

KIC 007879433

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})
007879433-01	OBS	2527.01	1.385803	132.715303	82.1	1.487	15.2	16.7	0.60	4239	0.67	244.59

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007879433-01	OBS	PC	0.98	0	0	0	0	CENT_KIC_POS

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

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

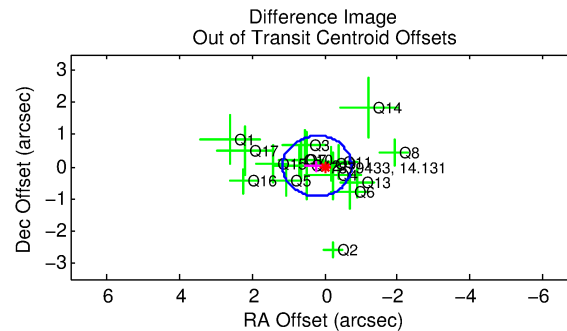
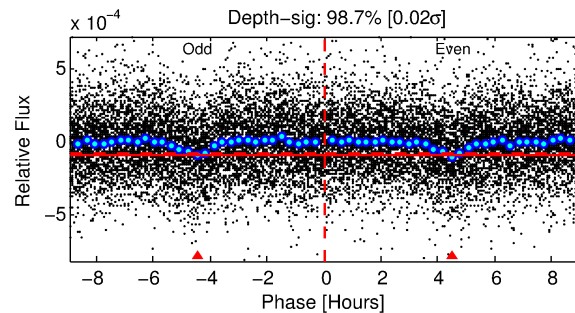
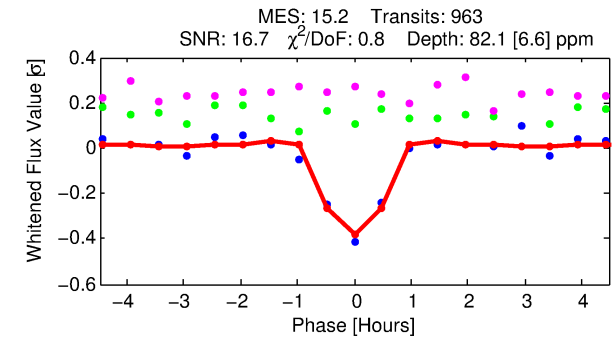
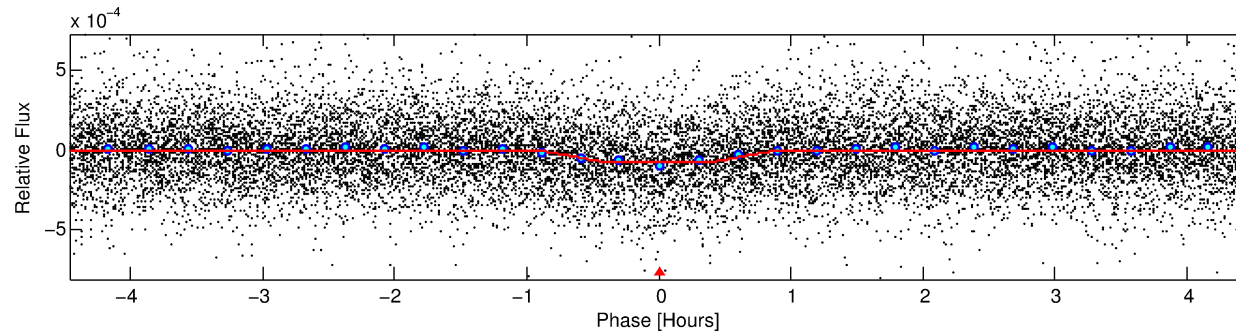
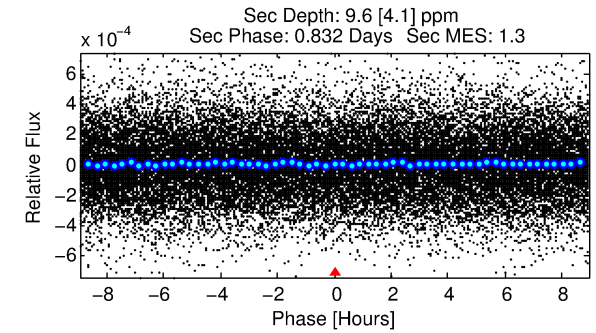
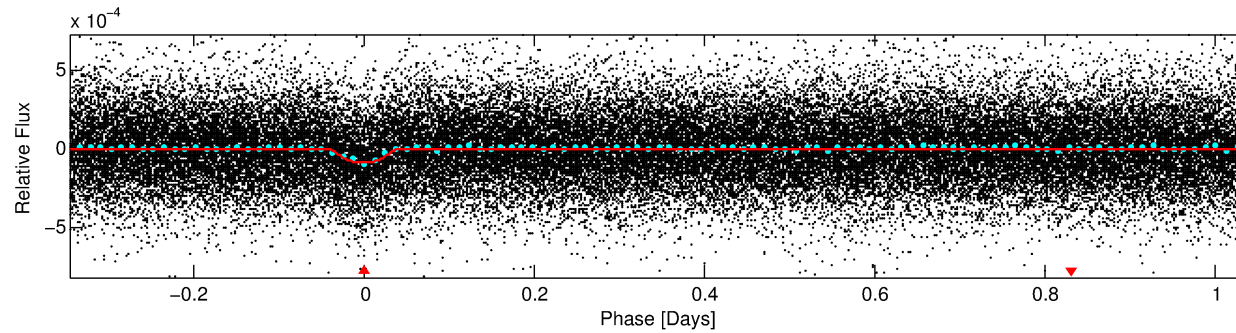
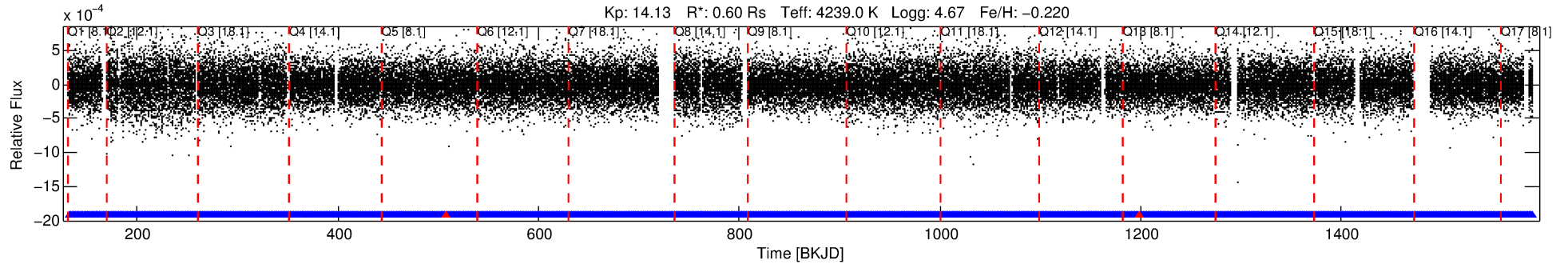
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007879433-01

No Significant Match Found

DV One-Page Summary

KIC: 7879433 Candidate: 1 of 1 Period: 1.386 d
KOI: K02527.01 Corr: 0.912



DV Fit Results:

Period = 1.38580 [0.00001] d
Epoch = 132.7153 [0.0013] BKJD
Rp/R* = 0.0102 [0.0052]
a/R* = 3.38 [6.52]
b = 0.90 [0.45]
Seff = 244.59 [23.13]
Teff = 1008 [24] K
Rp = 0.67 [0.34] Re
a = 0.0206 [0.0008] AU
Ag = 5.05 [5.64] [0.72σ]
Teffp = 2338 [653] K [2.03σ]

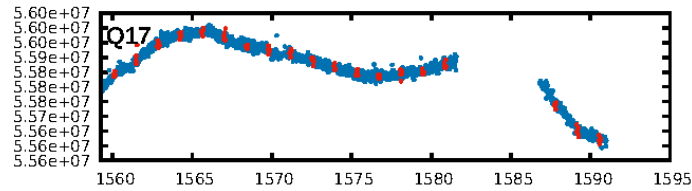
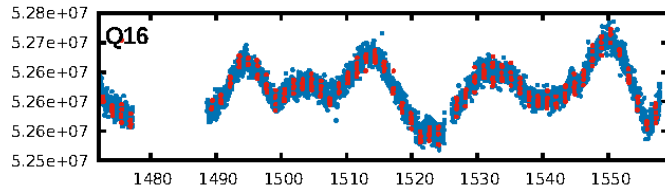
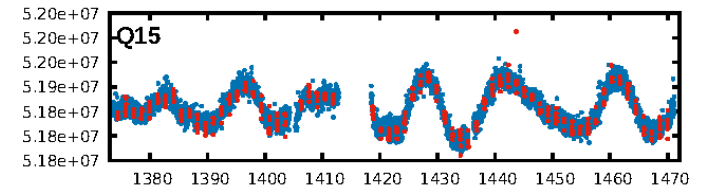
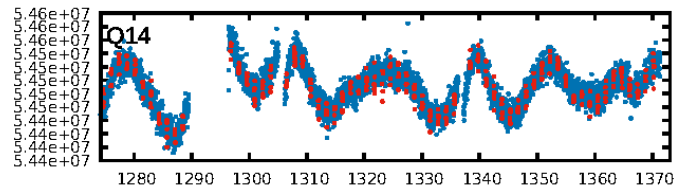
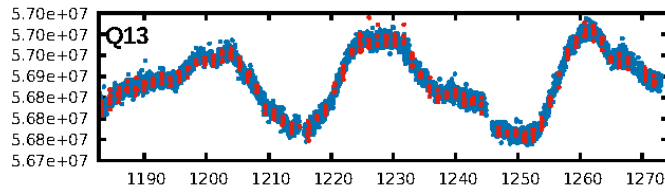
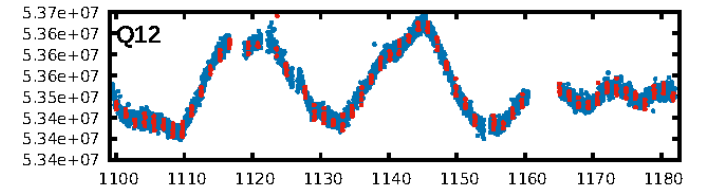
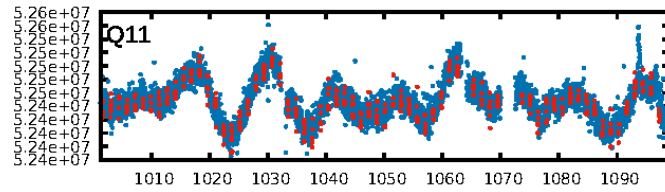
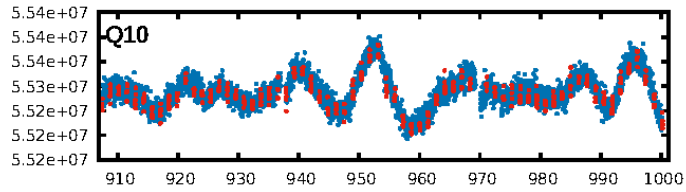
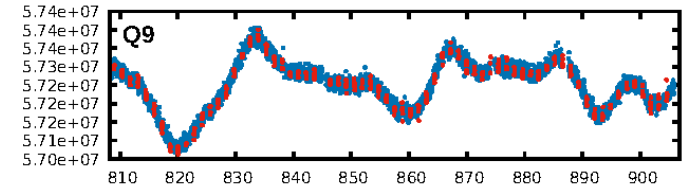
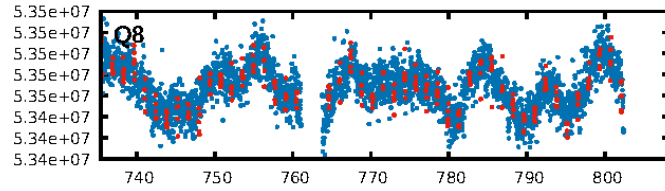
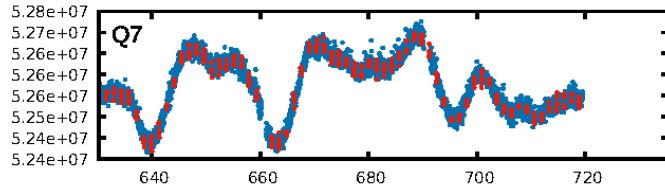
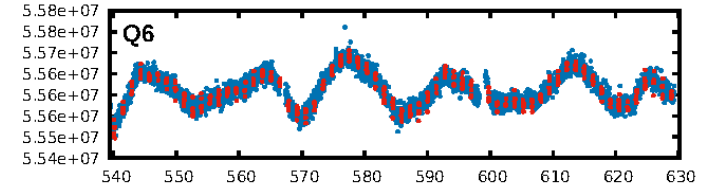
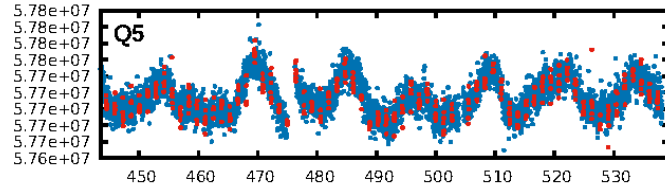
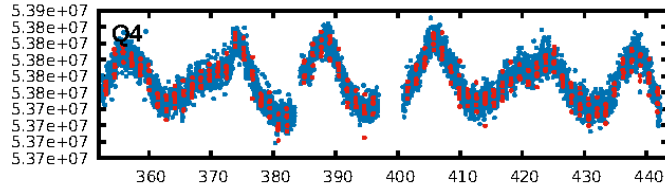
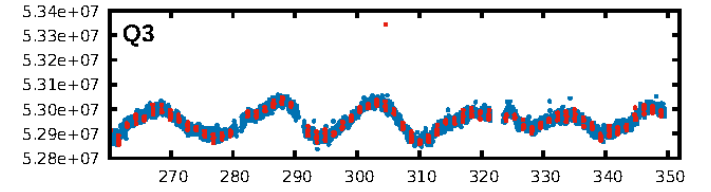
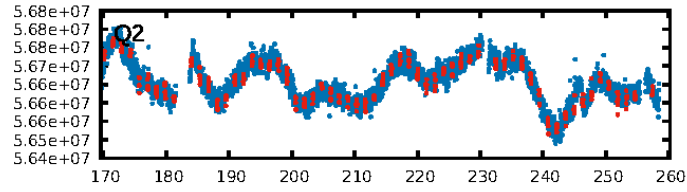
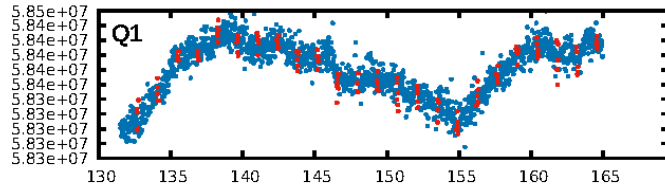
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.64e-49
RollingBand-fgt: 1.00 [918/920]
GhostDiagnostic-chr: 3.9
Centroid-sig: 3.0%
Centroid-so: 1.323 arcsec [2.08σ]
OotOffset-rm: 0.212 arcsec [0.67σ]
KicOffset-rm: 0.595 arcsec [1.86σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.88 [15/17]
DiffImageOverlap-fno: 1.00 [17/17]

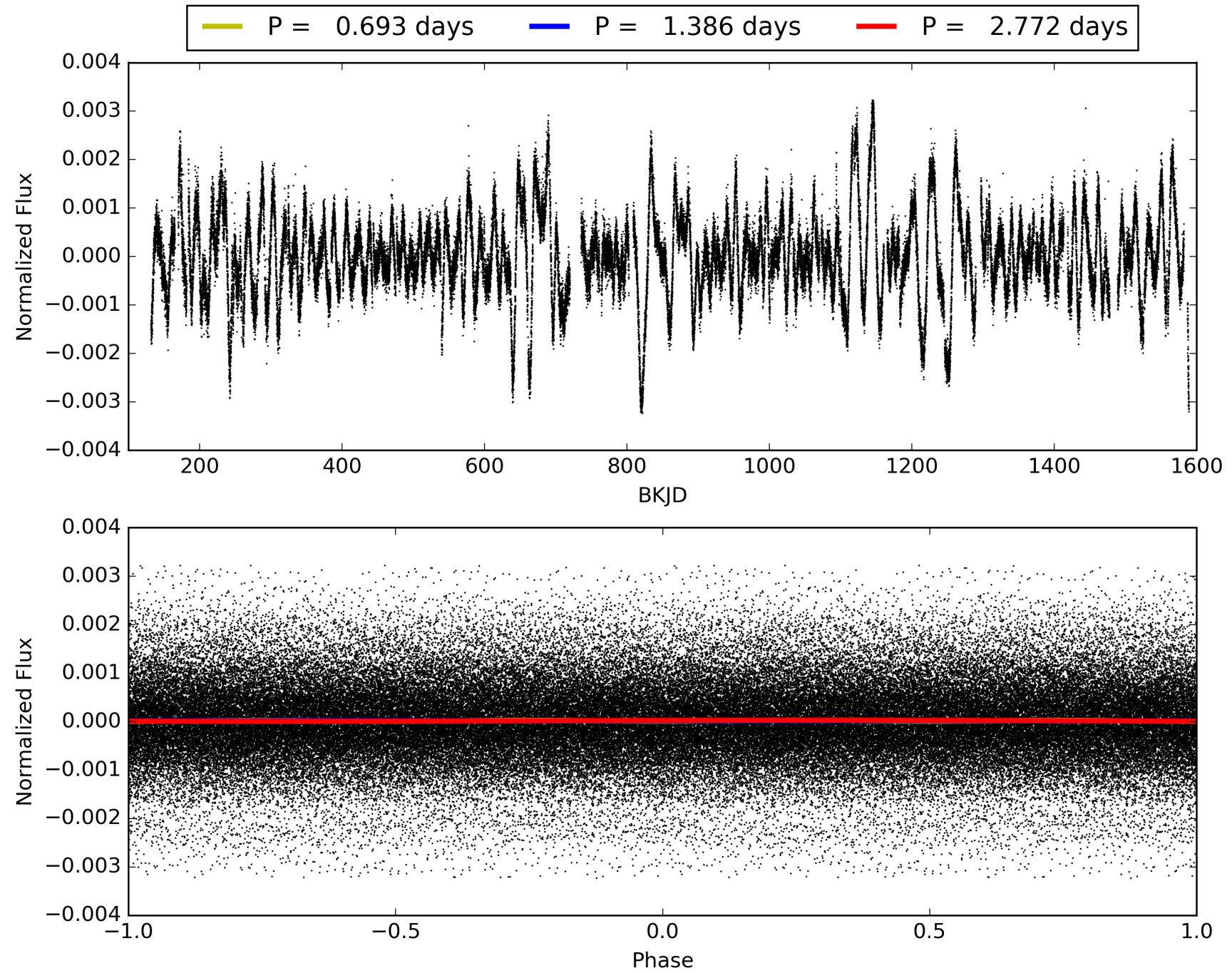
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 02:49:56 Z

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

TCE 007879433-01, PDC Light Curves

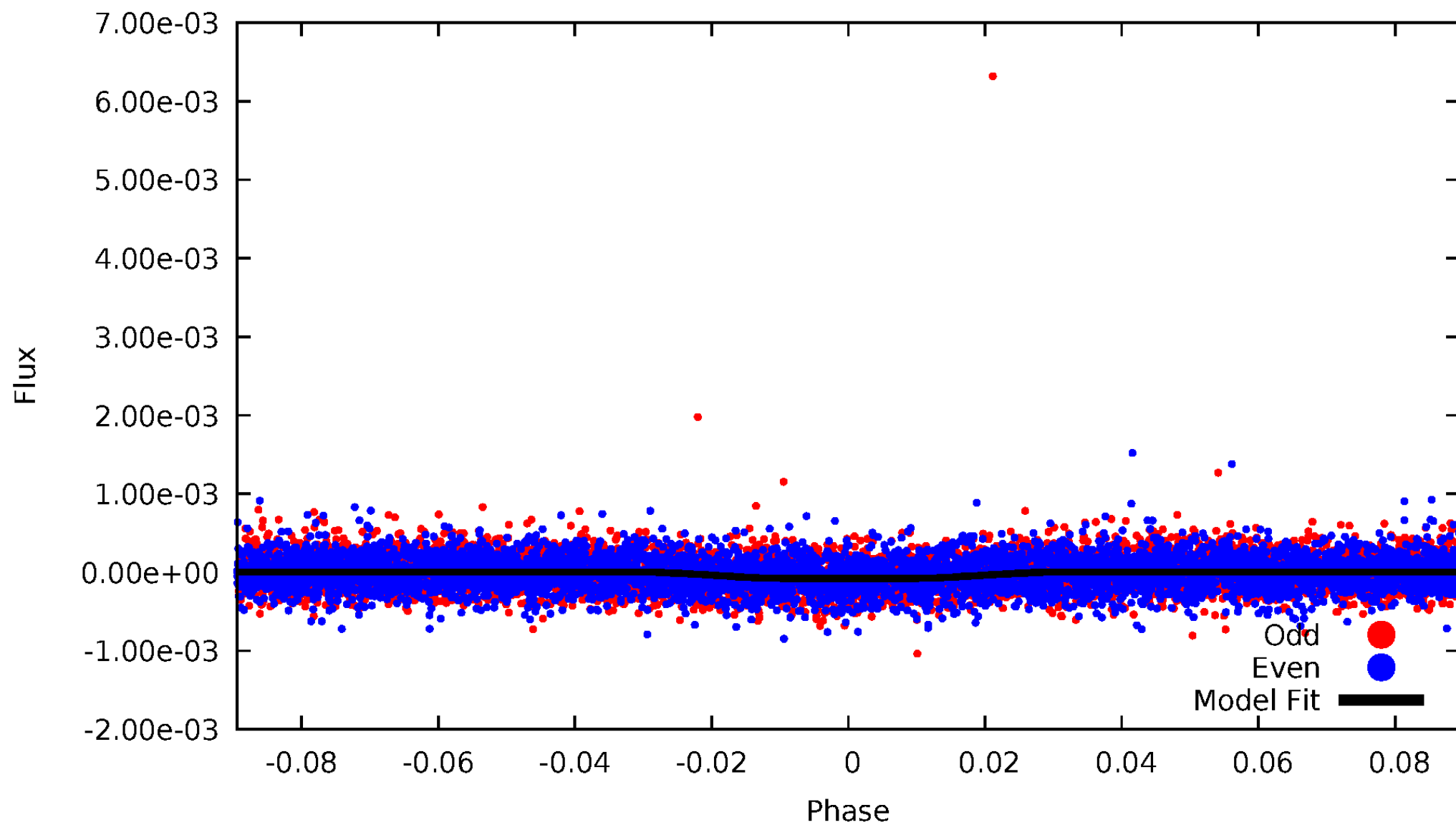


TCE 007879433-01



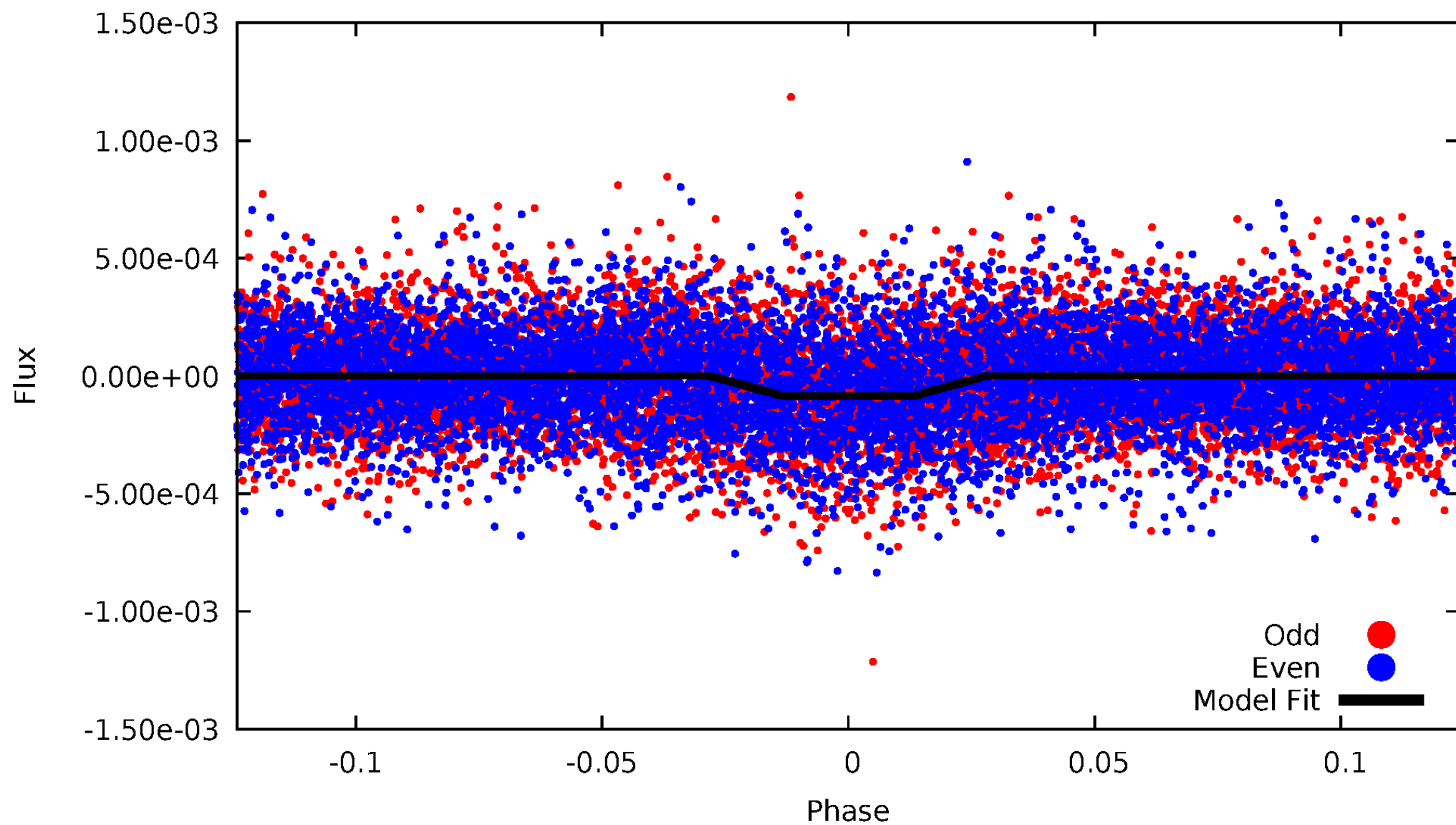
DV Odd/Even

TCE 007879433-01



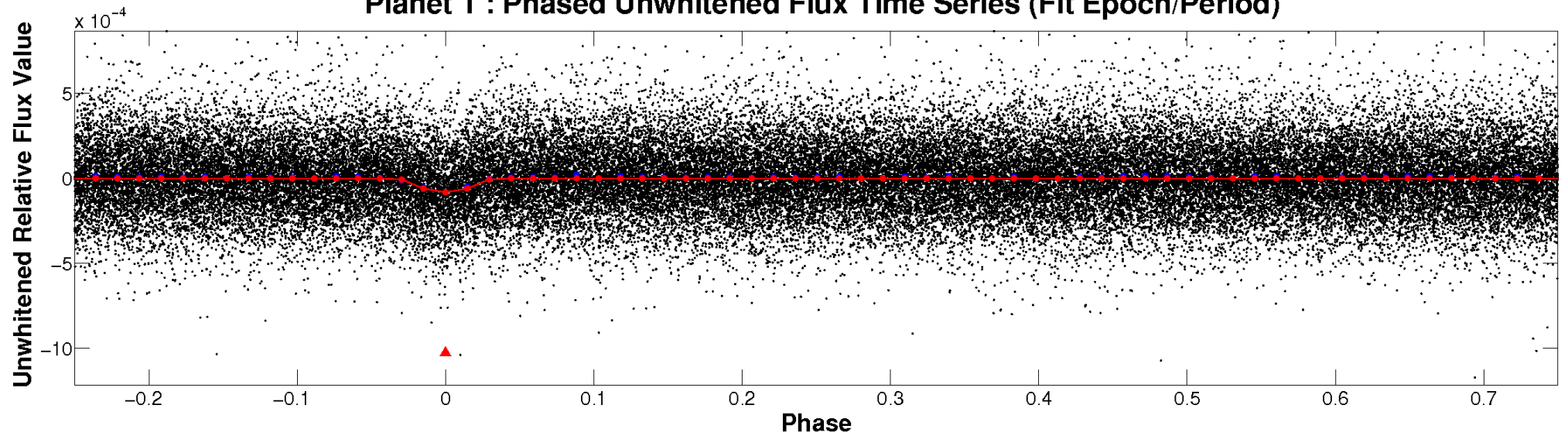
ALT Odd/Even

TCE 007879433-01

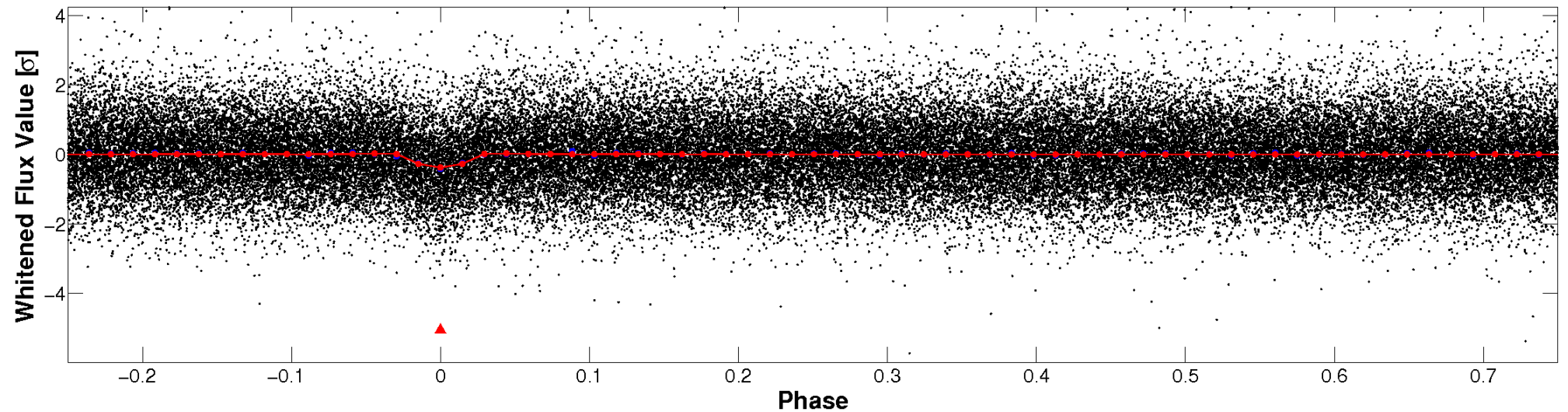


Non-Whitened Vs. Whitened Light Curve

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

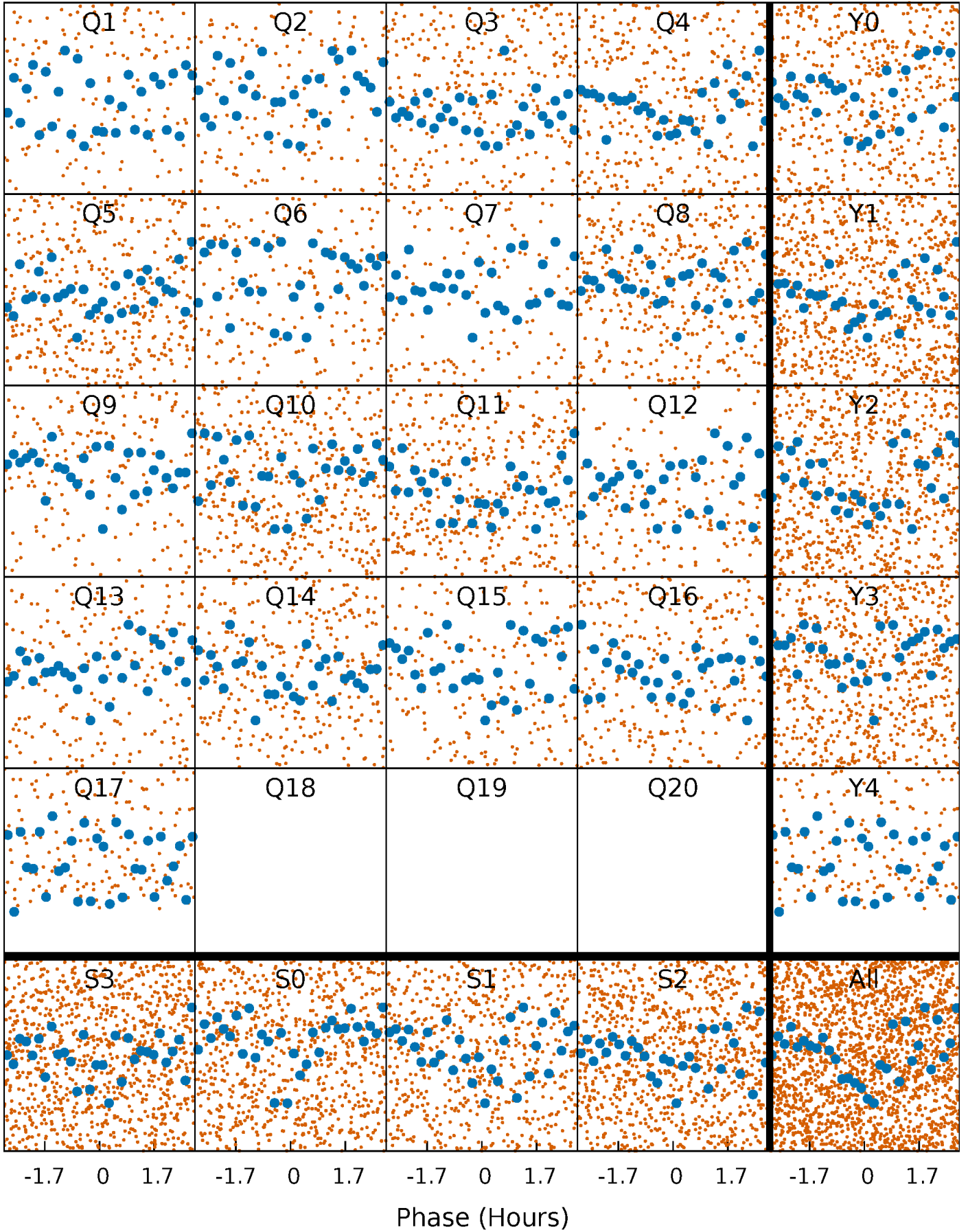


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



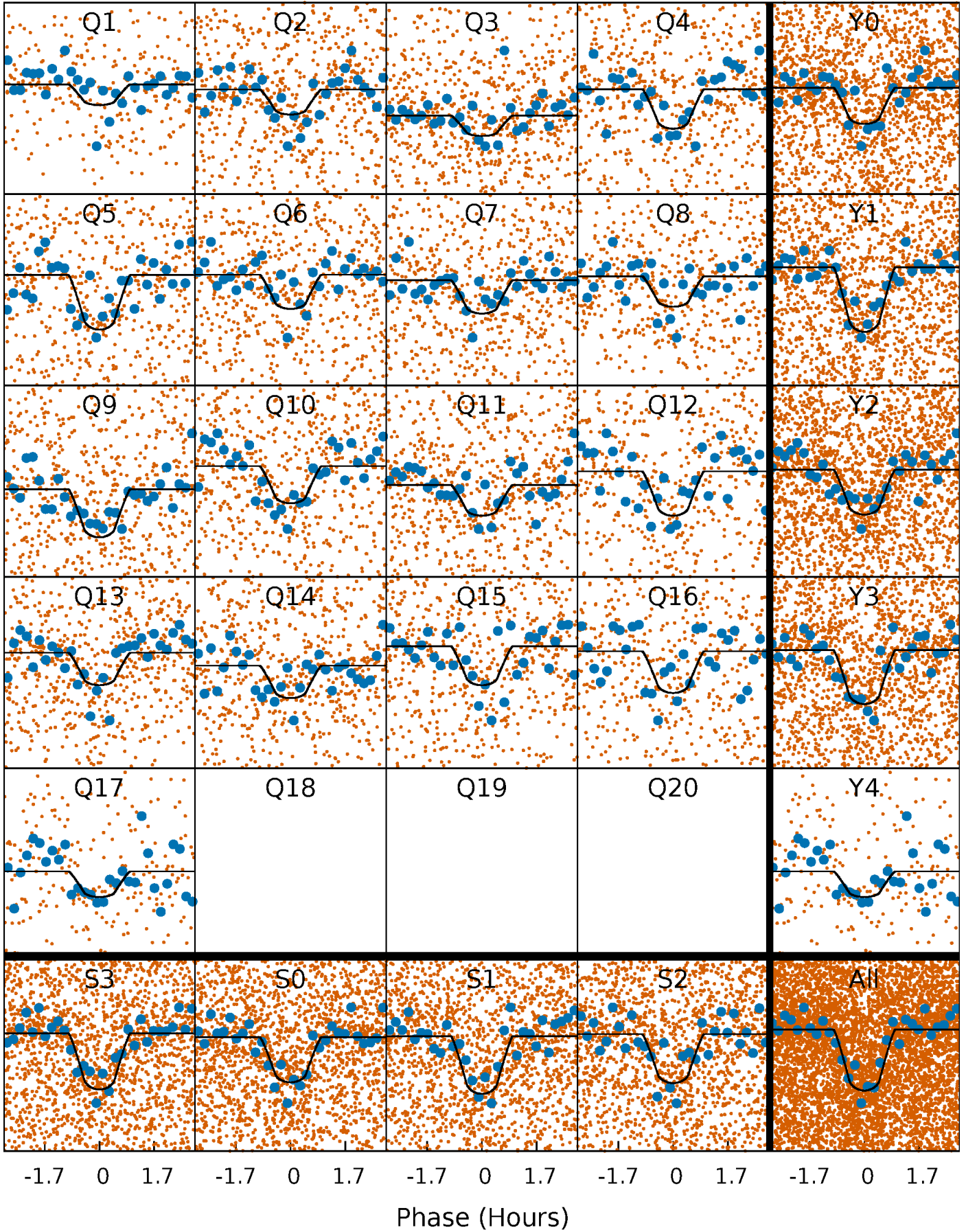
PDC Quarter-Phased Transit Curves

TCE 007879433-01 P= 1.385803 Days $T_0=132.715303$ (BKJD)



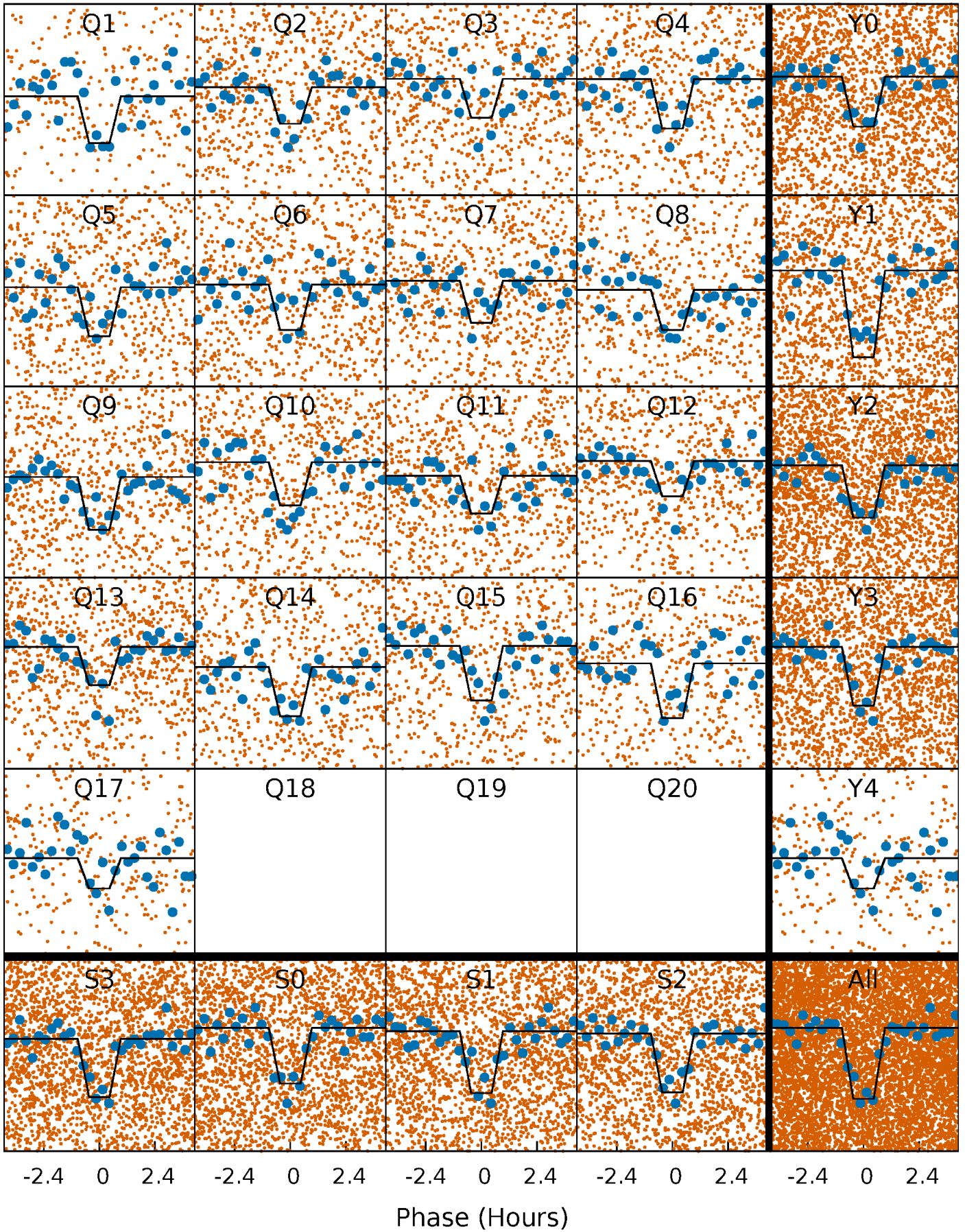
DV Quarter-Phased Transit Curves

TCE 007879433-01 P= 1.385803 Days $T_0=132.715303$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

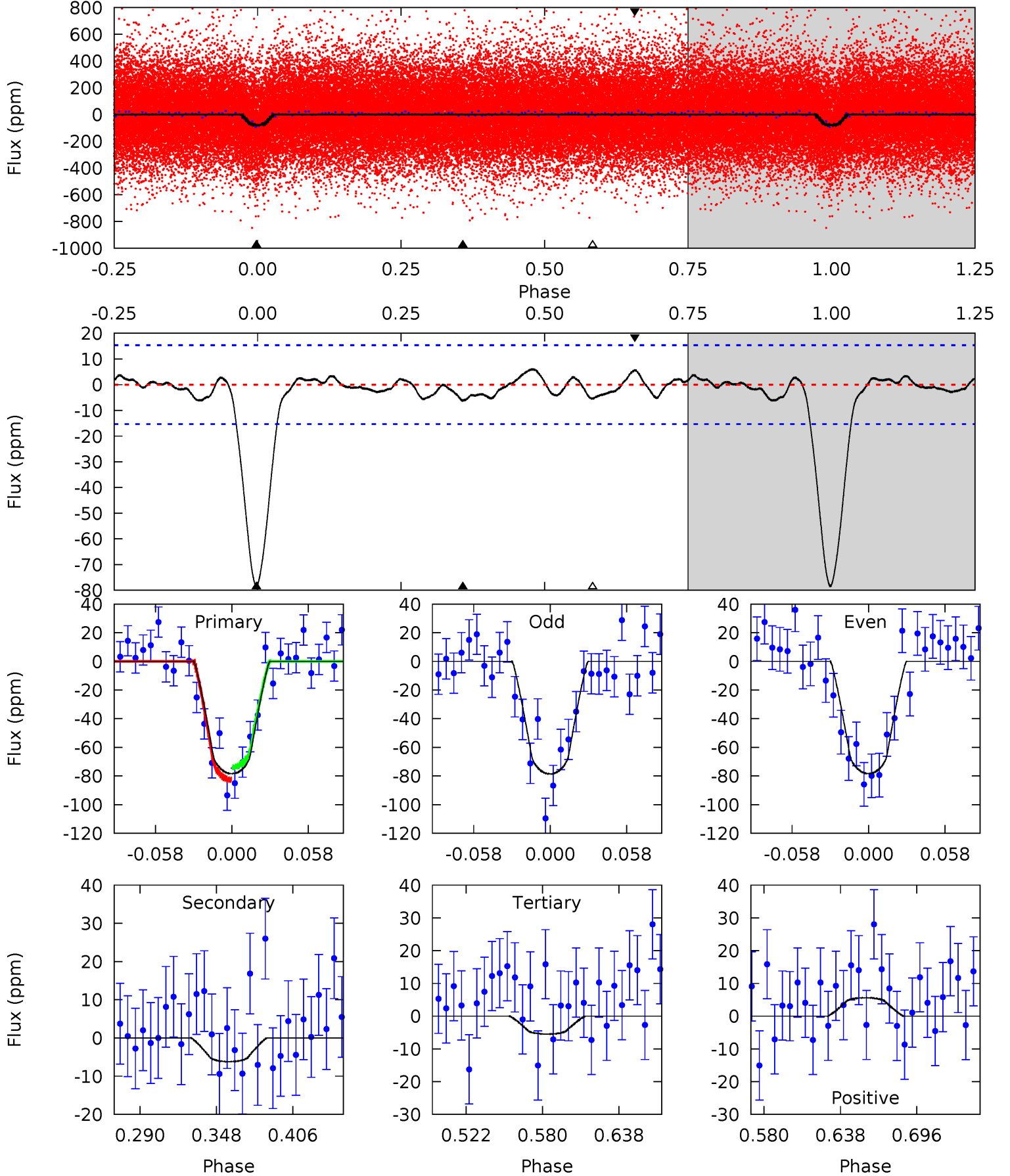
TCE 007879433-01 P= 1.385782 Days $T_0=132.724136$ (BKJD)



DV Model-Shift Uniqueness Test

007879433-01, $P = 1.385803$ Days, $E = 131.329500$ Days

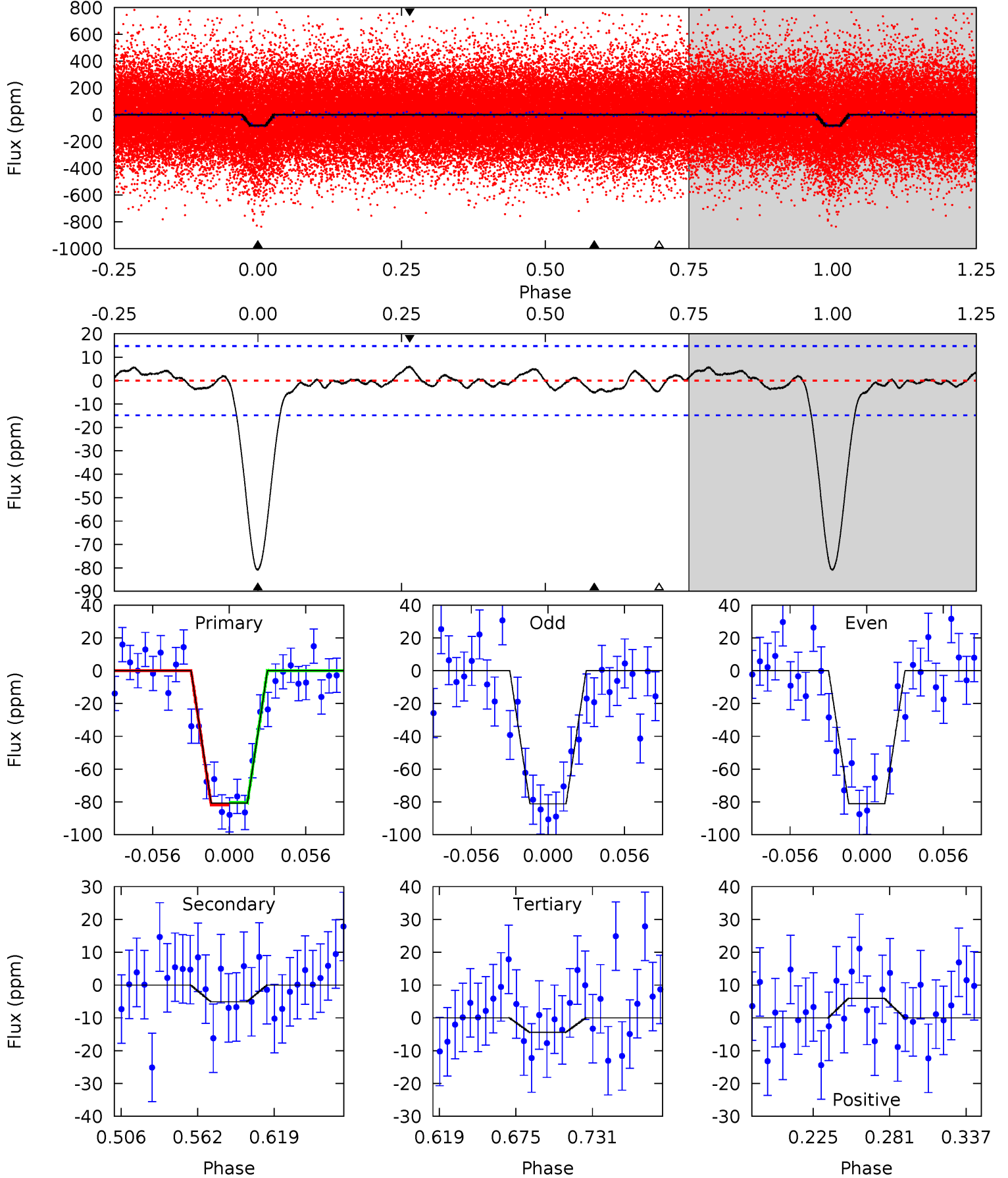
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.9	1.89	1.67	1.71	4.68	1.90	0.85	22.2	22.2	0.22	0.18	0.04	0.96	0.07	1.36



Alt Model-Shift Uniqueness Test

007879433-01, P = 1.385782 Days, E = 131.338354 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.6	1.61	1.40	1.88	4.68	1.91	0.79	24.2	23.7	0.21	-0.26	0.03	1.01	0.07	0.23



Stellar Parameters For KIC 007879433

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4239^{+84}_{-84}	$4.667^{+0.025}_{-0.022}$	$-0.220^{+0.150}_{-0.150}$	$0.600^{+0.028}_{-0.031}$	$0.611^{+0.033}_{-0.033}$	$3.981^{+0.426}_{-0.352}$
	+2%/-2%	+1%/-0%	+68%/-68%	+5%/-5%	+5%/-5%	+11%/-9%
Source	SPE60	SPE60	SPE60	DSEP		

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

Secondary Eclipse Parameters for KIC 007879433-01 / KOI 2527.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-6 ± 3	$0.68^{+0.36}_{-0.34}$	1409^{+30}_{-33}	2670^{+568}_{-403}	$2.978^{+8.170}_{-2.016}$
Alt.	-5 ± 3	$0.65^{+0.31}_{-0.34}$	1409^{+32}_{-34}	2645^{+625}_{-444}	$2.787^{+9.656}_{-1.938}$

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

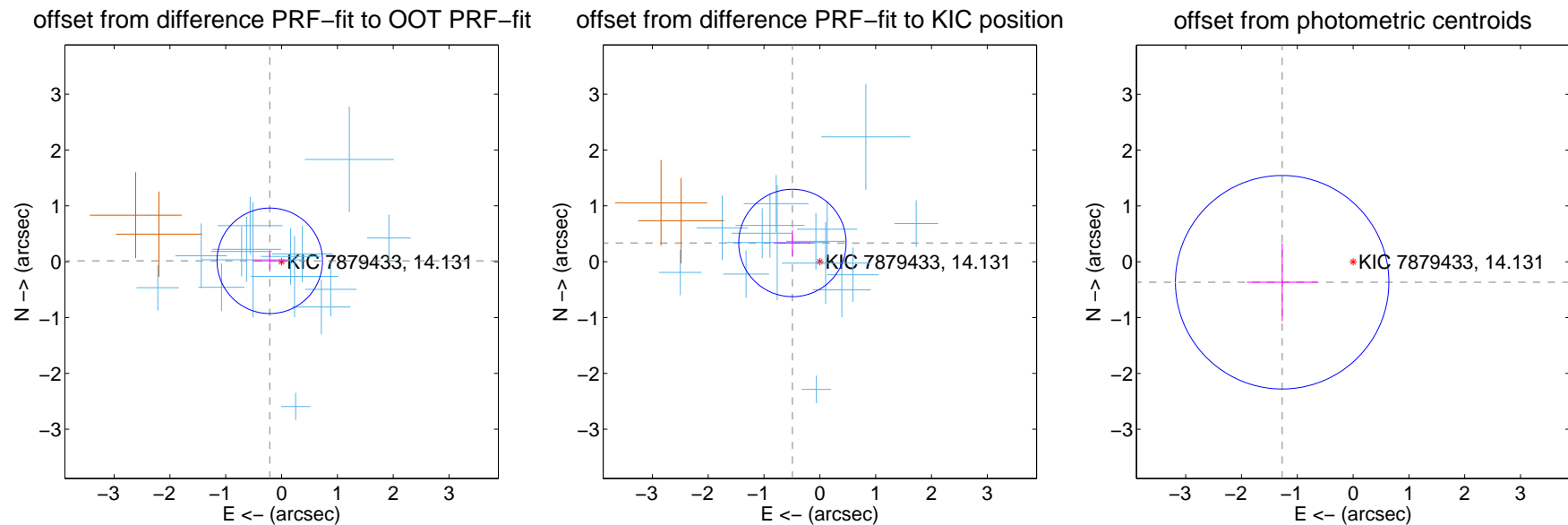
DV Centroid Data

Supplemental centroid analysis for 007879433-01. Kepler magnitude: 14.13. Transit SNR 16.72

There are 15 quarters with good PRF difference image offsets

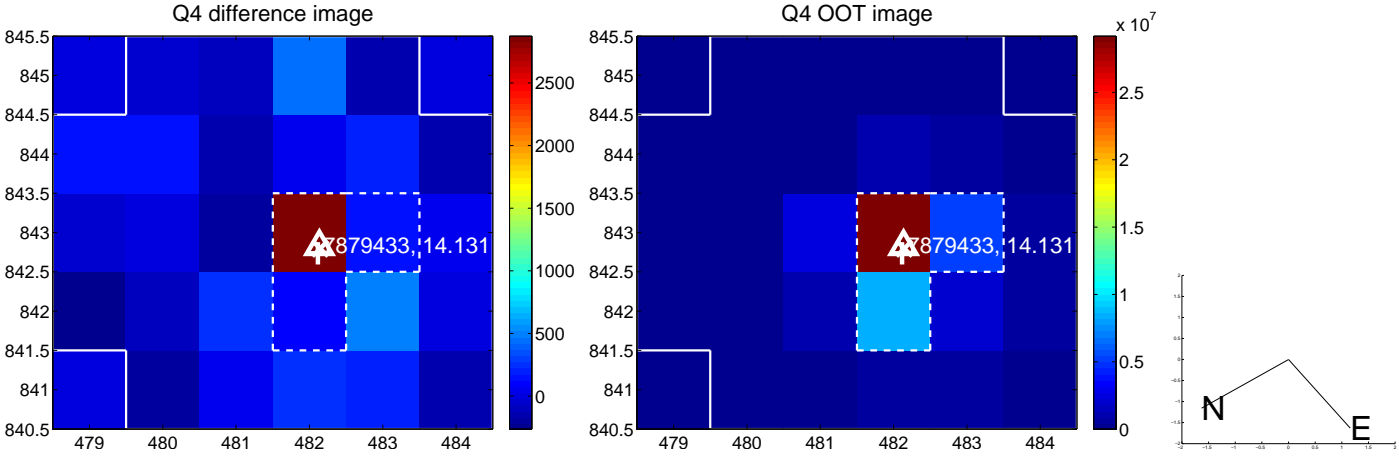
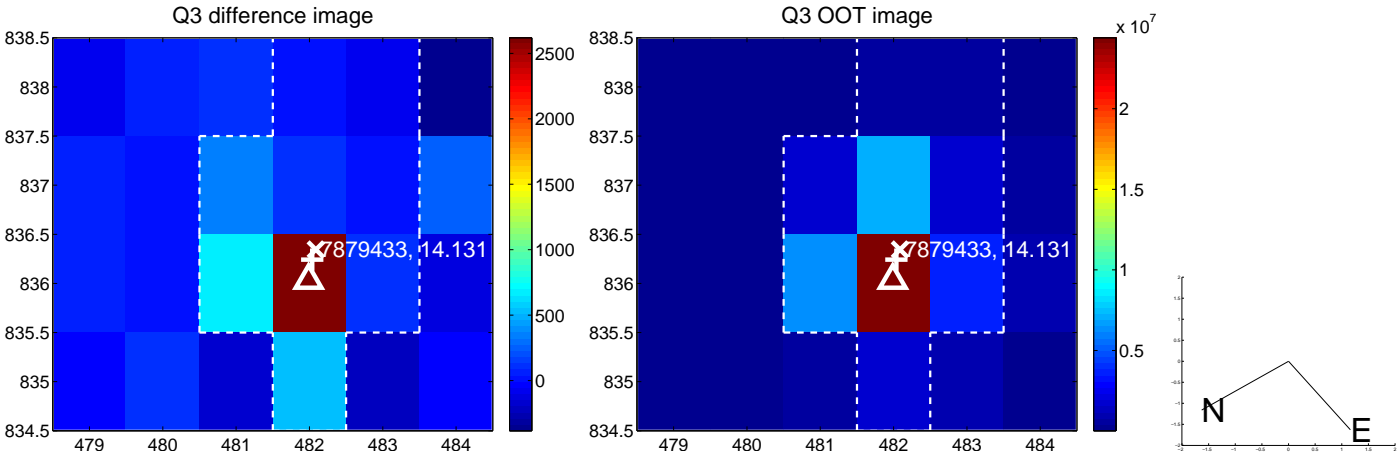
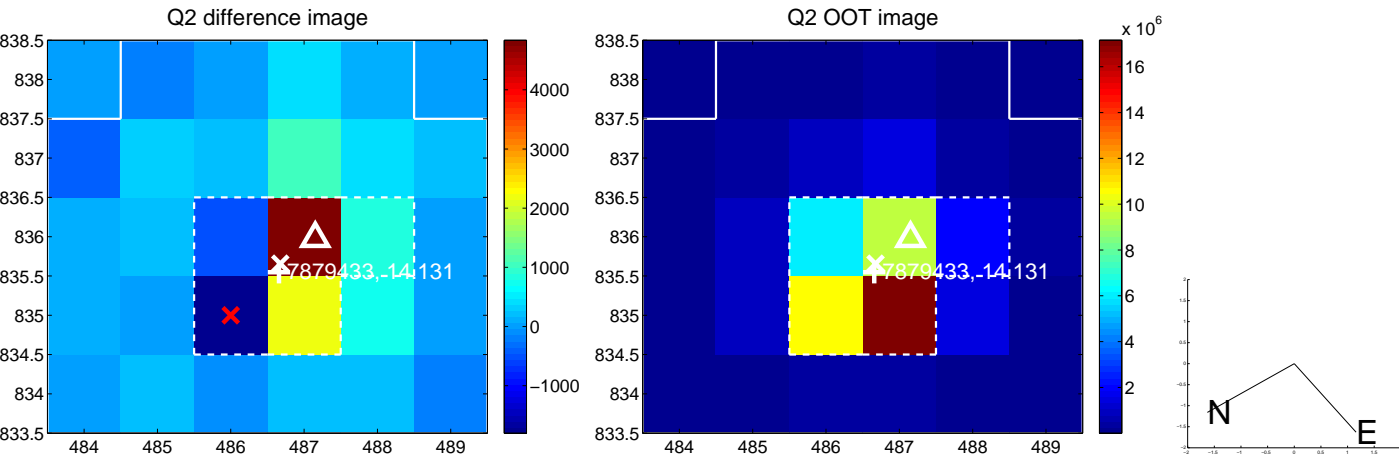
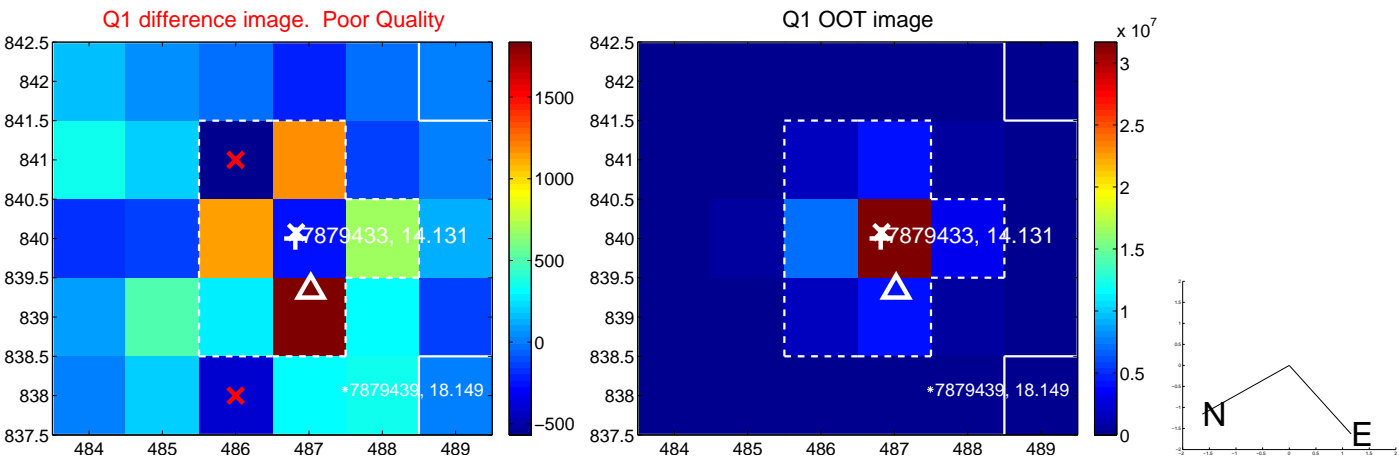
The direct PRF centroid is offset from the target star catalog position by about 0.38 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.212 ± 0.315	0.67	0.212 ± 0.316	0.016 ± 0.156
PRF-fit source offset from KIC position	0.595 ± 0.320	1.86	0.491 ± 0.330	0.335 ± 0.233
photometric centroid source offset	1.32 ± 0.64	2.08	1.27 ± 0.63	-0.37 ± 0.70

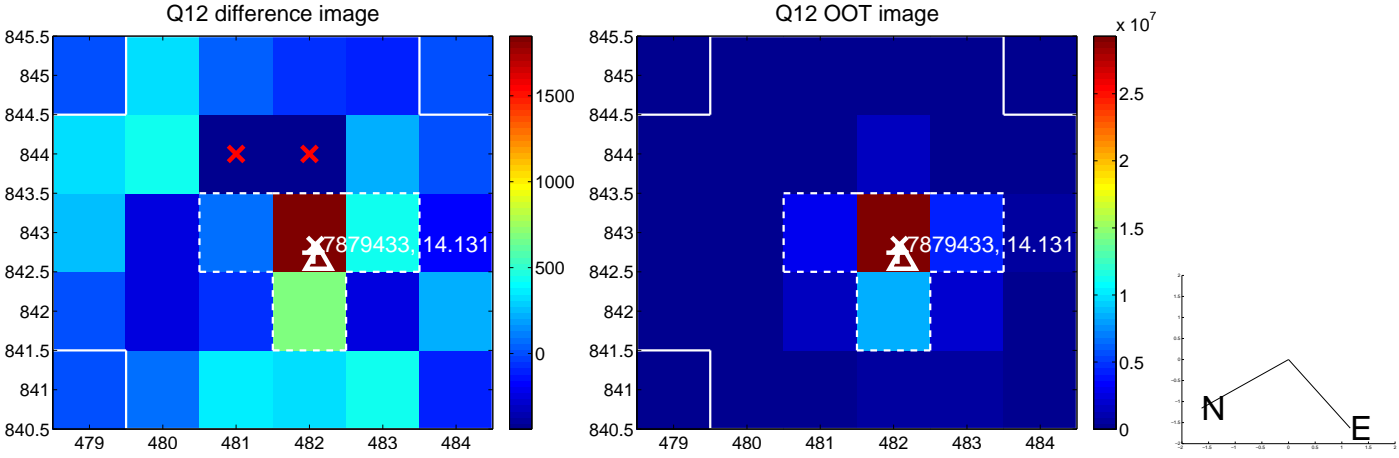
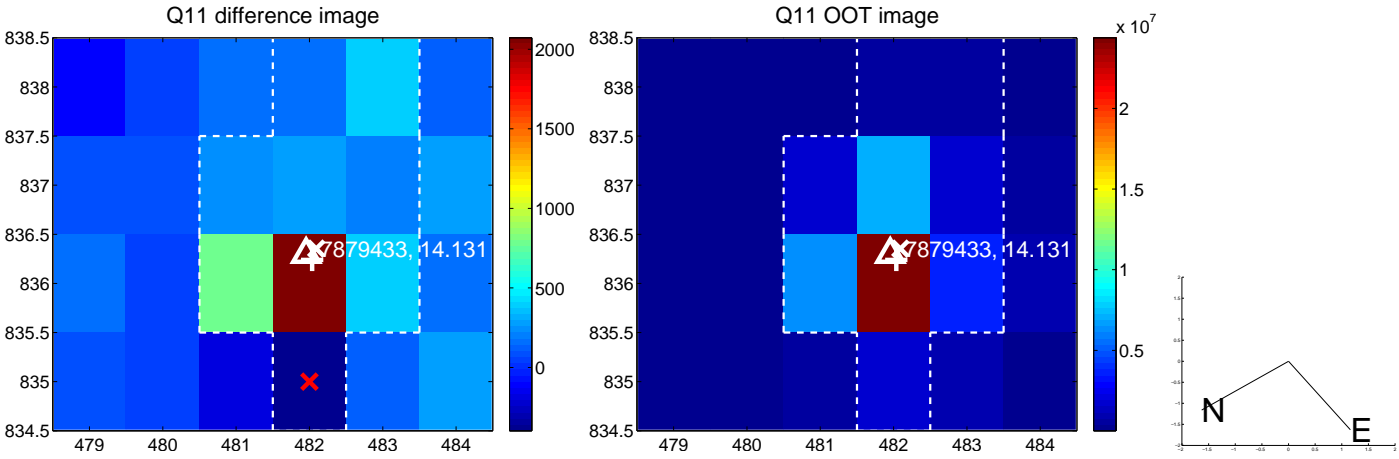
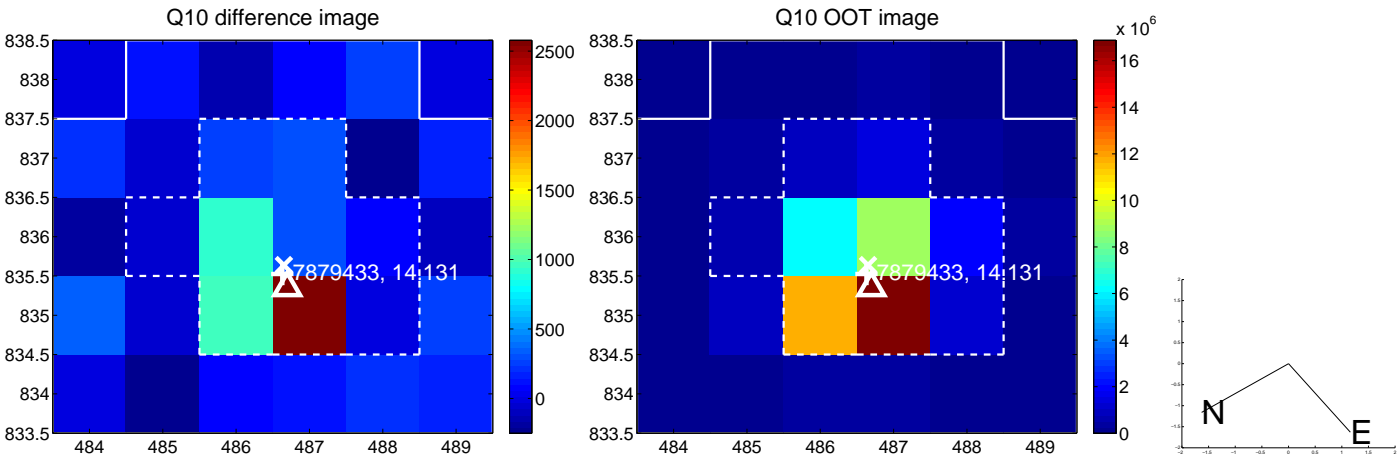
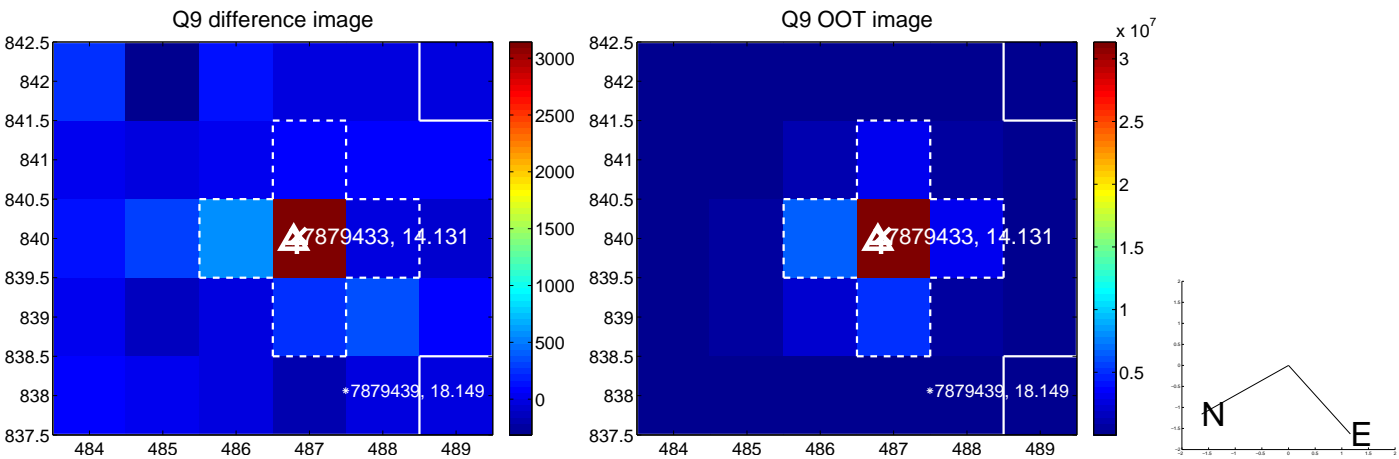


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

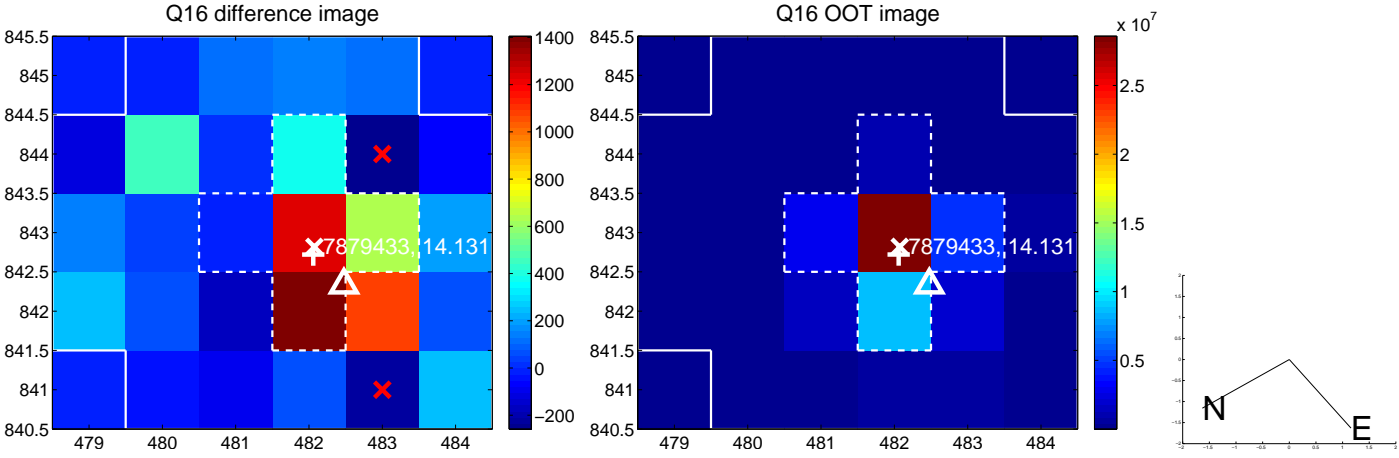
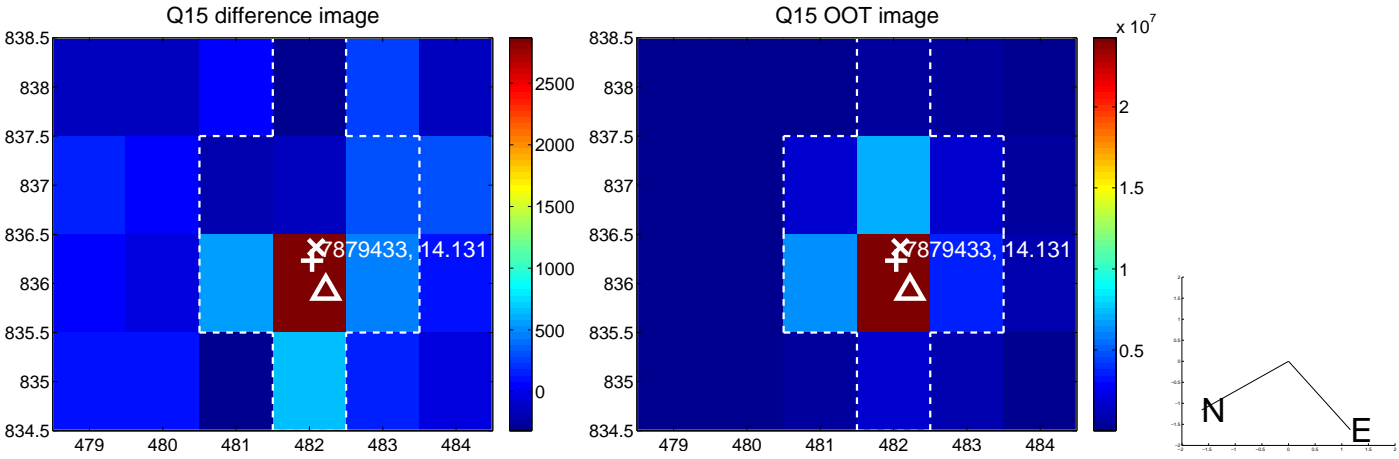
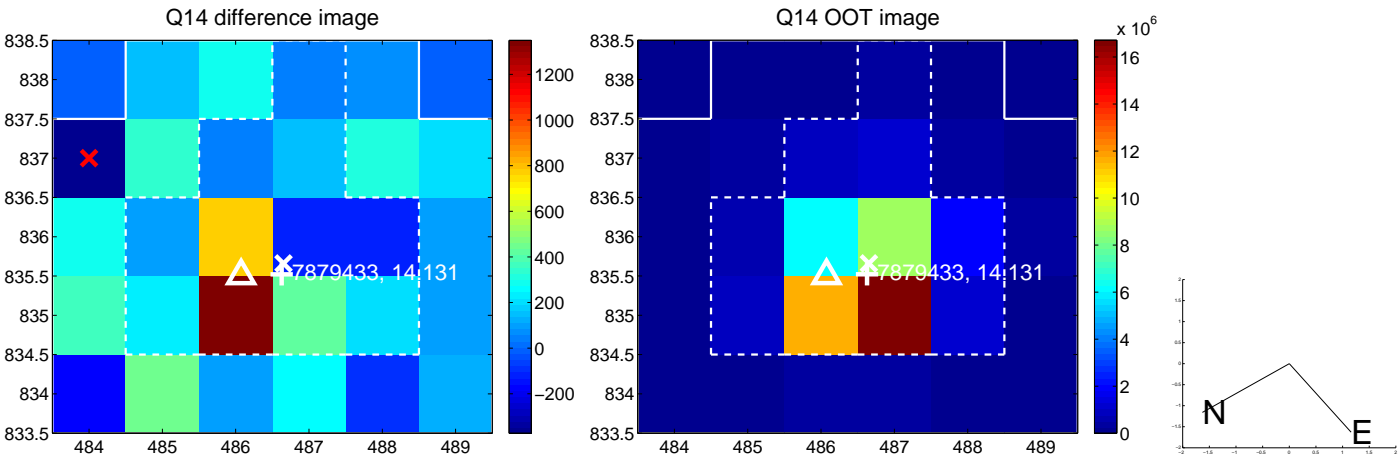
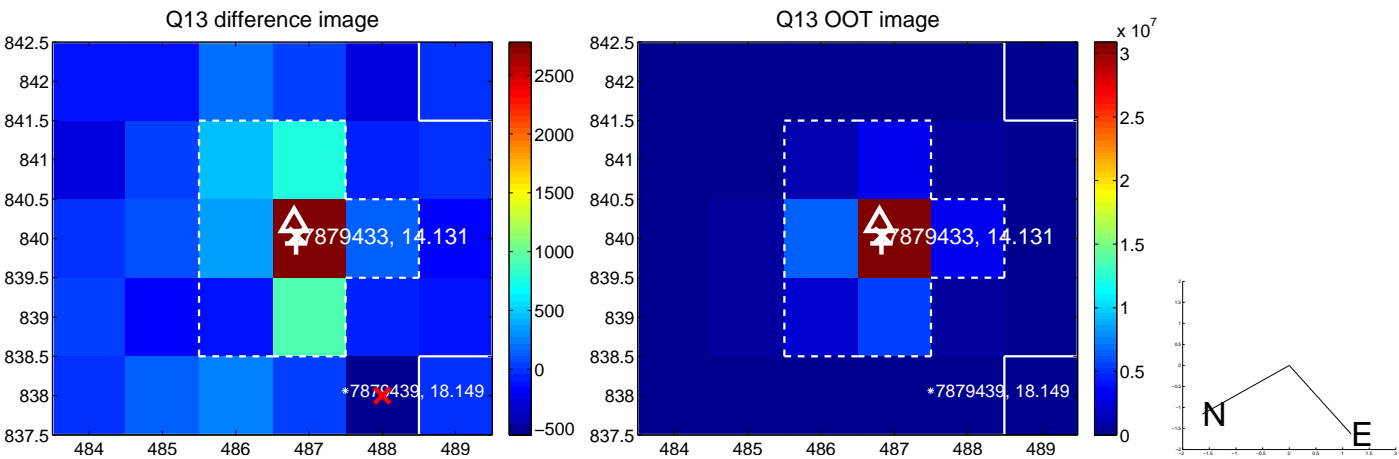
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



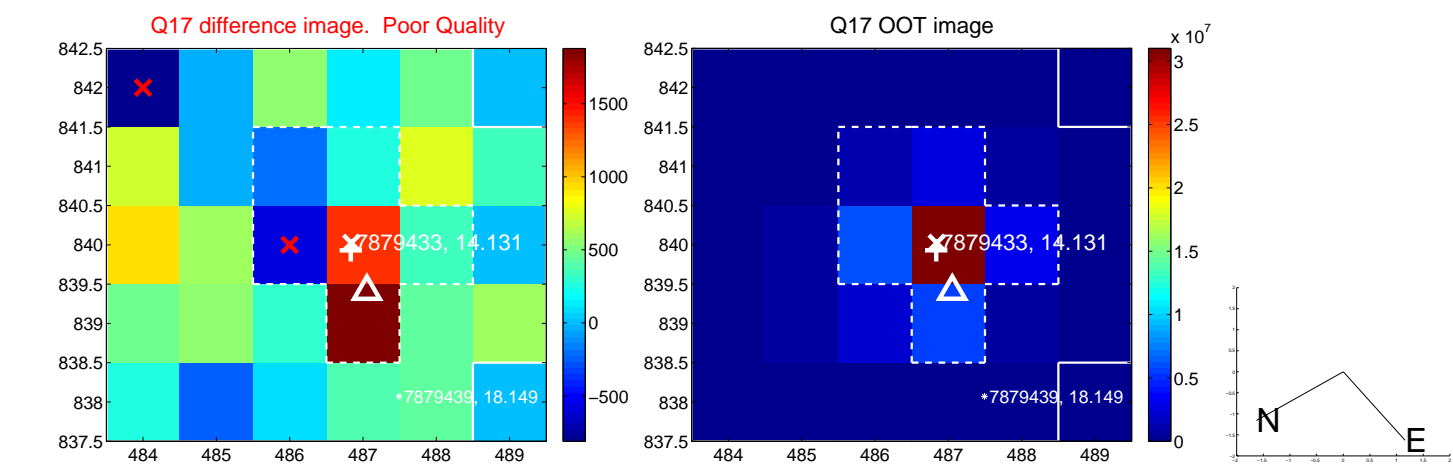
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



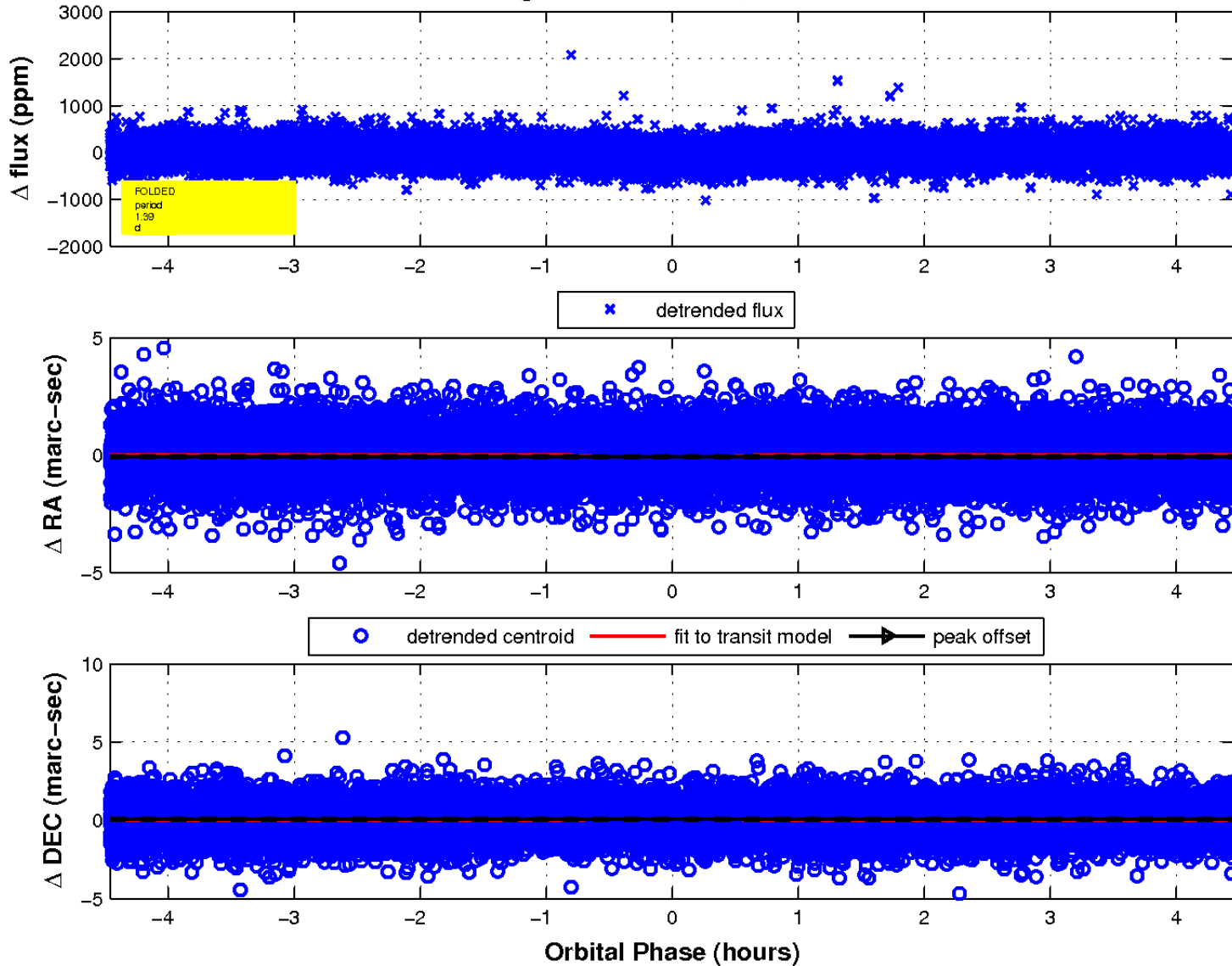
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

