

ANALYSIS OF MASS-RATIO project

2 aspects of analysis

- 1) What we do the data - eg the method
- 2) The logistics - many Mb. of files

Compute speed & MMa (matremat.cc)

- 1) Read in frames w/ fits-manger and math link
- 2) Model calculations with math link

DATA ASSESSMENT. Maybe go through a selection of frames
 reference point. x-y of 1st exposure of 12 mag star
 FWHM, ellipticity
 Add a header

Maybe analyze best 2 frames of each night

Time pressures

- 1) Contemporaneous w/ HST barycentric wobble & inclination results
- 2) results to use for August proposal (Due ~~END~~ End of May)
- 3) AGU in Montreal in May. Jim'll be giving a review talk on Charon
- 4) Cathy's general's paper
- 5) Leslie's thesis
- 6) P17 prediction

Ephemeris

/pscf/jle-grp/projects/photo-search/doc/ephemerides

Use the DE-130 ephemerides Photo2.eph

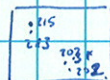
To use extract -
recompile

[take ephemeris from eph-file & keyword
 make "time" longer string
 use latest string to allow std in as file.

Set

STRTIME in data file.
 CDULT3

March 5 taped the last dark onto "complete tape #3"



Get relative magnitudes of B, the appulse stars, and the 13 M. in B & I
Use cD 7468 (last 3 quad on Feb 27) and cD 7469 (1st I quad on Feb 27)

	Star	203	202	213	ΔMAG	B-I	B-I		
	Approx Mag	202 May	202 May	215 May	215 May	203	202	215	213
B 7468	17.27	16.42	16.72	18.84	20.33	7.85	7.55	+1.57	+3.06
	17.30	16.43	16.71	18.80	20.36	-.87	-0.59	+1.50	+3.06
	17.07	16.26	16.56	18.60	20.16				
	17.22	16.36	16.67	18.73	20.28				
I 7469	17.52	16.88	17.00	19.18	20.29	7.66	7.52	+1.66	+2.77
	17.46	16.79	16.92	19.13	20.21	-0.67	-0.54	+1.67	+2.75
	17.59	16.90	17.03	19.25	20.42				
	17.50	16.81	16.93	19.18	20.29				

:- I no bright star
w/ 3" you're ok.

3.48
-18.84
-3.41

B-I_B -0.25

-0.34 +0.04

Astrometry 3 @ 5min 2 @ 10min 1 @ 20min at K
Is the best 10 @ 5min? Find this out. (straw man)

We need a std set of K frames.

Straw man 10 @ 5min astrometry

① focus

+ astrom

② photon. calibr. - are there bright solar analogs nearby?

10 @ 5min on K

4 @

Tonight for experiments
1, 2, 5, 10 min on K

0.22 π /pix

University of Hawaii Telescopes on Mauna Kea

OBSERVING LOG

Observer(s): Tholen, Young, Sybert
 Telescope: 88"
 Program Title: Individual Densities
 of R & Charon

Observing dates: March 2 1992 Page: 1 of 2
 Operator: Frank
 Instrumentation: Tape:

Seq.	Frame Numb.	Exp. (Sec.)	UT start Airmass	R.A. Dec (1950)	Object Description	Comments	Comments
1	7754	10x8	1.202		focus	#1 at	offset 10" S
2	7755	10x7			focus		offset 10" N
3	7756	60x4	13:50:50 1.175	15:34:56.66 -3:50:21.3	E quad	B	
4	7757	60x4	13:58:40 1.172	15:34:56.57 -3:50:31.1	E quad.	B	
5	7758	60x4	14:07:20 1.172	15:34:56.47 -3:50:21.0	E quad	B	
6	7759	60x4	14:15:30 1.172	15:34:56.37 -3:50:20.8	E quad	B	
7	7760	60x4	14:23:20 1.126	15:34:56.28 -3:50:20.7	E quad	B	
8	7761	20x4	14:31:25 1.115	15:34:56.19 -3:50:20.5	E quad	V	
9	7762	20x4	14:39:45 1.068	15:41:39.09 01:54:42.4	Midas quad	B	no Midas visible
10	7763	20x4	14:46:15 1.065	15:41:39.94 01:54:42.9	Midas quad	B	
11	7764	20x4	14:53:20 1.060	15:41:39.84 01:54:42.8	Midas QUAD	B	
		20x4	15:06:35 1.054	15:41:39.75 01:54:42.7			
12	7765	20x4	14:59:55 1.057	15:41:39.80 01:54:43.3	Midas QUAD	B	
13	7766	20x4	15:06:35 1.054	15:41:39.75 01:54:42.7	MIDAS QUAD	B	
14	7767	20x4	15:13:05 1.053	15:41:39.67 01:54:41.9	Midas Quad	B	
15	7768	20x4	15:19:40 1.052	15:41:39.63 01:54:42.1	Midas QUAD	B	
16	7769	20x4	15:27:20 1.095	15:34:56.31 -3:50:16.2	E quad	V	
17	7770	10x4 ⁵	15:32:35 1.095	15:34:56.25 -3:50:16.4	E QUAD	R	5 exposures the 4th at 20 sec.
18	7771	10x4	15:38:15 1.095	15:34:56.19 -3:50:16.0	E quad	R	
19	7772	10x4	15:42:55 1.100	15:34:56.13 -3:50:16.0	E quad	I	

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Observer(s): Tholen, Young, Sybert

Telescope: 88"

Program Title: Individual densities of
Pluto and Charon

Observing dates: March 2, 1992

Operator: Frank

Instrumentation:

Page: 2 of 2

Tape:

Seq.	Frame Numb.	Exp. (Sec.)	UT start Airmass	R.A. Dec (1950)	Object Description	Comments	Comments
20	7773	10x4	15:47:30 1.100	15 34 56.08 -3 50 15.8	P quad	I	
21	7774	10x4	15:52:10 1.108	15 34 56.03 -3 50 15.7	P quad	I	
22	7775	10x4	15:56:45 1.110	15 34 55.97 -3 50 15.7	P quad	I	
23	7776	60	16:01:30		sky flat	I	
24	7777	30	16:07:00		sky flat	I	
25	7778	20	16:11:30		sky flat	I	
26	7779	1.6			dome flat	R	
27	7780	1.6			dome flat	R	
28	7781	1.6			dome flat	R	
29	7782	6			dome flat	V	
30	7783	6			dome flat	V	
31	7784	6			dome flat	V	
32	7785	30			dome flat	B	
33	7786	30				B	
34	7787	30				B	
35	7788	3600			dark	-	