

60 inch Telescope Log  
 Observer: P. Berlow / M. Calkins  
 PI: Barton  
 Spectrograph: FAST  
 Grating: 300R  
 Date: 3/31/98  
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Number	Object	R.A.	Dec.	L/R	Exp	Comments
1-10	BIAS				0s	bin by 4, 3" slit, standard setup
11-20	FLAT				6s	"
21-30	BIAS				6s	bin by 2
31-40	FLAT				12s	"
41-45	sky	Zenith		57	2s	
46	COMP			r	6s	clear skies!
47-50	RWAir					
51	COMP					
52-54	DRtan	04:27	+26:06	12	12s, 90s	
55	COMP			r		
56-57	DRtan	04:47	+16:58	12	12s, 80s	
58	COMP			r		
59-60	DRtan	04	+16	12	30s, 4m	
61	COMP			r		
62-63	Hiltner 62	06:42	+02	56	40s	
64	COMP			r		
65	NGC 31	09:04	+21:58	73	8m	
66	COMP			r		
67	NGC 35	09:04	+22:03	73	15m	+ to W
68	COMP			r		
69	NGC 78	08:54	+32:36	73	15m	
70	COMP			r		
71	NGC 42	09:13	+29:59	73	12m	gal to W in slit
72	COMP			r		
73	11084p 4828	11:02	+48:28	68	10m	
74	COMP			r		
75	TWQSO	09:57:57.3	+56:08:23	99	20m	bin by 2, PA = -9
76	COMP			r		2 comps in slit
77	α 1367, β 1053	11:41	+23:02	64	5m	
78	COMP			r		

file 75 <sup>TW</sup> QSO 75 → ← 76  
 extracted 75 @ 61.98 (0075-TWQSO.ms)  
 extracted 76 @ 67.02  
 (called 0076-TWQSO6.ms)  
 75 is B (Audy)

60 inch Telescope Log

Observer: PD MC

PI: Cneller

Spectrograph: FAST

Grating: 3WR

Date: 3/21/98

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Number	Object	R.A.	Dec.	L/R	Exp	Comments
79	a1367.103.1056	11:42	+23:07	64	5m	em
80	COMP			r		
81	.1057	11:43	+23:10	64	4m	em
82	COMP			r		
83	.1114	11:43	+22:43	64	7m	extended gal; em
84	COMP			r		
85	.1175	11:37	+22:23	64	5m	em
86	COMP			r		
87	.1520	11:46	+21:16	64	3+m	
88	COMP			r		
89	.1536	11:50	+21:08	64	4m	em
90	COMP			r		
91	.1562	11:58	+21:14	64	3m	
92	COMP			r		
93	.1564	11:59	+21:14	64	3m	
94	COMP			r		
95	.1569	11:36	+21:10	64	3m	
96	COMP			r		
97	.1587	11:45	+21:01	64	2+m	
98	COMP			r		
99	.1592	11:49	+21:02	64	3m	
100	COMP			r		
103	.1606	11:51	+21:10	64	2m	101 = 1604
104	COMP			r		
105	.1608	11:52	+21:46	64	2m	
106	COMP			r		
107	.1610	11:52	+20:59	64	90s	
108	COMP			r		
109	.1612	11:53	+21:01	64	3+m	
110	COMP			r		

← 101 = a1367.103.1604 11:51 +21:10 64 3m em } Sorry Susan  
 102 = COMP ↑ } Out of Order

60 inch Telescope Log  
 Observer: PB MC  
 PI: Gretter

Spectrograph: FAST  
 Grating: 3W2  
 Date: 3/21/98

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Number	Object	R. A.	Dec.	L/R	Exp	Comments
111	a1367.103.1635	11:38	+20:44	64	9m	LSB ; H $\alpha$ pix 2085 is extended
112	COMP			r		
113	.1645	11:45	+20:48	64	2m	
114	COMP			r		
115	.1664	11:51	+20:48	64	3m	
116	COMP			r		
117	.1669	11:53	+20:45	64	2m	em
118	COMP			r		
119	.1670	11:53	+20:52	64	90s	
120	COMP			r		
121	.1693	11:38	+20:31	64	10s	
122	COMP			r		
123	.1711	11:45	+20:37	64	5m	em
124	COMP			r		
125	.1714	11:46	+20:40	64	2m	
126	COMP			r		
127	.1723	11:52	20:37	64	2m	
128	COMP			r		
129	.1724	11:52	20:37	64	75s	
130	COMP			r		
131	.1730	11:53	20:39	64	3m	
132	COMP			r		
133	.1739	11:53	20:39	64	3m	
134	COMP			r		
135	.1762	11:39	+20:27	64	90s	
136	COMP			r		
137	.1765	11:40	+20:20	64	90s	
138	COMP			r		
139	.1781	11:45	+20:26	64	2m	
140	COMP			r		

60 inch Telescope Log			Spectrograph: <u>FAST</u>		Page: <u>6146</u>	
Observer: <u>PB. MC</u>			Grating: <u>3022</u>			
PI: <u>Gretter</u>			Date: <u>3/21/88</u>			
Number	Object	R.A.	Dec.	L/R	Exp	Comments
141	g1367.103.1782	11:45	+20:19	64	2m	
142	COMP			r		
143	g1367.103.1785	11:46	+20:23	64	90s	
144	COMP			r		
145	.1777	11:50	+20:29	64	2m	
146	COMP			r		
147	.1798	11:51	+20:23	64	5m	em
148	COMP			r		
149	.1804	11:52	+20:28	64	2m	
150	COMP			r		
151	.1823	11:41	+20:06	64	90s	
152	COMP			r		
153	.1838	11:43	+20:16	64	2m	
154	COMP			r		
155	.1841	11:43	+20:11	64	8m	
156	COMP			r		
157	.1848	11:44	+20:07	64	3m	
158	COMP			r		
159	g1367.1353.273	11:35	+22:10	64	3m	
160	COMP			r		
161	.274	11:36	+22:59	64	2m	
162	COMP			r		
163	.342	11:36	+22:25	64	3m	
164	COMP			r		
165	.371	11:34	+22:18	64	5m	
166	COMP			r		
167	.450	11:36	+21:35	64	3m	bin by 2; double nucleus galaxy! Sy 1 + em gal!
168	COMP			r		
169	.474	11:29	+21:35	64	2m	
170	COMP			r		

60 inch Telescope Log			Spectrograph: <u>FAST</u>		Page: <u>6/47</u>	
Observer: <u>PB MC</u>			Grating: <u>302</u>			
PI: <u>Greller &amp; Kivshner &amp; Carter</u>			Date: <u>3/21/98</u>			
Number	Object	R.A.	Dec.	L/R	Exp	Comments
171	G/367.1353,513	11:31	+21:16	64	5m	
172	COMP			↑		
173	.1516	11:33	+21:22	64	3m	
174	COMP			↑		
175	.550	11:28	+21:10	64	2m	
176	COMP			↑		
177	.601	11:28	+20:44	64	5m	
178	COMP			↑		
179	.628	11:29	+20:35	64	8m	em; v. blue
180	COMP			↑		
181	.636	11:31	+20:24	64	4m	
182	COMP			↑		
183	.640	11:32	+20:26	64	5m	strong em
184	COMP			↑		
185	.646	11:32	+20:31	64	23m	
186	COMP			↑		
187	.661	11:31	+20:14	64	4m	em
188	COMP			↑		
189	.698	11:32	+20:09	64	5m	em
190	COMP			↑		
191	COMP			↓		
192,193,194	SN19985	11:46	+47:28	2	5m	bin by 2
195	COMP			↑		
196-197	H244	13:21	+36	56	90s	"
198	COMP			↑		
199	ZW7382	12:25	+30:50	75	4m	
200	COMP			↑		
201	A000472	12:26	+27:52	75	3m	
202	COMP			↑		

60 inch Telescope Log

Observer: PB/mc

PI: Carter & Hutchins

Spectrograph: Fast

Grating: 300/

Date: 3/21/98

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Number	Object	R.A.	Dec.	L/R	Exp	Comments
203	2013757	12.26	+26.50	75	3m	
204	Comp			↑		
205	N001752	12.27	20.55	75	5m	
206	Comp			↑		
207	2002677	12.27	50.32	75	2m	
208	Comp			↑		
209	2003476	12.29	27.14	75	4m	
210	Comp			↑		
211	2001872	12.33	32.05	75	4m	
212	Comp			↑		
213	2004004	12.29	27.46	75	4m	
214	Comp			↑		
215	2000526	12.33	51.06	75	4m	
216	Comp			↑		
217	2007283	12.35	29.44	75	2.5m	
218	Comp			↑		
219	2002678	12.35	24.54	75	2m	
220	Comp			↑		
221	15328p0718	15:35	+07.07	68	8m	
222	Comp			↑		
223	N6047	16:02	+17.51	68	2m	
224	Comp			↑		
225	15558p0135	15:35	+01.35	68	10m	
226	Comp			↑		
227	16252p0608	16:30	+06.01	68	10m	
228	Comp			↑		
229	162503m242	16:28	-24.26	74	4m	
230	Comp			↑		
231	HBC256	16:21	-26.12	74	4m	
232	Comp			↑		

60 inch Telescope Log			Spectrograph: <u>FAST</u>		Page: <u>6149</u>	
Observer: <u>PB MC</u>			Grating: <u>300</u>			
PI: <u>Kenyon</u>			Date: <u>3/31/98</u>			
Number	Object	R. A.	Dec.	L/R	Exp	Comments
233	HBC257	16:25	-23:19	74	90s	
234	COMP			↑		
235	HBC258	16:25	-24:09	74	2m	
236	HBC258B	16:25	-24:09	74	2m	SW of "A"
237	COMP			↑		
238	HBC259	16:25	-24:20	74	2m	
239	COMP			↑		
240	HBC260	16:26	-23:43	74	90s	
241	HBC261	16:26	-23:14	74	90s	
242	COMP			↑		
243	HBC262S	16:26	-24:45	74	2m	
244	HBC262N	16:27	-24:41	74	4m	
245	COMP			↑		
246	HBC263	16:27	-24:41	74	90s	
247	COMP			↑		
248	HBC264	16:27	-24:22	74	30s	
249	HBC265	16:27	-24:26	74	2m	
250	COMP			↑		
251	HBC266	16:28	-24:28	74	2m	
252	HBC267	16:31	-24:09	74	2.5m	
253	COMP			↑		
254	HBC268	16:31	-24:27	74	90s	
255	COMP			↑		
256	HBC270	16:49	-14:22	74	20s	
257	COMP			↑		
258	HBC272	17:10	-27:16	74	30s	
259	HBC273	17:10	-27:15	74	2m	
260	COMP			↑		
261	HBC274	17:10	-27:40	74	2m	
262	COMP			↑		

60 inch Telescope Log

Observer: PB MC  
 PI: Kenneth Kinshner

Spectrograph: FAST

Grating: 3002

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Date: 3/31/98

Number	Object	R. A.	Dec.	L/R	Exp	Comments
263	HBC275SE	17:11	-27:22	74	25m	SE
264	HBC275 NB	17:11	-27:22	74	3m	
265	COMP			↑		
266	HBC276	17:12	-27:20	74	3m	
267	COMP			↑		
268	SN1998V	14:22	+15:42	2	15m	bm by Z
269	COMP			↑		
270	HBC649	16:34	-15:48	74	90s	
271	COMP			↑		
272, 274	HBC650	16:34	-15:47	74	90s, 3m	FL
273	COMP			↑		
275	HBC651	16:46	-15:14	74	90s	good one
276	COMP			↑		
277	HBC652	16:48	-14:11	74	90s	
278	HBC653	16:48	-14:16	74	90s	
279	COMP			↑		
280	HBC654	16:49	-14:17	74	3m	
281	COMP			↑		
282-3	HBC656	17:00	-27:38	74	90s, 10s	
284	COMP			↑		
285	HBC657	17:08	-27:42	74	90s	
286	COMP			↑		
287-88	AGDRa	16:01	+66:48	12	20s, 2s	
289	COMP			↑		
290-291	BDP332042	15:50	+37:05	56	1m	
292	COMP			↑		
293-302	BIAS				0s	
303-312	FLAT				6s	
313-322	BIAS				0s	
323-332	FLAT				12s	
333-340	DARKS				15m	