

KIC 011918793

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})
011918793-01	OBS	8069.01	38.356170	167.630850	2513.1	3.791	10.9	8.7	1.00	5979	6.25	22.77

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011918793-01	OBS	FP	0.05	1	0	0	0	INDIV_TRANS_SKYE—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.

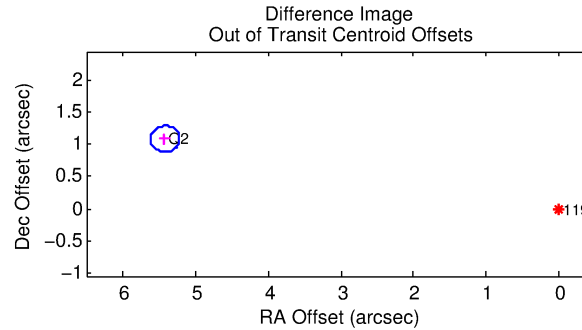
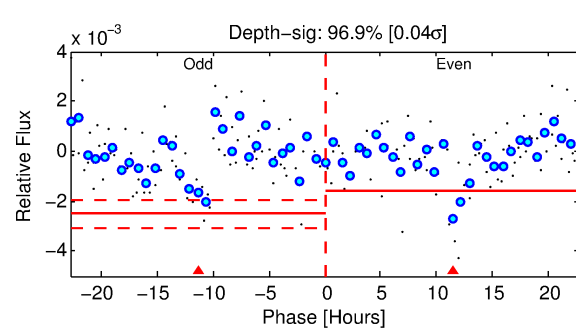
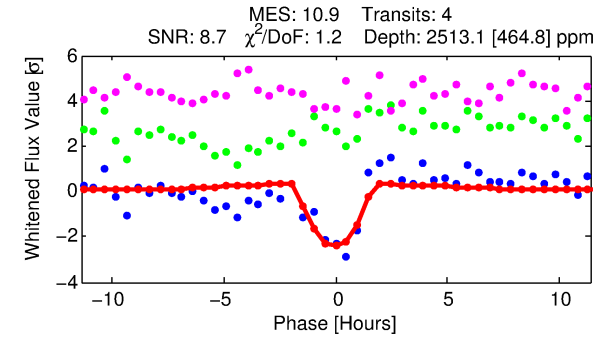
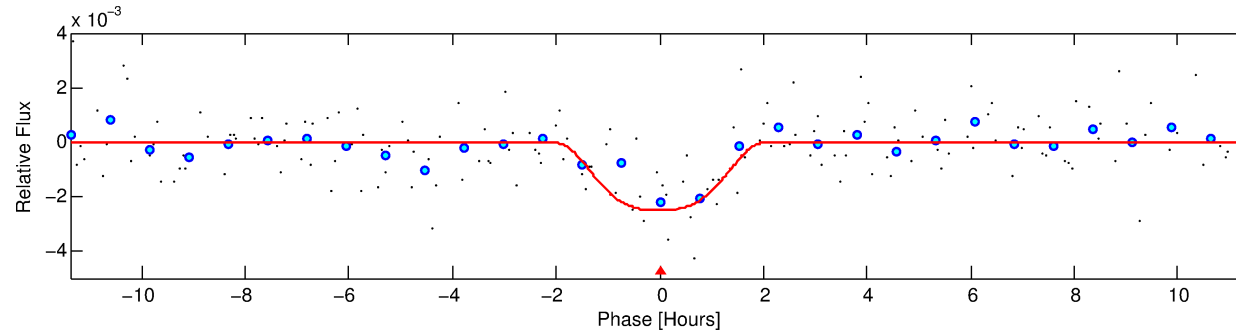
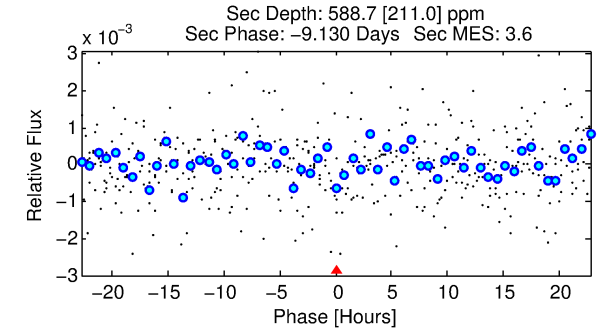
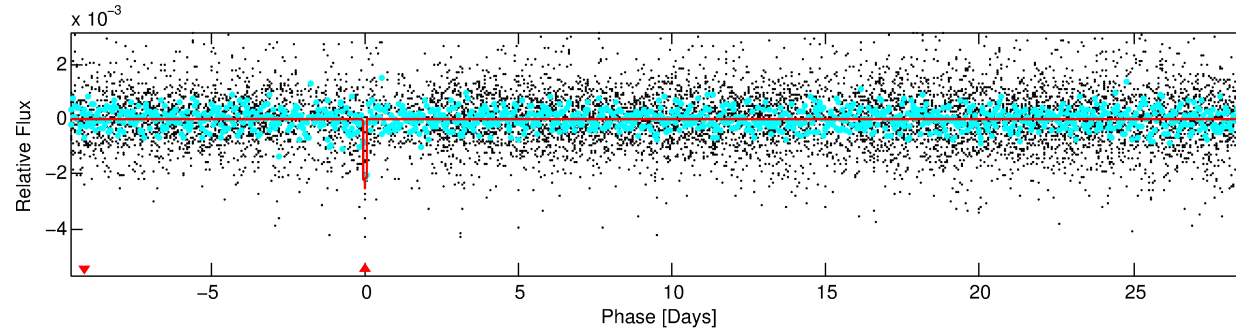
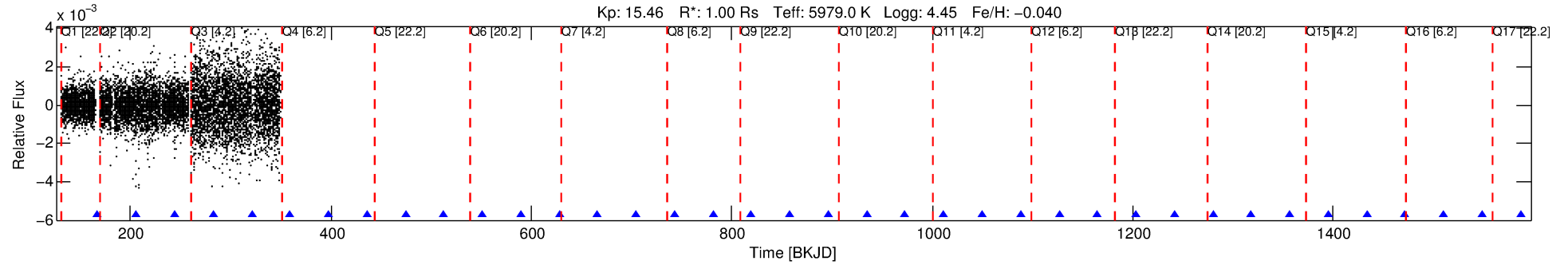
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011918793-01

No Significant Match Found

DV One-Page Summary

KIC: 11918793 Candidate: 1 of 1 Period: 38.356 d



DV Fit Results:

Period = 38.35617 [0.00498] d
Epoch = 167.6308 [0.0128] BKJD
Rp/R* = 0.0570 [0.0086]
a/R* = 37.96 [10.70]
b = 0.94 [0.05]
Seff = 22.77 [9.41]
Teq = 557 [58] K
Rp = 6.25 [2.15] Re
a = 0.2251 [0.0590] AU
Ag = 420.20 [253.91] [1.65σ]
Teff = 3899 [480] K [6.91σ]

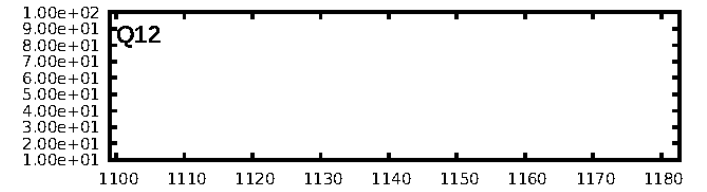
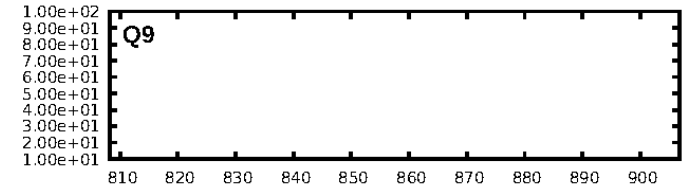
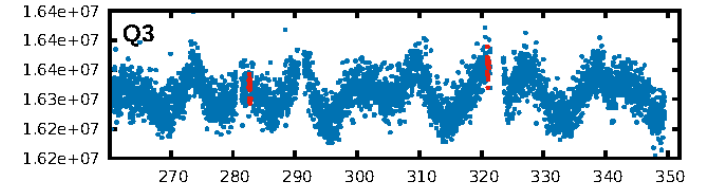
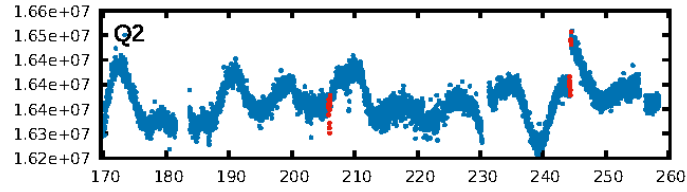
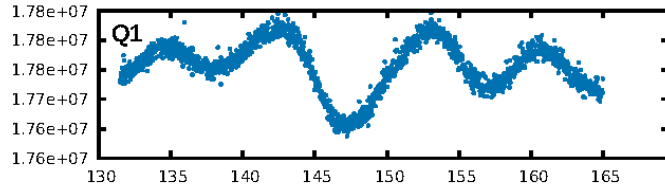
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.1%
ModelChiSquareGoF-sig: 84.6%
Bootstrap-pfa: 3.02e-25
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 1.081
Centroid-sig: 0.0%
Centroid-so: 14.777 arcsec [16.46σ]
OotOffset-rm: 5.528 arcsec [82.87σ]
KicOffset-rm: 7.174 arcsec [2.27σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/1/0/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [2/2]

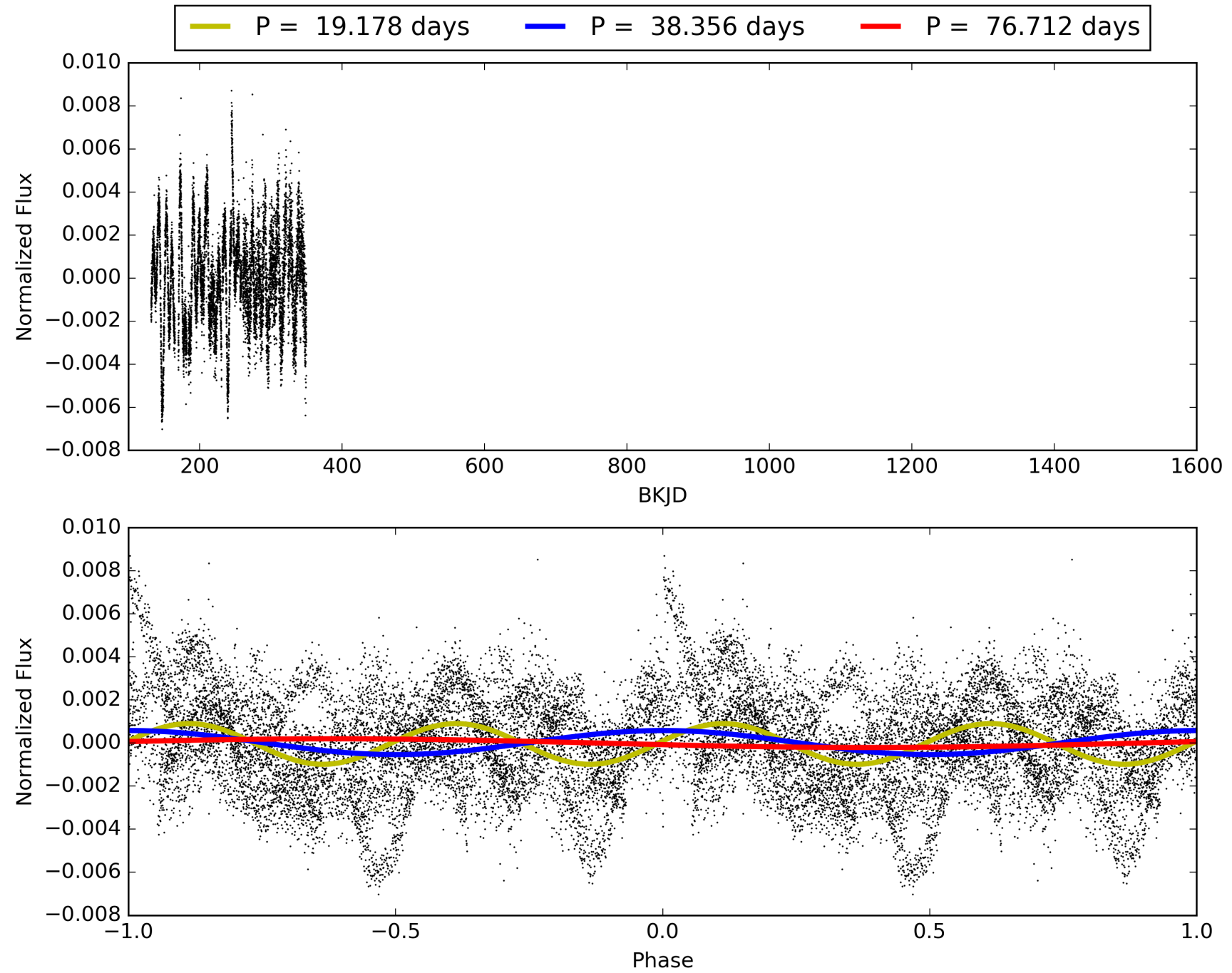
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:58:08 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 011918793-01, PDC Light Curves

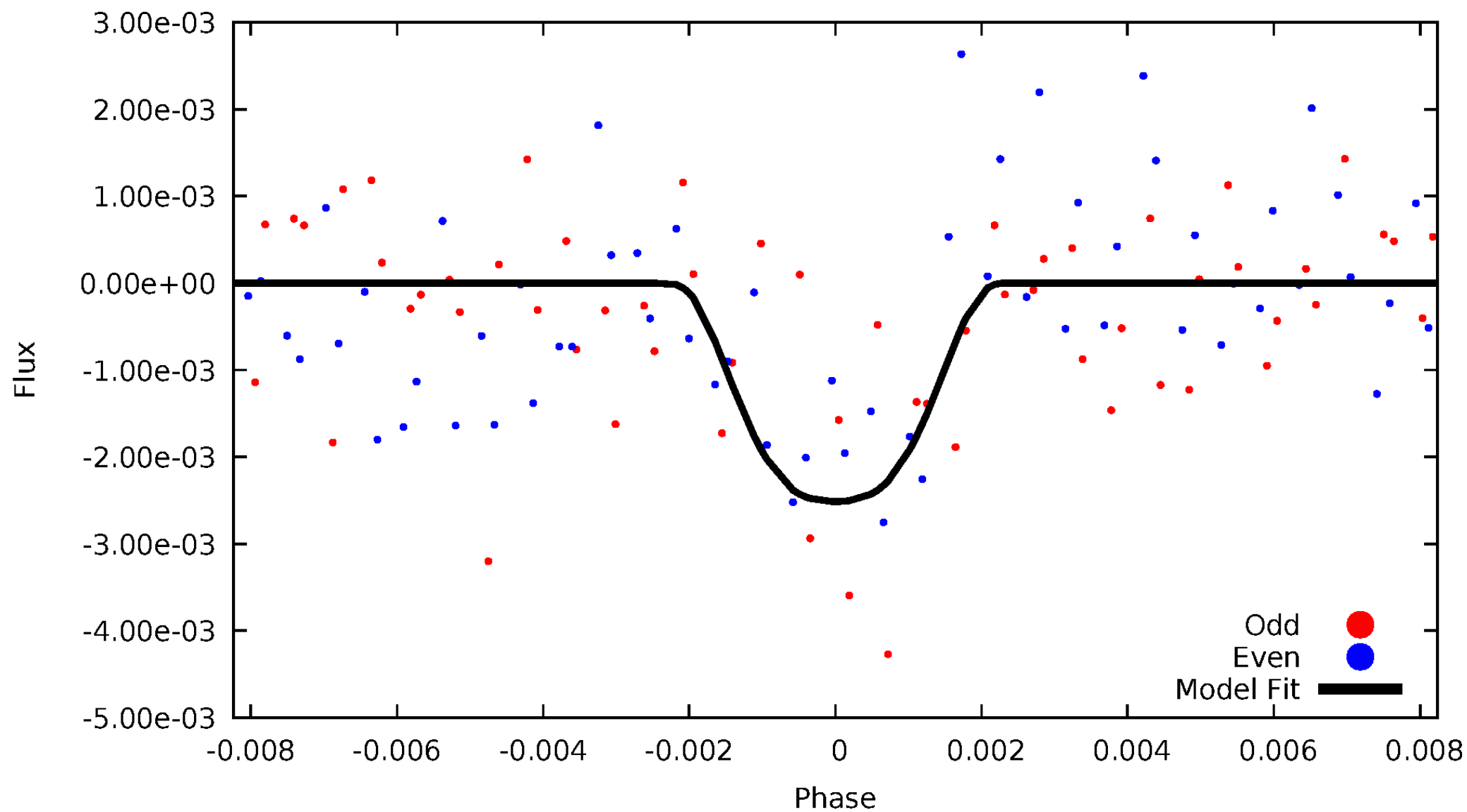


TCE 011918793-01



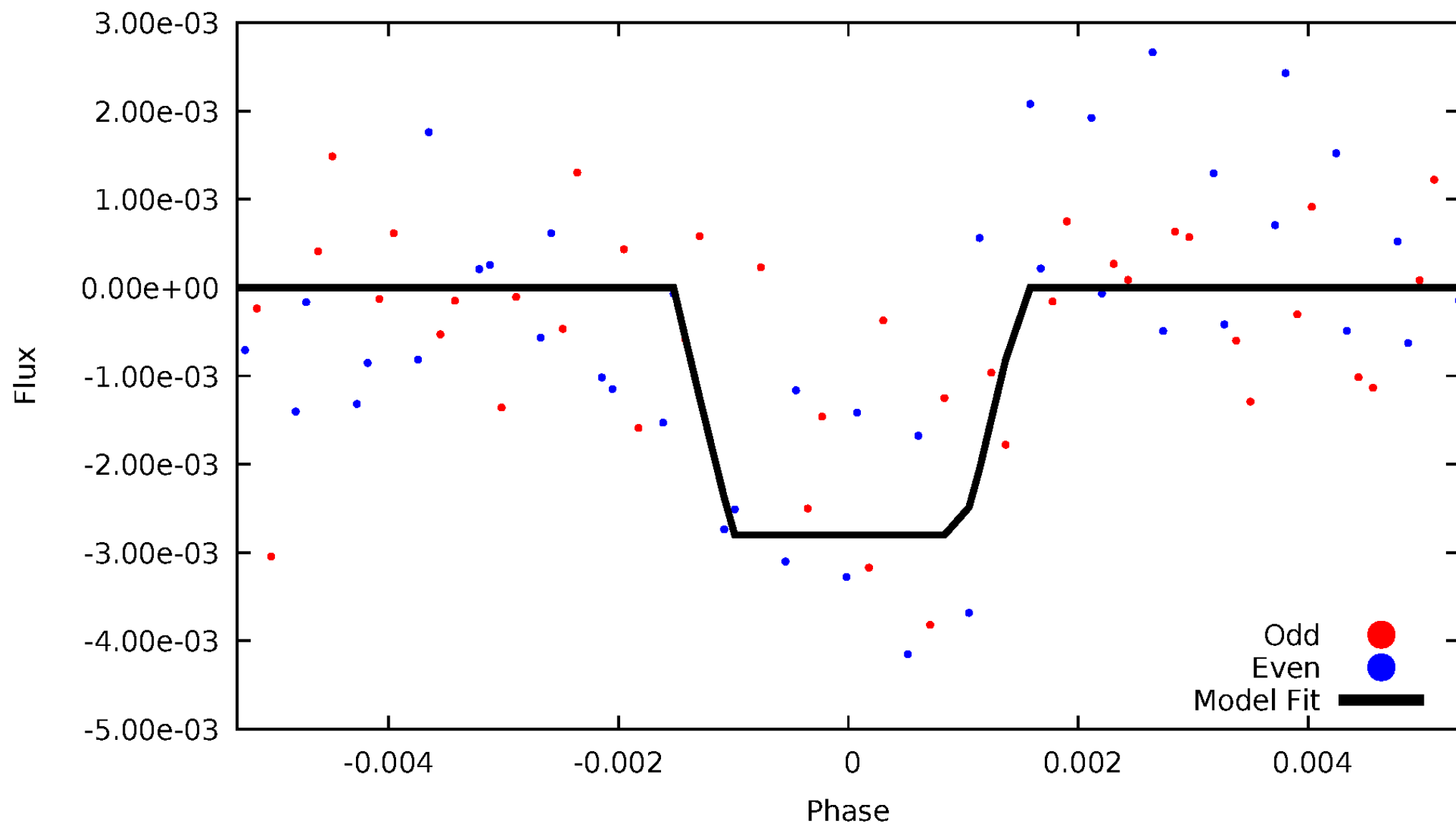
DV Odd/Even

TCE 011918793-01



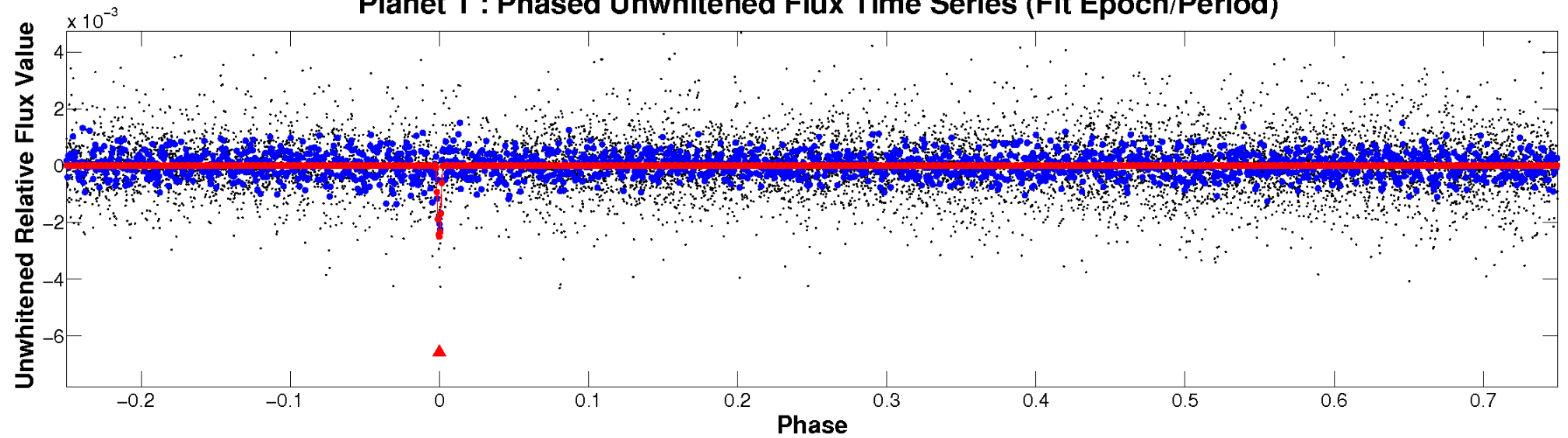
ALT Odd/Even

TCE 011918793-01

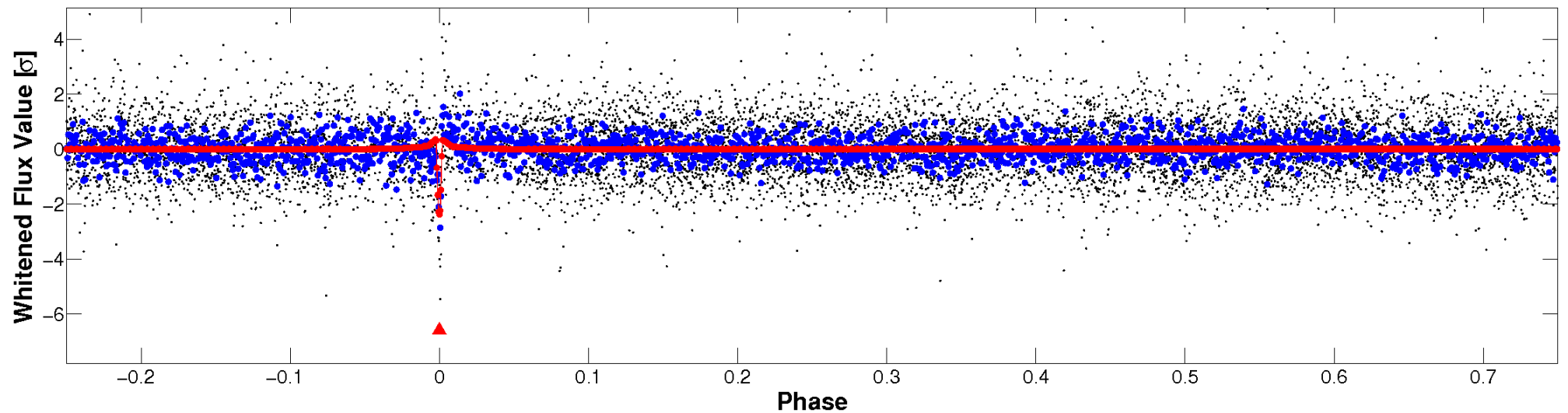


Non-Whitened Vs. Whitened Light Curve

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

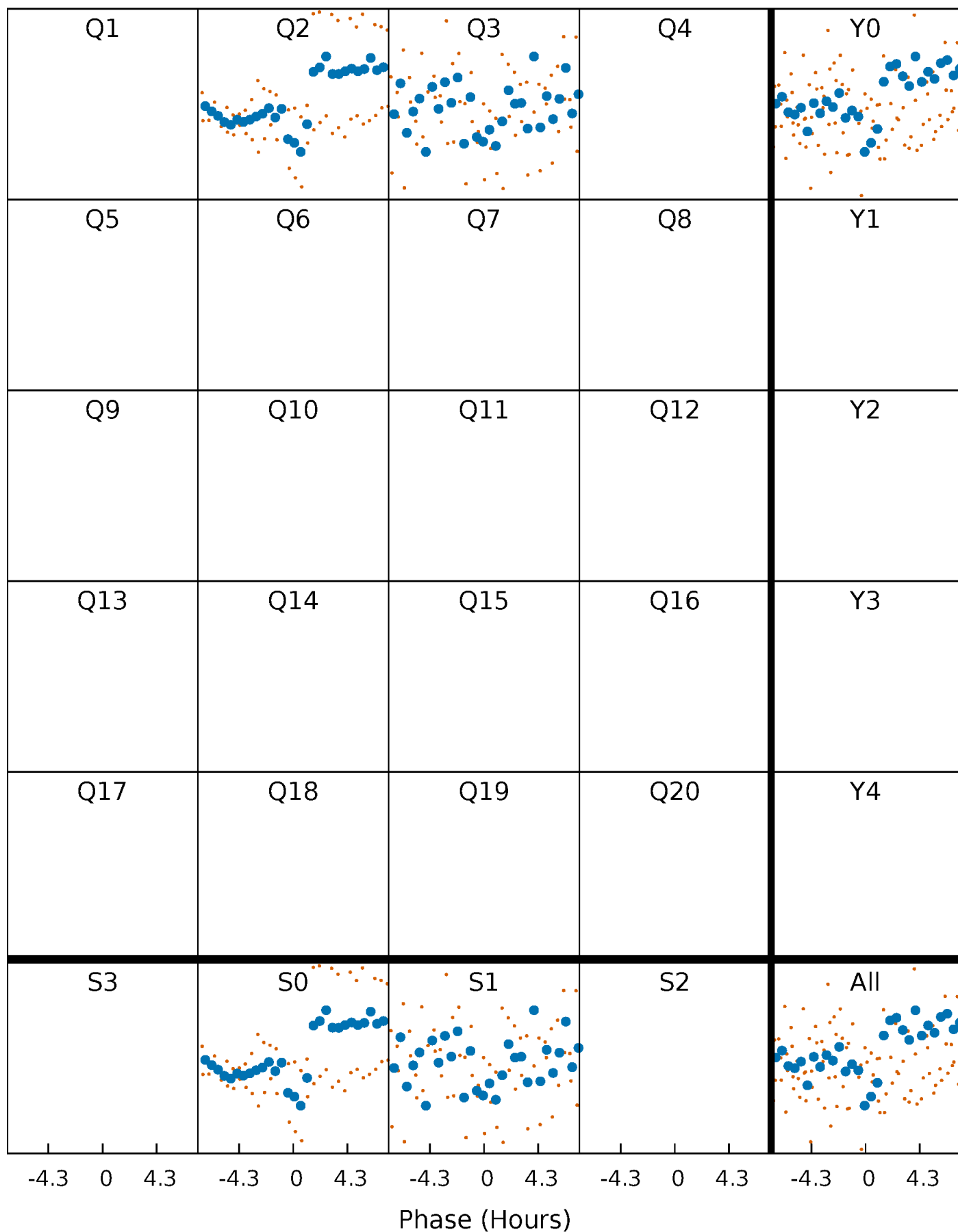


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



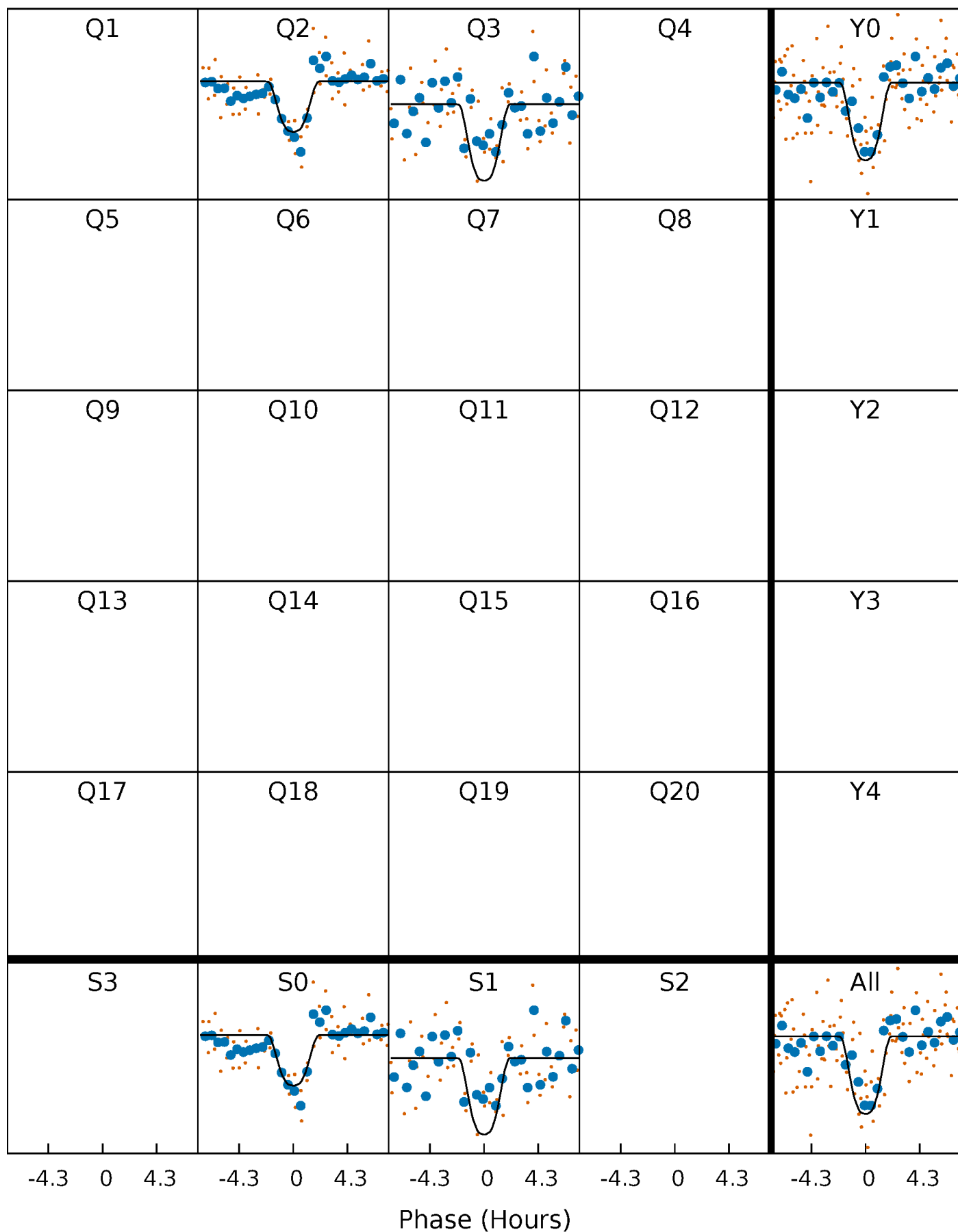
PDC Quarter-Phased Transit Curves

TCE 011918793-01 P= 38.356170 Days $T_0=167.630850$ (BKJD)



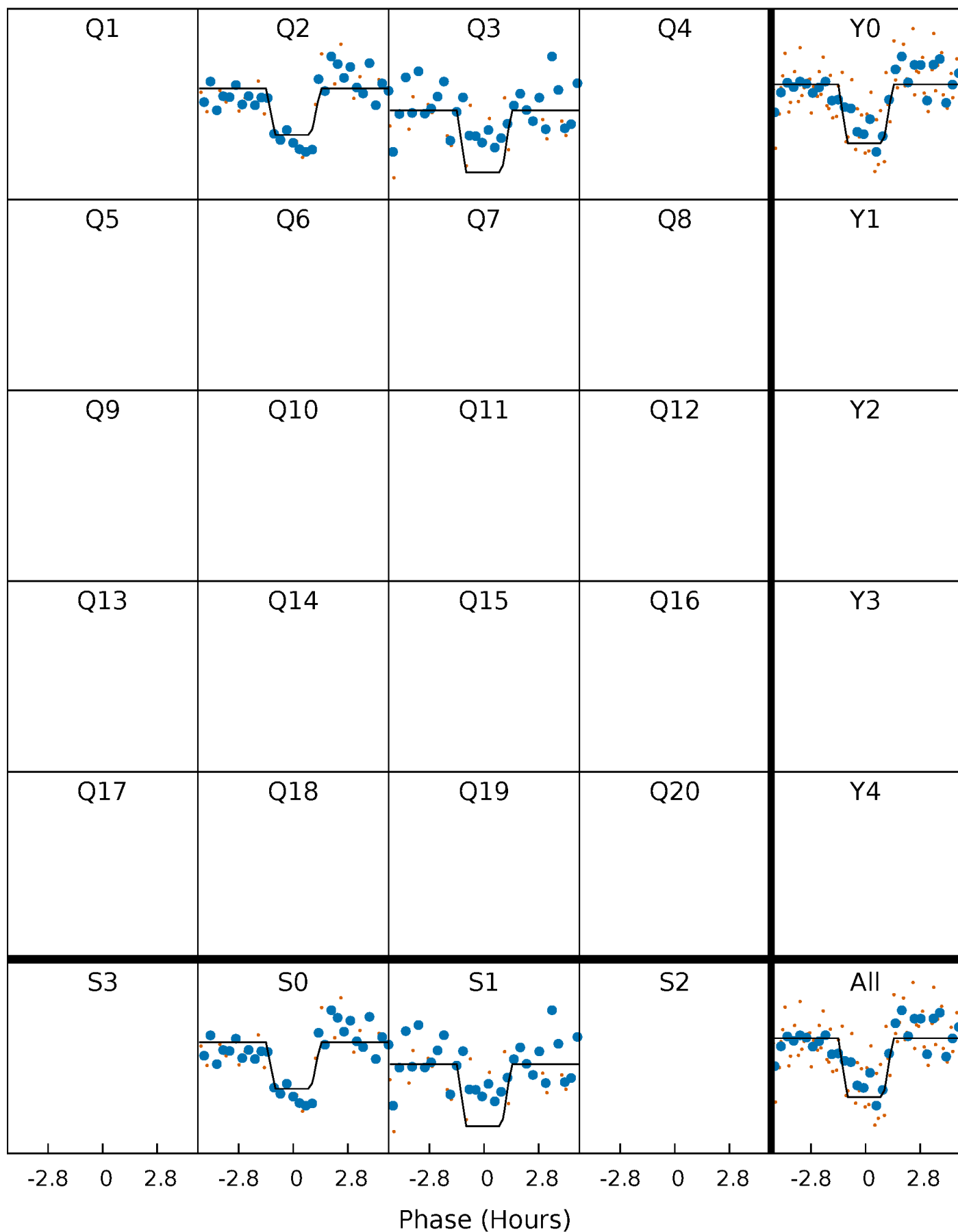
DV Quarter-Phased Transit Curves

TCE 011918793-01 P= 38.356170 Days $T_0=167.630850$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

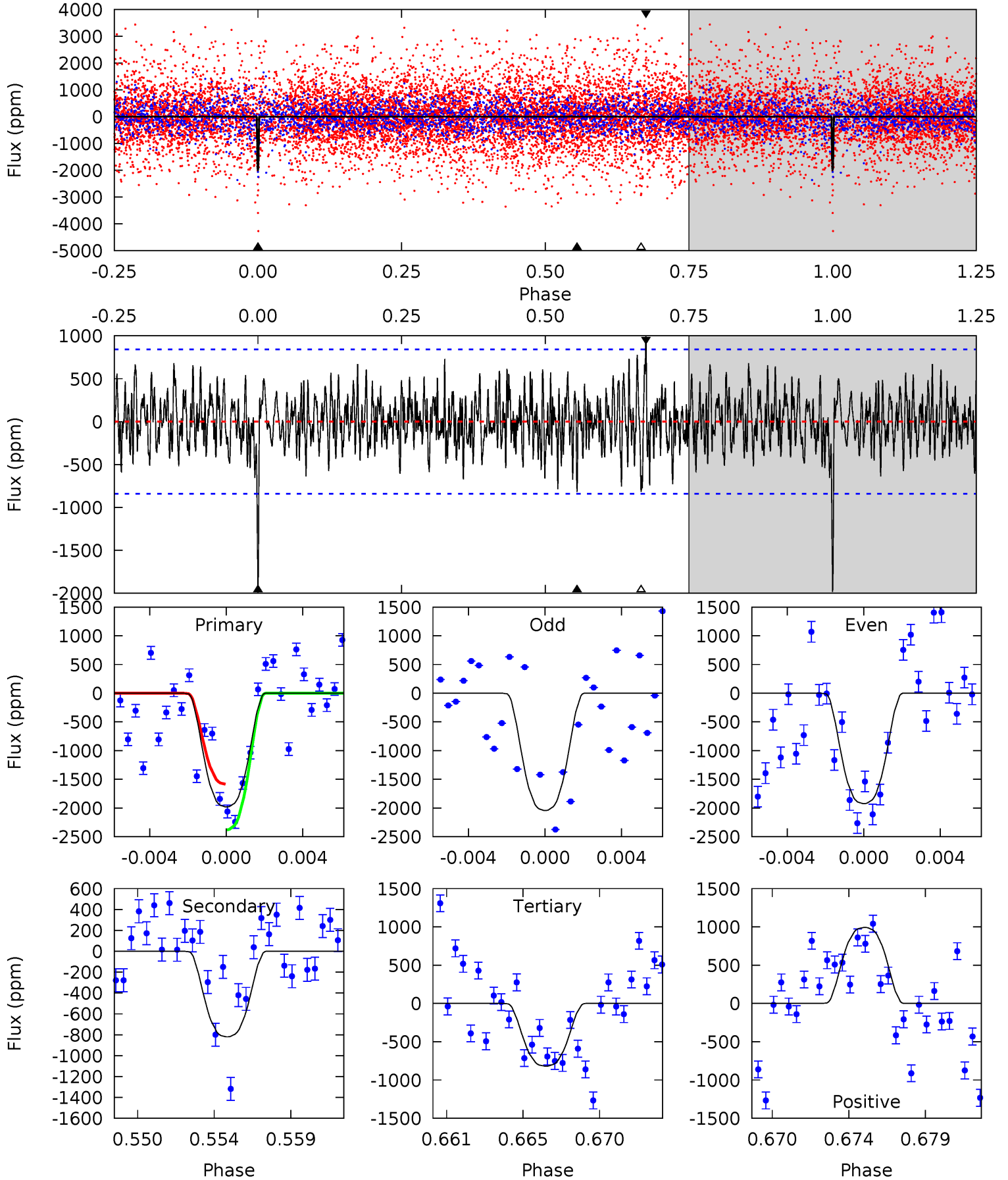
TCE 011918793-01 P= 38.361287 Days $T_0=167.626026$ (BKJD)



DV Model-Shift Uniqueness Test

011918793-01, P = 38.356170 Days, E = 129.274680 Days

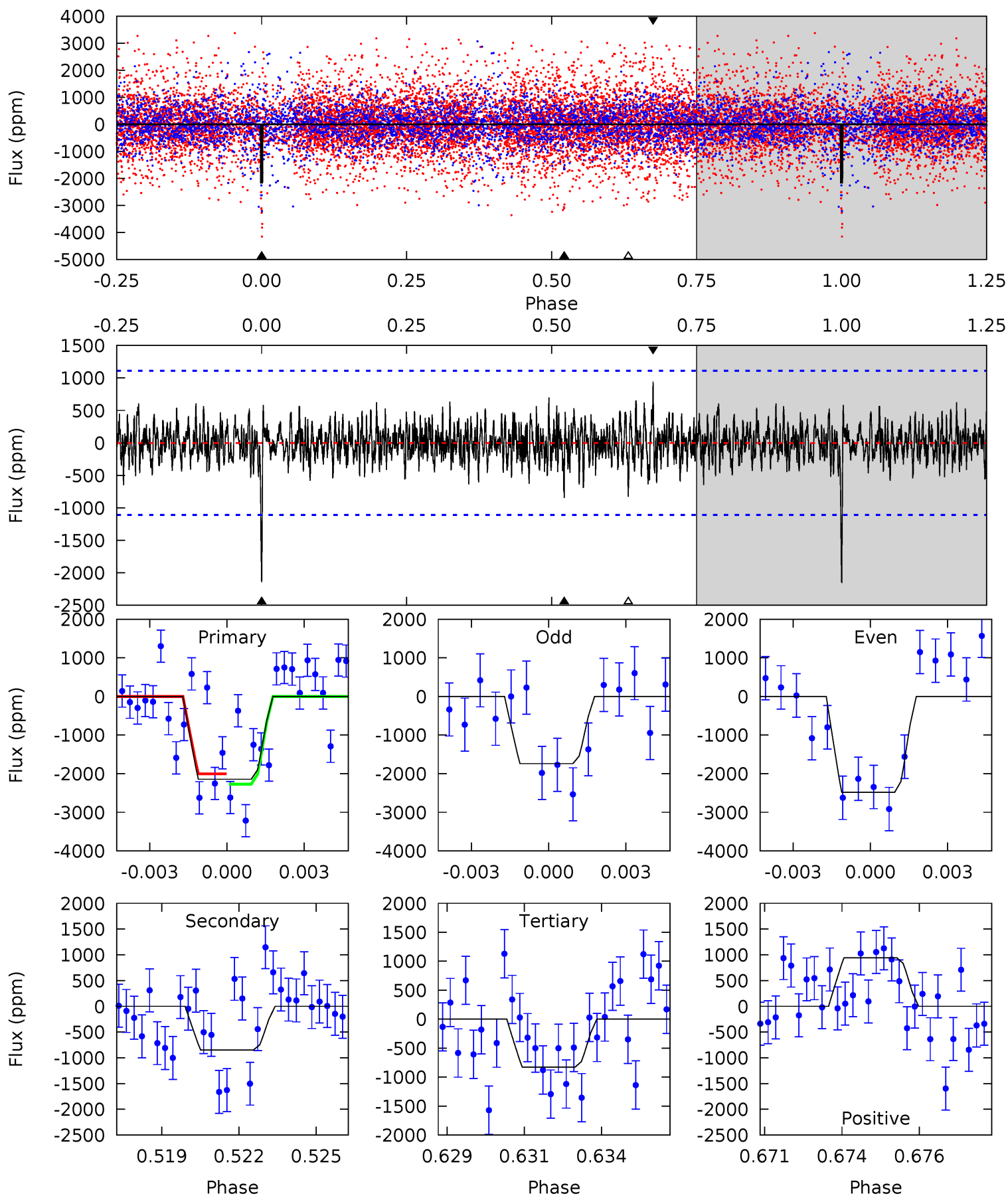
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.2	5.05	5.04	6.11	5.18	2.85	1.63	7.16	6.09	0.01	-1.06	0.38	1.06	0.33	2.43



Alt Model-Shift Uniqueness Test

011918793-01, P = 38.361287 Days, E = 129.264739 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.2	4.02	3.93	4.48	5.27	3.00	1.08	6.26	5.72	0.09	-0.46	1.76	0.98	0.31	0.63



Stellar Parameters For KIC 011918793

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5979^{+190}_{-232}	$4.449^{+0.070}_{-0.210}$	$-0.040^{+0.250}_{-0.300}$	$1.004^{+0.311}_{-0.111}$	$1.033^{+0.147}_{-0.134}$	$1.439^{+0.532}_{-0.745}$
	+3%/-4%	+2%/-5%	+625%/-750%	+31%/-11%	+14%/-13%	+37%/-52%
Source	PHO1	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 011918793-01 / KOI 8069.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-820 ± 162	$6.45^{+1.49}_{-1.15}$	793^{+63}_{-44}	4427^{+374}_{-298}	526^{+296}_{-185}
Alt.	-845 ± 210	$6.06^{+1.28}_{-1.14}$	793^{+65}_{-46}	4559^{+439}_{-383}	618^{+370}_{-236}

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 $A_{\text{obs}} \gg 1.0$

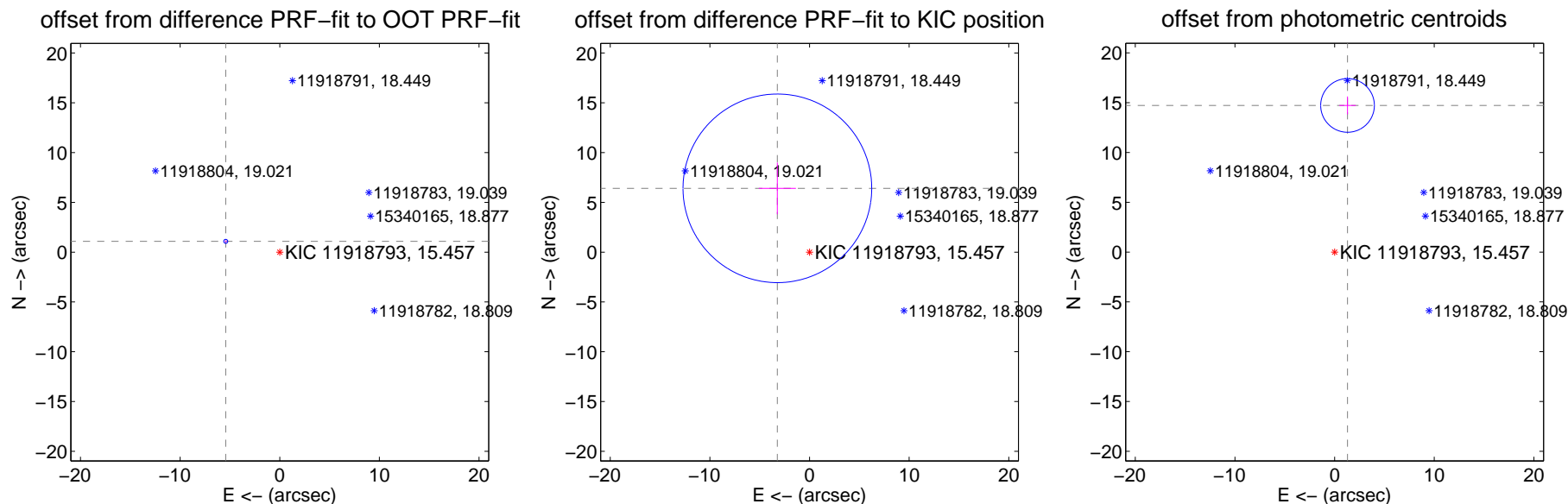
DV Centroid Data

Supplemental centroid analysis for 011918793-01. Kepler magnitude: 15.46. Transit SNR 8.72

There are 1 quarters with good PRF difference image offsets

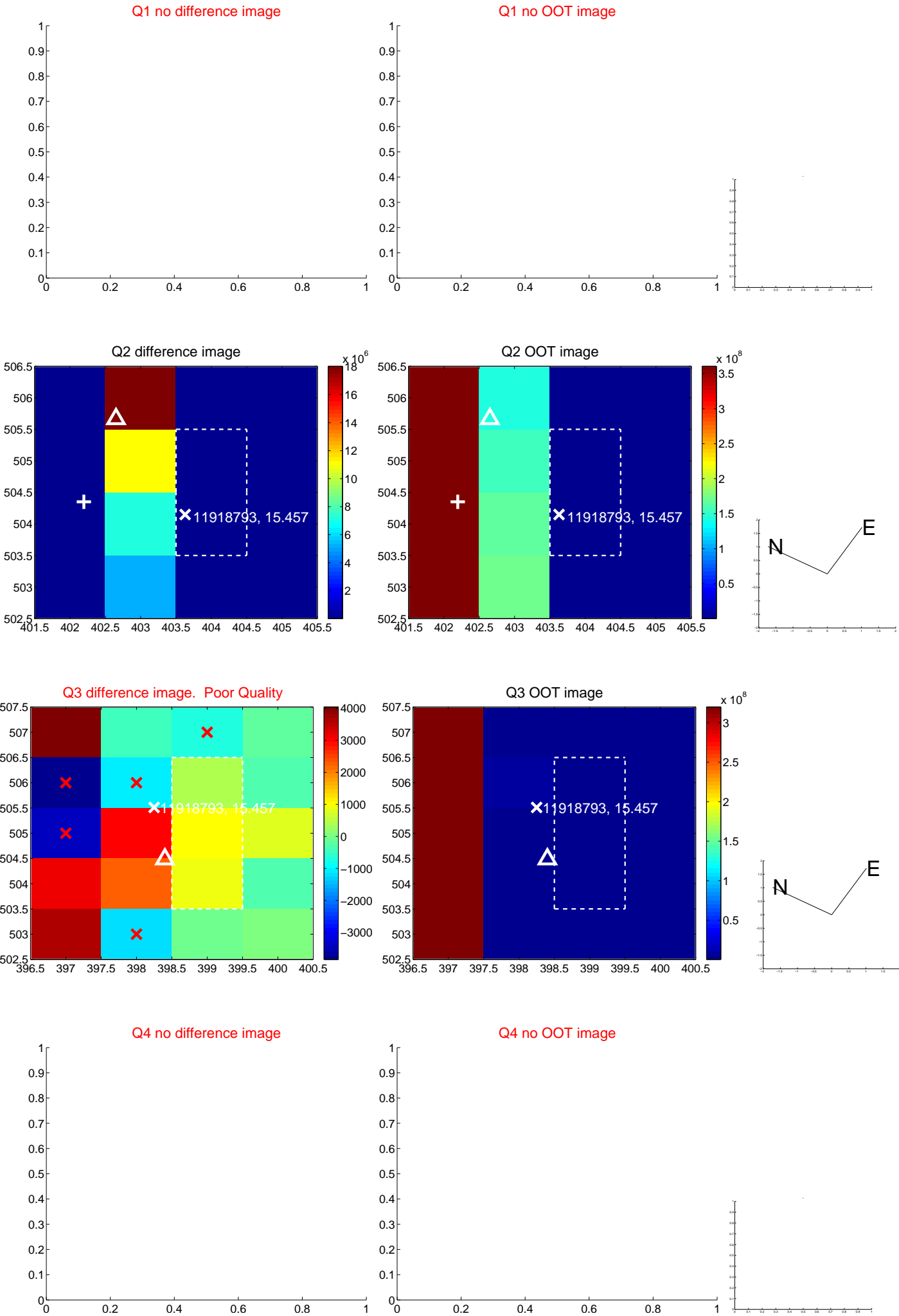
The OOT PRF centroid is offset from the target star catalog position by about 5.76 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.528 ± 0.067	82.87	5.420 ± 0.067	1.086 ± 0.067
PRF-fit source offset from KIC position	7.174 ± 3.156	2.27	3.226 ± 1.858	6.407 ± 2.598
photometric centroid source offset	14.78 ± 0.90	16.46	-1.30 ± 0.83	14.72 ± 0.90



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.



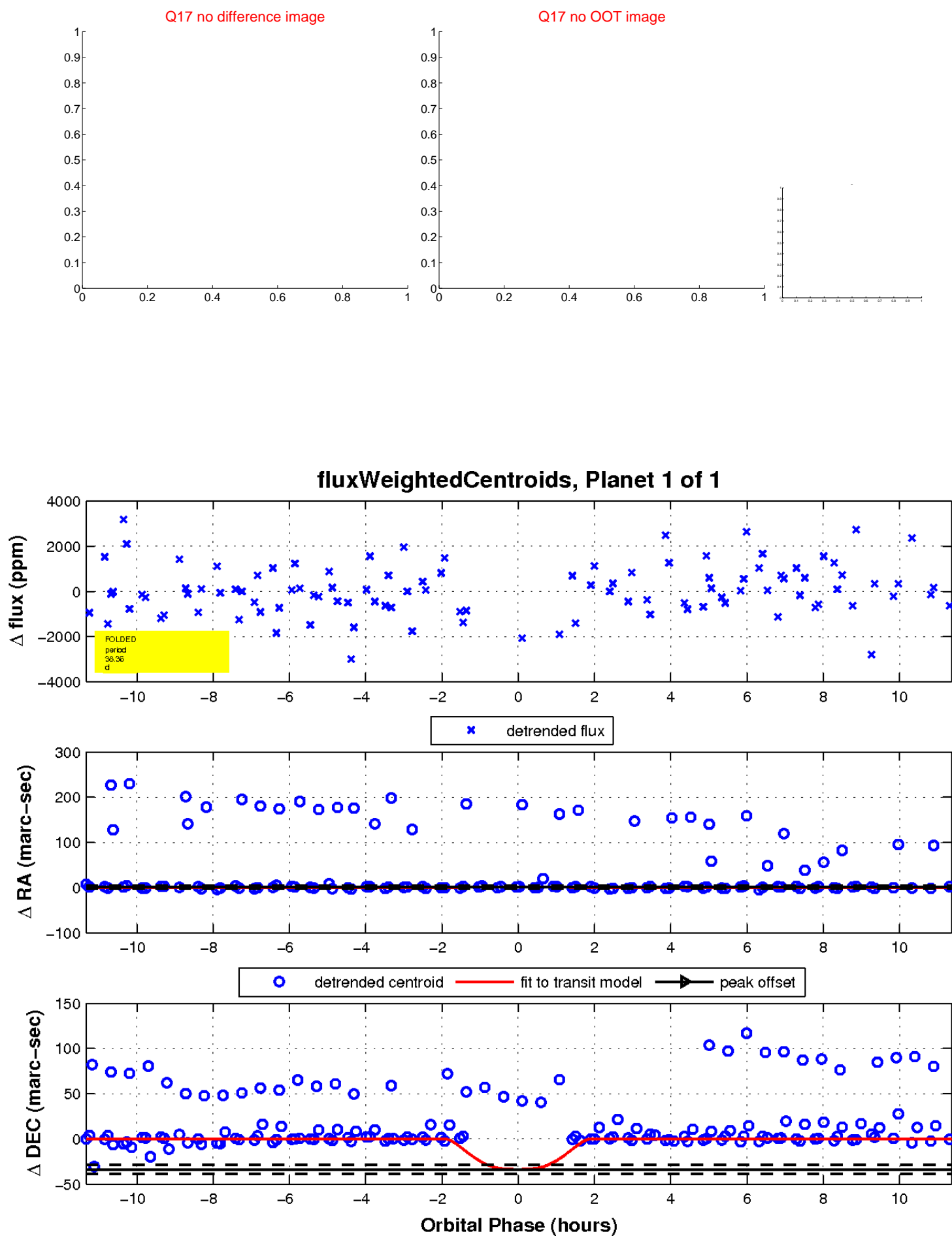
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

