

KIC 011618775

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
011618775-01	OBS	No	100.782167	198.662640	137.0	2.124	9.2	6.1	153.68	3280	222.77	0.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011618775-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

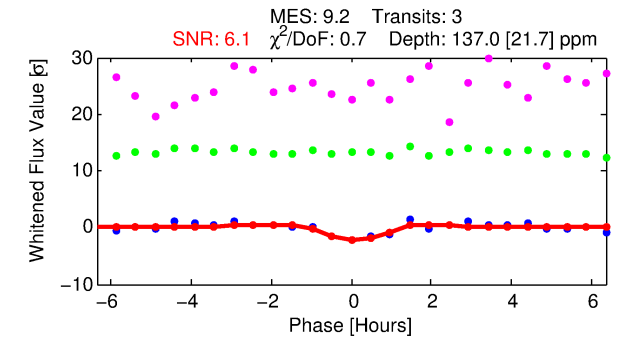
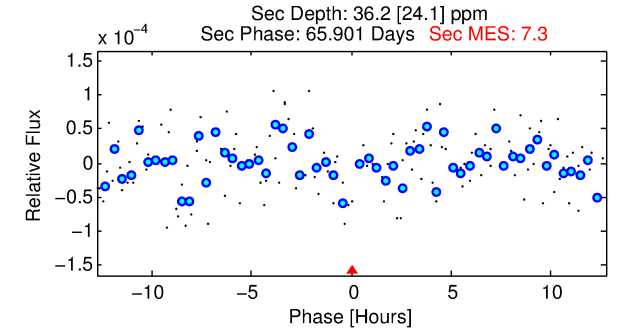
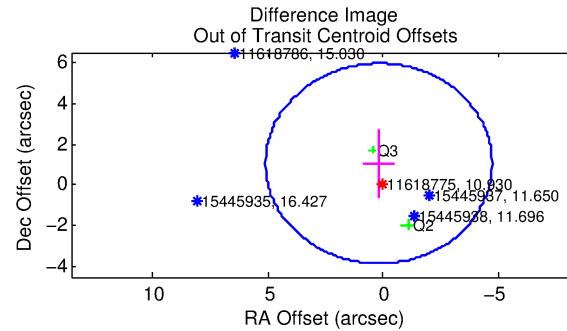
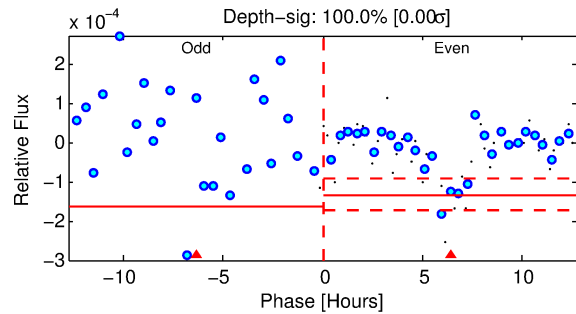
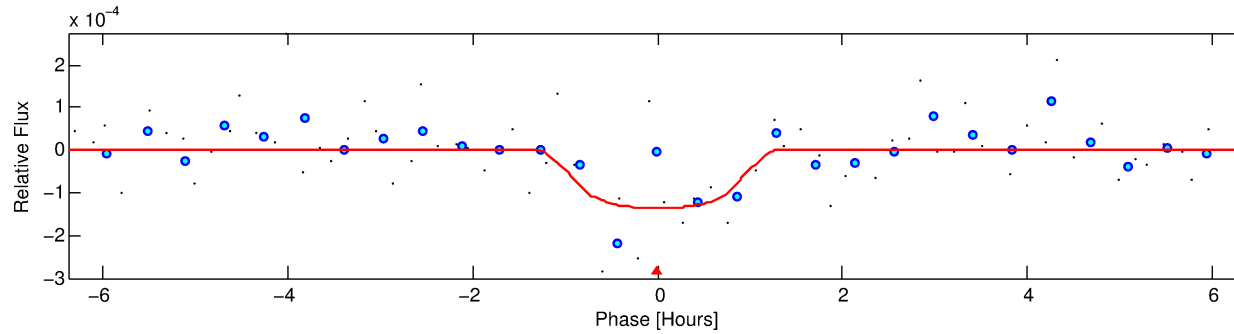
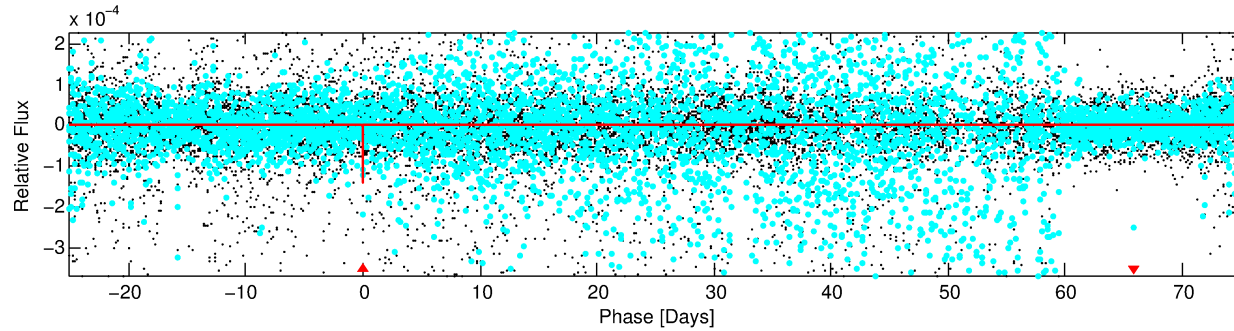
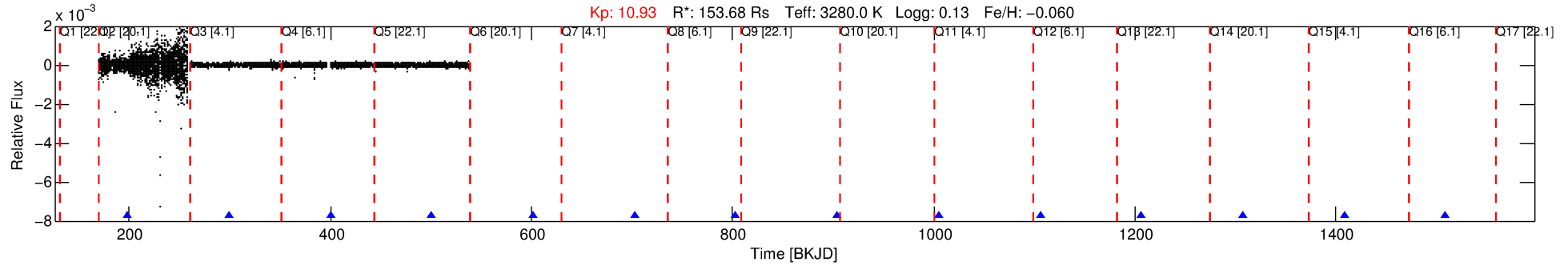
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011618775-01

No Significant Match Found

DV One-Page Summary

KIC: 11618775 Candidate: 1 of 1 Period: 100.782 d



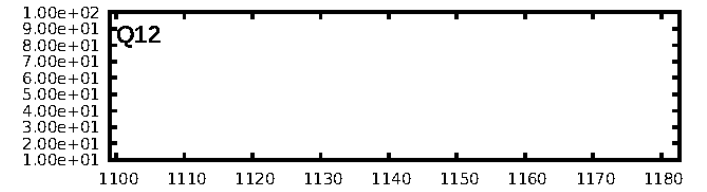
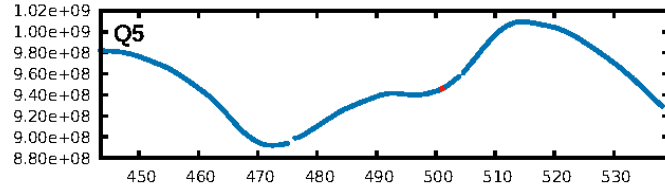
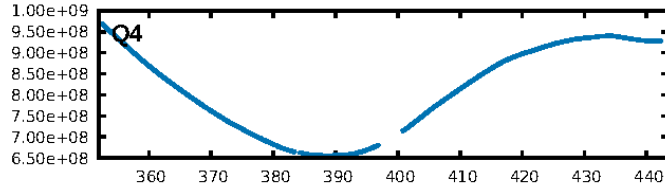
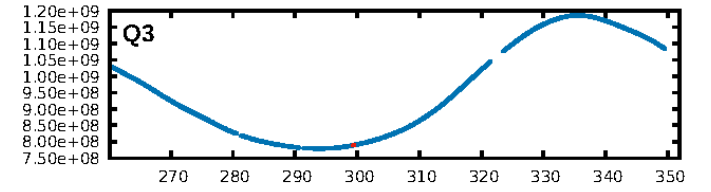
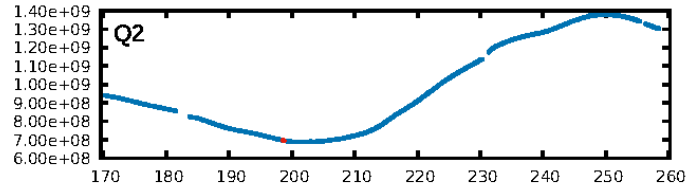
DV Fit Results:

Period = 100.78217 [0.00420] d
Epoch = 198.6626 [0.0104] BKJD
Rp/R* = 0.0133 [0.0267]
a/R* = 187.39 [1084.10]
b = 0.87 [1.67]
Seff = N/A
Teq = N/A
Rp = 222.77 [449.66] Re
a = N/A
Ag = N/A
Teffp = N/A

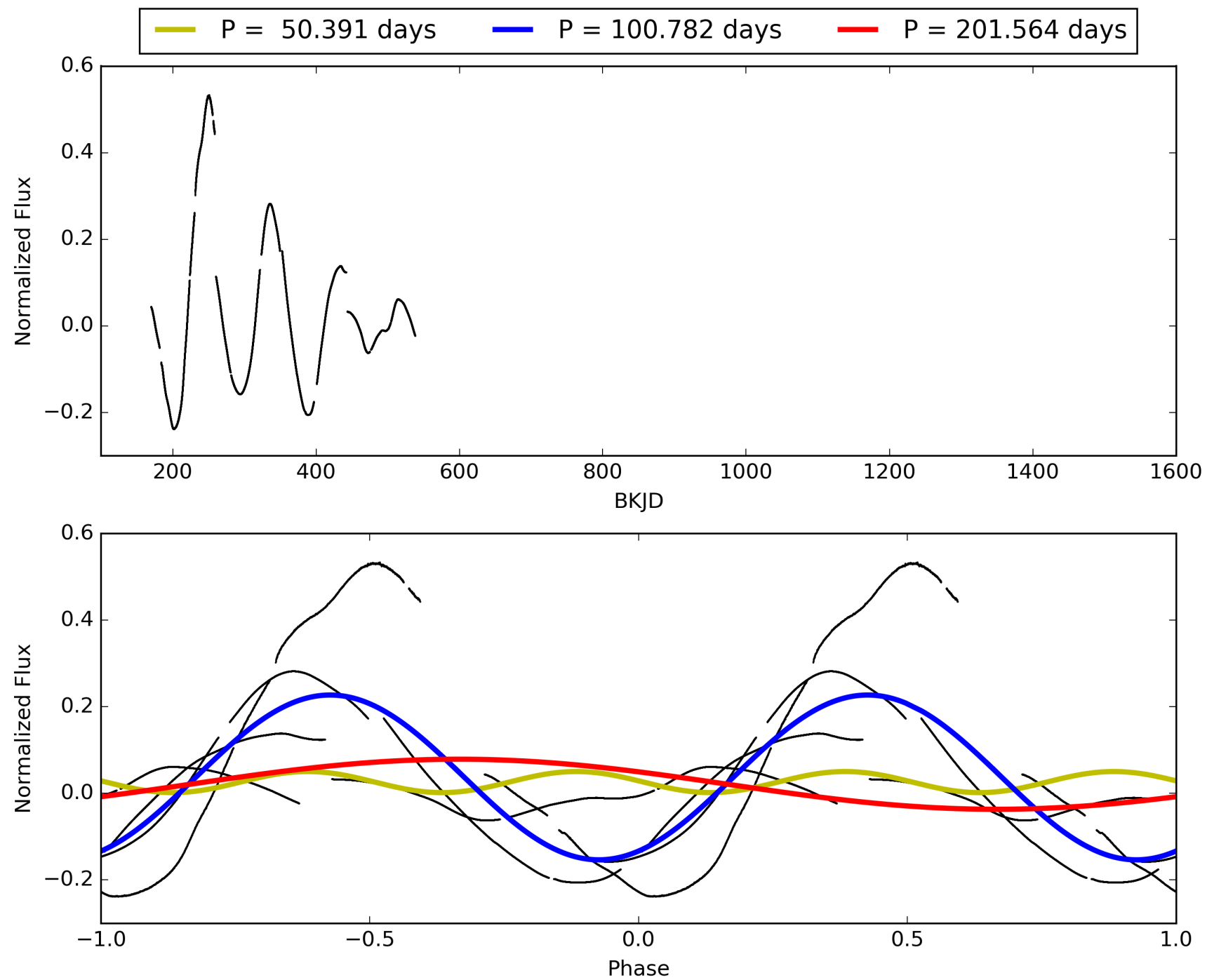
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 5.1%
ModelChiSquareGof-sig: 90.5%
Bootstrap-pfa: 4.50e-08
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: N/A
Centroid-sig: 79.2%
Centroid-so: 1.852 arcsec [0.42 σ]
OotOffset-rm: 1.077 arcsec [0.66 σ]
KicOffset-rm: 1.203 arcsec [0.64 σ]
OotOffset-st: 1/1/0/0 [2]
KicOffset-st: 1/1/0/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [3/3]

TCE 011618775-01, PDC Light Curves

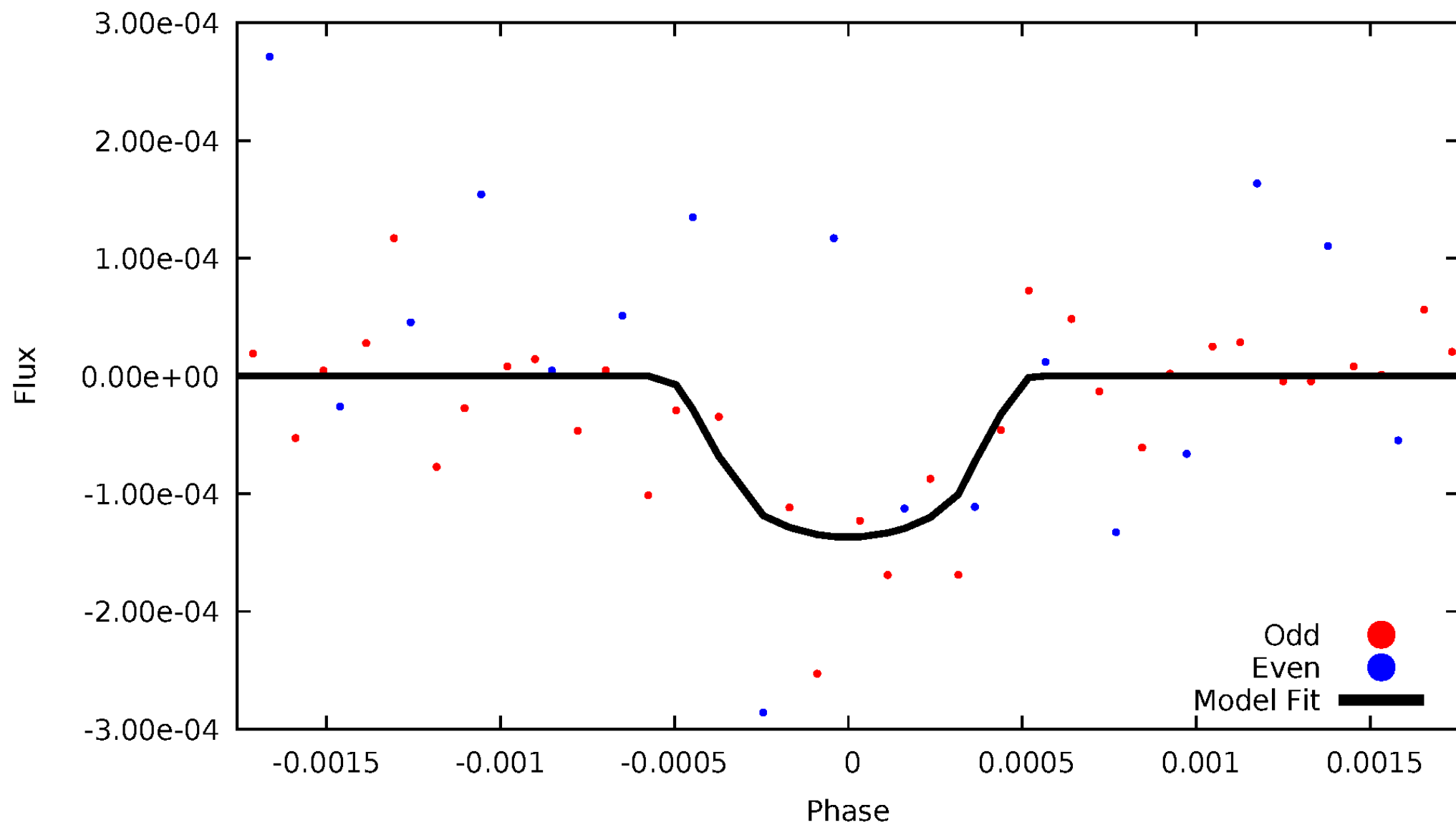


TCE 011618775-01



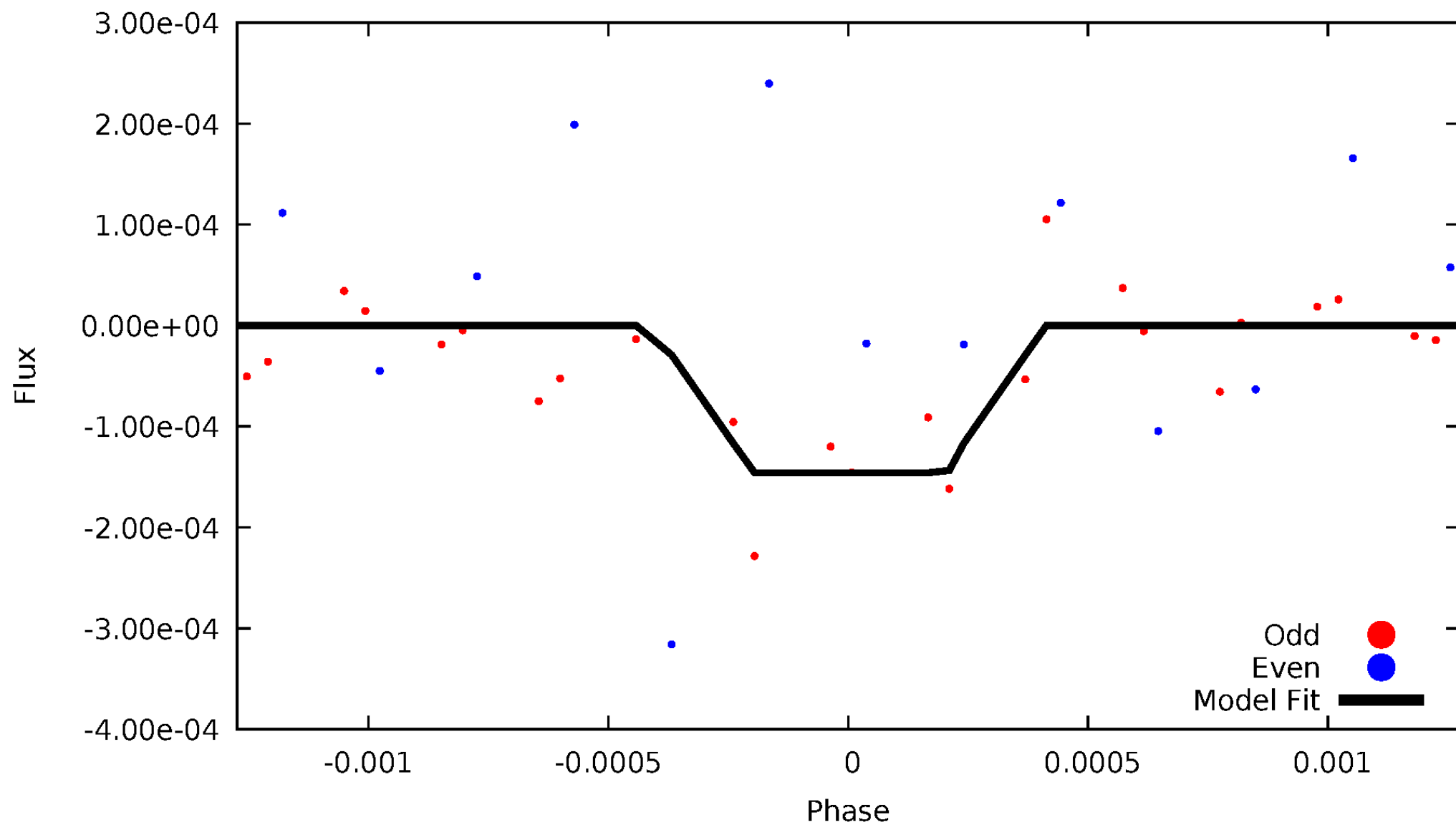
DV Odd/Even

TCE 011618775-01



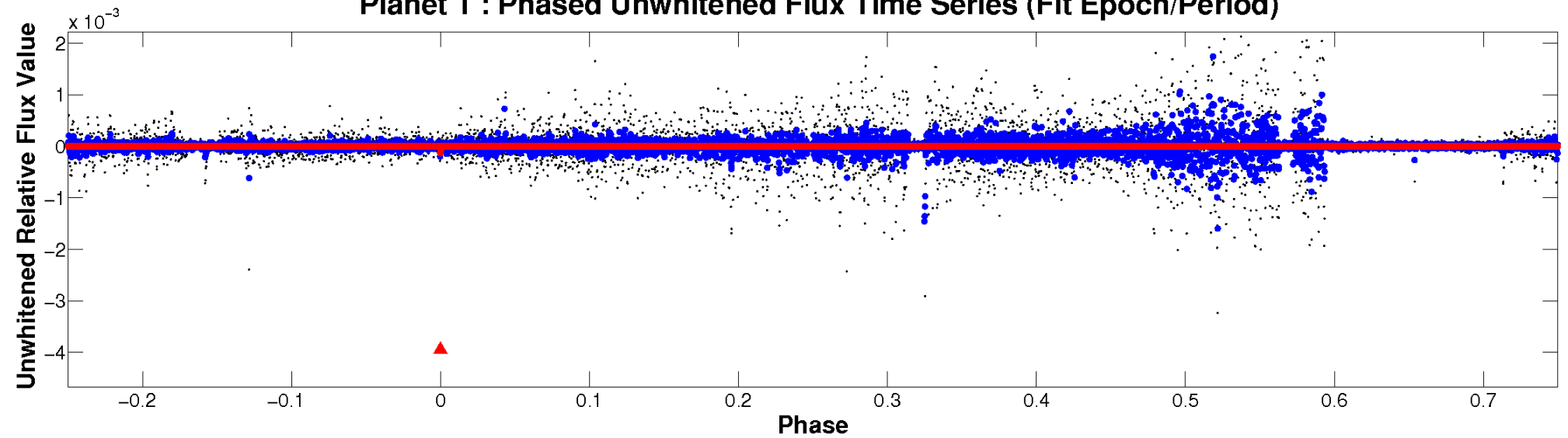
ALT Odd/Even

TCE 011618775-01

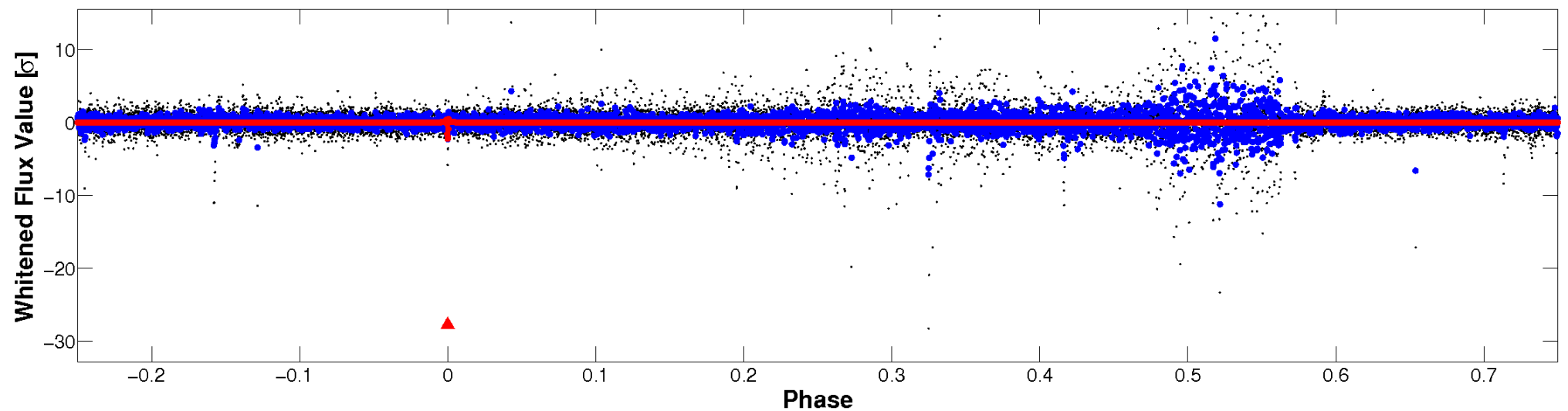


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

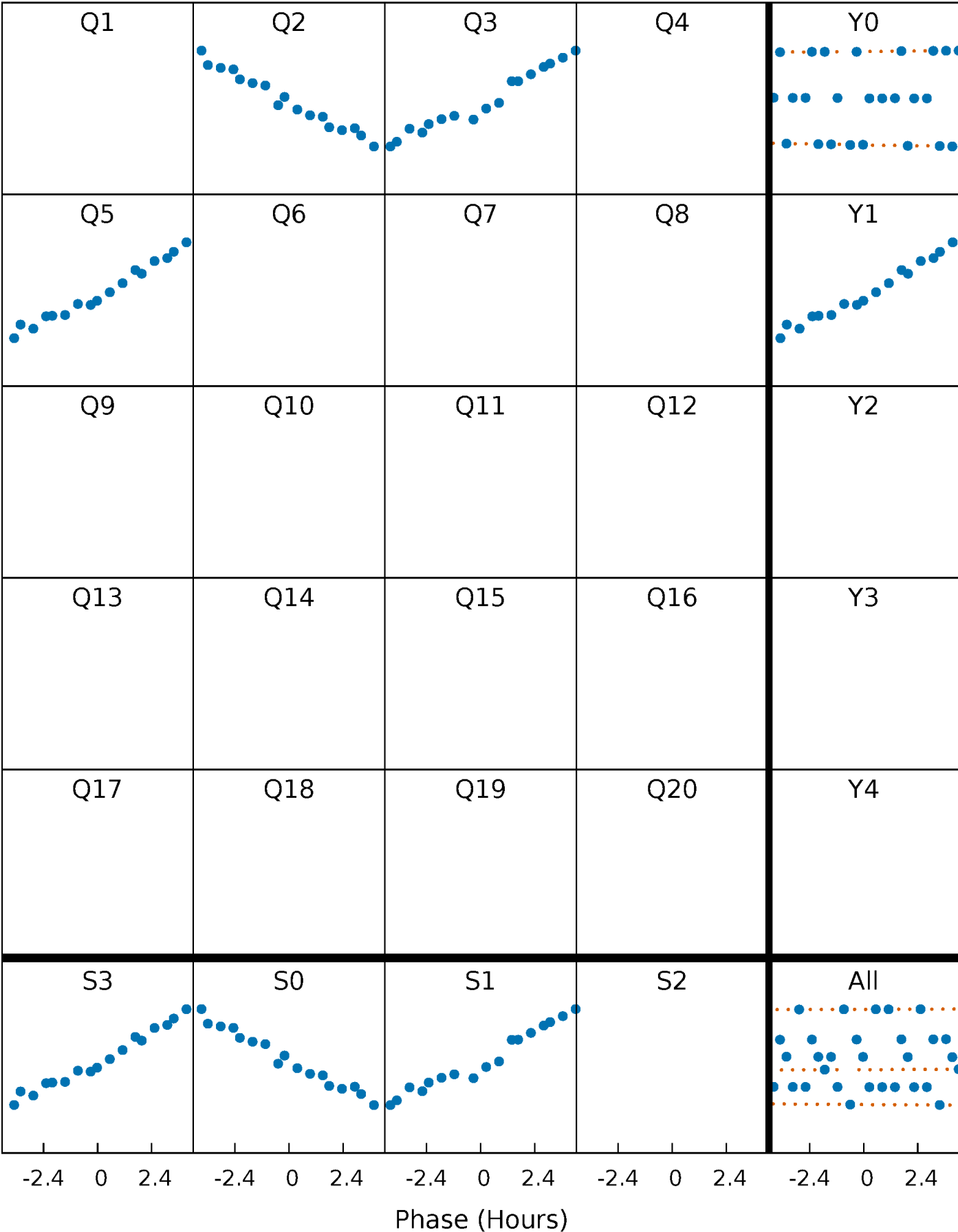


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 011618775-01 P=100.782167 Days $T_0=198.662640$ (BKJD)



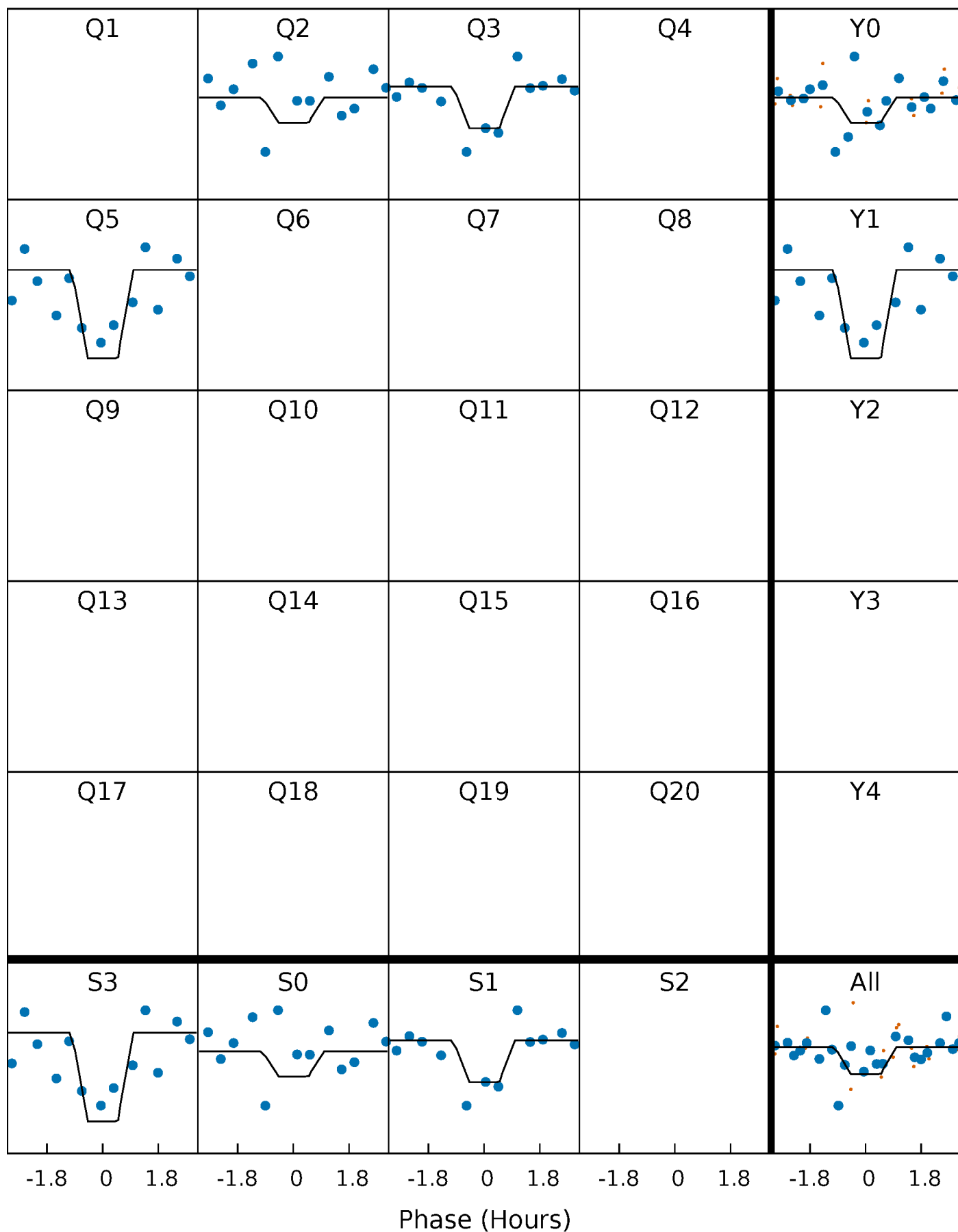
DV Quarter-Phased Transit Curves

TCE 011618775-01 P=100.782167 Days $T_0=198.662640$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

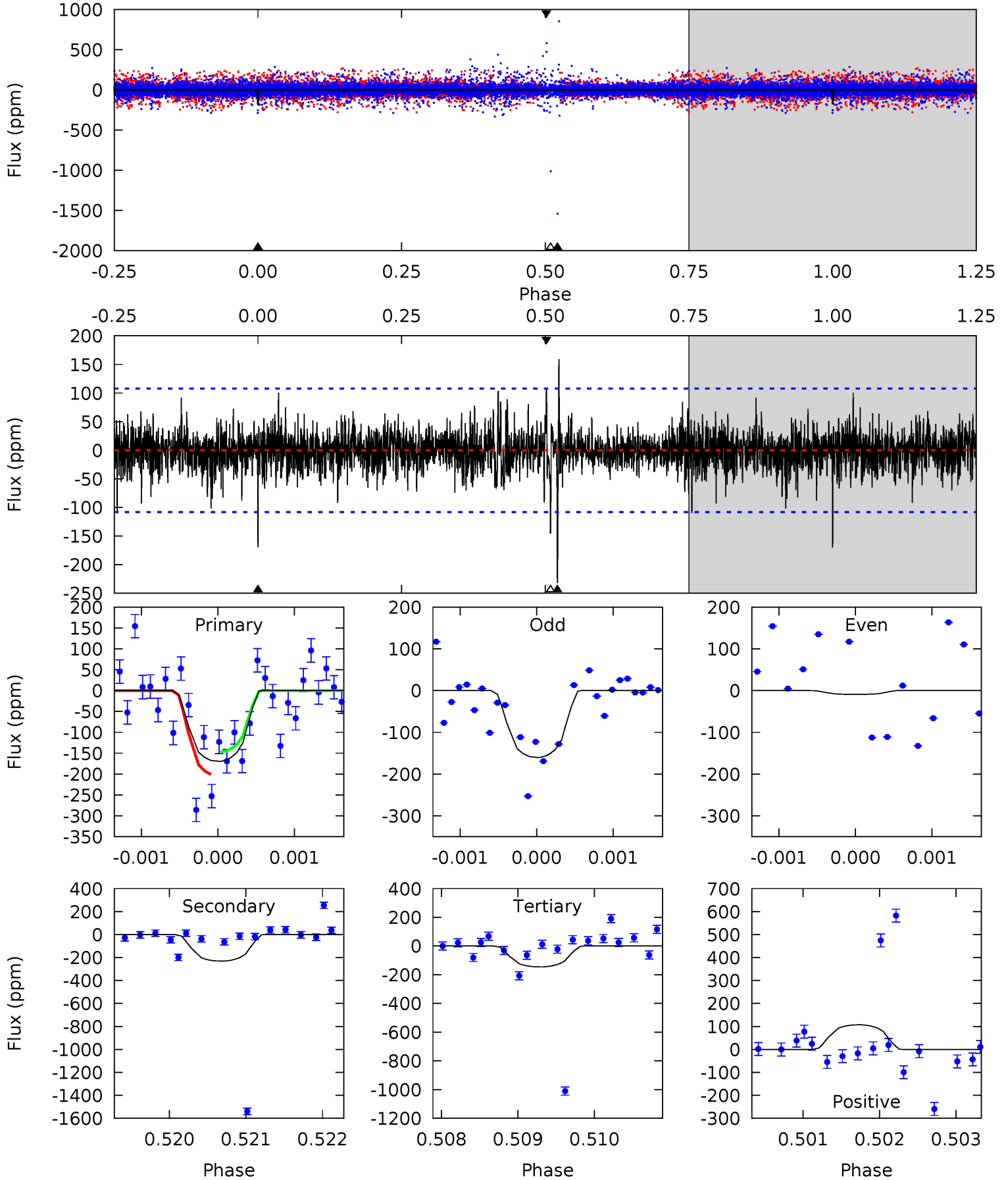
TCE 011618775-01 P=100.780360 Days $T_0=198.675109$ (BKJD)



DV Model-Shift Uniqueness Test

011618775-01, P = 100.782167 Days, E = 97.880473 Days

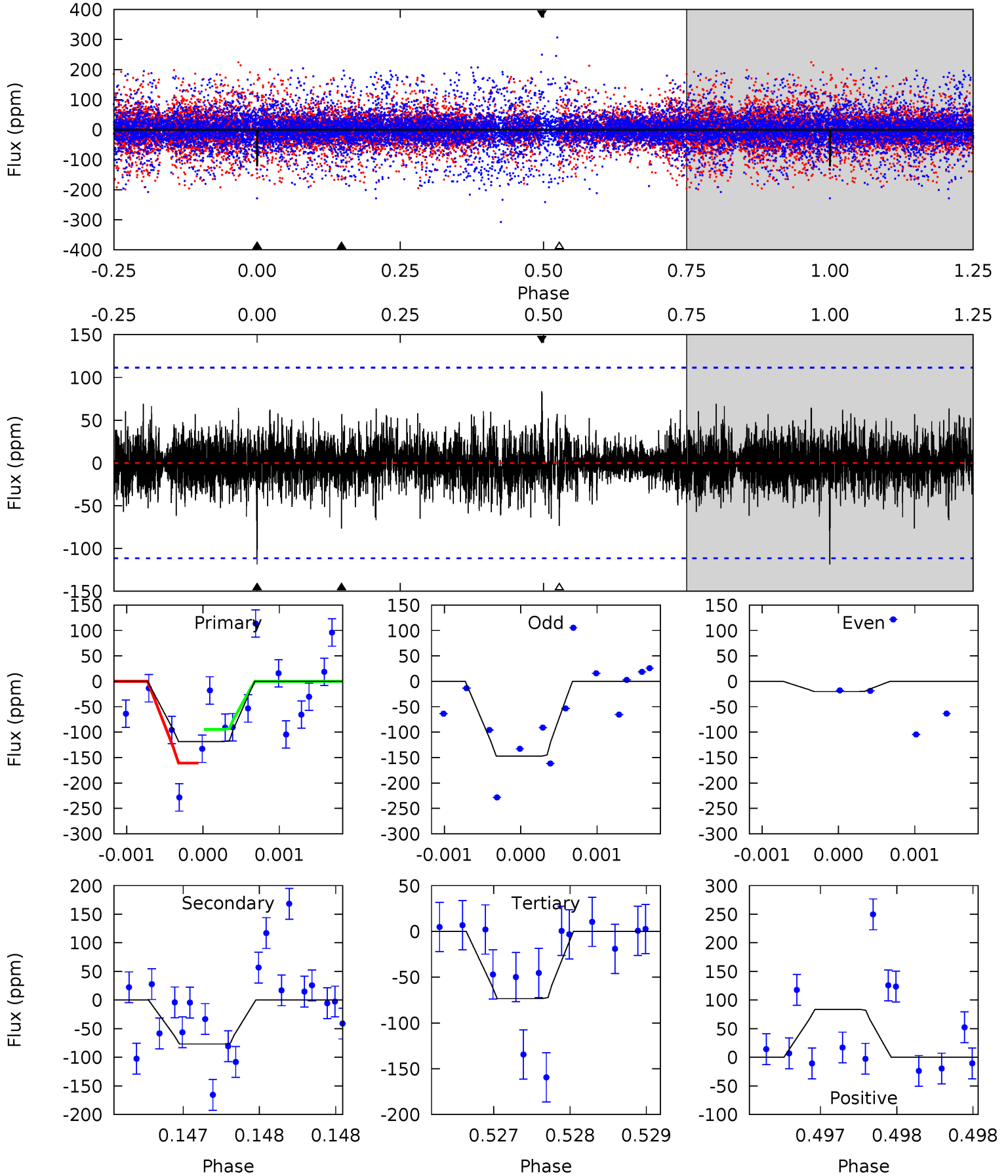
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.58	11.7	7.35	5.43	5.46	3.30	1.24	1.23	3.16	4.36	6.28	1.82	1.25	0.41	0



Alt Model-Shift Uniqueness Test

011618775-01, $P = 100.780360$ Days, $E = 97.894749$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.90	3.81	3.65	4.16	5.54	3.43	0.89	2.25	1.74	0.16	-0.34	1.97	0.71	0.41	1.55



Stellar Parameters For KIC 011618775

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	3280^{+117}_{-78}	$0.130^{+0.200}_{-0.050}$	$-0.060^{+0.250}_{-0.150}$	$153.676^{+7.966}_{-29.874}$	$1.160^{+0.189}_{-0.155}$	$0.000^{+0.000}_{-0.000}$
	+4%/-2%	+154%/-38%	+417%/-250%	+5%/-19%	+16%/-13%	+96%/-15%
Source	KIC0	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011618775-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-232 ± 20	$385.82^{+344.59}_{-267.30}$	3712^{+149}_{-196}	-2736^{+6756}_{-339}	$0.179^{+1.557}_{-0.132}$
Alt.	-77 ± 20	$378.38^{+340.42}_{-256.18}$	3701^{+156}_{-192}	-2985^{+6011}_{-156}	$0.059^{+0.494}_{-0.043}$

T_{max} = Theoretical Maximum Planetary Temperature
 T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
 A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

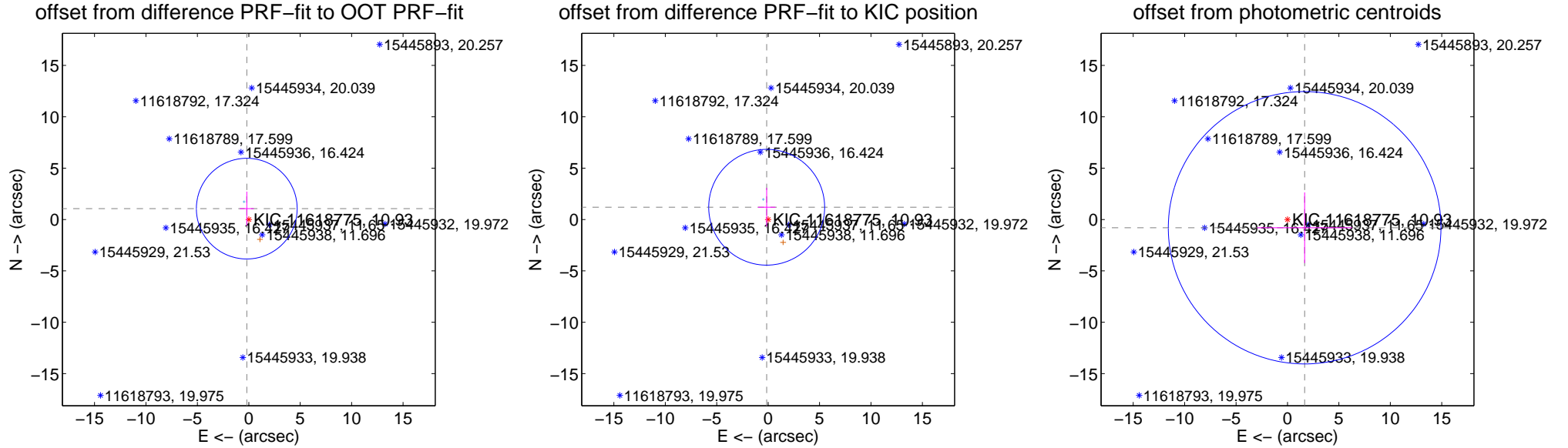
DV Centroid Data

Supplemental centroid analysis for 011618775-01. **Kepler magnitude: 10.93.** Transit SNR 6.10

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.077 ± 1.634	0.66	0.197 ± 0.684	1.059 ± 1.657
PRF-fit source offset from KIC position	1.203 ± 1.879	0.64	0.142 ± 0.850	1.195 ± 1.889
photometric centroid source offset	1.85 ± 4.42	0.42	-1.67 ± 4.62	-0.80 ± 3.44



Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

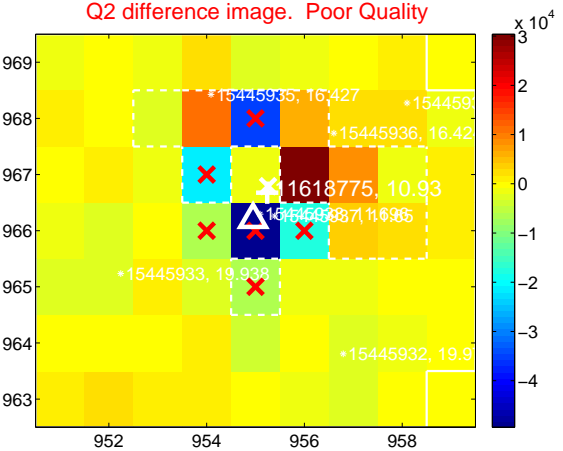
Q1 no difference image



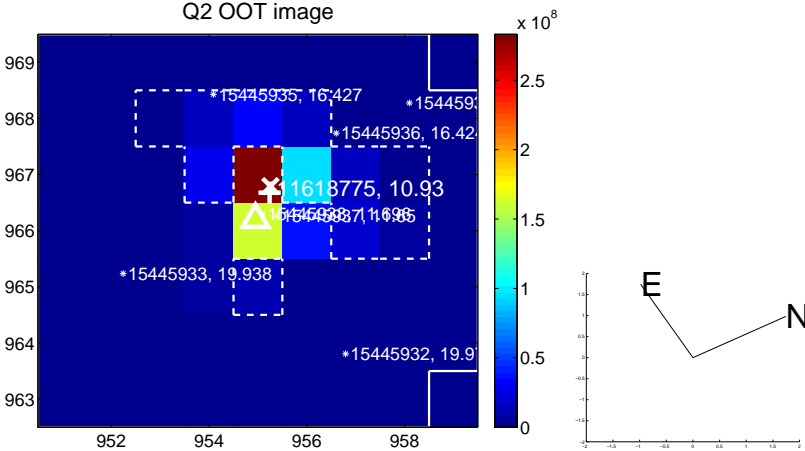
Q1 no OOT image



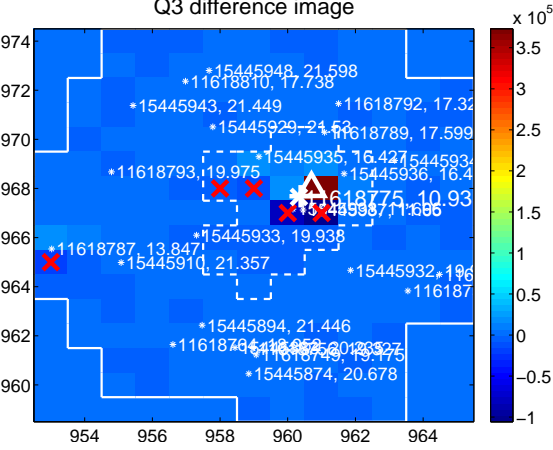
Q2 difference image. Poor Quality



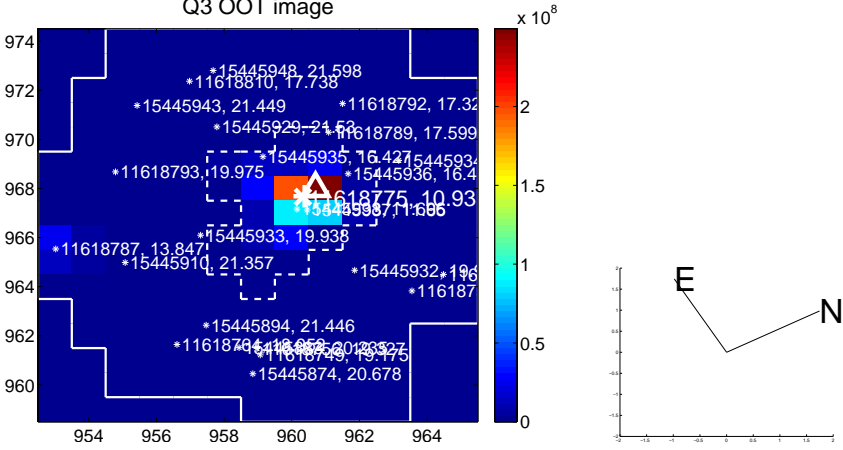
Q2 OOT image



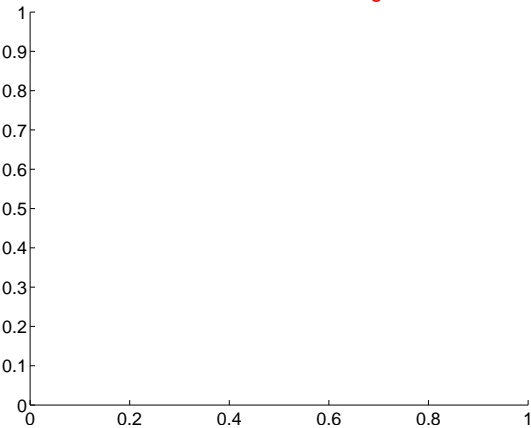
Q3 difference image



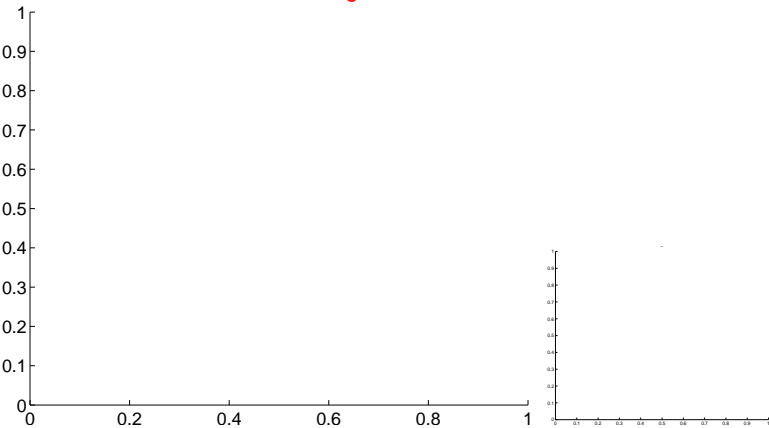
Q3 OOT image



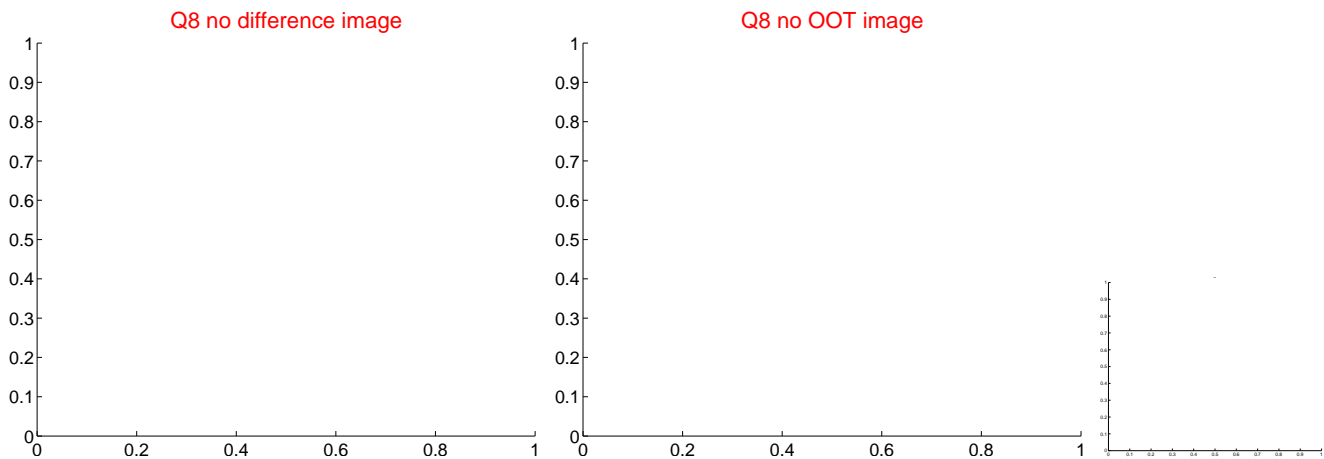
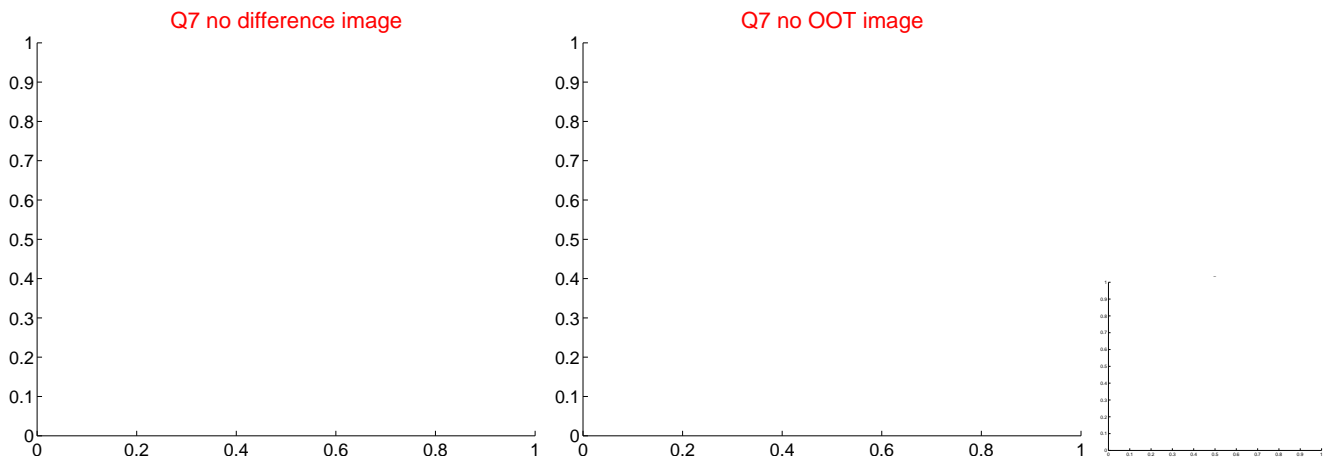
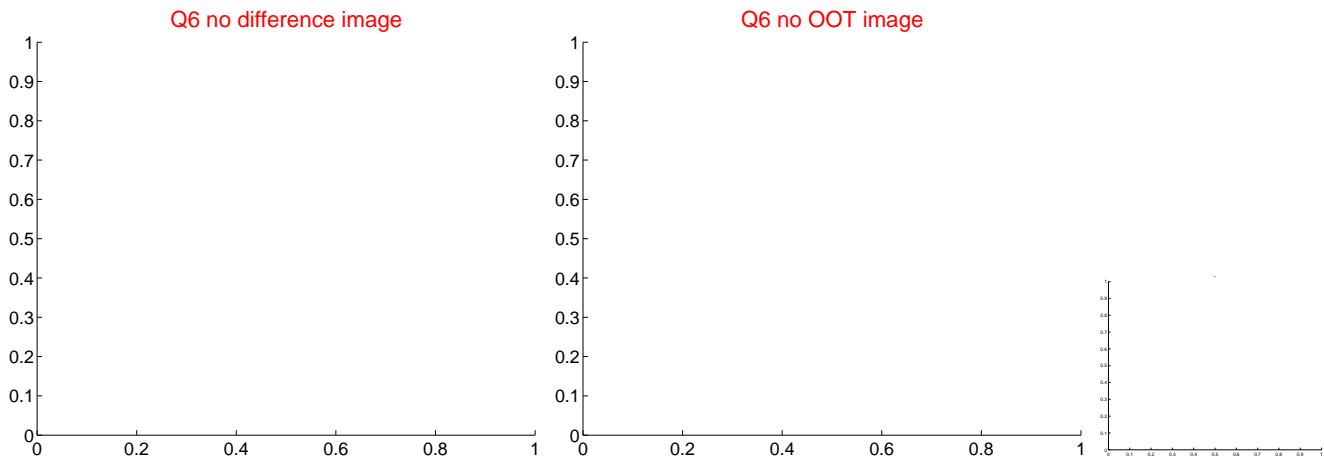
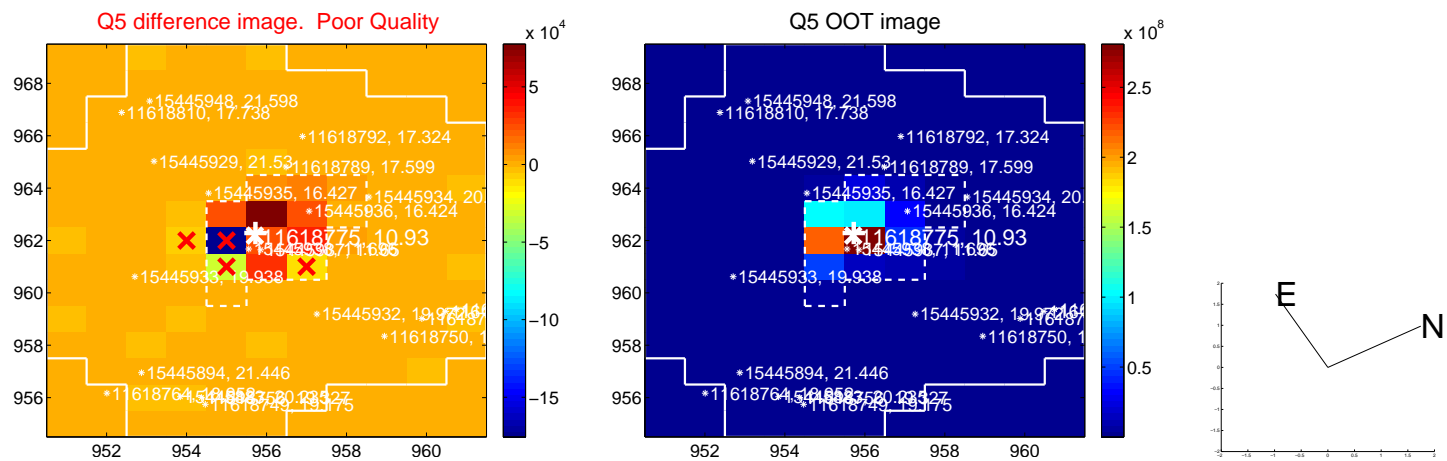
Q4 no difference image



Q4 no OOT image



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



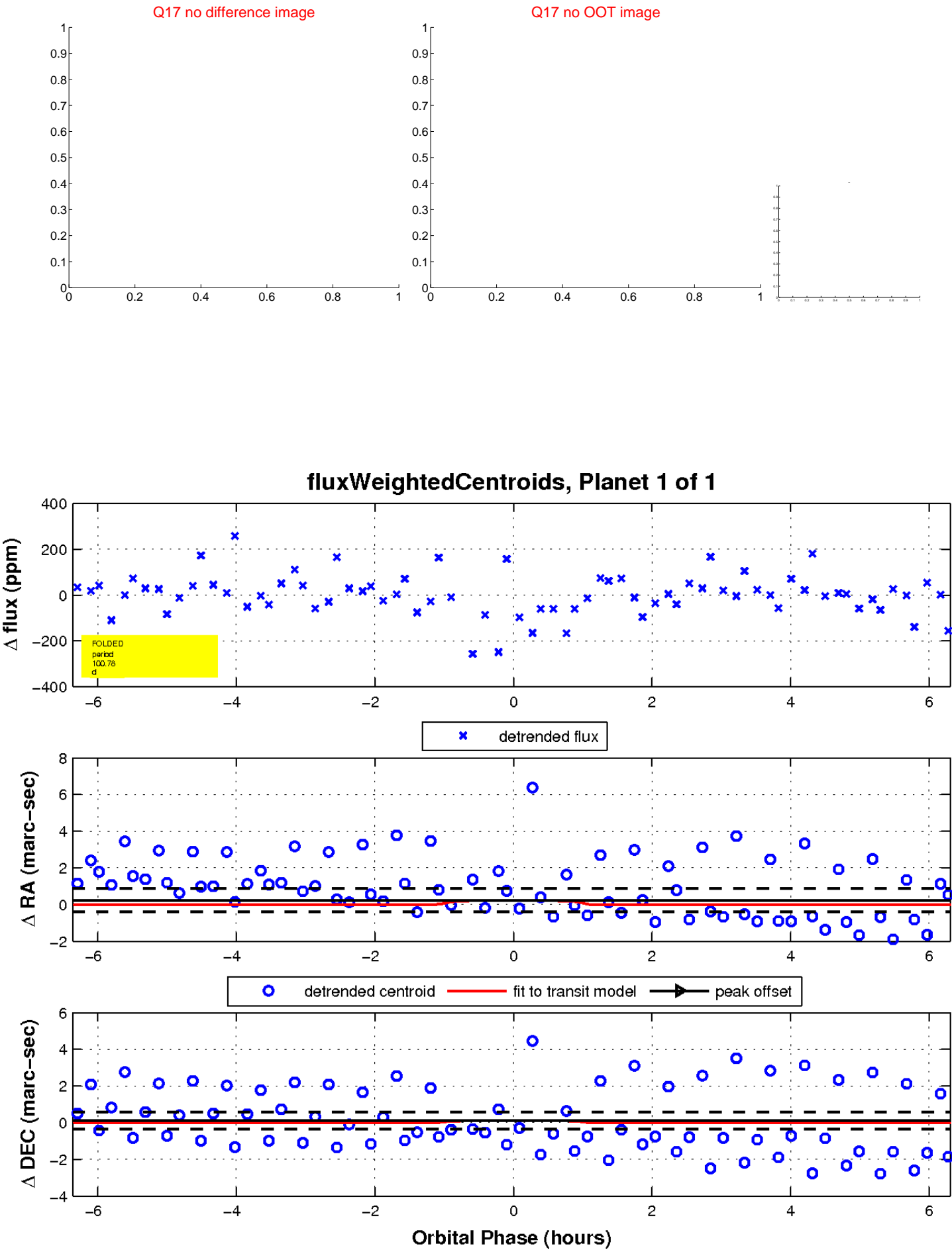
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

