

60 inch Telescope Log

Observer: Pfeberlind
 PI: Huchra

Spectrograph: FAST

Grating: 300

Date: 9/14/98

Page: 6501

| Number | Object | R.A. | Dec. | L/R | Exp | Comments |
|--------|------------|-------|--------|-----|-----|----------------------------|
| 1-10 | DARK | | | | 15m | |
| 11-20 | DARK | | | | 15m | |
| 21-30 | BIAS | | | | 0s | beautiful sunset |
| 31-40 | FLAT | | | | 6s | |
| 41-50 | BIAS | | | | 0s | clouds dissipating quickly |
| 51-60 | FLAT | | | | 12s | |
| 61-65 | sky | | | 57 | 2s | |
| 66 | COMP | | | ↑ | 5s | |
| 67-68 | 190p332642 | 15:50 | +53:05 | 56 | 1m | |
| 69 | COMP | | | ↑ | | |
| 70 | 2M151719.7 | 15:17 | +70:32 | 68 | 4m | |
| 71 | COMP | | | ↑ | | |
| 72 | 2M152139.9 | 15:21 | +75:48 | 68 | 4m | |
| 73 | COMP | | | ↑ | | |
| 74 | 2M151923.1 | 15:19 | +70:32 | 68 | 4m | wk |
| 75 | COMP | | | ↑ | | |
| 76 | 2M152606.2 | 15:26 | +72:32 | 68 | 4m | |
| 77 | COMP | | | ↑ | | |
| 78 | 2M150448.2 | 15:04 | +76:21 | 68 | 5m | |
| 79 | COMP | | | ↑ | | |
| 80 | 2M150605.6 | 15:06 | +70:32 | 68 | 5m | |
| 81 | COMP | | | ↑ | | |
| 82 | 2M150420.8 | 15:04 | +73:11 | 68 | 6m | wk |
| 83 | COMP | | | ↑ | | |
| 84 | 2M150001.6 | 15:00 | +74:00 | 68 | 5m | |
| 85 | COMP | | | ↑ | | |
| 86 | 2M151349.3 | 15:13 | +72:51 | 68 | 5m | |
| 87 | COMP | | | ↑ | | |
| 88 | 2M152057.9 | 15:20 | +70:50 | 68 | 5m | |
| 89 | COMP | | | ↑ | | |

60 inch Telescope Log

Observer: RB
 PI: Jeff & John & Bob

Spectrograph: FAST
 Grating: 300R
 Date: 9/14/98

Page: 6502

| Number | Object | R. A. | Dec. | L/R | Exp | Comments |
|---------|------------|-------|--------|-----|--------|---------------|
| 90 | ZM153333.9 | 15:33 | +21:28 | 68 | 5m | Lik |
| 91 | COMP | | | ↑ | | |
| 92 | ZM154429.6 | 15:44 | +21:01 | 68 | 5m | |
| 93 | COMP | | | ↑ | | |
| 94 | ZM155125.2 | 15:51 | +20:45 | 68 | 6m | |
| 95 | COMP | | | ↑ | | |
| 96 | ZM155540.0 | 15:53 | +19:28 | 68 | 7m | * to E. by 2 |
| 97 | COMP | | | ↑ | | |
| 98 | ZM162738.0 | 16:31 | +20:47 | 68 | 4m | |
| 99 | COMP | | | ↑ | | |
| 100 | ZM165211.1 | 16:52 | +23:51 | 68 | 4m | |
| 101 | COMP | | | ↑ | | |
| 102 | COMP | | | ↓ | 9s | 1.1" slit ↓ |
| 103/104 | 4U1907p09 | 19:11 | +09:49 | 77 | 15m | *2 |
| 105 | COMP | | | ↑ | | |
| 106/107 | HD230579 | 19:01 | +11:01 | 77 | 10/20s | ugh - clouds! |
| 108 | COMP | | | ↑ | | |
| 109 | UGL11149 | 18:11 | +45:51 | 2 | 7m | 3" slit ↓ |
| 110 | SN1998dk | 18:11 | +45:51 | 2 | 20m | |
| 111 | COMP | | | ↑ | | |
| 112 | ZM184901.1 | 18:49 | +9:19 | 68 | 3m | bright * to W |
| 113 | COMP | | | ↑ | | |
| 114 | ZM182944.0 | 18:29 | +2:08 | 68 | 3m | |
| 115 | COMP | | | ↑ | | |
| 116 | ZM182835.3 | 18:28 | +14:59 | 68 | 4m | |
| 117 | COMP | | | ↑ | | |
| 118 | ZM184804.3 | 18:48 | +9:01 | 68 | 3m | |
| 119 | COMP | | | ↑ | | |

15,300

60 inch Telescope Log

Observer: RB

PI: Huchra

Spectrograph: FAST

Grating: 40R

Date: 9/14/98

Page: 6503

| Number | Object | R.A. | Dec. | L/R | Exp | Comments |
|--------|-------------|-------|--------|-----|-----|--------------------------|
| 120 | ZM185908.7 | 18:59 | +4:02 | 68 | 5m | clearing ok! |
| 121 | COMP | | | ↑ | | |
| 122 | ZM1852501.4 | 18:28 | +6:07 | 68 | 5m | |
| 123 | COMP | | | ↑ | | |
| 124 | ZM183100.8 | 18:31 | +22:30 | 68 | 6m | close E-W pair; bin by 2 |
| 125 | COMP | | | ↑ | | wk em |
| 126 | ZM184909.7 | 18:49 | +8:06 | 68 | 7m | |
| 127 | COMP | | | ↑ | | |
| 128 | ZM185656.5 | 18:56 | +17:57 | 68 | 10m | em |
| 129 | COMP | | | ↑ | | |
| 130 | ZM211717.1 | 21:17 | +6:58 | 68 | 5m | |
| 131 | COMP | | | ↑ | | |
| 132 | ZM2123000 | 21:23 | +12:34 | 68 | 4m | |
| 133 | COMP | | | ↑ | | |
| 134 | ZM2102462 | 21:02 | +13:31 | 68 | 4m | |
| 135 | COMP | | | ↑ | | |
| 136 | ZM210107.1 | 21:01 | +16:41 | 68 | 4m | |
| 137 | COMP | | | ↑ | | |
| 138 | ZM2103069 | 21:03 | +12:57 | 68 | 4m | |
| 139 | COMP | | | ↑ | | |
| 140 | ZM212250.6 | 21:22 | +15:16 | 68 | 3m | |
| 141 | COMP | | | ↑ | | |
| 142 | ZM214727.2 | 21:47 | +13:13 | 68 | 4m | * to W |
| 143 | COMP | | | ↑ | | ack more clouds |
| 144 | ZM210116.0 | 21:01 | +16:06 | 68 | 5m | redo |
| 145 | COMP | | | ↑ | | ↳ see #156 |
| 146 | ZM0120120 | 01:20 | +14:33 | 68 | 5m | |
| 147 | COMP | | | ↑ | | |
| 148 | ZM010820.1 | 01:08 | +17:05 | 68 | 8m | solid clouds ☺ |
| 149 | COMP | | | ↑ | | |

to ~

60 inch Telescope Log
 Observer: PB
 PI: Huchra
 Spectrograph: FAST
 Grating: 30R
 Date: 9/14/98
 Page: 6504

| Number | Object | R.A. | Dec. | L/R | Exp | Comments |
|--------|------------|-------|--------|-----|-----|--------------------------------|
| 150 | ZM015615.2 | 01:56 | +31:21 | 68 | 4m | sucker hole. m E |
| 151 | COMP | | | ↑ | | |
| 152 | ZM015634.0 | 01:56 | +31:26 | 68 | 3m | |
| 153 | COMP | | | ↑ | | |
| 154 | ZM015635.8 | 01:56 | +31:11 | 68 | 4m | |
| 155 | COMP | | | ↑ | | clearing again? |
| 156 | ZM210116.0 | 21:01 | +16:06 | 68 | 7m | red0 from = 114 |
| 157 | COMP | | | ↑ | | → star + galaxy → 2 velocities |
| 158 | ZM210028.1 | 21:00 | +16:30 | 68 | 6m | → gal @ CE = 9500 km/s |
| 159 | COMP | | | ↑ | | |
| 160 | ZM210034.5 | 21:00 | +16:06 | 68 | 6m | |
| 161 | COMP | | | ↑ | | |
| 162-3 | ZM210247.3 | 21:02 | +19:11 | 68 | 6m | more clouds |
| 164 | COMP | | | ↑ | | |
| 165 | ZM210004 | 21:00 | +17:46 | 68 | 6m | |
| 166 | COMP | | | ↑ | | |
| 167 | ZM210315.5 | 21:03 | +14:12 | 68 | 6m | |
| 168 | COMP | | | ↑ | | |
| 169 | ZM212123.8 | 21:24 | +14:40 | 68 | 5m | |
| 170 | COMP | | | ↑ | | 62 to 5! |
| 171 | ZM212610.6 | 21:26 | +15:37 | 68 | 5m | |
| 172 | COMP | | | ↑ | | |
| 173 | ZM212743.3 | 21:27 | +12:06 | 68 | 6m | WK |
| 174 | COMP | | | ↑ | | |
| 175 | ZM214642.6 | 21:46 | +15:18 | 68 | 9m | |
| 176 | COMP | | | ↑ | | |
| 177 | ZM214942.5 | 21:49 | +17:21 | 68 | 5m | |
| 178 | COMP | | | ↑ | | |
| 179 | ZM214928.4 | 21:49 | +17:43 | 68 | 5m | |
| 180 | COMP | | | ↑ | | |

7800

60 inch Telescope Log

Observer: PB

PI: Garcia

Spectrograph: FAST

Grating: 3WL

Date: 9/14/98

Page: 6505

| Number | Object | R. A. | Dec. | L/R | Exp | Comments |
|---------|-----------|-------|--------|-----|---------|-----------------------|
| 181 | 2M2151006 | 21:51 | +52:28 | 68 | 5m | clouds moving in fast |
| 182 | COMP | | | ↑ | | |
| 183-185 | CICan | 04:19 | +55 | 10 | 90s-20s | |
| 186 | COMP | | | ↑ | | |
| 187 | GA1132B | 05:01 | +52:45 | 56 | 5m | forgot it - garbage |
| 188 | COMP | | | ↑ | | stopped by clouds |
| 189-198 | BIAS | | | 0 | 0s | |
| 199-208 | FLAT | | | | 6s | |
| 209-218 | BIAS | | | | 0s | |
| 219-228 | FLAT | | | | 12s | |
| 229-238 | FLAT | | | | 20s | 1.1" slit bin by 4 |
| | | | | | | rain! ; cyclic error! |