

KIC 011254382

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})
011254382-01	OBS	1425.01	2.053885	131.680646	515.5	2.345	40.2	44.6	1.18	5632	3.21	1275.60

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011254382-01	OBS	PC	1.00	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 011254382-01

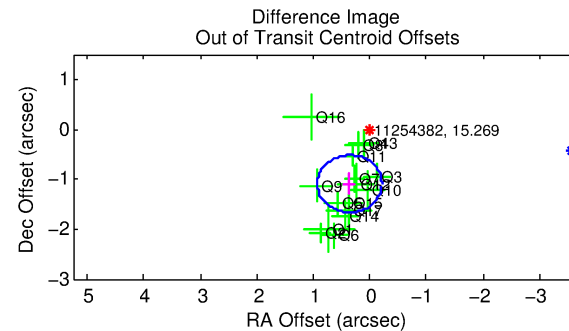
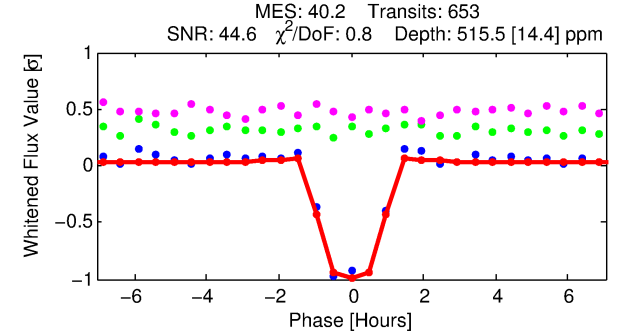
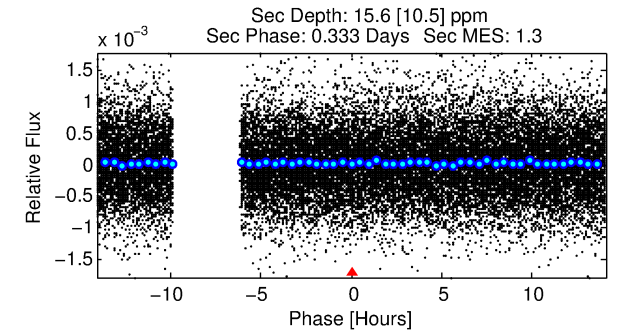
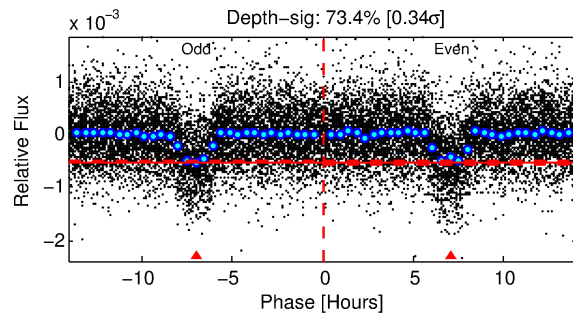
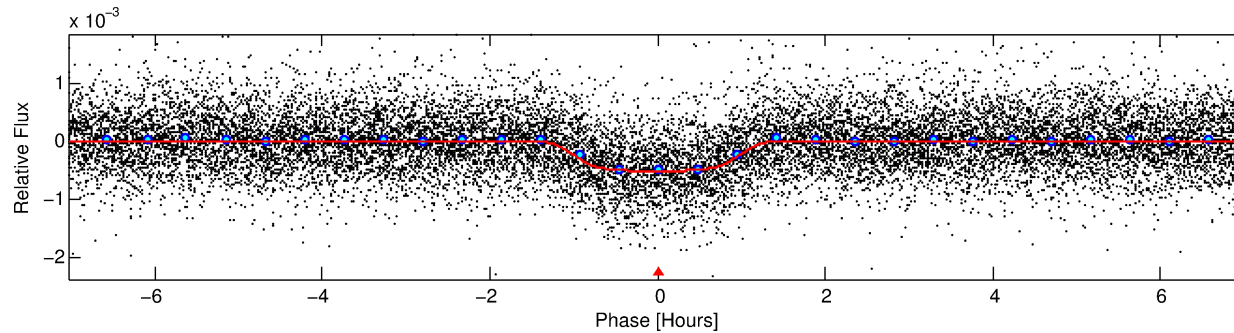
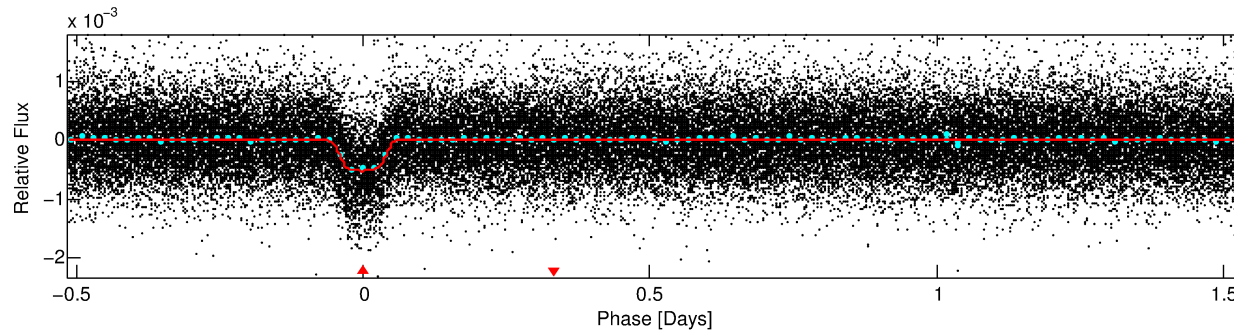
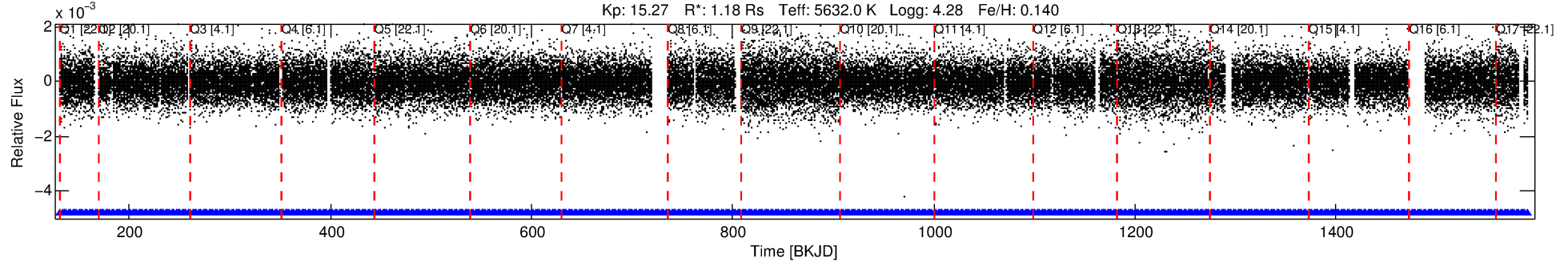
No Significant Match Found

DV One-Page Summary

KIC: 11254382 Candidate: 1 of 1 Period: 2.054 d

KOI: K01425.01 Corr: 0.964

Kp: 15.27 R*: 1.18 Rs Teff: 5632.0 K Logg: 4.28 Fe/H: 0.140



DV Fit Results:

Period = 2.05389 [0.00000] d
Epoch = 131.6806 [0.0008] BKJD
Rp/R* = 0.0250 [0.0022]
a/R* = 3.37 [1.18]
b = 0.90 [0.08]
Seff = 1275.60 [344.31]
Teq = 1524 [103] K
Rp = 3.21 [0.61] Re
a = 0.0313 [0.0051] AU
Ag = 0.81 [0.60] [-0.31σ]
Teffp = 2238 [390] K [1.77σ]

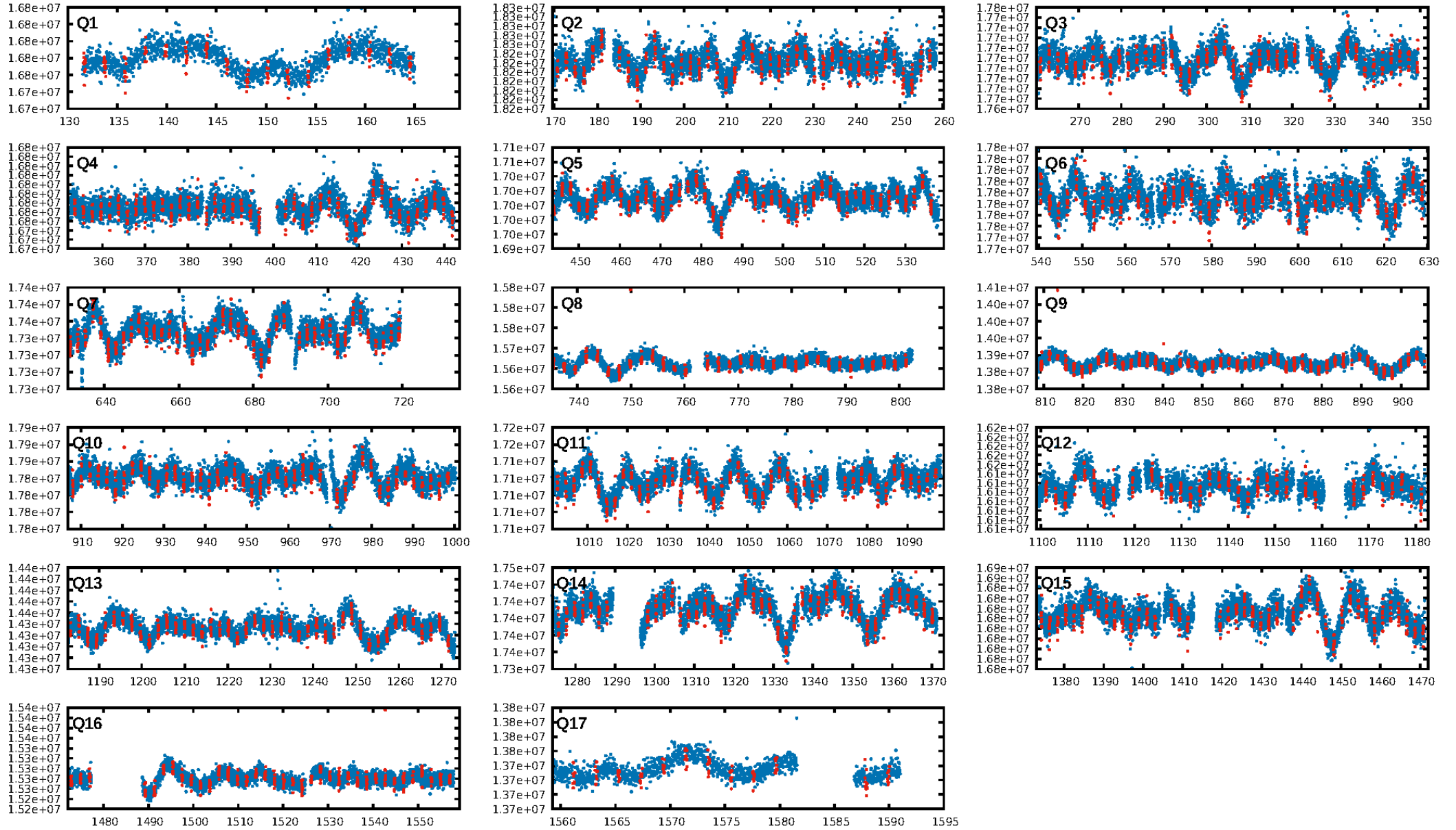
DV Diagnostic Results:

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 [624/624]
GhostDiagnostic-chr: 8.833
Centroid-sig: 0.0%
Centroid-so: 0.507 arcsec [2.59σ]
OotOffset-rm: 1.151 arcsec [6.03σ]
KicOffset-rm: 0.117 arcsec [0.85σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

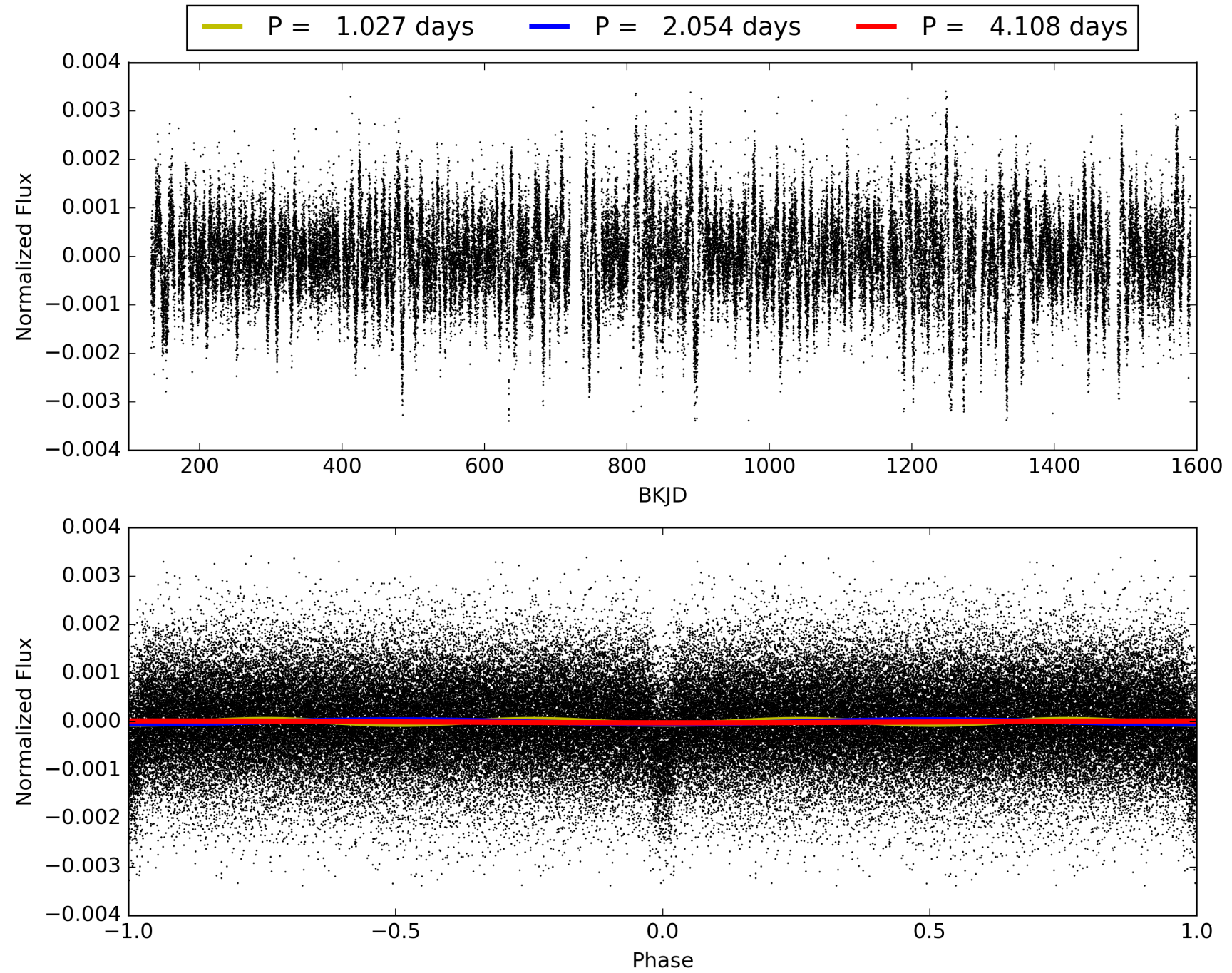
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 01:43:16 Z

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

TCE 011254382-01, PDC Light Curves

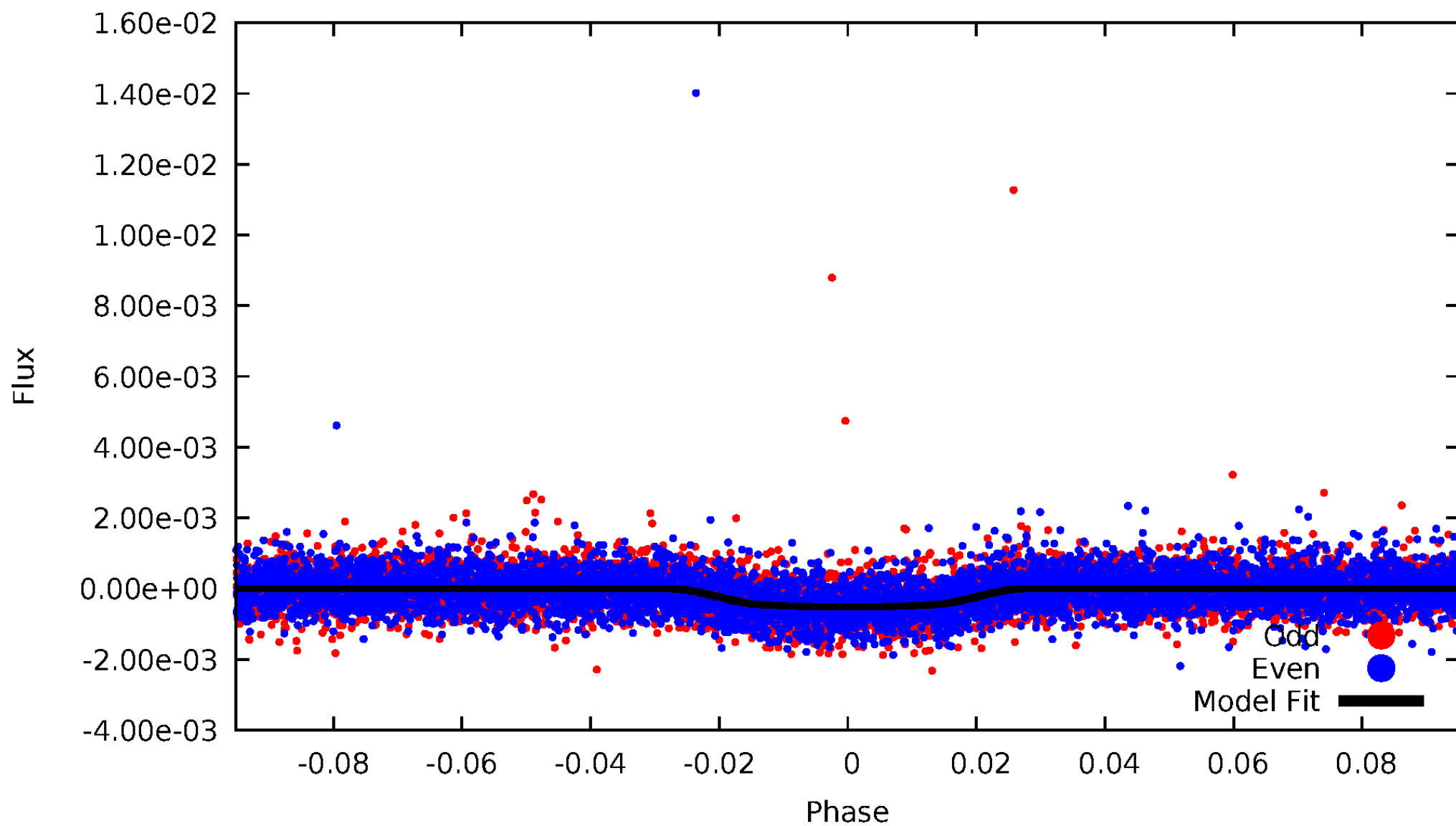


TCE 011254382-01



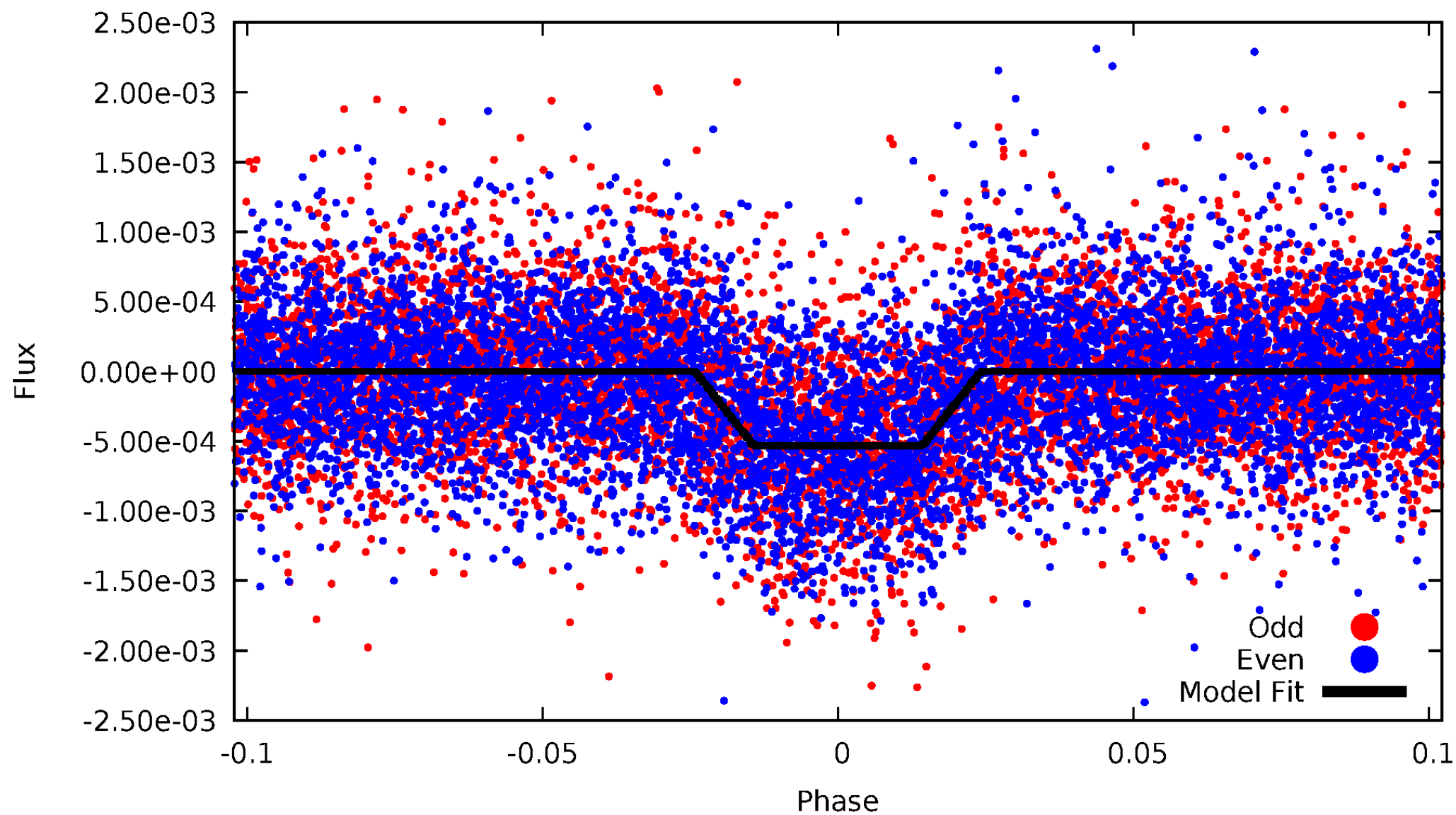
DV Odd/Even

TCE 011254382-01



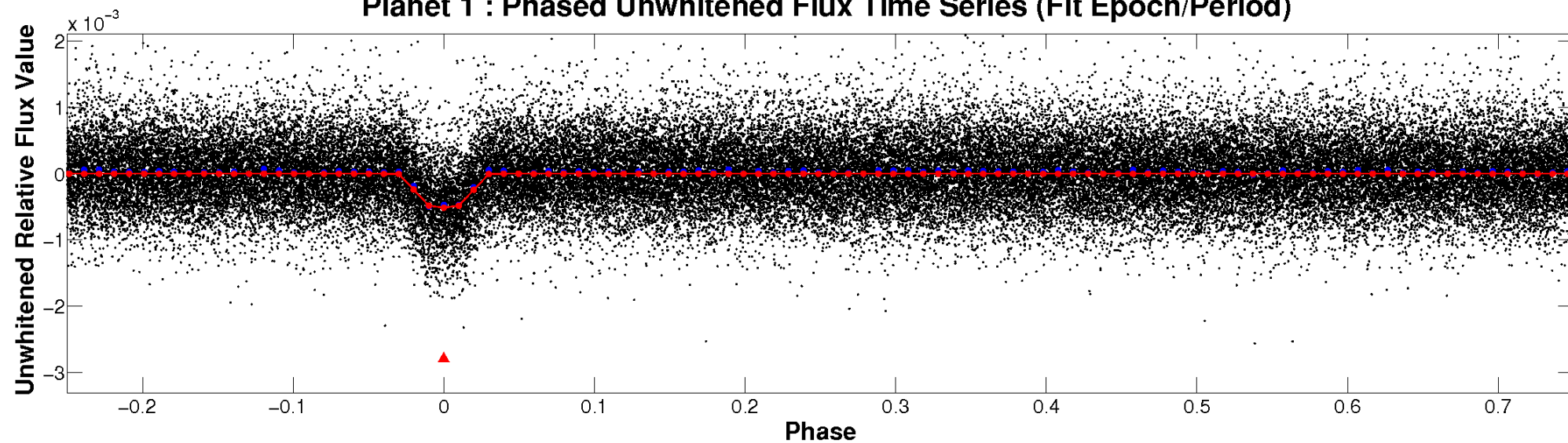
ALT Odd/Even

TCE 011254382-01

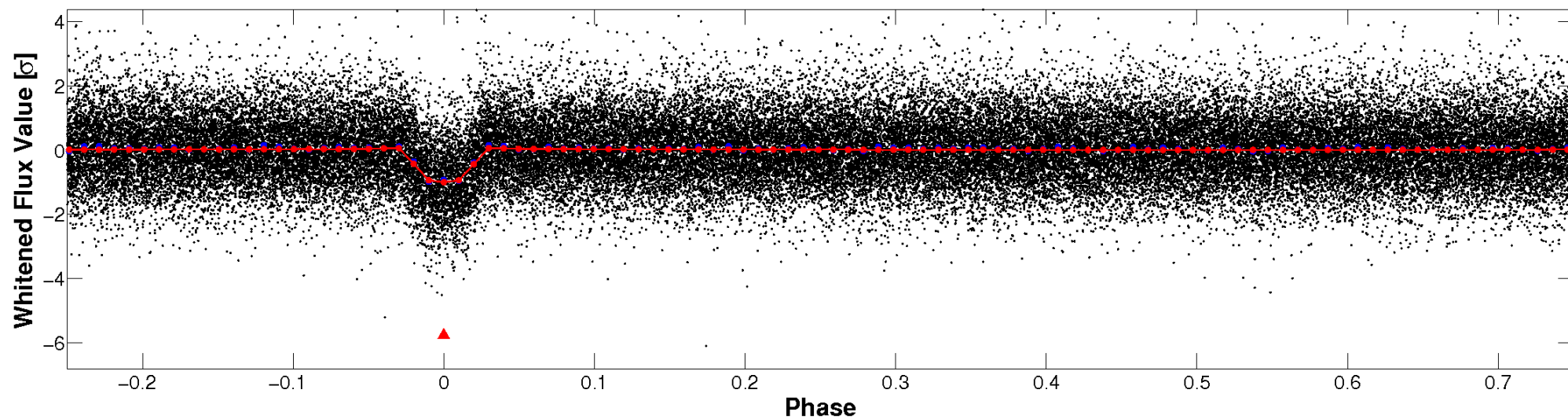


Non-Whitened Vs. Whitened Light Curve

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

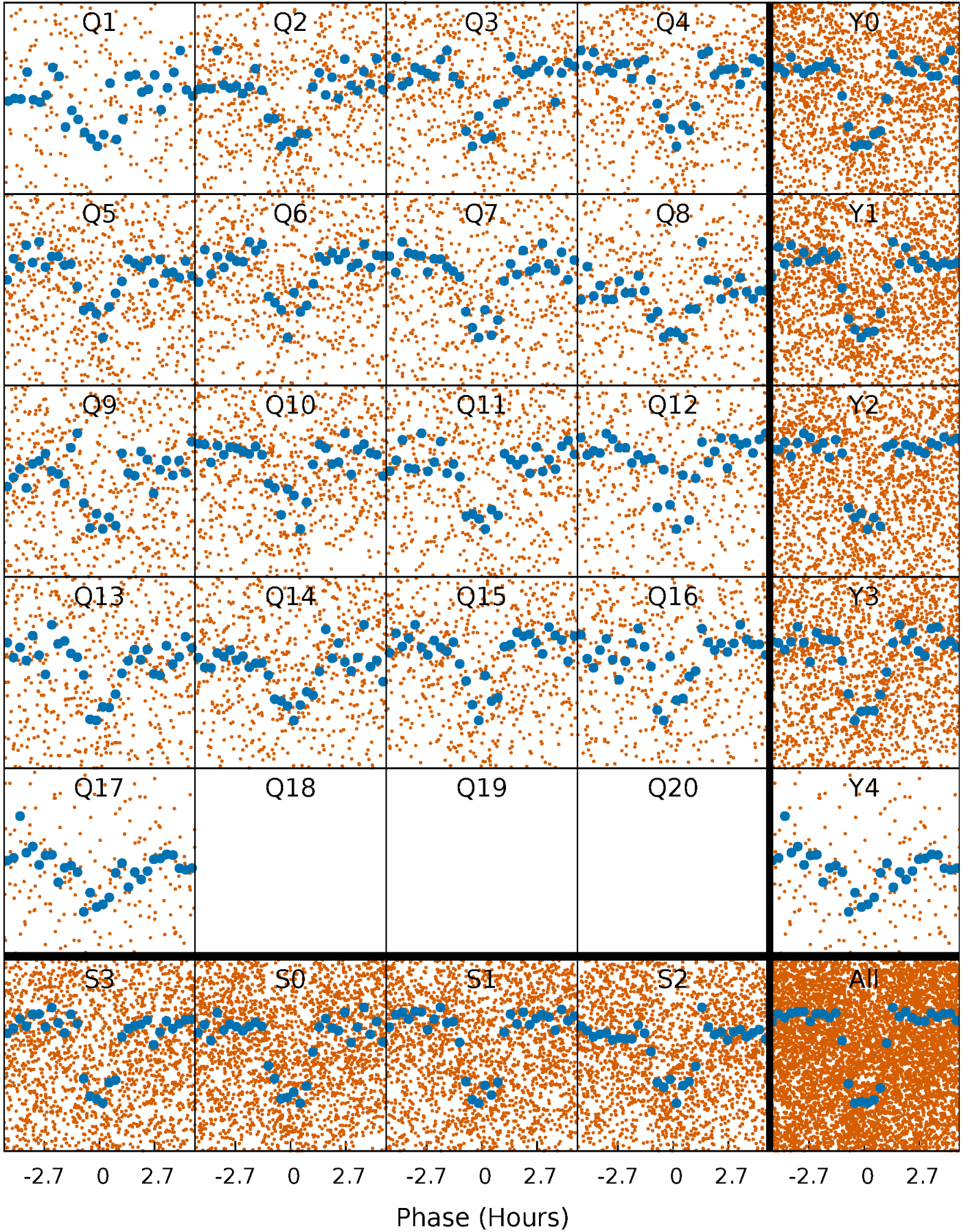


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



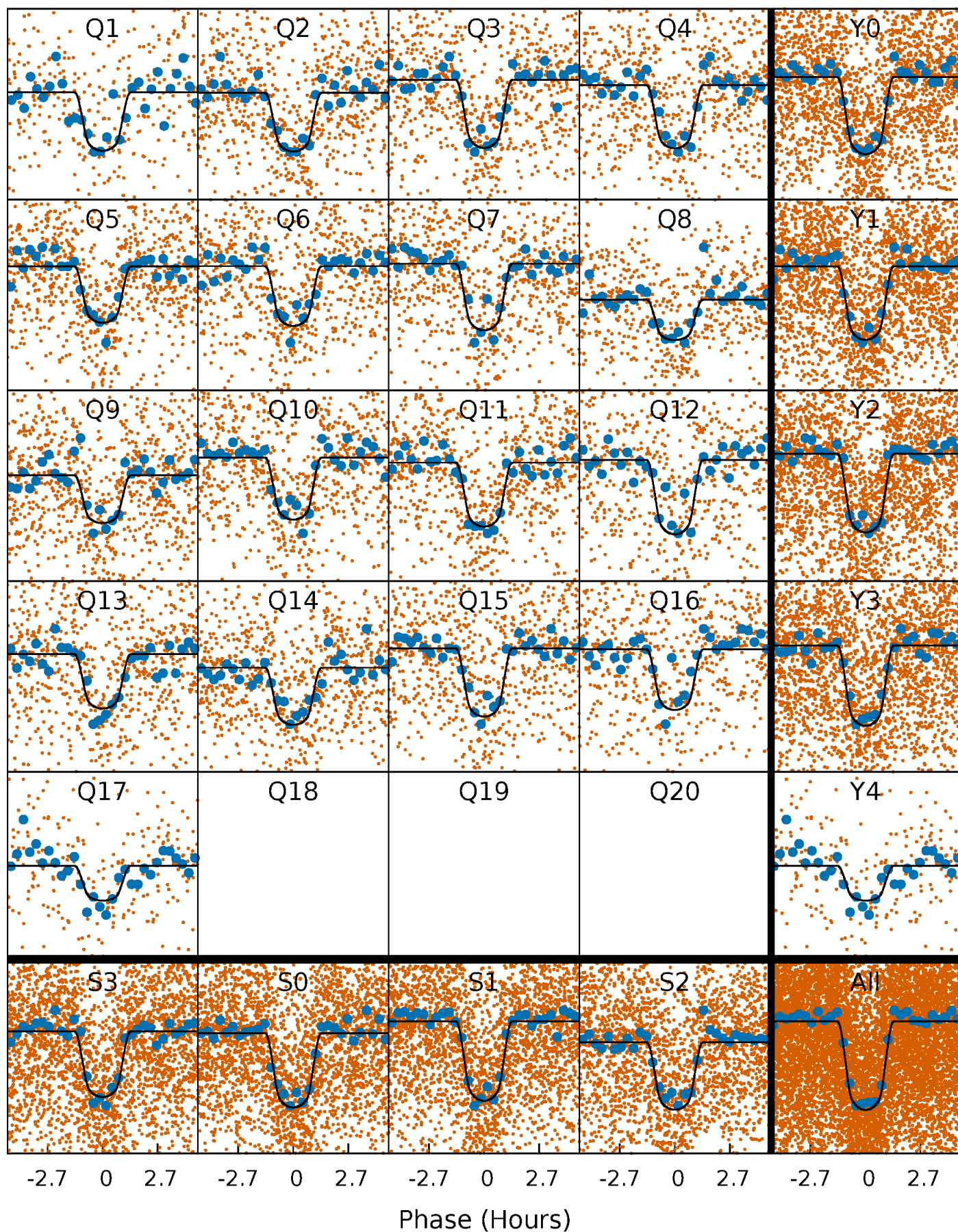
PDC Quarter-Phased Transit Curves

TCE 011254382-01 P= 2.053885 Days $T_0=131.680646$ (BKJD)



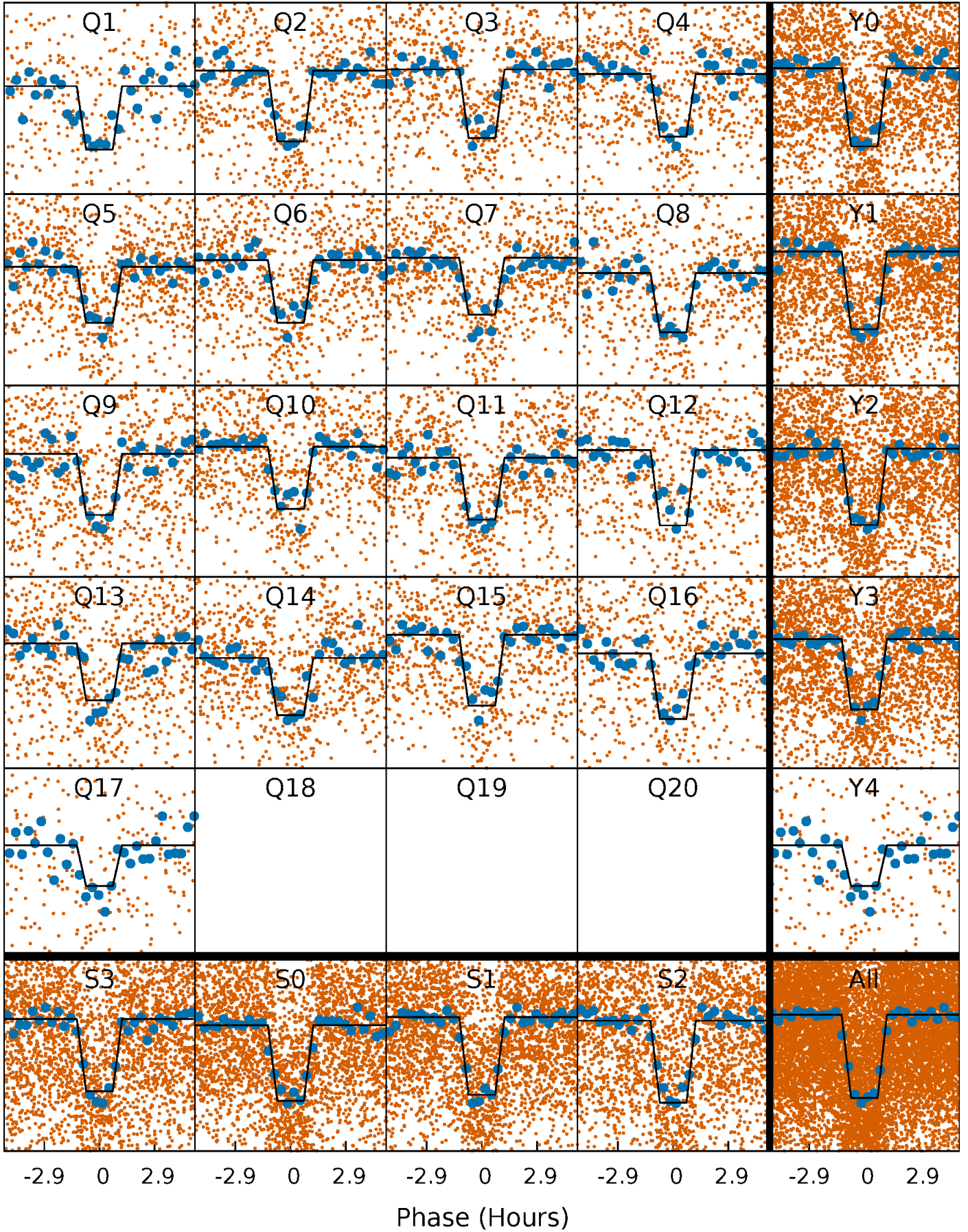
DV Quarter-Phased Transit Curves

TCE 011254382-01 P= 2.053885 Days $T_0=131.680646$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

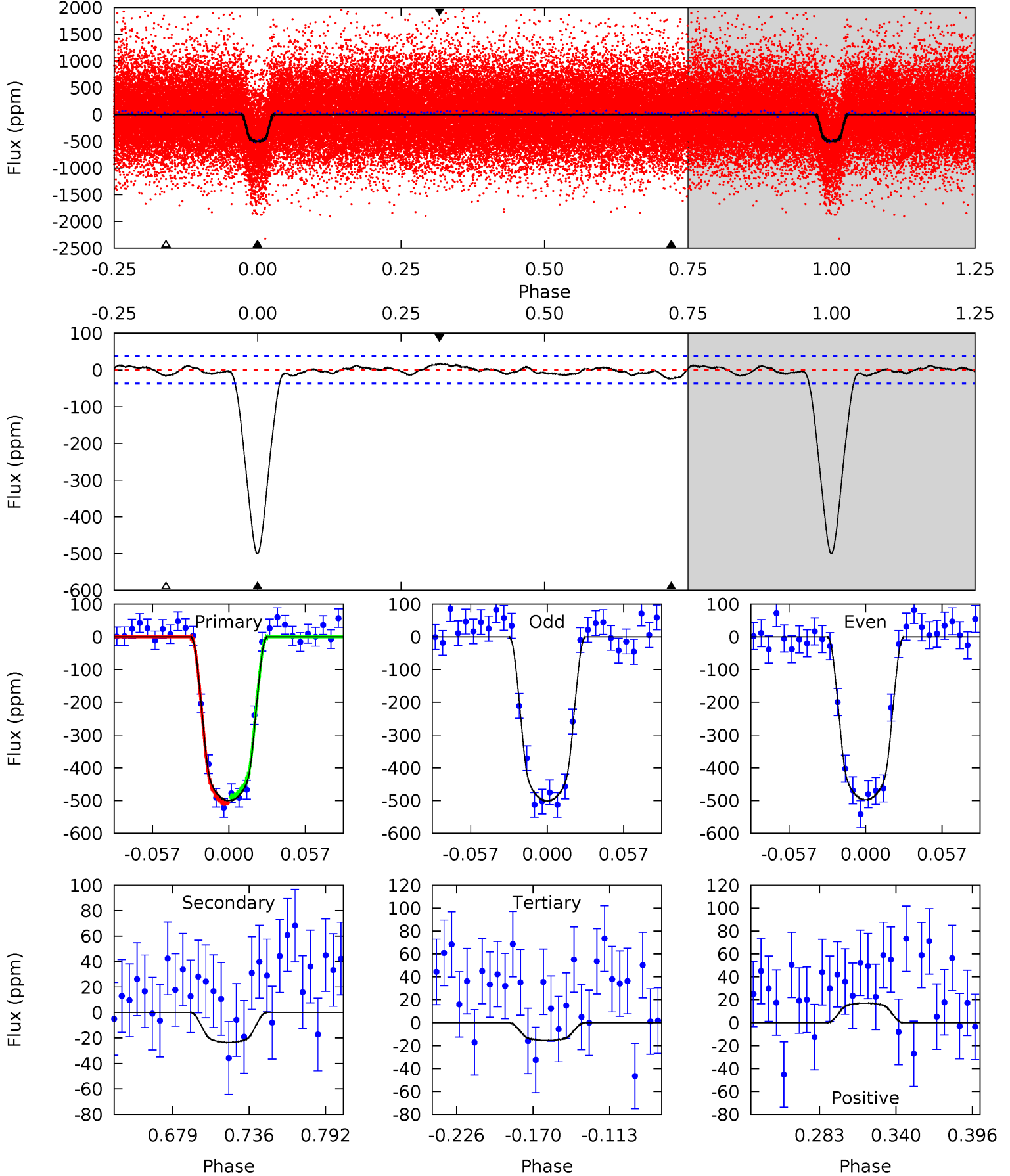
TCE 011254382-01 P= 2.053884 Days $T_0=131.680665$ (BKJD)



DV Model-Shift Uniqueness Test

011254382-01, P = 2.053885 Days, E = 129.626761 Days

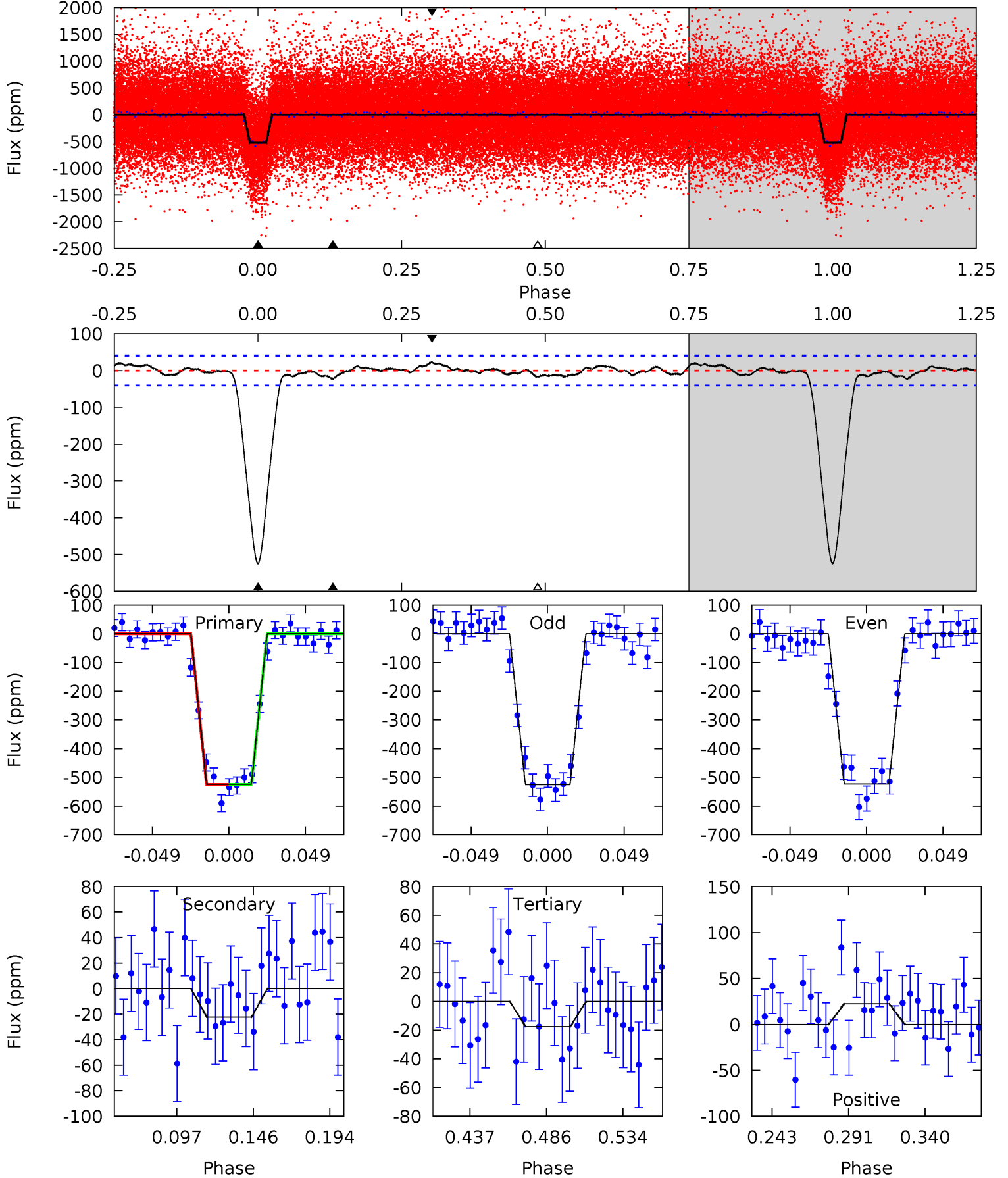
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
62.9	2.96	1.95	2.14	4.68	1.91	1.01	61.0	60.8	1.01	0.82	0.23	0.98	0.03	1.26



Alt Model-Shift Uniqueness Test

011254382-01, P = 2.053884 Days, E = 129.626781 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
60.8	2.58	2.02	2.62	4.71	1.97	1.08	58.8	58.2	0.56	-0.04	0.16	1.01	0.04	0.02



Stellar Parameters For KIC 011254382

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5632^{+76}_{-76}	$4.282^{+0.156}_{-0.104}$	$0.140^{+0.150}_{-0.150}$	$1.176^{+0.180}_{-0.198}$	$0.965^{+0.069}_{-0.055}$	$0.837^{+0.562}_{-0.289}$
	+1%/-1%	+4%/-2%	+107%/-107%	+15%/-17%	+7%/-6%	+67%/-35%
Source	SPE90	SPE90	SPE90	DSEP		

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

Secondary Eclipse Parameters for KIC 011254382-01 / KOI 1425.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-23 ± 8	$3.15^{+0.42}_{-0.40}$	2112^{+95}_{-96}	2993^{+187}_{-258}	$1.259^{+0.623}_{-0.475}$
Alt.	-22 ± 9	$2.92^{+0.42}_{-0.39}$	2129^{+83}_{-107}	3039^{+232}_{-277}	$1.350^{+0.833}_{-0.546}$

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

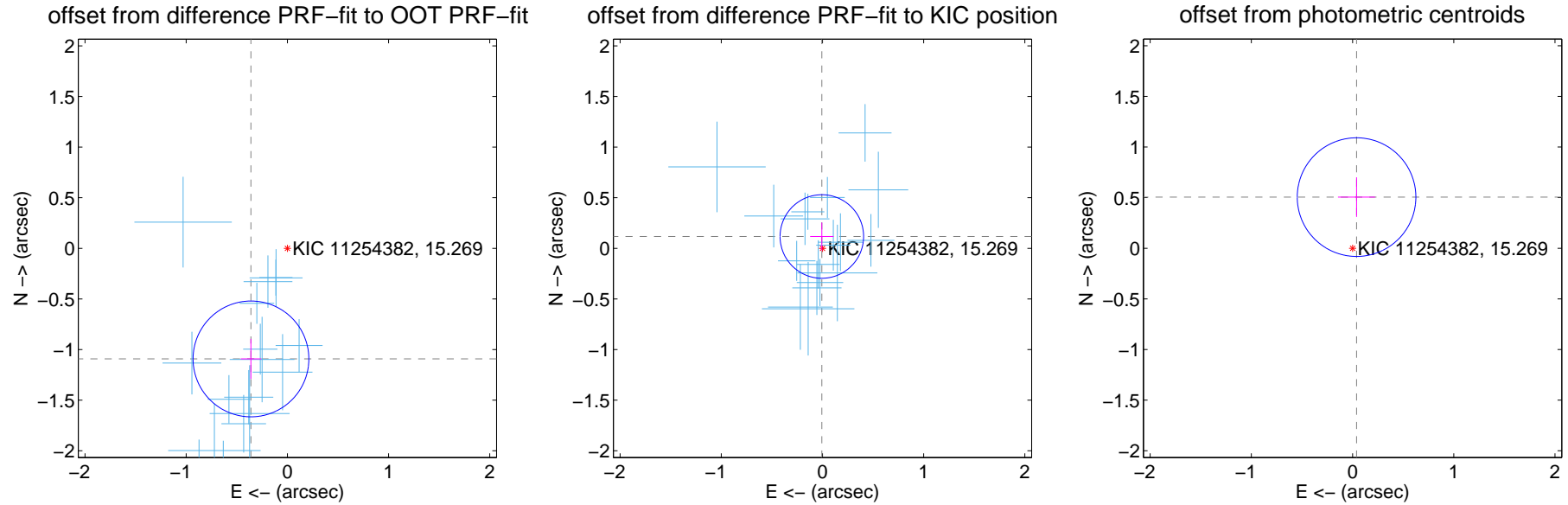
DV Centroid Data

Supplemental centroid analysis for 011254382-01. Kepler magnitude: 15.27. Transit SNR 44.61

There are 17 quarters with good PRF difference image offsets

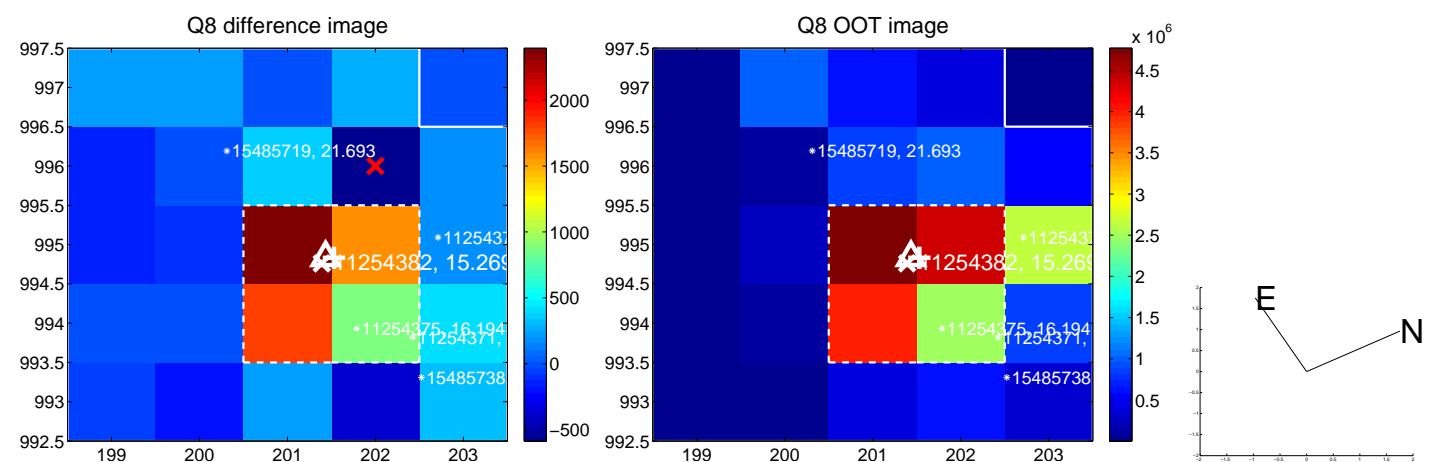
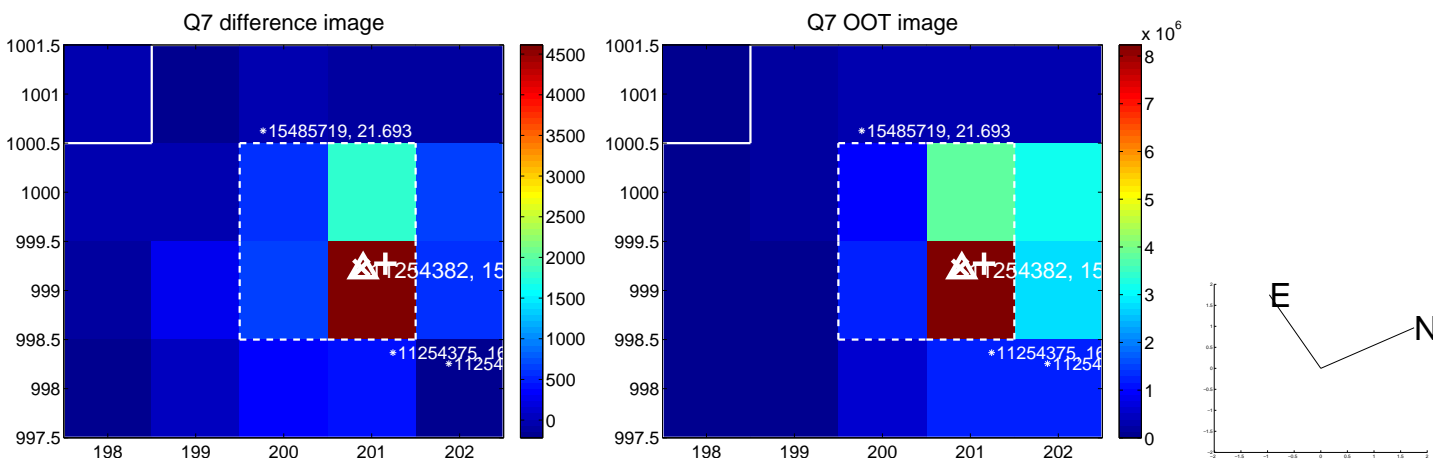
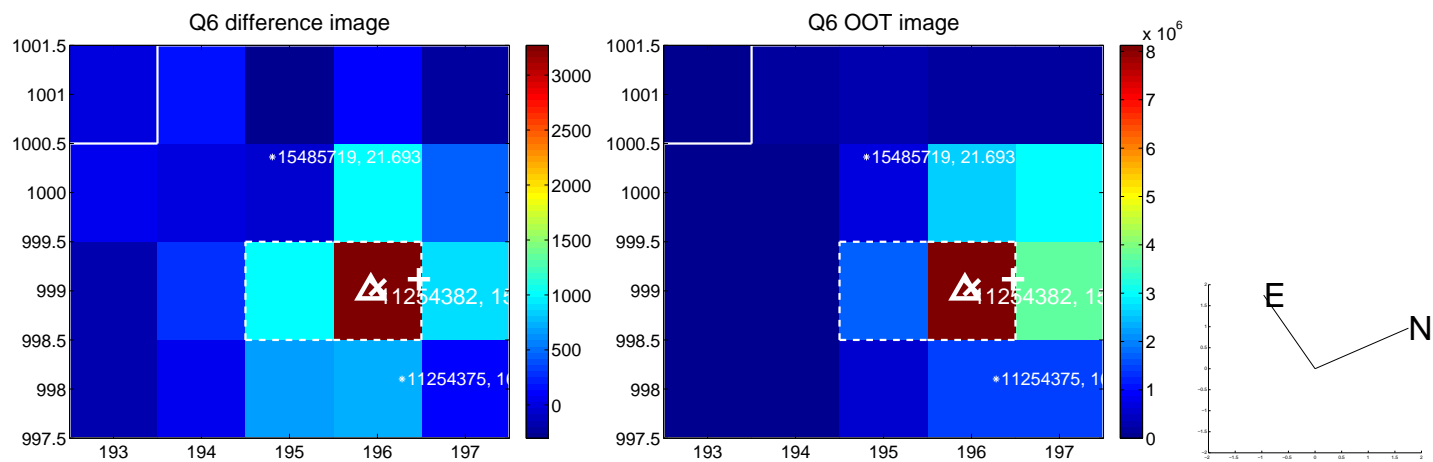
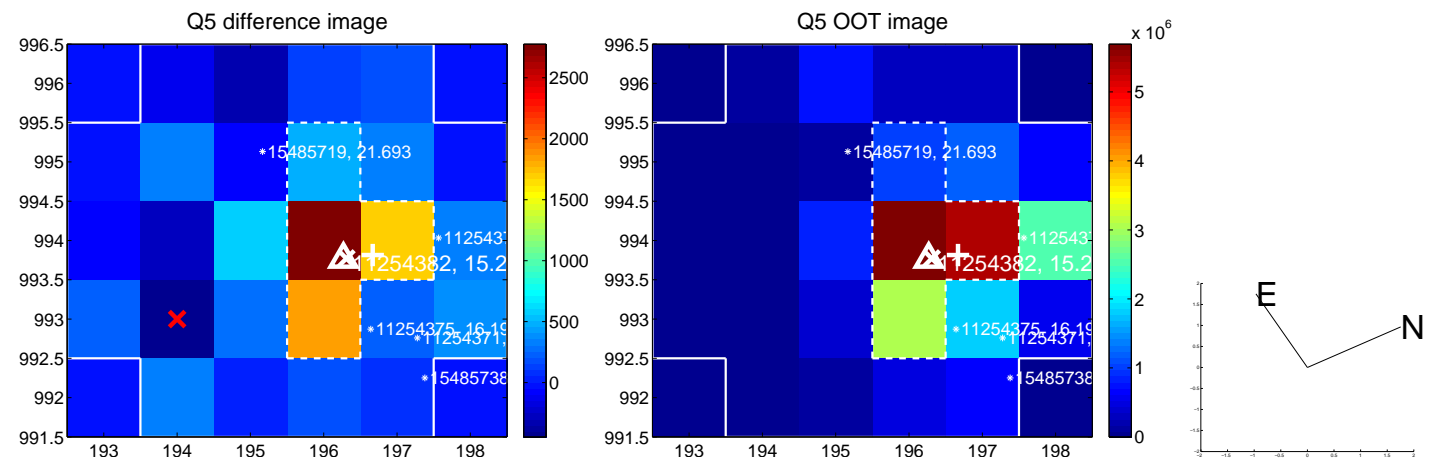
The direct PRF centroid is offset from the target star catalog position by about 1.48 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.151 \pm 0.191	6.03	0.360 \pm 0.101	-1.093 \pm 0.198
PRF-fit source offset from KIC position	0.117 \pm 0.138	0.85	0.006 \pm 0.115	0.117 \pm 0.138
photometric centroid source offset	0.51 \pm 0.20	2.59	-0.04 \pm 0.18	0.51 \pm 0.20

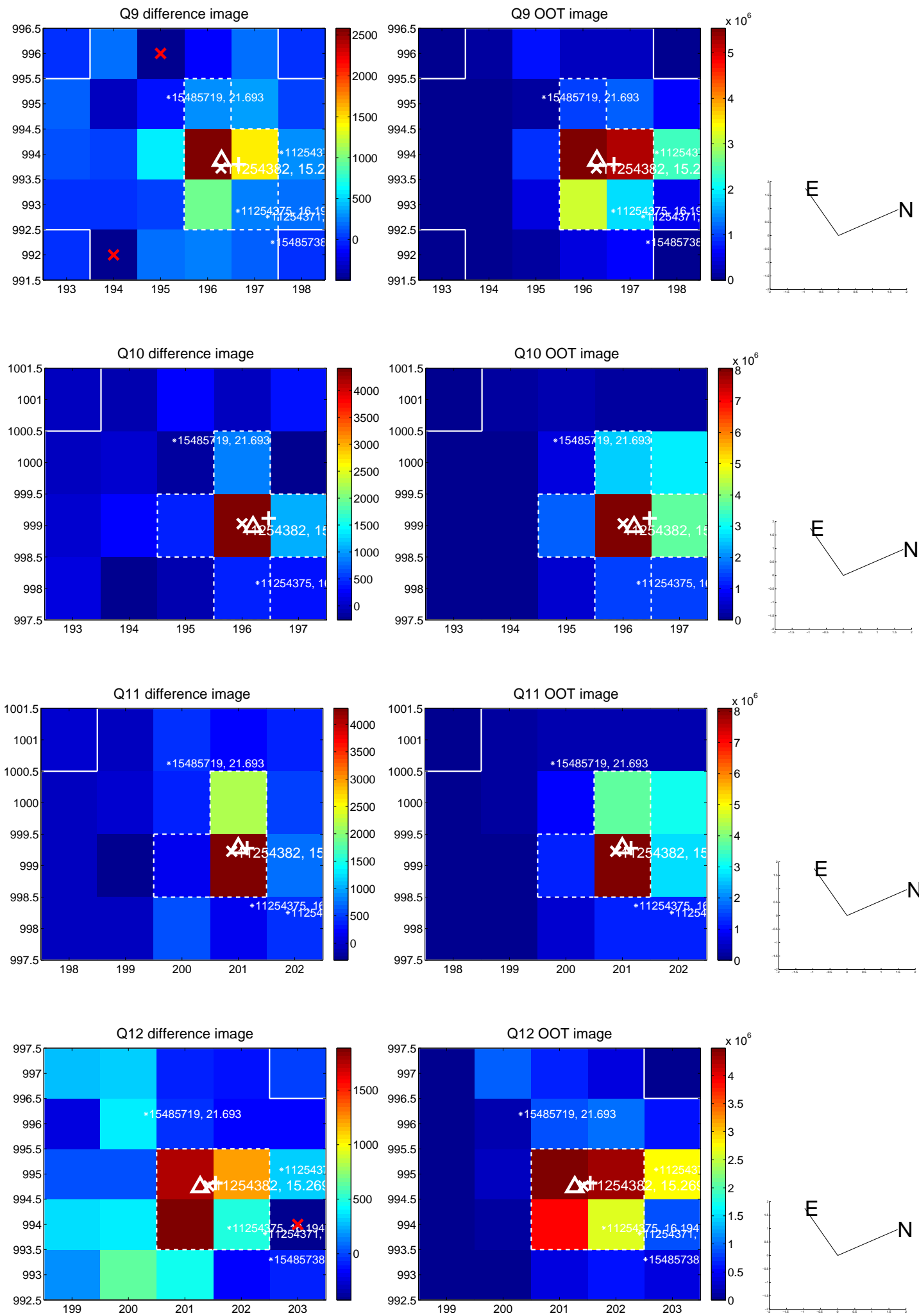


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

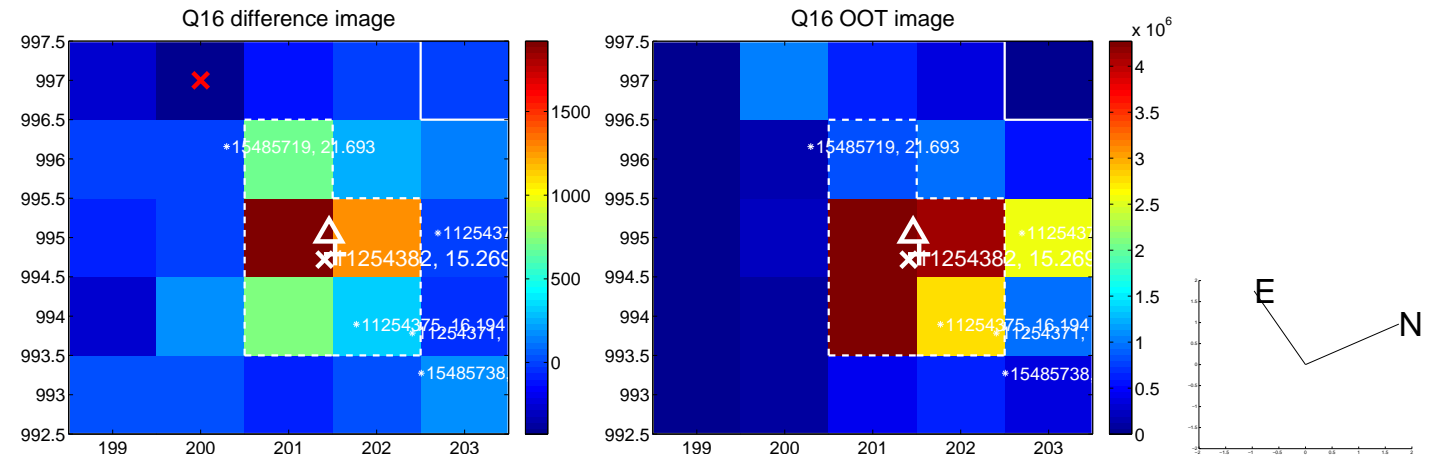
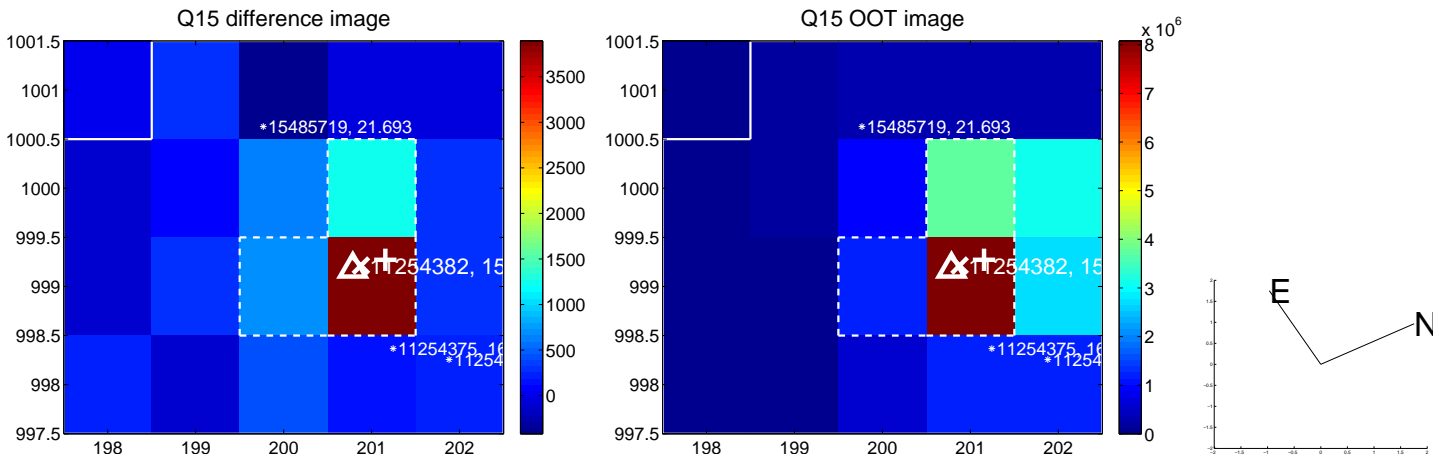
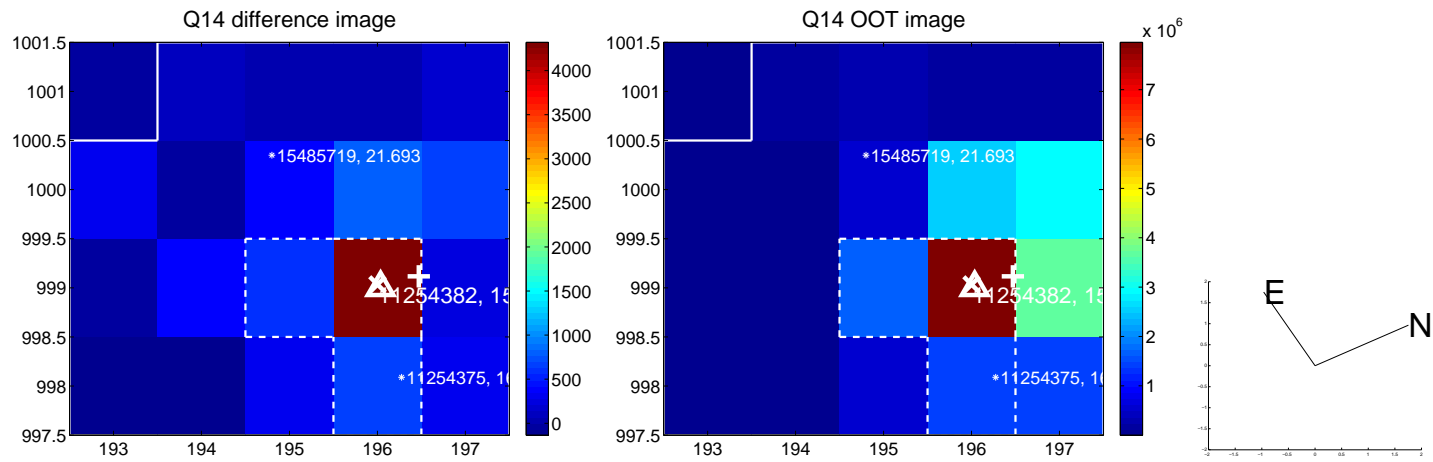
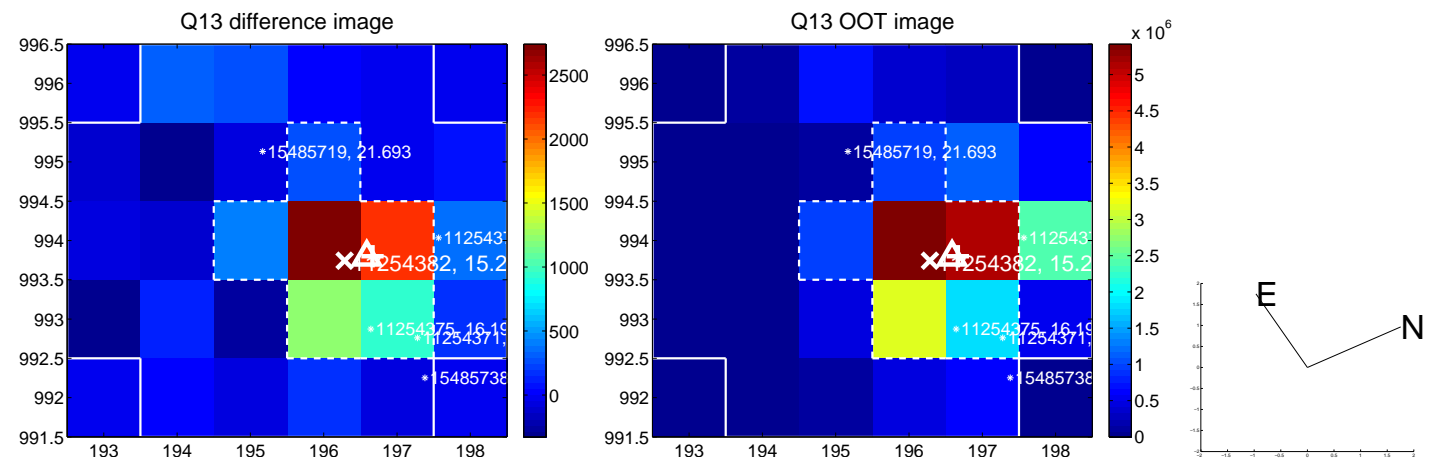
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



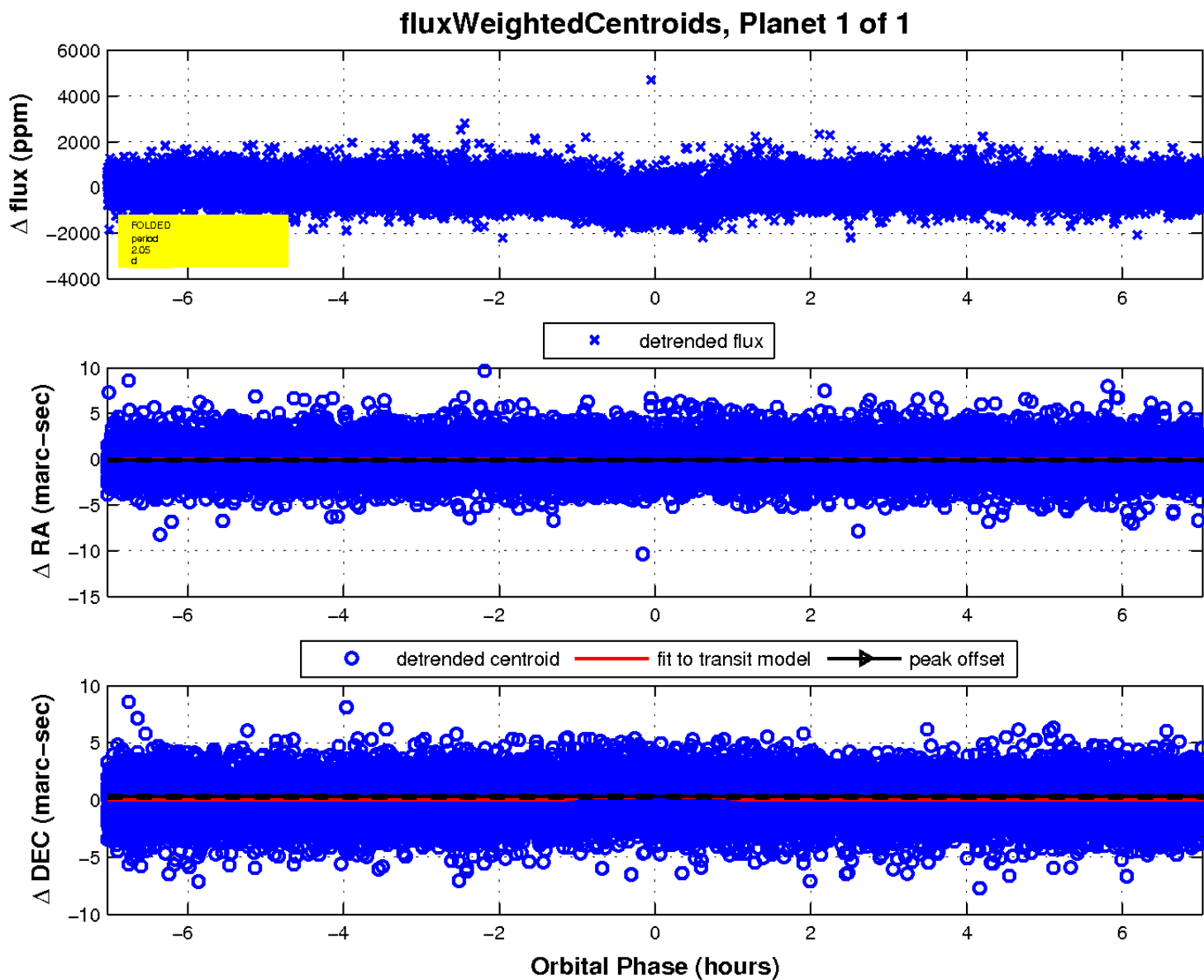
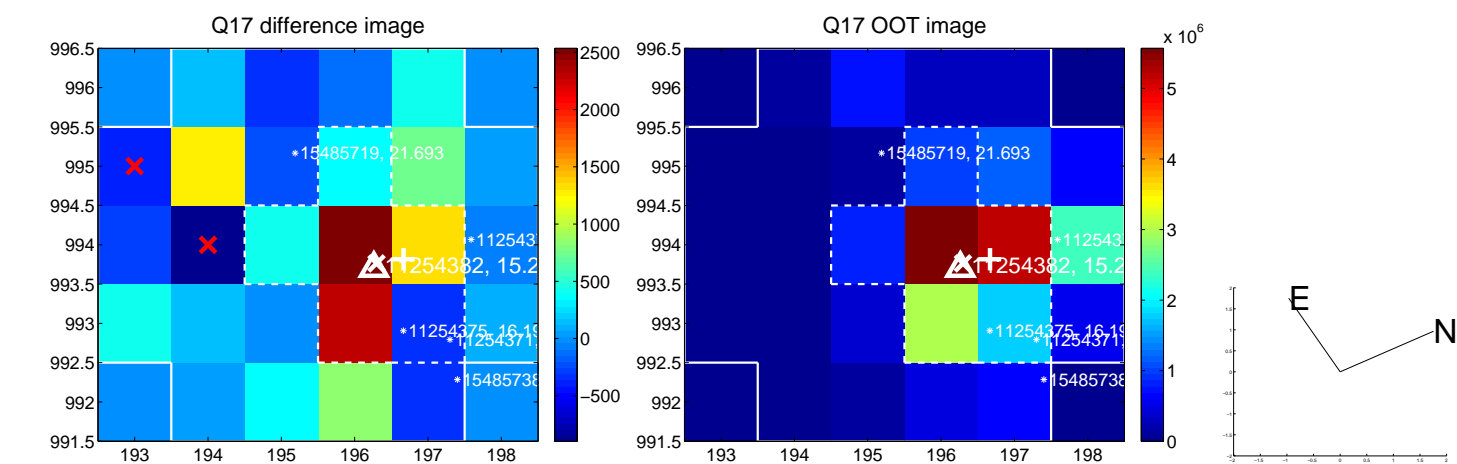
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

