

From gmarcy@berkeley.edu Wed Jul 14 14:59:24 2004
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Subject: HD 80606

Hi all,

All is well with HD 80606.

In the bag are observations of HD 80606 from 6 Keck nights, July 2, 3, 8, 9, 10, 11 .

There is still one more night of Keck data to process, from monday night (July 12/13)

which was taken at JD = 24513199.74 .

You can fit all extant velocities with a simple Keplerian, with no slope, and $e \cos \omega = 0.945$.

Here are plots of the phased version and unphased version:

http://astron.berkeley.edu/~gmarcy/hd80606_phase.gif

<http://astron.berkeley.edu/~gmarcy/hd80606.gif>

On July 11, the velocities rose 190 m/s from the previous night, so the very last night of observation, yet to be processed, might show velocities near the peak (again).

The RMS = 9.8 m/s, is a bit high, as internal errors are ~5 m/s and jitter is expected to be 2.6 m/s.

These were tricky observations, as the star was at Hour Angle, HA = 5 hr West, setting into the 12 degree twilight. Paul is working on the Doppler analysis of the last night. The extant velocities are listed below.

Onward,
Geoff

| JD-2440000 | Vel (m/s) | Unc (m/s) |
|------------|-----------|-----------|
| 12007.896 | 67.3922 | 6.49487 |
| 12219.160 | 97.6680 | 4.57866 |
| 12236.056 | 40.0885 | 5.26457 |
| 12243.165 | 29.4038 | 5.30458 |
| 12307.873 | 725.520 | 5.08501 |
| 12333.005 | 106.776 | 5.99329 |
| 12334.010 | 91.2252 | 5.19182 |
| 12334.901 | 90.9119 | 5.86702 |
| 12363.024 | 31.5347 | 6.39371 |
| 12446.759 | 104.677 | 5.96196 |
| 12573.127 | 34.9982 | 4.87355 |
| 12574.154 | 30.6681 | 5.79915 |
| 12603.129 | -30.3956 | 5.32010 |
| 12652.069 | 174.158 | 4.78748 |
| 12652.987 | 163.229 | 4.81198 |