## MATISSE OIFITS Quality Control Report

Filename 2018-05-12T03\_31\_13.6272\_HSco\_IR-LM.fits

Observing date 2018-05-12T03:31:13.6272

Processing/report date 2018-06-06T06:42:11 2018-07-05T16:51:46

Product category, Chip name CALIB\_RAW\_INT, HAWAII-2RG

DIL, PIL, POL, FIL, SFL, BCD1, BCD2 LOW, PHOTO, OPEN, L, HOLE2, IN, IN

NDIT x DIT; time\_tot; nb\_expo; nwave  $385 \times 0.0751997 \text{ s}$ ; 28.9518845 s; 6; 64

Object name H Sco [STD]

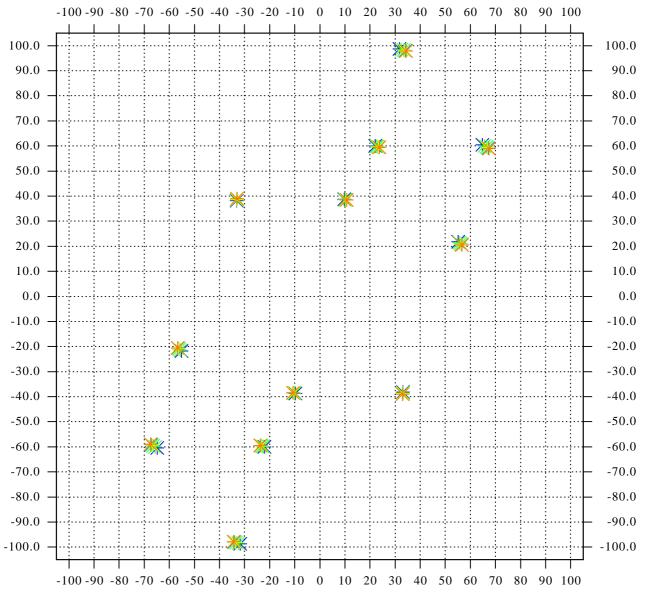
Telescope stations

Object RA, Dec, L, M 249.093716 -35.25528 L = TBD M = TBD

AT4=J3 AT3=D0 AT2=G2 AT1=K0

Seeing (arcsec); Wind (m/s); T0 in V (s) 1.7 --> 1.7; 12.78; 0.001681 --> 0.001681





Col 1: Baseline

Col 2 : Average squared visibility per baseline (vis<sup>2</sup>  $\pm$  err) ==> page 3

Cols 3 --> 7: Fraction of points Ok, points with valuelimit\_min, value>limit\_max points with error(err)>limit\_err, error(tol)>limit\_tol

Baseline	vis^2	frac_ok	frac_mir	frac_ma	x frac_err	frac_tol
12	$0.053 \pm 0.006$	1.000	0.000	0.000	0.000	0.000
13	$0.206 \pm 0.022$	1.000	0.000	0.000	0.000	0.000
14	$0.150 \pm 0.020$	1.000	0.000	0.000	0.000	0.000
23	$0.086 \pm 0.010$	1.000	0.000	0.000	0.000	0.000
24	$0.083 \pm 0.012$	1.000	0.000	0.000	0.000	0.000
34	$0.111 \pm 0.015$	1.000	0.000	0.000	0.000	0.000

Col 1: Baseline

Col 2 : Average visibility amplitude per baseline (vis  $\pm$  err) ==> page 4

Cols 3 --> 7: Fraction of points Ok, points with valuelimit\_min, value>limit\_max points with error(err)>limit\_err, error(tol)>limit\_tol

Baseline	vis	frac_ok	frac_mir	n frac_ma	x frac_err	frac_tol
12	$0.029 \pm 0.000$	1.000	0.000	0.000	0.000	0.000
13	$0.099 \pm 0.000$	1.000	0.000	0.000	0.000	0.000
14	$0.078 \pm 0.000$	1.000	0.000	0.000	0.000	0.000
23	$0.044 \pm 0.000$	1.000	0.000	0.000	0.000	0.000
24	$0.032 \pm 0.000$	1.000	0.000	0.000	0.000	0.000
34	$0.053 \pm 0.000$	1.000	0.000	0.000	0.000	0.000

Col 1: Baseline

Col 2: Average differential phase per baseline (visphi ± err), in degrees ==> page 6 Cols 3 --> 7: Fraction of points Ok, points with valuelimit\_min, value>limit\_max points with error(err)>limit\_err, error(tol)>limit\_tol

Baselii	ne vis_phi	frac_ok	frac_min	frac_max	k frac_err	frac_tol
12	$+12.584 \pm 215.492$	0.904	0.000	0.000	0.096	0.000
13	$-16.198 \pm 199.740$	0.923	0.000	0.000	0.077	0.000
14	$+3.338 \pm 190.843$	0.923	0.000	0.000	0.077	0.000
23	$+5.961 \pm 126.629$	0.885	0.000	0.000	0.115	0.000
24	$-24.520 \pm 190.058$	0.885	0.000	0.000	0.115	0.000
34	$-12.594 \pm 152.585$	0.962	0.000	0.000	0.038	0.000

Average closure phase per triplet (t3phi  $\pm$  err), in degrees ==> page 5

Triplet [28 24 13] [19 28 24] [19 28 13] [19 24 13]

Phi(deg)  $+0.288 \pm 2.859$   $+0.328 \pm 2.640$   $+4.265 \pm 6.293$   $+3.527 \pm 8.817$ 

Col 1: Baseline

Col 2 : Average squared visibility per baseline (vis<sup>2</sup>  $\pm$  err) ==> page 3

Cols 3 --> 7: Fraction of points Ok, points with valuelimit\_min, value>limit\_max points with error(err)>limit\_err, error(tol)>limit\_tol

Baseline	vis^2	frac_ok	frac_mir	n frac_ma	x frac_err	frac_tol
12	$0.041 \pm 0.005$	1.000	0.000	0.000	0.000	0.000
13	$0.155 \pm 0.017$	1.000	0.000	0.000	0.000	0.000
14	$0.125 \pm 0.017$	0.981	0.019	0.000	0.000	0.000
23	$0.072 \pm 0.006$	0.981	0.000	0.000	0.019	0.000
24	$0.064 \pm 0.009$	1.000	0.000	0.000	0.000	0.000
34	$0.080 \pm 0.010$	1.000	0.000	0.000	0.000	0.000

Col 1: Baseline

Col 2 : Average visibility amplitude per baseline (vis  $\pm$  err) ==> page 4

Cols 3 --> 7: Fraction of points Ok, points with valuelimit\_min, value>limit\_max points with error(err)>limit\_err, error(tol)>limit\_tol

Baseline	vis	frac_ok	frac_mir	n frac_ma	x frac_err	frac_tol
12	$0.008 \pm 0.000$	1.000	0.000	0.000	0.000	0.000
13	$0.035 \pm 0.000$	1.000	0.000	0.000	0.000	0.000
14	$0.039 \pm 0.000$	1.000	0.000	0.000	0.000	0.000
23	$0.013 \pm 0.000$	1.000	0.000	0.000	0.000	0.000
24	$0.008 \pm 0.000$	1.000	0.000	0.000	0.000	0.000
34	$0.014 \pm 0.000$	1.000	0.000	0.000	0.000	0.000

Col 1: Baseline

Col 2: Average differential phase per baseline (visphi ± err), in degrees ==> page 6 Cols 3 --> 7: Fraction of points Ok, points with valuelimit\_min, value>limit\_max points with error(err)>limit\_err, error(tol)>limit\_tol

Basel	ine vis_phi	frac_ok	frac_min	n frac_ma	x frac_err	frac_tol
12	$+1.409 \pm 283.103$	0.846	0.000	0.000	0.154	0.000
13	$-11.511 \pm 245.594$	0.788	0.000	0.000	0.212	0.000
14	$+6.809 \pm 218.398$	0.788	0.000	0.000	0.212	0.000
23	$+12.047 \pm 254.667$	0.904	0.000	0.000	0.096	0.000
24	$-22.150 \pm 281.103$	0.769	0.000	0.000	0.231	0.000
34	$-21.600 \pm 205.652$	0.942	0.000	0.000	0.058	0.000

Average closure phase per triplet (t3phi  $\pm$  err), in degrees ==> page 5

Triplet [28 24 13] [19 28 24] [19 28 13] [19 24 13]

Phi(deg)  $-0.928 \pm 5.193$   $-0.274 \pm 12.552$   $+4.742 \pm 3.865$   $+1.428 \pm 5.156$ 

Col 1: Baseline

Col 2 : Average squared visibility per baseline (vis<sup>2</sup>  $\pm$  err) ==> page 3

Cols 3 --> 7: Fraction of points Ok, points with valuelimit\_min, value>limit\_max points with error(err)>limit\_err, error(tol)>limit\_tol

Baseline	vis^2	frac_ok	frac_mir	n frac_ma	x frac_err	frac_tol
12	$0.042 \pm 0.006$	1.000	0.000	0.000	0.000	0.000
13	$0.147 \pm 0.027$	1.000	0.000	0.000	0.000	0.000
14	$0.104 \pm 0.023$	1.000	0.000	0.000	0.000	0.000
23	$0.079 \pm 0.013$	1.000	0.000	0.000	0.000	0.000
24	$0.060 \pm 0.011$	1.000	0.000	0.000	0.000	0.000
34	$0.092 \pm 0.017$	1.000	0.000	0.000	0.000	0.000

Col 1: Baseline

Col 2 : Average visibility amplitude per baseline (vis  $\pm$  err) ==> page 4

Cols 3 --> 7: Fraction of points Ok, points with valuelimit\_min, value>limit\_max points with error(err)>limit\_err, error(tol)>limit\_tol

Baseline	vis	frac_ok	frac_mir	n frac_ma	x frac_err	frac_tol
12	$0.011 \pm 0.000$	1.000	0.000	0.000	0.000	0.000
13	$0.036 \pm 0.000$	1.000	0.000	0.000	0.000	0.000
14	$0.034 \pm 0.000$	1.000	0.000	0.000	0.000	0.000
23	$0.014 \pm 0.000$	1.000	0.000	0.000	0.000	0.000
24	$0.014 \pm 0.000$	1.000	0.000	0.000	0.000	0.000
34	$0.022 \pm 0.000$	1.000	0.000	0.000	0.000	0.000

Col 1: Baseline

Col 2: Average differential phase per baseline (visphi ± err), in degrees ==> page 6 Cols 3 --> 7: Fraction of points Ok, points with valuelimit\_min, value>limit\_max points with error(err)>limit\_err, error(tol)>limit\_tol

Baselii	ne vis_phi	frac_ok	frac_min	frac_max	x frac_err	frac_tol
12	$+5.253 \pm 256.959$	0.942	0.000	0.000	0.058	0.000
13	$-20.836 \pm 197.505$	0.846	0.000	0.000	0.154	0.000
14	$+15.252 \pm 245.527$	0.923	0.000	0.000	0.077	0.000
23	$+9.392 \pm 304.271$	0.885	0.000	0.000	0.115	0.000
24	$-30.484 \pm 218.706$	0.808	0.000	0.000	0.192	0.000
34	$-32.475 \pm 199.538$	0.904	0.000	0.000	0.096	0.000

Average closure phase per triplet (t3phi  $\pm$  err), in degrees ==> page 5

Triplet [28 24 13] [19 28 24] [19 28 13] [19 24 13]

Phi(deg)  $-1.489 \pm 7.094$   $-1.074 \pm 6.714$   $+4.065 \pm 8.673$   $-4.653 \pm 13.662$ 

Col 1: Baseline

Col 2 : Average squared visibility per baseline (vis<sup>2</sup>  $\pm$  err) ==> page 3

Cols 3 --> 7: Fraction of points Ok, points with valuelimit\_min, value>limit\_max points with error(err)>limit\_err, error(tol)>limit\_tol

Baseline	vis^2	frac_ok	frac_mir	n frac_ma	x frac_err	frac_tol
12	$0.025 \pm 0.007$	1.000	0.000	0.000	0.000	0.000
13	$0.103 \pm 0.023$	0.981	0.019	0.000	0.000	0.000
14	$0.072 \pm 0.019$	1.000	0.000	0.000	0.000	0.000
23	$0.037 \pm 0.015$	1.000	0.000	0.000	0.000	0.000
24	$0.043 \pm 0.014$	1.000	0.000	0.000	0.000	0.000
34	$0.045 \pm 0.015$	1.000	0.000	0.000	0.000	0.000

Col 1: Baseline

Col 2 : Average visibility amplitude per baseline (vis  $\pm$  err) ==> page 4

Cols 3 --> 7: Fraction of points Ok, points with valuelimit\_min, value>limit\_max points with error(err)>limit\_err, error(tol)>limit\_tol

Baseline	vis	frac_ok	frac_mir	n frac_ma	x frac_err	frac_tol
12	$0.018 \pm 0.000$	1.000	0.000	0.000	0.000	0.000
13	$0.065 \pm 0.000$	1.000	0.000	0.000	0.000	0.000
14	$0.053 \pm 0.000$	1.000	0.000	0.000	0.000	0.000
23	$0.030 \pm 0.000$	1.000	0.000	0.000	0.000	0.000
24	$0.027 \pm 0.000$	1.000	0.000	0.000	0.000	0.000
34	$0.027 \pm 0.000$	1.000	0.000	0.000	0.000	0.000

Col 1: Baseline

Col 2: Average differential phase per baseline (visphi ± err), in degrees ==> page 6 Cols 3 --> 7: Fraction of points Ok, points with valuelimit\_min, value>limit\_max points with error(err)>limit\_err, error(tol)>limit\_tol

Baseli	ne vis_phi	frac_ok	frac_mir	n frac_ma	x frac_err	frac_tol
12	$+14.680 \pm 214.420$	0.808	0.000	0.000	0.192	0.000
13	$-1.412 \pm 204.561$	0.827	0.000	0.000	0.173	0.000
14	$+6.811 \pm 232.255$	0.942	0.000	0.000	0.058	0.000
23	$+7.445 \pm 192.684$	0.904	0.000	0.000	0.096	0.000
24	$-10.672 \pm 195.889$	0.904	0.000	0.000	0.096	0.000
34	$-18.532 \pm 176.980$	0.904	0.000	0.000	0.096	0.000

Average closure phase per triplet (t3phi  $\pm$  err), in degrees ==> page 5

Triplet [28 24 13] [19 28 24] [19 28 13] [19 24 13]

Phi(deg)  $+6.377 \pm 16.110$   $-5.061 \pm 10.279$   $+9.329 \pm 10.591$   $-6.135 \pm 17.390$ 

Col 1: Baseline

Col 2 : Average squared visibility per baseline (vis<sup>2</sup>  $\pm$  err) ==> page 3

Cols 3 --> 7: Fraction of points Ok, points with valuelimit\_min, value>limit\_max points with error(err)>limit\_err, error(tol)>limit\_tol

Baseline	vis^2	frac_ok	frac_mir	n frac_ma	x frac_err	frac_tol
12	$0.028 \pm 0.008$	1.000	0.000	0.000	0.000	0.000
13	$0.157 \pm 0.036$	1.000	0.000	0.000	0.000	0.000
14	$0.106 \pm 0.042$	1.000	0.000	0.000	0.000	0.000
23	$0.042 \pm 0.007$	0.981	0.019	0.000	0.000	0.000
24	$0.047 \pm 0.014$	1.000	0.000	0.000	0.000	0.000
34	$0.051 \pm 0.009$	1.000	0.000	0.000	0.000	0.000

Col 1: Baseline

Col 2 : Average visibility amplitude per baseline (vis  $\pm$  err) ==> page 4

Cols 3 --> 7: Fraction of points Ok, points with valuelimit\_min, value>limit\_max points with error(err)>limit\_err, error(tol)>limit\_tol

Baseline	vis	frac_ok	frac_min	frac_max	x frac_err	frac_tol
12	$0.003 \pm 0.000$	1.000	0.000	0.000	0.000	0.000
13	$0.036 \pm 0.000$	1.000	0.000	0.000	0.000	0.000
14	$0.013 \pm 0.000$	1.000	0.000	0.000	0.000	0.000
23	$0.007 \pm 0.000$	1.000	0.000	0.000	0.000	0.000
24	$0.004 \pm 0.000$	1.000	0.000	0.000	0.000	0.000
34	$0.007 \pm 0.000$	1.000	0.000	0.000	0.000	0.000

Col 1: Baseline

Col 2: Average differential phase per baseline (visphi ± err), in degrees ==> page 6 Cols 3 --> 7: Fraction of points Ok, points with valuelimit\_min, value>limit\_max points with error(err)>limit\_err, error(tol)>limit\_tol

Basel	ine vis_phi	frac_ok	frac_mi	n frac_ma	ax frac_err	frac_tol
12	$-7.922 \pm 265.632$	0.846	0.000	0.000	0.154	0.000
13	$+5.099 \pm 312.748$	0.942	0.000	0.000	0.058	0.000
14	$-6.240 \pm 297.403$	0.885	0.000	0.000	0.115	0.000
23	$+13.269 \pm 272.328$	0.885	0.000	0.000	0.115	0.000
24	$-37.031 \pm 358.667$	0.827	0.000	0.000	0.173	0.000
34	$-12.337 \pm 332.629$	0.865	0.000	0.000	0.135	0.000

Average closure phase per triplet (t3phi  $\pm$  err), in degrees ==> page 5

Triplet [28 24 13]

[19 28 24]

[19 28 13]

[19 24 13]

Phi(deg)

 $-0.746 \pm 9.327$ 

 $-2.061 \pm 8.787$ 

 $-2.247 \pm 12.449$ 

 $-4.971 \pm 22.707$ 

Col 1: Baseline

Col 2 : Average squared visibility per baseline (vis<sup>2</sup>  $\pm$  err) ==> page 3

Cols 3 --> 7: Fraction of points Ok, points with valuelimit\_min, value>limit\_max points with error(err)>limit\_err, error(tol)>limit\_tol

Baseline	vis^2	frac_ok	frac_min	frac_max	x frac_err	frac_tol
12	$0.037 \pm 0.006$	1.000	0.000	0.000	0.000	0.000
13	$0.092 \pm 0.018$	1.000	0.000	0.000	0.000	0.000
14	$0.097 \pm 0.017$	1.000	0.000	0.000	0.000	0.000
23	$0.077 \pm 0.014$	0.981	0.000	0.000	0.019	0.000
24	$0.046 \pm 0.007$	1.000	0.000	0.000	0.000	0.000
34	$0.062 \pm 0.008$	1.000	0.000	0.000	0.000	0.000

Col 1: Baseline

Col 2 : Average visibility amplitude per baseline (vis  $\pm$  err) ==> page 4

Cols 3 --> 7: Fraction of points Ok, points with valuelimit\_min, value>limit\_max points with error(err)>limit\_err, error(tol)>limit\_tol

Baseline	vis	frac_ok	frac_mir	n frac_ma	x frac_err	frac_tol
12	$0.012 \pm 0.000$	1.000	0.000	0.000	0.000	0.000
13	$0.031 \pm 0.000$	1.000	0.000	0.000	0.000	0.000
14	$0.023 \pm 0.000$	1.000	0.000	0.000	0.000	0.000
23	$0.026 \pm 0.000$	1.000	0.000	0.000	0.000	0.000
24	$0.013 \pm 0.000$	1.000	0.000	0.000	0.000	0.000
34	$0.019 \pm 0.000$	1.000	0.000	0.000	0.000	0.000

Col 1: Baseline

Col 2: Average differential phase per baseline (visphi ± err), in degrees ==> page 6 Cols 3 --> 7: Fraction of points Ok, points with valuelimit\_min, value>limit\_max points with error(err)>limit\_err, error(tol)>limit\_tol

Baseli	ne vis_phi	frac_ok	frac_min	frac_max	x frac_err	frac_tol
12	$+13.582 \pm 301.891$	0.865	0.000	0.000	0.135	0.000
13	$-17.818 \pm 234.902$	0.904	0.000	0.000	0.096	0.000
14	$-22.955 \pm 193.975$	0.962	0.000	0.000	0.038	0.000
23	$-1.575 \pm 229.963$	0.962	0.000	0.000	0.038	0.000
24	$+4.530 \pm 246.333$	0.904	0.000	0.000	0.096	0.000
34	$-9.556 \pm 221.802$	0.904	0.000	0.000	0.096	0.000

Average closure phase per triplet (t3phi  $\pm$  err), in degrees ==> page 5

Triplet [28 24 13] [19 28 24] [19 28 13] [19 24 13]

Phi(deg)  $-1.310 \pm 7.456 +5.502 \pm 7.990 +3.948 \pm 8.886 +4.523 \pm 6.978$ 

### Summary of all exposures

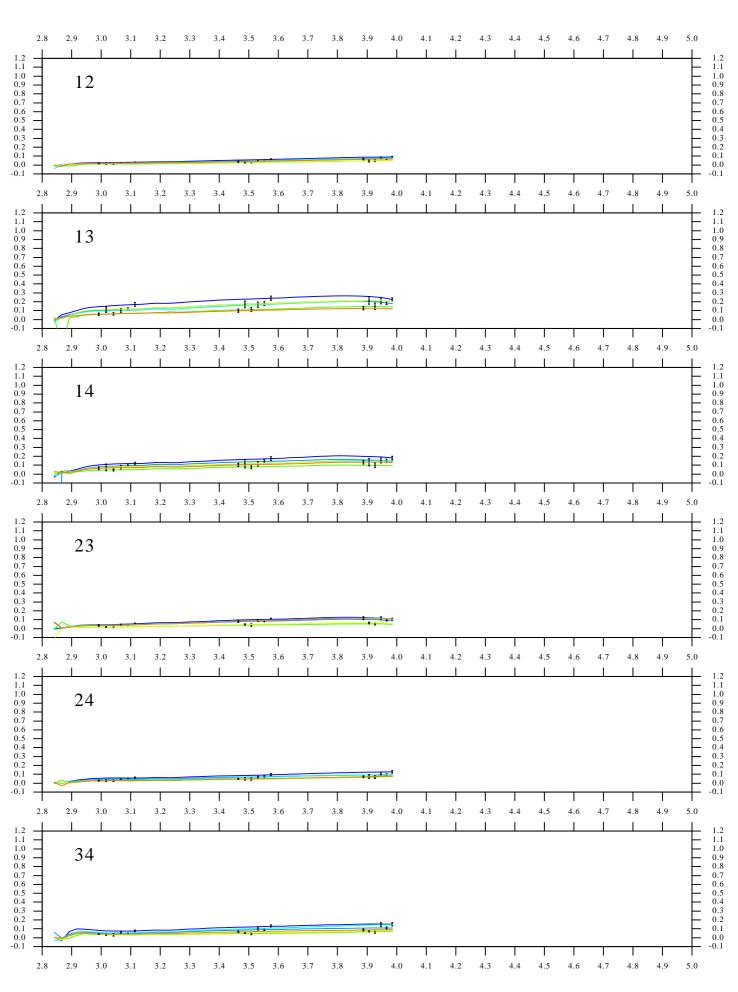
Col 1: Baseline Col 2: Average squared visibility per baseline (vis^2  $\pm$  err) ==> page 3 Cols 3 --> 7: Fraction of points Ok, points with valuelimit\_min, value>limit\_max points with error(err)>limit\_err, error(tol)>limit\_tol Baseline vis^2 frac\_ok frac\_min frac\_max frac\_err frac tol 12  $0.038 \pm 0.009 \pm 0.006$ 1.000 0.0000.0000.0000.00013  $0.143 \pm 0.038 \pm 0.024$ 0.9970.003 0.000 0.000 0.000  $0.109 \pm 0.024 \pm 0.023$ 0.99714 0.0030.0000.0000.00023  $0.065 \pm 0.019 \pm 0.011$ 0.9900.003 0.0000.0060.00024  $0.057 \pm 0.014 \pm 0.011$ 1.000 0.0000.0000.0000.0000.000 34  $0.074 \pm 0.023 \pm 0.012$ 0.0001.000 0.0000.000

Col 1: Baseline Col 2: Average visibility amplitude per baseline (vis  $\pm$  err) ==> page 4 Cols 3 --> 7: Fraction of points Ok, points with valuelimit\_min, value>limit\_max points with error(err)>limit err, error(tol)>limit tol frac\_ok frac\_min frac\_max frac\_err Baseline vis frac tol 12  $0.013 \pm 0.008 \pm 0.000$ 1.000 0.0000.0000.0000.000 0.000 13  $0.050 \pm 0.024 \pm 0.000$ 0.000 0.0001.000 0.000 $0.040 \pm 0.021 \pm 0.000$ 0.0000.0000.00014 1.000 0.00023  $0.022 \pm 0.012 \pm 0.000$ 1.000 0.0000.0000.0000.00024  $0.016 \pm 0.010 \pm 0.000$ 1.000 0.0000.000 0.000 0.000 34  $0.024 \pm 0.015 \pm 0.000$ 1.000 0.0000.0000.0000.000

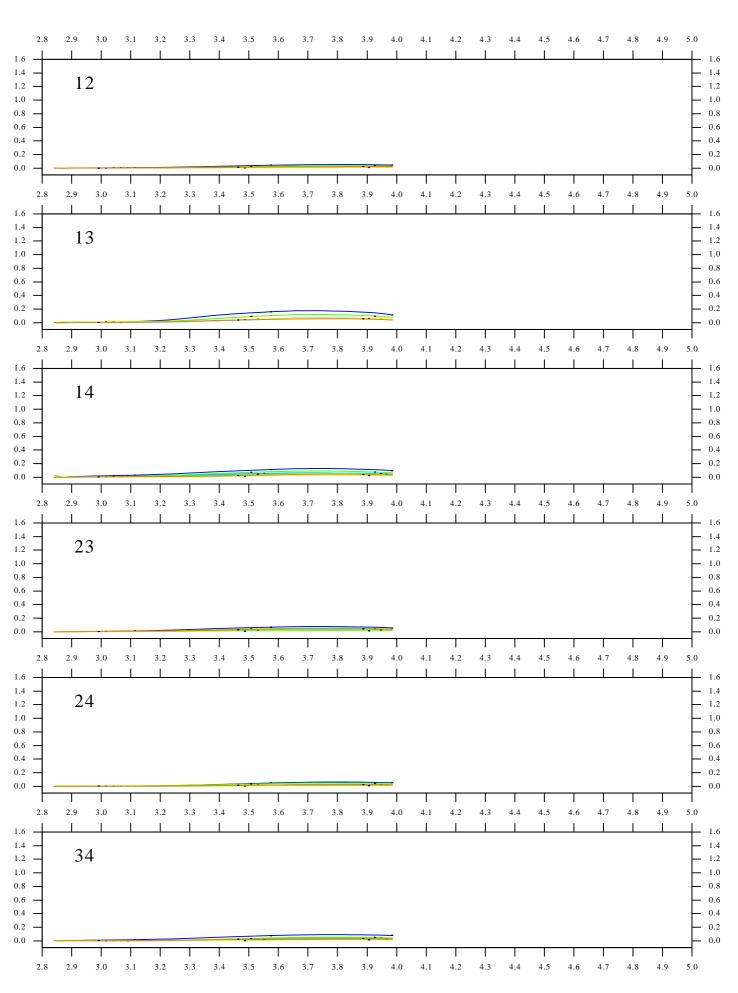
Col 1: Baseline Col 2: Average differential phase per baseline (visphi  $\pm$  err), in degrees ==> page 6 Cols 3 --> 7: Fraction of points Ok, points with valuelimit\_min, value>limit\_max points with error(err)>limit\_err, error(tol)>limit\_tol Baseline vis\_phi frac\_ok frac\_min frac\_max frac\_err frac\_tol  $+6.598 \pm 8.057 \pm 256.250$ 0.8690.0000.0000.000 12 0.13113 -10.446  $\pm$  9.307  $\pm$  232.508 0.8720.0000.1280.000 0.000 $+0.503 \pm 12.254 \pm 229.734$ 0.000 0.000 14 0.9040.0960.00023  $+7.757 \pm 4.863 \pm 230.090$ 0.904 0.0000.0000.0960.000 $24 - 20.054 \pm 13.624 \pm 248.459$ 0.849 0.0000.000 0.151 0.000  $34 - 17.849 \pm 7.694 \pm 214.864$ 0.9130.0000.0000.0870.000

Average closure phase per triplet (t3phi  $\pm$  err), in degrees ==> page 5 Triplet [28 24 13] [19 28 24] [19 28 13] [19 24 13] Phi(deg)  $+0.365 \pm 2.748 \pm 8.007 +4.017 \pm 3.368 \pm 8.460 -0.440 \pm 3.171 \pm 8.160 -1.047 \pm 4.327 \pm 12.452$ 

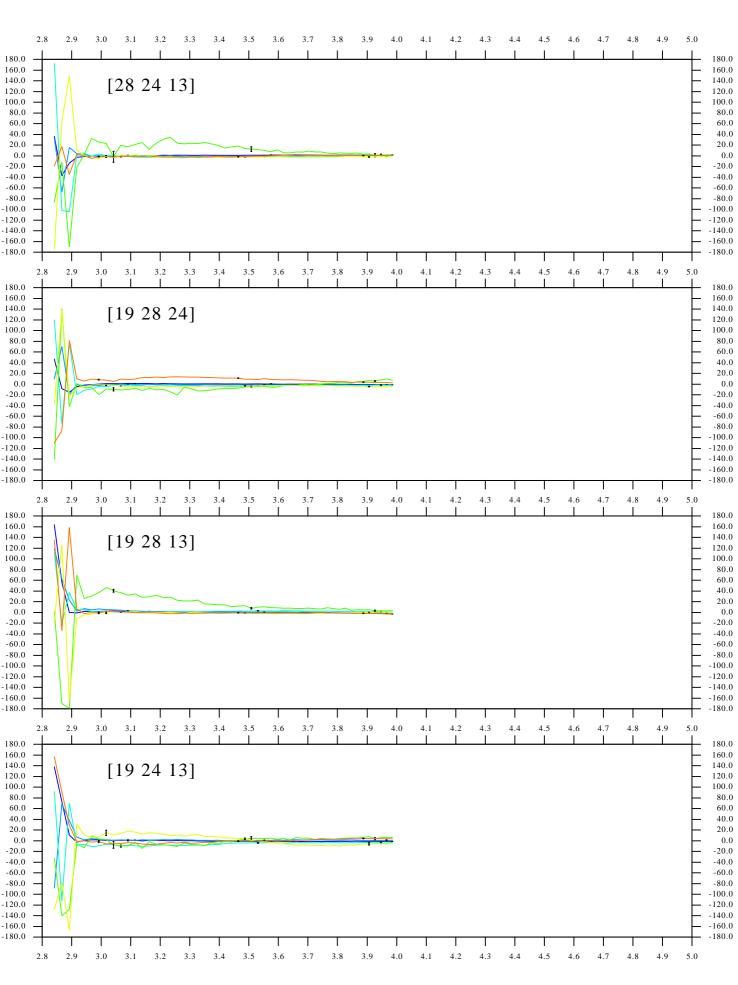
Average photometric flux (1.0e+04 photo-e-/s/sp.channel  $\pm$  std) ==> page 7 Telescope Tel\_1 Tel\_2 Tel\_3 Tel\_4 Flux  $13.489 \pm 0.204 \ 15.814 \pm 0.198 \ 12.230 \pm 0.157 \ 12.657 \pm 0.169$ 

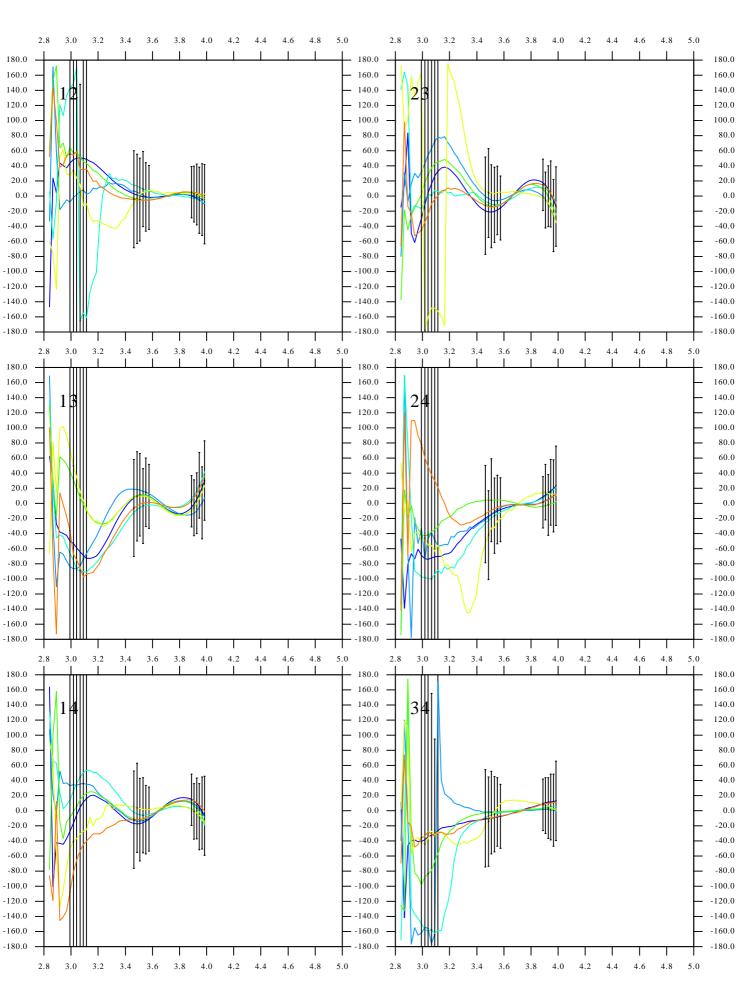


2018-05-12T03\_31\_13.6272\_HSco\_IR-LM



2018-05-12T03\_31\_13.6272\_HSco\_IR-LM





2018-05-12T03\_31\_13.6272\_HSco\_IR-LM

# Average spectrum (in 1.0e+04 photo-e/DIT) vs wavelength (in microns)

