

KIC 011547869

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})
011547869-01	OBS	3749.01	10.727373	132.894790	56127.4	1.733	159.0	180.2	0.27	3324	9.23	2.10

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011547869-01	OBS	FP	0.00	0	1	0	0	DEEP_V_SHAPED—CENT_FEW_DIFFS

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.

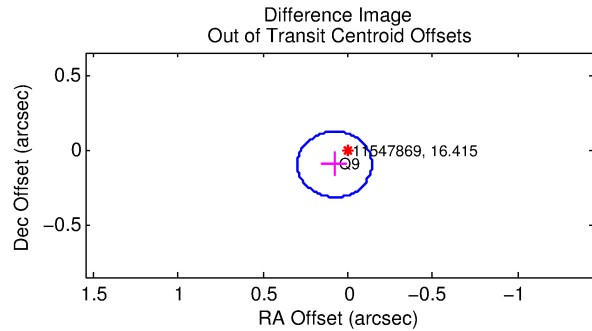
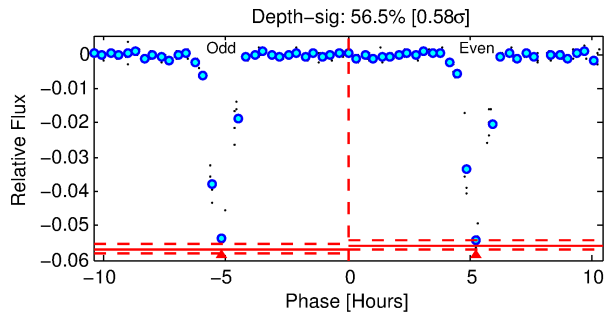
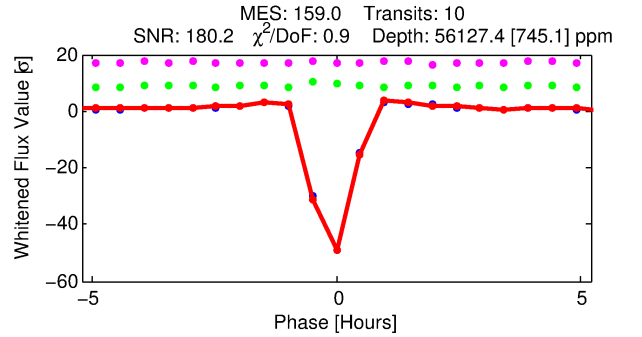
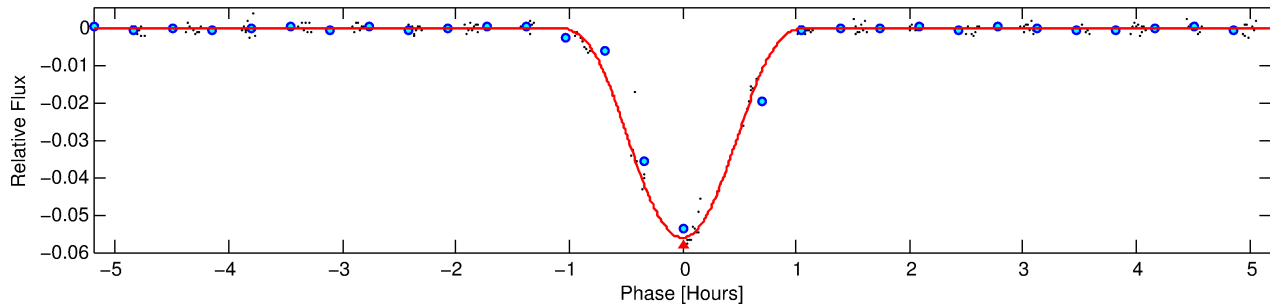
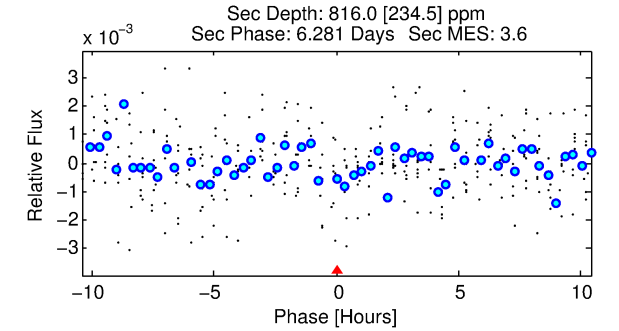
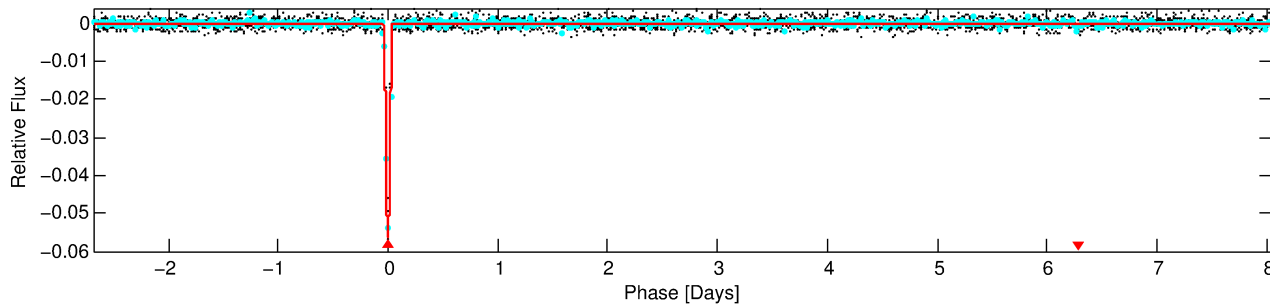
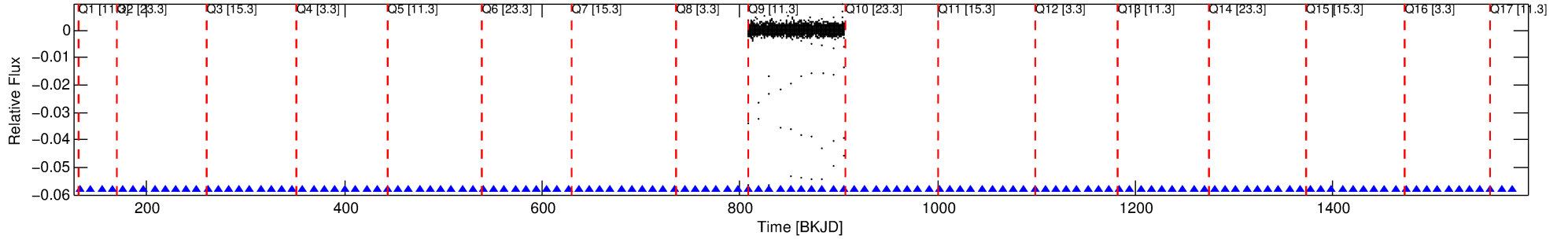
Ephemeris Match Information For 011547869-01

No Significant Match Found

DV One-Page Summary

KIC: 11547869 Candidate: 1 of 1 Period: 10.727 d
KOI: K03749.01 Corr: 0.967

Kp: 16.42 R*: 0.27 Rs Teff: 3324.0 K Logg: 5.01 Fe/H: 0.080



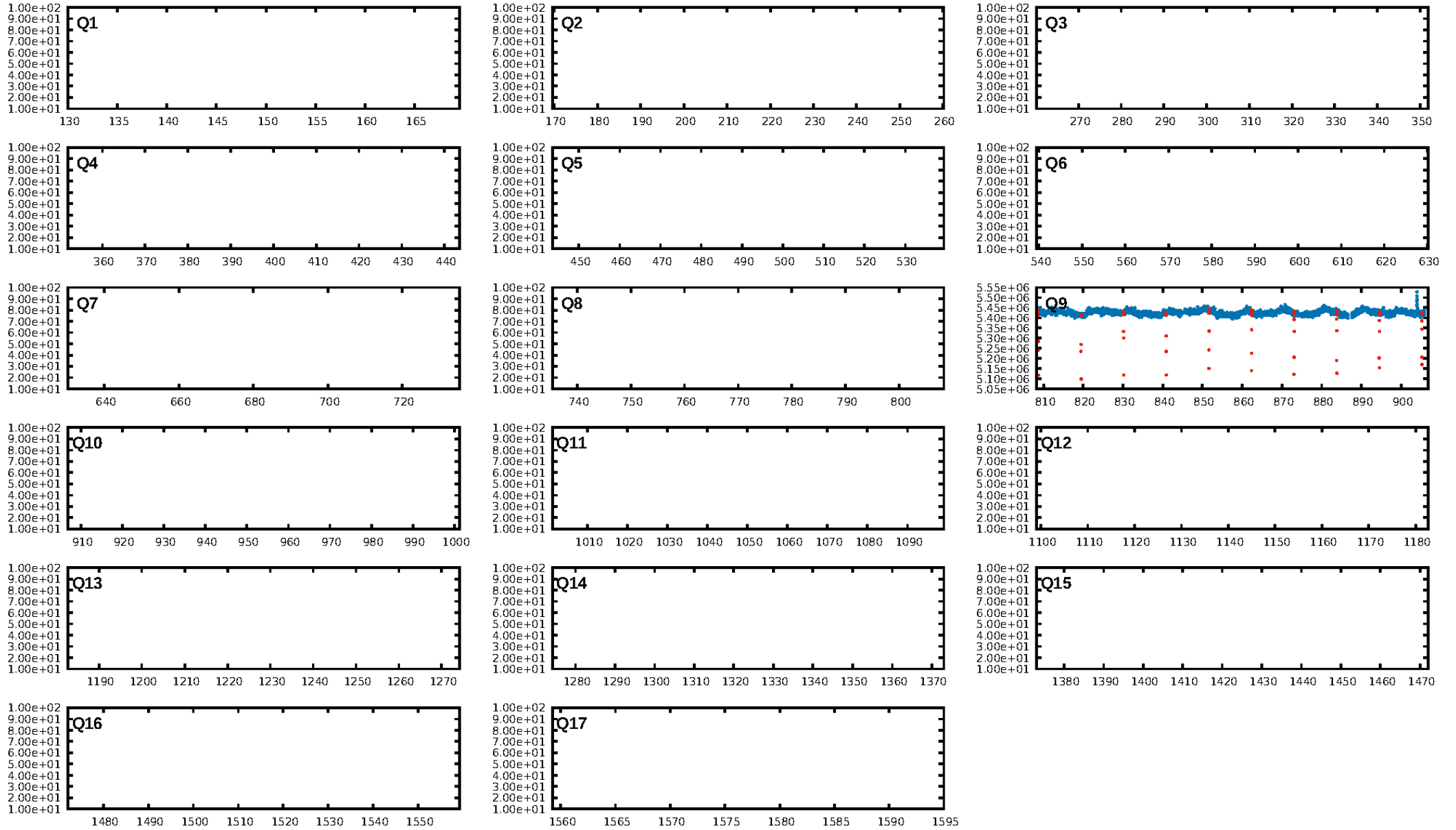
DV Fit Results:

Period = 10.72737 [0.00003] d
Epoch = 132.8948 [0.0022] BKJD
Rp/R* = 0.3158 [0.1759]
a/R* = 45.29 [2.21]
b = 0.90 [0.28]
Seff = 2.10 [0.46]
Teq = 307 [17] K
Rp = 9.23 [5.58] Re
a = 0.0612 [0.0104] AU
Ag = 19.72 [23.04] [0.81σ]
Teffp = 1000 [288] K [2.40σ]

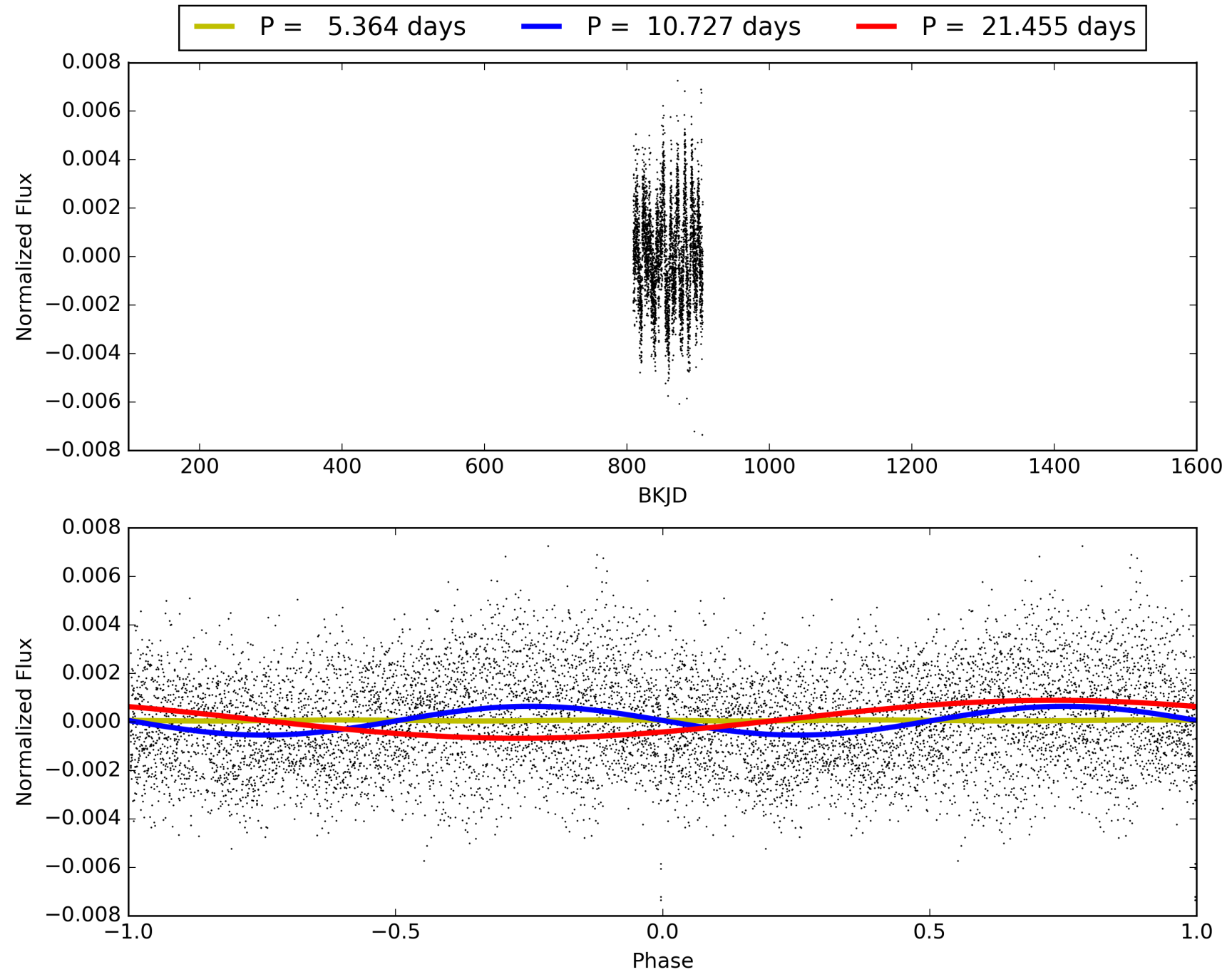
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 19.5%
ModelChiSquareGof-sig: 85.2%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [10/10]
GhostDiagnostic-chr: 2.194
Centroid-sig: 0.0%
Centroid-so: 0.235 arcsec [3.02σ]
OotOffset-rm: 0.126 arcsec [1.73σ]
OotOffset-st: 0/0/0/1 [1]
KicOffset-rm: 0.221 arcsec [3.07σ]
KicOffset-st: 0/0/0/1 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [1/1]

TCE 011547869-01, PDC Light Curves

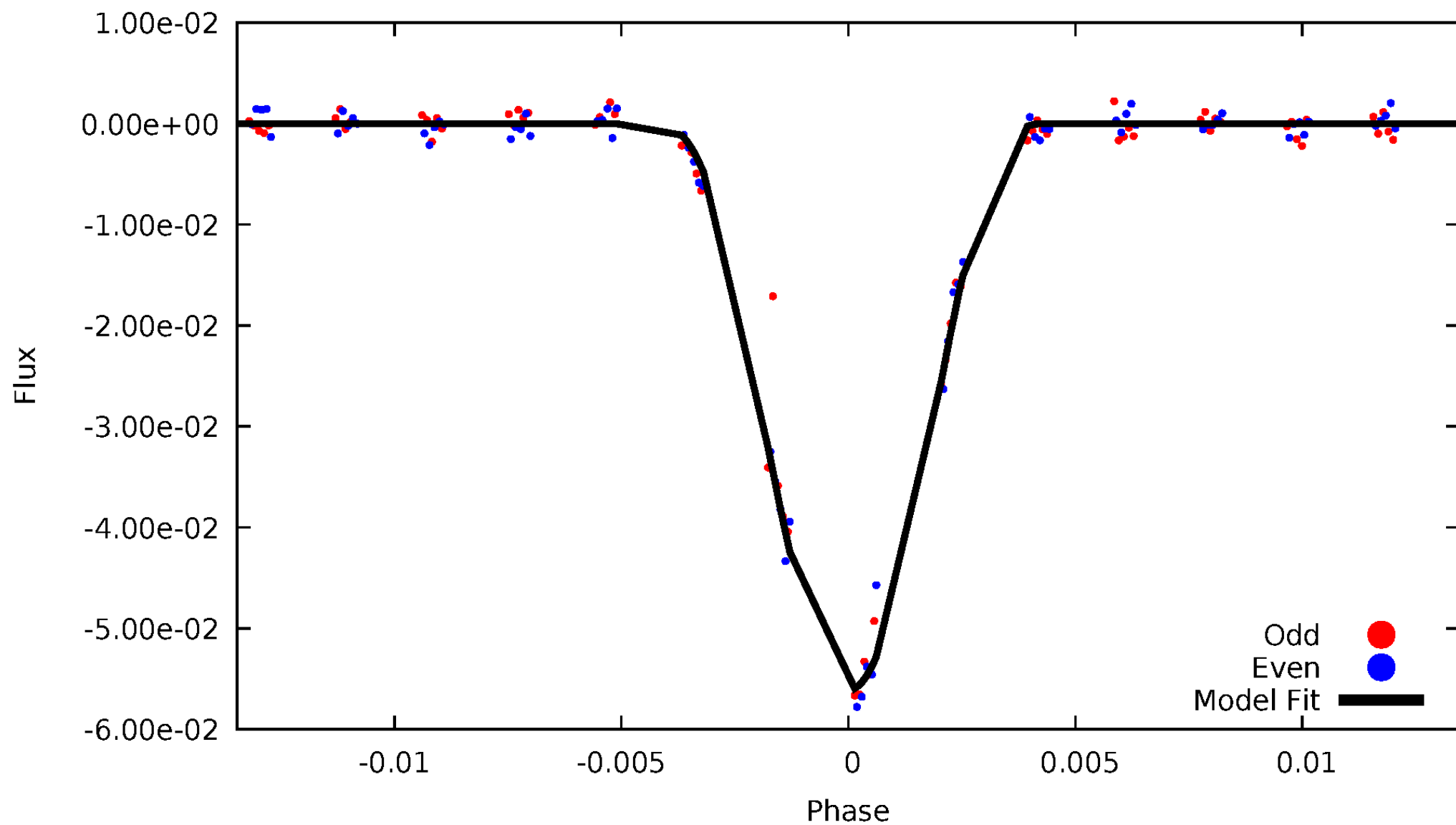


TCE 011547869-01



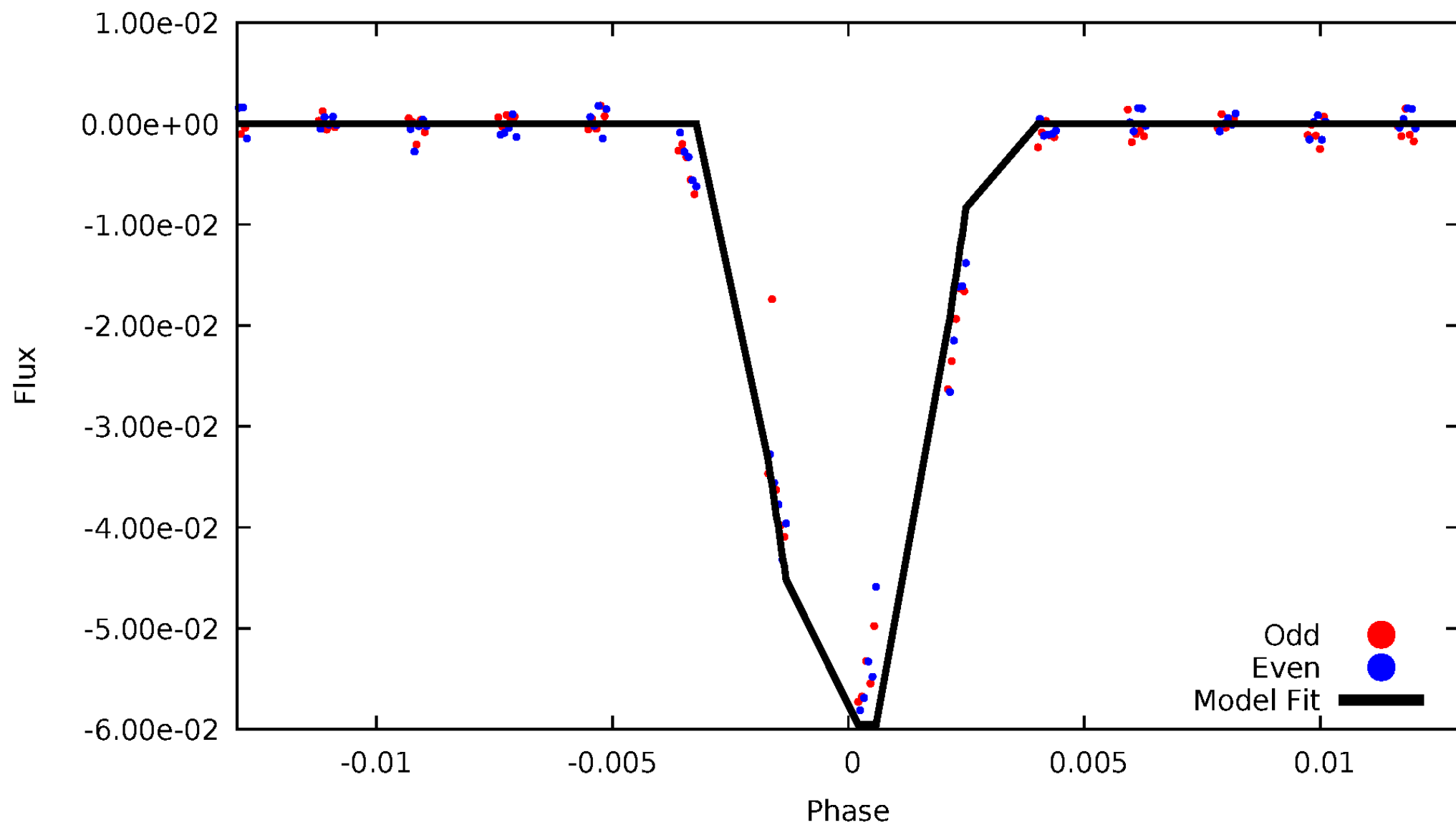
DV Odd/Even

TCE 011547869-01



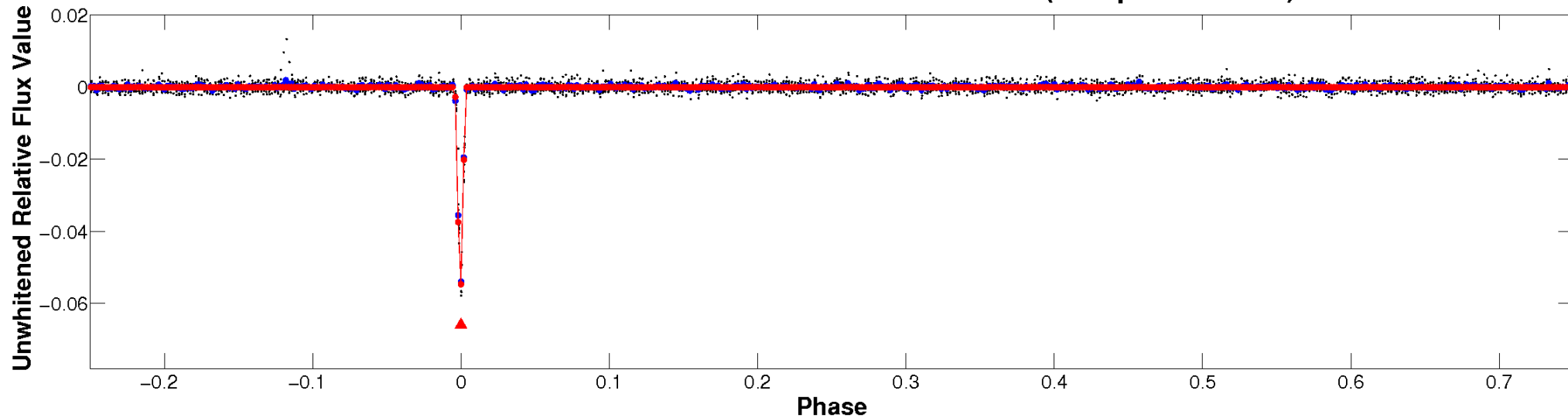
ALT Odd/Even

TCE 011547869-01

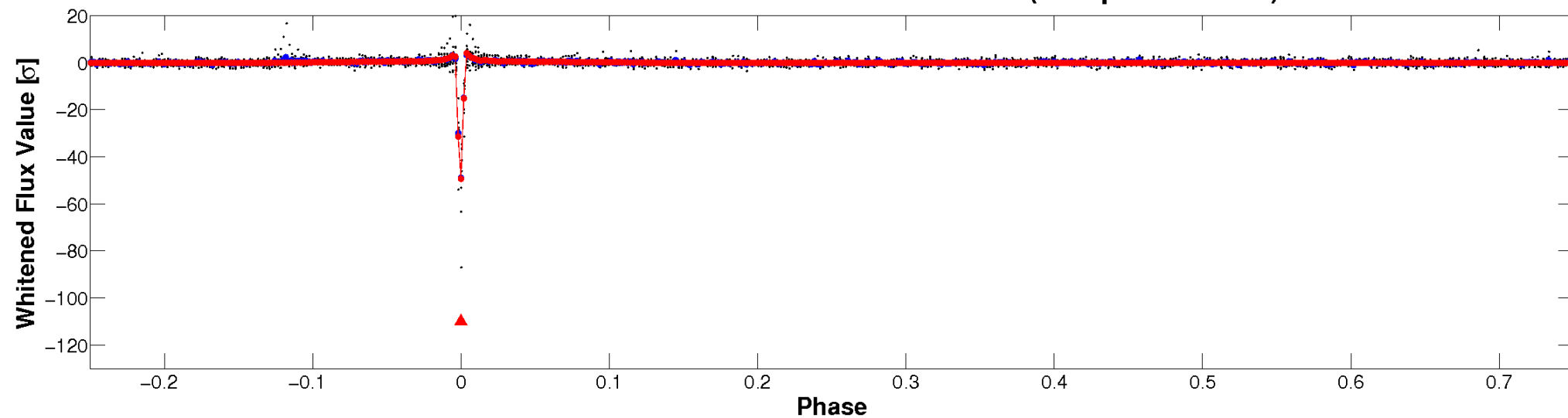


Non-Whitened Vs. Whitened Light Curve

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

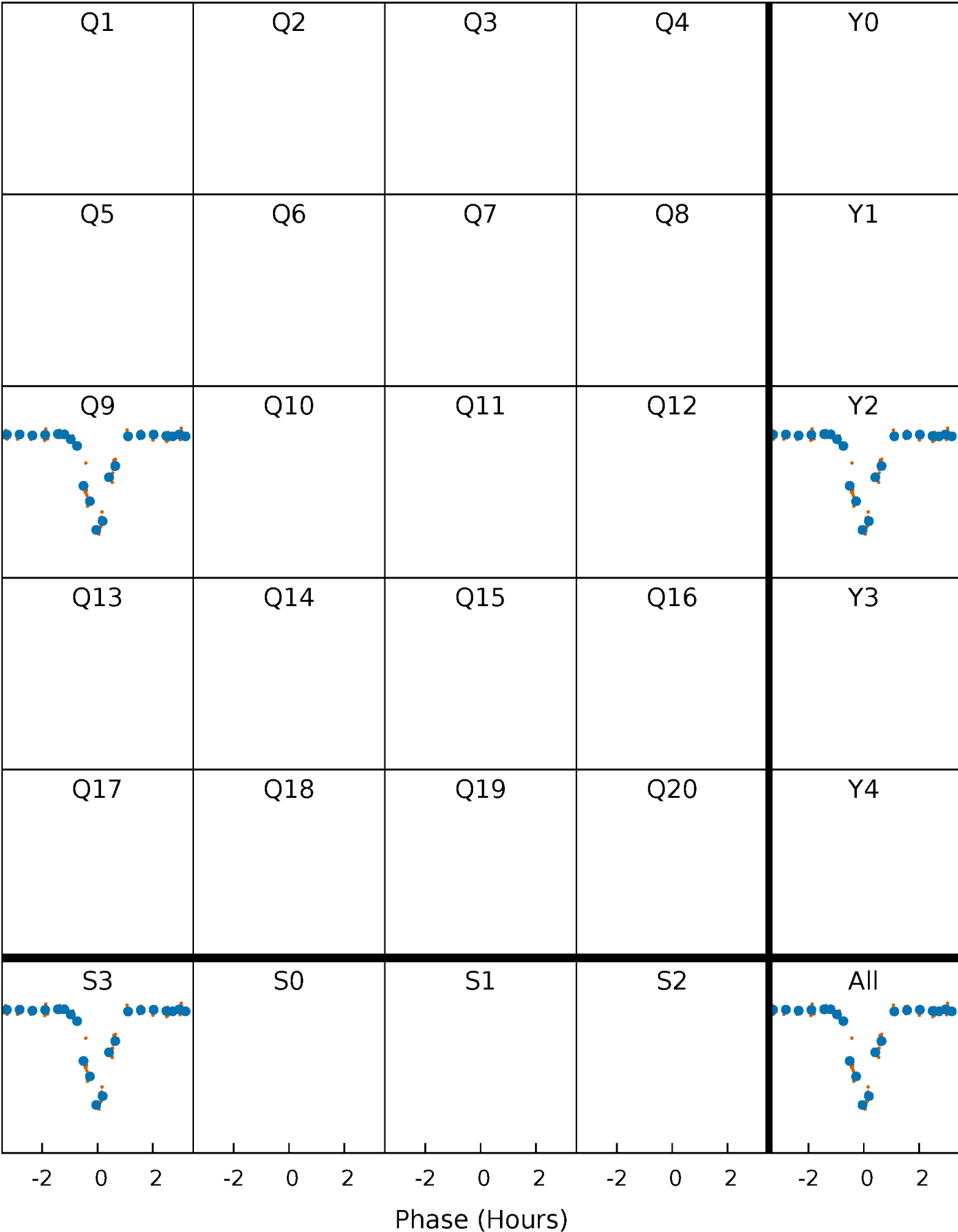


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



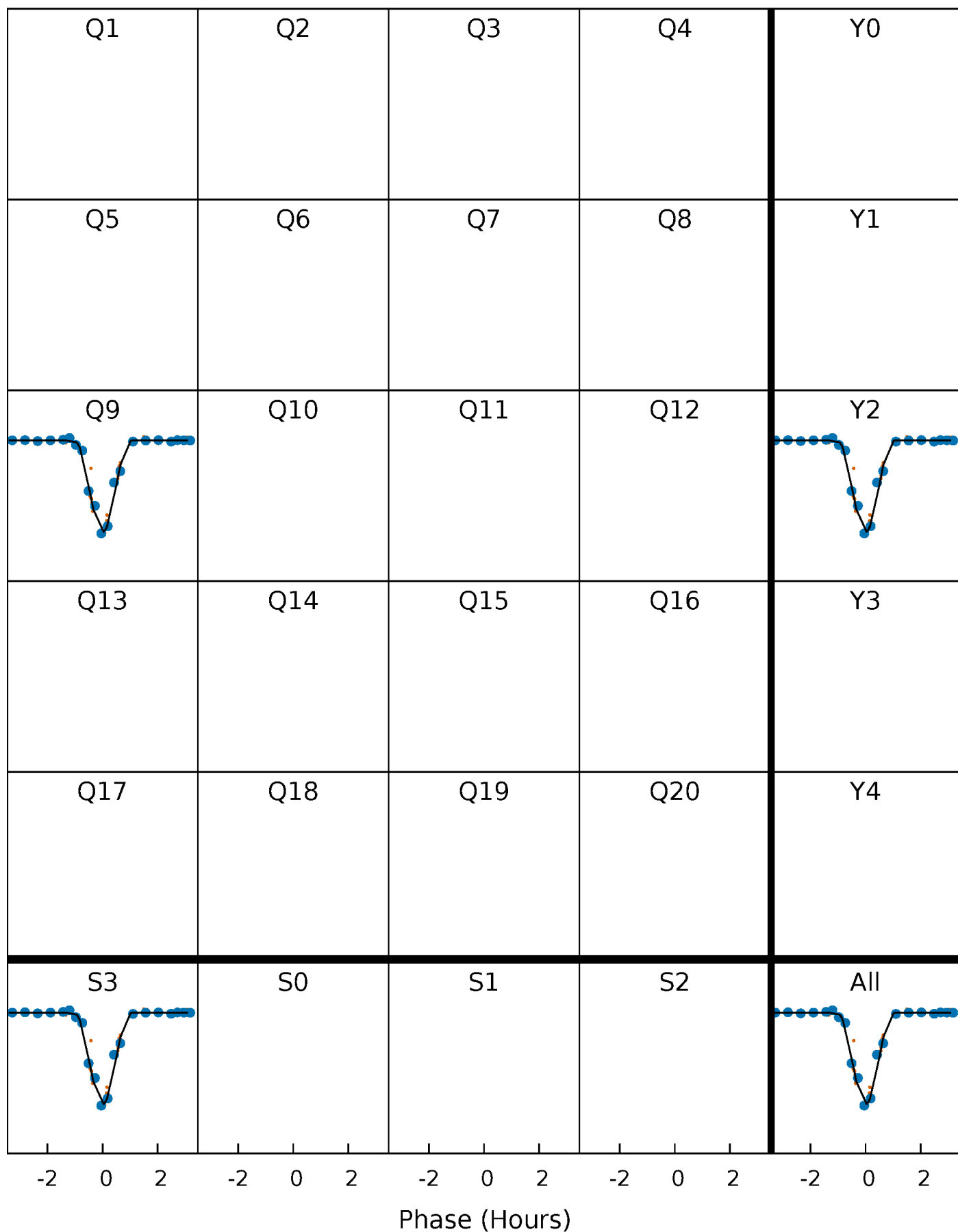
PDC Quarter-Phased Transit Curves

TCE 011547869-01 P= 10.727373 Days $T_0=132.894790$ (BKJD)



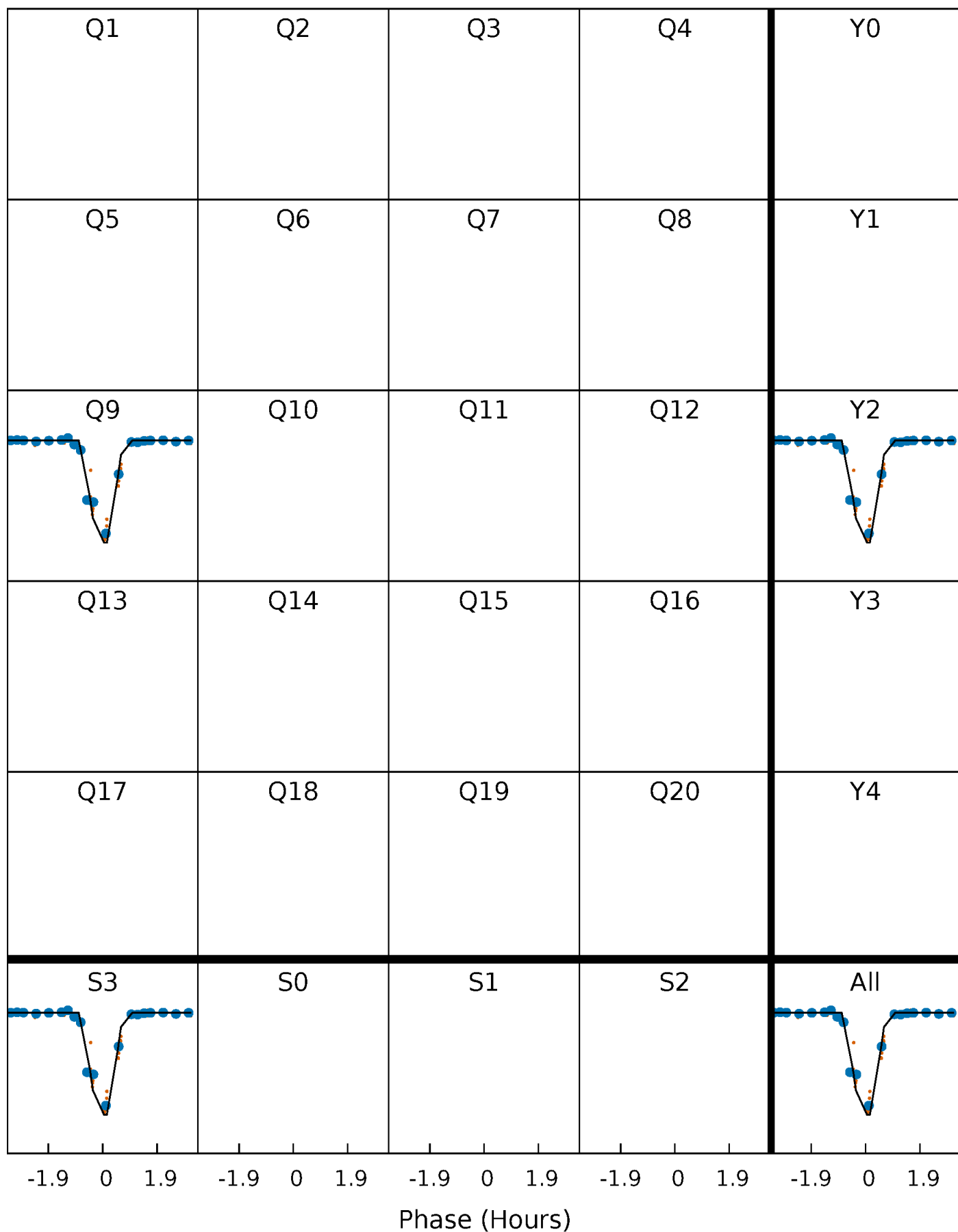
DV Quarter-Phased Transit Curves

TCE 011547869-01 P= 10.727373 Days $T_0=132.894790$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

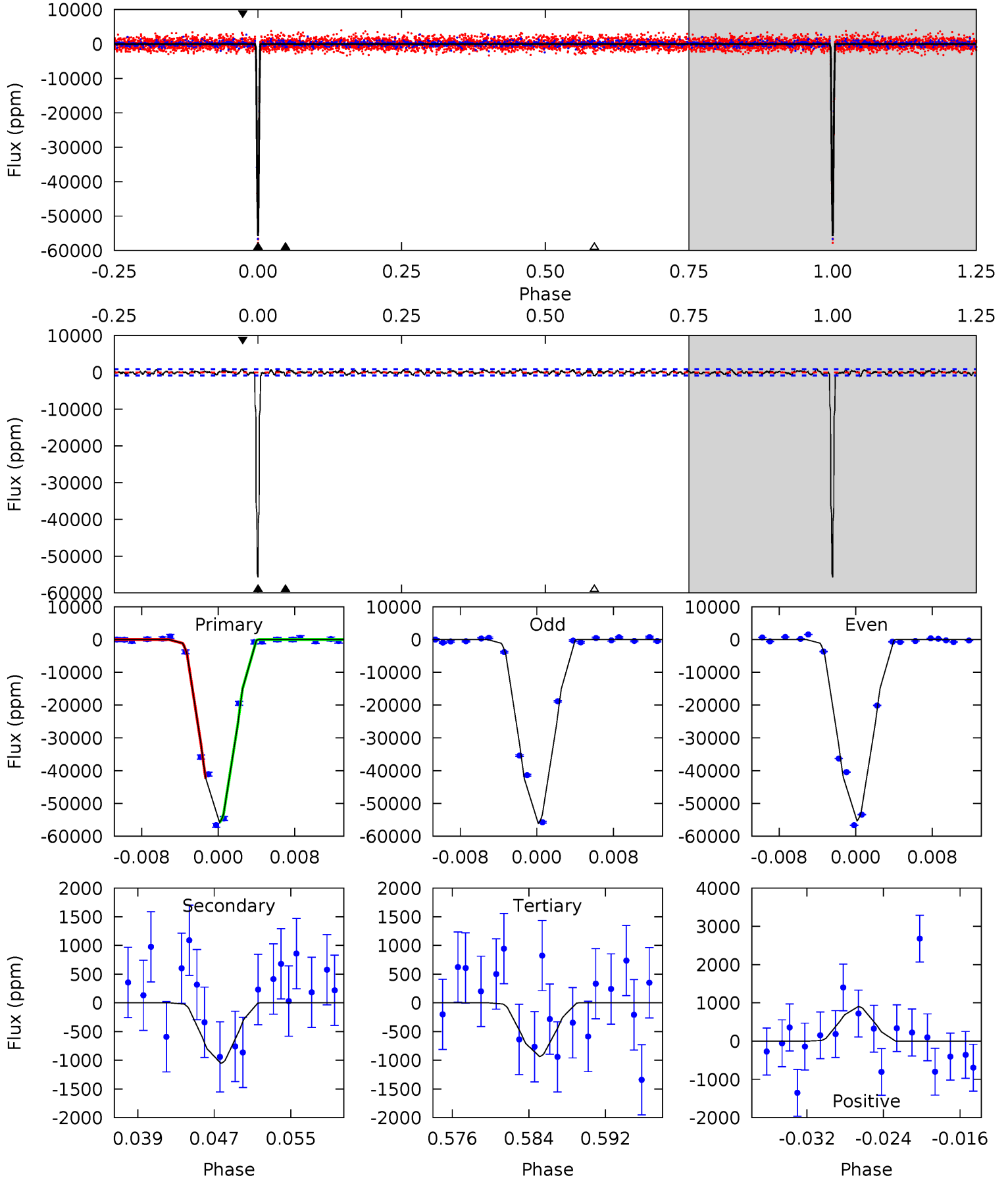
TCE 011547869-01 $P = 10.727494$ Days $T_0 = 132.886436$ (BKJD)



DV Model-Shift Uniqueness Test

011547869-01, P = 10.727373 Days, E = 132.894790 Days

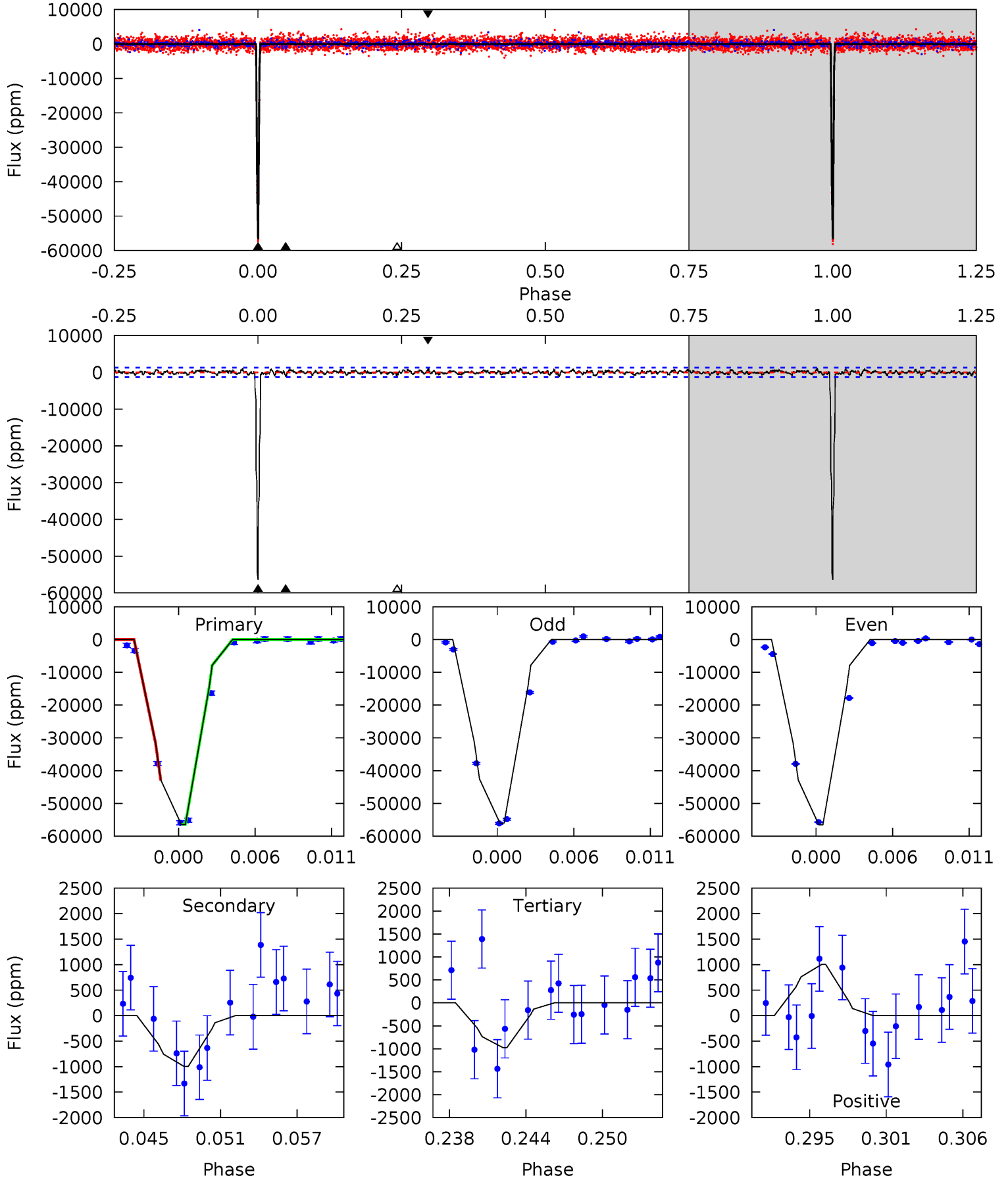
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
333.0	6.29	5.58	5.40	5.07	2.66	1.80	327.4	327.6	0.71	0.89	2.36	0.99	0.02	39.3



Alt Model-Shift Uniqueness Test

011547869-01, P = 10.727494 Days, E = 132.886436 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
225.8	3.99	3.90	4.02	5.13	2.77	3.13	221.9	221.8	0.10	-0.02	0.94	0.99	0.02	26.0



Stellar Parameters For KIC 011547869

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3324^{+66}_{-73}	$5.006^{+0.075}_{-0.083}$	$0.080^{+0.150}_{-0.150}$	$0.268^{+0.063}_{-0.056}$	$0.267^{+0.072}_{-0.064}$	$19.620^{+9.738}_{-6.508}$
	+2%/-2%	+1%/-2%	+188%/-188%	+24%/-21%	+27%/-24%	+50%/-33%
Source	SPE70	PHO2	SPE70	DSEP		

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

Secondary Eclipse Parameters for KIC 011547869-01 / KOI 3749.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1054 ± 167	$9.57^{+5.39}_{-4.92}$	430^{+19}_{-17}	1901^{+302}_{-152}	24^{+69}_{-14}
Alt.	-998 ± 250	$7.98^{+5.71}_{-4.72}$	430^{+19}_{-17}	1960^{+392}_{-201}	31^{+151}_{-20}

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

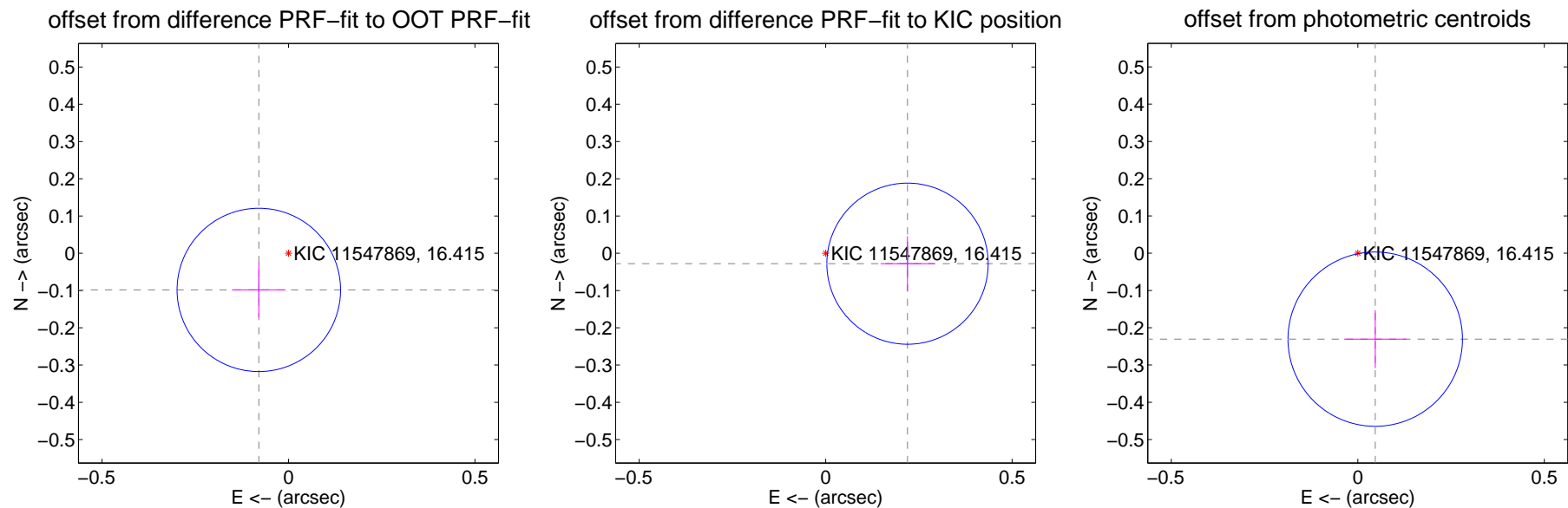
DV Centroid Data

Supplemental centroid analysis for 011547869-01. Kepler magnitude: 16.41. Transit SNR 180.22

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.31 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.126 ± 0.073	1.73	0.080 ± 0.072	-0.098 ± 0.074
PRF-fit source offset from KIC position	0.221 ± 0.072	3.07	-0.219 ± 0.072	-0.028 ± 0.074
photometric centroid source offset	0.24 ± 0.08	3.02	-0.05 ± 0.08	-0.23 ± 0.08



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.

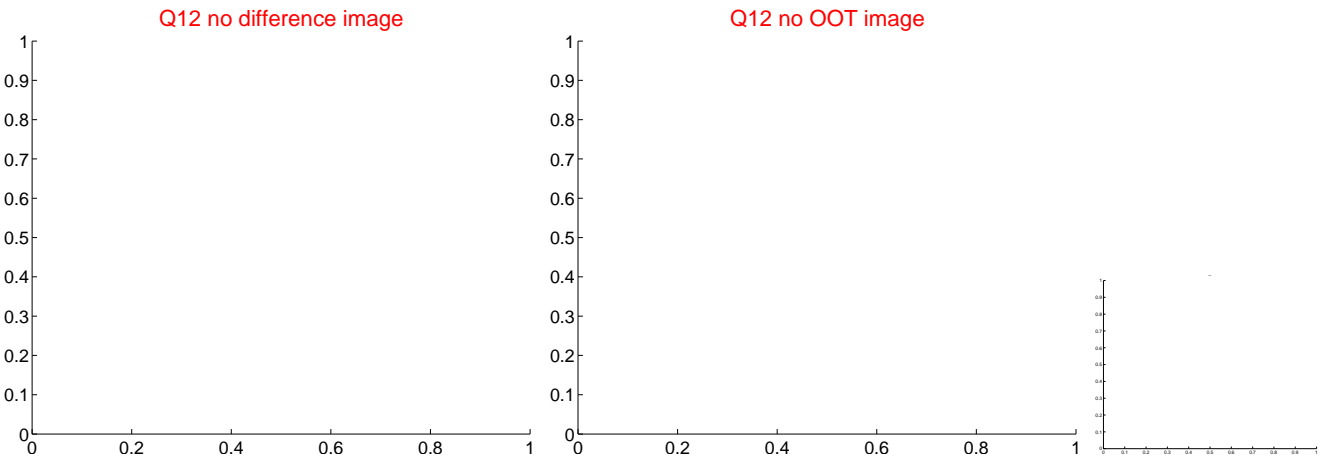
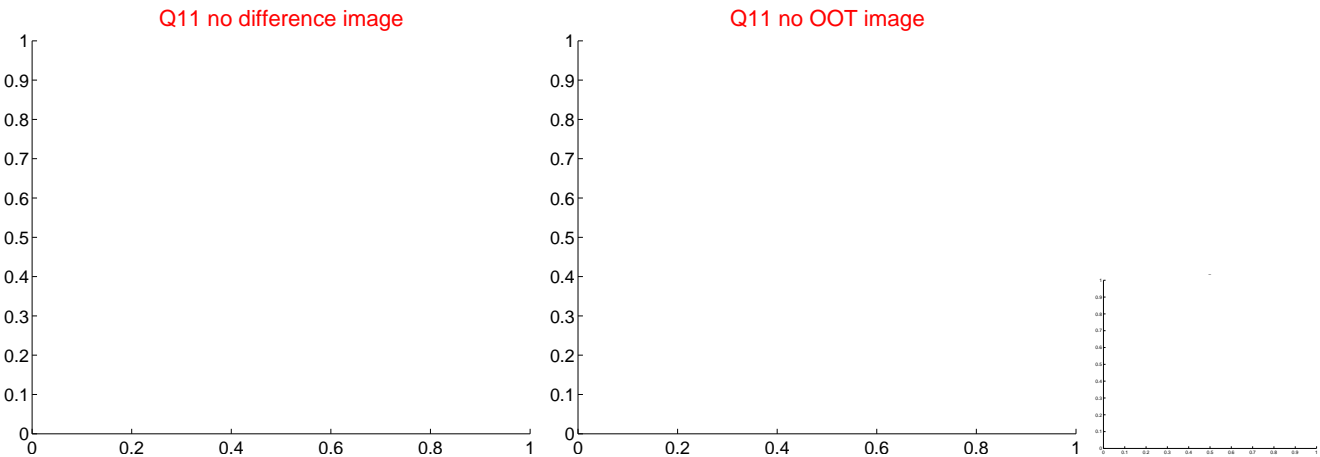
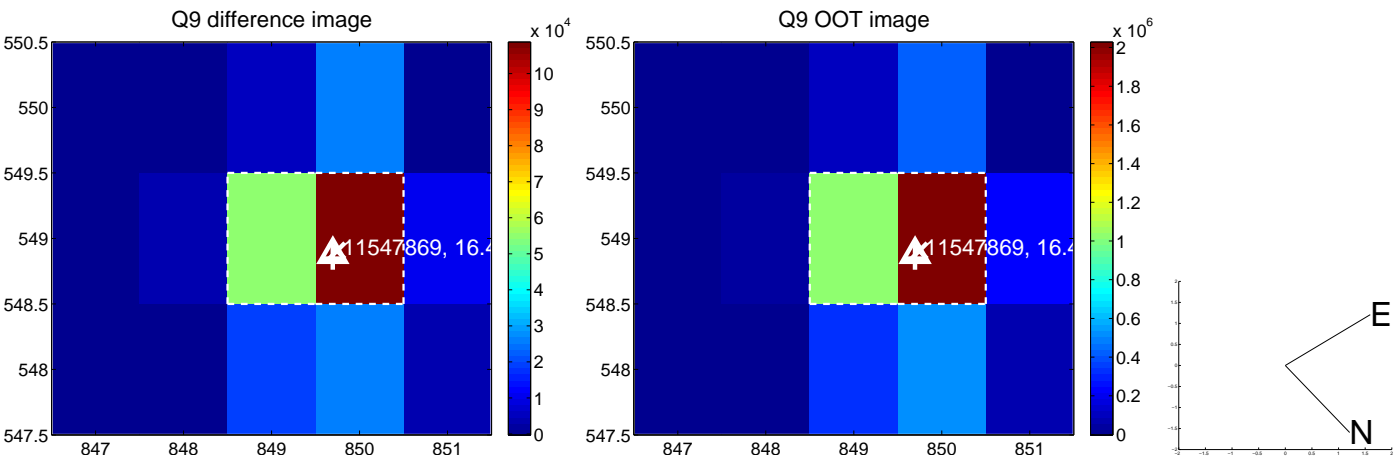
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



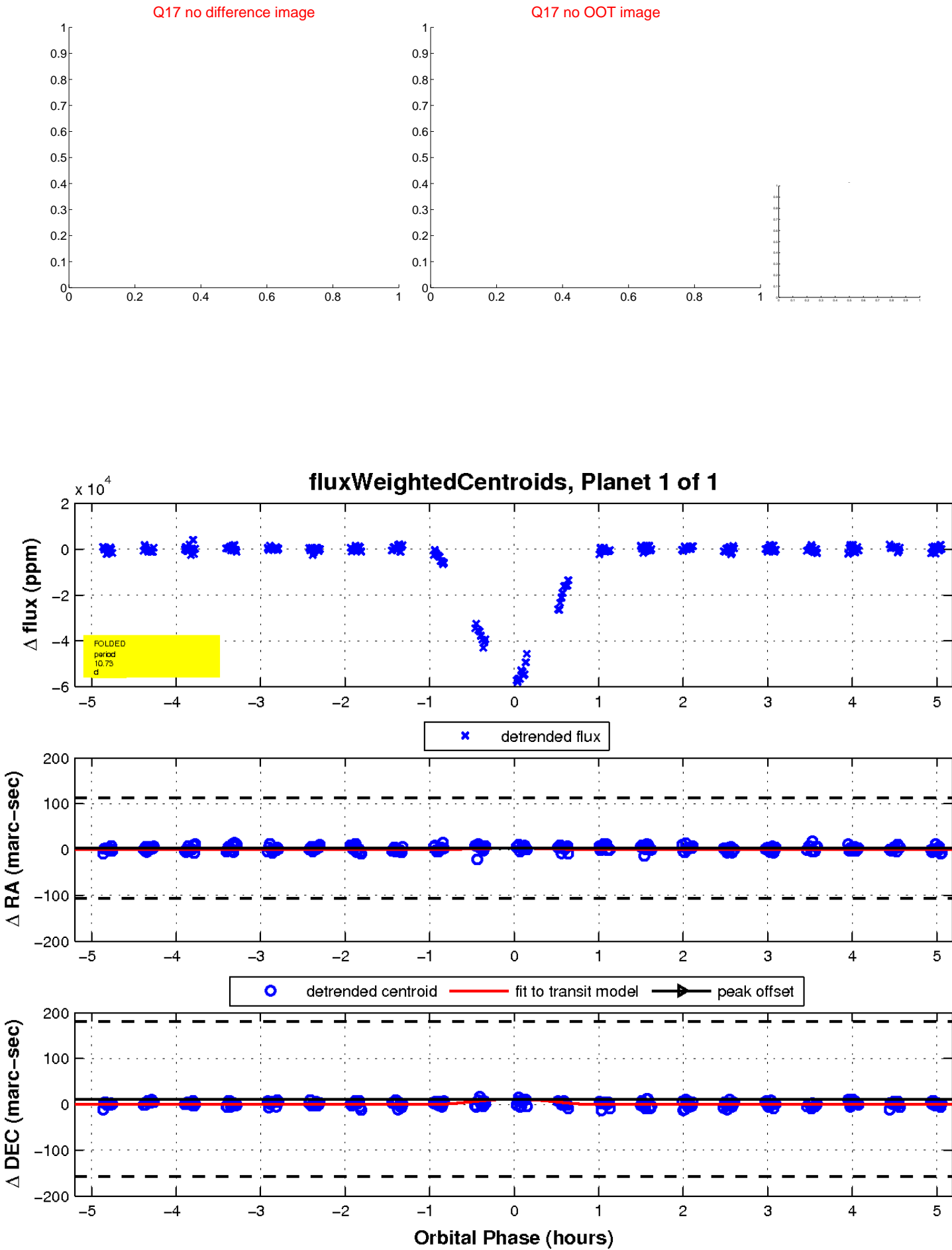
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

