48.14	+ 6 31 22.6	0.9	0.7
79	317	1995 Sep.	25.04444	1 23 46.92	+ 6 31 13.9	0.2	0.1

N	MP	Date U.T.	$R.A._{2000}$	$Decl._{2000}$	A	B
80	317	1995 Oct. 4.00625	1 16 17.44	+ 5 35 27.1	0.4	0.1
81	317	1995 Oct. 4.04375	1 16 15.33	+ 5 35 12.2	0.5	0.5
82	317	1995 Oct. 14.73218	1 06 23.32	+ 4 25 38.5	0.4	0.8
83	317	1995 Oct. 14.77506	1 06 20.89	+ 4 25 22.7	0.7	0.4
84	317	1995 Oct. 16.83194	1 04 27.80	+ 4 12 30.0	0.5	0.4
85	317	1995 Oct. 16.87153	1 04 25.52	+ 4 12 16.1	0.1	0.4
86	317	1995 Oct. 24.73507	0 57 39.66	+ 3 27 08.6	0.9	0.9
87	317	1995 Oct. 24.77060	0 57 37.89	+ 3 26 57.9	0.4	0.1
88	317	1995 Nov. 15.77014	0 46 07.44	+ 2 17 45.4	0.8	0.1
89	317	1995 Nov. 15.88542	0 46 05.74	+ 2 17 39.3	0.4	0.1
90	347	1995 Mar. 11.05764	9 36 51.42	+32 53 28.4	0.2	0.3
91	347	1995 Mar. 11.10347	9 36 49.81	+32 53 28.9	0.4	0.8
92	377	1995 Nov. 27.86331	5 39 09.26	+15 29 13.4	0.7	0.5
93	377	1995 Nov. 27.88299	5 39 08.24	+15 29 09.4	0.3	0.2
94	377	1995 Dec. 1.03611	5 36 28.05	+15 17 59.2	0.1	0.7
95	377	1995 Dec. 1.07639	5 36 25.83	+15 17 50.4	0.2	0.6
96	377	1995 Dec. 15.76042	5 22 40.25	+14 33 53.2	0.3	0.2
97	377	1995 Dec. 15.92083	5 22 30.74	+14 33 30.4	0.1	0.1
98	377	1995 Dec. 16.75764	5 21 42.84	+14 31 30.4	0.3	0.3
99	377	1995 Dec. 16.92153	5 21 33.22	+14 31 07.7	0.1	0.2
100	377	1995 Dec. 17.96806	5 20 33.26	+14 28 43.6	0.7	0.6
101	377	1995 Dec. 18.01250	5 20 30.68	+14 28 37.0	0.1	0.8
102	377	1995 Dec. 28.97847	5 10 43.45	+14 09 50.5	0.2	0.5
103	377	1995 Dec. 29.05764	5 10 39.58	+14 09 44.4	0.2	0.1
104	382	1995 July 21.87031	21 39 05.94	−13 51 11.4	0.2	0.1
105	382	1995 July 21.88750	21 39 05.04	−13 51 12.8	0.1	0.1
106	382	1995 July 22.86667	21 38 23.20	−13 52 24.4	0.5	0.4
107	382	1995 July 22.88981	21 38 22.20	−13 52 25.5	0.3	0.4
108	382	1995 July 25.92986	21 36 07.68	−13 56 32.6	0.3	0.3
109	382	1995 July 26.00347	21 36 04.20	−13 56 39.6	0.4	0.6
110	382	1995 July 26.94236	21 35 21.19	−13 58 02.2	0.7	0.1
111	382	1995 July 27.00208	21 35 18.44	−13 58 05.8	0.8	0.9
112	382	1995 July 28.97500	21 33 45.96	−14 01 06.2	0.2	0.3
113	382	1995 July 29.03125	21 33 43.26	−14 01 12.4	0.6	0.2
114	382	1995 July 30.93958	21 32 11.64	−14 04 15.4	0.8	0.7
115	382	1995 July 31.00694	21 32 08.34	−14 04 21.1	0.4	0.6
116	382	1995 Aug. 7.01250	21 26 19.05	−14 16 15.6	0.3	0.8
117	382	1995 Aug. 7.05417	21 26 16.94	−14 16 20.4	0.1	0.2
118	406	1995 Oct. 17.85833	1 59 46.77	+19 21 11.8	0.1	0.7
119	406	1995 Oct. 17.91944	1 59 43.48	+19 20 59.5	0.3	0.1
120	406	1995 Nov. 13.69554	1 38 22.99	+17 21 56.8	0.1	0.7
121	406	1995 Nov. 13.72118	1 38 21.92	+17 21 48.2	0.1	0.1
122	433	1995 Sep. 18.86319	23 53 54.68	+25 26 20.5	0.5	0.1

N	MP	Date U.T.		$R.A._{2000}$	$Decl._{2000}$	A	B
123	433	1995 Sep.	18.90486	23 53 49.90	+25 26 33.9	0.8	0.6
124	433	1995 Sep.	24.95139	23 42 15.88	+25 46 48.1	0.3	0.3
125	433	1995 Sep.	24.98472	23 42 11.72	+25 46 50.2	0.1	0.3
126	433	1995 Oct.	3.09375	23 26 14.73	+25 38 41.1	0.3	0.5
127	433	1995 Oct.	3.10694	23 26 13.15	+25 38 38.9	0.3	0.9
128	433	1995 Oct.	4.01597	23 24 28.91	+25 35 20.9	0.2	0.5
129	433	1995 Oct.	4.03403	23 24 26.86	+25 35 17.0	0.4	0.6
130	433	1995 Oct.	5.04583	23 22 32.23	+25 31 02.2	0.1	0.2
131	433	1995 Oct.	5.05764	23 22 30.84	+25 30 59.3	0.1	0.1
132	433	1995 Oct.	12.73542	23 09 11.32	+24 42 41.0	0.2	0.2
133	433	1995 Oct.	12.76458	23 09 08.45	+24 42 27.4	0.1	0.6
134	433	1995 Oct.	27.70348	22 52 22.40	+22 17 39.8	0.4	0.4
135	433	1995 Oct.	27.72951	22 52 21.33	+22 17 24.0	0.1	0.5
136	433	1995 Nov.	12.68681	22 51 02.37	+19 44 19.4	0.7	0.3
137	433	1995 Nov.	12.72153	22 51 03.14	+19 44 03.5	0.6	0.3
138	433	1995 Nov.	15.79097	22 52 39.66	+19 20 09.5	0.6	0.6
139	433	1995 Nov.	15.87083	22 52 42.32	+19 19 32.5	0.4	0.3
140	433	1995 Nov.	25.69583	23 01 29.79	+18 19 41.9	0.3	0.1
141	433	1995 Nov.	25.72789	23 01 31.89	+18 19 32.8	0.3	0.1
142	433	1995 Dec.	16.71250	23 35 31.83	+17 38 37.6	0.3	0.6
143	433	1995 Dec.	16.76944	23 35 38.67	+17 38 39.6	0.3	0.5
144	433	1995 Dec.	17.88958	23 37 56.60	+17 39 28.6	0.7	0.1
145	433	1995 Dec.	18.69653	23 39 38.44	+17 40 16.2	0.8	0.1
146	433	1995 Dec.	18.74193	23 39 40.77	+17 40 18.2	0.2	0.4
147	441	1995 June	30.91250	17 40 47.82	−20 01 09.7	0.1	0.3
148	441	1995 June	30.97222	17 40 44.74	−20 01 01.6	0.4	0.1
149	441	1995 July	01.94722	17 39 55.50	−19 58 50.0	0.1	0.1

3. Reference stars and dependences

The individual columns of the table contain the following:
N - ordinal number of the observation in agreement with the Section 2,
Numbers of reference stars and dependences (SAO catalogue of reference stars is used at all the calculations),
T - the exposure time in minutes.

N	Numbers of stars and dependences						T
1	94061	.28312	94083	.33038	94089	.38650	
	94056	.20961	94078	.49296	94091	.29743	8

N	Numbers of stars and dependences						T
2	94061	.32265	94083	.31544	94089	.36191	
	94056	.24005	94078	.48426	94091	.27569	8
3	94061	.52100	94083	.24051	94089	.23849	
	94056	.39266	94078	.44040	94091	.16694	6
4	94061	.56209	94083	.22496	94089	.21295	
	94056	.42422	94078	.43136	94091	.14442	6
5	94047	.41887	94067	.30367	94083	.27746	
	94056	.32453	94064	.42570	94080	.24977	8
6	94047	.43052	94067	.29802	94083	.27146	
	94056	.33271	94064	.43032	94080	.23697	8
7	93976	.23968	93996	.47478	94011	.28554	
	93967	.34703	94003	.44125	94017	.21172	8
8	93976	.25864	93996	.46342	94011	.27794	
	93967	.35804	94003	.43644	94017	.20552	8
9	119381	.15320	119400	.60144	119415	.24536	
	119394	.14700	119395	.56862	119412	.28438	10
10	119381	.16503	119400	.60605	119415	.22892	
	119394	.17259	119395	.57788	119412	.24953	10
11	119065	.26643	119075	.43499	119125	.29858	
	119060	.34935	119095	.31361	119105	.33704	10
12	119065	.30479	119075	.48247	119125	.21274	
	119060	.46562	119095	.25477	119105	.27961	10
13	128440	.38599	128461	.33222	128491	.28179	
	128432	.25589	128465	.52940	128488	.21471	24
14	128440	.39448	128461	.33087	128491	.27465	
	128432	.26156	128465	.53190	128488	.20654	24
15	128266	.28962	128330	.37433	128328	.33605	
	128266	.23142	128322	.38705	128321	.38153	12
16	128266	.29411	128330	.37604	128328	.32985	
	128266	.23640	128322	.38866	128321	.37494	12
17	138915	.21216	138922	.39401	138953	.39383	
	138909	.58613	138937	.10245	138966	.31142	10
18	138915	.21860	138922	.39599	138953	.38541	
	138909	.59071	138937	.10313	138966	.30616	10
19	138813	.40803	138833	.31234	138840	.27963	
	138805	.39360	138824	.26430	138851	.34210	10
20	138813	.42097	138833	.30581	138840	.27322	
	138805	.40573	138824	.25602	138851	.33825	10

N	Numbers of stars and dependences						T
21	119259	.15653	138658	.38153	119324	.46194	
	138659	.34309	119292	.21202	119307	.44489	10
22	119259	.16000	138658	.37869	119324	.46131	
	138659	.34498	119292	.21517	119307	.43985	10
23	120472	.28590	120487	.48054	140000	.23356	
	120456	.53369	140000	.30671	120537	.15960	10
24	120472	.28955	120487	.48013	140000	.23032	
	120456	.53620	140000	.30552	120537	.15828	10
25	120350	.43224	120355	.26209	120404	.30567	
	120345	.36892	120363	.32308	120404	.30800	6
26	120350	.43221	120355	.26435	120404	.30344	
	120345	.37080	120363	.32293	120404	.30627	6
27	120337	.18439	120345	.46267	120386	.35294	
	120318	.18780	120355	.40238	120382	.40982	12
28	120337	.18883	120345	.46668	120386	.34449	
	120318	.19172	120355	.40920	120382	.39908	12
29	120337	.23902	120345	.50940	120386	.25158	
	120318	.23533	120355	.48147	120382	.28320	12
30	120337	.24341	120345	.51242	120386	.24417	
	120318	.23893	120355	.48701	120382	.27406	12
31	120326	.27914	120345	.46551	120382	.25535	
	120321	.12411	120337	.30050	120367	.57539	12
32	120326	.28223	120345	.46948	120382	.24829	
	120321	.13086	120337	.30158	120367	.56756	12
33	120326	.37732	120345	.57767	120382	.04501	
	120321	.32309	120337	.33550	120367	.34141	12
34	110250	.15625	110253	.48627	110296	.35748	
	110240	.12680	110267	.63752	110290	.23568	16
35	110250	.15925	110253	.49705	110296	.34370	
	110240	.13695	110267	.63651	110290	.22654	16
36	109933	.32019	109996	.33255	110007	.34726	
	109957	.34230	109974	.21434	109997	.44336	20
37	109933	.32183	109996	.33150	110007	.34667	
	109957	.34581	109974	.21383	109997	.44036	20
38	98985	.33148	99003	.41292	99017	.25560	
	98970	.31581	99011	.37020	99018	.31399	14
39	98985	.34132	99003	.41207	99017	.24661	
	98970	.32235	99011	.37073	99018	.30692	14

N	Numbers of stars and dependences						T
40	76308	.38844	76326	.30314	76351	.30842	
	76311	.28158	76325	.48658	76341	.23184	16
41	76308	.42999	76326	.29871	76351	.27130	
	76311	.34643	76325	.44062	76341	.21295	16
42	76227	.33389	76300	.21093	76325	.45518	
	76242	.22977	76266	.30067	76327	.46956	16
43	76227	.33640	76300	.21114	76325	.45246	
	76242	.23184	76266	.30156	76327	.46660	16
44	76212	.25473	76221	.59256	76227	.15271	
	76195	.45234	76224	.12154	76246	.42612	16
45	76212	.29622	76221	.59014	76227	.11364	
	76195	.46944	76224	.11282	76246	.41774	16
46	76127	.27058	76196	.37756	76260	.35186	
	76163	.26848	76178	.43612	76266	.29540	14
47	76127	.27702	76196	.37719	76260	.34579	
	76163	.27467	76178	.43705	76266	.28828	14
48	76010	.27284	76022	.47155	76044	.25561	
	75995	.30696	93507	.35877	76055	.33427	16
49	76010	.30217	76022	.47065	76044	.22718	
	75995	.32149	93507	.36833	76055	.31018	16
50	75995	.34701	93498	.33500	76055	.31799	
	75982	.30896	76033	.35109	76038	.33995	16
51	75995	.36121	93498	.34315	76055	.29564	
	75982	.32913	76033	.34842	76038	.32245	16
52	75995	.44208	93498	.39131	76055	.16661	
	75982	.44504	76033	.33209	76038	.22287	16
53	75995	.44600	93498	.39354	76055	.16046	
	75982	.45066	76033	.33139	76038	.21795	16
54	141071	.32358	141132	.38063	141148	.29579	
	141093	.31199	141116	.42115	141145	.26686	6
55	141071	.32610	141132	.38150	141148	.29240	
	141093	.31750	141116	.41859	141145	.26391	6
56	141062	.24124	141091	.43825	141102	.32051	
	141068	.29313	141087	.35616	141104	.35071	10
57	141062	.25302	141091	.43304	141102	.31394	
	141068	.30840	141087	.35112	141104	.34048	10
58	141062	.46360	141091	.33828	141102	.19812	
	141068	.57766	141087	.26402	141104	.15832	10

N	Numbers of stars and dependences						T
59	141062	.47813	141091	.33181	141102	.19006	
	141068	.59666	141087	.25777	141104	.14557	10
60	140830	.52448	140853	.27786	140859	.19766	
	140827	.39136	140834	.30764	140870	.30100	12
61	140830	.53248	140853	.27334	140859	.19418	
	140827	.39944	140834	.30431	140870	.29625	14
62	140769	.23443	140782	.42742	140803	.33815	
	140760	.49475	140798	.29149	140828	.21376	16
63	140769	.24267	140782	.42732	140803	.33001	
	140760	.49875	140798	.29114	140828	.21011	16
64	140769	.37864	140782	.41893	140803	.20243	
	140760	.55849	140798	.29059	140828	.15092	16
65	140769	.38750	140782	.41796	140803	.19454	
	140760	.56223	140798	.29069	140828	.14708	16
66	140752	.20247	140769	.21542	140790	.58211	
	140736	.19217	140766	.41832	140803	.38951	18
67	140752	.20483	140769	.21797	140790	.57720	
	140736	.19403	140766	.41873	140803	.38724	16
68	108763	.23335	128340	.33061	108808	.43604	
	128325	.23170	108785	.49227	128363	.27603	16
69	108763	.23330	128340	.35475	108808	.41195	
	128325	.26609	108785	.45505	128363	.27886	16
70	92812	.30290	92843	.54070	92844	.15640	
	92795	.34538	92854	.49120	92855	.16342	16
71	92812	.31053	92843	.53785	92844	.15162	
	92795	.34846	92854	.49210	92855	.15944	16
72	92789	.30340	92805	.40612	92812	.29048	
	92795	.42055	92804	.40321	92827	.17624	14
73	92789	.31667	92805	.41409	92812	.26924	
	92795	.42369	92804	.41979	92827	.15652	14
74	92770	.50523	92780	.25322	92836	.24155	
	92770	.49685	92798	.23513	92819	.26802	10
75	92770	.50400	92780	.25915	92836	.23685	
	92770	.49938	92798	.23988	92819	.26074	10
76	110117	.31064	110124	.42244	110189	.26692	
	110126	.41309	110132	.41938	110163	.16753	20
77	110126	.47136	110124	.33246	110189	.19618	
	110126	.41607	110132	.48959	110163	.09434	20

N	Numbers of stars and dependences						T
78	109838	.63381	109867	.12412	109888	.24207	
	109818	.34688	109858	.27178	109892	.38134	16
79	109838	.64159	109867	.12090	109888	.23751	
	109818	.35025	109858	.27181	109892	.37794	16
80	109731	.23850	109785	.59162	109790	.16988	
	109742	.19693	109754	.45553	109810	.34754	12
81	109731	.24567	109785	.59218	109790	.16215	
	109742	.19962	109754	.45943	109810	.34095	12
82	109632	.35002	109682	.26834	109701	.38164	
	109625	.35731	109660	.31433	109720	.32836	10
83	109632	.35733	109682	.26728	109701	.37539	
	109625	.14226	109660	.46638	109701	.39136	10
84	109625	.25154	109637	.44817	109689	.30029	
	109602	.22782	109650	.52370	109687	.24848	10
85	109625	.25751	109637	.45086	109689	.29163	
	109602	.23527	109650	.52081	109687	.24392	10
86	109512	.26984	109580	.33024	109587	.39992	
	109512	.31336	109573	.45587	109632	.23077	15
87	109512	.27362	109580	.32402	109587	.40236	
	109512	.31542	109573	.45736	109632	.22722	15
88	109420	.38815	109454	.37706	109462	.23479	
	109427	.24631	109435	.48989	109467	.26380	20
89	109420	.39791	109454	.37562	109462	.22647	
	109427	.25055	109435	.49524	109467	.25421	20
90	61567	.17734	61595	.40941	61609	.41325	
	61577	.25313	61590	.52628	61624	.22059	16
91	61567	.18508	61595	.40631	61609	.40861	
	61577	.25557	61590	.52898	61624	.21545	16
92	94706	.28405	94722	.23747	94744	.47848	
	94665	.27692	94749	.47485	94755	.24823	12
93	94706	.28824	94722	.24096	94744	.47080	
	94665	.27984	94749	.47480	94755	.24536	10
94	94672	.31237	94675	.29026	94715	.39737	
	94665	.37644	94697	.30298	94714	.32058	10
95	94672	.31701	94675	.30056	94715	.38243	
	94665	.38991	94697	.30223	94714	.30786	10
96	94473	.28064	94487	.21144	94524	.50792	
	94477	.19306	94482	.38028	94533	.42666	10

N	Numbers of stars and dependences						T
97	94473	.31527	94487	.22215	94524	.46258	
	94477	.21124	94482	.40074	94533	.38802	10
98	94473	.48916	94487	.27691	94524	.23393	
	94477	.30223	94482	.50445	94533	.19332	10
99	94473	.52428	94487	.28769	94524	.18803	
	94477	.32068	94482	.52500	94533	.15432	10
100	94458	.32346	94482	.26762	94486	.40892	
	94434	.21206	94487	.44760	94489	.34034	10
101	94458	.34377	94482	.26145	94486	.39478	
	94434	.22098	94487	.44409	94489	.33493	10
102	94354	.39186	94373	.37267	94393	.23547	
	94361	.43496	94367	.40032	94397	.16472	10
103	94354	.41528	94373	.36338	94393	.22134	
	94361	.45033	94367	.40777	94397	.14190	10
104	164497	.39547	164577	.34081	164585	.26372	
	164523	.35384	164536	.27152	164582	.37464	20
105	164497	.39768	164577	.34061	164585	.26171	
	164523	.35815	164536	.27015	164582	.37170	20
106	164523	.25121	164539	.31466	164547	.43413	
	164493	.14145	164536	.19514	164547	.66341	30
107	164523	.25969	164539	.31259	164547	.42772	
	164493	.14538	164536	.19421	164547	.66041	30
108	164471	.18852	164497	.38148	164539	.43000	
	164477	.27878	164490	.33525	164547	.38597	22
109	164471	.19866	164497	.38322	164539	.41812	
	164477	.28170	164490	.34425	164547	.37405	22
110	164471	.32565	164497	.40346	164539	.27089	
	164477	.31762	164490	.45474	164547	.22764	22
111	164471	.33415	164497	.40442	164539	.26143	
	164477	.32017	164490	.46133	164547	.21850	22
112	164432	.18414	164477	.31104	164497	.50482	
	164434	.25834	164455	.21944	164509	.52222	20
113	164432	.19363	164477	.30780	164497	.49857	
	164434	.26304	164455	.22266	164509	.51430	20
114	164432	.51015	164477	.20504	164497	.28481	
	164434	.42197	164455	.33518	164509	.24285	18
115	164432	.52145	164477	.20154	164497	.27701	
	164434	.42764	164455	.33939	164509	.23297	18

N	Numbers of stars and dependences						T
116	164368	.31618	164387	.34558	164408	.33824	
	164363	.20996	164385	.52547	164410	.26457	16
117	164368	.32571	164387	.34574	164408	.32855	
	164363	.21803	164385	.52756	164410	.25441	16
118	75057	.23231	92743	.54998	75091	.21771	
	92719	.37753	92738	.23726	92760	.38521	28
119	75057	.25115	92743	.55088	75091	.19797	
	92719	.39026	92738	.23339	92760	.37635	28
120	92495	.21651	92555	.29630	92567	.48719	
	92510	.39883	92555	.29780	92601	.30337	35
121	92495	.21855	92555	.29707	92567	.48438	
	92510	.39954	92555	.30002	92601	.30044	35
122	91547	.32889	91557	.40628	91607	.26483	
	91537	.26016	91563	.52162	91609	.21822	12
123	91547	.33938	91557	.41158	91607	.24904	
	91537	.27453	91563	.51858	91609	.20689	12
124	91409	.29252	91430	.27908	91455	.42840	
	91411	.33475	91423	.39186	91466	.27339	10
125	91409	.30989	91430	.28060	91455	.40951	
	91411	.34137	91423	.40134	91466	.25729	10
126	91237	.34499	91263	.45275	91299	.20226	
	91254	.32072	91255	.50247	91302	.17681	8
127	91237	.35094	91263	.45138	91299	.19768	
	91254	.32317	91255	.50631	91302	.17052	8
128	91226	.44385	91254	.28629	91255	.26986	
	91221	.39141	91236	.28956	91271	.31903	8
129	91226	.45836	91254	.28285	91255	.25879	
	91221	.39834	91236	.29124	91271	.31042	8
130	91182	.21997	91221	.53814	91236	.24189	
	91171	.30613	91210	.34745	91255	.34642	6
131	91182	.22752	91221	.53418	91236	.23830	
	91171	.30984	91210	.34783	91255	.34233	6
132	91013	.24013	91048	.54092	91066	.21895	
	91007	.30472	91048	.45827	91082	.23701	6
133	91013	.25048	91048	.54217	91066	.20735	
	91007	.31054	91048	.46297	91082	.22649	6
134	90798	.33686	90857	.33279	90879	.33035	
	90786	.26001	90846	.50580	90903	.23419	8

N	Numbers of stars and dependences						T
135	90798	.34022	90857	.32959	90879	.33019	
	90786	.26305	90846	.50308	90903	.23387	8
136	108160	.31266	90843	.47007	108262	.21727	
	108193	.44786	108196	.26504	108271	.28710	6
137	108160	.17441	90818	.55020	108262	.27539	
	108193	.44317	108196	.26805	108271	.28878	6
138	108207	.35029	90843	.31304	108262	.33667	
	108206	.37783	108227	.38892	108282	.23325	12
139	108207	.34637	90843	.30637	108262	.34726	
	108206	.37912	108227	.37699	108282	.24389	12
140	108303	.27809	108350	.32481	108363	.39710	
	108314	.36871	108319	.31319	108386	.31810	8
141	108303	.26893	108350	.33047	108363	.40060	
	108314	.36125	108319	.31445	108386	.32430	8
142	108685	.58970	108704	.21114	108737	.19916	
	108664	.32458	108717	.47300	108725	.20242	12
143	108685	.55358	108704	.22187	108737	.22455	
	108664	.30283	108717	.47326	108725	.22391	12
144	108704	.26027	108737	.61493	108762	.12480	
	108702	.27096	108733	.20724	108747	.52180	10
145	108704	.21685	108747	.47594	108788	.30721	
	108683	.21009	108737	.43848	108803	.35143	15
146	108704	.21292	108747	.47331	108788	.31377	
	108683	.20660	108737	.43793	108803	.35547	15
147	185585	.31189	160716	.28459	160779	.40352	
	160707	.40080	185620	.18322	160773	.41598	20
148	185585	.31097	160716	.29599	160779	.39304	
	160707	.41280	185620	.17876	160773	.40844	20
149	185585	.29617	160716	.47956	160779	.22427	
	160707	.60365	185620	.10779	160773	.28856	16

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Name	Exposures	Measurements	Reductions
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P. Rychtarčík	42	41	–
J. Svoreň	–	1	74

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