

KIC 003734418

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})
003734418-01	OBS	2261.01	3.975978	133.626474	194.2	2.289	20.6	21.6	0.78	5143	1.32	181.90

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003734418-01	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.

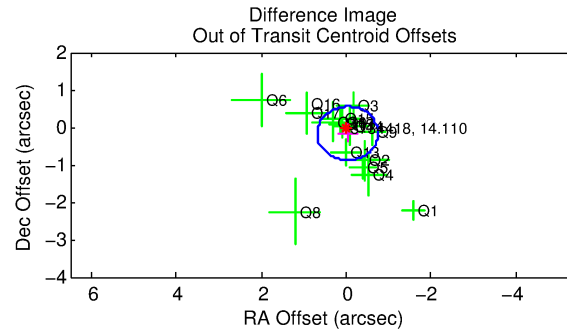
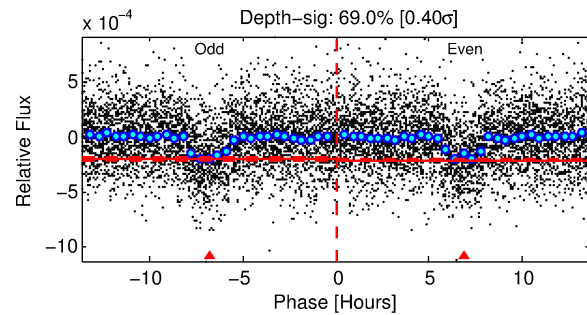
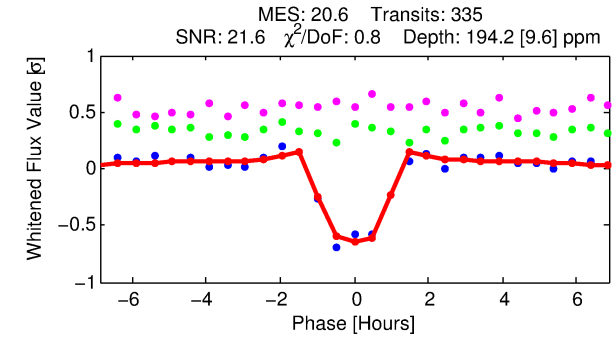
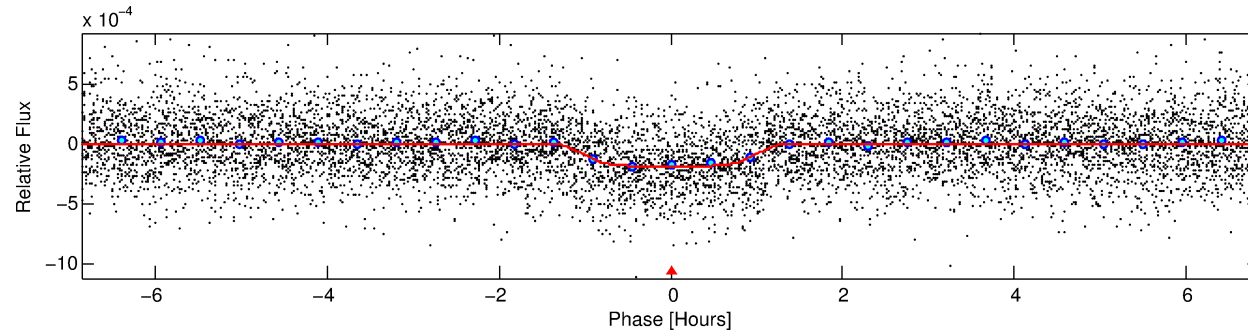
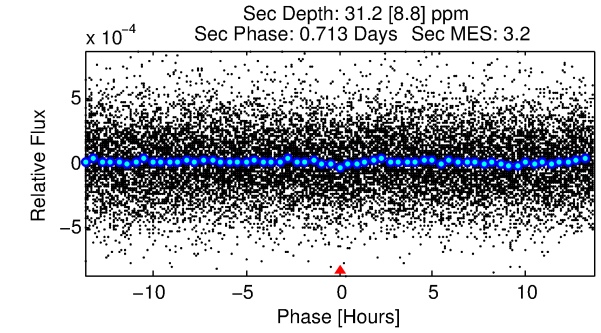
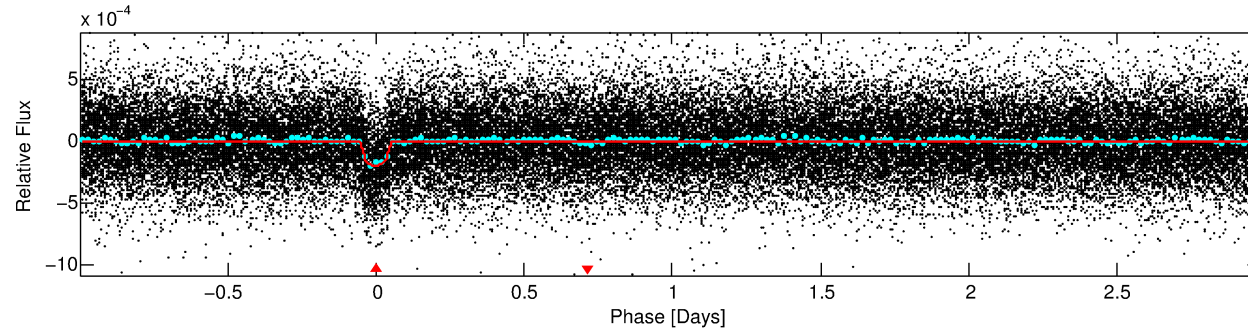
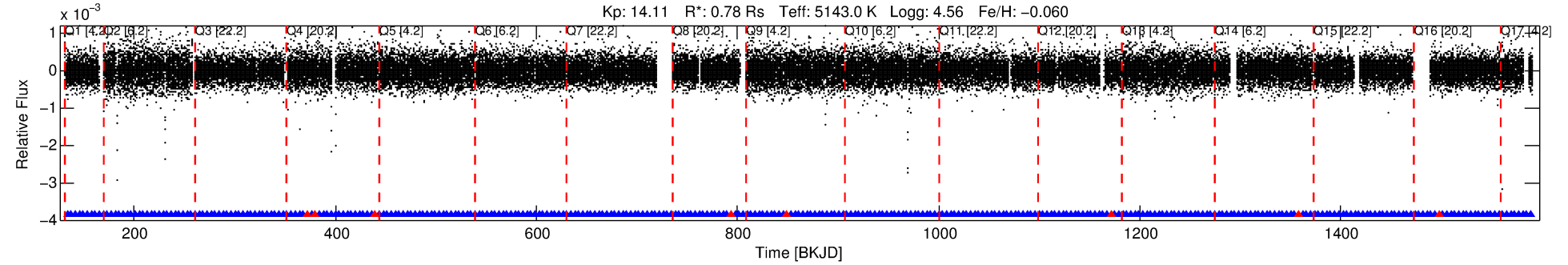
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003734418-01

No Significant Match Found

DV One-Page Summary

KIC: 3734418 Candidate: 1 of 1 Period: 3.976 d
KOI: K02261.01 Corr: 0.964



DV Fit Results:

Period = 3.97598 [0.00001] d
Epoch = 133.6265 [0.0015] BKJD
Rp/R* = 0.0156 [0.0046]
a/R* = 6.22 [7.36]
b = 0.90 [0.25]
Seff = 181.90 [21.48]
Teq = 936 [28] K
Rp = 1.32 [0.40] Re
a = 0.0457 [0.0026] AU
Ag = 20.50 [13.48] [1.45σ]
Teffp = 3081 [506] K [4.23σ]

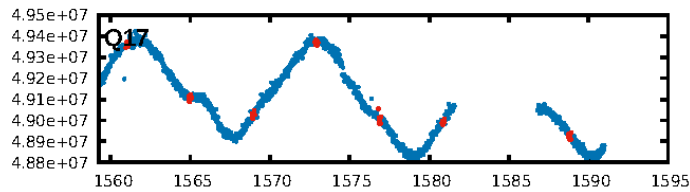
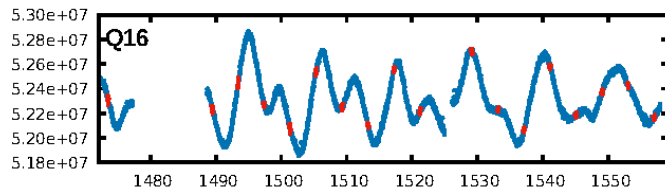
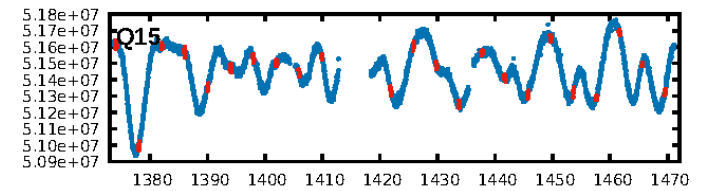
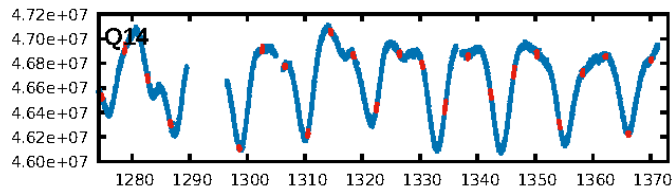
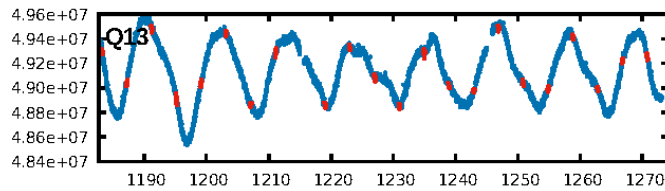
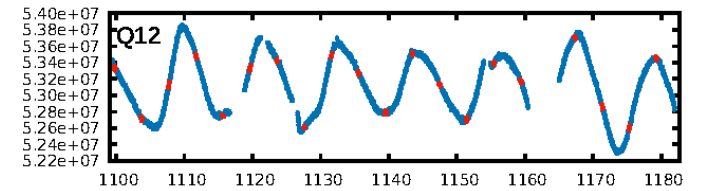
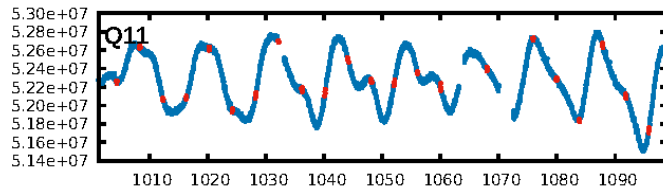
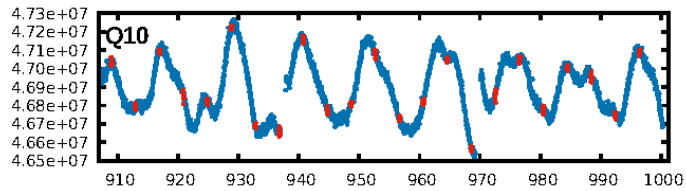
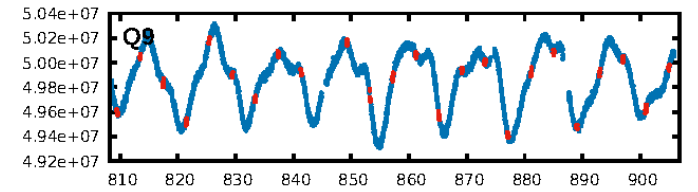
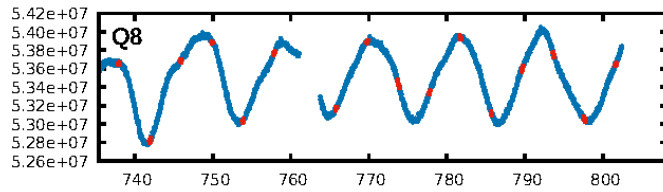
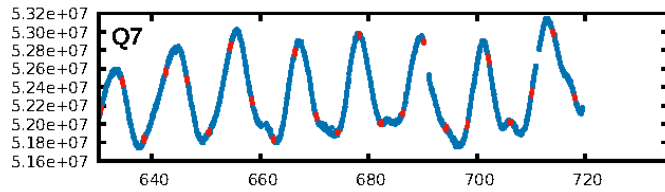
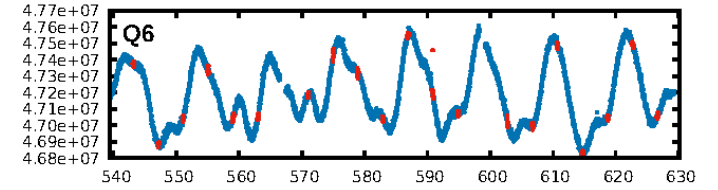
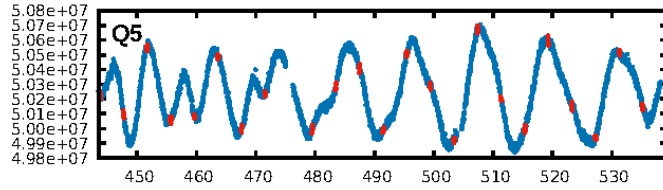
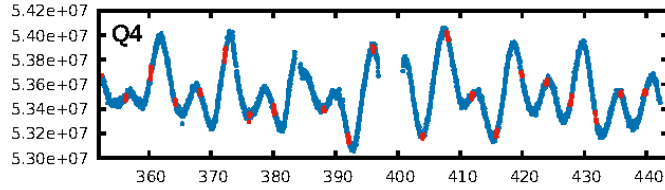
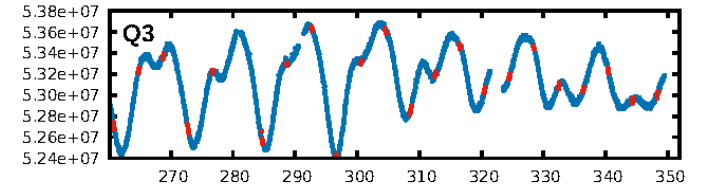
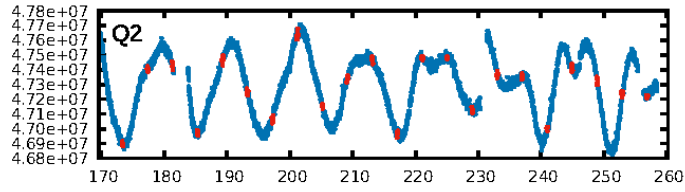
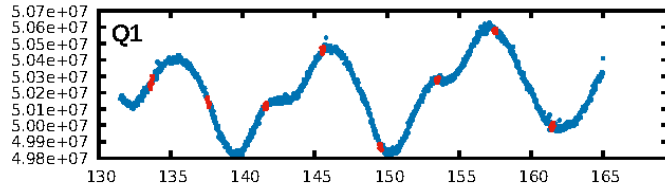
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.12e-88
RollingBand-fgt: 0.97 [312/320]
GhostDiagnostic-chr: -8.403
Centroid-sig: 45.3%
Centroid-so: 1.118 arcsec [1.81σ]
OotOffset-rm: 0.167 arcsec [0.70σ]
KicOffset-rm: 0.190 arcsec [0.78σ]
OotOffset-st: 4/3/4/5 [16]
KicOffset-st: 4/3/4/5 [16]
DiffImageQuality-fgm: 0.94 [15/16]
DiffImageOverlap-fno: 1.00 [17/17]

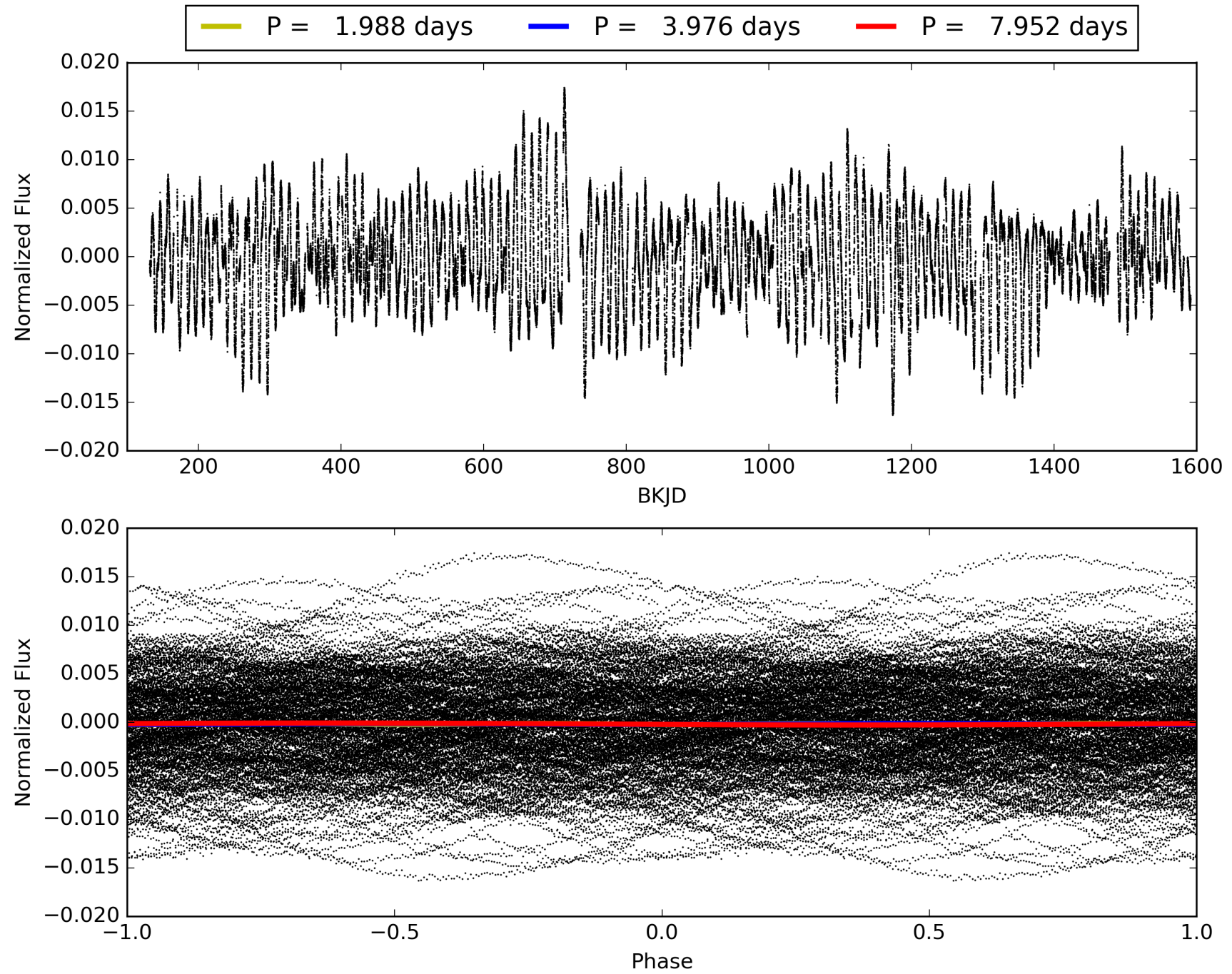
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 17:22:11 Z

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

TCE 003734418-01, PDC Light Curves

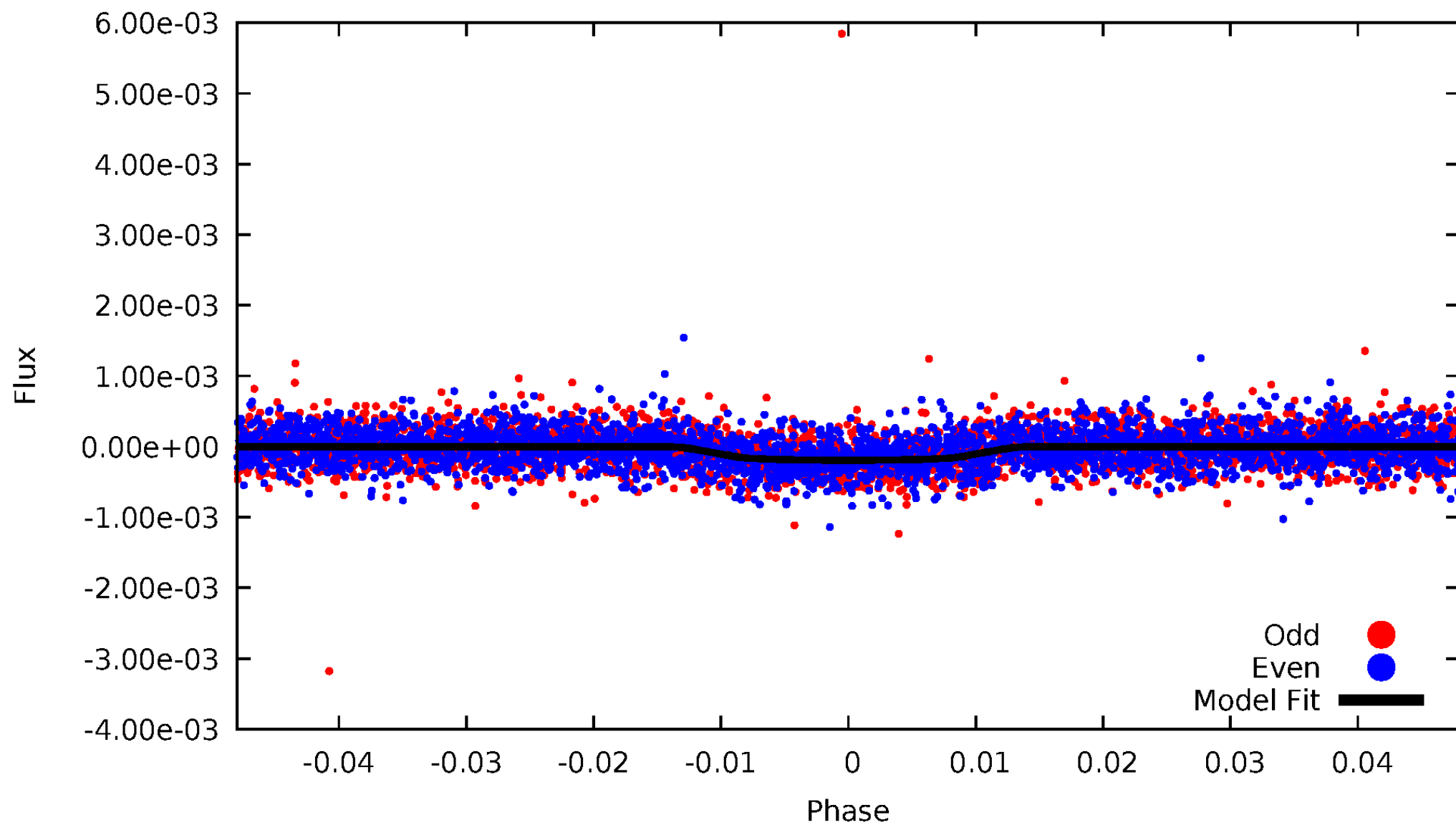


TCE 003734418-01



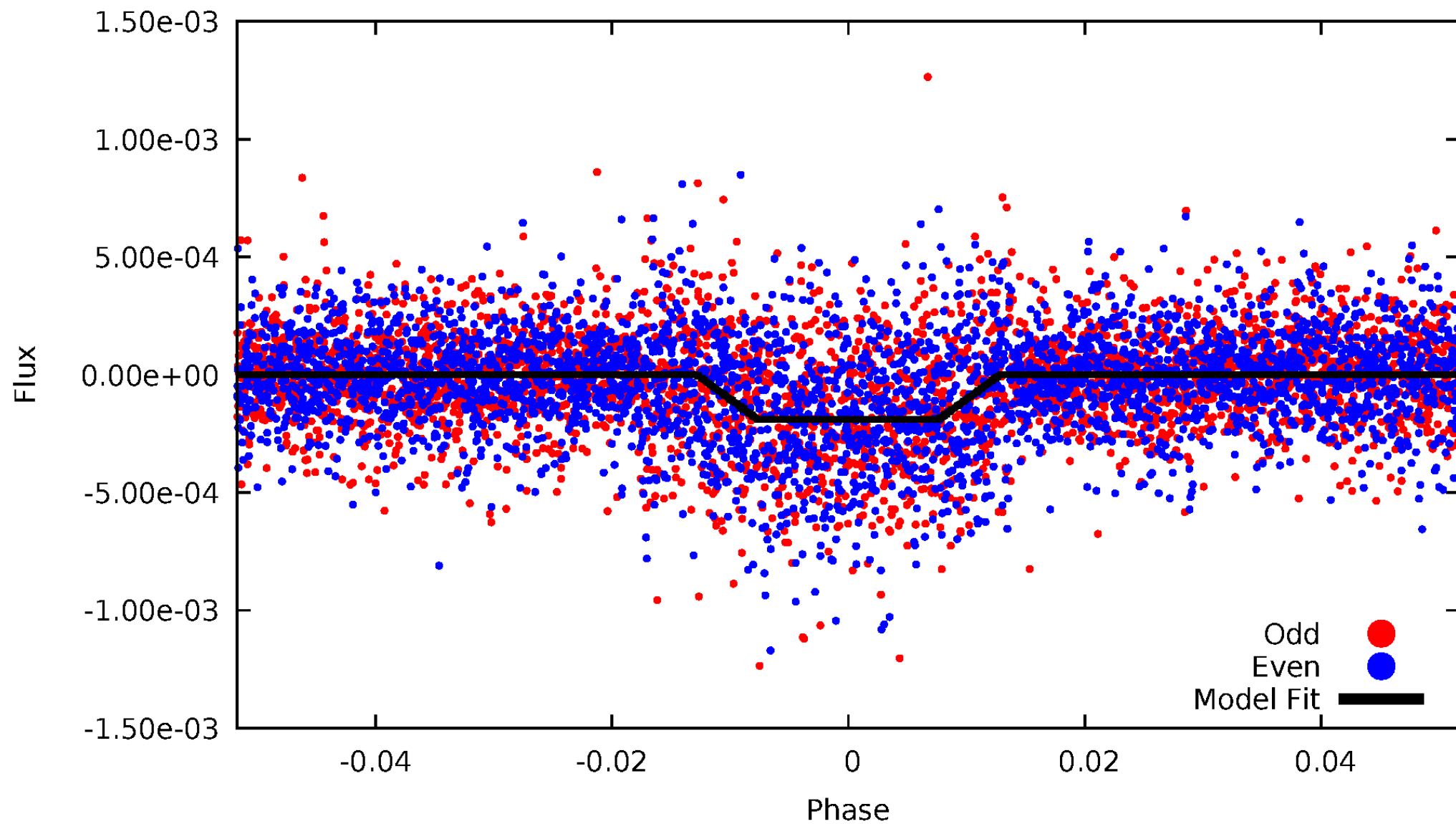
DV Odd/Even

TCE 003734418-01



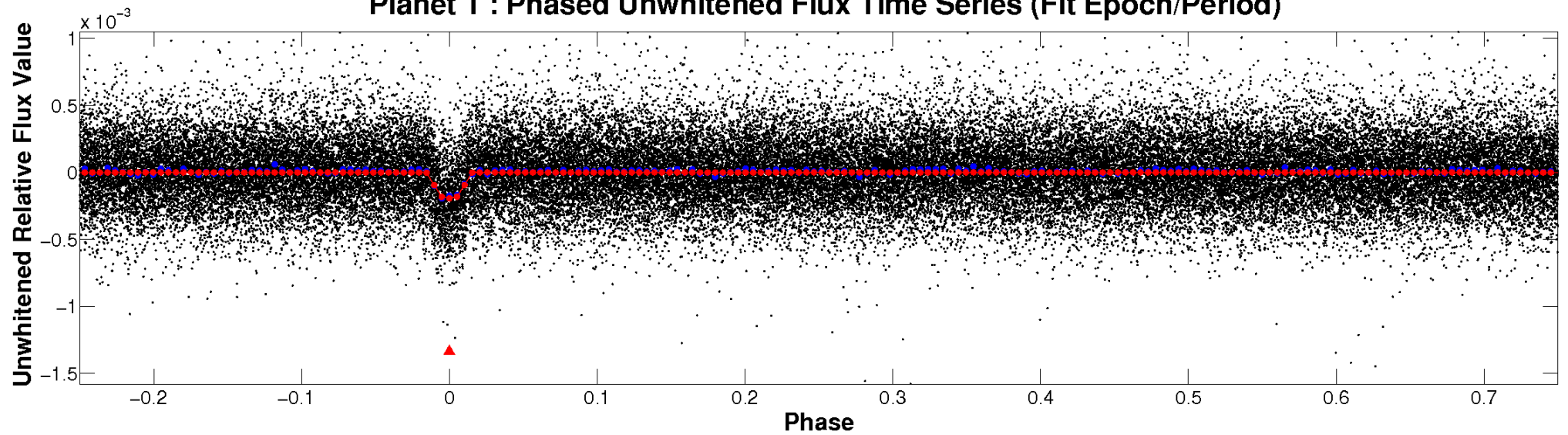
ALT Odd/Even

TCE 003734418-01

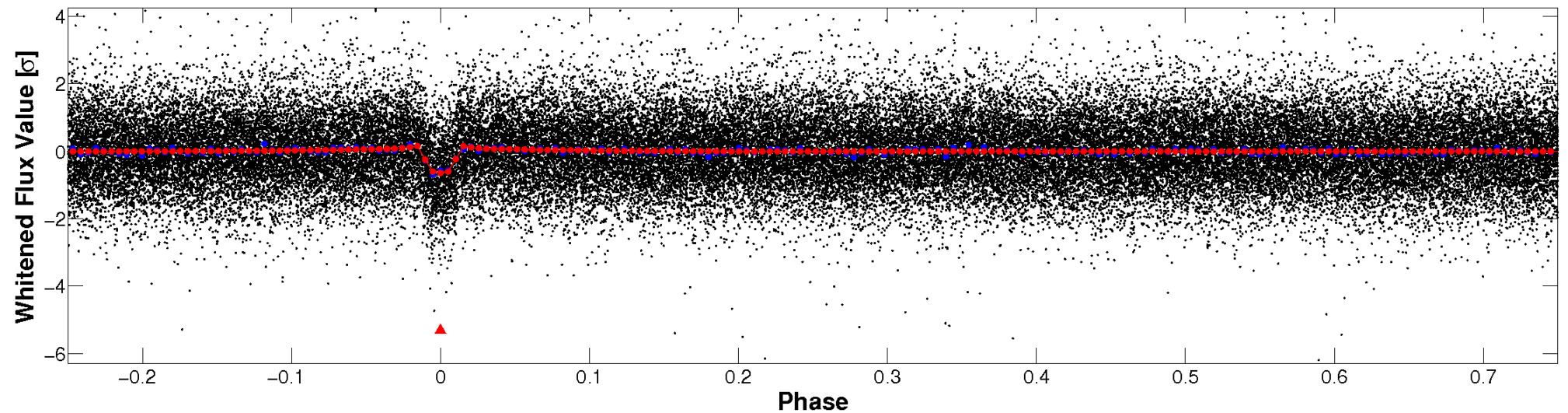


Non-Whitened Vs. Whitened Light Curve

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

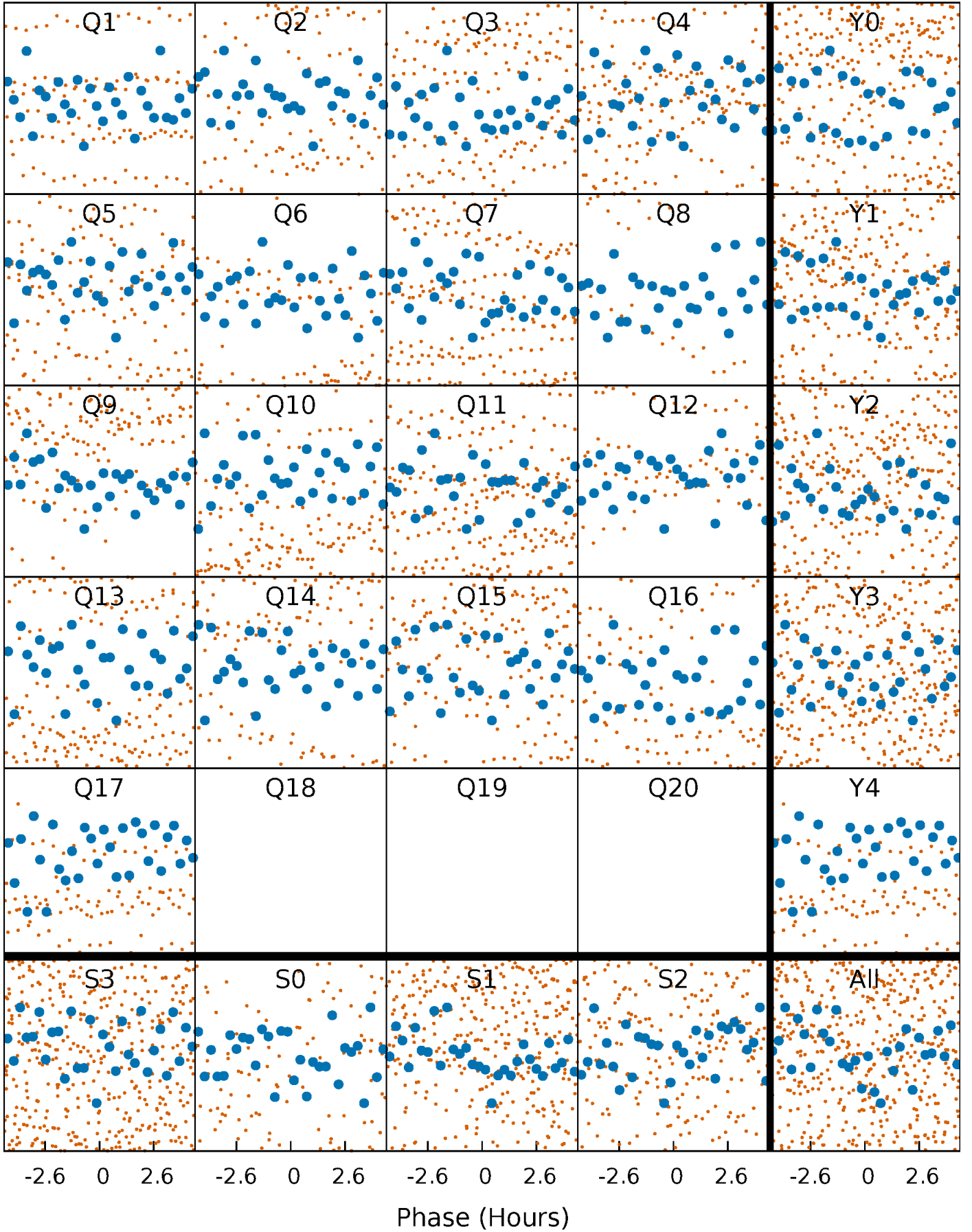


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



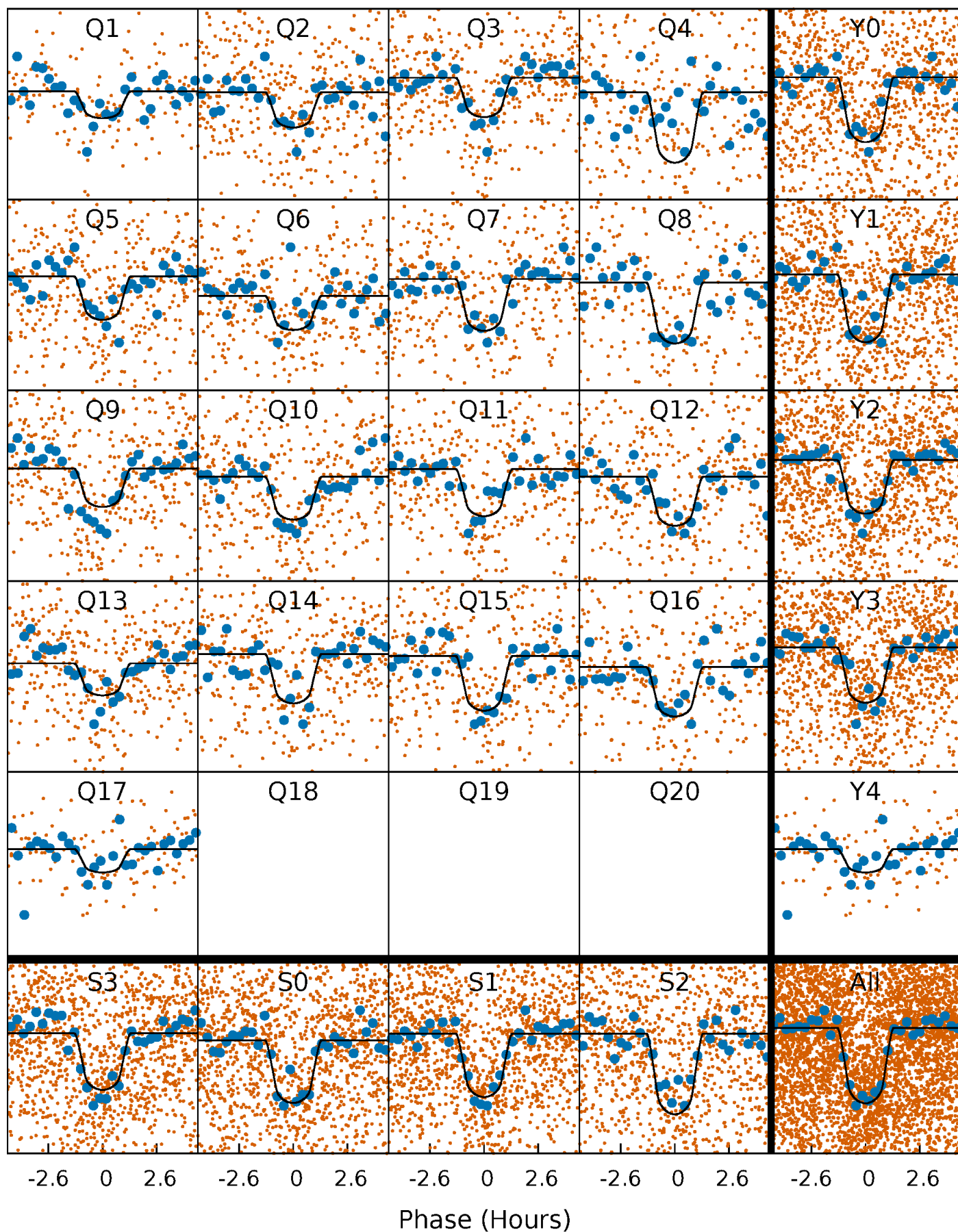
PDC Quarter-Phased Transit Curves

TCE 003734418-01 P= 3.975978 Days $T_0=133.626474$ (BKJD)



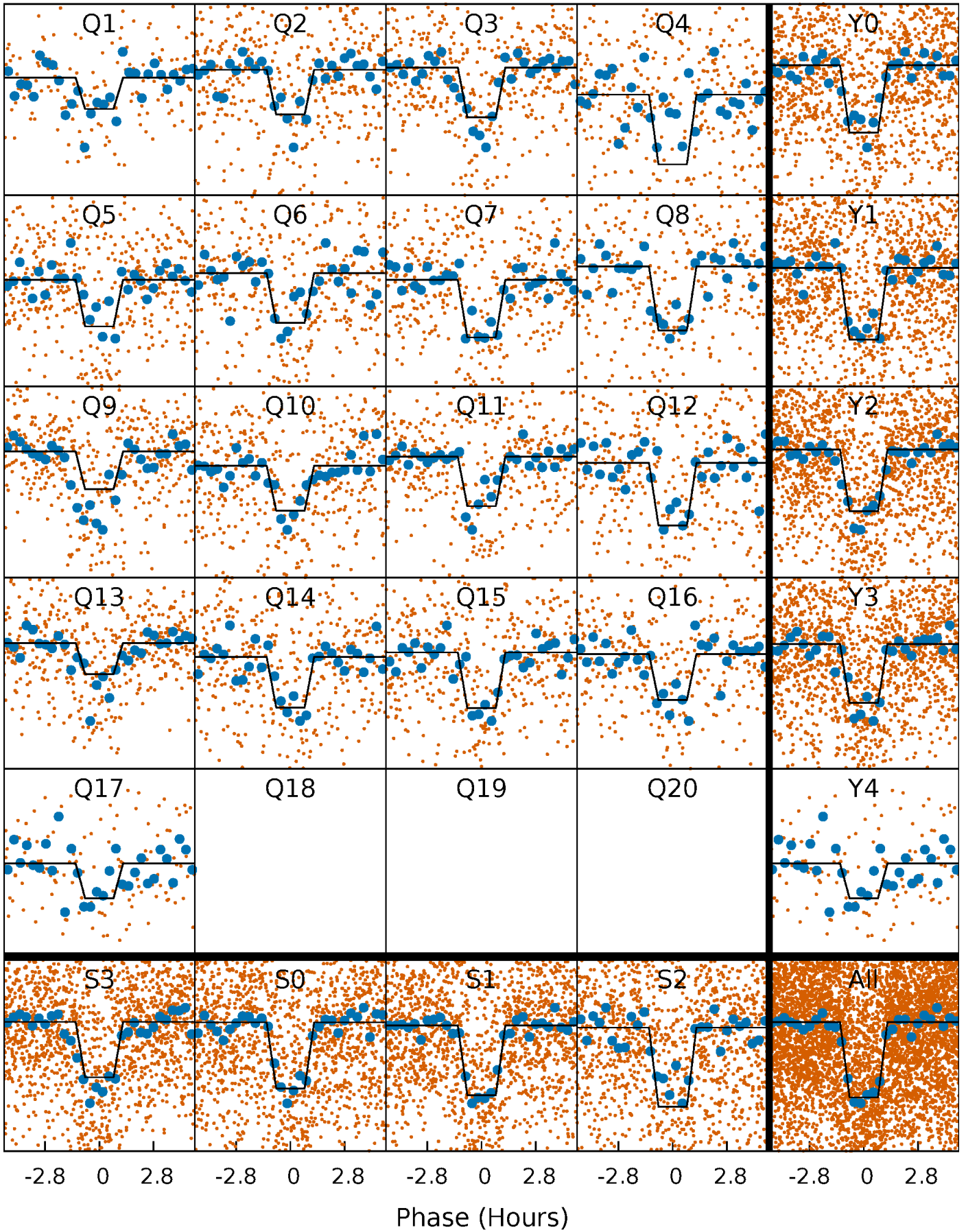
DV Quarter-Phased Transit Curves

TCE 003734418-01 P= 3.975978 Days $T_0=133.626474$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

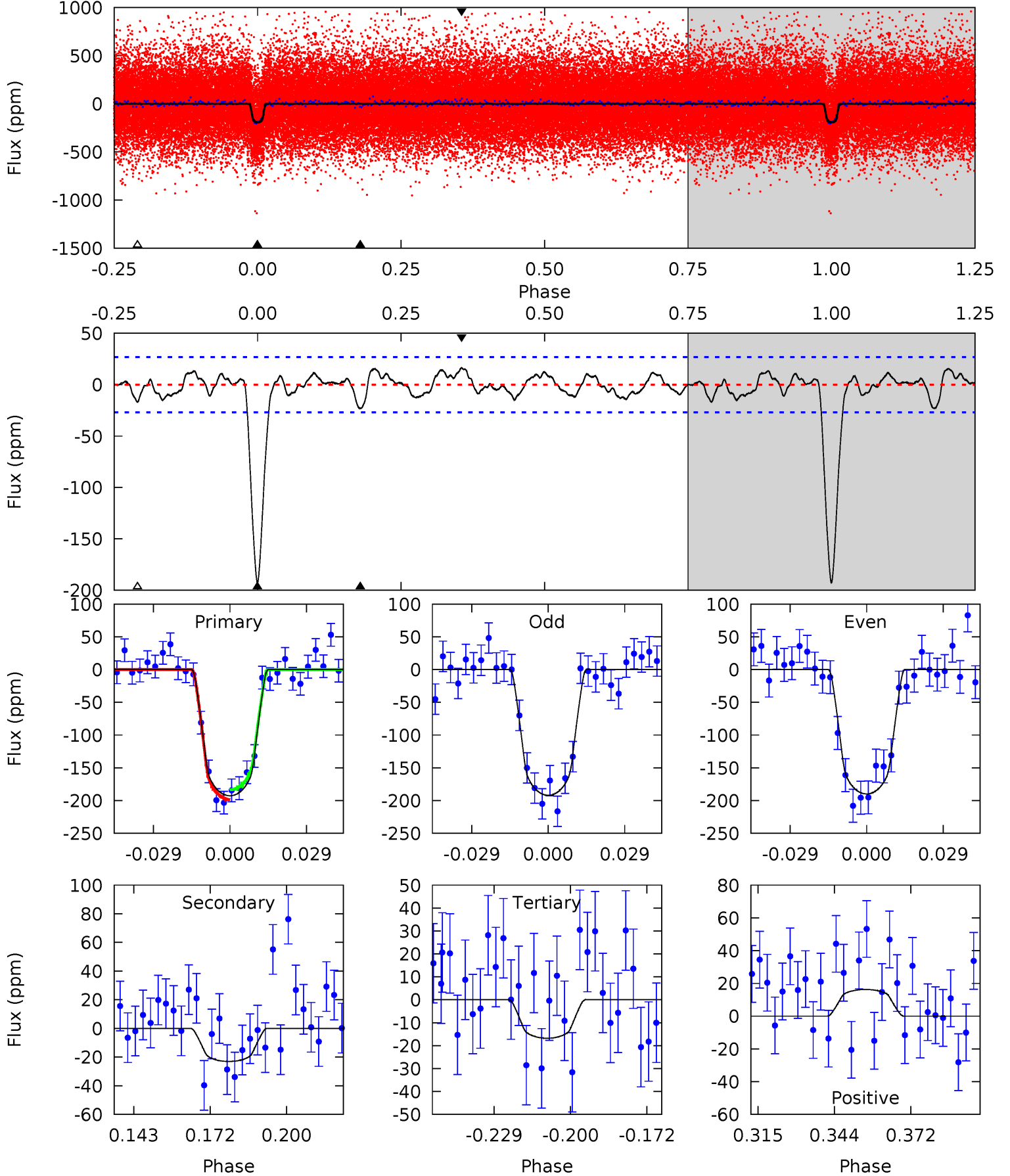
TCE 003734418-01 P= 3.975977 Days $T_0=133.625117$ (BKJD)



DV Model-Shift Uniqueness Test

003734418-01, P = 3.975978 Days, E = 129.650496 Days

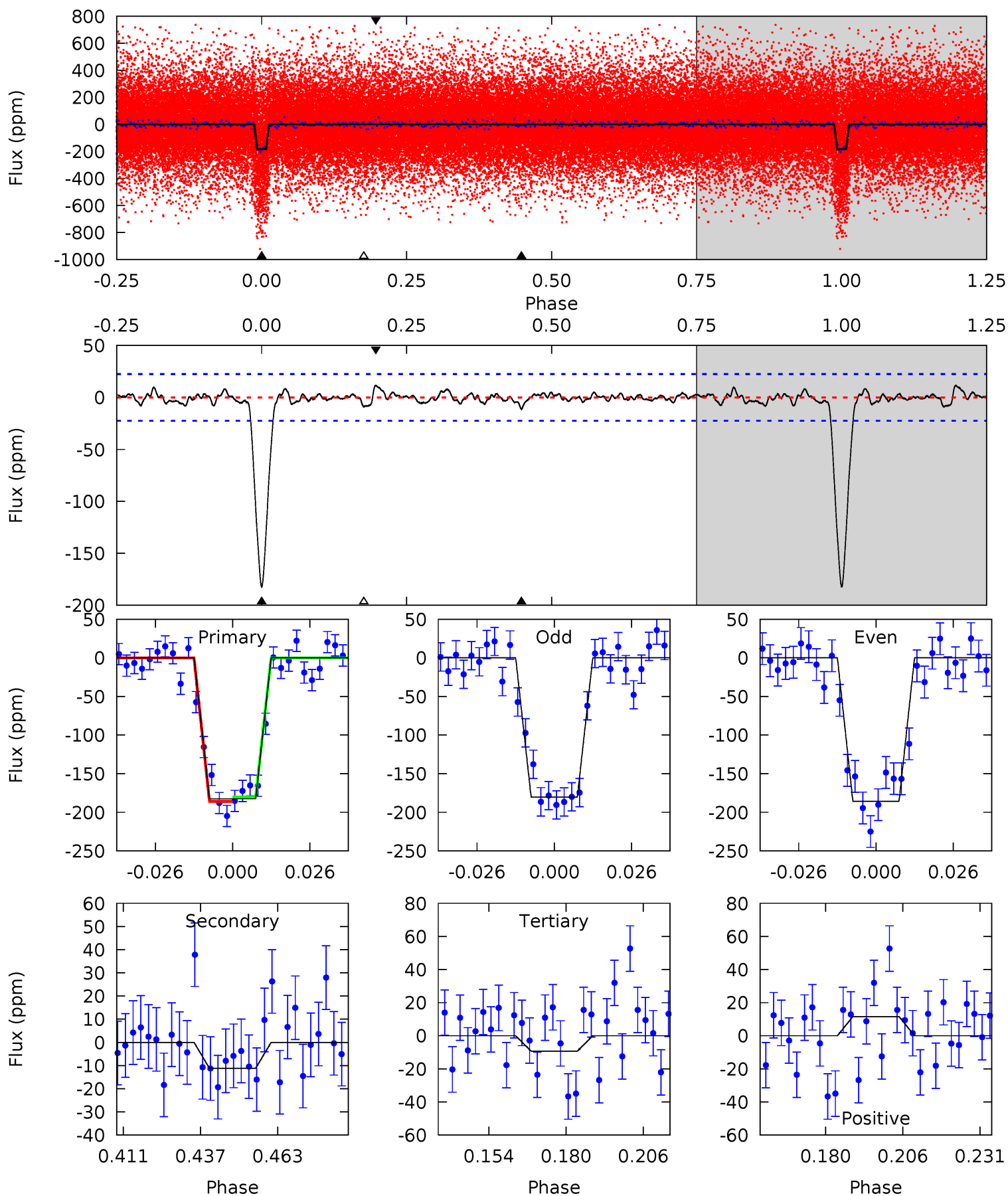
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
34.6	4.14	3.01	2.92	4.82	2.19	1.36	31.5	31.6	1.13	1.22	0.19	1.05	0.08	1.35



Alt Model-Shift Uniqueness Test

003734418-01, P = 3.975977 Days, E = 129.649140 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
39.3	2.41	2.00	2.49	4.84	2.23	0.76	37.3	36.8	0.40	-0.08	0.59	1.04	0.06	0.61



Stellar Parameters For KIC 003734418

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5143^{+102}_{-102}	$4.561^{+0.036}_{-0.050}$	$-0.060^{+0.150}_{-0.150}$	$0.778^{+0.049}_{-0.040}$	$0.803^{+0.045}_{-0.045}$	$2.403^{+0.345}_{-0.363}$
	+2%/-2%	+1%/-1%	+250%/-250%	+6%/-5%	+6%/-6%	+14%/-15%
Source	SPE58	SPE58	SPE58	DSEP		

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

Secondary Eclipse Parameters for KIC 003734418-01 / KOI 2261.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-23 ± 6	$1.34^{+0.41}_{-0.41}$	1312^{+33}_{-31}	3329^{+436}_{-287}	15^{+16}_{-7}
Alt.	-11 ± 5	$1.16^{+0.40}_{-0.35}$	1311^{+34}_{-31}	3107^{+435}_{-339}	$9.002^{+12.031}_{-4.861}$

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

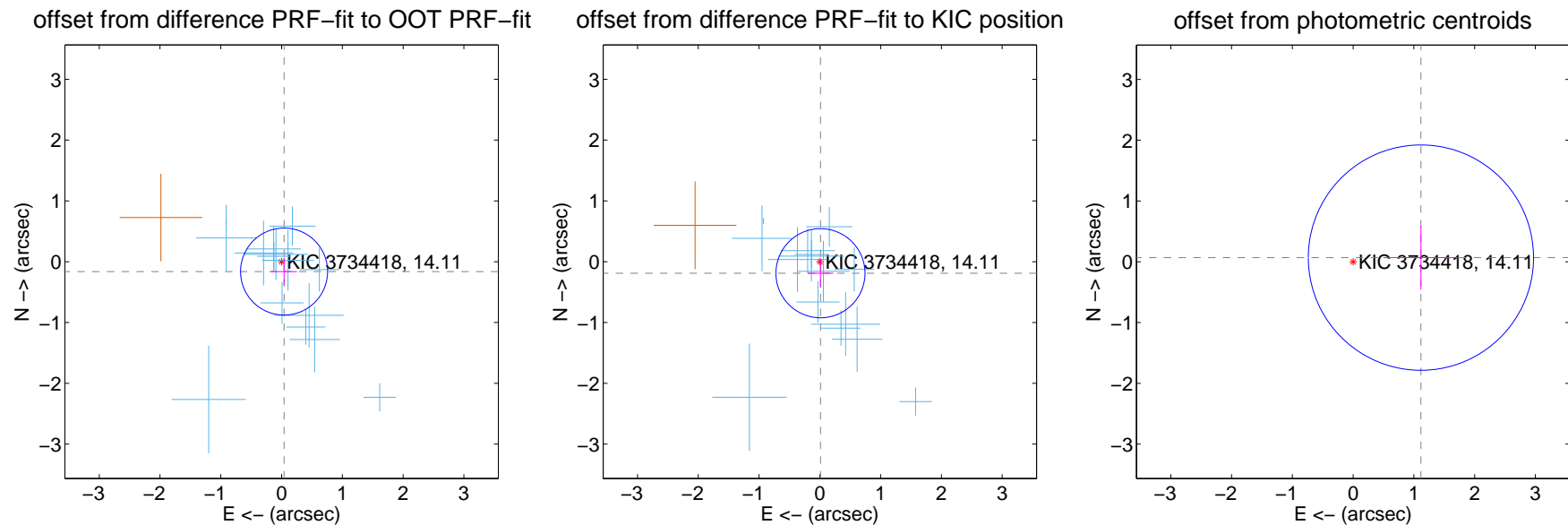
DV Centroid Data

Supplemental centroid analysis for 003734418-01. Kepler magnitude: 14.11. Transit SNR 21.55

There are 15 quarters with good PRF difference image offsets

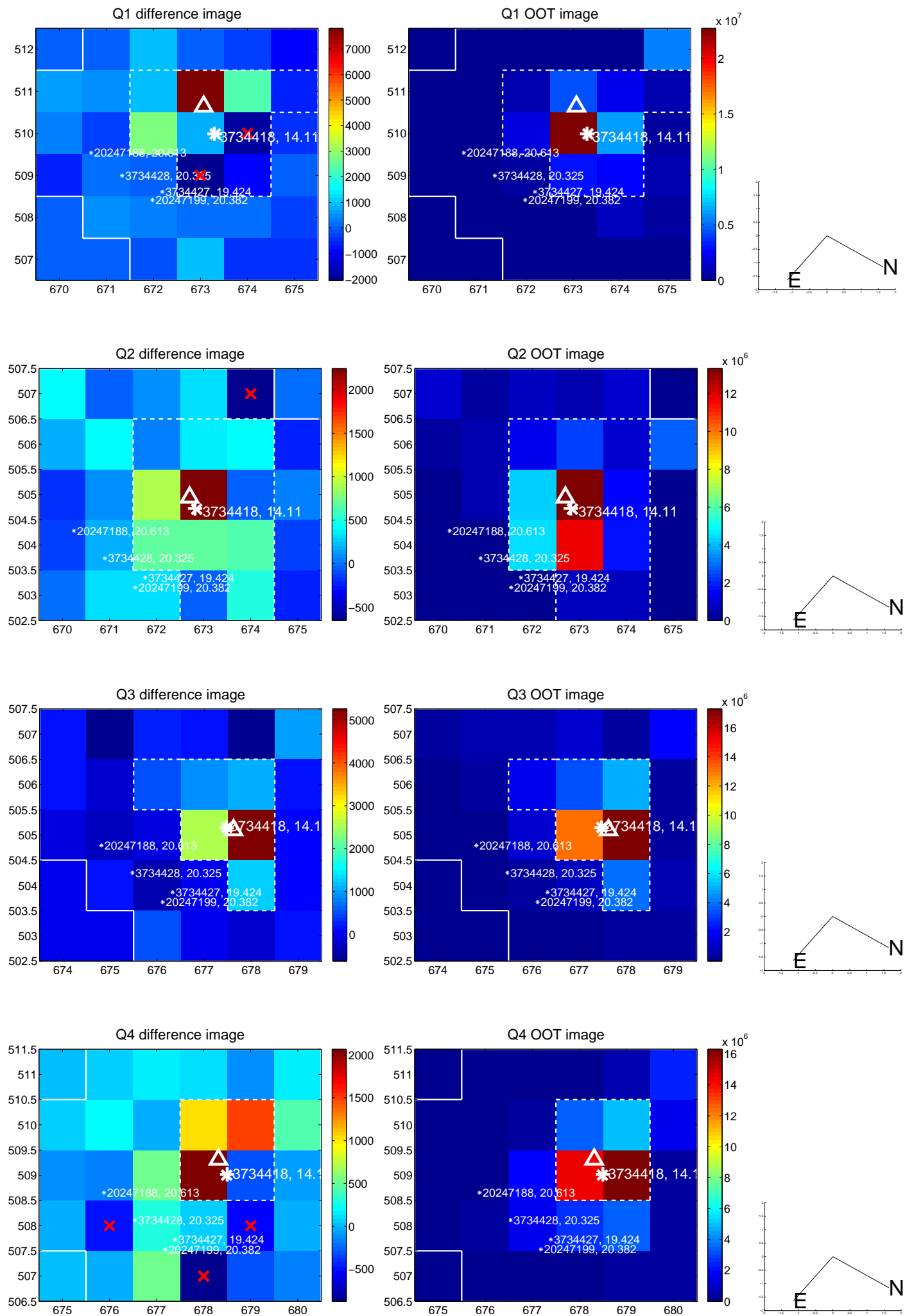
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.167 ± 0.239	0.70	-0.041 ± 0.213	-0.162 ± 0.226
PRF-fit source offset from KIC position	0.190 ± 0.244	0.78	-0.010 ± 0.211	-0.190 ± 0.240
photometric centroid source offset	1.12 ± 0.62	1.81	-1.12 ± 0.62	0.07 ± 0.52

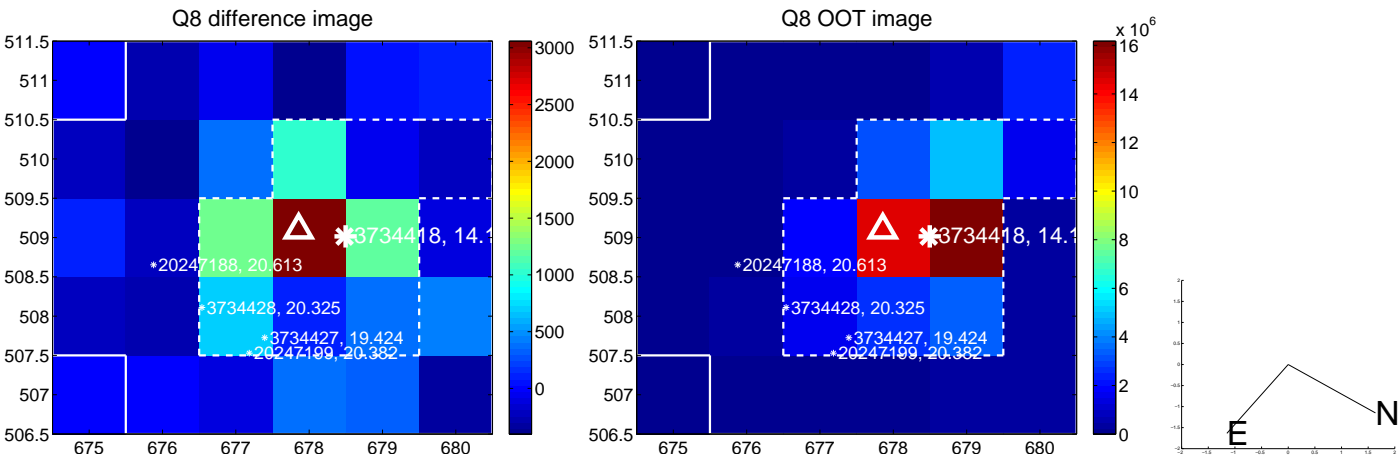
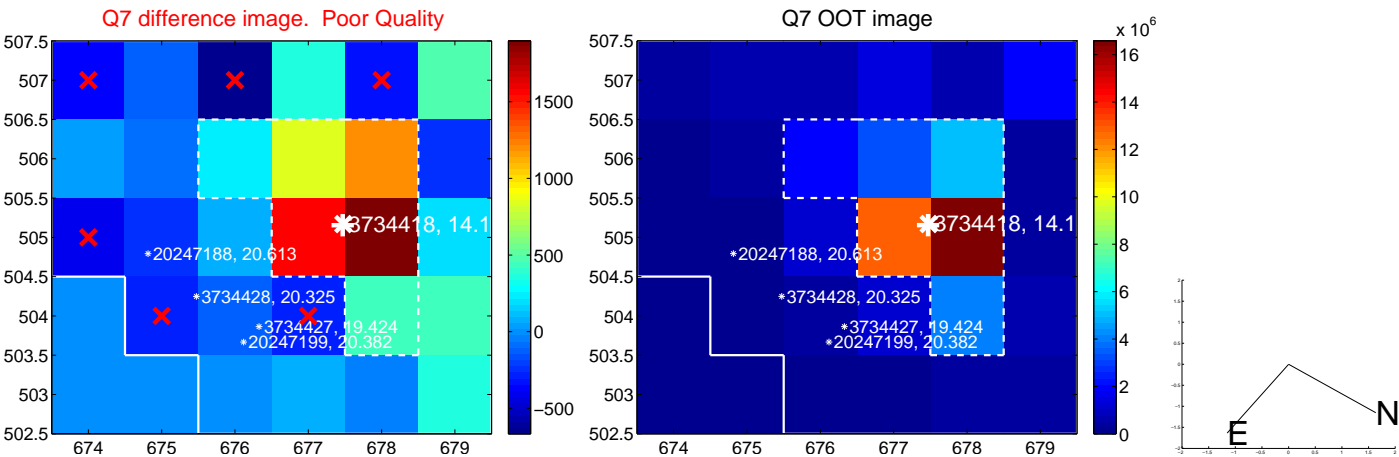
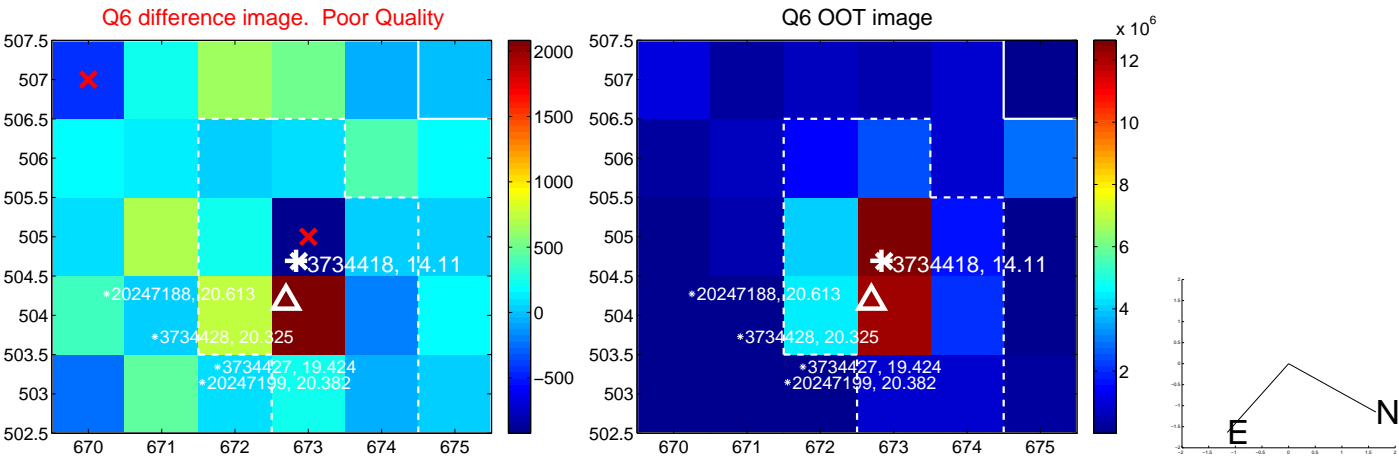
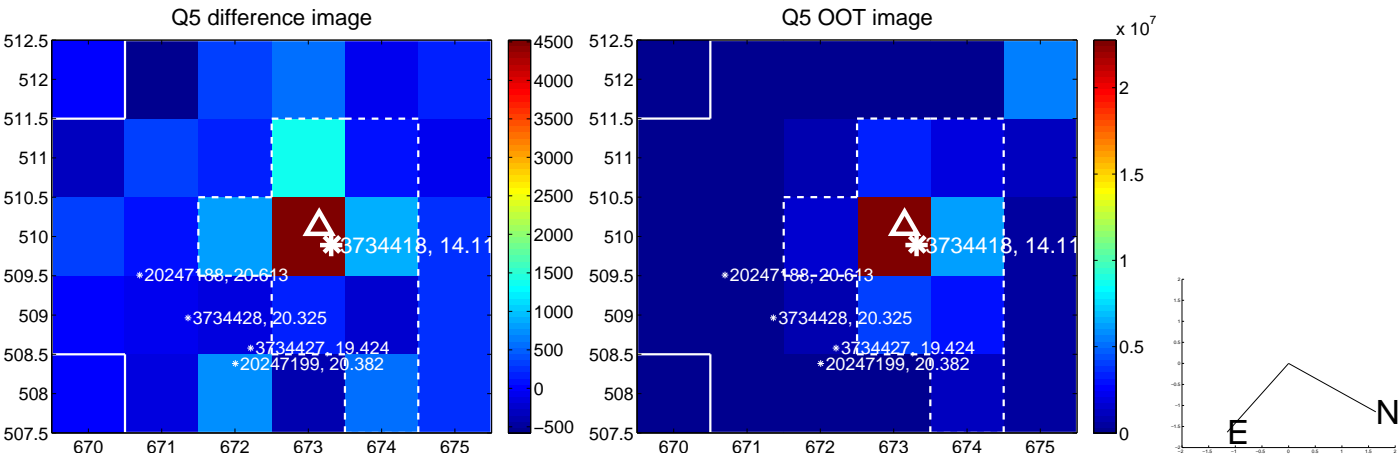


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

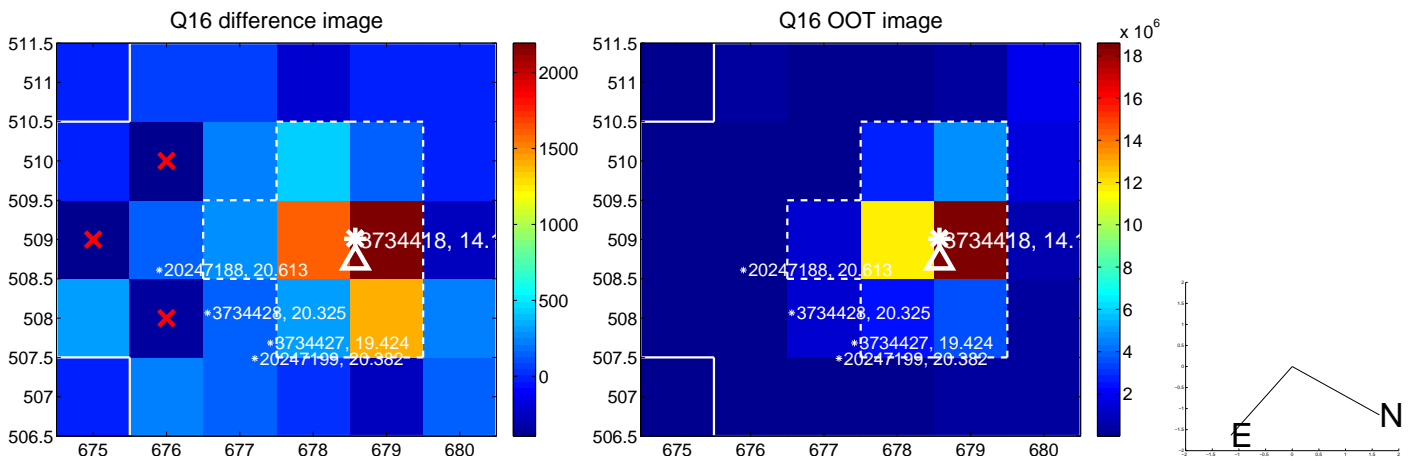
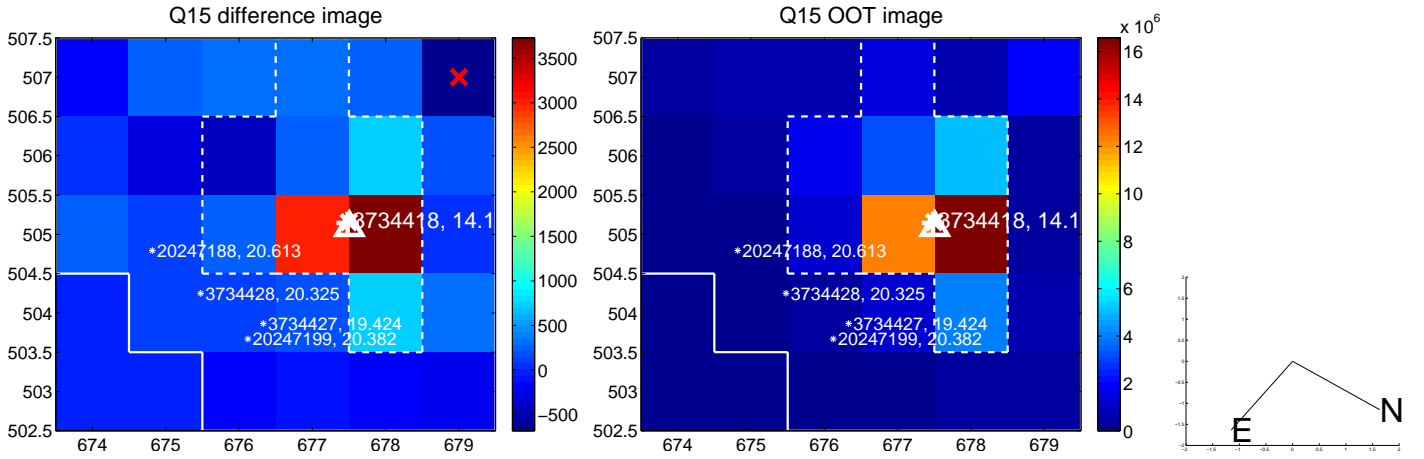
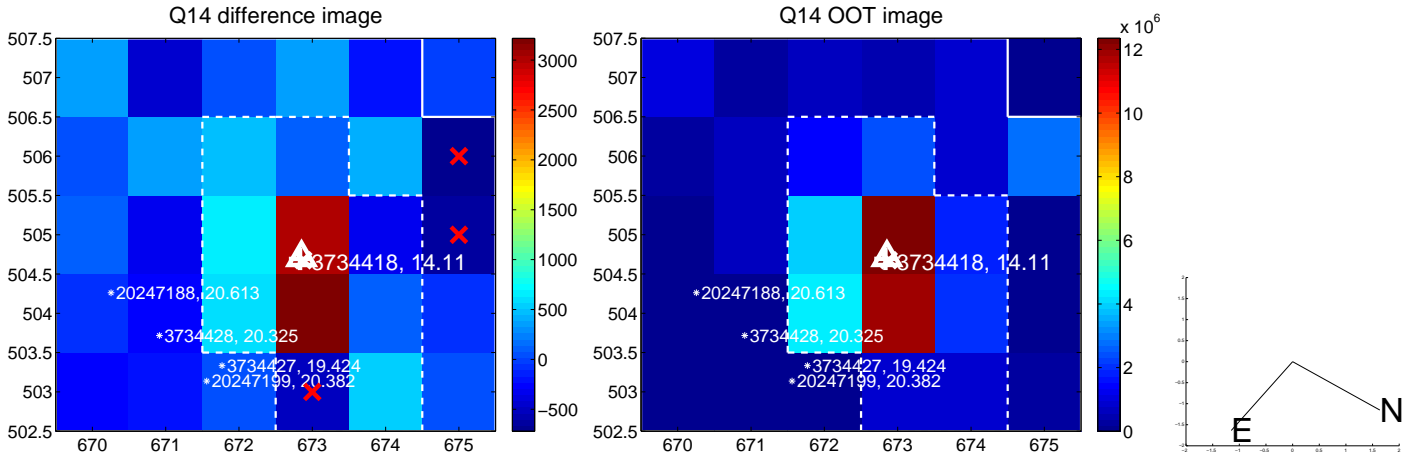
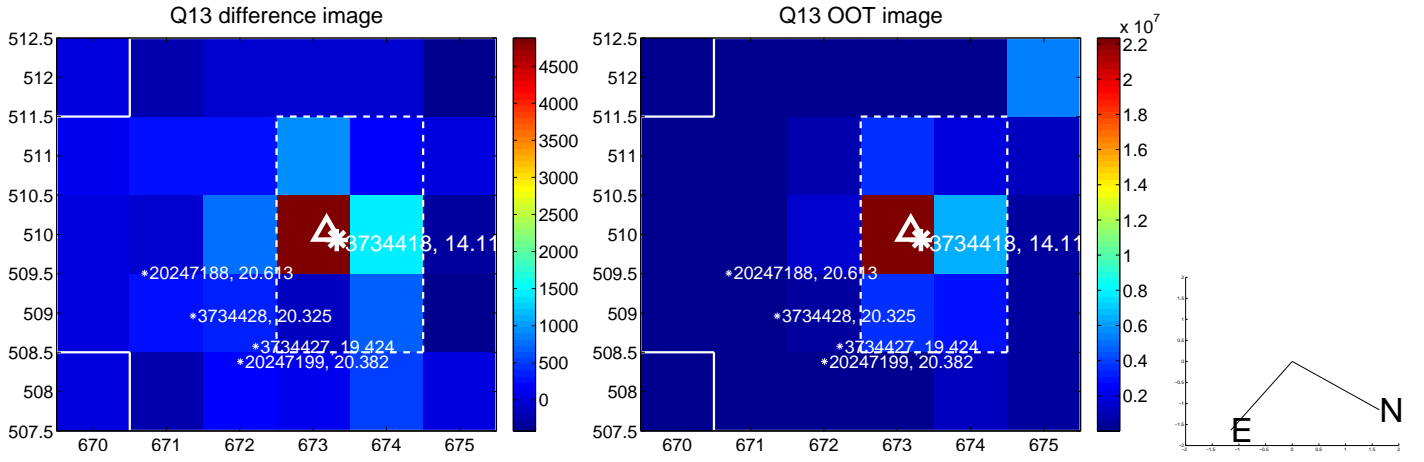
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

