

KIC 006853199

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})
006853199-01	OBS	No	392.536147	400.116025	536.8	8.557	8.9	10.7	104.61	3499	279.85	1377.85

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006853199-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_ZUMA—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

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

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

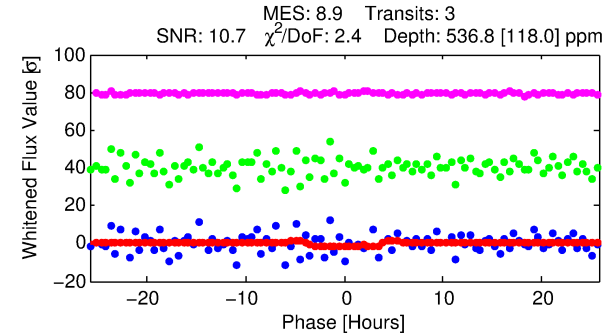
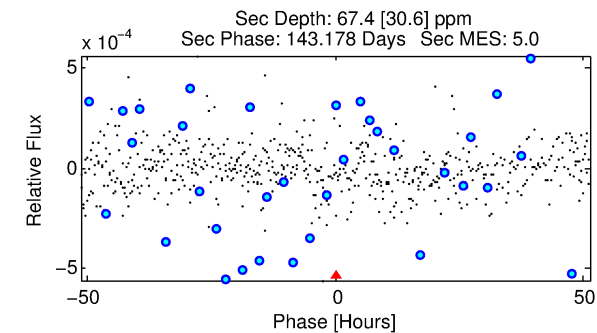
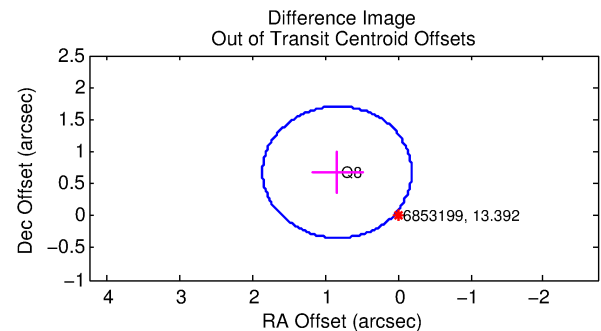
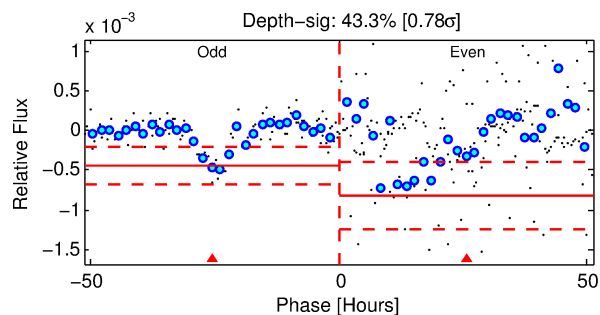
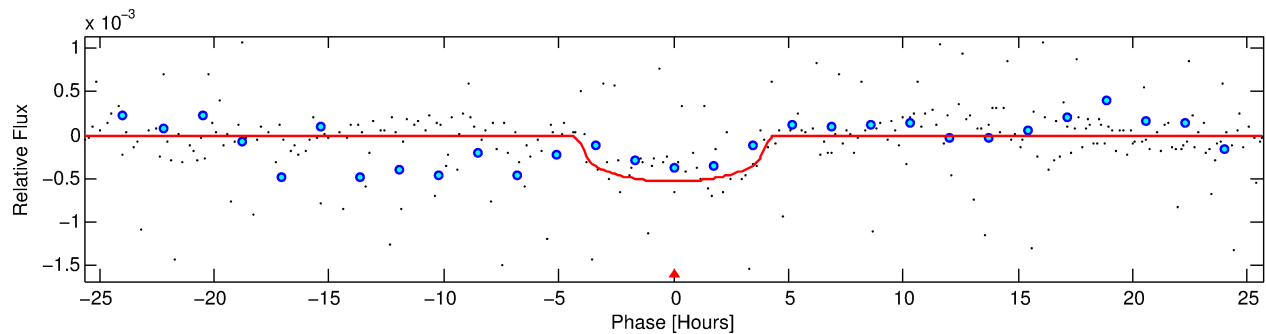
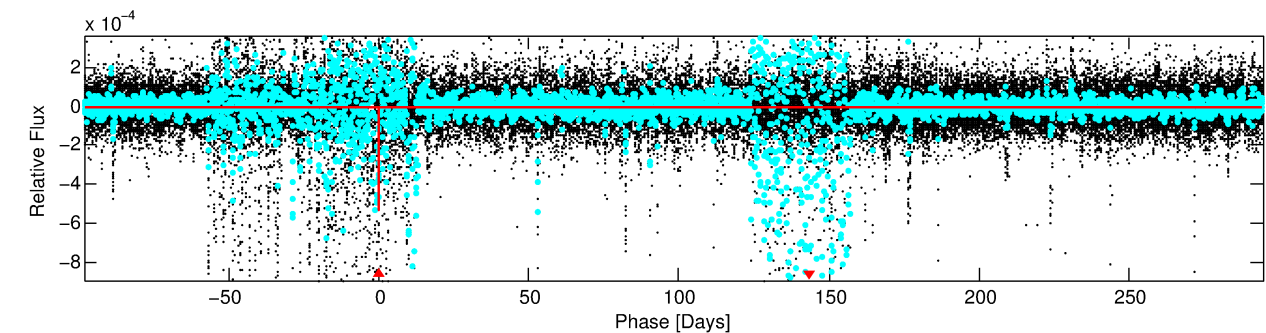
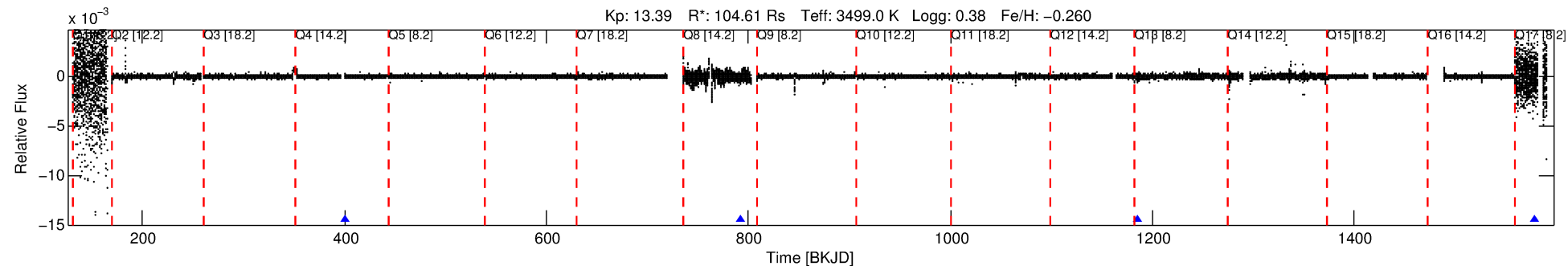
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006853199-01

No Significant Match Found

DV One-Page Summary

KIC: 6853199 Candidate: 1 of 1 Period: 392.536 d



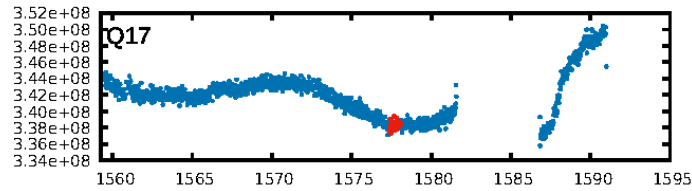
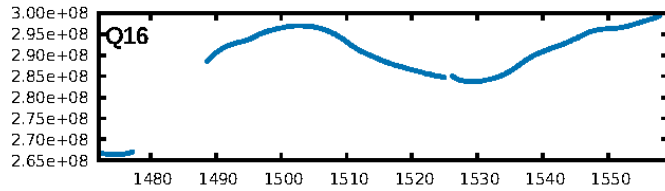
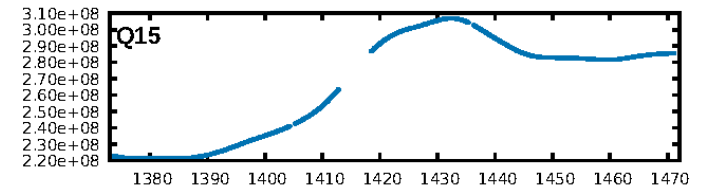
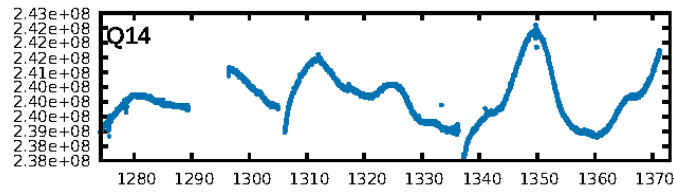
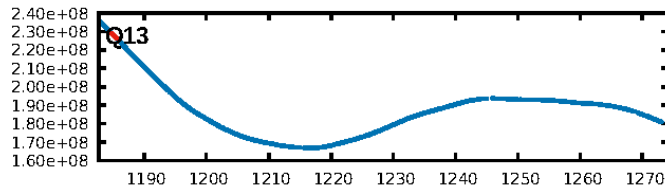
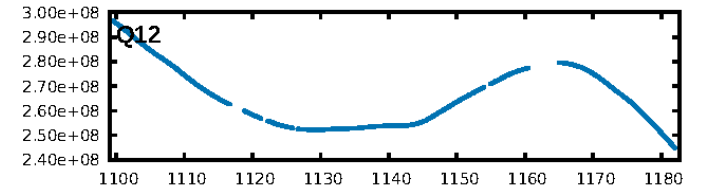
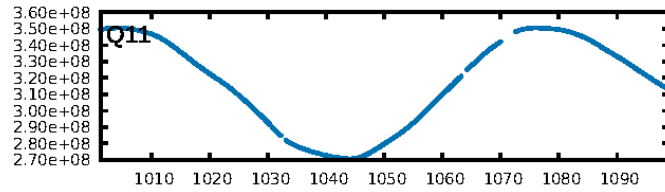
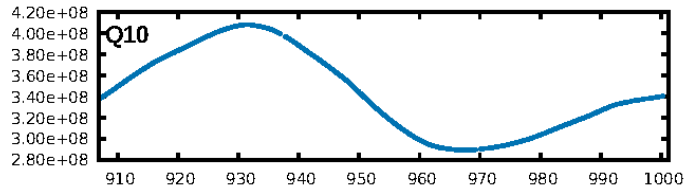
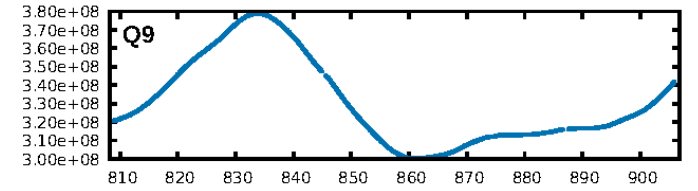
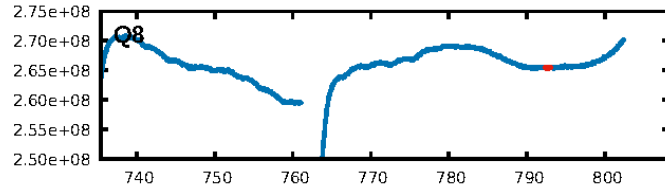
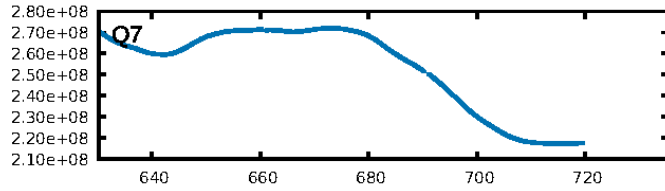
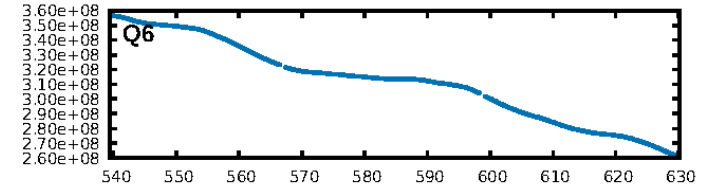
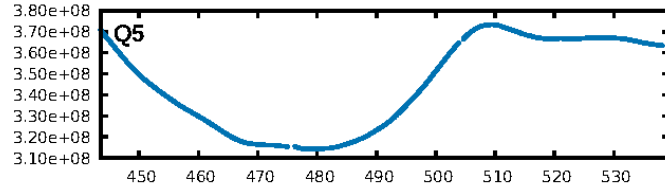
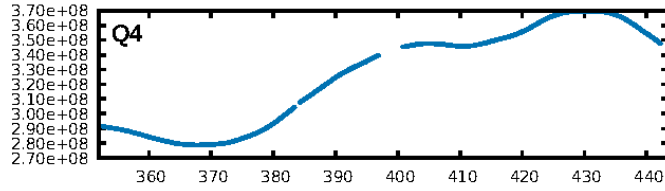
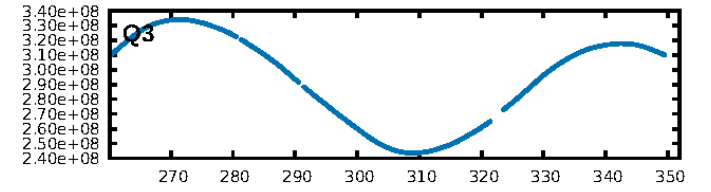
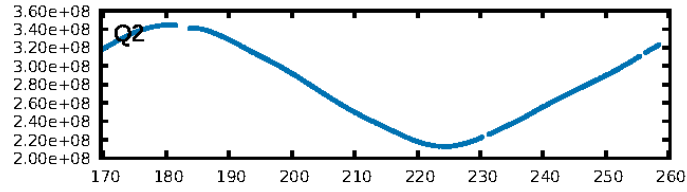
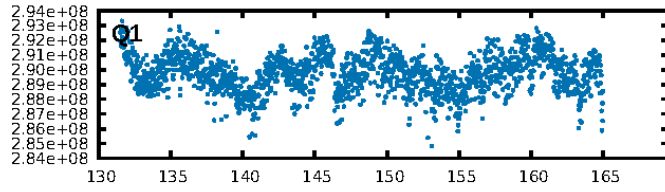
DV Fit Results:

Period = 392.53615 [0.01193] d
Epoch = 400.1160 [0.0278] BKJD
Rp/R* = 0.0245 [0.0131]
a/R* = 221.02 [315.84]
b = 0.81 [0.63]
Seff = 1377.85 [643.81]
Teff = 1554 [181] K
Rp = 279.85 [168.28] Re
a = 1.0327 [0.2824] AU
Ag = 0.51 [0.63] [-0.79 σ]
Teffp = 2025 [593] K [0.76 σ]

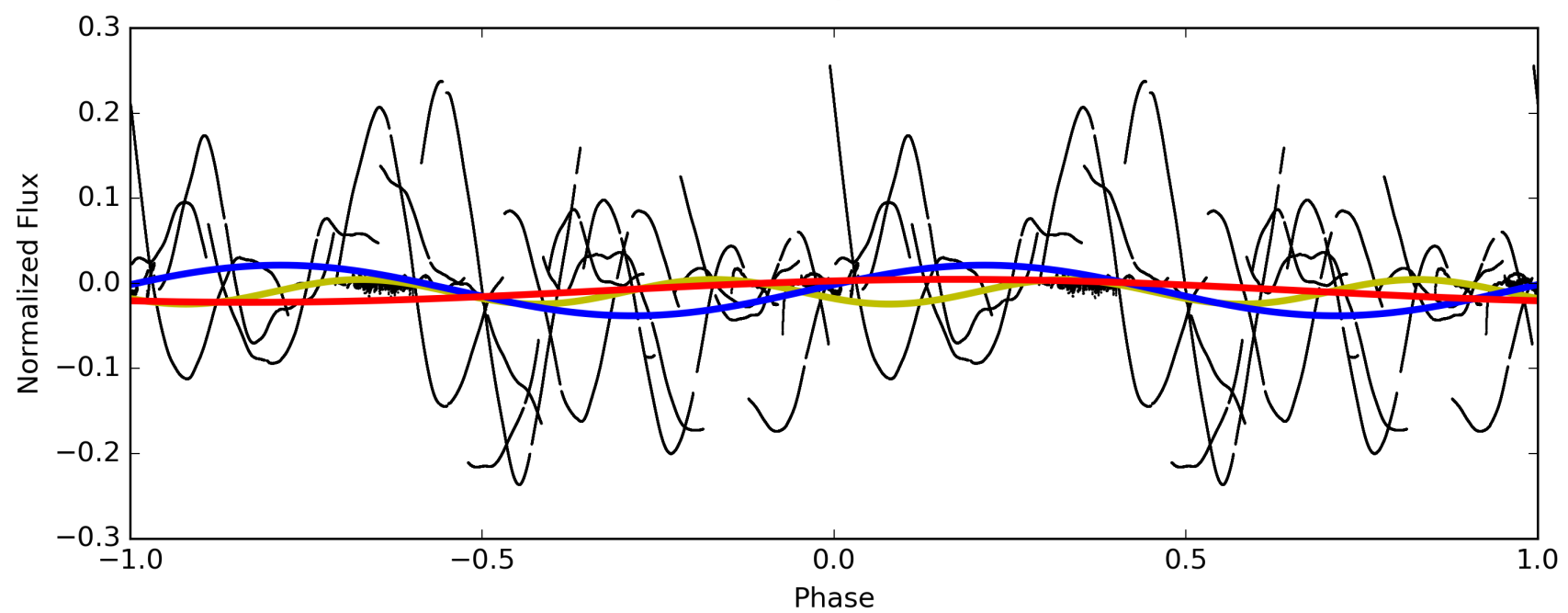
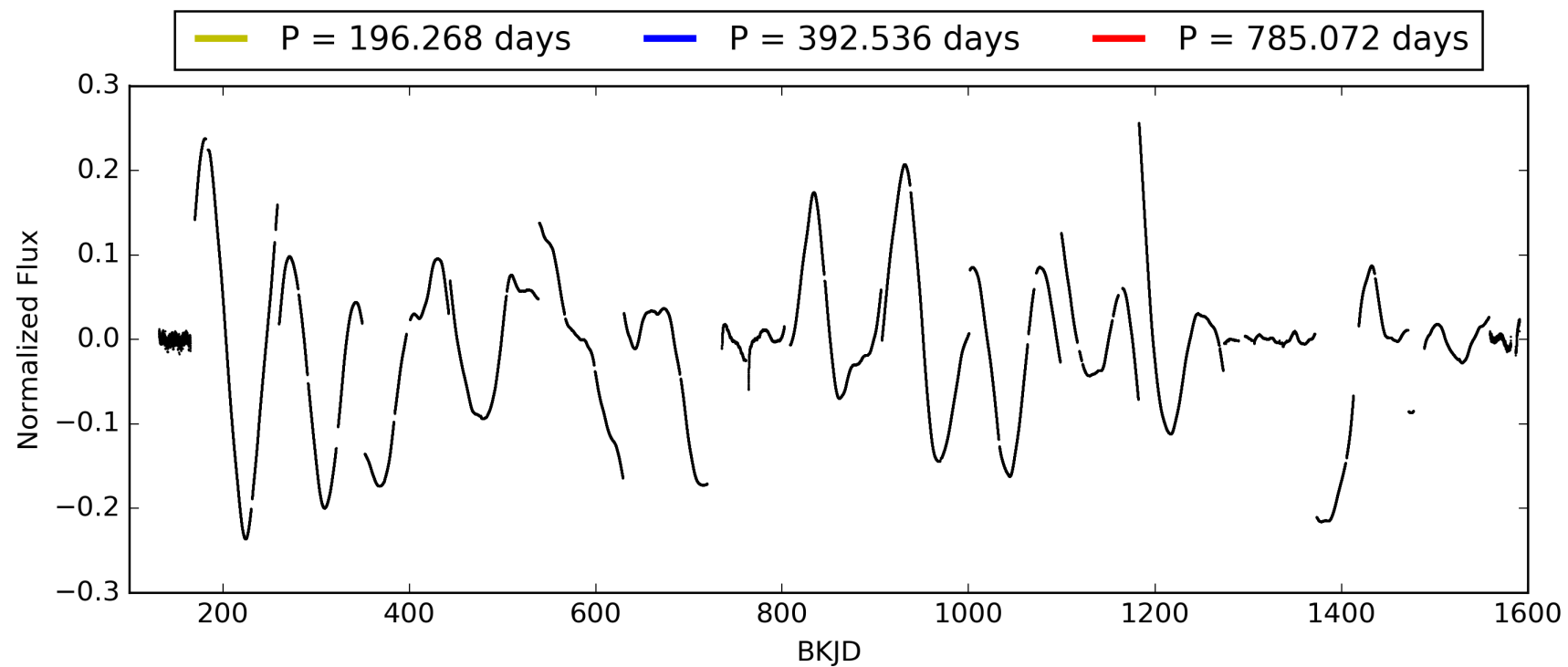
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 56.9%
ModelChiSquareGof-sig: 63.4%
Bootstrap-pfa: 7.67e-04
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: -0.1181
Centroid-sig: 0.2%
Centroid-so: 0.687 arcsec [2.42 σ]
OotOffset-rm: 1.077 arcsec [3.15 σ]
KicOffset-rm: 0.878 arcsec [2.57 σ]
OotOffset-st: 0/0/1/0 [1]
KicOffset-st: 0/0/1/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [2/2]

TCE 006853199-01, PDC Light Curves

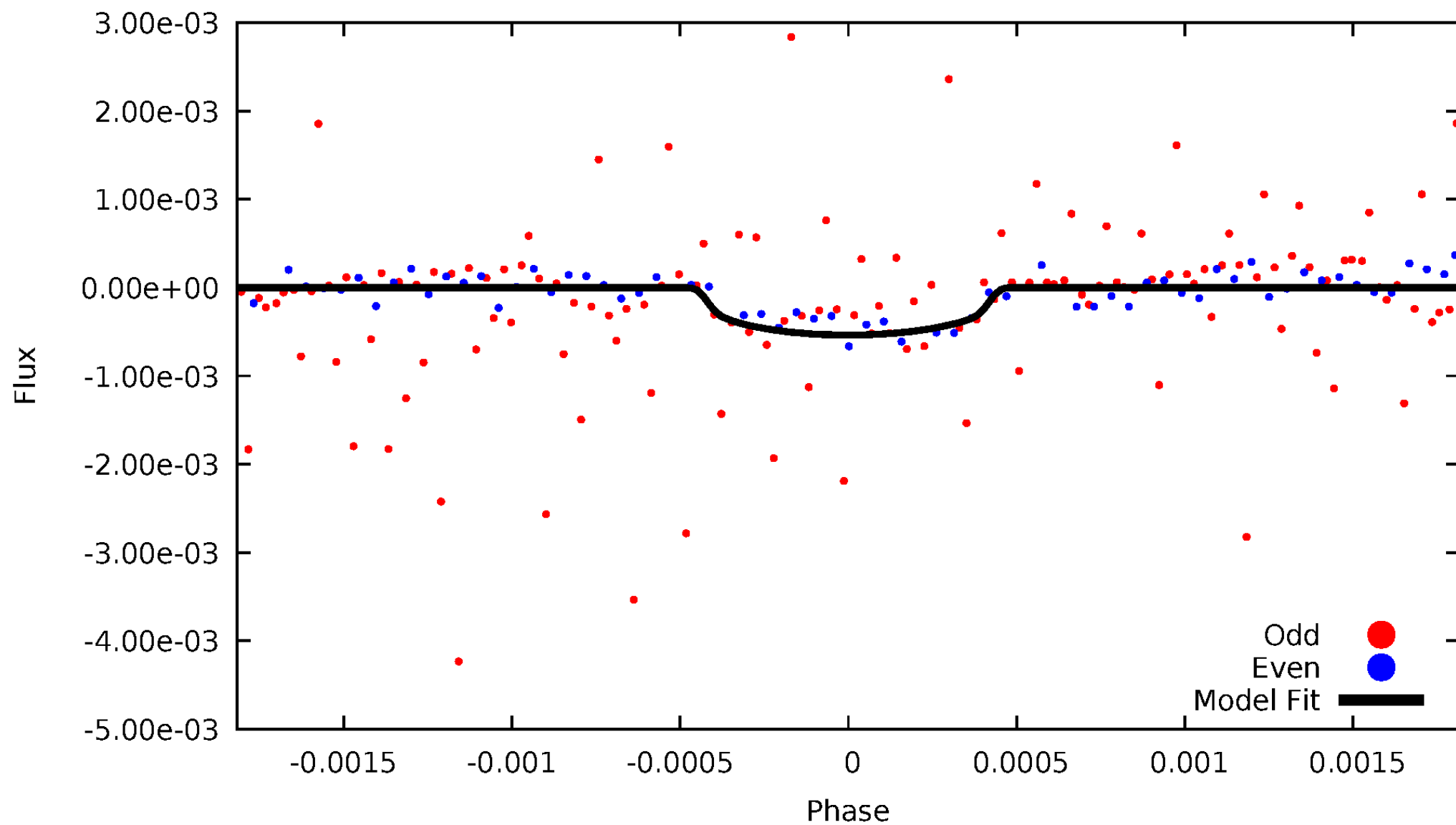


TCE 006853199-01



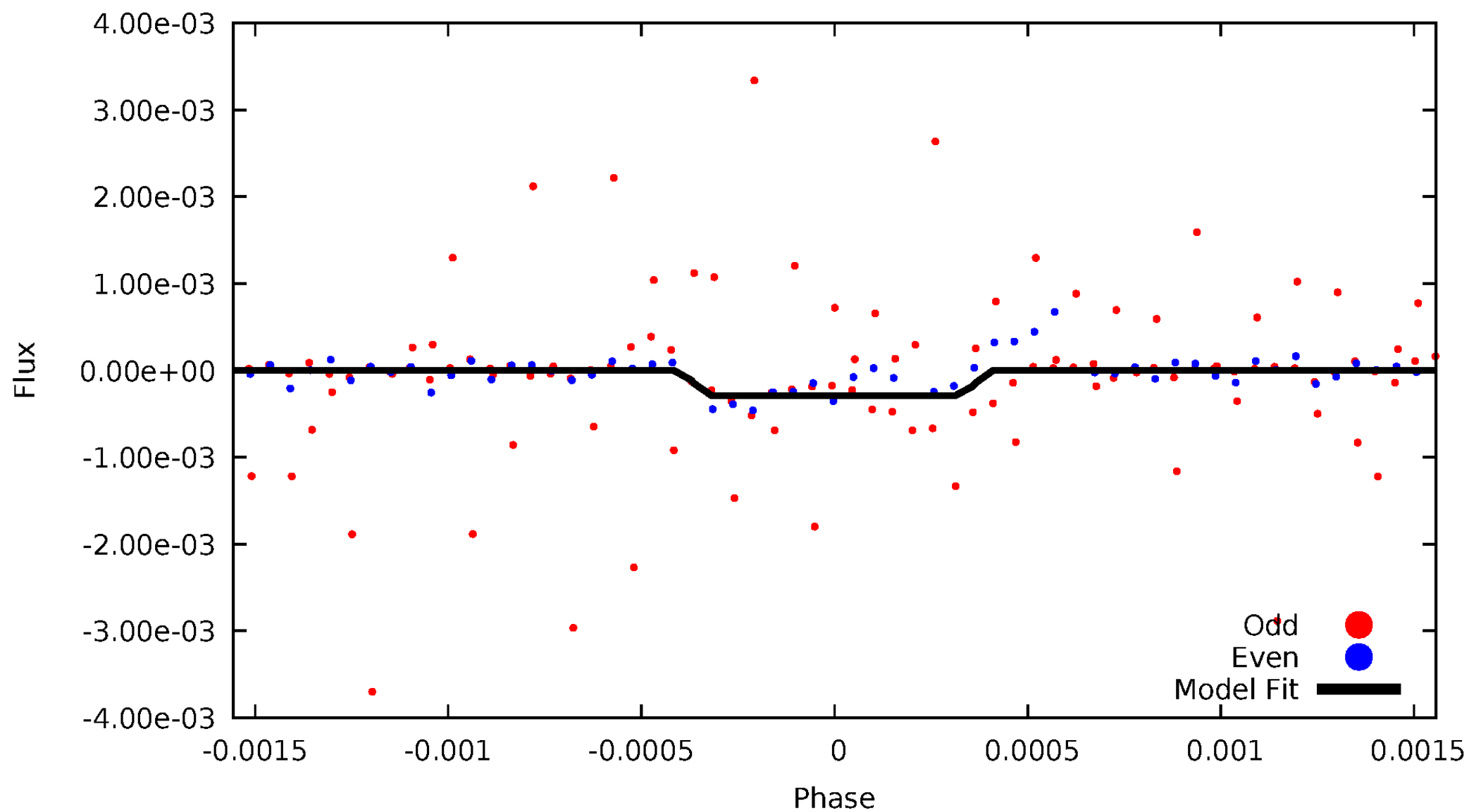
DV Odd/Even

TCE 006853199-01



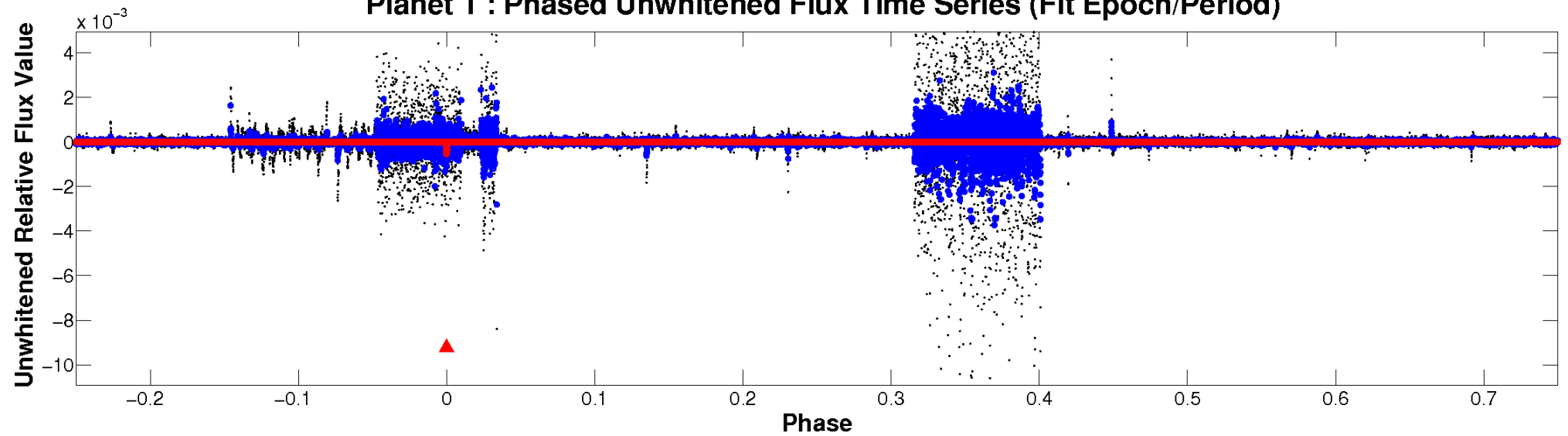
ALT Odd/Even

TCE 006853199-01

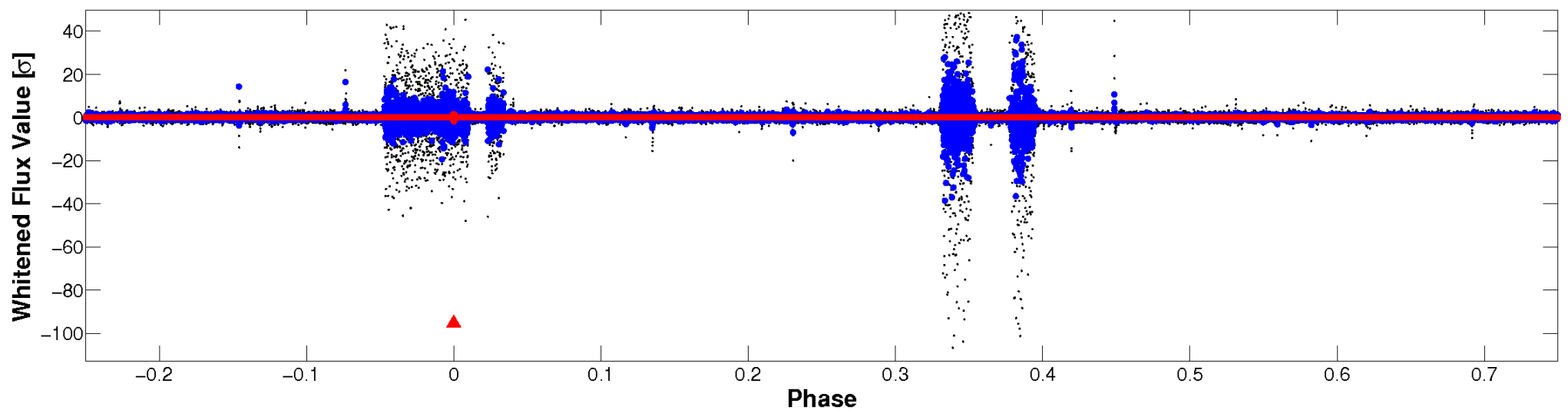


Non-Whitened Vs. Whitened Light Curve

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

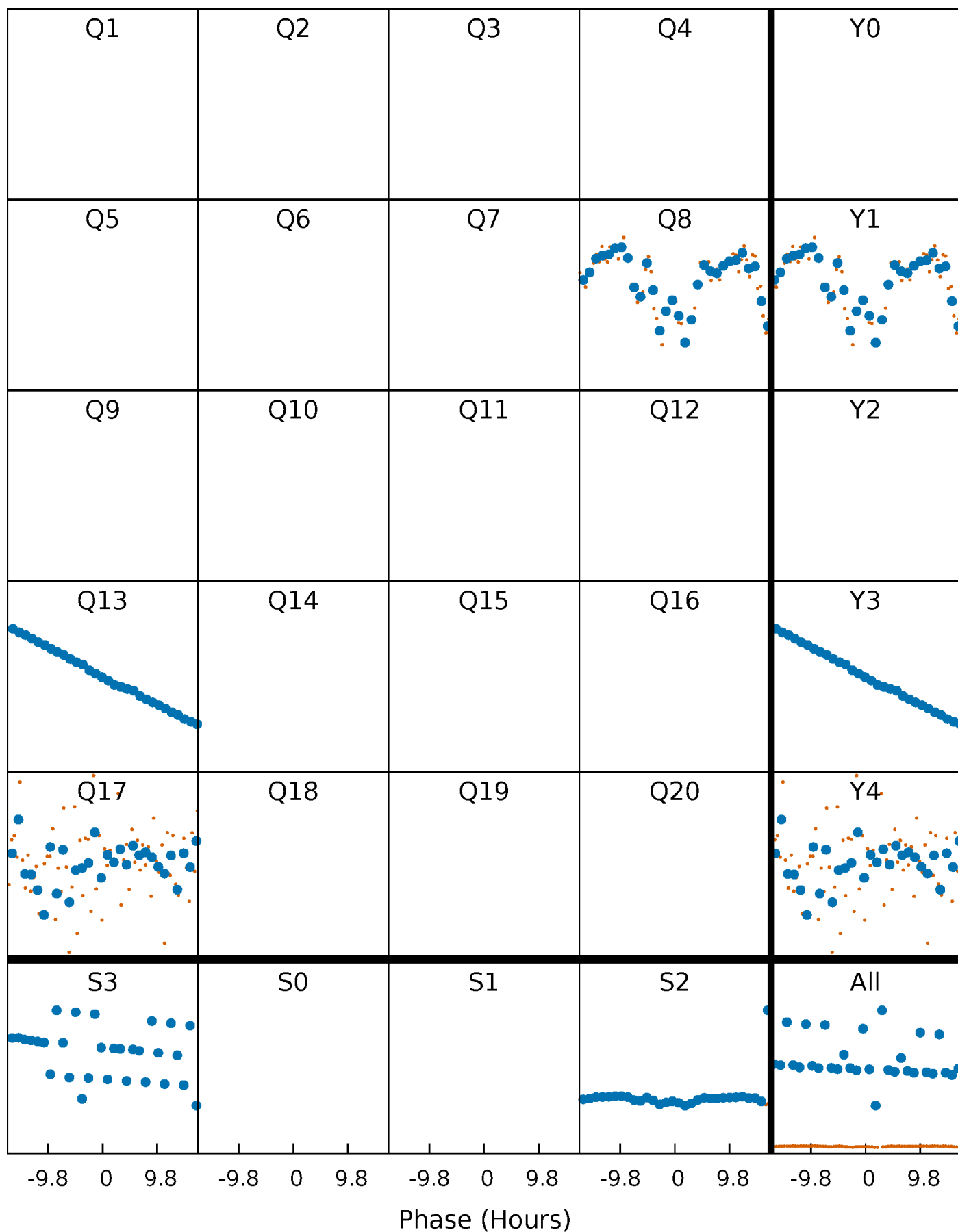


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



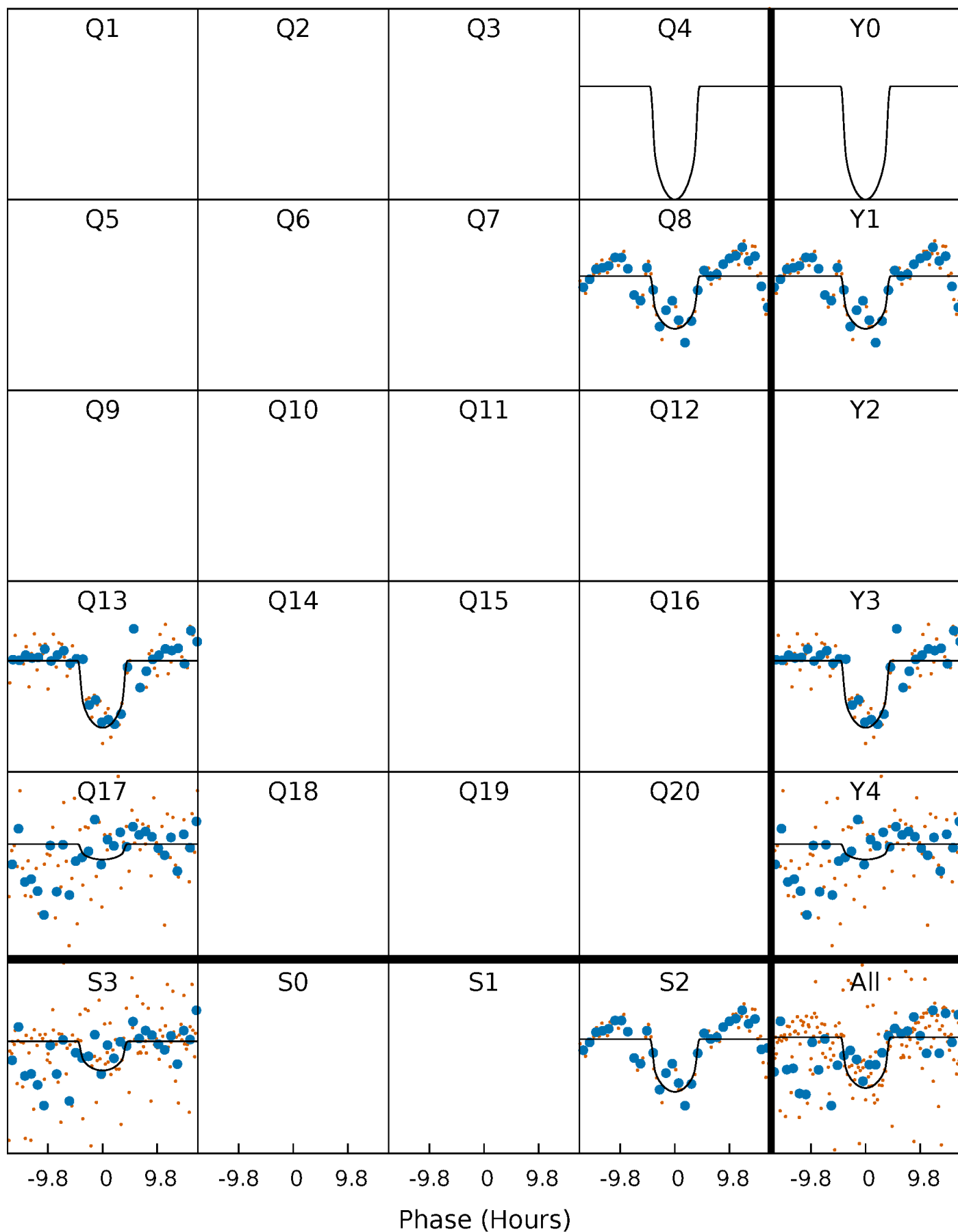
PDC Quarter-Phased Transit Curves

TCE 006853199-01 $P=392.536147$ Days $T_0=400.116025$ (BKJD)



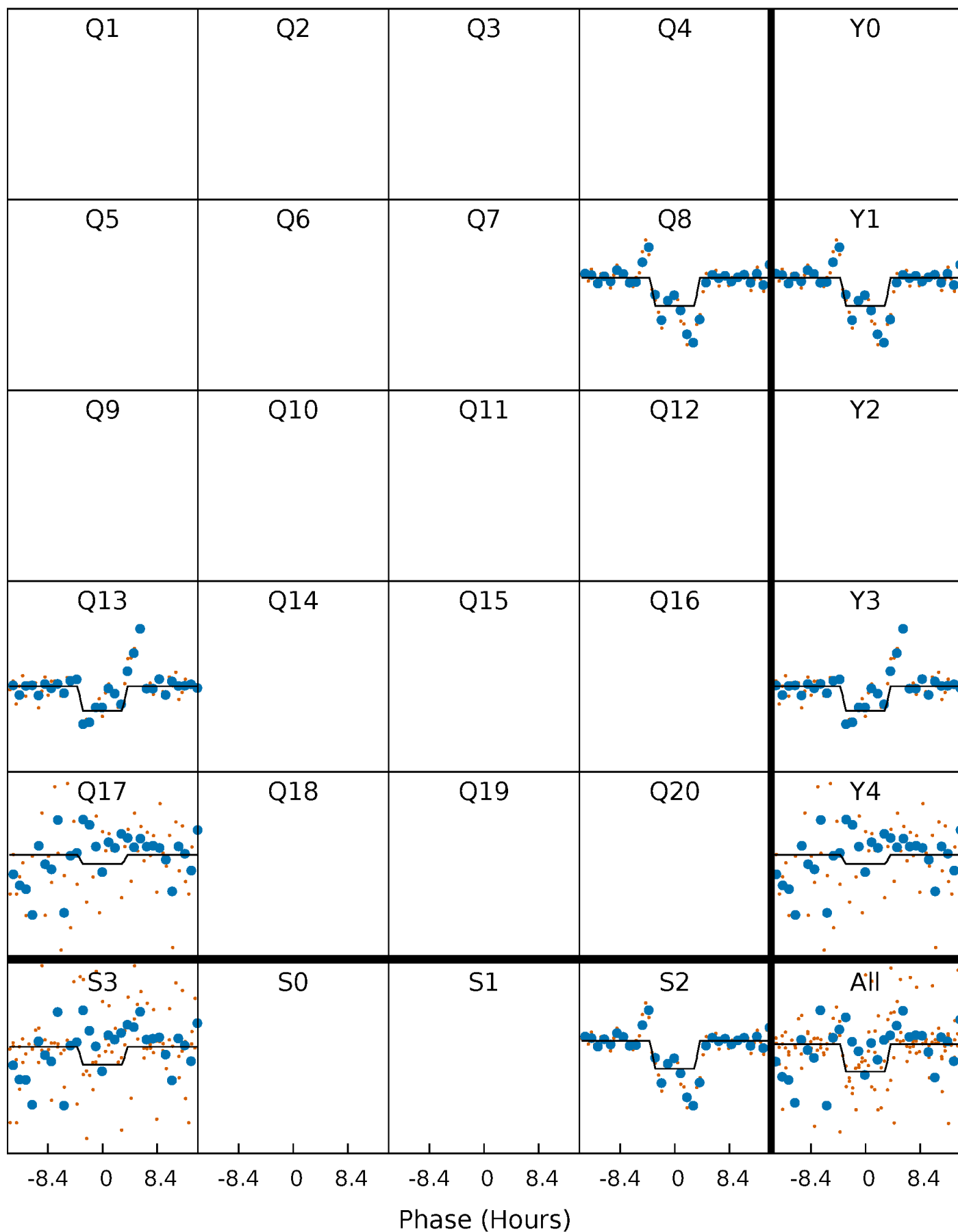
DV Quarter-Phased Transit Curves

TCE 006853199-01 P=392.536147 Days $T_0=400.116025$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

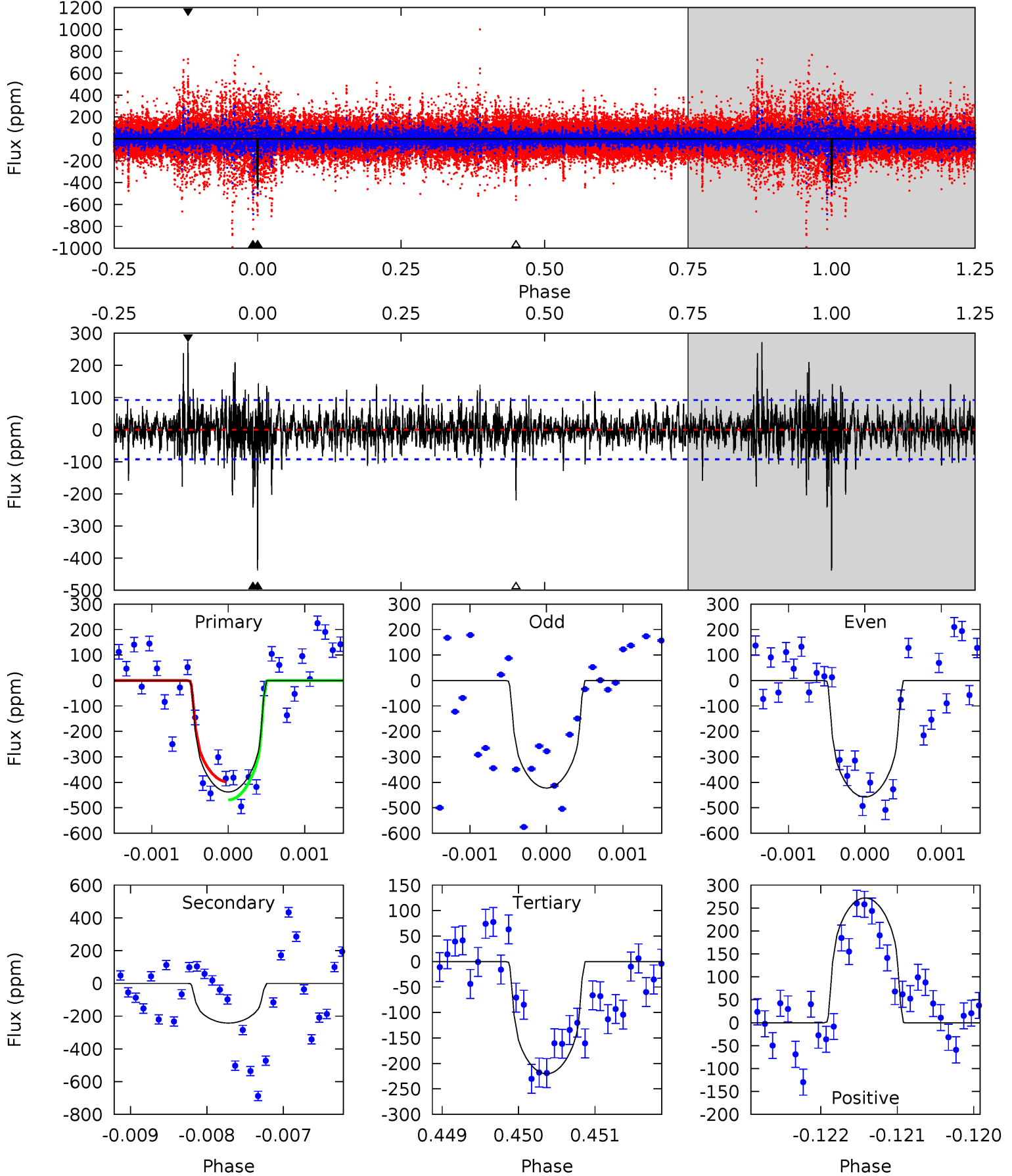
TCE 006853199-01 P=392.549121 Days $T_0=400.092020$ (BKJD)



DV Model-Shift Uniqueness Test

006853199-01, P = 392.536147 Days, E = 7.579878 Days

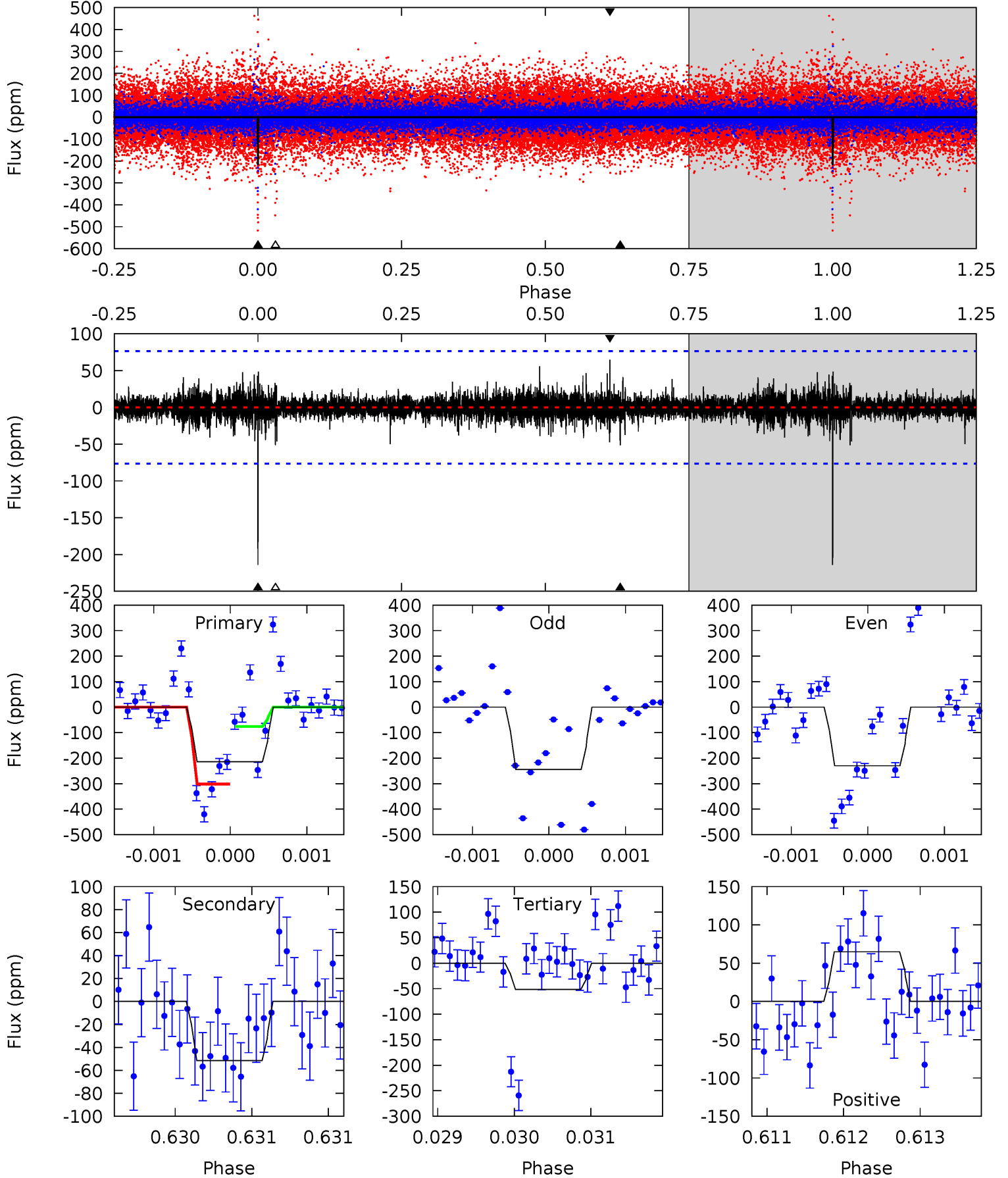
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.9	14.3	13.0	16.1	5.46	3.31	2.20	12.9	9.80	1.30	-1.76	0.57	0.71	0.38	0



Alt Model-Shift Uniqueness Test

006853199-01, P = 392.549121 Days, E = 7.542899 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.4	3.71	3.70	4.67	5.51	3.38	0.66	11.7	10.7	0.01	-0.96	0.32	0.28	0.23	8.01



Stellar Parameters For KIC 006853199

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	3499^{+119}_{-95}	$0.378^{+0.266}_{-0.143}$	$-0.260^{+0.300}_{-0.200}$	$104.606^{+28.543}_{-23.353}$	$0.954^{+0.359}_{-0.063}$	$0.000^{+0.000}_{-0.000}$
	+3%/-3%	+70%/-38%	+115%/-77%	+27%/-22%	+38%/-7%	+133%/-43%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 006853199-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-242 ± 17	$285.17^{+162.65}_{-142.81}$	2135^{+152}_{-150}	2937^{+766}_{-416}	$1.833^{+5.474}_{-1.074}$
Alt.	-52 ± 14	$198.79^{+137.14}_{-117.51}$	2143^{+158}_{-174}	2549^{+966}_{-4443}	$0.784^{+4.235}_{-0.518}$

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 $A_{obs} \gg 1.0$

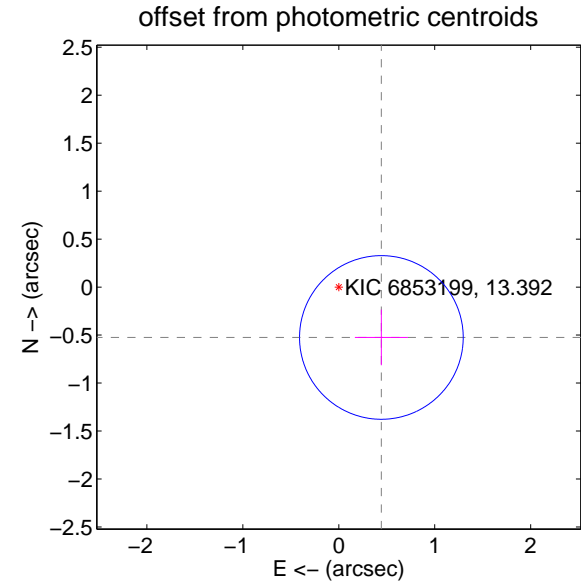
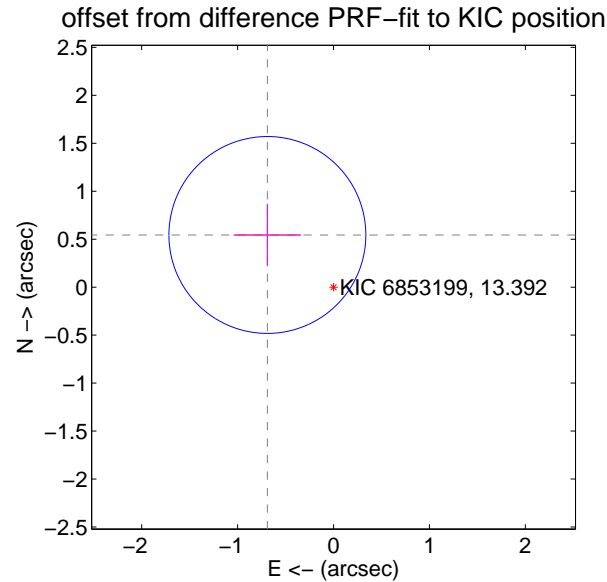
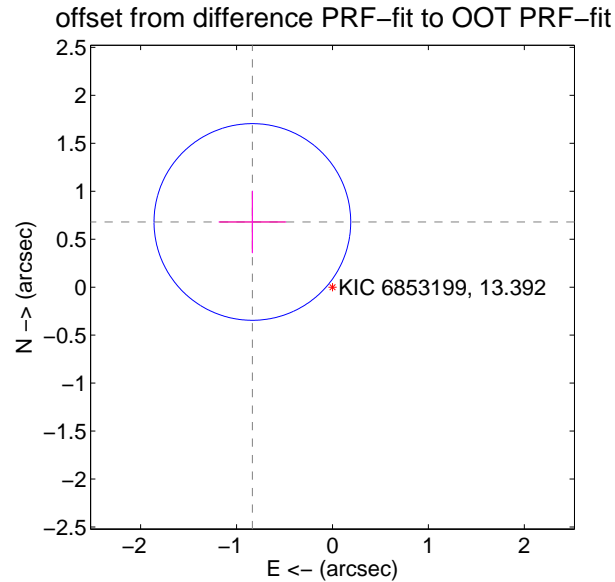
DV Centroid Data

Supplemental centroid analysis for 006853199-01. Kepler magnitude: 13.39. Transit SNR 10.72

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.077 ± 0.342	3.15	0.835 ± 0.352	0.680 ± 0.325
PRF-fit source offset from KIC position	0.878 ± 0.342	2.57	0.689 ± 0.352	0.544 ± 0.325
photometric centroid source offset	0.69 ± 0.28	2.42	-0.44 ± 0.28	-0.52 ± 0.29

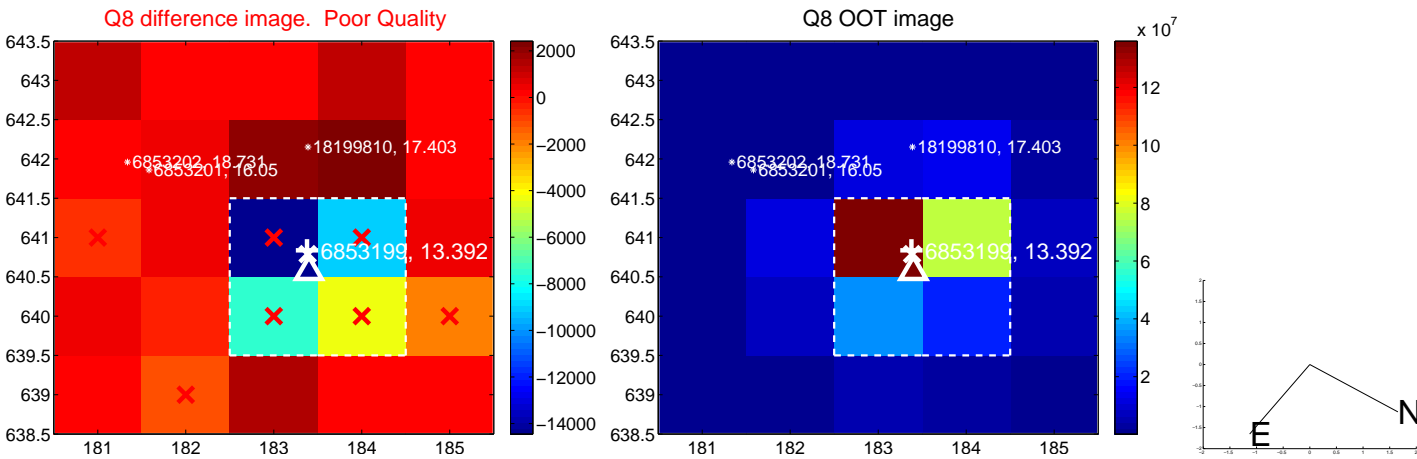


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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.



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



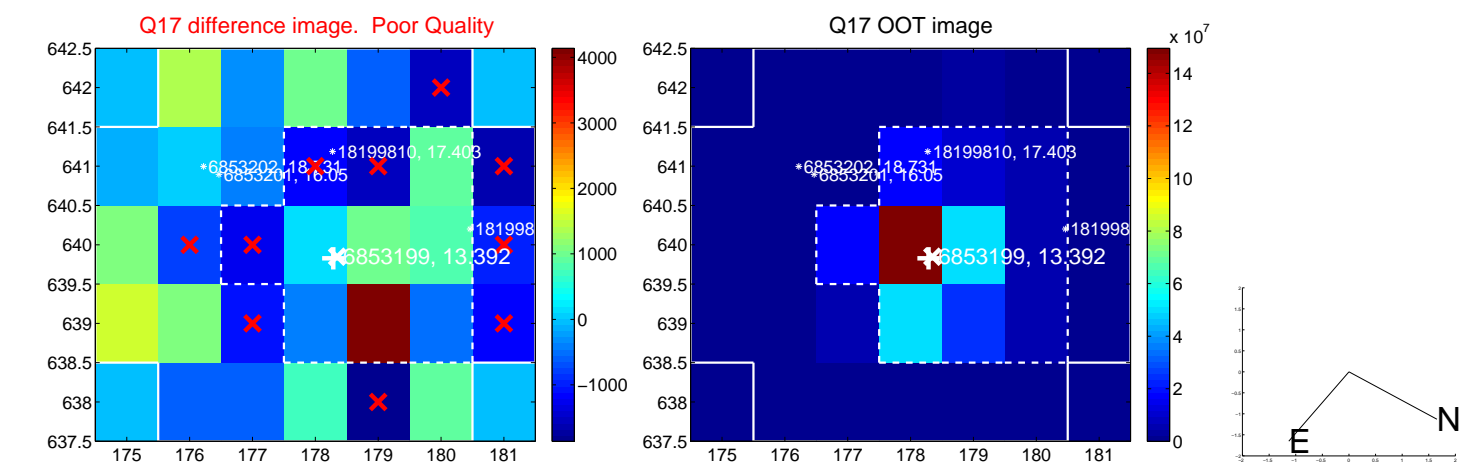
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



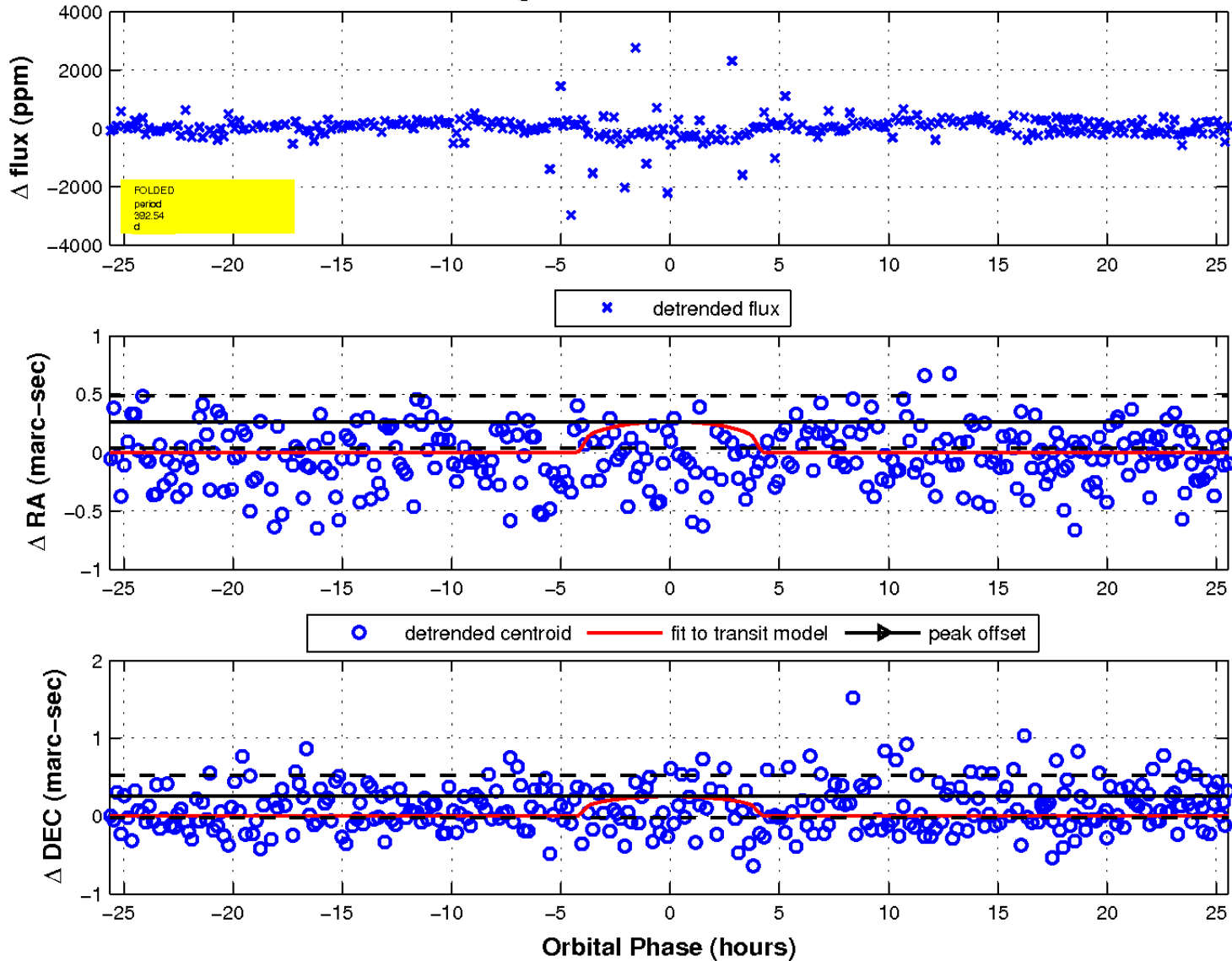
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

