

Capella Observatory CCD Double Star Measurements – Report 1

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Abstract: This report submits CCD measurements of 394 pairs, including several neglected, observed in the period 2006 – 2007 using 30 cm. Dall-Kirkham telescope. Some possible new components are suggested.

In 2006 I started to measure double stars and I report here the measurements of 394 pairs.

For the measurements, I used a Takahashi Mewlon 300 (300/3572) mounted on a 10 Micron GM 2000 equatorial mount, see Figure 1. The CCD camera is a SBIG ST7XME. The method is the same that I reported in a previous paper [Bertoglio, 2007], where I used an equivalent focal length of about 12500 mm with a Barlow lens and, for data reduction, *Reduc* by Florent Losse.

The pairs were from the neglected list of the WDS catalog or from the observing programs of the Spirit of 33 group, as I'm a visual observer too.

The following rho, theta (and their sigmas) and magnitude differences in the table result from average of 8682 single measurements. Some discussions and notes about the pairs, including possible new components, are presented in the notes list of the results table.

You can see more than one hundred images of these measured double stars in the web gallery at the url <http://www.microthele.it/astro/misurazioni/reportok/index.htm>.

Future Plans

In order to increase my ability to measure close

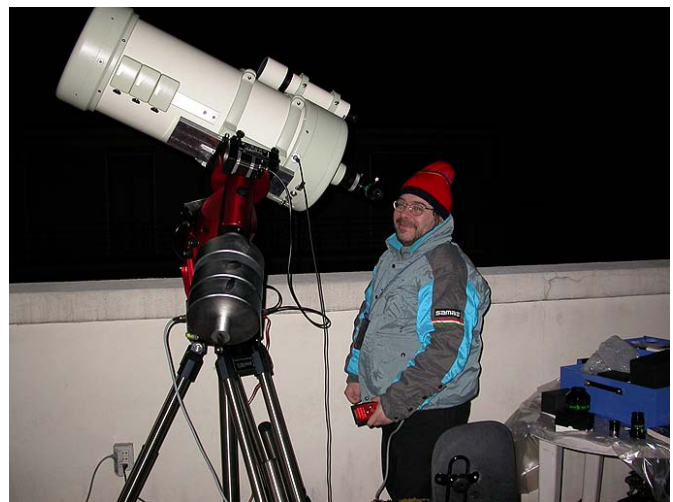


Figure 1: Mewlon (the big) and me (the short).

pairs, I bought a Lumenera Skynix 2-1 camera for the “lucky image” method and now the optical train (Barlow lens, flip mirror and camera connection) has a 2 inch adjustment.

Acknowledgements

I wish to again thank Florent Losse for his formidable *Reduc* program and encouragements from Tais

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Ferraz; without her help the data reductions and this servatory.

article would not have been possible. I also thank my I dedicate this article to Annie Persico, the brighter friend Luca Sabatini and the members of the mail list star of my life.

“Stelledoppie”

(<http://it.groups.yahoo.com/group/stelledoppie/>)

for their enthusiasm.

This research has made use of the Washington ion of WDS 06167+3852 J 591 in Auriga”. Journal of Double Star Catalog maintained at the U.S. Naval Ob- Double Star Observations, Vol. 3, 128-130.

References

Bertoglio, A., 2007. “BEA 1 a New “Old” Companion of WDS 06167+3852 J 591 in Auriga”. Journal of Double Star Observations, Vol. 3, 128-130.

Name	RA+DEC	Mag Diff	PA	PA sigma	Sep	Sep sigma	Epoch	N	NOTES
ES 2400	00032+3315	0.32	105.6	0.6	6.01	0.09	2006.6667	30	
STF3058	00052+3020	1.62	51.1	0.4	12.47	0.05	2007.685	15	
STF3060 AB	00059+1805	0.3	133.7	0.4	3.38	0.04	2006.6667	47	
STF3064	00076+4009	4.25	7.5	0.2	25.72	0.06	2006.6667	53	
MLB 552	00099+3014	1.46	190.0	0.5	8.16	0.06	2006.6668	40	
MLB 631	00113+2953	0.18	270.8	0.5	8.27	0.14	2006.6668	68	
GYL 76	00199+3436	1.98	307.9	0.7	7.28	0.09	2007.6853	16	1
POU 129	01279+2442	1	96.8		7.60		2007.8027	1	2
J 2716	01362+3706	1.21	294.8		5.60		2007.6853	1	3
POU 144	01474+2343	0.39	107.8		9.54		2007.8027	1	4
STF 162 Aa-C	01493+4754	3.11	178.4	0.1	20.64	0.06	2007.7838	19	
STF 162 Aa-B	01493+4754	0.76	199.7	0.7	1.87	0.03	2007.7838	33	
STF 174	01501+2217	1.13	165.8	0.5	2.84	0.06	2007.8028	2	5
STF 175 AB	01510+2107	0.33	359.1	0.3	27.38	0.06	2007.8028	19	
STF 178	01520+1049	0.07	204.6	0.8	2.94	0.06	2007.8028	10	
STF 180 AB	01535+1918	0.08	0.6	0.4	7.45	0.03	2007.8028	23	6
STF 200	02016+2405	0.67	123.7	0.5	8.04	0.05	2007.8028	18	
STF 205 A-BC	02039+4220	2.44	62.5		9.50		2007.6853	1	7
CHE 45	02060+2806	0.53	42.1	0.3	41.12	0.09	2007.6854	17	
CHE 58	02085+2833	3.11	291.1		13.75		2007.6854	1	8
CHE 59 AB	02086+2918	2.92	216.3		27.69		2007.6854	1	9
BTG 7 AC	02086+2918	3.61	209.8		39.71		2007.6854	1	10
BTG 8 AD	02086+2918	3.69	296.7		28.70		2007.6854	1	11
STF 221 AB	02097+2021	1.48	145.5	0.4	8.38	0.05	2007.8028	23	
STF 224	02109+1341	0.49	243.4	0.5	5.99	0.04	2007.8029	19	
CHE 64	02109+2941	0.76	124.6		16.76		2007.6855	1	12
STF 237 AC	02157+1046	2.4	274.4		71.89		2007.8029	1	13
STF 237 AB	02157+1046	0.44	237.0		14.55		2007.8029	1	14
HDO 57	02157+2426	0.13	94.4	0.3	7.78	0.05	2007.6855	16	
STF 240	02174+2353	0.3	51.6	0.5	4.73	0.03	2007.8029	17	
STF 244	02176+2214	0.06	289.2	0.4	4.39	0.07	2007.8029	13	
ES 619	02215+4625	3.59	245.7	0.3	5.73	0.04	2006.8498	37	
STF 271 AB	02305+2514	4.5	183.8	0.3	12.76	0.04	2007.8029	22	
HJ 2139 AB	02309+5311	0.28	298.5	0.3	3.82	0.02	2006.8498	66	

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Name	RA+DEC	Mag Diff	PA	PA sigma	Sep	Sep sigma	Epoch	N	NOTES
HJ 2139 AC	02309+5311	3.19	7.9	0.2	18.15	0.07	2006.8498	71	
STF 273	02320+1822	0.57	358.6	0.4	7.17	0.06	2007.8029	20	
STF 287	02390+1452	2.74	72.9		6.64		2007.8029	1	15
STF 289	02407+2704	4.26	0.6	0.3	28.67	0.07	2007.8029	15	16
STF 296 AB	02442+4914	5.62	304.8	0.1	20.64	0.03	2006.8498	31	17
STF 296 BC	02442+4914	1.28	231.9	0.1	88.27	0.09	2006.8498	32	18
STF 326 AB	02556+2652	2.17	221.4	0.7	5.09	0.04	2007.8030	17	
STF 331	03009+5221	1.8	85.0	0.2	12.00	0.04	2007.7838	28	
STF 336	03015+3225	1.88	7.2	0.4	8.66	0.04	2007.7838	23	
STF 338	03018+1051	0.19	201.7	0.2	19.80	0.07	2007.8030	19	
STF 360	03122+3713	0.3	125.9	0.4	2.83	0.04	2007.7838	28	
STF 364	03136+3909	0.25	310.9	0.2	11.73	0.04	2007.7839	15	
COU 870 AB	03137+3508	2.37	94.5	0.3	3.48	0.14	2007.6856	6	
COU 870 AC	03137+3508	4.19	328.4		19.07		2007.6856	1	19
ES 2597	03143+4835	2.95	197.5	0.3	10.66	0.05	2006.8498	43	20
STF 369	03171+4029	1.04	29.2	0.5	3.58	0.03	2007.7839	27	
STF 376	03203+1944	0.09	251.2	0.2	7.12	0.07	2007.8030	18	21
STF 383	03242+1733	0.97	120.2	0.3	5.52	0.05	2007.8386	24	
STF 394 Aa-B	03280+2028	1.26	163.3	0.6	6.84	0.06	2007.8030	20	
STF 391	03293+4503	0.69	95.9	0.6	3.93	0.04	2007.7839	22	22
STF 406	03308+0509	1.99	125.6	0.4	9.12	0.06	2007.8386	19	
STF 403	03312+1947	0.25	172.5	0.8	2.28	0.03	2007.8386	20	
STF 412 AB-C	03344+2428	3.78	54.4	0.2	22.37	0.04	2007.8386	25	23
STF 414	03345+1948	0.15	185.8	0.4	7.49	0.04	2007.8386	26	
STF 422	03368+0035	2.85	271.3	0.4	6.76	0.06	2007.8387	24	
STF 427	03406+2846	0.47	207.6	0.3	7.03	0.04	2007.8387	19	
FOX 134	03467+4241	0.82	108.6	0.4	5.81	0.03	2006.8499	27	
STF 471 AB	03579+4001	5.14	9.5	0.6	9.06	0.06	2007.7839	27	
SLE 43 AD	04020+6231	4.75	277.8	0.2	19.81	0.14	2006.8499	7	
BRD 1 AB	04020+6231	0.95	225.0	0.9	1.85	0.03	2006.8499	8	
BRD 1 AC	04020+6231	2.47	174.5	0.3	8.79	0.03	2006.8499	23	
COU 702	04048+2612	3.28	90.7	0.5	6.85	0.07	2007.6856	26	
STF 72	04080+1720	4.13	327.8	0.6	4.66	0.04	2007.8387	23	
STF 494	04089+2306	0.12	187.8	0.5	5.26	0.04	2007.8387	18	
LDS5514 AB	04113+2630	1.76	245.4	0.2	16.59	0.06	2006.8499	37	
LDS5514 BC	04113+2630	0.03	304.1	0.3	10.93	0.05	2006.8499	28	
HJ 341	04125+3538	0.25	333.3	0.2	13.66	0.05	2006.8500	36	24
ES 567 AB	04260+4515	0.16	353.5	0.1	37.01	0.06	2006.8500	23	25
ES 567 BC	04260+4515	0.56	128.4	0.2	8.11	0.04	2006.8500	26	26
COU 706	04458+2840	5.23	122.7	0.4	5.74	0.11	2007.6856	4	
HJ 349	04477+3446	0.46	86.9	0.2	10.42	0.05	2006.8500	37	
STF 587	04480+5307	1.86	186.2	0.1	20.98	0.05	2006.8528	32	
STF 594	04495+3914	1.59	331.2	0.4	9.22	0.10	2006.8528	25	
SEI 51	04565+3809	1.14	236.3	0.2	15.67	0.04	2007.8030	26	

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Name	RA+DEC	Mag Diff	PA	PA sigma	Sep	Sep sigma	Epoch	N	NOTES
STF 623	04599+2720	1.94	205.9	0.3	20.57	0.06	2007.8388	25	
SMA 47	05067+5121	0.42	135.2	0.3	5.16	0.04	2006.9541	43	
SEI 89	05113+3712	1.38	257.2	0.1	26.71	0.05	2006.9541	34	
SEI 99	05126+3657	0.75	102.5	0.3	19.40	0.08	2006.9541	36	
STF 654 AB	05133+0252	4.09	62.9	0.4	6.90	0.06	2007.8387	22	27
STF 686	05209+2402	0.28	225.0	0.3	9.28	0.05	2007.8388	25	
SEI 208	05218+3639	3.45	108.6		22.88		2007.8032	1	28
SEI 229	05233+3445	0.08	179.1	0.6	6.83	0.13	2007.0742	16	29
STF 716 AB	05293+2509	0.89	208.6	0.4	4.75	0.03	2007.8388	25	30
STF 730	05322+1703	0.41	140.9	0.2	9.67	0.04	2007.8388	24	
STF 748 Aa,B	05353-0523	1.57	31.6	0.3	8.82	0.02	2007.1372	13	31
STF 748 Aa,C	05353-0523	-1.69	131.7	0.3	12.87	0.04	2007.1372	13	32
STF 748 Aa,D	05353-0523	0.07	96.0	0.1	21.56	0.04	2007.1372	13	33
STF 748 Aa,E	05353-0523	2.97	349.5		4.26		2007.1372	1	34
STF 748 Aa,H	05353-0523	6.08	177.1		8.18		2007.1372	1	35
STF 748 Ca,F	05353-0523	4.94	122.6		4.81		2007.1372	1	36
TOB 37	05420+3404	0.15	299.2	0.1	16.51	0.05	2006.9542	29	
HJ 370	05423+3247	0.18	259.2	0.2	12.84	0.04	2006.9542	25	
STF 777	05434+2213	0.35	84.3	0.3	4.60	0.04	2007.8388	20	
STF 830 AC	06034+2738	2.04	189.2	0.2	25.30	0.06	2006.8586	27	
STF 830 AB	06034+2738	0.86	262.7	0.2	11.56	0.06	2006.8586	36	
STT 134 AB	06093+2426	1.56	189.1	0.1	30.99	0.06	2006.8586	40	
J 591 AB	06167+3852	1.44	200.3	0.8	4.48	0.08	2007.8031	19	37
BTG 1 AC	06167+3852	1.66	320.5	0.5	5.49	0.08	2007.8031	17	38
STF 889 AB	06199+2501	2.78	243.4	0.2	21.51	0.06	2006.8586	22	
J 1822	06204+2331	0.84	3.7	0.3	6.83	0.03	2007.8390	22	39
S 513 AB	06212+2108	1.81	258.4	0.1	59.29	0.05	2006.8587	24	
S 513 AC	06212+2108	4.39	251.1	0.2	47.10	0.08	2006.8587	19	
S 513 AE	06212+2108	3.95	285.2	0.1	83.67	0.05	2006.8587	28	
STF 897	06224+2640	0.14	348.6	0.2	17.91	0.05	2006.8587	17	
STF 899	06228+1734	0.61	17.4	0.8	2.08	0.07	2007.0935	21	
STF 900 AB	06238+0436	2.26	29.2	0.2	12.26	0.04	2007.8388	21	40
STT 140 AB	06266+1531	3.16	120.2	0.8	2.74	0.10	2007.0935	3	
STF 914	06267-0731	3.06	298.4		21.05		2007.8388	1	41
STF 911	06269+0404	0.13	155.8	0.2	11.84	0.06	2007.8388	14	
J 1092 AB	06277+2249	0.94	227.4	0.4	6.52	0.05	2007.8390	23	42
BTG 10 AC	06277+2249	2.06	310.5		35.43		2007.8390	1	43
SHJ 70 AB	06278+2047	1.82	202.6	0.3	25.18	0.06	2006.8587	40	
STF 915 AB	06282+0516	1.37	41.5	0.3	6.01	0.03	2007.8389	25	
STF 915 AC	06282+0516	4.25	128.2	0.1	39.23	0.08	2007.8389	23	
STF 919 AB	06288-0702	0.56	132.3	0.4	7.09	0.07	2007.8389	14	44
STF 919 AC	06288-0702	0.87	125.3	0.3	9.90	0.08	2007.8389	11	45
STT 141	06300+1754	2.03	146.3	0.8	2.10	0.09	2007.0935	12	46
J 2428	06301+2756	1.26	158.8	0.3	4.93	0.03	2007.8390	14	47

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Name	RA+DEC	Mag Diff	PA	PA sigma	Sep	Sep sigma	Epoch	N	NOTES
STF 921	06312+1115	3.03	3.4	0.2	16.11	0.05	2007.8389	23	
STF 926 Aa-B	06317+0546	1.89	288.3	0.2	10.83	0.05	2007.8389	18	
STF 932	06344+1445	0.26	304.9	0.8	1.69	0.05	2007.1373	5	
POU1616	06368+2336	1.41	305.1	0.2	15.40	0.05	2007.8390	24	
J 988	06397+3027	0.29	173.1	0.9	4.65	0.05	2006.9543	23	
STF 953	06412+0859	0.76	329.9	0.3	7.23	0.05	2007.8389	23	48
ES 2097	06425+3902	4.29	27.5	0.5	15.27	0.08	2006.9543	18	49
A 58 AB	06486-0405	1.18	160.5	0.5	5.00	0.05	2007.8389	29	50
STF 982 AB	06546+1311	2.91	144.5	0.3	7.31	0.05	2007.0744	43	51
STF 991 AB	06570+2457	1.35	165.9		3.48		2007.0744	1	52
STF1014	07057+2608	0.1	219.2	0.3	1.97	0.08	2007.0935	10	53
STF1035	07120+2217	0.14	40.4	0.4	8.93	0.07	2007.0744	34	
COU 275 AB	07127+2154	2.89	206.2	0.5	5.27	0.04	2007.8391	24	54
BTG 11 AC	07127+2154	3.34	300.0	0.1	44.66	0.08	2007.8391	16	55
STF1037 AB	07128+2713	0.18	309.4	0.6	0.98	0.04	2007.0936	6	
STF1066	07201+2159	5.23	226.0		5.55		2007.0744	1	56
HJ 53	07236-0654	0.5	308.2		22.05		2007.0743	1	57
STF1083	07256+2030	0.86	45.2	0.7	6.76	0.09	2007.0744	44	58
STF1088 AB	07260+1406	2.14	196.2	0.4	11.10	0.06	2007.0745	37	
STF1089 AB	07262+1450	0.07	7.2	0.7	7.24	0.08	2007.0745	39	59
STF1090 AB	07265+1831	0.94	98.2	0.1	60.86	0.11	2007.0745	37	
STF1090 AC	07265+1831	2.67	79.6	0.1	49.81	0.12	2007.0745	31	
STF1094	07274+1519	0.95	96.9	0.6	2.47	0.03	2007.1373	6	
SHJ 368 Aa-B	07277+2127	5.25	323.6	0.2	42.98	0.09	2006.8587	16	60
S 548 AC	07277+2208	2.37	276.9	0.0	35.38	0.03	2007.0745	38	
ES 2625 AB	07277+2208	5.79	22.9	1.5	11.81	0.19	2007.0745	20	61
STF1102 AB	07304+1352	1.97	44.7	0.4	7.53	0.07	2006.8587	16	
STF1106	07313+1619	0.06	34.0	0.4	10.69	0.06	2006.8588	14	
STF1108	07328+2253	2.43	179.5	0.3	11.58	0.05	2006.8588	17	
STF1116	07345+1218	0.9	97.2		1.66		2007.0936	1	62
STF1110 AB	07346+3153	1	59.8	0.6	4.47	0.03	2006.8585	14	63
STF1124	07410+2148	0.26	325.8	0.2	19.33	0.07	2006.8588	17	
STF1140	07484+1820	1.73	273.8	0.4	6.38	0.06	2006.8588	17	
STF1170	07598+1341	0.37	106.1		2.33		2007.0936	1	64
STF1173	08014+1657	1.52	50.2	0.4	10.31	0.06	2006.8588	23	
STT 186	08033+2616	0.76	74.6		0.98		2007.0937	1	
POU2921	08034+2305	1.42	224.2	0.3	5.91	0.04	2007.8391	22	65
PKO 8	08036+4739	0.05	69.8	0.2	11.78	0.03	2006.9544	11	66
HJ 438	08042+3136	1.88	128.5	0.1	24.48	0.08	2006.9544	27	
STF1179 AB	08047+1204	0.1	201.8	0.3	23.17	0.07	2006.8588	16	67
STF1181	08054+0812	1.42	141.2	1.0	5.03	0.09	2007.0746	37	68
STF1177	08056+2732	0.67	349.9	1.1	3.45	0.05	2007.0745	23	69
STF1186	08088+2729	3.48	219.0		3.40		2007.0937	1	70
STF1188	08094+3021	0.55	201.2	0.4	16.41	0.07	2006.8589	15	

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Name	RA+DEC	Mag Diff	PA	PA sigma	Sep	Sep sigma	Epoch	N	NOTES
STF1187 Aa-B	08095+3213	0.85	21.6	0.8	2.96	0.06	2007.0937	14	
STF1201	08129+0935	1.49	185.5	0.4	6.75	0.07	2007.0746	35	
STF1202	08136+1051	2.04	305.0	0.1	2.61	0.06	2007.1374	24	
STF1212	08181+3050	1.39	240.6	0.5	5.46	0.05	2007.0746	21	71
STF1219	08230+0738	0.03	82.5	0.4	12.25	0.12	2007.0746	26	
SEI 495	08244+3229	0.79	2.3	0.5	9.14	0.05	2006.9544	27	72
STF1224 A-BC	08267+2432	0.7	51.4	0.7	5.70	0.08	2007.0746	38	73
STF1223	08268+2656	0.05	217.9	0.3	5.19	0.04	2007.0746	27	74
STF1228	08277+2734	0.85	351.3	0.3	9.06	0.08	2007.0746	34	75
STF1231	08299+3123	0.43	211.3	0.2	25.08	0.14	2007.0746	30	
MLB 839	08335+3346	0.79	281.8	0.4	11.27	0.06	2006.9544	24	76
ES 1389	08350+4300	1.82	175.9	0.7	3.79	0.03	2006.9545	17	
STF1245 AB	08358+0637	1.27	24.9	0.3	10.11	0.07	2007.0747	32	
ALI 353	08423+3631	3.28	194.1	0.5	6.85	0.05	2006.9545	34	77
STF1268	08467+2846	2.6	307.6	0.1	30.58	0.07	2007.0937	30	78
HJ 458	08471+2645	3.74	305.4	0.2	20.47	0.07	2007.8391	18	79
STF1276	08472+1110	0.24	353.4	0.3	12.54	0.06	2007.0937	40	
STF1283	08499+1450	0.88	123.1		16.46		2007.0937	1	80
STT 195	08540+0825	0.64	139.1	0.2	9.76	0.05	2007.1374	19	
STF1291 AB	08542+3035	0.18	311.1	0.5	1.52	0.04	2007.1374	14	81
STF1300	09013+1516	0.21	180.9	0.3	5.11	0.03	2007.1375	17	
STF1298 AB	09014+3215	2.73	135.4	0.4	4.48	0.04	2007.1374	20	82
AG 162	09071+3037	0.46	106.8	0.6	4.01	0.04	2007.1375	33	83
STF1311 AB	09074+2259	0.4	199.1	0.4	7.66	0.03	2007.1375	19	
HO 644 AC	09074+2259	6.37	117.0		27.48		2007.1375	1	84
STI2223	09104+5441	2.04	33.1	0.2	11.23	0.05	2006.9546	17	
STF1322	09127+1632	0.4	54.1	0.8	1.73	0.03	2007.1375	5	
STF1327 AC	09155+2755	1.69	16.7	0.1	28.01	0.06	2007.1375	18	
STF1327 AB	09155+2755	1.69	37.2	0.6	5.52	0.03	2007.1375	19	
STF1332	09174+2339	0.33	28.3	0.4	5.93	0.03	2007.1375	18	
STF1353	09277+1545	0.06	126.5	0.7	3.25	0.04	2007.1376	8	85
STF1360 AB	09306+1036	0.09	242.4	0.2	13.87	0.06	2007.1376	20	86
STF1364 AB	09320+2003	1.33	155.5	0.2	16.43	0.04	2007.1376	23	87
HJ 466 AC	09320+2003	3.58	297.3	0.1	36.16	0.09	2007.1376	19	88
H 5 58	09359+1423	3.25	80.2	0.1	41.02	0.06	2007.1376	37	89
STT 204 AB	09388+1047	4.2	99.8	0.2	8.22	0.06	2007.1376	21	90
STF1389	09524+2659	0.41	291.6	0.7	2.42	0.06	2007.1377	15	
STF1396 AB	09564+1040	1.41	130.3	1.1	3.74	0.08	2007.0527	12	91
STF1399	09570+1946	0.8	175.5	0.1	30.61	0.08	2007.1377	22	
STF1413	10123+1621	0.16	272.6		1.63		2007.1377	1	92
STF1417	10151+1907	0.02	77.8	0.6	2.27	0.07	2007.1377	6	93
STF1419	10170+1007	0.93	224.6	0.9	4.47	0.05	2007.0529	18	
STF1421	10181+2731	1.11	330.3	0.7	4.53	0.05	2007.053	56	
STF1424 AB	10200+1950	1.2	125.4	0.4	4.64	0.04	2006.9546	65	94

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Name	RA+DEC	Mag Diff	PA	PA sigma	Sep	Sep sigma	Epoch	N	NOTES
STF1434	10271+1804	0.01	281.4	0.6	6.41	0.06	2007.0530	26	
SEI 520	10302+3050	0.18	1.6	0.9	7.69	0.08	2007.0528	14	95
STF1442	10320+2202	0.3	156.4	0.1	13.22	0.08	2007.0530	39	
STF1446	10336+1513	1.02	250.9	0.4	5.61	0.04	2007.0530	33	
STF1447	10338+2321	1.59	124.3	0.6	4.32	0.05	2007.0531	61	
S 617	10534-0215	2.68	178.2	0.1	35.17	0.09	2007.0530	25	
STF1502	11020+1437	0.86	284.6	0.4	12.99	0.07	2007.0748	16	96
STF1503	11022+0954	1.56	270.7		11.60		2007.0748	1	97
STF1506 A-BC	11047-0413	2.33	221.9	0.2	11.81	0.09	2007.0749	29	
STF1507	11061+0702	1.5	165.9	0.4	8.34	0.07	2007.0531	29	
STF1511	11072+1055	0.28	287.2	0.5	7.65	0.07	2007.0531	43	
STF1534	11218+1811	2.88	313.9	0.7	5.04	0.07	2007.0531	38	
STF1596	12043+2128	1.42	235.5	0.3	3.72	0.03	2006.9546	47	98
STF1606	12108+3953	0.33	161.2		0.43		2007.2005	1	99
STF1607 AB	12116+3605	0.85	25.2	0.2	26.94	0.08	2007.0531	26	
STF1622	12161+4040	3.31	259.7	0.5	11.65	0.08	2007.0531	40	100
A 1781	12164+4444	0.71	301.8	0.8	2.84	0.06	2007.2007	14	
STF1632	12202+3754	3.22	193.4	0.9	10.06	0.06	2007.0532	23	
STF1633	12207+2703	0.12	245.5	0.2	8.96	0.04	2007.1379	18	
HO 536	12207+3500	1.69	96.1	0.6	3.65	0.08	2007.2007	17	
SHJ 143 AC	12225+2551	3.81	167.3	0.1	65.27	0.04	2007.1379	35	101
STF1642	12257+4444	0.61	179.5	0.3	2.44	0.05	2007.1378	6	
STF1645	12281+4448	0.6	157.3	0.7	9.78	0.09	2007.0532	30	
J 1023	12308+3640	0.47	172.3		5.20		2007.2007	1	102
STF1653	12334+3202	0.09	342.6	0.4	7.99	0.05	2007.1378	15	
STF1657	12351+1823	1.66	270.5	0.2	20.17	0.07	2007.1379	16	103
STF1678	12454+1422	0.53	171.3	0.1	36.98	0.07	2007.1380	19	
STF1679 AB	12460+4949	0.46	207.6	0.4	5.84	0.03	2007.1378	15	
STF1685 AB	12519+1910	0.51	201.5	0.1	15.98	0.06	2007.1380	17	
STF1686	12530+1502	0.14	187.2	0.2	5.72	0.02	2007.1380	10	
STF1688 AB	12536+3758	1.8	343.2	0.2	14.38	0.05	2007.2007	24	
STF1692	12560+3819	2.7	228.8	0.2	19.14	0.09	2007.0529	17	104
BU 925	12566+4333	4.93	211.0	0.6	6.87	0.06	2007.2007	27	
STT 257	12567+4537	1	352.5	0.4	13.02	0.10	2007.0749	20	
STF1702	12585+3817	0.6	81.7	0.1	36.04	0.05	2007.2008	18	
STF1723	13082+3844	1.39	10.8	0.8	6.35	0.08	2007.0749	35	
STT 261	13120+3205	0.31	338.9	0.9	2.57	0.05	2007.1379	10	
STT 263	13166+5034	0.25	137.1	0.8	1.76	0.03	2007.2008	3	
STF1755	13324+3649	0.95	130.4		3.95		2007.0749	1	105
STF1758	13329+4908	0.25	292.6	0.8	3.34	0.07	2007.1379	18	
STF1760	13344+2617	0.34	64.1	0.3	8.72	0.05	2007.1380	19	
STF1772 AB	13407+1957	3.66	134.1	0.5	4.59	0.05	2007.2008	38	106
STF1776	13418+4613	0.06	18.4	0.6	7.27	0.10	2007.0749	16	
STF1789	13540+3249	0.36	327.0	0.1	6.70	0.03	2007.0750	11	

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Name	RA+DEC	Mag Diff	PA	PA sigma	Sep	Sep sigma	Epoch	N	NOTES
STF1821	14135+5147	2.16	235.7	0.1	13.60	0.05	2006.3077	35	107
STF1829	14155+5026	0.65	151.2	0.3	5.62	0.03	2006.3077	26	
STFA 26 AB	14162+5122	3.5	32.8	0.0	38.95	0.06	2006.3076	40	108
STF1850	14286+2817	0.54	260.8	0.1	25.48	0.05	2007.2008	26	
STF1858 AB	14336+3535	0.84	37.1	0.4	3.03	0.03	2007.2008	27	
STF1864 AB	14407+1625	0.97	110.4	0.4	5.52	0.03	2007.2009	25	109
STF1871	14416+5124	0.1	310.5	0.4	1.87	0.03	2007.2009	16	
STF1877 AB	14450+2704	2.56	342.4	0.6	2.93	0.03	2006.3078	38	110
STF1884	14484+2422	0.97	54.7	0.6	2.14	0.02	2007.2009	23	
STF1890	14497+4843	0.36	44.9	0.5	2.66	0.04	2007.2009	25	111
STF1935	15202+3042	0.28	289.4	0.3	8.63	0.05	2006.3380	40	
STF1946	15272+3930	1.64	342.0	0.5	7.49	0.04	2006.3955	64	
STF1947	15282+3822	0.33	25.5	0.3	6.82	0.03	2006.3956	30	
STF1965	15394+3638	1.02	305.8	0.3	6.33	0.05	2006.3379	101	112
STF1973	15464+3627	1.31	321.4	0.1	30.56	0.04	2006.3379	44	
STF2011 AB	16076+2900	2.12	67.6	0.5	2.52	0.07	2006.3380	23	
STF2015 AB	16089+4521	1.2	159.8	0.4	2.90	0.05	2006.3956	22	
STF2029	16138+2844	1.94	187.7	0.4	6.12	0.02	2006.3380	44	
STF2032 AB	16147+3352	1.03	237.4	0.4	7.10	0.06	2006.3380	32	113
H 5 38	16229+3220	3.45	15.3	0.1	31.26	0.06	2006.3956	35	
STF2044	16242+3702	0.46	340.8	0.2	8.27	0.03	2006.3380	45	
STF2063	16318+4536	3.16	195.7	0.2	16.49	0.07	2006.3848	46	
STF2065 AB	16327+3959	0.6	214.0	0.1	31.87	0.06	2006.3956	34	
STF2068	16339+4717	0.07	250.5	0.3	4.94	0.02	2006.3957	28	
STFA 30 AC	16362+5255	0.16	193.6	0.1	90.21	0.08	2006.3381	24	114
STF2078 AB	16362+5255	1.11	105.2	0.7	3.12	0.04	2006.3381	33	115
J 1124	16415+4007	0.76	275.1	0.5	3.84	0.04	2006.3382	22	
STF2085	16424+2136	1.98	307.8	0.2	6.02	0.03	2006.3955	42	
KU 54	16430+4355	2	99.3	0.2	9.40	0.04	2006.3381	42	
STF2098 AB	16457+3000	0.76	144.4	0.3	14.25	0.06	2006.3957	33	
STF2098 AC	16457+3000	0.05	127.9	0.0	65.67	0.06	2006.3957	29	
STF2135 AB	17121+2114	1.57	192.9	0.3	8.53	0.06	2006.3847	41	
STF2165 AB	17262+2927	1.74	60.3	0.3	10.00	0.04	2006.3847	50	
STF2190 AB	17360+2100	3.48	20.3	0.3	10.25	0.06	2006.3848	43	
STF2194 AB	17411+2431	2.96	5.6	0.2	16.29	0.06	2006.3848	39	
STF2213	17449+3108	0.87	326.6	0.5	4.71	0.03	2006.3955	63	
STF2229	17459+5011	1.82	340.5	0.3	6.42	0.03	2006.3382	42	
STF2232	17503+2517	2.12	138.9	0.5	6.27	0.06	2006.3848	40	
ES 344	17573+3351	0.71	29.6	0.9	9.21	0.07	2006.3849	12	
STF2264	18015+2136	0.19	255.8	0.4	6.33	0.07	2006.3846	44	116
STF2280 Aa-B	18078+2606	0.03	182.4	0.2	14.36	0.07	2006.3847	39	117
STF2328 AB	18295+2955	0.41	71.9	0.6	3.60	0.04	2006.3383	32	
STF2333 AB	18311+3215	0.88	332.8	0.2	6.44	0.02	2006.3383	45	
STF2330	18312+1311	1.51	166.0	0.3	16.41	0.06	2006.3847	26	

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Name	RA+DEC	Mag Diff	PA	PA sigma	Sep	Sep sigma	Epoch	N	NOTES
STF2367 AB-C	18413+3018	1.87	191.6	0.1	14.12	0.03	2007.5318	42	118
STF2367 AB-D	18413+3018	7.72	84.0		21.92		2007.5318	1	119
BTG 2 AB-F	18413+3018	8.09	173.4		42.43		2007.5318	1	120
STF2372 Aa-B	18421+3445	1.19	81.1	0.1	25.11	0.11	2006.3821	18	
STF2371	18422+2739	0.17	54.1	0.5	9.70	0.08	2006.3849	26	
STF2380	18429+4456	1.66	7.3	0.1	25.69	0.07	2006.3849	33	
STF2376 AB	18437+3024	0.56	62.2	0.1	22.32	0.05	2006.3849	35	
STF2390	18458+3431	1.38	156.2	0.7	4.10	0.06	2006.3850	53	
STFA 39 AB	18501+3322	3.7	147.9	0.1	45.84	0.05	2006.3850	31	121
STF2419	18555+2914	0.2	178.0	1.4	3.12	0.12	2006.3850	10	
POP 194	18569+3505	0.71	123.0	0.7	3.39	0.07	2007.5318	32	
STF2431	18588+4041	3.58	235.3	0.1	19.21	0.05	2006.3850	33	
J 2935	19028+2430	1.24	144.1		5.32		2007.5319	1	122
J 2943 AB	19060+2105	0.77	352.1	0.2	39.56	0.05	2007.5319	31	
J 767 AB	19064+3750	1.92	0.5		3.02		2007.5727	1	123
J 767 AC	19064+3750	2.48	181.4		7.92		2007.5727	1	124
STF2458 AB	19069+2745	0.59	226.4	0.2	11.34	0.05	2006.3850	32	
STF2459	19074+2558	0.64	231.8	0.5	13.89	0.04	2006.3850	25	
J 2977	19335+2401	0.44	252.0	0.5	6.98	0.09	2007.5728	21	
J 2989	19393+2822	1.49	271.8		4.54		2007.5728	1	125
SMA 93	19474+4515	1.71	197.2		10.22		2007.5728	1	126
J 3007 AB	19480+2333	0.78	230.3		6.42		2007.5729	1	127
BTG 3 AC	19480+2333	1.88	320.0		4.06		2007.5729	1	128
J 3021	19516+2810	0.96	179.7	0.8	5.25	0.03	2007.5319	27	
BRT2251	20025+3940	2.13	153.4		4.09		2007.5729	1	129
SEI 919	20090+3516	0.85	117.4	0.4	5.59	0.06	2007.5320	41	
J 2308 AB	20177+2025	4.79	281.9		37.08		2007.5729	1	130
J 2308 BC	20177+2025	0.99	296.1		5.67		2007.5729	1	131
J 2308 AC	20177+2025	5.78	283.8		42.60		2007.5729	1	132
BTG 4 AD	20177+2025	5.87	170.3		33.72		2007.5729	1	133
BTG 5 AE	20177+2025	6.35	267.2		28.82		2007.5729	1	134
HJ 1525 AB	20299+4022	0.39	234.1	0.2	9.13	0.03	2007.5320	26	
ARG 39 AB	20425+4916	0.65	180.0	0.1	14.10	0.04	2006.6664	38	
STF2726	20456+3043	4.92	70.1	0.3	6.02	0.06	2006.6664	78	135
J 1894	20582+2249	1.01	103.6	0.3	4.79	0.08	2007.5320	21	
J 1219	21001+3627	2.03	171.4	0.8	3.62	0.06	2007.5321	34	
SEI1375 AB	21028+3534	0.39	156.7		6.72		2007.5730	1	136
SEI1376 AC	21028+3534	1.04	235.5		10.66		2007.5730	1	137
BTG 6 AD	21028+3534	2.58	274.1		16.00		2007.5730	1	138
HJ 1613	21071+4134	2.55	4.3	0.2	16.26	0.04	2007.5321	36	
STFB 11 AB	21221+1948	5.22	311.2	0.1	36.26	0.04	2006.6665	41	139
STFA 56 AB	21377+0637	1.45	348.0	0.1	39.05	0.04	2006.6665	28	140
J 1232	21389+4249	0.4	205.9		2.45		2007.5730	1	141
ES 2066	21399+3813	0.6	225.0	0.5	5.39	0.05	2006.6665	24	142

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Name	RA+DEC	Mag Diff	PA	PA sigma	Sep	Sep sigma	Epoch	N	NOTES
BRT2499	21431+2157	1.2	205.4	0.5	4.56	0.05	2006.6666	18	
J 852	21433+2046	0.64	92.1	0.8	4.05	0.07	2006.6666	17	
STF2828 AC	21495+0324	0.64	134.1	0.1	32.42	0.09	2006.6666	51	
STF2828 AB	21495+0324	0.56	140.2	0.1	32.92	0.09	2006.6666	46	
J 3153	21576+3433	1.01	230.7		8.20		2007.8024	1	143
J 3155 AB	21577+4356	0.5	130.8		5.86		2007.8024	1	144
BTG 9 AD	21577+4356	1.14	86.1		38.02		2007.8024	1	145
STF2848	21580+0556	0.51	56.0	0.2	10.81	0.04	2007.5322	29	
BRT2502	22027+2215	0.87	232.8	0.4	16.39	0.07	2007.8024	19	146
SMA 161	22040+3053	4.56	339.9		5.06		2007.8025	1	147
J 1224 AB	22043+2401	1.7	76.1		28.52		2007.8025	1	148
STF2854	22044+1339	0.16	83.1	0.6	1.65	0.03	2007.5322	16	
HJ 1721	22057+2954	2.14	265.3	0.1	12.38	0.04	2007.5322	42	
STF2861	22060+2048	0.56	220.6	0.6	7.12	0.07	2007.6850	26	
STF2867 AB	22100+0757	1.21	208.6	0.5	10.50	0.06	2007.6850	25	
GYL 73	22107+3322	1.8	338.0		18.15		2007.8025	1	149
STF2889	22163+2616	1.92	202.1		2.31		2007.6851	1	150
SMA 164	22265+5714	0.2	3.4	0.5	6.97	0.04	2007.7833	20	151
STF2908	22282+1716	2.09	113.3	0.4	9.01	0.05	2007.5731	17	
STF2910	22282+2332	0.63	332.9	0.4	5.53	0.03	2007.6851	25	
J 3170	22311+2108	1.77	193.6	0.8	6.05	0.04	2007.5322	16	
STF2915	22326+0725	0.03	126.3	0.2	14.93	0.07	2007.6851	14	
STF2920 AB	22345+0413	1.57	143.4	0.4	13.64	0.08	2007.6851	12	
STF2925	22379+0554	0.57	3.2	0.8	7.16	0.06	2007.6851	16	
STF3134	22407+2959	0.46	76.7	0.5	6.34	0.06	2007.6851	17	
STF2931 AB	22413+1311	1.08	149.8	74.0	4.36	0.05	2007.6852	21	
DOB 16	22435+3813	2.17	78.8	0.1	23.77	0.06	2007.7833	27	152
CHE 401	22440+3047	1.98	254.5		17.51		2007.7834	1	153
STF2945	22497+3119	0.01	298.7	0.5	4.17	0.04	2007.5731	32	
POU5755	22514+2421	2.16	306.8		5.49		2007.7834	1	154
STF2978	23075+3250	1.55	144.5	0.3	8.32	0.04	2007.5322	24	
STF2986	23100+1426	3.67	269.6	0.1	31.60	0.05	2007.6852	11	
STF2990 AB	23133+2205	0.06	56.3	0.5	2.52	0.03	2007.5322	17	155
ZUL 2 AC	23133+2205	4.38	299.4		32.12		2007.5322	1	156
STF3000	23188+2513	0.22	50.1	0.7	3.30	0.07	2007.5732	31	
STT 494	23208+2158	0.58	81.3	0.6	3.19	0.06	2007.5732	18	
CHE 439	23225+4146	3.24	17.3	0.5	6.79	0.05	2007.5730	22	
HJ 1874	23238-0711	1.61	316.6		12.93		2007.8026	1	157
STF3014	23279+1108	2.12	277.6	0.2	8.18	0.07	2007.6852	23	
STF3015	23280+3333	0.23	190.0	0.8	2.89	0.04	2007.6852	16	
J 3196	23284+4040	0.47	250.1		4.83		2007.5731	1	158
STF3021 AB	23314+1613	1.37	307.3	0.5	8.67	0.05	2007.5732	24	
STF3026	23363+2854	0.39	274.3	0.9	3.14	0.06	2007.6853	14	
STF3041 AB	23479+1703	0.75	357.2	0.1	57.01	0.08	2006.6667	48	

Table concludes on next page.

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Name	RA+DEC	Mag Diff	PA	PA sigma	Sep	Sep sigma	Epoch	N	NOTES
STF3041 AC	23479+1703	0.59	357.2	0.1	60.45	0.08	2006.6667	51	
STF3040	23481+1009	0.14	217.0	0.5	4.47	0.05	2007.6853	18	159
J 863	23482+4505	1.78	262.6	0.3	4.28	0.05	2007.8025	2	160
HJ 993	23504+0053	2.06	325.7		7.62		2007.8026	1	161
STF3044	23530+1155	0.65	282.1	0.2	19.26	0.06	2007.5732	19	
STF3048 AB	23581+2420	1.85	312.6	0.2	8.63	0.02	2006.6667	35	
STF3048 AC	23581+2420	4.03	263.2	0.1	37.55	0.08	2006.6667	26	
HJ 996	23583+0135	3.37	340.6		17.01		2007.8026	1	162

Table Notes

- GYL 76, Measurements differ from WDS, but confirmed by 2MASS images
- POU 129, Stack of 20 images. Measurement pretty different from WDS
- J 2716, Stack of 23 images
- POU 144, Stack of 11 images. Measurement very different from WDS
- STF 1741 Ari, Average of 2 stack of 12 images
- STF 180 AB, Gamma Ari
- STF 205 A-BC, Gamma And - Stack of 10 images
- CHE 58, Stack of 38 images
- CHE 59 AB, Stack of 40 images. In my pictures there are 2 probable new components AC (BTG 7) and AD (BTG 8), see notes 10 and 11 and Figure 2. In the 2MASS field, it is possible to see another 2 probable components, one of these are faint and close to the primary.
- BTG 7 AC, Stack of 40 images. Probable new component AC (BTG 7), see Figures 2 and 3.
- BTG 8 AD, Stack of 40 images. Probable new component AD (BTG 8), see Figures 2 and 3.
- CHE 64, Stack of 31 images
- STF 237 AC, Stack of 20 images
- STF 237 AB, Stack of 20 images
- STF 287, Stack of 22 images
- STF 28933, Ari - Pretty different in PA
- STF 296 AB, Theta Per
- STF 296 BC, Theta Per
- COU 870 AC, Stack of 24 images
- ES 2597, My magnitude measurements of the primary show very probable light variation of the primary (really it is NSV15664).
- STF 376, Pretty different in separation
- STF 391, Some differences in PA and separation from WDS
- STF 412 AB-C, 7 Tau
- HJ 341, In the field I can see another easy star but rather distant
- ES 567 AB, A three stars group
- ES 567 BC, There is an error on WDS: the measurements in the catalog refer to the BC components, but these are actually the AC measurements.
- STF 654 AB, Rho Ori - Some differences in measurements from WDS
- SEI 208, Stack of 23 images
- SEI 229, = FOX 140 (same data on the WDS)
- STF 716 AB, 118 Tau
- STF 748 Aa,B, Theta 1 Ori (Trapezium)
- STF 748 Aa,C, Theta 1 Ori (Trapezium)
- STF 748 Aa,D, Theta 1 Ori (Trapezium)
- STF 748 Aa,E, Theta 1 Ori (Trapezium). Stack of 23 images. Average of different algorithms available using *Reduc*.
- STF 748 Aa,H, Theta 1 Ori (Trapezium). Stack of 200 images. Very difficult!
- STF 748 Ca,F, Theta 1 Ori (Trapezium). Stack of 23 images. Using *Reduc* Surface algorithm.
- J 591 AB, This is a second measurement (after 1 year) and the magnitude difference is slightly changed. For this reason I can not confirm the suspected variation of one component of this pair as I suggest in my previous article: Bertoglio, 2007.
- BTG 1 AC, Second measurement after one year from the discovery of this component. The magnitude difference increased about 0.4. Maybe this is an indication of some variability as suspected in my previous article: Bertoglio, 2007 .

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39. J 1822, Consistent measurements changes from WDS
40. STF 900 AB, Epsilon Mon
41. STF 914, Stack of 33 images
42. J 1092 AB, AB position changed. A third possible component (BTG 10 AC) is in the field about 35" away (see note 43).
43. BTG 10 AC, Stack of 28 images. A faint possible component (BTG 10 AC) in the field, see Figures 4 and 5.
44. STF 919 AB, Beta Mon
45. STF 919 AC, Beta Mon
46. STT 141, Large measurement differences from WDS.
47. J 2428, Measurements changed from WDS.
48. STF 953, Slight measurements differences from WDS.
49. ES 2097, There are strong measurements differences from WDS but I'm pretty sure this pair is ES 2097 (no other pairs in surrounding fields).
50. A 58 AB, Consistent difference in PA from WDS.
51. STF 982 AB, 38 Gem
52. STF 991 AB, Stack of 28 images
53. STF1014, Inversion error using *Reduc* but also WDS reports B component brighter than A.
54. COU 275 AB, New possible component at 44" (BTG 11 AC), see note 55.
55. BTG 11 AC, Possible new component of COU 275, see Figures 6 and 7.
56. STF1066, Delta Gem - Stack of 21 images
57. HJ 53, Stack of 39 images
58. STF1083, It seems that the last separation measurement in WDS is not very accurate. I made several measurements and the differences from WDS were always the same.
59. STF1089 AB, Some differences from WDS.
60. SHJ 368 Aa-B, 63 Gem
61. ES 2625 AB, Some differences from WDS.
62. STF1116, Stack of 17 images
63. STF1110 AB, Alpha Gem
64. STF1170, Stack of 17 images
65. POU2921, Surely there is an error in the last WDS data as my measurements are very similar with the first (1893) WDS report.
66. PKO 8, My measurements are so different that I think that this pair is not PKO 8
67. STF1179 AB, In my image there is a very faint and not measurable star near the B component. It is BU 582 BC.
68. STF1181, Some differences from WDS.
69. STF1177, Strong differences from WDS.
70. STF1186, Stack of 15 images
71. STF1212, Some differences from WDS.
72. SEI 495, There are large measurements differences from WDS, but I'm pretty sure this pair is SEI 495 (no other pairs surrounding fields).
73. STF1224 A-BC, 24 Cnc
74. STF1223, Phi2 Cnc
75. STF1228, A very quiet pair: no important changes in about 200 years.
76. MLB 839, I was looking for MLB 838 but I did not find it. Near the MLB 838 position I found this pair. I think this pair may be MLB 839.
77. ALI 353, There are some measurements differences from WDS, but I'm pretty sure this pair is ALI 353 (no other pairs in surrounding fields).
78. STF1268, Iota Cnc
79. HJ 458, PA unchanged, separation increased.
80. STF1283, Stack of 4 images
81. STF1291 AB, 57 Cnc
82. STF1298 AB, 66 Cnc
83. AG 162, Some differences from WDS.
84. HO 644 AC, Stack of 50 images
85. STF1353, Inversion error using *Reduc*.
86. STF1360 AB, Inversion error using *Reduc*.
87. STF1364 AB, Some separation difference from WDS.
88. HJ 466 AC, Remarkable separation difference from WDS.
89. H 5 58, 7 Leo
90. STT 204 AB, Large PA difference from WDS
91. STF1396 AB, C component not observable.
92. STF1413, Stack of 5 images. Large separation difference from WDS.
93. STF1417, Frequent inversion error using *Reduc*.
94. STF1424 AB, Gamma Leo
95. SEI 520, The differences in measurements are so large that this star may not be SEI 520.
96. STF1502, Great differences from WDS
97. STF1503, Stack of 18 images
98. STF1596, 2 Com

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99. STF1606, Only one good image on 350. Measured using Quad Pix and Surface algorithms by *Reduc*.
100. STF1622, 2 CVn
101. SHJ 143 AC, 12 Com
102. J 1023, Stack of 22 images. PA measurement pretty different from WDS.
103. STF1657, 24 Com
104. STF1692, Alpha CVn
105. STF1755, Stack of 30 images. Poor measurements cause bad seeing.
106. STF1772 AB, 1 Boo
107. STF1821, Kappa Boo
108. STFA 26 AB, Iota Boo
109. STF1864 AB, Pi Boo
110. STF1877 AB, Epsilon Boo
111. STF1890, 39 Boo
112. STF1965, Zeta CrB
113. STF2032 AB, Sigma CrB
114. STFA 30 AC, 17 Dra
115. STF2078 AB, 17 Dra
116. STF2264, 95 Her
117. STF2280 Aa-B, 100 Her
118. STF2367 AB-C, There is a possible faint component (BTG 2 AB-F). See note 120.
119. STF2367 AB-D, Stack of 43 images
120. BTG 2 AB-F, Stack of 43 images. Possible faint new component (see Figures 8 and 9).
121. STFA 39 AB, Beta Lyr
122. J 2935, Stack of 24 images
123. J 767 AB, Stack of 43 images. Large difference with 1999 measurements on WDS.
124. J 767 AC, Stack of 43 images
125. J 2989, Stack of 30 images. Larger than WDS measurement.
126. SMA 93, Stack of 35 images
127. J 3007 AB, Stack of 30 images. There is a faint and closer component BTG 3 AC (see note 128).
128. BTG 3 AC, Stack of 30 images. An interesting new component (see Figures 10 and 11)
129. BRT2251, Stack of 25 images.
130. J 2308 AB, Stack of 50 images.
131. J 2308 BC, Stack of 50 images. I also measured the AC component not reported in WDS (see note 132). Two possible new components (BTG 4 AD and BTG 5 AE) are in the field (see notes 133 and 134).
132. J 2308 AC, Stack of 50 images. Pair not measured in WDS.
133. BTG 4 AD, Stack of 50 images. Possible new component (see Figures 12 and 13).
134. BTG 5 AE, Stack of 50 images. Possible new component (see Figures 12 and 13).
135. STF2726, 52 Cyg
136. SEI1375 AB, Stack of 34 images. There is a new component AD (see note 138)
137. SEI1376 AC, Stack of 34 images.
138. BTG 6 AD, Stack of 34 images. New component AD (Figures 14 and 15).
139. STFB 11 AB, 1 Peg
140. STFA 56 AB, 3 Peg
141. J 1232, Stack of 27 images
142. ES 2066, I was looking for SEI 1532 but I did not find it. Near the SEI 1532 position I found this pair.
143. J 3153, Stack of 22 images. Large measurement differences with WDS.
144. J 3155 AB, Stack of 26 images. Some measurement differences with WDS. A possible new component D (BTG 9 AD) is in the field (see note 145). In my image there is also the C component, but it is too faint to measure.
145. BTG 9 AD, Stack of 26 images. New possible component (see Figures 16 and 17).
146. BRT2502, Large separation difference from WDS.
147. SMA 161, Stack of 16 images
148. J 1224 AB, Stack of 28 images. BC pair is not splittable, but only elongated.
149. GYL 73, Stack of 20 images. Large measurement differences with WDS.
150. STF2889, Stack of 14 images
151. SMA 164, Large measurement differences with WDS.
152. DOB 16, The magnitude difference that I measured is different from WDS. In the field I can see a more distant component, I think this may be the recently discovered H 13 AC.
153. CHE 401, Stack of 25 images. Great separation difference from 1906.
154. POU5755, Stack of 29 images.
155. STF2990 AB, Inversion error using *Reduc*.
156. ZUL 2 AC, Stack of 18 images.
157. HJ 1874, Stack of 18 images. Measurement differences from WDS.
158. J 3196, Stack of 33 images

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- 159. STF3040, Large PA measurement difference from WDS.
- 160. J 863, Average of 2. stack of 21 images. Some measurement differences from WDS.

- 161. HJ 993, Stack of 19 images. Measurement differences from WDS.
- 162. HJ 996, Stack of 25 images. Measurement differences from WDS.

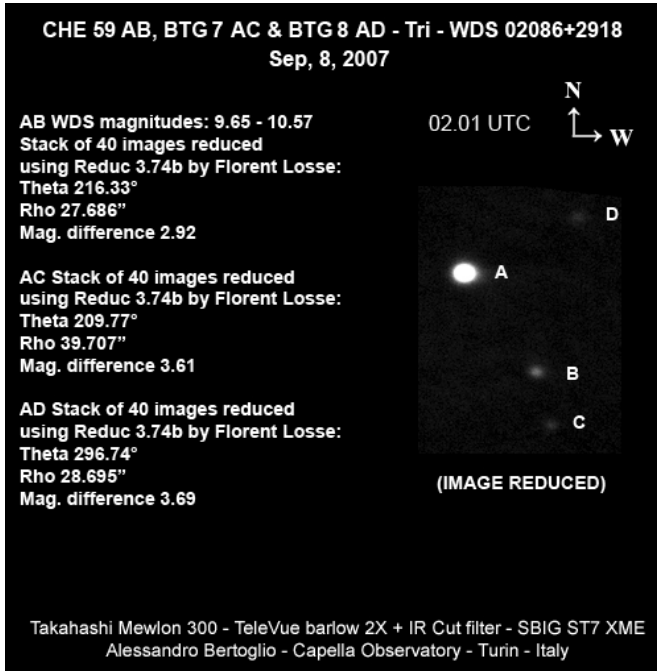


Figure 2: CHE 59, image by the author, see note 9.

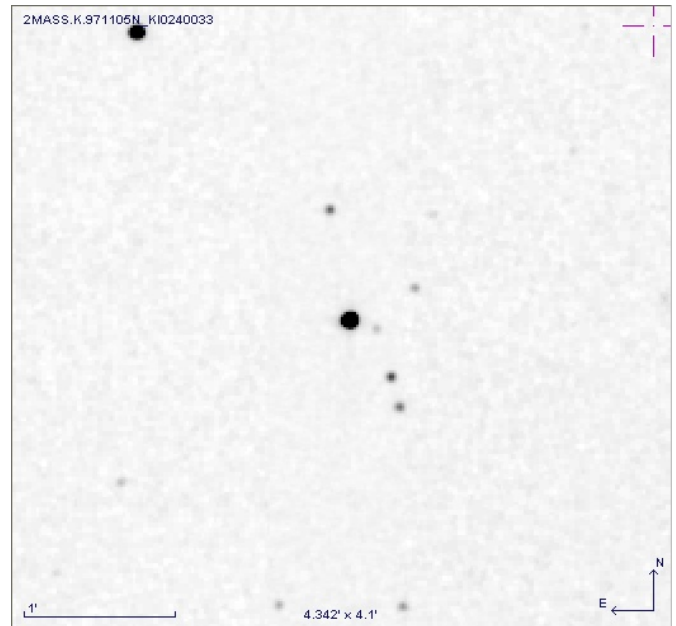


Figure 3: 2MASS image of BTG 7 and BTG 8, see notes 10 and 11.

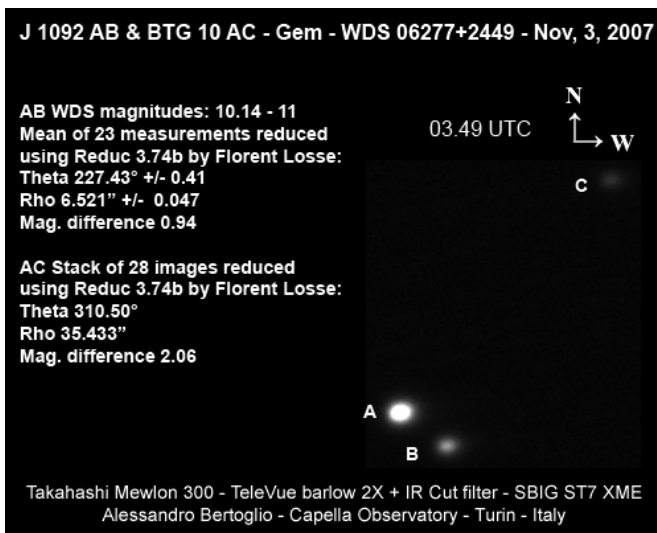


Figure 4: Image of BTG 10 by the author.

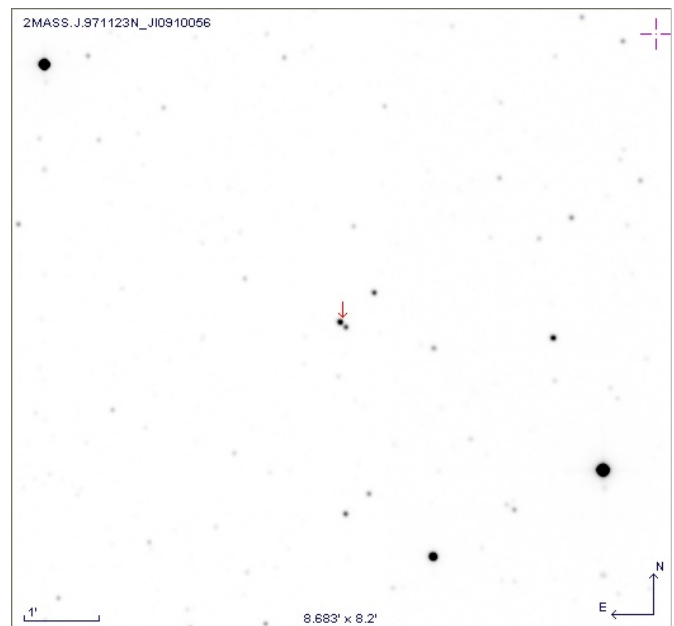


Figure 5: 2MASS image of the area around BTG 10.

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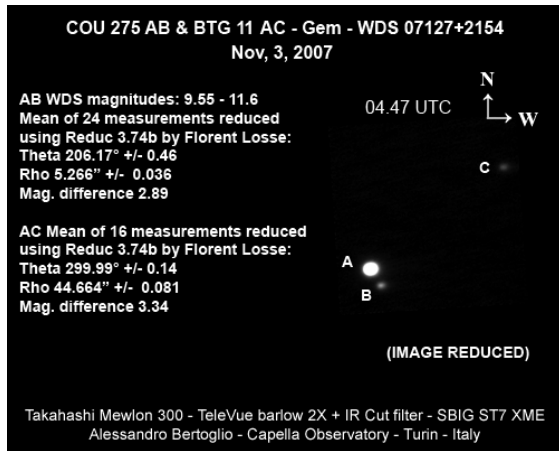


Figure 6: Image of BTG 11 by the author.

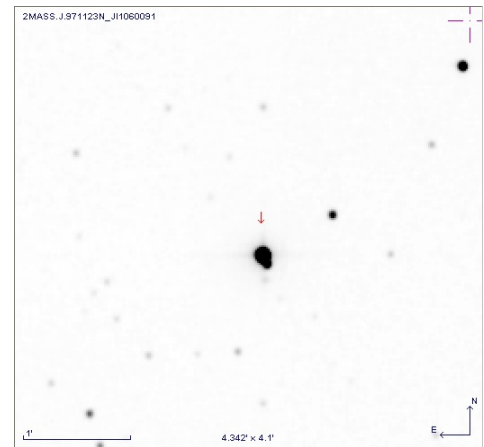


Figure 7: 2MASS image of BTG 11.

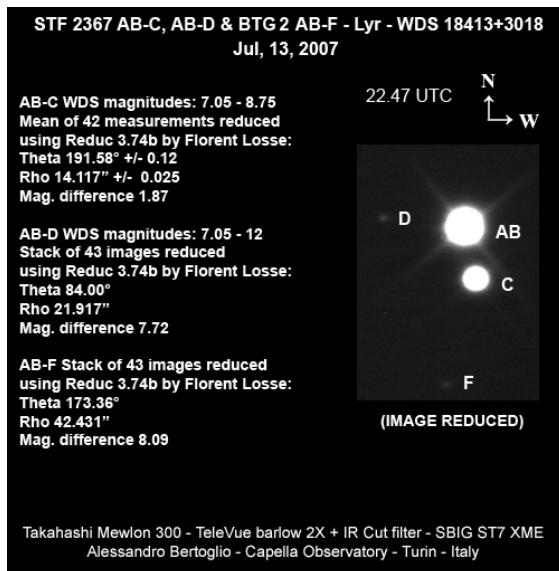


Figure 8: Image of STF2367 by the author.

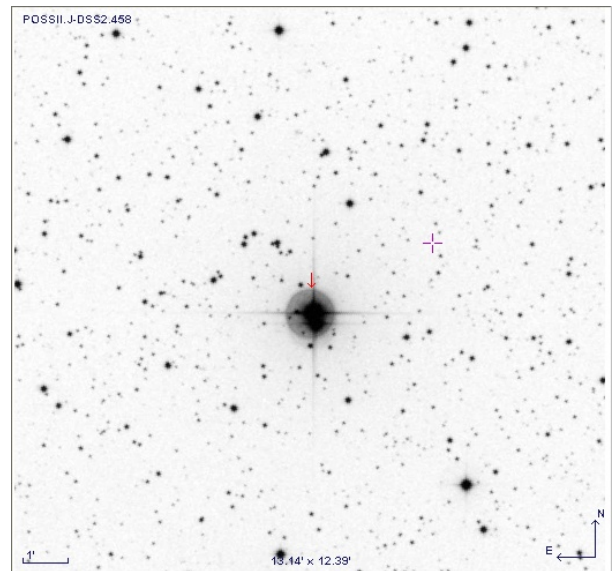


Figure 9: POSSII image of STF2367.

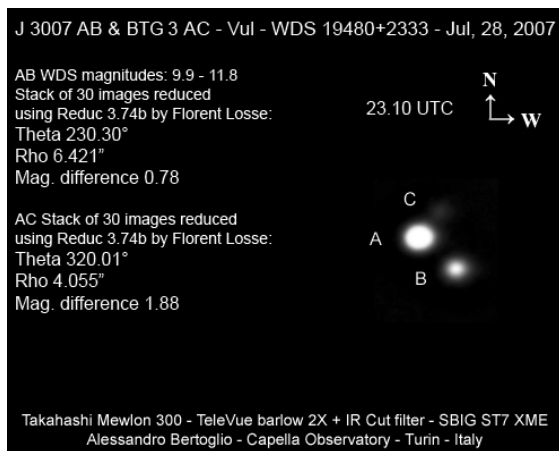


Figure 10: Image of BTG 3 by the author.

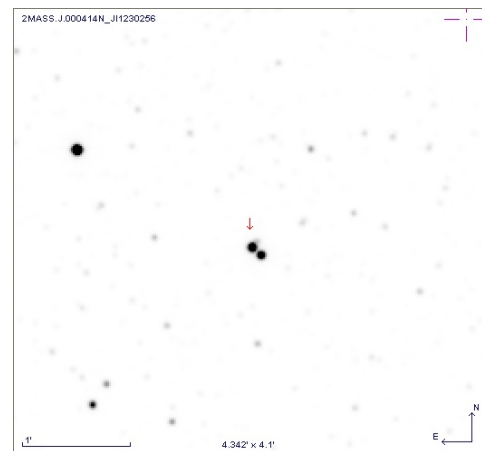


Figure 11: 2MASS image of BTG 3.

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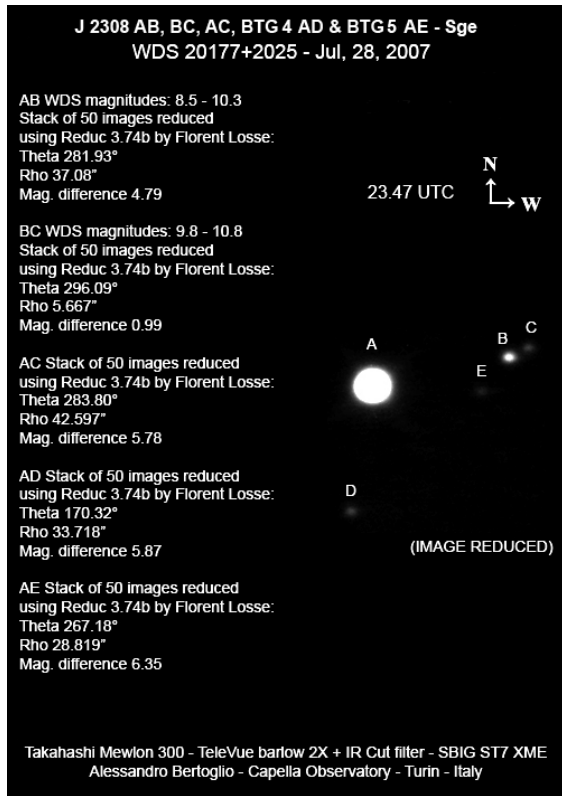


Figure 12: Image of BTG 4 by the author.

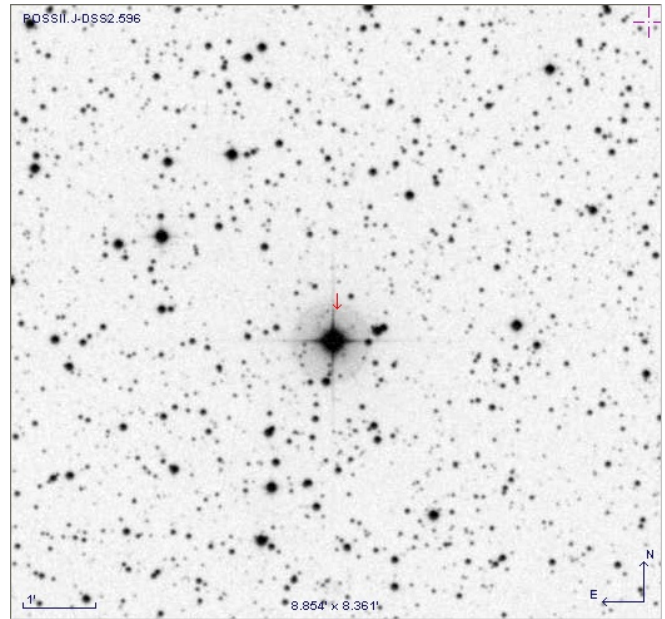


Figure 13: POSSII image of BTG 4.

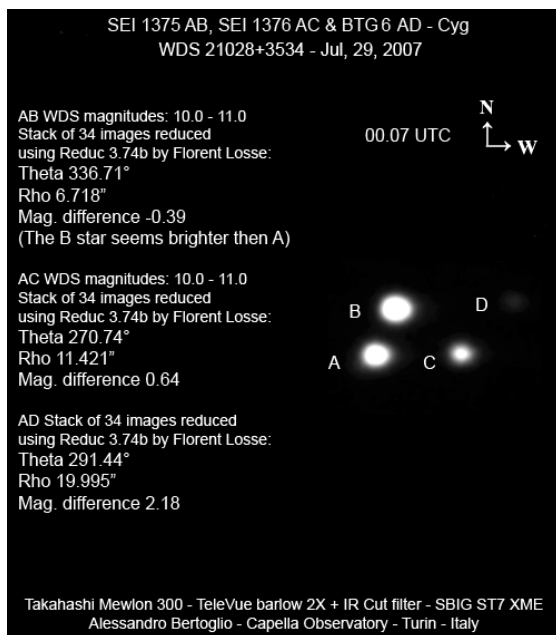


Figure 14: Image of BTG6 by the author.

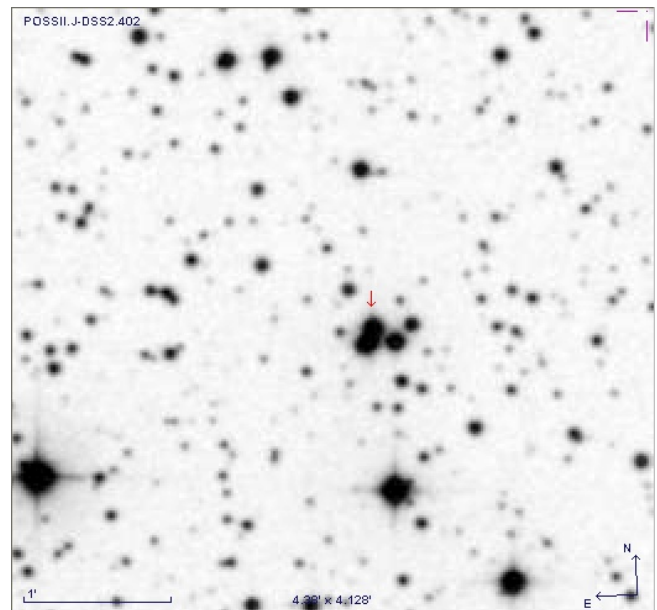


Figure 15: POSSII image of BTG 6.

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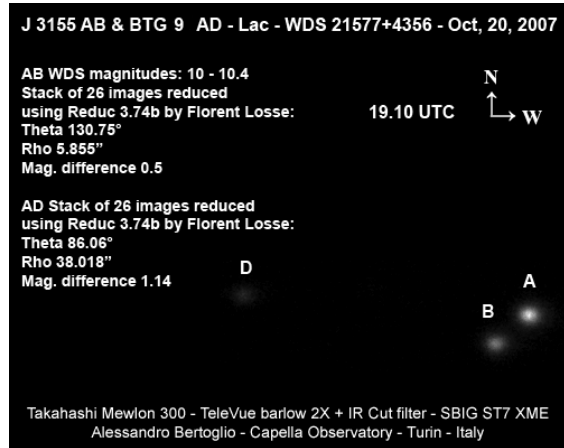


Figure 16: Image of BTG 9 by the author.

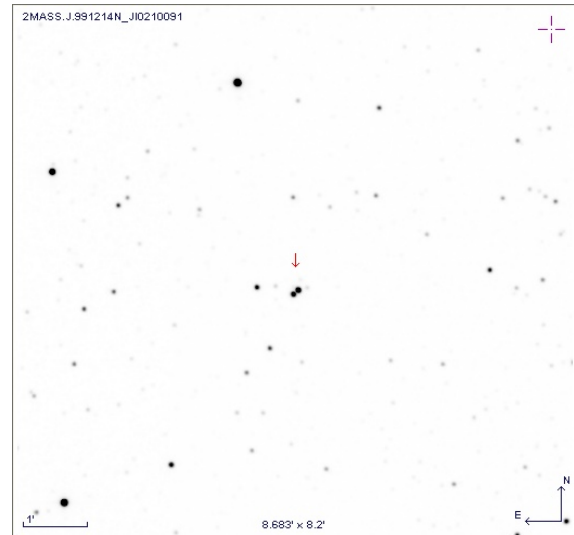


Figure 17: 2MASS image of BTG 9.

