

*START OF FAST RUN

60 inch Telescope Log
 Observer: CALKINS
 PI: McClintock, Huchra
 Spectrograph: FAST
 Grating: 300L
 Date: 10/13/98
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Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-5	DARK				15m	Late start due to
6-15	BIAS				0s	FEED snag
16-25	FLAT				6s	
26-35	FLAT				20s	1.1" aperture
36-45	BIAS				0s	BINDY 2
46-55	FLAT				12s	
56	comp			↓		BINARY 4
57, 58	441907p.09	19 09	09 49	#104	15m	1.1" slit
59	comp			↑		
60, 61	HD230579	19 04	11 07	#104	10, 20s	
62	comp			↑		
63	Feigello	23 19	-5 10	#56	2m	3" slit
64	comp			↑		
65	N7331	22 36	34 25	#57	1m	
66	comp			↑		
67	2M230058.0p	23 00	28 26	#68	15m	
68	comp			↑		
69	2M230809.8p	23 08	24 52	#68	12m	
70	comp			↑		
71	2M234119.9p	23 41	24 40	#68	10m	star to the west
72	comp			↑		
73	2M234219.5p	23 42	27 46	#68	20m	
74	comp			↑		
75	2M234202.2p	23 42	26 08	#68	15m	
76	comp			↑		
77	2M234137.7p	23 41	25 46	#68	12m	
78	comp			↑		
79	2M230650.5p	23 06	24 10	#68	10m	
80	comp			↑		
81	2M230144.4p	23 01	28 04	#68	11m	possibly stellar (star to the west) you *

60 inch Telescope Log

Spectrograph: FAST

Observer: CALKINS

Grating: 300L

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PI: Huchra, Komoyi

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Number	Object	R.A.	Dec.	L/R	Exp	Comments
82	comp			↑		
83	2M235919.1p	23 59	25 30	#68	8m	
84	comp			↑		
85	2M230029.3p	23 00	29 58	#68	12m	star to the east
86	comp			↑		
87	2M234149.6p	23 41	26 05	#68	10m	
88	comp			↑		
89	2M234224.7p	23 42	27 18	#68	11m	star to the west
90	comp			↑		
91	2M012058.5p	01 20	30 15	#68	3m	
92	comp			↑		
93	2M015051.7p	1 50	33 05	#68	3m	
94	comp			↑		
95	2M015407.7p	01 54	33 30	#68	8m	
96	comp			↑		
97	2M012412.1p	01 24	32 35	#68	3m	
98	comp			↑		
99	2M015105.0p	01 31	31 07	#68	6m	2 stars west, 1 star east (15 in by 2)
100	comp			↑		
101	2M012753.2p	01 22	32 25	#68	7m	
102	comp			↑		
103	2M015052.0p	01 50	33 02	#68	6m	
104	comp			↑		
105	2M013048.4p	01 30	33 54	#68	5m	
106	comp			↑		
107	2M02072.001	2 56	43 03	#35	90s	
108	comp			↑		
109	" " 3.002	2 51	42 49	#35	2m	
110	comp			↑		
111	3.003	2 47	41 14	#35	4m	star to west

60 inch Telescope Log
 Observer: CALKINS
 PI: Koranyi, Barton, McClintock
 Spectrograph: FAST
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Number	Object	R.A.	Dec.	L/R	Exp	Comments
112	comp			↑		
113	3.004	2 47	40 29	#35	4m	
114	comp			↑		
115	3.005	3 02	42 35	#35	2m	
116	comp			↑		
117	3.006	3 02	41 35	#35	2m	
118	comp			↑		
119	3.007	2 48	41 46	#35	7m	
120	comp			↑		
121	3.008	3 02	41 37	#35	4m	star to the east
122	comp			↑		
123	3.009	2 54	42 43	#35	6m	bright star to the E
124	comp			↑		(Binby 2)
125	3.010	3 00	40 14	#35	20m	
126	comp			↑		
127	3.011	2 48	40 40	#35	4m	
128	comp			↑		
129	3.012	3 01	43 01	#35	2m	
130	comp			↑		
131	3.013	2 48	41 36	#35	2m	
132	comp			↑		
133	sofal-197	2 57	6 01	#73	20m	
134	comp			↑		
135	sofal-198	3 18	41 28	#73	10m	
136	comp			↑		
137	sofal-199	3 18	41 28	#73	10m	(last one)
138	comp			↑		
139	comp			↓		
140	A0535p26	5 38	26 18	#109	1m	1.1" s/4
141	comp			↑		

60 inch Telescope Log

Observer: CALKINS

PI: McClintock, Garcia, Huchra

Spectrograph: FAST

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Number	Object	R.A.	Dec.	L/R	Exp	Comments
142	H1739478	5 54	26 24	#104	1m	
142	comp			↑		
144, 145	CICam	4 19	55 59	#107	20, 90	3" slit
146	comp			↑		
147	2M040724.0p	4 07	20 16	#68	10m	
148	comp			↑		
149	2M040410.9p	4 04	22 07	#68	12m	
150	comp			↑		
151	2M042032.0p	4 20	55 42	#68	7m	
152	comp			↑		
153	2M040343.7p	4 03	13 15	#68	6m	
154	comp			↑		
155	2M042040.6p	4 20	25 51	#68	7m	
156	comp			↑		
157	2M041552.2p	4 15	13 04	#68	8m	
158	comp			↑		
159	2M040210.6p	4 02	21 58	#68	4m	
160	comp			↑		
161	2M040731.7p	4 07	17 04	#68	8m	
162	comp			↑		
163	2M041640.2p	4 16	24 51	#68	2m	star to the east
164	comp			↑		
165	2M040043.7p	4 00	18 47	#68	12m	
166	comp			↑		
167	BGGem	6 03	27 42	#100	6m	Birby 2
168	comp			↑		
169	2M040026.4p	4 00	23 29	#68	4m	
170	comp			↑		
171	2M041124.7p	4 11	16 32	#68	7m	
172	comp			↑		

60 inch Telescope Log

Observer: CALKINS

PI: All Rines, Hutchins,

Spectrograph: FAST

Grating: 3006

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Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	DARK				15m	
11-20	BIAS				0s	
21-30	FLAT				6s	
31-40	BIAS				0s	BIAS 2
41-50	FLAT				12s	
51	HDI92281	20 12	40 16	#56	5s	
52	comp			↑		
53	NS866	15 06	55 45	#57	4m	dust lane
54	comp			↑		
55	MRK501	16 53	39 45	#60	5m	star to the east
56	comp			↑		
57	a2199.34	16 15	42 19	#64	20m	
58	comp			↑		
59	a2199.35	16 16	37 39	#64	3m	
60	comp			↑		
61	a2199.36	16 16	36 54	#64	12m	
62	comp			↑		
63	a2199.37	16 17	41 41	#64	4m	
64	comp			↑		
65	a2199.38	16 18	42 34	#64	15m	
66	comp			↑		
67	a2199.39	16 18	43 05	#64	5m	
68	comp			↑		
69	a2199.40	16 19	35 34	#64	10m	
70	comp			↑		
71	a2199.41	16 19	36 19	#64	15m	
72	comp			↑		
73	2M231137.7p	23 11	18 46	#68	5m	
74	comp			↑		
75	2M230411.6p	23 04	20 05	#68	4m	

60 inch Telescope Log

Observer: GALKINS

PI: Huchra

Spectrograph: FAST

Grating: 100L

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Number	Object	R.A.	Dec.	L/R	Exp	Comments
76	comp			↑		
77	ZM235943.7p	23 59	28 18	#68	3m	star to the east
78	comp			↑		
79	ZM23634.1p	23 16	20 50	#68	4m	
80	comp			↑		
81	ZM230858.2p	23 08	28 22	#68	2m	
82	comp			↑		
83	ZM232108.5p	23 21	19 18	#68	2m	
84	comp			↑		
85	ZM233405.4p	23 34	22 59	#68	3m	object to the east
86	comp	23:34:37	22:57:48	↑		TRX TO BE moving?
87	ZM231505.7p	23 15	22 52	#68	3m	
88	comp			↑		
89	ZM231117.5p	23 11	17 52	#68	3m	
90	comp			↑		
91	ZM230209.6p	23 03	20 02	#68	3m	
92	comp			↑		
93	ZM231310.5p	23 13	22 11	#68	3m	
94	comp	23 16 18	21 23 58	↑		MOVING?
95	ZM231833.2p	23 18	18 44	#68	3m	
96	comp			↑		
97	ZM233315.8p	23 33	22 57	#68	5m	
98	comp			↑		
99	ZM233327.6p	23 33	19 26	#68	2m	object to the west
100	comp			↑		
101	ZM233355.8p	23 35	22 57	#68	2m	
102	comp			↑		
103	ZM230325.2p	23 03	20 15	#68	2m	stellar??
104	comp			↑		
105	ZM233547.6p	23 35	22 59	#68	4m	

60 inch Telescope Log

Observer: CAR. K. IANIS

PI: 1-14chra

Spectrograph: FAST

Grating: 300L

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Number	Object	R. A.	Dec.	L/R	Exp	Comments
106	comp			↑		
107	ZM231619.1p	23 16	20 51	#68	4m	
108	comp			↑		
109	ZM232258.1p	23 02	22 16	#68	4m	Object west
110	comp			↑		
111	ZM230340.6p	23 03	19 54	#68	3m	
112	comp			↑		
113	ZM233705.2p	23 32	23 51	#68	3m	
114	comp			↑		
115	ZM230222.6p	23 02	22 31	#68	20m	object to west
116	comp			↑		
117	ZM232337.3p	23 23	20 35	#68	2m	
118	comp			↑		
119	ZM233921.6p	23 39	20 42	#68	2.5m	
120	comp			↑		
121	ZM231618.4p	23 16	21 57	#68	7m	
122	comp			↑		
123	ZM231912.2p	23 19	22 26	#68	5m	object west
124	comp			↑		
125	ZM230300.3p	23 03	20 31	#68	3m	
126	comp			↑		
127	ZM230609.5p	23 06	22 22	#68	5m	
128	comp			↑		
129	ZM231740.3p	23 17	18 24	#68	3m	
130	comp			↑		
131	ZM231603.6p	23 16	21 35	#68	4m	
132	comp			↑		
133	ZM231703.3p	23 17	19 08	#68	5m	
134	comp			↑		
135	ZM234914.0p	23 49	18 05	#68	3m	

60 inch Telescope Log				Spectrograph: <u>FAST</u>		
Observer: <u>CALKINS</u>				Grating: <u>300L</u>		Page: <u>6592</u>
PI: <u>Huchra, Kirshner, Koranyi</u>				Date: <u>10/14/98</u>		
Number	Object	R.A.	Dec.	L/R	Exp	Comments
136	comp			↑		
137	2M232047.6p	23 20	19 38	#68	4m	
138	comp			↑		
139	2M230350.2p	23 03	22 18	#68	5m	
140	comp			↑		
141	2M230327.1p	23 03	19 54	#68	3m	
142	comp			↑		
143	2M232216.5p	23 22	20 56	#68	4m	
144	comp			↑		
145	2M232029.3p	23 20	19 00	#68	5m	
146	comp			↑		
147	2M230904.1p	23 09	18 52	#68	10m	
148	comp			↑		
149	2M231956.7p	23 19	19 37	#68	3m	
150	comp			↑		
151	2M231813.0p	23 18	19 07	#68	2.5m	star east - binby 2
152	comp			↑		
153	2M230327.5p	23 03	20 07	#68	3m	
154	comp			↑		
155	2M231537.8p	23 15	18 35	#68	4m	
156	comp			↑		
157	sn1998dk	00 14	-00 44	#2	20m	
158	comp			↑		
159	sn1998dm	1 26	-6 06	#2	15m	
160	comp			↑		
161	PGC02057139	02 07	13 36	#56	4m	
162	comp			↑		
163	awn 7-3.0/4	3 00	40 51	#35	4m	object west
164	comp			↑		
165	3.015	2 4 8	43 02	#35	4m	

60 inch Telescope Log				Spectrograph: <u>FAST</u>			
Observer: <u>CALKINS</u>				Grating: <u>3006</u>		Page: <u>6593</u>	
PI: <u>Koranyi</u>				Date: <u>10/14/98</u>			
Number	Object	R.A.	Dec.	L/R	Exp	Comments	
166	comp			↑			
167	3.016	2 49	40 32	#35	5m		
168	comp			↑			
169	3.017	2 50	41 23	#35	8m	to objects east, one	
170	comp			↑		object west	
171	3.018	3 01	41 43	#35	10m		
172	comp			↑			
173	3.019	2 46	42 02	#35	8m		
174	comp			↑			
175	3.020	2 49	42 32	#35	10m		
176	comp			↑			
177	3.021	2 52	40 08	#35	5m	star to the east	
178	comp			↑			
179	3.023	2 46	41 46	#35	6m	star to the east	
180	comp			↑			
181	3.024	2 46	40 05	#35	5m		
182	comp			↑			
183	3.025	2 46	42 32	#35	4m		
184	comp			↑			
185	3.026	2 59	41 32	#35	5m		
186	comp			↑			
187	3.027	2 47	40 18	#35	4m		
188	comp			↑			
189	3.028	2 49	41 35	#35	8m		
190	comp			↑			
191	3.029	3 01	41 29	#35	12m		
192	comp			↑			
193	3.030	3 01	41 25	#35	17m		
194	comp			↑			
195	3.031	2 48	40 47	#35	20m		

60 inch Telescope Log
 Observer: CALKINS
 PI: Garcia, Kirshner, Huchra
 Spectrograph: FAST
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Number	Object	R.A.	Dec.	L/R	Exp	Comments
196	comp			↑		
197, 198	CICam	4 19	55 59	#107	20, 90s	
199	comp			↑		
200	sn1998ec	6 53	50 02	#2	20m	
201	comp			↑		
202	UMOS465T.5p	5 46	25 03	#68	20m	
203	comp			↑		
204	UMOS4726.5p	5 47	27 09	#68	20m	2 objects east, binby 2
205	comp			↑		(very weak spectra)
206	UMOS1321.4p	5 13	25 09	#68	15m	
207	comp			↑		
208	UMOS0101.7p	5 01	11 55	#68	15m	(surprise)
209	comp			↑		
210-214	sky			#56	2.5	
215	comp			↑		
216-225	BIAS				0s	
226-235	FLAT				6s	
236-245	BIAS				0s	Binby 2
246-255	FLAT				12s	↓
256-265	DARK				15m	

60 inch Telescope Log

Observer: CALKINS

PI: All, Rines, McClintock, Huchra

Spectrograph: FAST

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Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	DARK				15m	Binby 4
11-20	BIAS				0s	
21-30	FLAT				6s	
31-40	FLAT				20s	1.1" slit
41-50	BIAS				0s	Binby 2
51-60	FLAT				12s	
61	HD192281	20 12	40 16	#56	5s	Binby 4
62	comp			↑		
63	N7331	22 37	34 24	#57	4m	
64	comp			↑		
65	22199.42	16 19	41 39	#64	20m	
66	comp			↑		
67	22199.43	16 19	36 50	#64	4m	object to the west
68	comp			↑		
69	22199.44	16 20	37 22	#64	3m	
70	comp			↑		
71	22199.45	16 20	37 34	#64	6m	
72	comp			↑		
73	22199.46	16 21	42 46	#64	15m	
74	comp			↑		
75	22199.47	16 22	37 25	#64	4m	
76	comp			↑		
77	22199.48	16 25	41 41	#64	8m	
78	comp			↑		
79	comp			↓		
80, 81	421907p09	19 09	09 49	#104	15m	1.1"
82	comp			↑		
83, 84	HD230579	19 04	11 07	#104	10, 20s	1.1"
85	comp			↑		
86	24231695.1p	23 16	18 24	#68	8m	3" Binby 2, star east

60 inch Telescope Log

Observer: CALKINS

PI: Huchra, Keranyi

Spectrograph: FAST

Grating: 300L

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Number	Object	R.A.	Dec.	L/R	Exp	Comments
117	comp			↑		
118	2M232154.1p	23 21	21 12	#68	8m	
119	comp			↑		
120	2M232216.2p	23 22	21 06	#68	4m	
121	comp			↑		
122	2M231706.4p	23 17	21 28	#68	4m	
123	comp			↑		
124	2M230309.1p	23 03	20 29	#68	7m	
125	comp			↑		
126	2M230606.6p	23 06	19 42	#68	10m	
127	comp			↑		
128	2M231915.3p	23 19	18 54	#68	7m	
129	comp			↑		
130	2M231253.1p	23 12	18 18	#68	7m	
131	comp			↑		
132	2M234828.9p	23 48	21 34	#68	12m	
133	comp			↑		
134	2M230340.9p	23 03	19 58	#68	12m	
135	comp			↑		
136	2M232325.4p	23 23	20 35	#68	5m	
137	comp			↑		
138	awm7-3.033	3 01	42 56	#35	12m	
139	comp			↑		
140	3.033	3 02	41 59	#35	4m	
141	comp			↑		
142	3.034	2 53	42 51	#35	15m	
143	comp			↑		
144	3.035	3 01	41 28	#35	10m	
145	comp			↑		
146	3.016	2 46	42 40	#35	5m	

60 inch Telescope Log

Observer: CALKINS

PI: Koranyi, Garcia, McKittrick
Kirshner

Spectrograph: FAST

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Number	Object	R.A.	Dec.	L/R	Exp	Comments
147	comp			↑		
148	3.037	2 50	40 06	#35	10m	object to east
149	comp			↑		
150	3.038	3 00	42 22	#35	20m	object east
151	comp			↑		
152	3.039	2 46	42 50	#35	15m	object east
153	comp			↑		
154	3.040	2 46	41 24	#35	10m	object west, binby 2
155	comp			↑		
156	3.041	2 50	40 28	#35	20m	
157	comp			↑		
158	3.042	2 54	42 39	#35	15m	
159	comp			↑		
160, 161	CICam	4 19	55 59	#107	20, 90	
162	comp			↑		
163	BGGem	6 03	27 41	#100	6m	object east, binby 2
164	comp			↑		
165	comp			↓		
166	AOS35p26	5 38	26 18	#104	1m	
167	comp			↑		
168	HDS9478	5 54	26 25	#104	1m	
169	comp			↑		
170	2M062249.8p	6 22	24 38	#68	10m	
171	comp			↑		
172	2M061632.9p	6 16	24 34	#68	10m	object east, binby 2
173	comp			↑		
174	2M060533.7p	6 05	29 42	#68	20m	
175	comp			↑		
176	SN1998ec	6 52	50 02	#2	15m	
177	comp			↑		

60 inch Telescope Log

Observer: CALKINS

PI: Kirschner, Huebra, All

Spectrograph: FAST

Grating: 300L

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Number	Object	R.A.	Dec.	L/R	Exp	Comments
178	Hiltner600	6 45	2 08	#56	45s	
179	comp			↑		
180	ZM060628.6p	6 06	28 39	#68	10m	
181	comp			↑		
182	ZM060553.8p	6 05	28 07	#68	10m	star west, binby 2
183	comp			↑		
184	Akn120	5 16	-00 09	#6	4m	star west, star east
185	comp			↑		
186	Hiltner600	6 45	2 08	#56	1m	
187	comp			↑		
188	HDS2971	2 00	27 09	#57	10s	
189	comp			↑		
190-194	sky			#56	5s	
195	comp			↑		
196-205	BIAS				0s	
206-215	FLAT				6s	
216-225	BIAS				0s	BINBY 2
226-235	FLAT				12s	
236-245	DARK				15m	

60 inch Telescope Log
 Observer: CALKIN
 PI: A1)

Spectrograph: FAST
 Grating: 300 L
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Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-5	DARK				15m	Binby 4
6-15	BIAS				0s	
16-25	FLAT				6s	
26-35	FLAT				20s	1.1" slit
36-45	BIAS				0s	Binby 2
46-55	FLAT				12s	
						overcast @ sunset
						BIAS 4
						Fog, clouds, drizzle, storms throughout the night.
56-65	BIAS				0s	BIAS 4
66-75	FLAT				6s	
76-85	BIAS				0s	BIAS 2
86-95	FLAT				12s	
96-105	DARK				15m	

60 inch Telescope Log
 Observer: P. Berland
 PI: Kirshner et al
 Spectrograph: FAST
 Grating: 300R
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Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	DARK				15m	lots of rain today
11-20	BIAS				0s	
21-30	FLAT				6s	rain after sunset
31-40	BIAS				6s	
41-50	FLAT				12s	
51-53	H227086	22:58	+62:27	S6	4s	open ~11pm
54	COMP			T		
55-56	M32	0:40	+42	S7	70s	
57	OMP			T		
58	225m280	0:41	+4:05	S7	4m	
59	OMP			T		
60	Sagal-BBB	01:23	+33:19	T3	15m	
61	OMP			T		
62	Sagal-CCC	01:23	+33:12	T3	10m	
63	OMP			T		
64	2M015127.3	01:51	+38:07	68	6m	stopped by clouds - close
65	OMP			T		
66	2M015510.8	01:55	+36:34	68	6m	open ~1am
67	OMP			T		
68	2M015340.8	01:53	+34:12	68	8m	
69	OMP			T		
70	SN1998dm	01:26	-06:06	Z	20m	
71	OMP			T		
72	SN1998ef	01:23	+32:14	Z	15m	
73	OMP			T		
74	AWM7_02.043	02:17	+41:38	35	10m	em done - takes off
75	OMP			T		
76	044	03:02	+42:10	35	8m	
77	OMP			T		

60 inch Telescope Log
 Observer: P. Bertram
 PI: Den

Spectrograph: FAST
 Grating: 3002
 Date: 10/22/98

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Number	Object	R.A.	Dec.	L/R	Exp	Comments
78	qwm7-3.046	02:47	+42:57	35	12m	em
79	COMP			↑		
80	.017	02:48	+41:09	35	8m	
81	COMP			↑		
82	.018	02:53	+42:51	35	10m	*'s in slit
83	COMP			↑		
84	.049	02:52	+42:55	35	5m	
85	COMP			↑		
86	.050	03:01	+41:22	35	8m	
87	COMP			↑		
88	.051	02:46	+42:25	35	7m	
89	COMP			↑		
90	.052	02:46	+42:06	35	15m	LSB; * to W in slit em
91	COMP			↑		
92	.053	03:09	+41:21	35	8m	
93	COMP			↑		
94	.054	03:00	+41:42	35	10m	bin by 2 1 gal + 3 stars
95	COMP			↑		
96	.055	02:46	+42:35	35	6m	emf star gal stars row 85
97	COMP			↑		
98-100	CICam	04:19	+55:59	107	3s-4s	
101	COMP			↑		
102	SN 1998cc	06:53	+50:02	2	20m	
103	COMP			↑		
104	BGGem	06:03	+27:41		6m	
105	COMP			↑		
106-107	Hiltner 66	06:42	+02:11	56	45s	
108	COMP			↑		

60 inch Telescope Log
 Observer: PB
 PI: Dm
 Spectrograph: FAST
 Grating: 300L
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Number	Object	R.A.	Dec.	L/R	Exp	Comments
109-111	A0535p26	05:58	+26:18	104	1m	1.1" slit ↓
112	COMP			↑	6s	
113-115	HD39478	05:53	+26:25	104	4s	
116	COMP			↑		
						3" slit ↓
117	α CM 7.3.056	02:46	+40:05	35	15m	gal @ row 42; em! also gal to W; also em also ± tow at higher cz
118	COMP			↑		
119	.058	02:30	+40:24	35	6m	
120	COMP			↑		
121	.059	02:49	+40:27	35	5m	
122	COMP			↑		
123	.060	02:30	+40:18	35	11m	
124	COMP			↑		
125	.061	02:51	+40:07	35	5m	
126	COMP			↑		
127	.062	02:46	+41:23	35	5m	
128	COMP			↑		
129-131	HD 27862	03:49	+41:08	57	2s	
132	COMP			↑		
133-135	HD 28497	04:25	+43:02	57	2s	
136	COMP			↑		
165-167	HD 52971	06:57	+27	57	4s	
168	COMP			↑		
169-178	BIAS			0	0s	scattered clouds
179-188	FLAT			0	6s	↓ down
189-198	BIAS			0	0s	
199-208	FLAT			0	12s	
209-218	FLAT			104	20s	1.1" slit
219-228	DARK				20m	~

60 inch Telescope Log

Observer: PBerlin
 PI: Jeff Geller

Spectrograph: FAST
 Grating: 3000
 Date: 10/23/98

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Number	Object	R.A.	Dec.	L/R	Exp	Comments
110	DARK			0	15m	
115	DARK			0	20m	rain + clouds
16-25	BIAS			0	0s	
26-35	FLAT			0	6s	3" slit
36-45	BIAS			0	0s	
46-55	FLAT			0	12s	3" slit
56-57	BDp284211	21:48	+11:77	SG	45s	clearing ~ 8pm
58	COMP			↑		
59	SN1986g	22:39	+10:36	2	20m	
60	COMP			↑		
61	COMP			↓		1.1" slit ↓
62-67	Hu1907p09	19:09	+10:49	104	15m	clouds
64	COMP			↑		
65-67	HD230579	19:04	+11:06	104	10s	
68	COMP			↑		
69-76	FLAT			104	20s	n.e.
77	E635.101343	01:13	+10:11	55	12m	3" slit ↓ wk; ok
78	COMP			↑		↑ clouds + fog; stop
79	E1274.106187	00:47	+11:09	55	10m	open again
80	COMP			↑		
81	E1274.15	01:03	+11:01	55	6m	
82	COMP			↑		
83	E-635.103	01:24	+10:59	55	4m	
84	COMP			↑		
85	E-635.103	1:26	+10:54		8m	clouds
86	COMP			55		
87	E-1201.129	1:24	+10:42		2m	
88	COMP			55		

60 inch Telescope Log
 Observer: PB James Muzerolle
 PI: Gellerh/Kirshner
 Spectrograph: FAST
 Grating: 300R
 Date: 10/23/98
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Number	Object	R.A.	Dec.	L/R	Exp	Comments
89	E-15.143	01:54	+13:33	SS	3m	
90	comp			↑	9s	
91	E-15.136	01:40	+13:33	SS	5m	
92	comp			↑		
93	SN1998dk	00:	-	Z	20m	4m stopped by clouds
94	comp			↑		
95	E209.111001	01:57	+14:32	SS	7m	
96	comp			↑		
97	E209.1558	01:55	+10:00	SS	10m	
98	comp			↑		
99	E1274.201462	00:59	+13:34	SS	5m	
100	comp			↑		
101	E1274.167	00:56	+13:51	SS	5m	
102	comp			↑		
103	E1274.15	01:04	+14:04	SS	8m	
104	comp			↑		
105	SN1998cf	01:03	+32:14	Z	12m	more clouds
106	comp			↑		
107						1200R; 11" slit; filt-385 ↓
108-109	NCTTSm1				7m	bin by 4 - junk it.
	comp				10s	
111	NCTTSm2					bin by 2 ↓
112	comp					
113-114	HD9746	01:36	+48:43	101	5s	Li Strong
115	comp			↑		
116	NCTTSm1	03:50	+30:42	101	3m	
117	comp			↑		
118	NCTTSm4	03:54	+34:55	101	7m	Li
119	comp			↑		

60 inch Telescope Log				Spectrograph: <u>FAST</u>		
Observer: <u>PB</u>				Grating: <u>1200L, 11" slit</u>		Page: <u>667</u>
PI: <u>Torres</u>				Date: <u>10/23/98</u>		
Number	Object	R.A.	Dec.	L/R	Exp	Comments
120	NCTTS.m3	03:53	+32:43	101	3m	Li
121	COMP			↑		
122	NCTBS.5	03:56	+33:22	101	8m	Li
123	COMP			↑		
124	6	03:57	+34:58	101	90s	Li
125	COMP			↑		
126	7	03:58	+33:51	101	4m	Li
127	COMP			↑		
128	8	03:58	+35:03	101	2m	
129	COMP			↑		
130	9	03:59	+32:29	101	8m	Li
131	COMP			↑		
132	10	04:02	+34:40	101	4m	
133	COMP			↑		
134	11	04:07	+34:15	101	10m	Li ; H α em
135	COMP			↑		
136	12S	04:07	+33:56	101	2m	close N-S pair
137	12N	04:07	+33:56	101	6m	poor sep.
138	COMP			↑		
139	13	04:07	+33:27	101	1m	Li wk.
140	COMP			↑		
141	14	04:08	+38:25	101	5m	Li
142	COMP			↑		
143	15	04:11	+37:56	101	3m	Li
144	COMP			↑		
145	16	04:15	+32:20	101	6m	all pec H α em
146	COMP			↑		
147	17	04:15	+34:00	101	3m	Li
148	COMP			↑		

<p>60 inch Telescope Log</p> <p>Observer: <u>PB</u></p> <p>PI: <u>Torres</u></p>	<p>Spectrograph: <u>FAST</u></p> <p>Grating: <u>1200L</u></p> <p>Date: <u>10/23/98</u></p> <p style="text-align: right;">Page: <u>6618</u></p>
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Number	Object	R.A.	Dec.	L/R	Exp	Comments
149	NGC 18	04.16	+33.25	101	8m	
150	COMP			↑		more clouds
151	19	04.16	+38.08	101	8m	
152	COMP			↑		
153	20	04.17	+30.15	101	5m	
154	COMP			↑		
155	21	04.18	+37.96	101	6m	
156	COMP			↑		
157	22	04.18	+31.72	101	7m	
158	COMP			↑		RT system crash
159	23	04.19	+29.55	101	10m	
160	COMP			↑		
161	24	04.20	+31.23	101	5m	Li
162	COMP			↑		
163	25	04.21	+30.47	101	7m	+ to E
164	COMP			↑		
165	26	04.26	+38.45	101	90s	Li
166	COMP			↑		
167	27	04.27	+30.56	101	12m	H α em w/ Li wk
168	COMP			↑		
169	28	04.30	+31.58	101	2m	
170	COMP			↑		
171	29	04.33	+36.09	101	4m	Li
172	COMP			↑		
173	30	04.36	+37.55	101	12m	
174	COMP			↑		
175	31	04.37	+31.06	101	5m	Li strong
176	COMP			↑		
177	32	04.43	+31.16	101	12m	Li
178	COMP			↑		

60 inch Telescope Log

Observer: PD

PI: Jorres

Spectrograph: FAST

Grating: 12002

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Number	Object	R.A.	Dec.	L/R	Exp	Comments
179	NCTTS-33	04:44	+76:51	101	4m	
180	COMP			↑		
181	34	04:47	+76:30	101	3m	
182	COMP			↑		
183	35	04:47	+76:57	101	5m	Li H _α em
184	COMP			↑		
185	36	04:49	+78:36	101	2m	
186	COMP			↑		(*37 identical to *36)
187	38	04:50	+79:42	101	6m	wk. red
188	COMP			↑		
189	39	04:52	+76:59	101	2m	Li
190	COMP			↑		
191	40	04:52	+77:16	101	1m	Li
192	COMP			↑		
193	41	04:54	+78:50	101	2m	
194	COMP			↑		
195	38	04:50	+79:42	101	10m	red of #187 H _α , wkLi
196	COMP			↑		
197-199	TISORI-27	05:22	+02:47	101	10s	
200	COMP			↑		
201-202	Hiltner 60	06:42	+02:11	101	90s	Massey Std.
203	COMP			↑		
204-205	HDS 0834	04:52	+76:52	101	2s	
206	COMP			↑		
207	NCTTS-45	04:58	+78:36	101	2m	
208	COMP			↑		
209-210	46	05:04	+73:52	101	1m	
211	COMP			↑		
212-214	47S	05:06	+75:09	101	1m 2	S+
213	47N	05:06	+75:10	101	4m	N+

60 inch Telescope Log
 Observer: CALKINS
 PI: All, Kirchner, McClintock, Geller
 Spectrograph: FAST
 Grating: 300L
 Date: 10/28/98
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Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-5	DARK				15m	Binby 4
6-15	BIAS				0s	
16-25	FLAT				6s	
26-35	FLAT				60s	1.1" slit
36-45	BIAS				0s	BINBY 2
46-55	FLAT				12s	
56	comp			↓		
57, 58	441907, 09	19 09	09 49	#104	15m	
59	comp			↑		
60, 61	HD230579	19 01	11 06	#104	10, 20s	
62	comp			↑		
63	SN1998eq	22 39	08 36	#2	15m	BINBY 2
64	comp			↑		
65	Feige 110	23 19	-5 10	#56	2m	
66	comp			↑		
67	N7331	22 37	34 25	#57	3m	
68	comp			↑		
69	E.G.S. 102717	1 25	14 58	#55	20m	
70	comp			↑		
71	15.1085256	1 42	13 58	#55	10m	
72	comp			↑		
73	15.107583	1 47	13 53	#55	20m	
74	comp			↑		
75	15.1115903	1 48	13 46	#55	20m	
76	comp			↑		
77	1274.123935	1 00	14 11	#55	15m	
78	comp			↑		
79	1274.125858	1 02	14 11	#55	12m	
80	comp			↑		
81	209.135887	1 16	14 43	#55	12m	

60 inch Telescope Log

Observer: CALKINS

PI: Geller, Kirshner, Koranyi, Garcia

Spectrograph: FAST

Grating: 300L

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Number	Object	R. A.	Dec.	L/R	Exp	Comments
82	comp			↑		
83	9.1487606	00 16	13 40	#55	15m	
84	comp			↑		
85	9.1487606	00 16	13 40	#55	20m	
86	comp			↑		
87	sm1998ef	01 03	32 13	#52	10m	
88	comp			↑		
89	Feige 25	2 38	5 27	#56	2m	
90	comp			↑		
91	209.189702	1 57	14 26	#55	20m	
92	comp			↑		
93	1274.195625	00 56	13 36	#55	12m	
94	comp			↑		
95	635.196676	01 10	14 06	#55	10m	
96	comp			↑		
97	1201.25509	1 20	9 27	#55	20m	
98	comp			↑		
99	823.249456	0 22	14 56	#55	15m	
100	comp			↑		
101	1201.25199	1 23	9 24	#55	8m	
102	comp			↑		
103	146525361	00 19	9 10	#55	8m	
104	comp			↑		
105, 106	CICam	4 19	55 59	#67	20, 90	
107	comp			↑		
108	adm7=3.063	3 01	43 00	#35	10m	Binby 2, galaxy to the east, 2 stars west
109	comp			↑		
110	3.064	2 47	42 19	#35	20m	
111	comp			↑		
112	3.065	2 53	42 35	#35	12m	

60 inch Telescope Log

Observer: CALIKINS

PI: Koranyi, McClintock, Kenyon

Barton

Kinshner

Spectrograph: FAST

Grating: 300L

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Number	Object	R.A.	Dec.	L/R	Exp	Comments
112	comp			↑		
114	3.066	2 49	42 53	#35	8m	
115	comp			↑		
116	3.067	2 46	41 16	#35	20m	
117	comp			↑		
118	3.068	2 54	42 33	#35	10m	
119	comp			↑		
120	3.069	2 46	42 05	#35	20m	
121	comp			↑		
122	3.070	2 55	42 48	#35	15m	
123	comp			↑		
124	comp			↓		
125	A0535p 2.6	5 38	26 18	#104	1m	
126	comp			↑		
127	HDS9478	5 54	26 25	#104	1m	
128	comp			↑		
129	BGGem	6 03	27 41	#100	6m	Binby 2, object to the west
130	comp			↑		
131	sn1998ee	6 53	50 02	#2	15m	
132	comp			↑		
133	magal-044	9 14	36 07	#73	13m	
134	comp			↑		
135	magal-045	9 14	40 53	#73	20m	
136	comp			↑		
137	magal-046	9 14	36 06	#73	19m	Binby 2, star to the west
138	comp			↑		
139	Hiltner600	6 45	2 08	#56	1m	
140	comp			↑		
141	HDS2971	6 57	27 13	#57	6s	
142	comp			↑		

60 inch Telescope Log
 Observer: CALKINS
 PI: All, McClintock, Kirshner
 Spectrograph: FAST
 Grating: 300L
 Date: 10/29/98
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Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	DARK				15m	Binby 4
11-20	BIAS				0s	
21-30	FLAT				6s	
31-40	FLAT				20s	1.1" slit
41-50	BIAS				0s	Binby 2
51-60	FLAT				12s	
61-65	sky			#57	5s	Binby 4
66	comp			↑		
67	HD192281	20 12	40 16	#56	6s	
68	comp			↑		
69	N7331	22 37	34 24	#57	4m	
70	comp			↑		
71	MRK509	20 44	-10 43	#6	5m	thin clouds
72	comp			↑		
73	30390.3	18 41	79 45	#6	11m	
74	comp			↑		
75	N7469	23 03	08 52	#6	4m	Binby 2, star to the east
76	comp			↑		
77	comp			↓		
78,79	441907,09	19 09	09 49	#104	15m	
80	comp			↑		Fog forming at summit
81,82	HD230577	19 04	11 07	#104	1020	
83	comp			↑		
84	SN1998eg	22 39	08 36	#2	20m	clouds, fog
85	comp			↑		
						wait out clouds
						5:20 AM - clouds win!!
86-95	BIAS				0s	Binby 4
96-105	FLAT				6s	

106-115 BIAS 0s Binby 2
 116-125 FLAT 12s
 126-135 DARK 15m