

KIC 011497977

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})
011497977-01	OBS	0483.01	4.798595	134.869591	798.6	3.078	73.1	83.1	0.85	5631	2.66	216.61

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011497977-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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 011497977-01

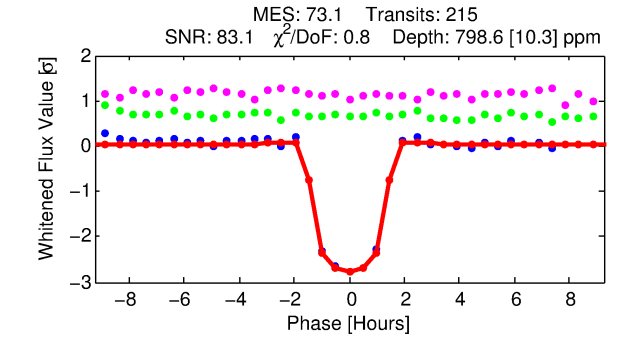
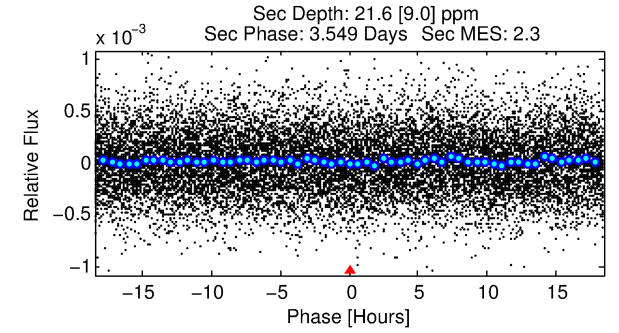
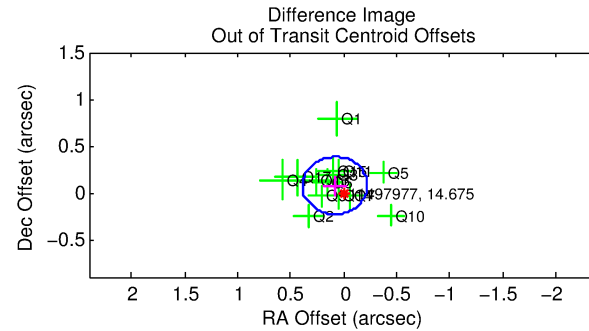
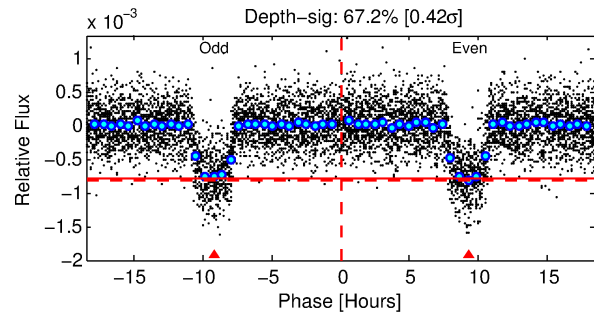
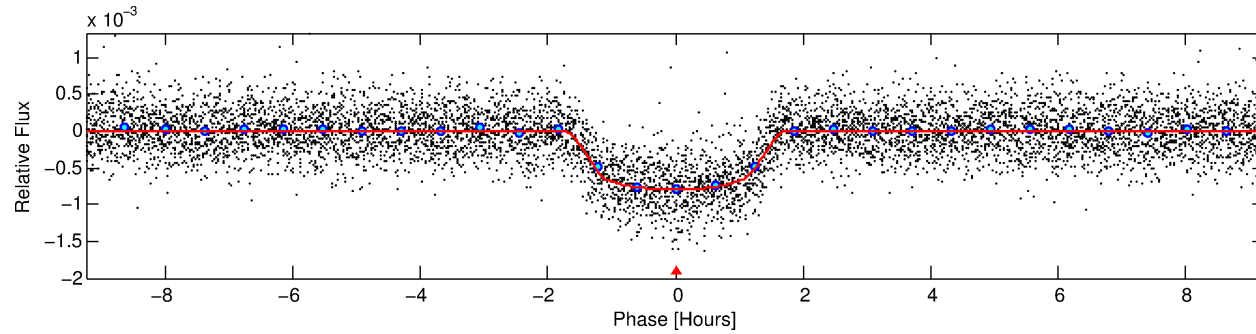
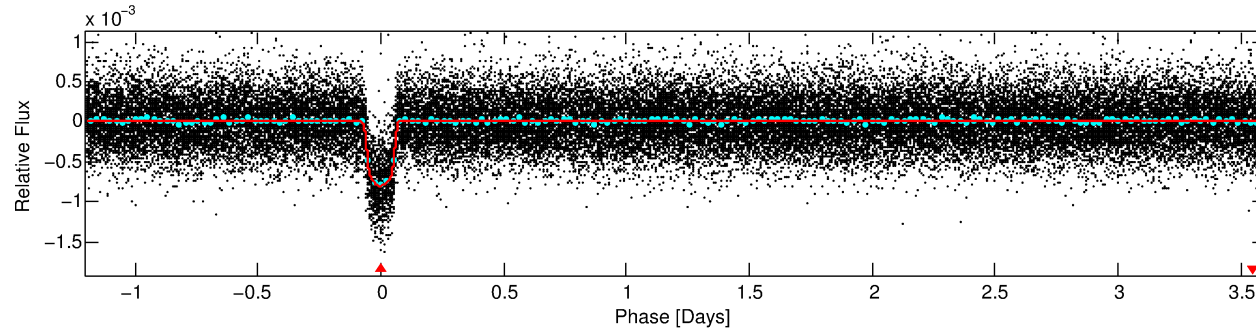
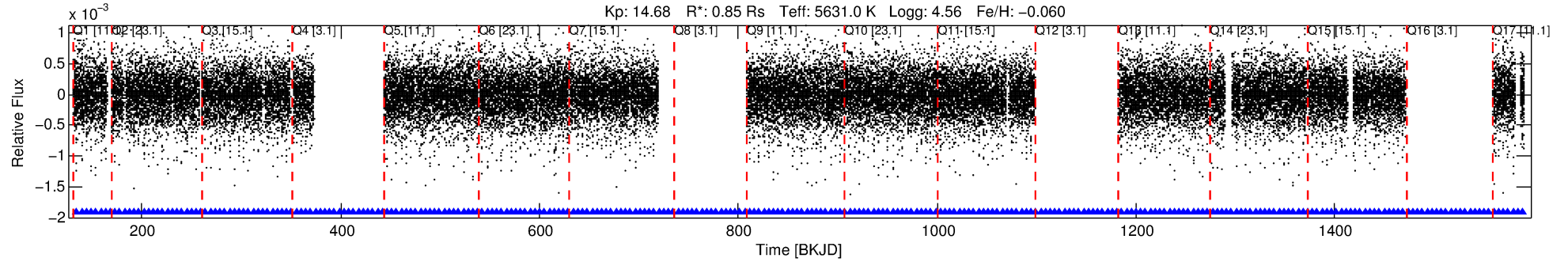
No Significant Match Found

DV One-Page Summary

KIC: 11497977 Candidate: 1 of 1 Period: 4.799 d

KOI: K00483.01 Corr: 0.987

Kp: 14.68 R*: 0.85 Rs Teff: 5631.0 K Logg: 4.56 Fe/H: -0.060



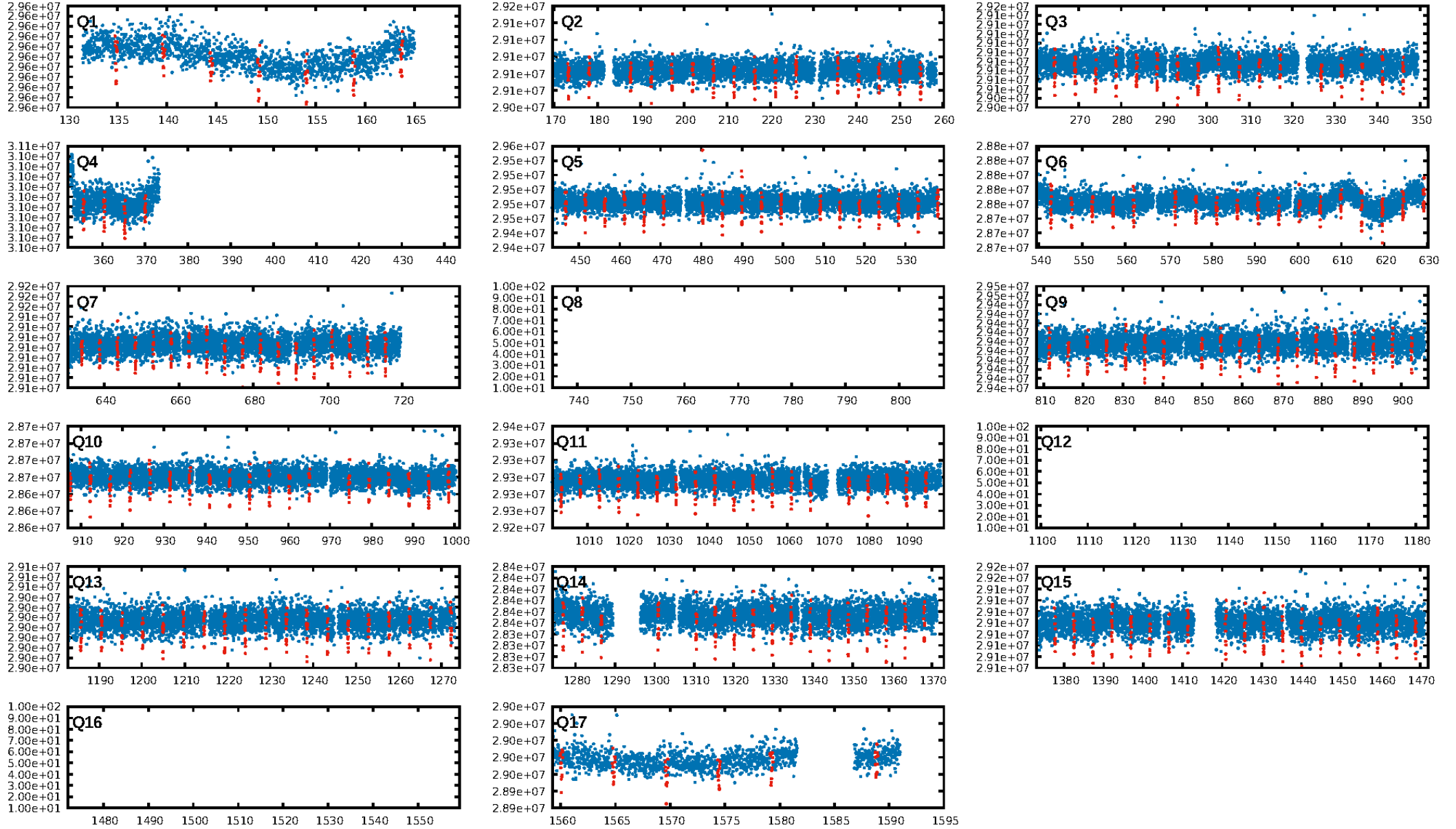
DV Fit Results:

Period = 4.79859 [0.00000] d
Epoch = 134.8696 [0.0007] BKJD
Rp/R* = 0.0288 [0.0027]
a/R* = 7.76 [3.07]
b = 0.80 [0.19]
Seff = 216.61 [71.01]
Teff = 978 [80] K
Rp = 2.66 [0.70] Re
a = 0.0546 [0.0113] AU
Ag = 4.99 [2.74] [1.46σ]
Teffp = 2261 [267] K [4.60σ]

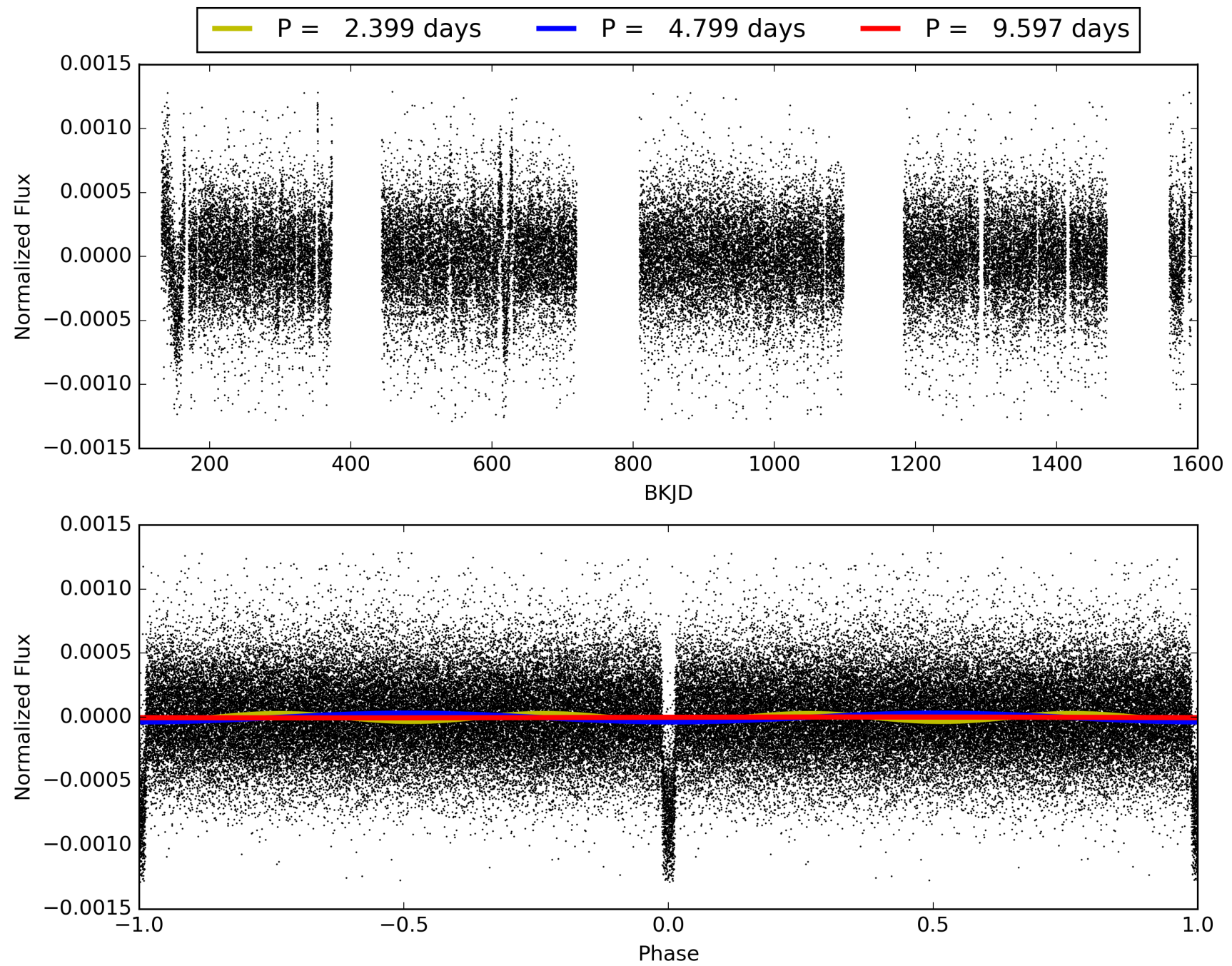
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [198/198]
GhostDiagnostic-chr: 3.398
Centroid-sig: 0.5%
Centroid-so: 0.330 arcsec [1.91σ]
OotOffset-rm: 0.111 arcsec [1.09σ]
KicOffset-rm: 0.201 arcsec [2.15σ]
OotOffset-st: 4/4/1/5 [14]
KicOffset-st: 4/4/1/5 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [14/14]

TCE 011497977-01, PDC Light Curves

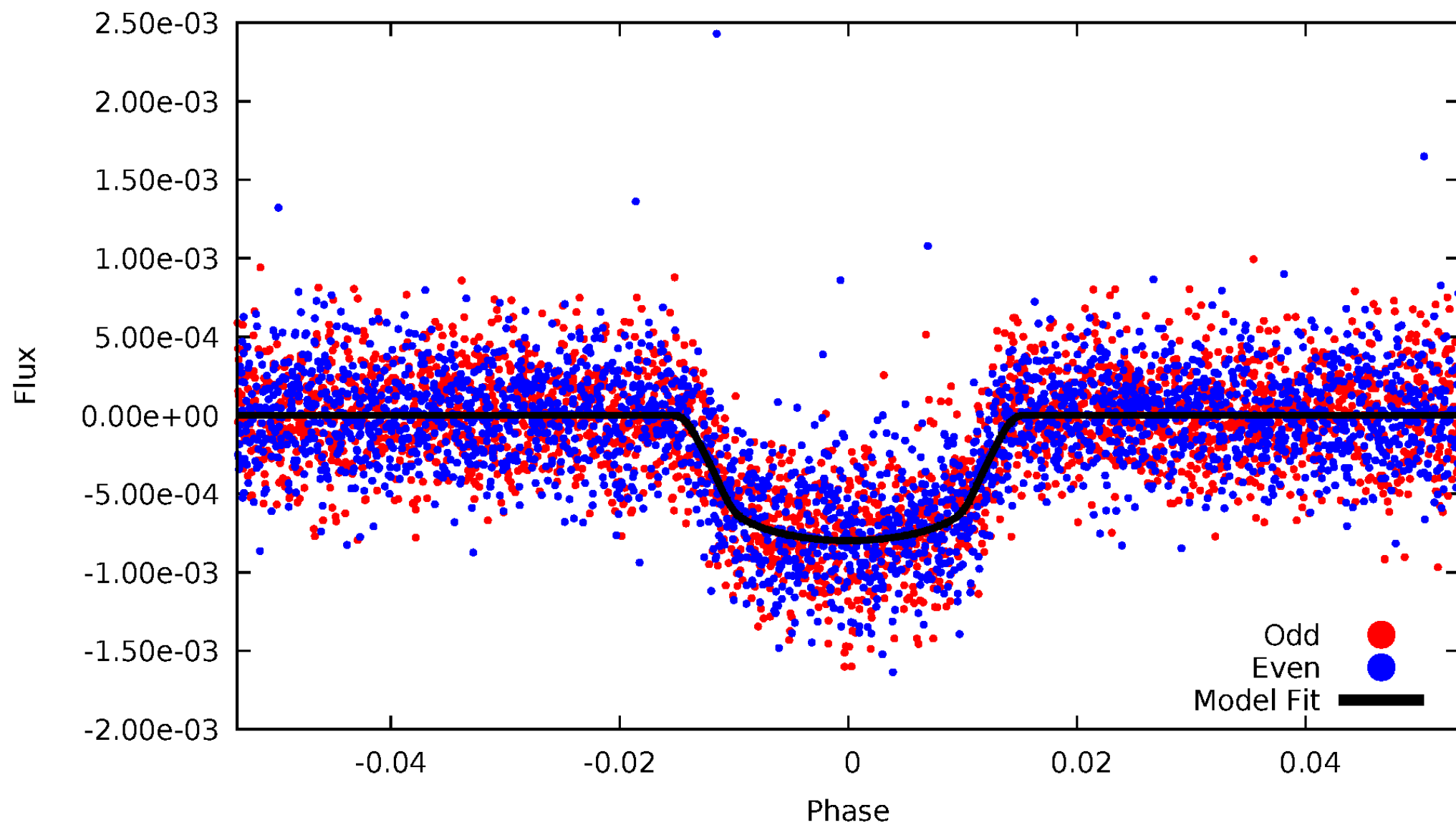


TCE 011497977-01



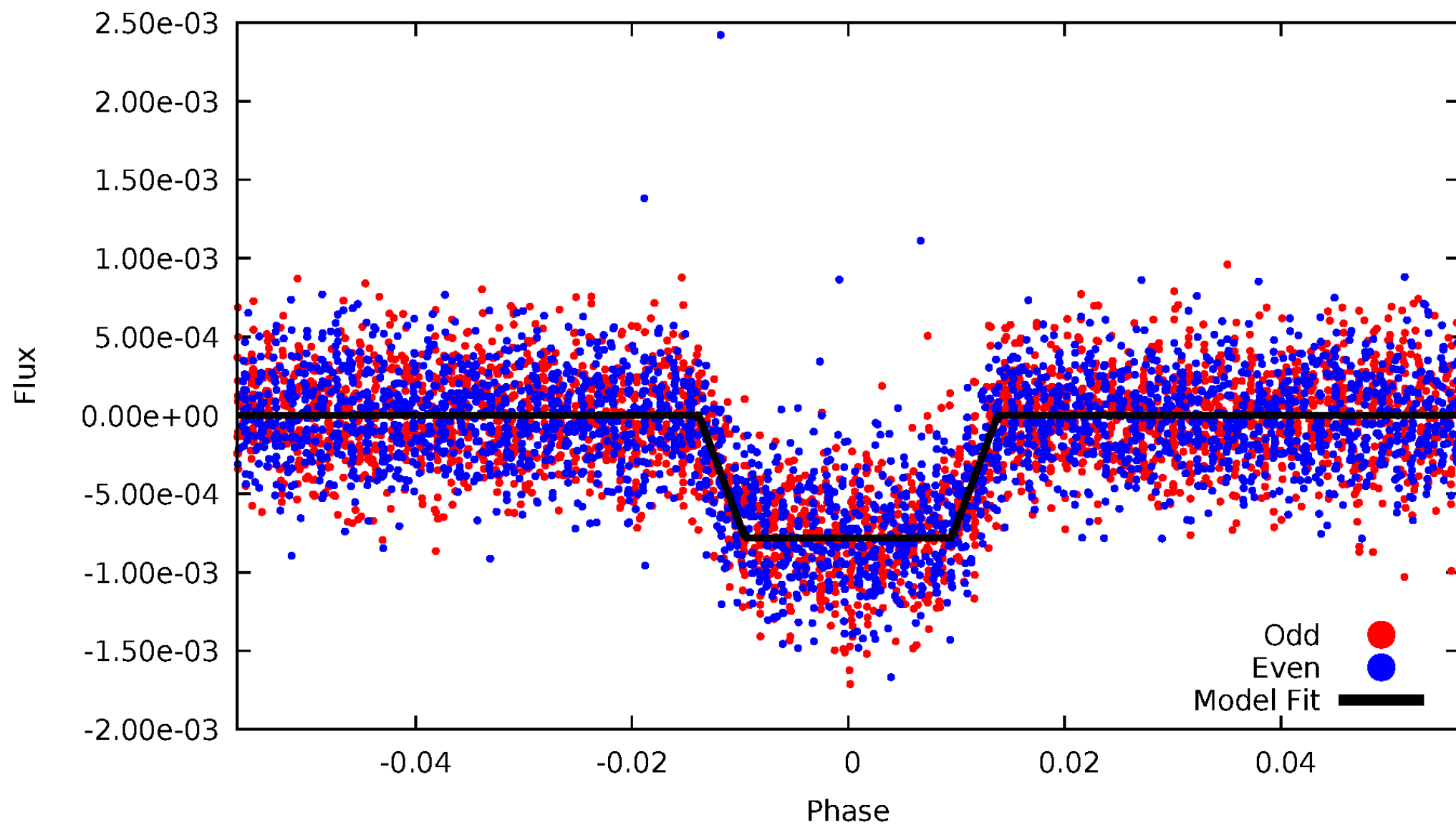
DV Odd/Even

TCE 011497977-01



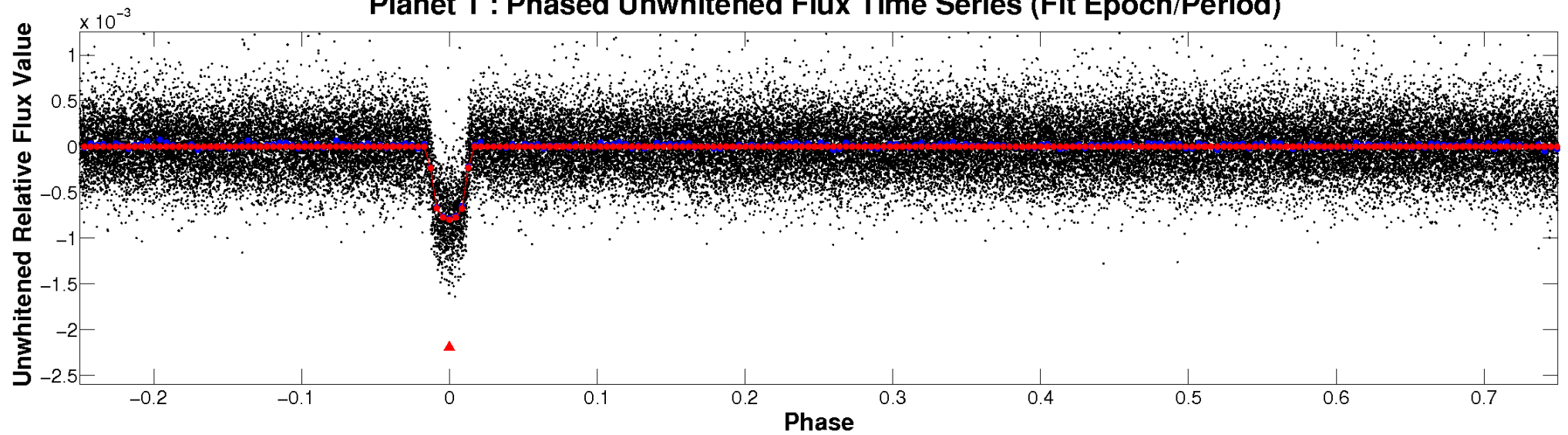
ALT Odd/Even

TCE 011497977-01

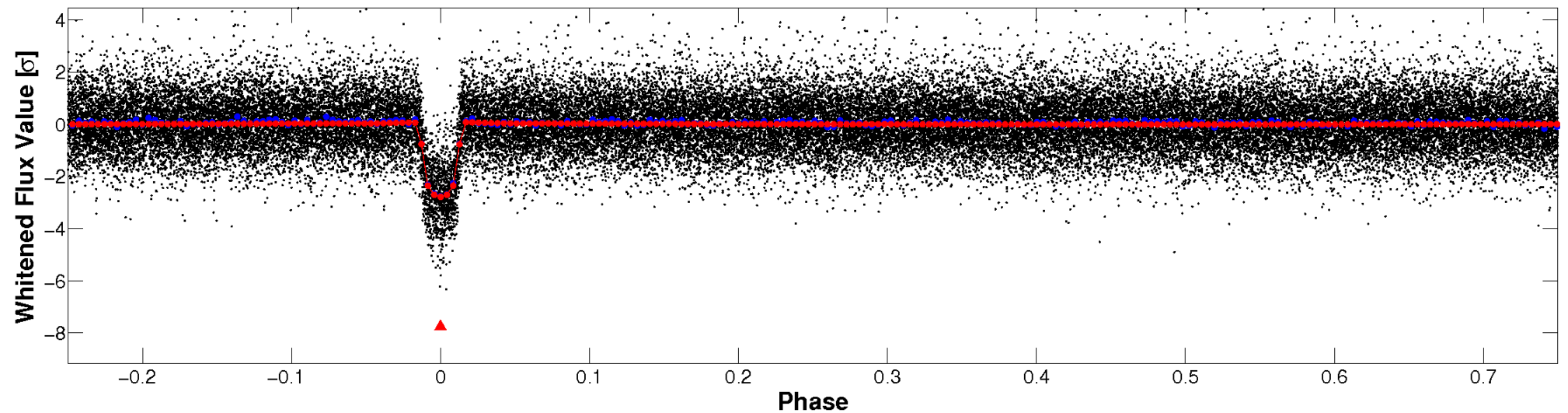


Non-Whitened Vs. Whitened Light Curve

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

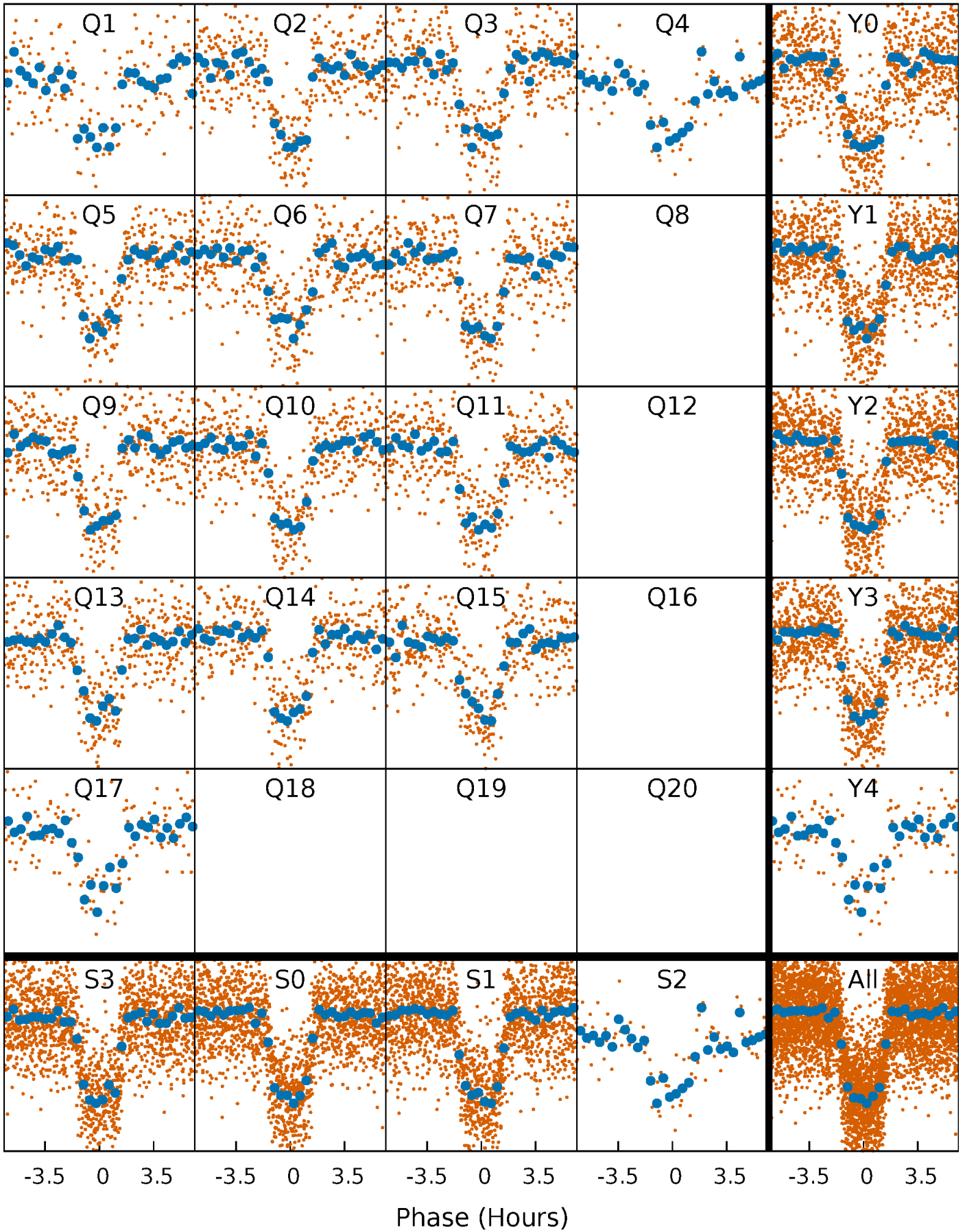


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



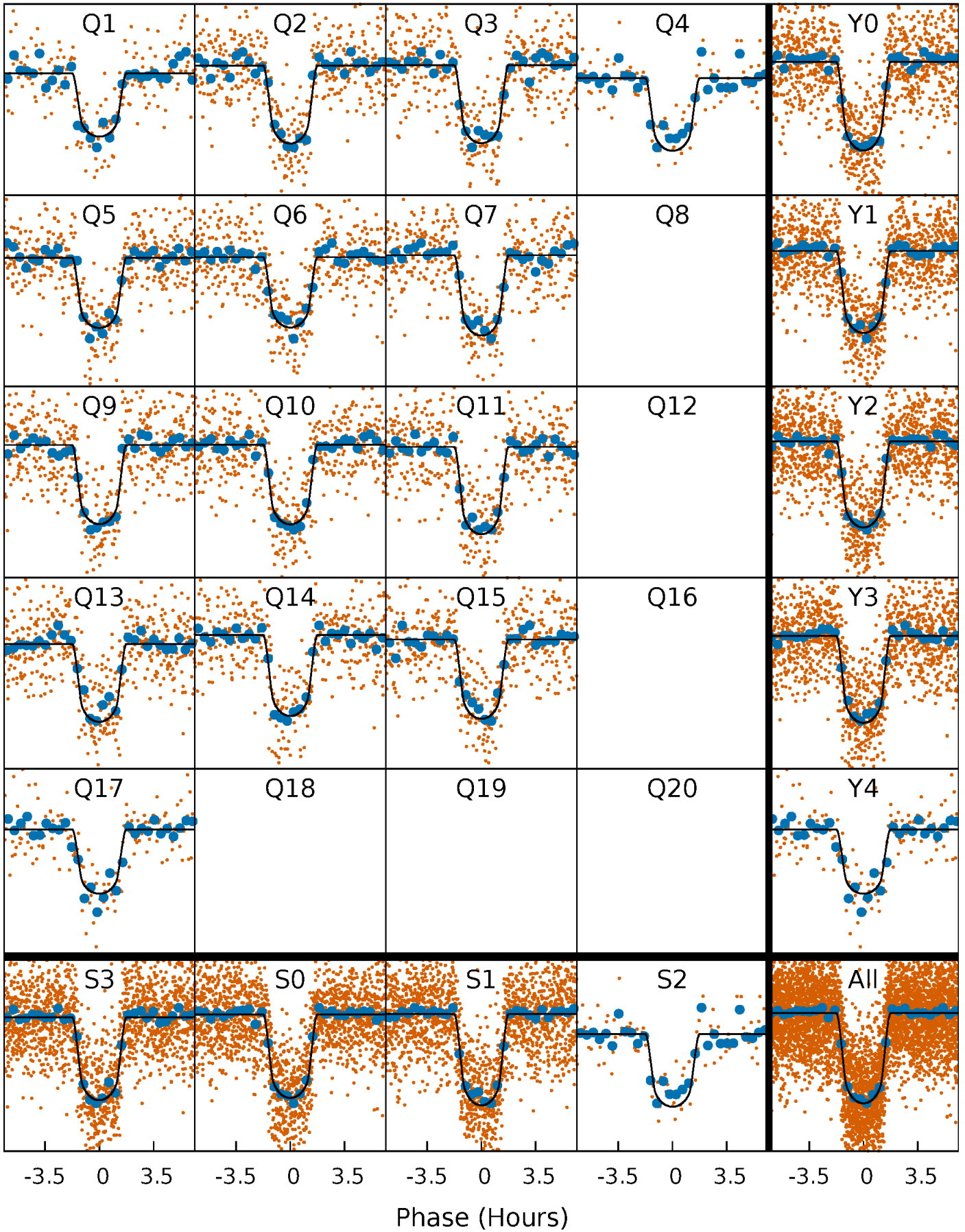
PDC Quarter-Phased Transit Curves

TCE 011497977-01 P= 4.798595 Days $T_0=134.869591$ (BKJD)



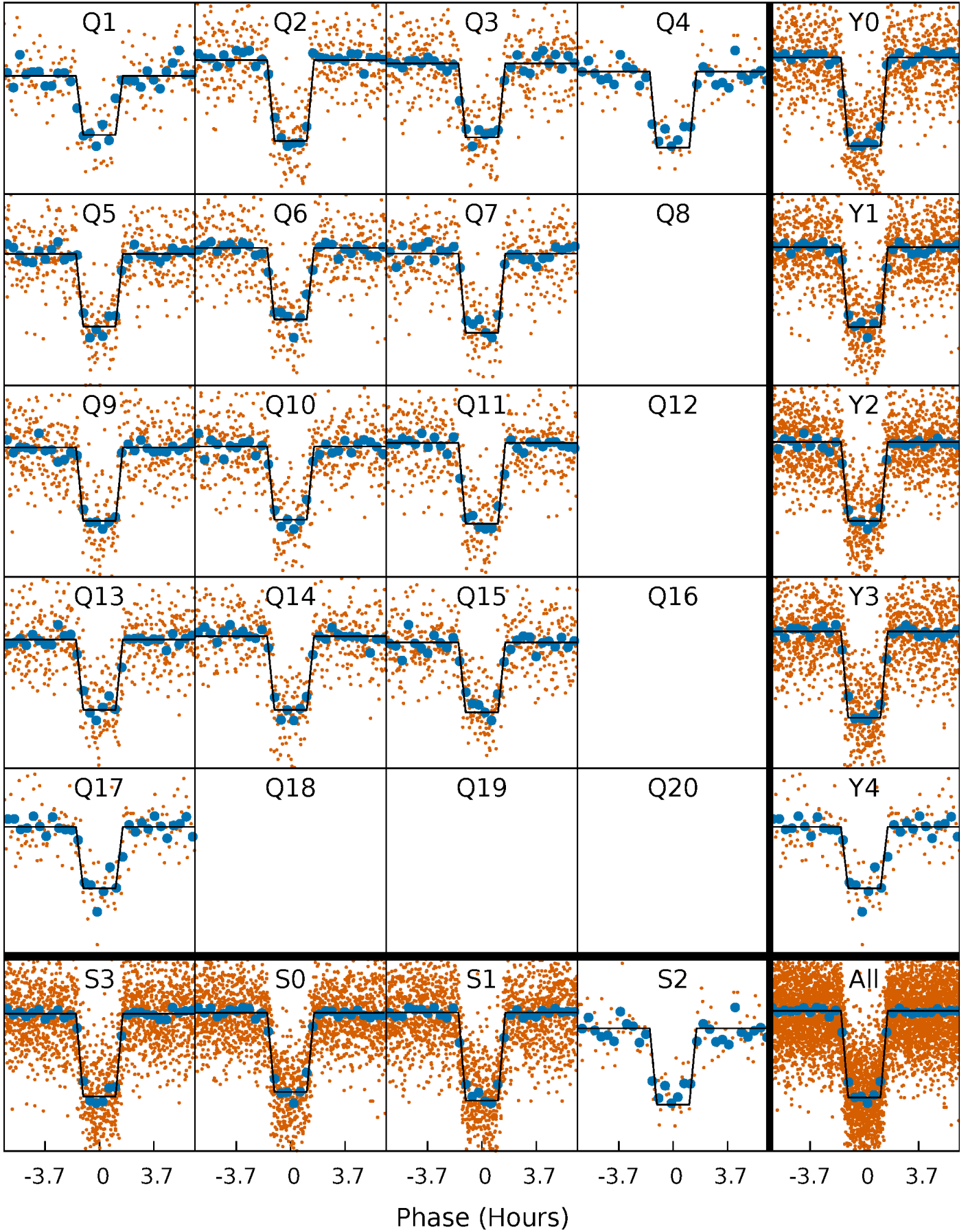
DV Quarter-Phased Transit Curves

TCE 011497977-01 P= 4.798595 Days $T_0=134.869591$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

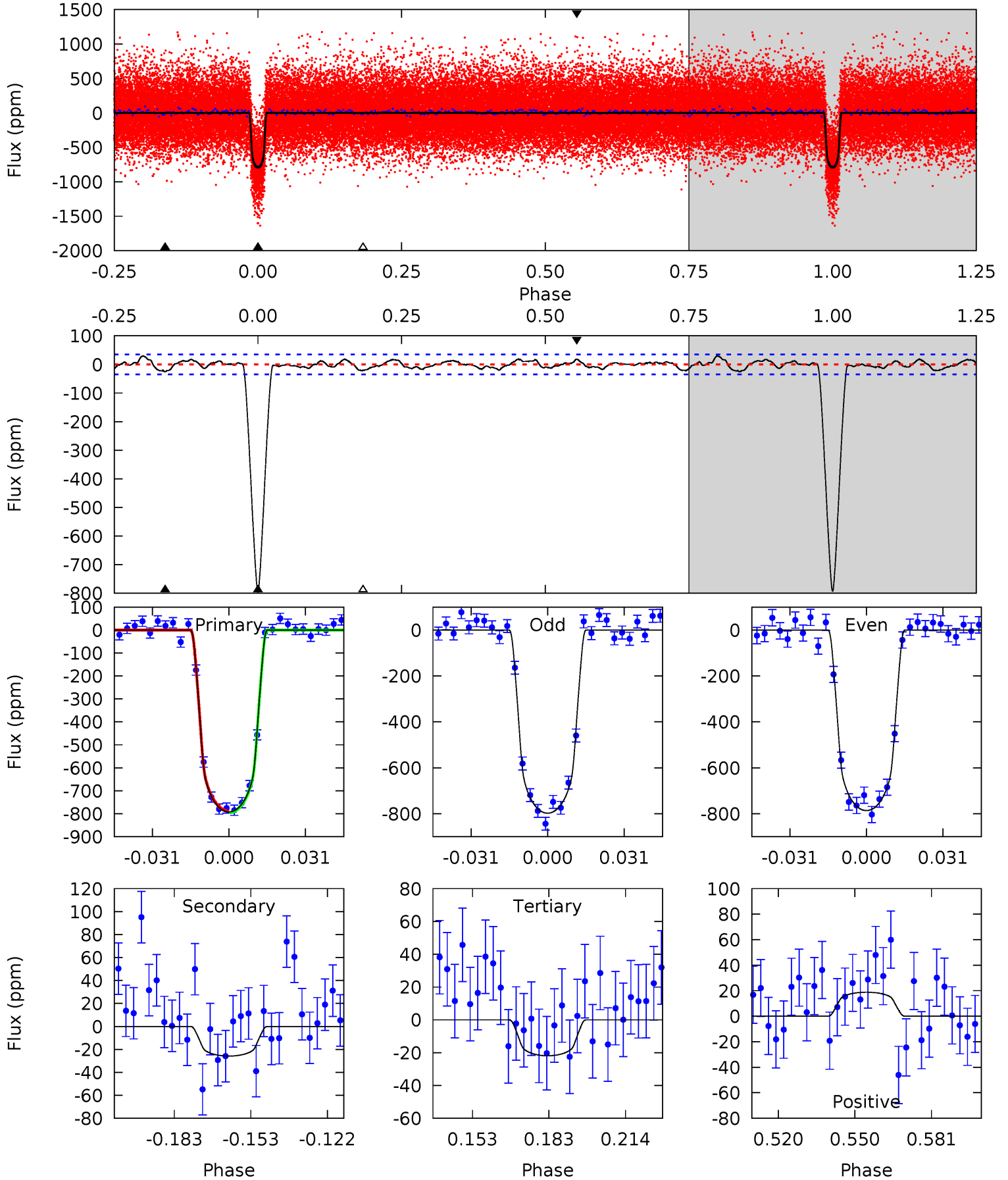
TCE 011497977-01 P= 4.798578 Days $T_0=134.872110$ (BKJD)



DV Model-Shift Uniqueness Test

011497977-01, P = 4.798595 Days, E = 130.070996 Days

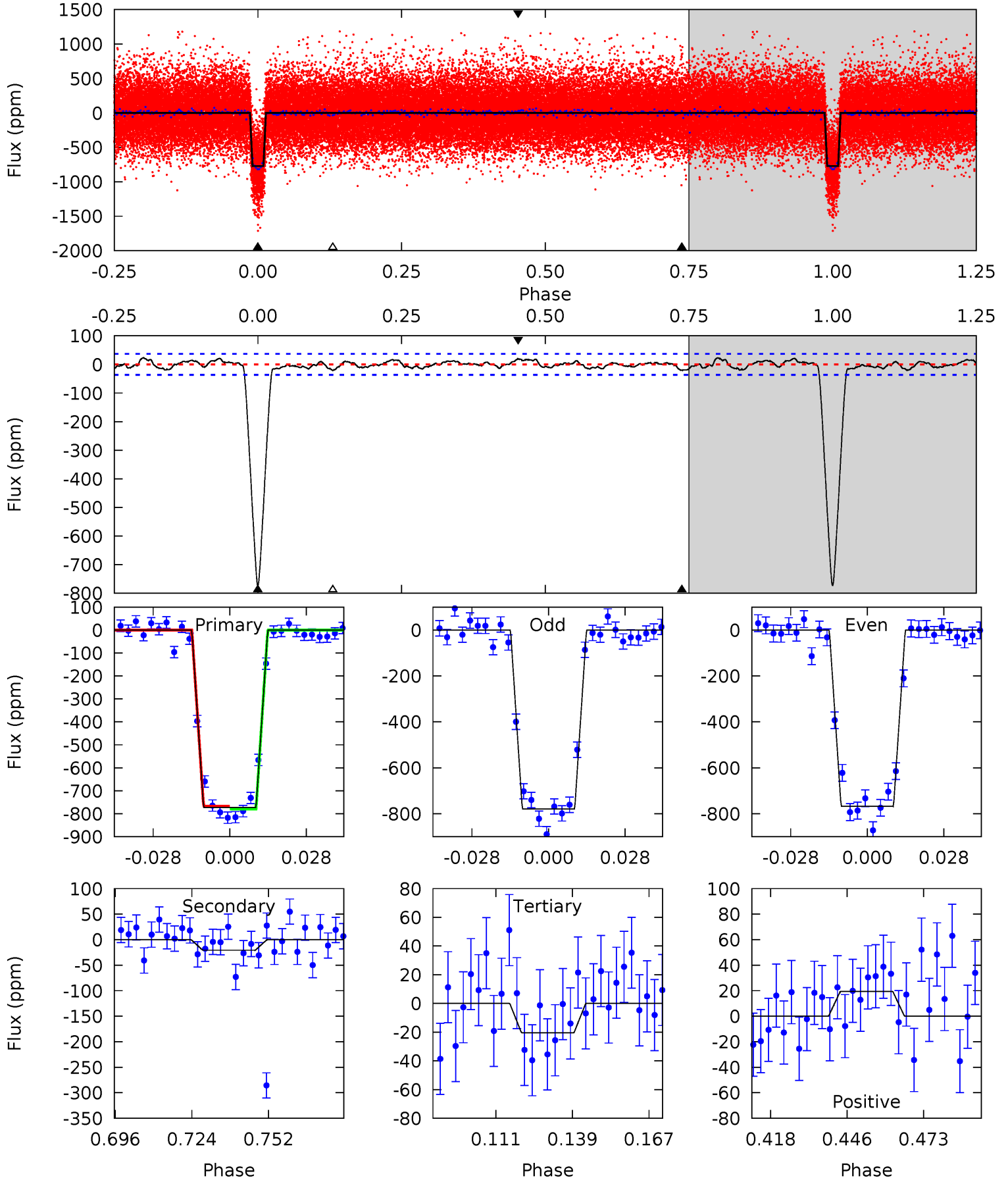
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
108.7	3.54	3.01	2.58	4.81	2.16	1.37	105.7	106.1	0.54	0.96	0.78	1.00	0.04	0.48



Alt Model-Shift Uniqueness Test

011497977-01, P = 4.798578 Days, E = 130.073532 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
101.6	2.73	2.69	2.56	4.83	2.20	1.23	98.9	99.0	0.03	0.17	0.75	1.01	0.03	0.85



Stellar Parameters For KIC 011497977

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5631^{+152}_{-169}	$4.557^{+0.042}_{-0.168}$	$-0.060^{+0.300}_{-0.300}$	$0.847^{+0.207}_{-0.069}$	$0.946^{+0.083}_{-0.115}$	$2.191^{+0.386}_{-1.001}$
	+3%/-3%	+1%/-4%	+500%/-500%	+24%/-8%	+9%/-12%	+18%/-46%
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 011497977-01 / KOI 0483.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-26 ± 7	$2.73^{+0.39}_{-0.30}$	1389^{+77}_{-58}	2995^{+162}_{-165}	$5.461^{+2.478}_{-1.757}$
Alt.	-21 ± 8	$2.67^{+0.41}_{-0.33}$	1393^{+88}_{-58}	2920^{+177}_{-214}	$4.553^{+2.428}_{-1.919}$

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

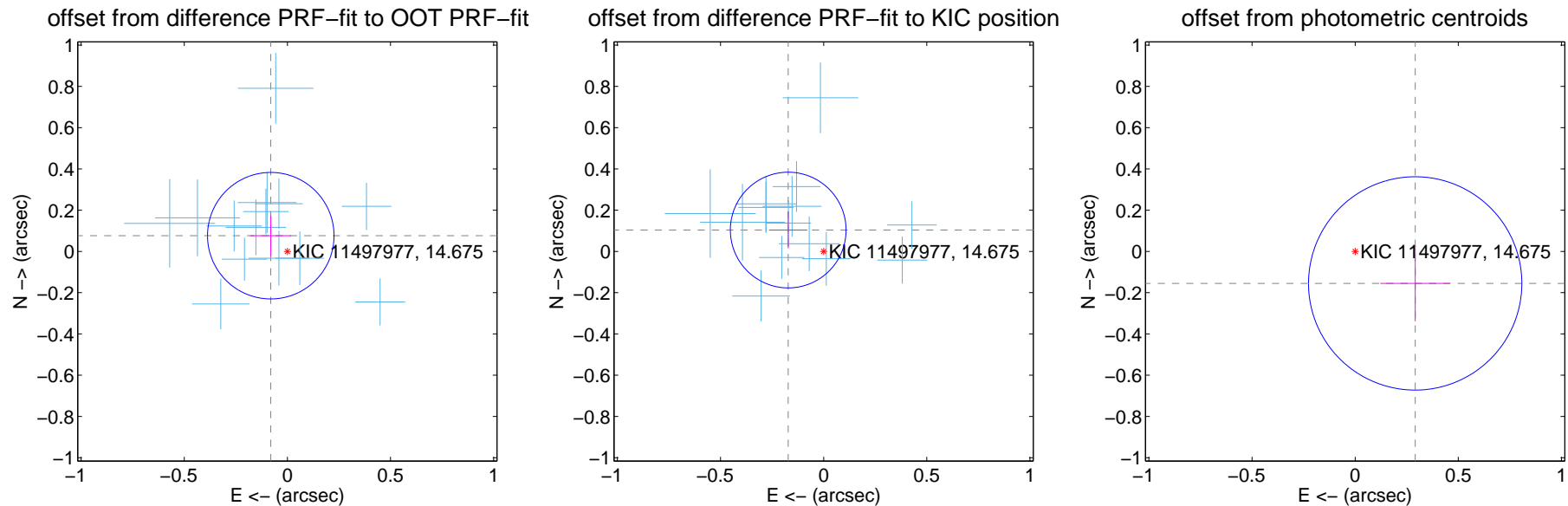
DV Centroid Data

Supplemental centroid analysis for 011497977-01. Kepler magnitude: 14.68. Transit SNR 83.08

There are 14 quarters with good PRF difference image offsets

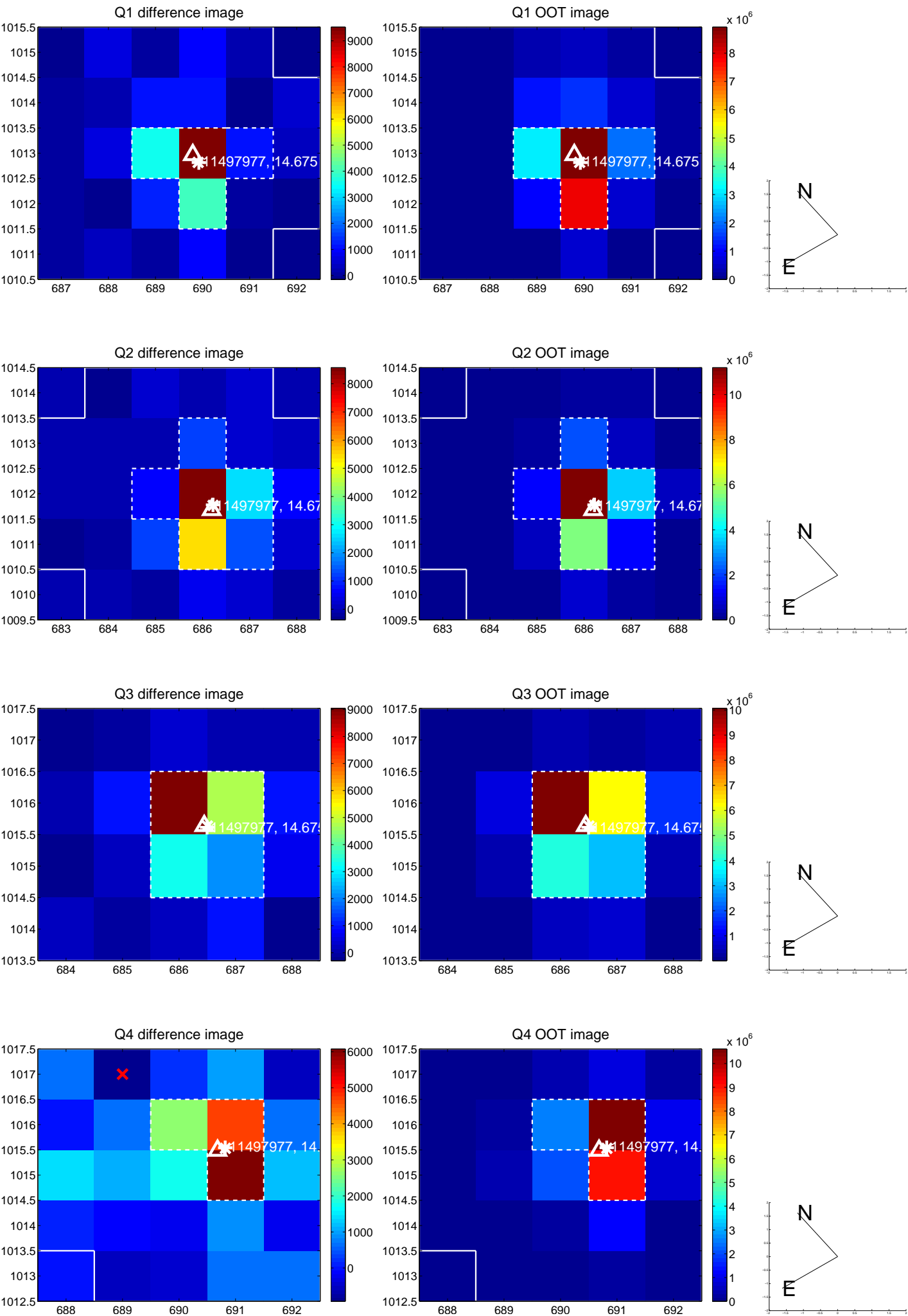
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.111 ± 0.102	1.09	0.080 ± 0.099	0.076 ± 0.098
PRF-fit source offset from KIC position	0.201 ± 0.093	2.15	0.172 ± 0.092	0.104 ± 0.089
photometric centroid source offset	0.33 ± 0.17	1.91	-0.29 ± 0.17	-0.16 ± 0.18

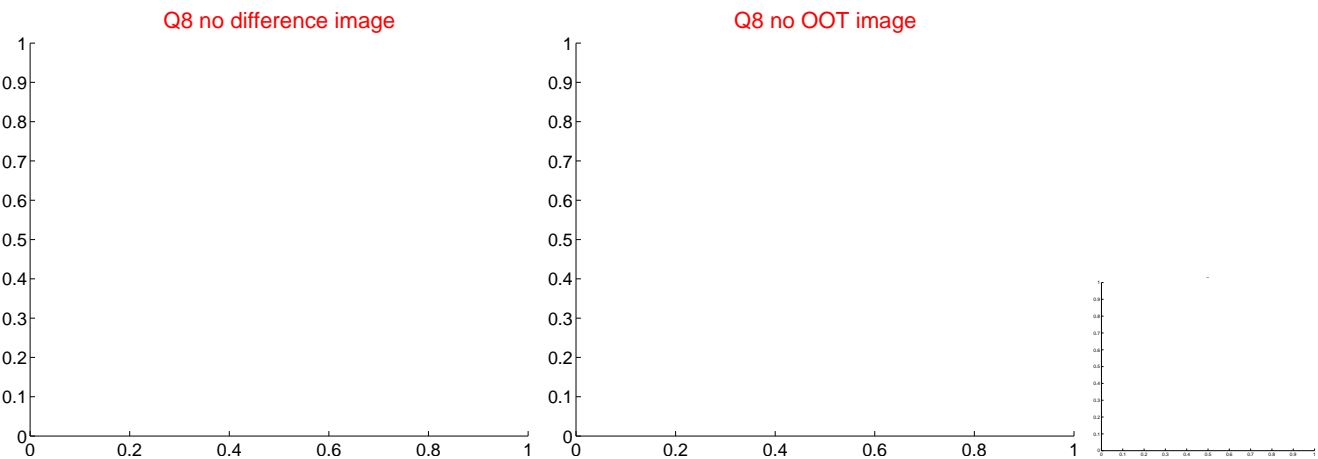
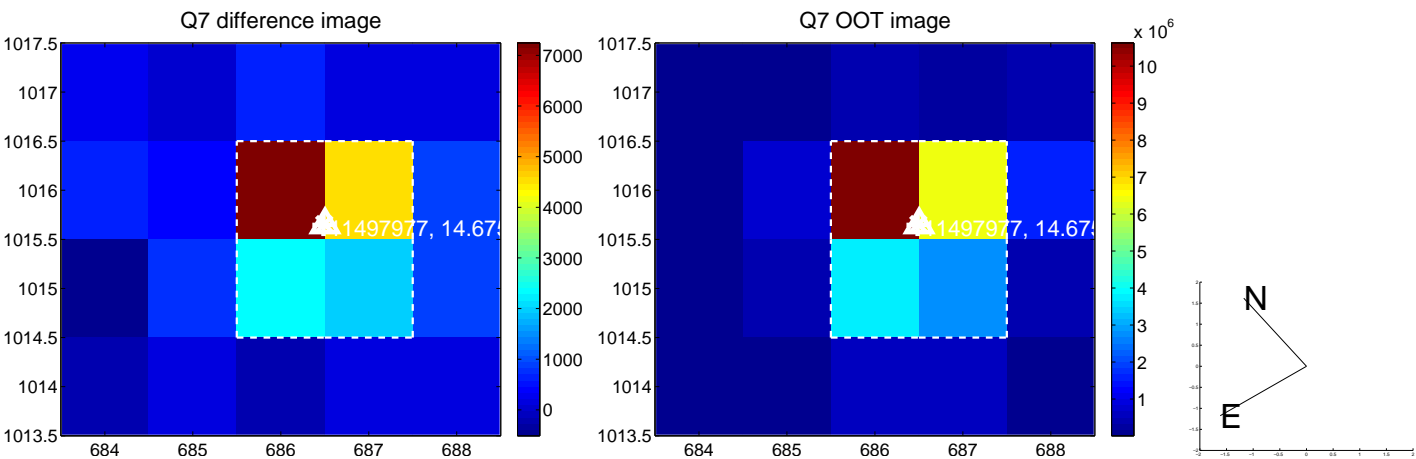
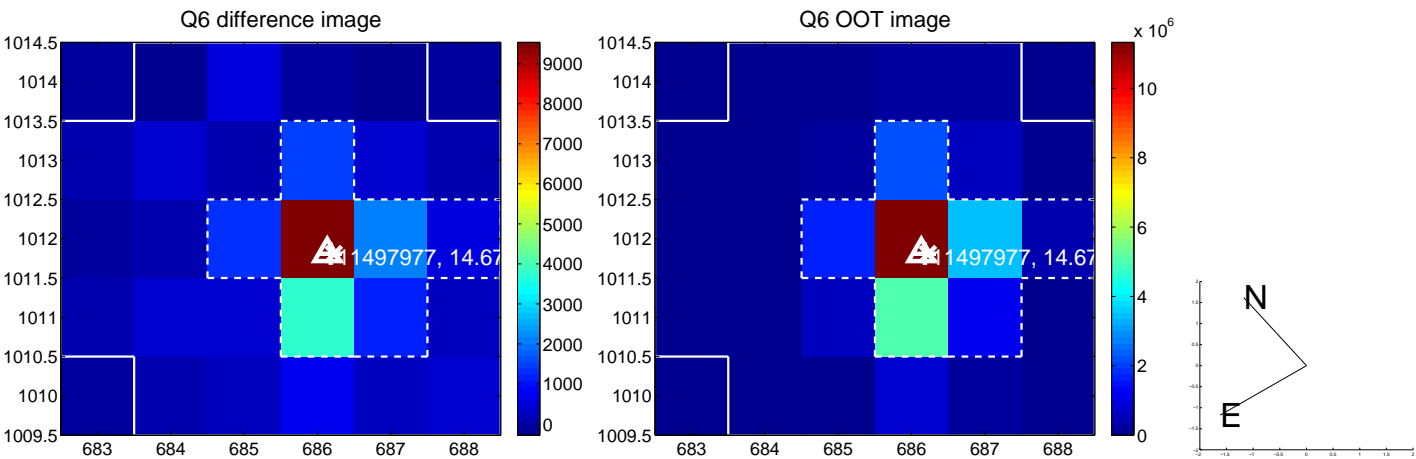
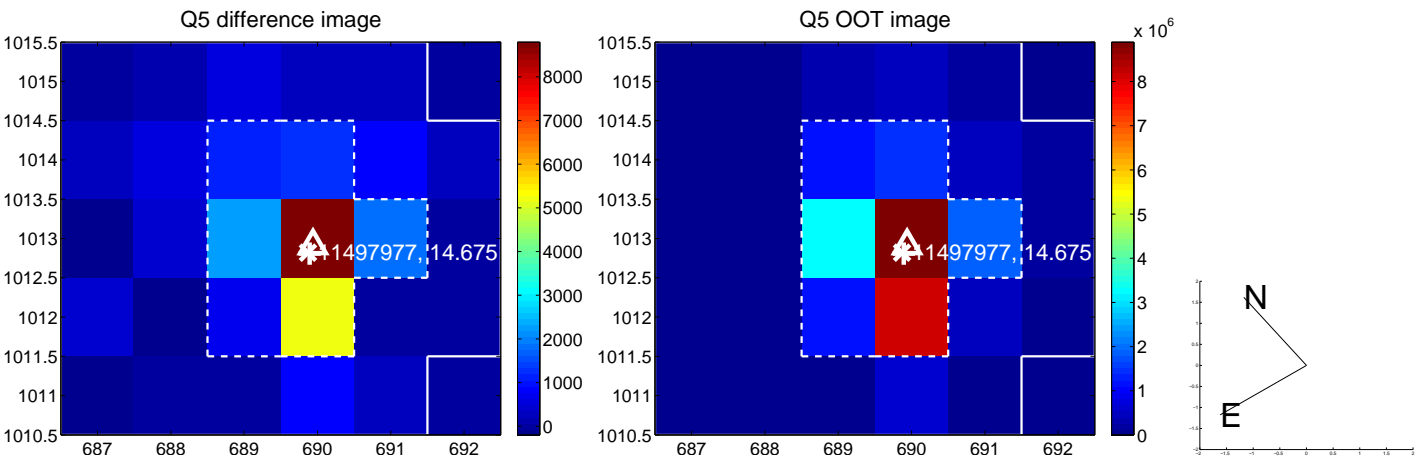


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

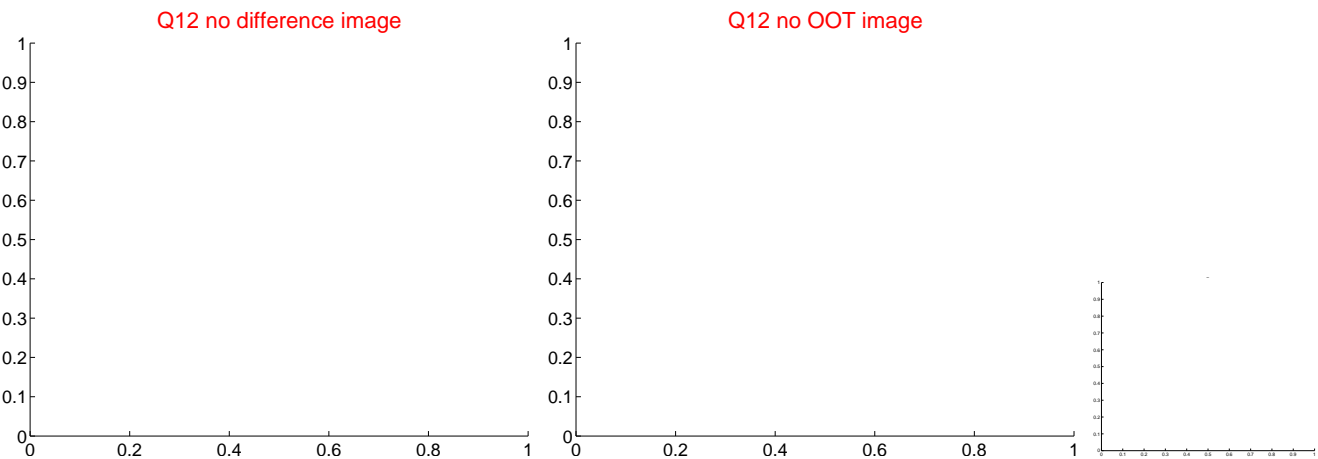
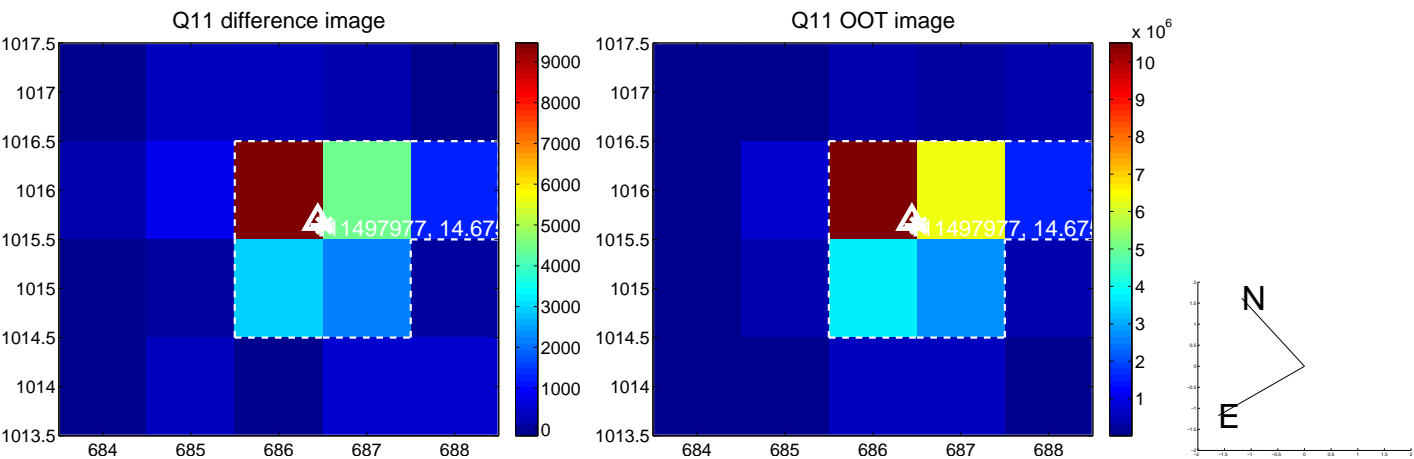
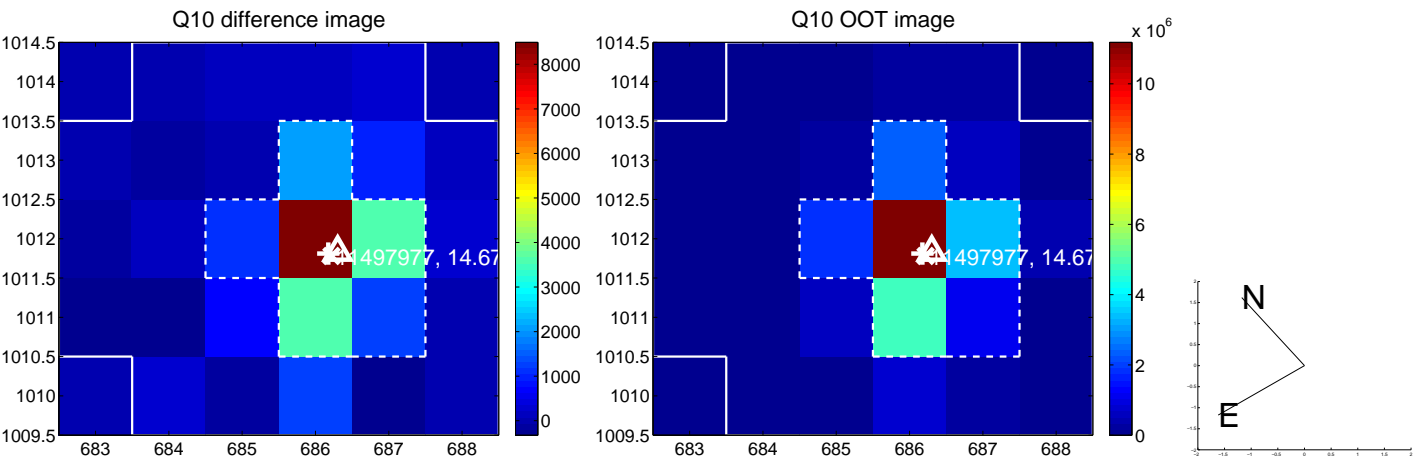
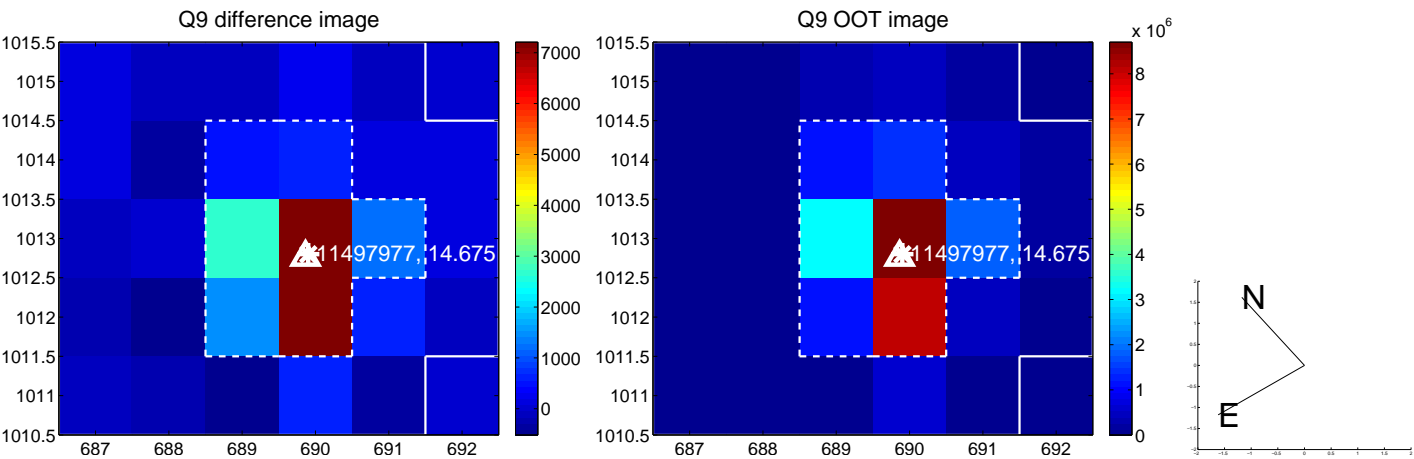
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



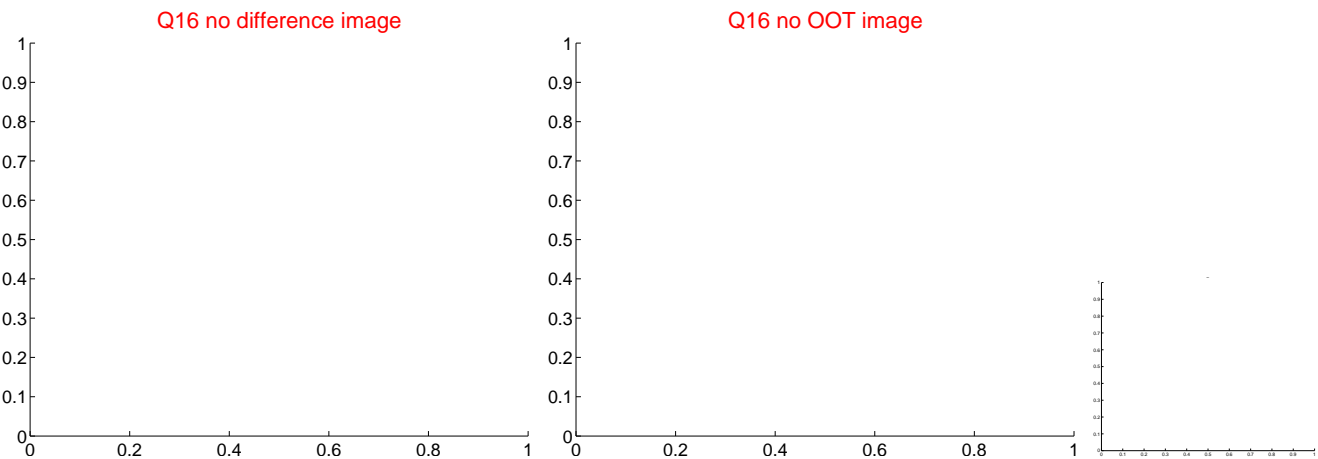
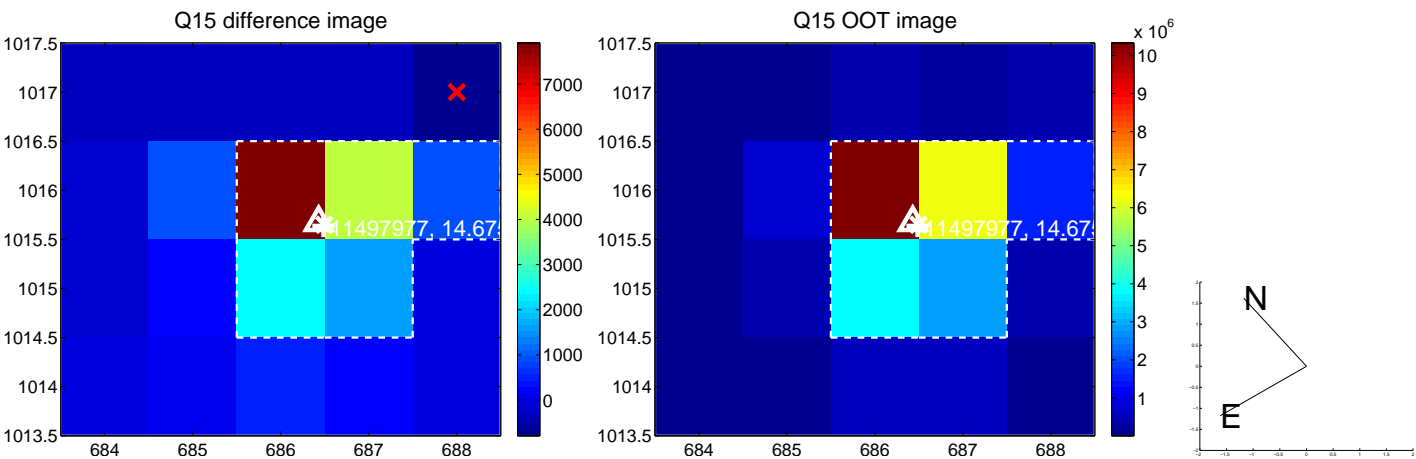
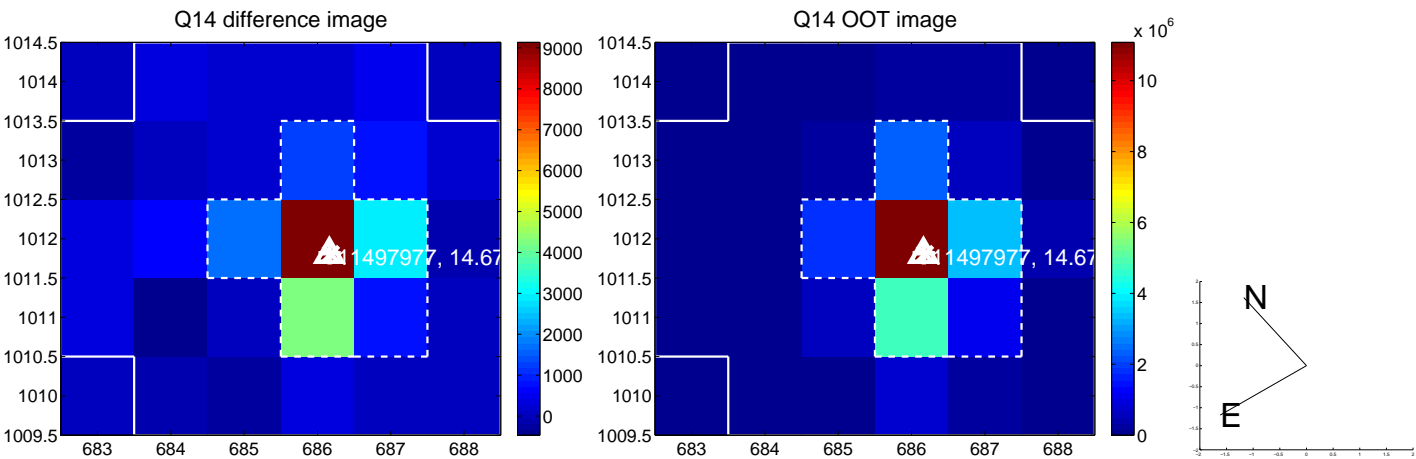
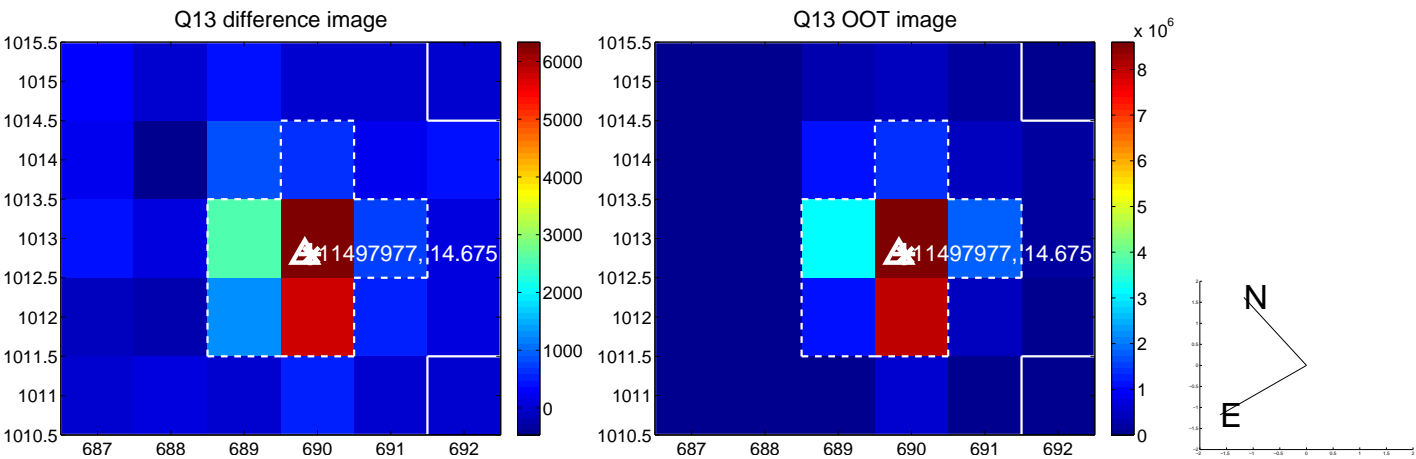
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



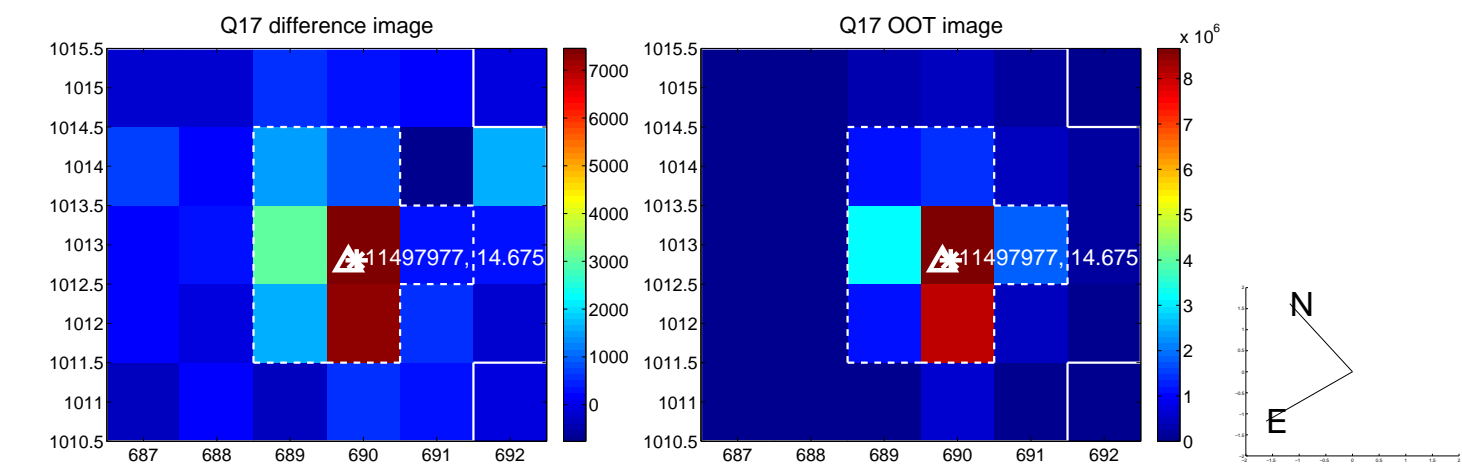
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



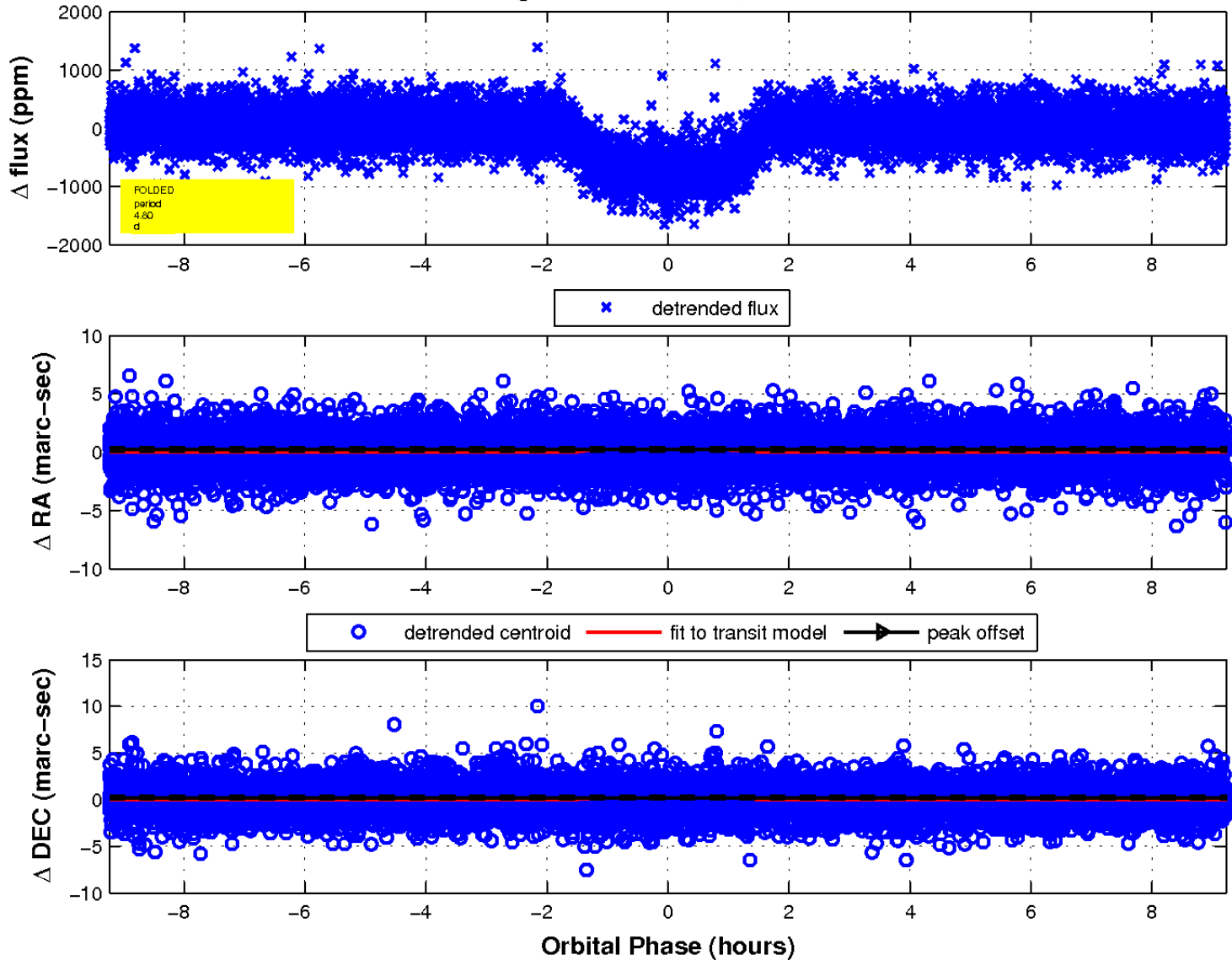
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

