

60 inch Telescope Log		Spectrograph: <u>FAST</u>				
Observer: <u>CALKINS</u>		Grating: <u>3006</u>		Page: <u>7441</u>		
PI: <u>All Kirshner, Mahdavi, Geller</u>		Date: <u>6/21/99</u>				
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	
41-50	FLAT				12s	
51-55	sky			#57	2s	
56	comp			↑		
57	N4486B	12 30	12 29	#57	6m	
58	comp			↑		
59,60	H244	13 23	36 07	#56	2m	
61	comp			↑		
62,63	H244	13 23	36 08	#56	2m	PA = 10°
64	comp			↑		
65	sn1999by	9 21	51 00	#2	15m	PA = 90°
66	comp			↑		
67	sn1999cp	14 06	-5 27	#2	20m	PA = 15° brightening
68	comp			↑		Tilt = 58.5
69,70	H244	13 23	36 08	#56	2m	PA = 94°, Tilt = 58.5
71	comp			↑		
72	ngc6177.348	12 05	19 42	#59	20m	Tilt = 610, PA = 90 Hα?
73	comp			↑		← should've skipped it!!!
74	.353	12 05	20 31	#59	3.5m	
75	comp			↑		
76	.354	12 05	19 44	#59	8m	
77	comp			↑		
78	.362	12 06	20 01	#59	12m	
79	comp			↑		
80	.363	12 06	19 14	#59	9m	-redo?
81	comp			↑		
82	ngc2199.425889	16 33	39 37	#64	7m	

60 inch Telescope Log
 Observer: CALKINS
 PI: Geller
 Spectrograph: F45T
 Grating: 300L
 Date: 6/21/99
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Number	Object	R. A.	Dec.	L/R	Exp	Comments
83	comp			↑		
84	.4262	16 25	38 48	#64	20m	
85	comp			↑		
86	.435508	16 28	39 25	#64	5m	
87	comp			↑		
88	.43985	16 34	37 41	#64	8m	VERY NICE!
89	comp			↑		
90	.446730	16 24	39 10	#64	7m	
91	comp			↑		
92	.446881	16 24	39 10	#64	8m	
93	comp			↑		
94	.447063	16 25	39 10	#64	10m	
95	comp			↑		
96	.447351	16 26	39 08	#64	10m	Cosmic on top of Hβ
97	comp			↑		
98	.450238	16 33	39 13	#64	17m	
99	comp			↑		
100	.450372	16 33	39 17	#64	15m	
101	comp			↑		
102	.450401	16 33	39 16	#64	20m	
103	comp			↑		
104	.451393	16 36	39 07	#64	15m	object west
105	comp			↑		
106	.459728	16 21	38 54	#64	6m	
107	comp			↑		
108	.460281	16 23	38 54	#64	8m	
109	comp			↑		
110	.461642	16 27	38 57	#64	17m	
111	comp			↑		
112	.462973	16 31	38 53	#64	20m	star, pins, appears diffuse

#96 strong cosmic ray right on top of Hβ line; could not separate - cut

60 inch Telescope Log				Spectrograph: <u>FAST</u>		
Observer: <u>CALKINS</u>				Grating: <u>3000</u>		Page: <u>7443</u>
PI: <u>Geller, Huchra, Kirshner</u>				Date: <u>6/21/99</u>		
Number	Object	R.A.	Dec.	L/R	Exp	Comments
113	comp			↑		
114	.473145	16 26	38 48	#64	12m	
115	comp			↑		
116	.474327	16 29	38 41	#64	10m	
117	comp			↑		
118	.49985	16 26	37 31	#64	14m	← last one!!
119	comp			↑		
120	2M182406	18 24	30 29	#68	8m	
121	comp			↑		
122	sn1999co	21 03	-14 35	#2	10m	PA=0°, star west
123	comp			↑		clouds moved in
124	2M221802	22 18	16 43	#68	3m	clouds...!!
125	comp			↑		looking for holes!!
126	2M205438	20 54	15 33	#68	4.5m	
127	comp			↑		
128	2M205556	20 55	16 43	#68	5m	star east
129	comp			↑		
130	2M190004	19 00	40 54	#68	4.5m	object east
131	comp			↑		
132	2M190000	19 00	38 27	#68	8m	clouds
133	comp			↑		
134, 135	BDP284211	21 51	28 51	#56	30s	thin clouds
136	comp			↑		
137-146	BEAC				0s	clouds @ sunrise
147-156	FLAT				6s	
157-166	BEAC				0s	
167-176	FLAT				12s	
177-186	DARK				15m	