

60 inch Telescope Log		Spectrograph: <u>FAST</u>				
Observer: <u>CAL KINS</u>		Grating: <u>300L</u>		Page: <u>7017</u>		
PI: <u>All, Huchra, Garcia</u>		Date: <u>2/20/99</u>				
Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-5	DARK				15m	
6-15	BTAS				0s	
16-25	FLAT				6s	
26-35	BTAS				0s	
36-45	FLAT				12s	
46	Hiltner 600	6 45	2 08	#56	45s	
47	comp			↑		
48	MRK 115	00 06	20 12	#6	4m	
49	comp			↑		
50	ALN 120	5 16	-00 09	#6	3m	object west
50	comp			↑		
52	NGC 1700	4 56	-4 52	#59	4m	
53	comp			↑		
54	ZM014810.9p	1 48	33 10	#68	20m	
55	comp			↑		
56	ZM014607.6p	1 46	29 51	#68	15m	
57	comp			↑		
58	ZM014608.3p	1 46	39 32	#68	6m	object east
59	comp			↑		
60	ZM014848.1p	1 45	41 32	#68	20m	object east (redo) em
61	comp			↑		
62	ZM015007.1p	1 50	40 44	#68	17m	central object
63	comp			↑		
64	ZM014749.6p	1 47	33 16	#68	12m	
65	comp			↑		
66	ZM015055.9p	1 50	40 09	#68	12m	
67	comp			↑		
68	ZM015102.0p	1 51	33 26	#68	15m	
69	comp			↑		
70-72	CICAM	4 19	55 58	#107	2,20,80	

60 inch Telescope Log Mahdavi Spectrograph: FAST
 Observer: CALKINS Kishner Grating: 300L Page: 2018
 PI: Garcia, Kenyon, Koranyi Date: 2/20/99

Number	Object	R.A.	Dec.	L/R	Exp	Comments
73	comp			↑		
74	β Gem	6 03	27 41	F100	6m	
75	comp			↑		
76	α Gem - 069	9 17	20 40	F35	20m	(redo)
77	comp			↑		
78	α Gem 1 - 075	9 18	15 52	F35	20m	
79	comp			↑		
80	α Gem 1 - 076	9 16	20 10	F35	17m	
81	comp			↑		
82	α Gem 1 - 079	9 18	19 57	F35	20m	PA = 45°
83	comp			↑		
84	α Gem 1 - 089	8 27	21 28	F2	15m	PA = 42°
85	comp			↑		
86	β Gem 24 - 054	9 38	55 05	F50	2m	PA = 4.0°
87	comp			↑		
88	η Gem 076.278	10 07	14 43	F59	20m	
89	comp			↑		
90	η Gem 076.282	10 07	15 02	F59	15m	(weak)
91	comp			↑		
92	η Gem 076.286	10 07	13 34	F59	15m	
93	comp			↑		
94	η Gem 076.290	10 07	14 02	F59	12m	bright object west
95	comp			↑		
96	η Gem 076.291	10 08	14 48	F59	12m	
97	comp			↑		
98	η Gem 076.292	10 08	13 35	F59	10m	
99	comp			↑		
100	η Gem 076.294	10 08	14 15	F59	4m	
101	comp			↑		
102	η Gem 076.295	10 08	14 33	F59	8m	

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Number	Object	R.A.	Dec.	L/R	Exp	Comments
103	comp			↑		
104-106	sn1998s	11 46	47 28	22	20m	PA=0° (still there!!)
107	comp			↑		
108	mkw4-i.010	12 01	01 17	135	20m	PA=69°
109	comp			↑		
110	mkw4-i.015	12 02	01 16	135	17m	
111	comp			↑		
112	mkw4-i.018	11 59	01 42	135	17m	
113	comp			↑		
114	sn1999E	13 17	-18 33	112	15m	PA=0°
115	comp			↑		
116	mkw12-i.019	14 06	09 30	135	20m	
117	comp			↑		
118	mkw12-i.016	14 05	9 32	135	12m	
119	comp			↑		
120	mkw12-i.019	14 01	8 56	135	20m	
121	comp			↑		
122	mkw12-i.028	14 00	08 38	135	20m	interesting! ALL BALMER-LINES IN ABS ^{em} _{center}
123	comp			↑		
124	mkw12-i.029	14 00	9 54	135	12m	
125	comp			↑		
126	mkw12-i.030	14 06	9 09	135	12m	
127	comp			↑		
128	mkw12-i.031	13 59	8 36	135	8m	
129	comp			↑		
130	mkw12-i.032	14 07	9 52	135	10m	
131	comp			↑		
132	N5548	14 17	25 08	156	4m	
133	comp			↑		
134	N5846	15 06	01 36	157	5m	

VERY NICE!!!

108 - looks like H+K e6744 and at 35044 image looks like one galaxy though

