

KIC 011229102

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})
011229102-01	OBS	No	0.545932	131.701675	30.0	4.301	9.2	6.4	0.91	5631	0.49	4332.11

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011229102-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET

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

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

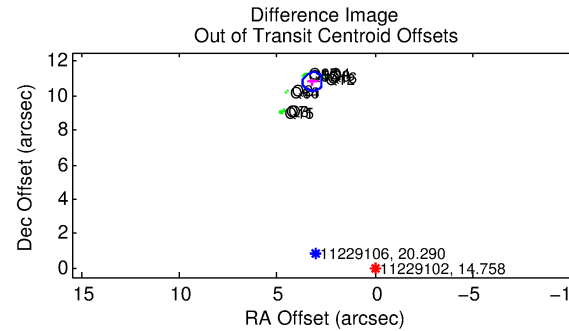
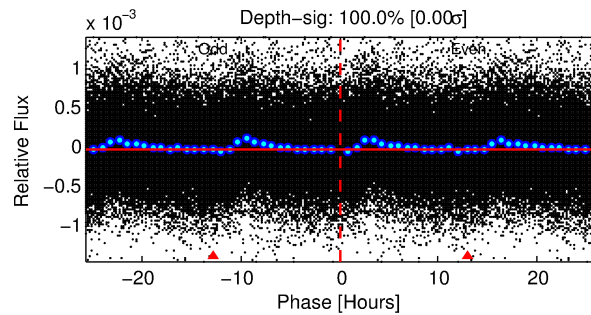
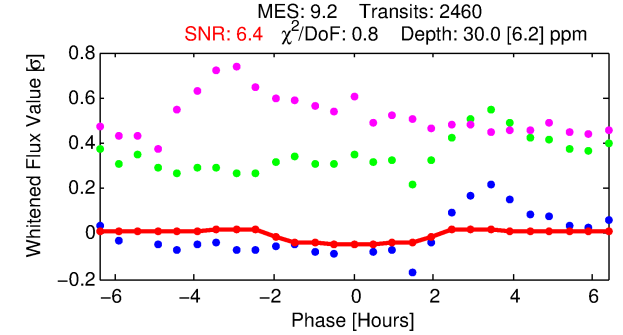
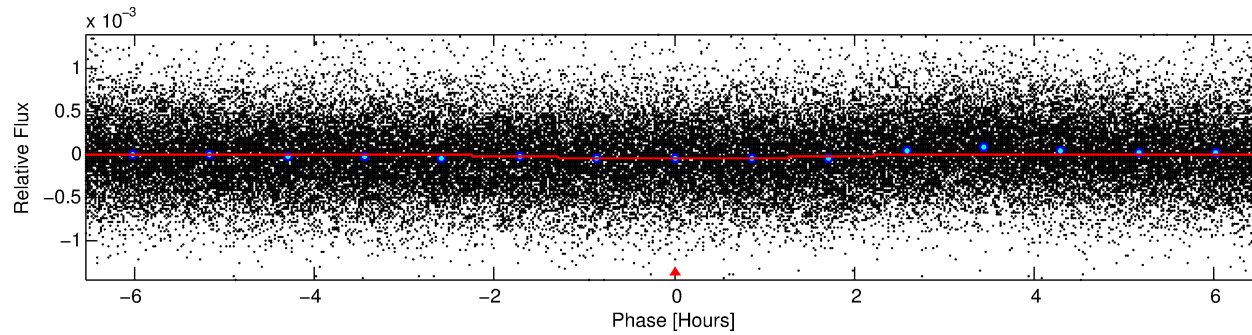
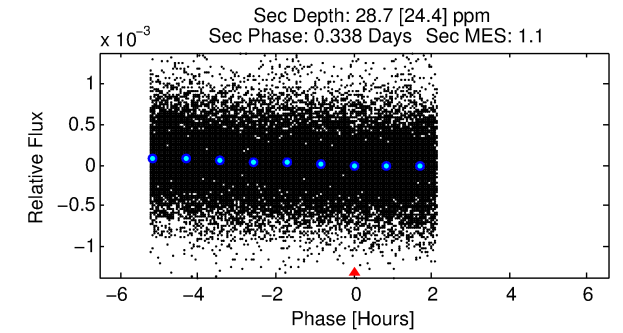
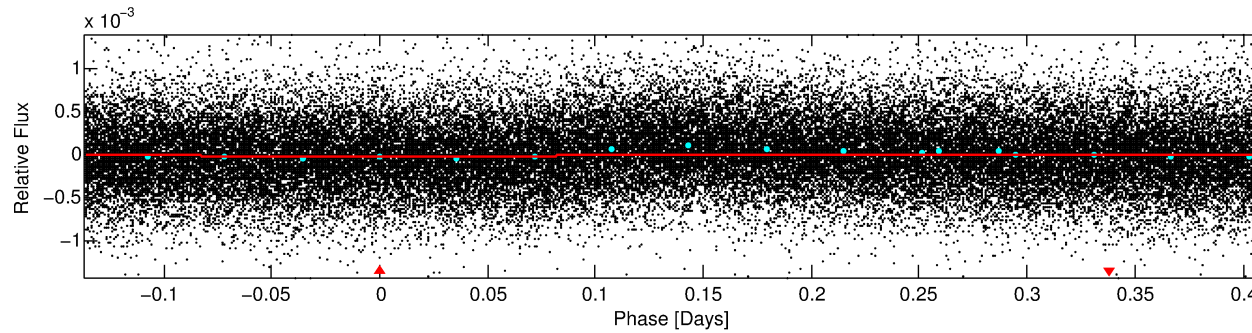
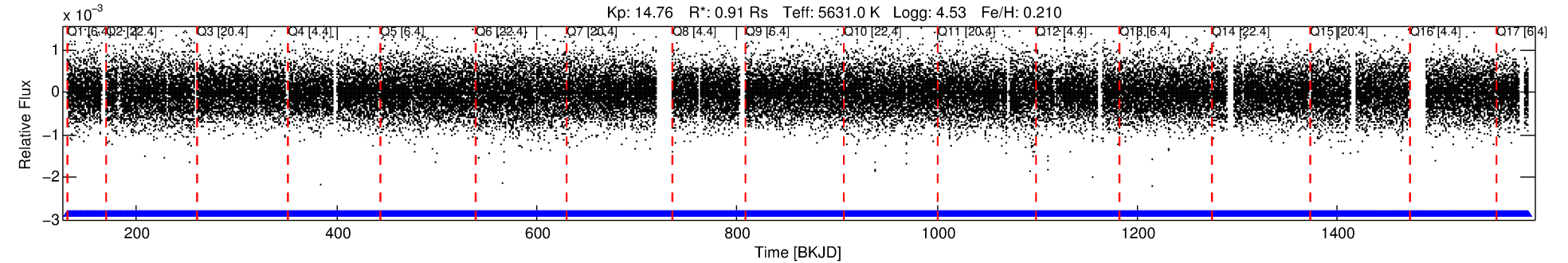
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011229102-01

No Significant Match Found

DV One-Page Summary

KIC: 11229102 Candidate: 1 of 1 Period: 0.546 d



DV Fit Results:

Period = 0.54593 [0.00002] d
Epoch = 131.7017 [0.0056] BKJD
Rp/R* = 0.0049 [0.0077]
a/R* = 1.17 [1.98]
b = 0.03 [205.11]
Seff = 4332.11 [1674.74]
Teq = 2069 [200] K
Rp = 0.49 [0.78] Re
a = 0.0132 [0.0033] AU
Ag = 11.34 [36.82] [0.28σ]
Teffp = 5870 [4738] K [0.80σ]

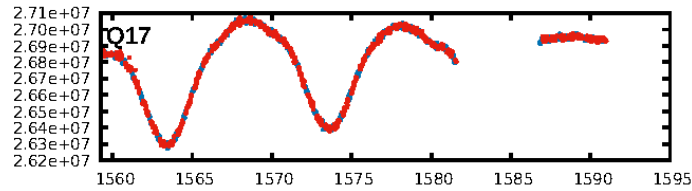
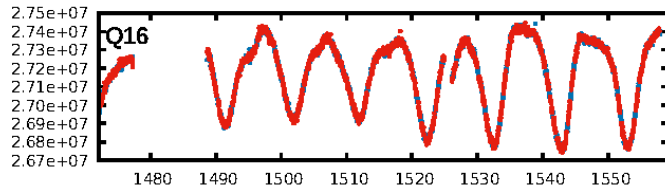
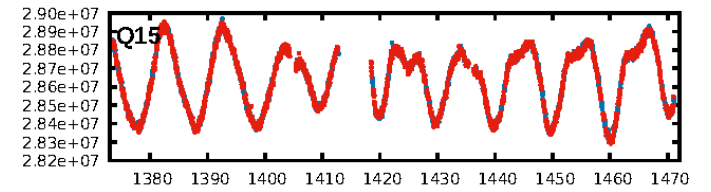
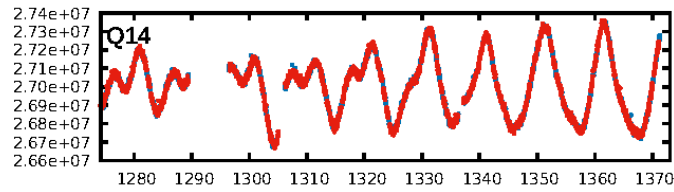
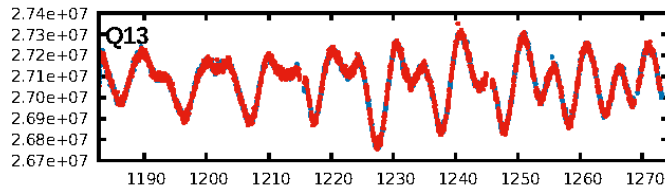
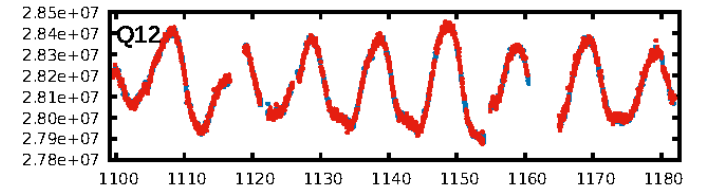
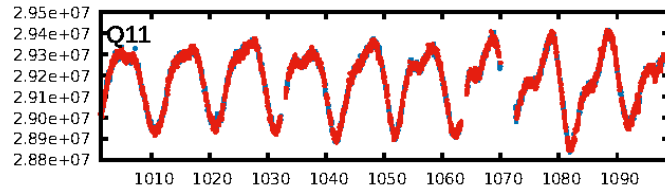
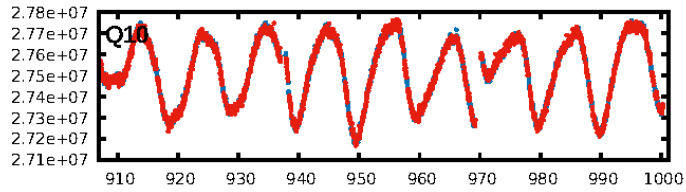
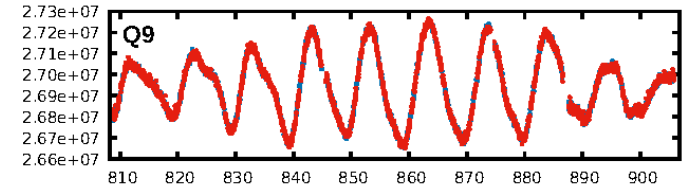
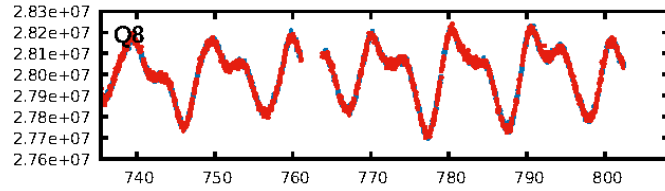
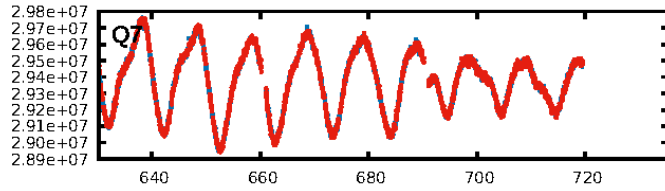
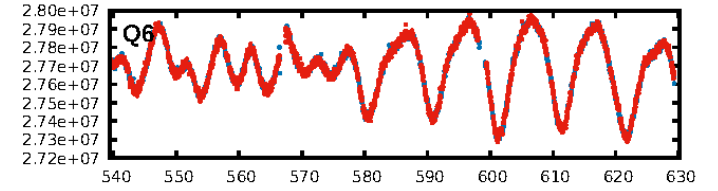
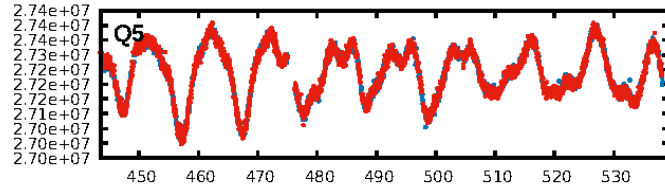
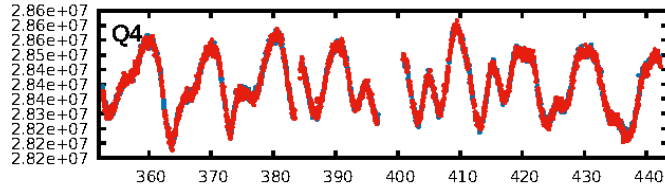
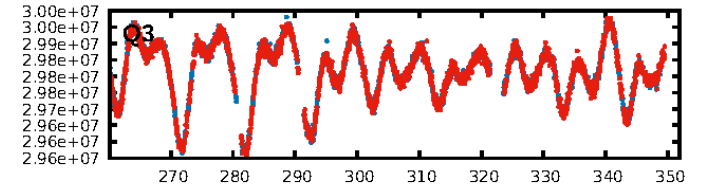
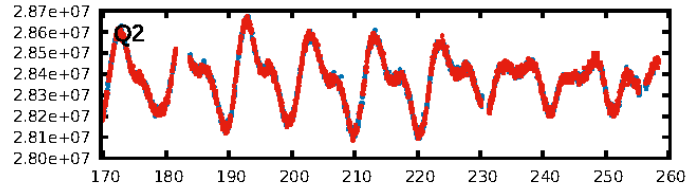
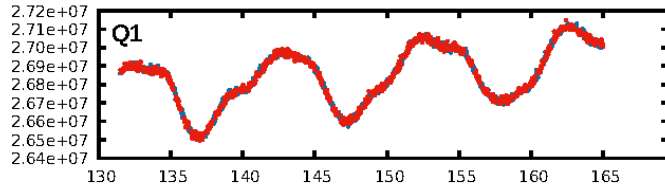
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2349/2349]
GhostDiagnostic-chr: -0.5999
Centroid-sig: N/A
Centroid-so: 3.003 arcsec [1.79σ]
OotOffset-rm: 11.282 arcsec [66.12σ]
KicOffset-rm: 11.389 arcsec [63.51σ]
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]

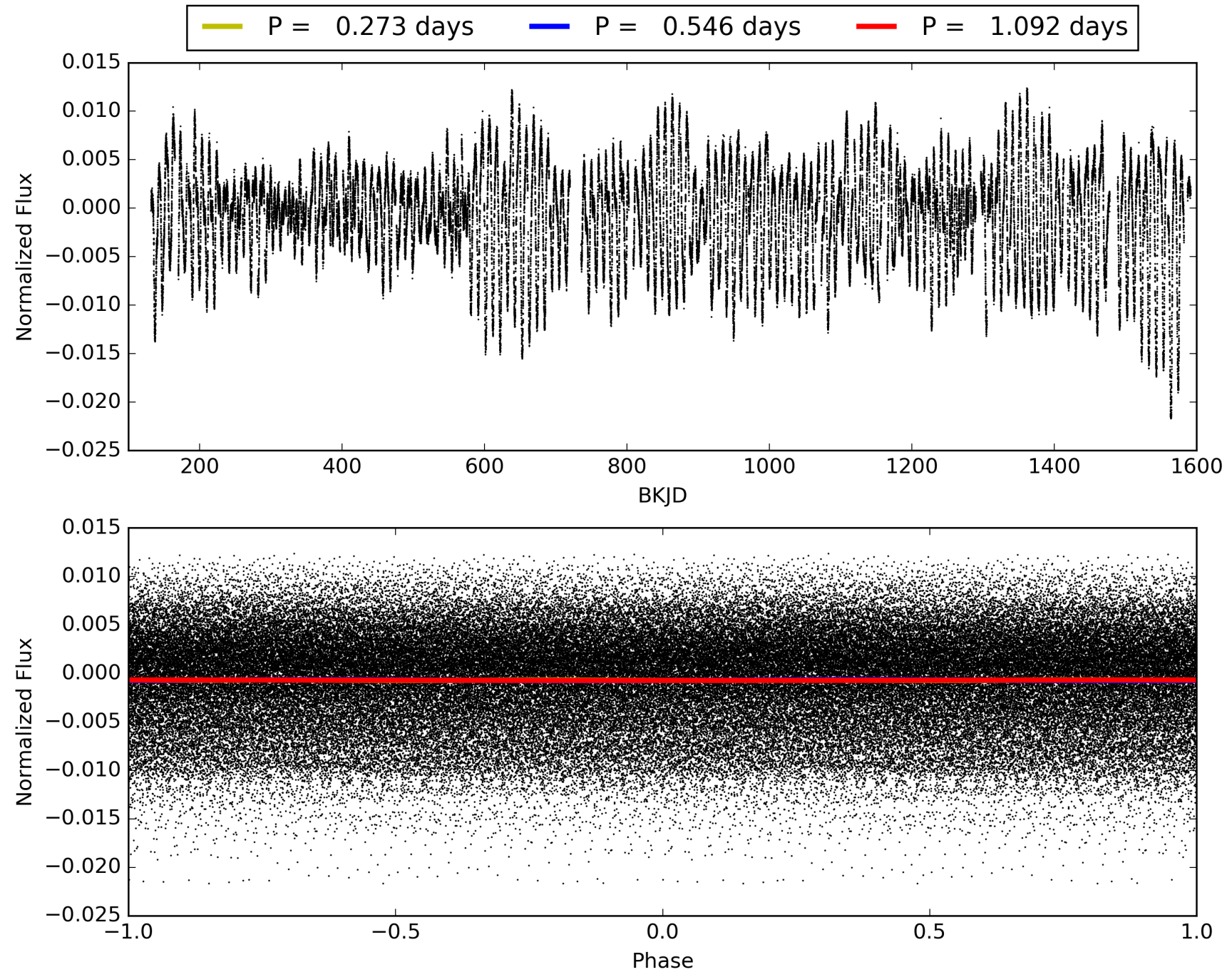
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 04:24:22 Z

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

TCE 011229102-01, PDC Light Curves

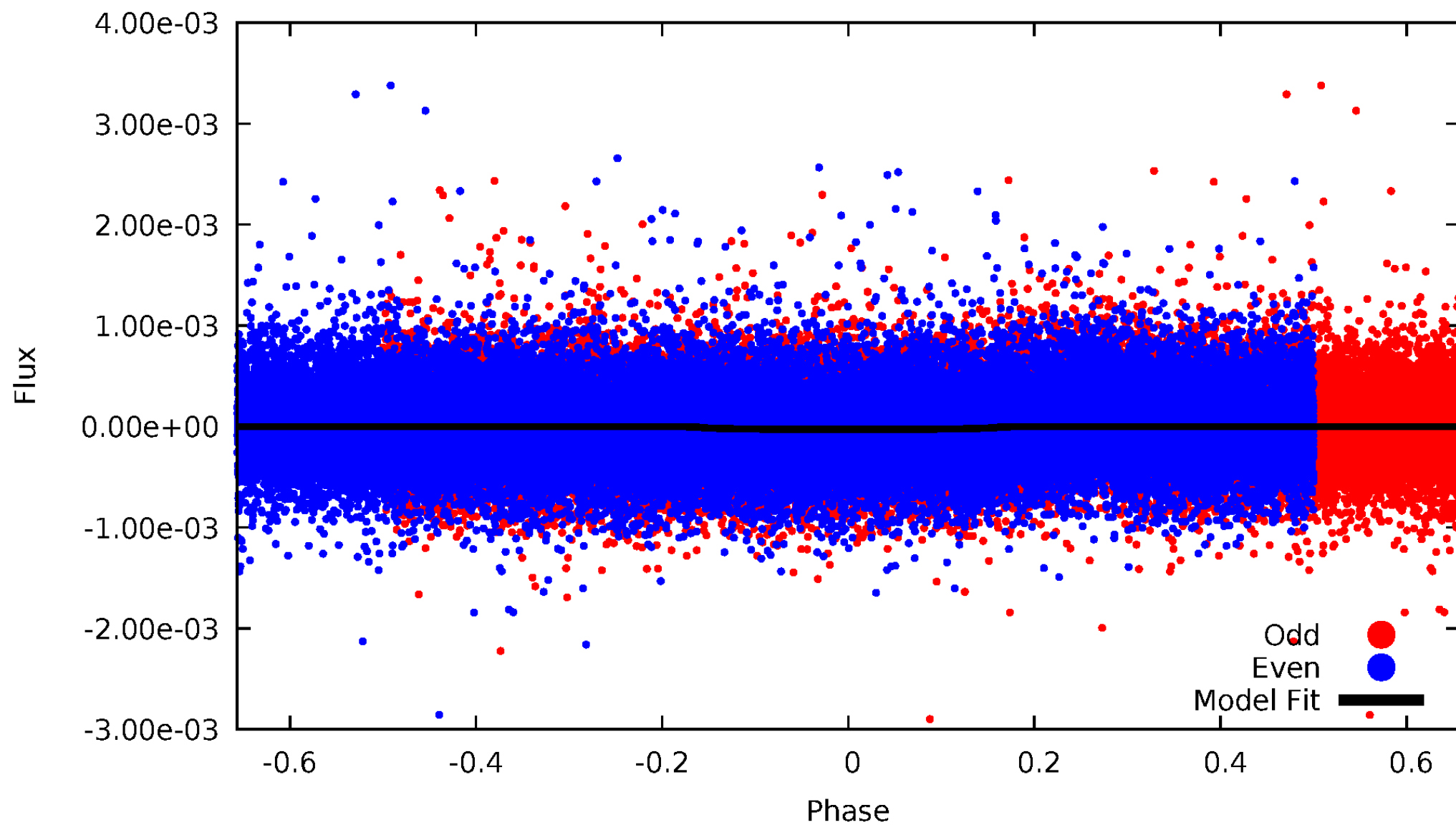


TCE 011229102-01



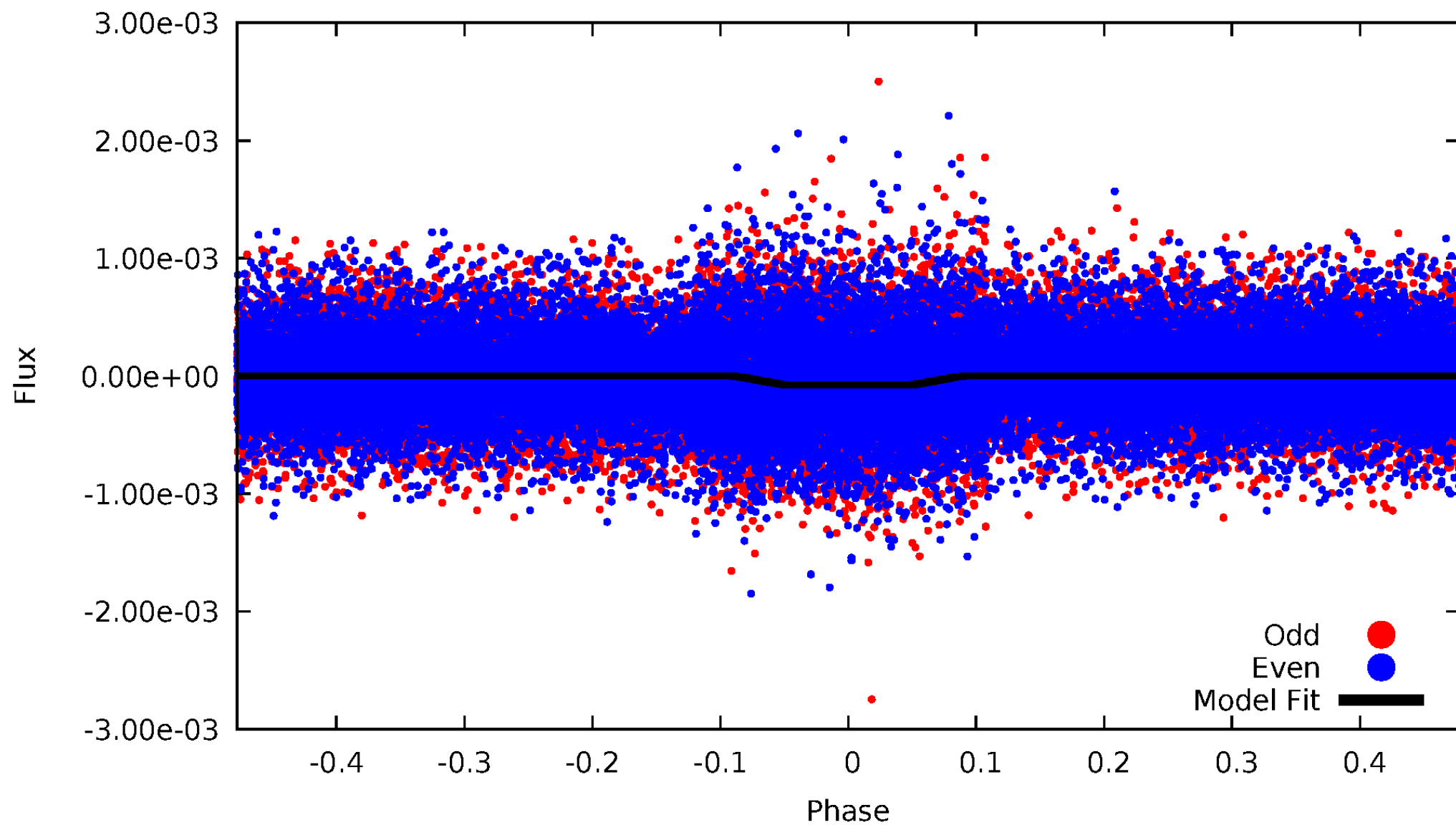
DV Odd/Even

TCE 011229102-01



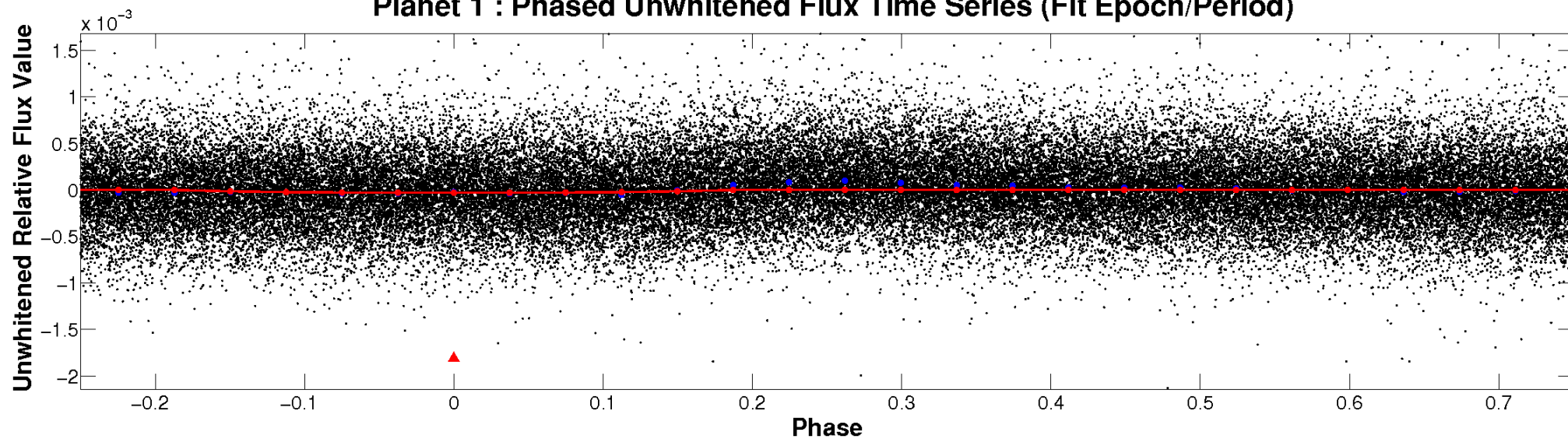
ALT Odd/Even

TCE 011229102-01

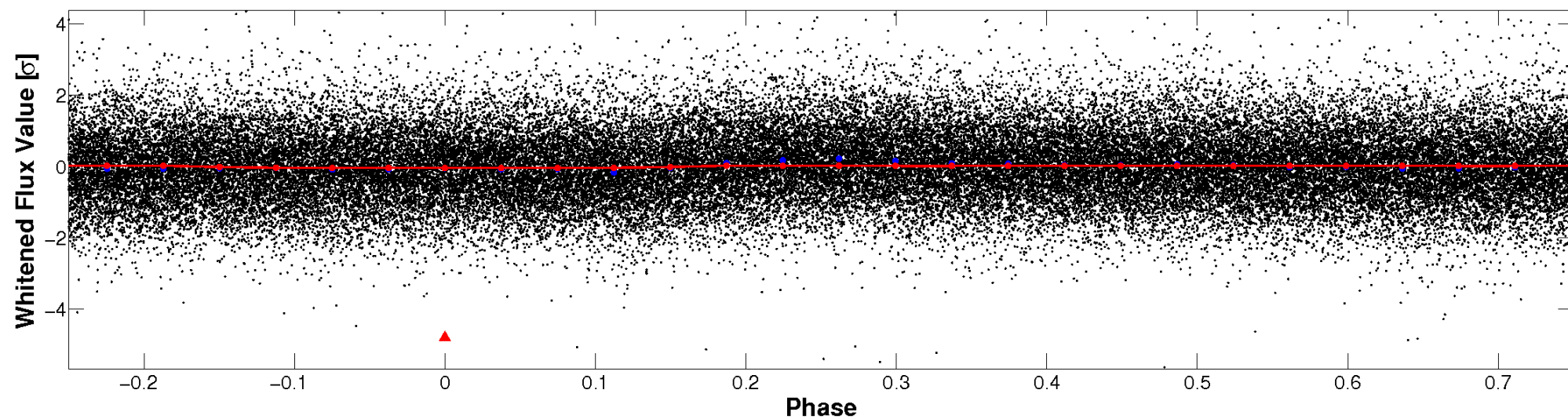


Non-Whitened Vs. Whitened Light Curve

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

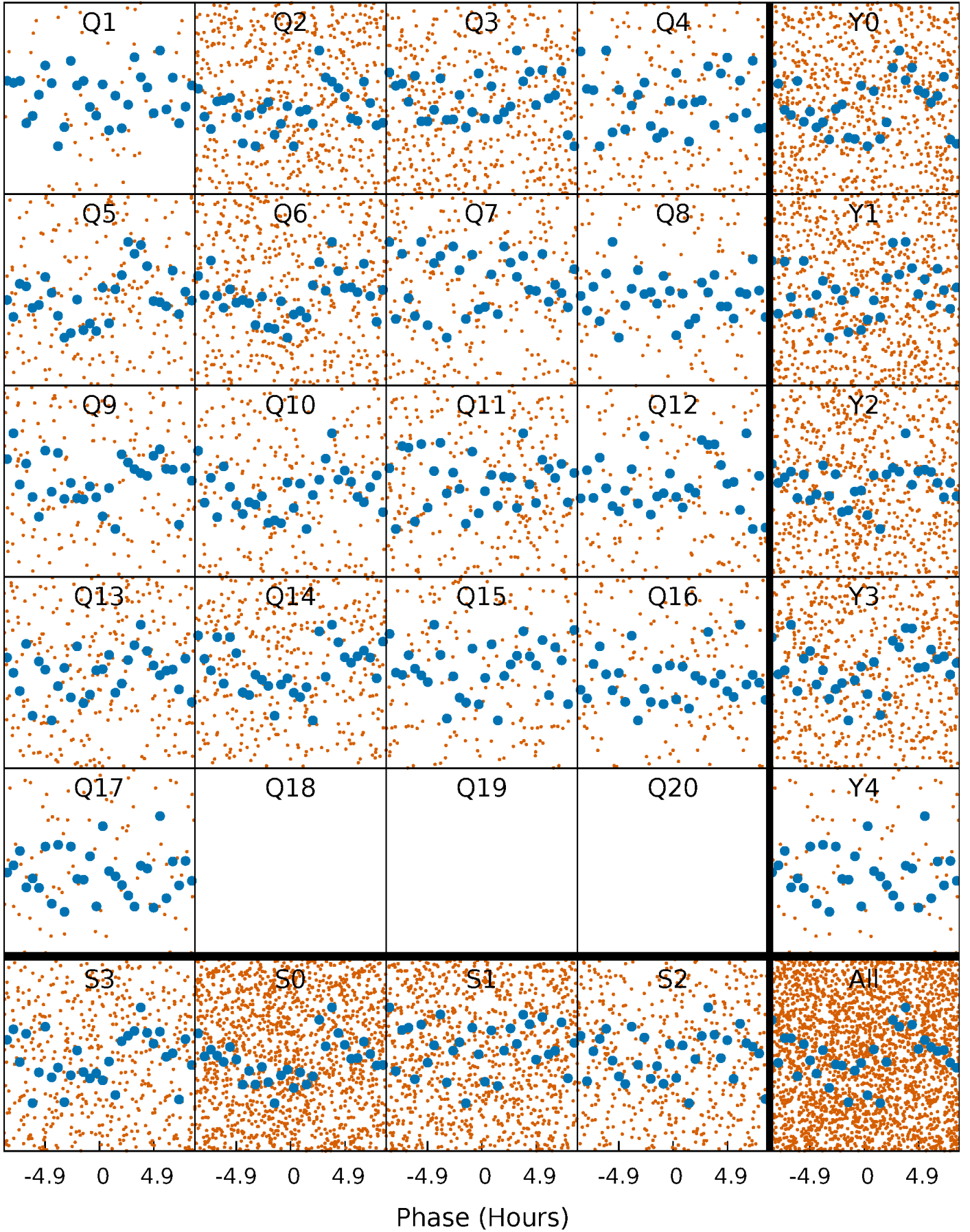


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



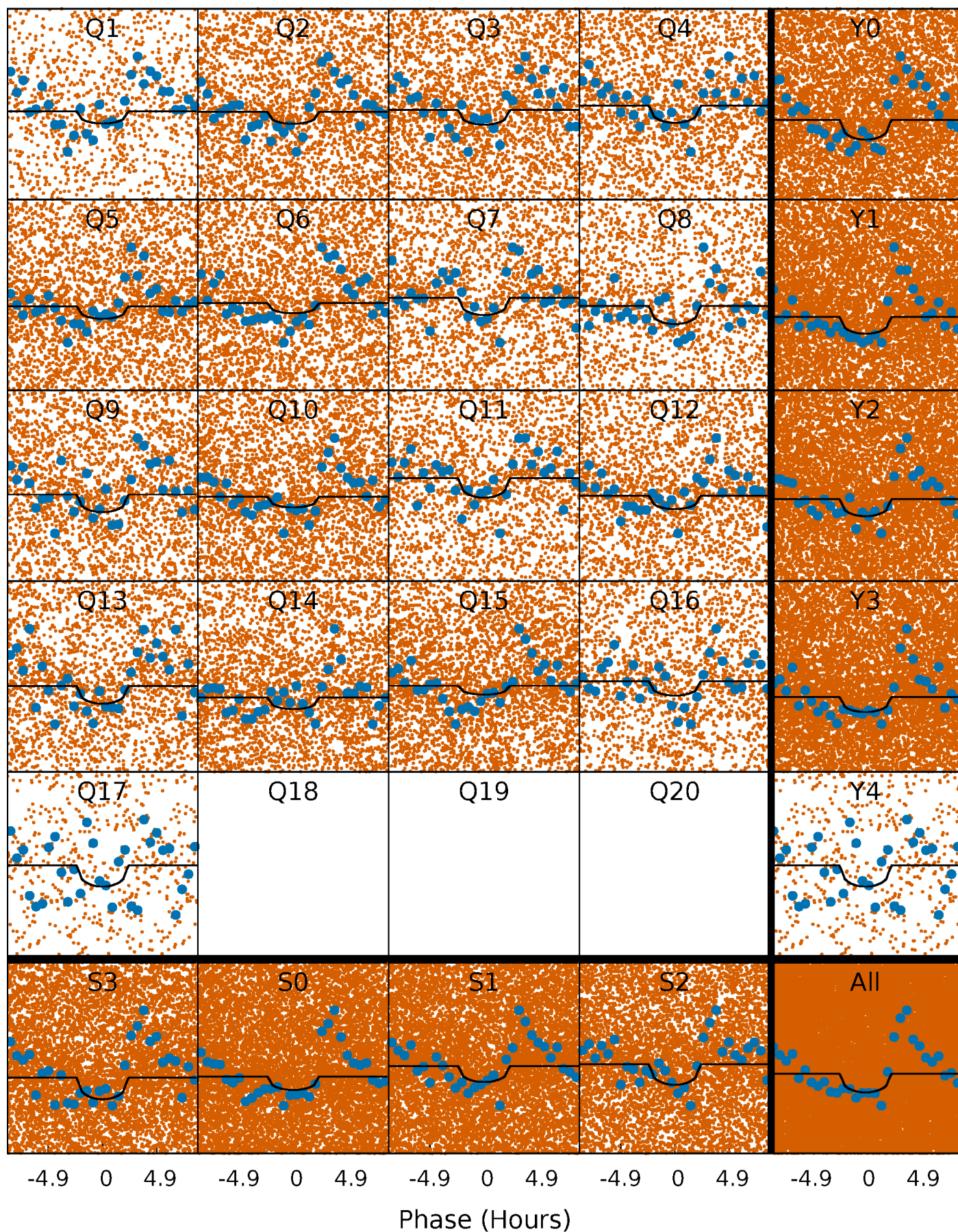
PDC Quarter-Phased Transit Curves

TCE 011229102-01 P= 0.545932 Days $T_0=131.701675$ (BKJD)



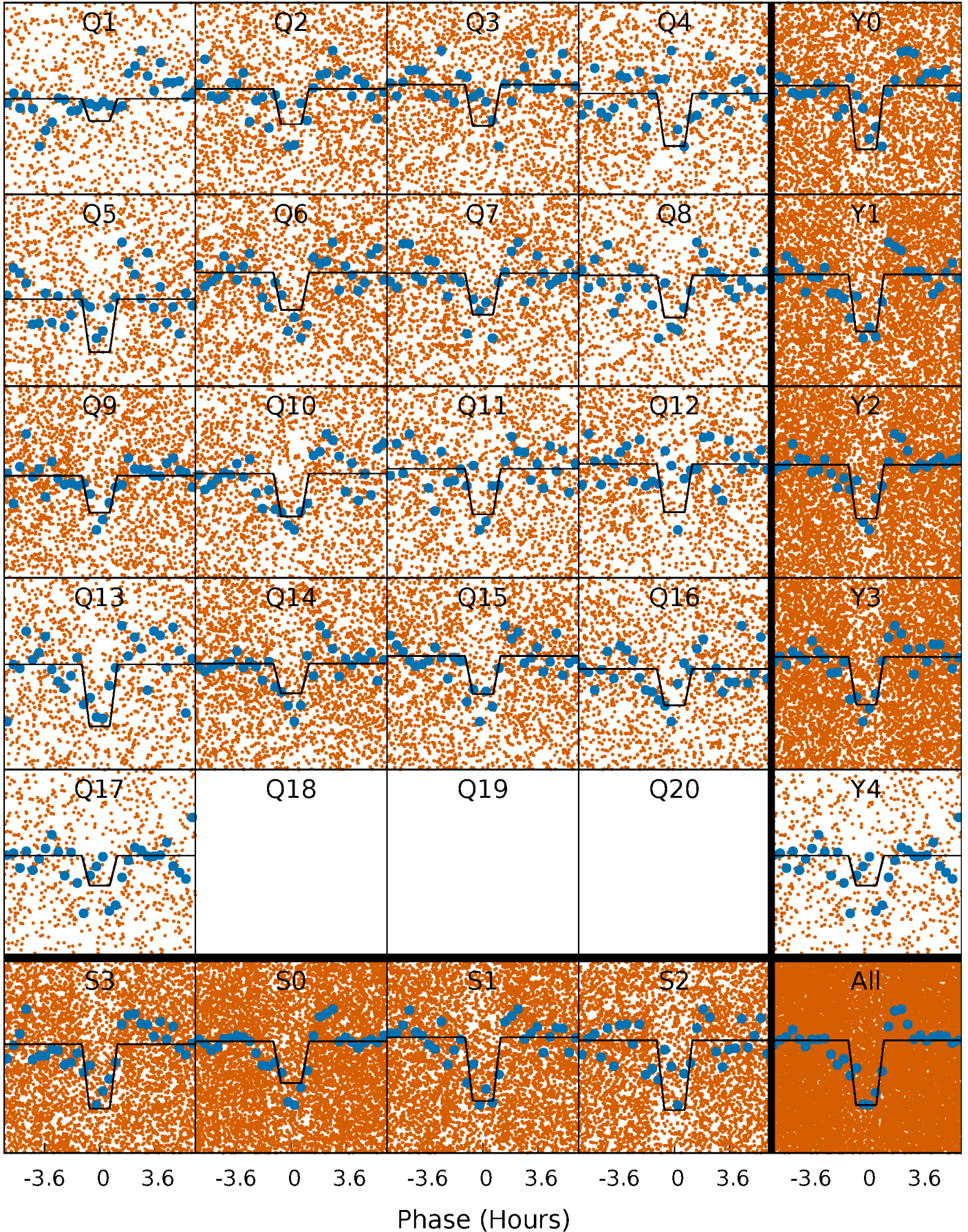
DV Quarter-Phased Transit Curves

TCE 011229102-01 P= 0.545932 Days $T_0=131.701675$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

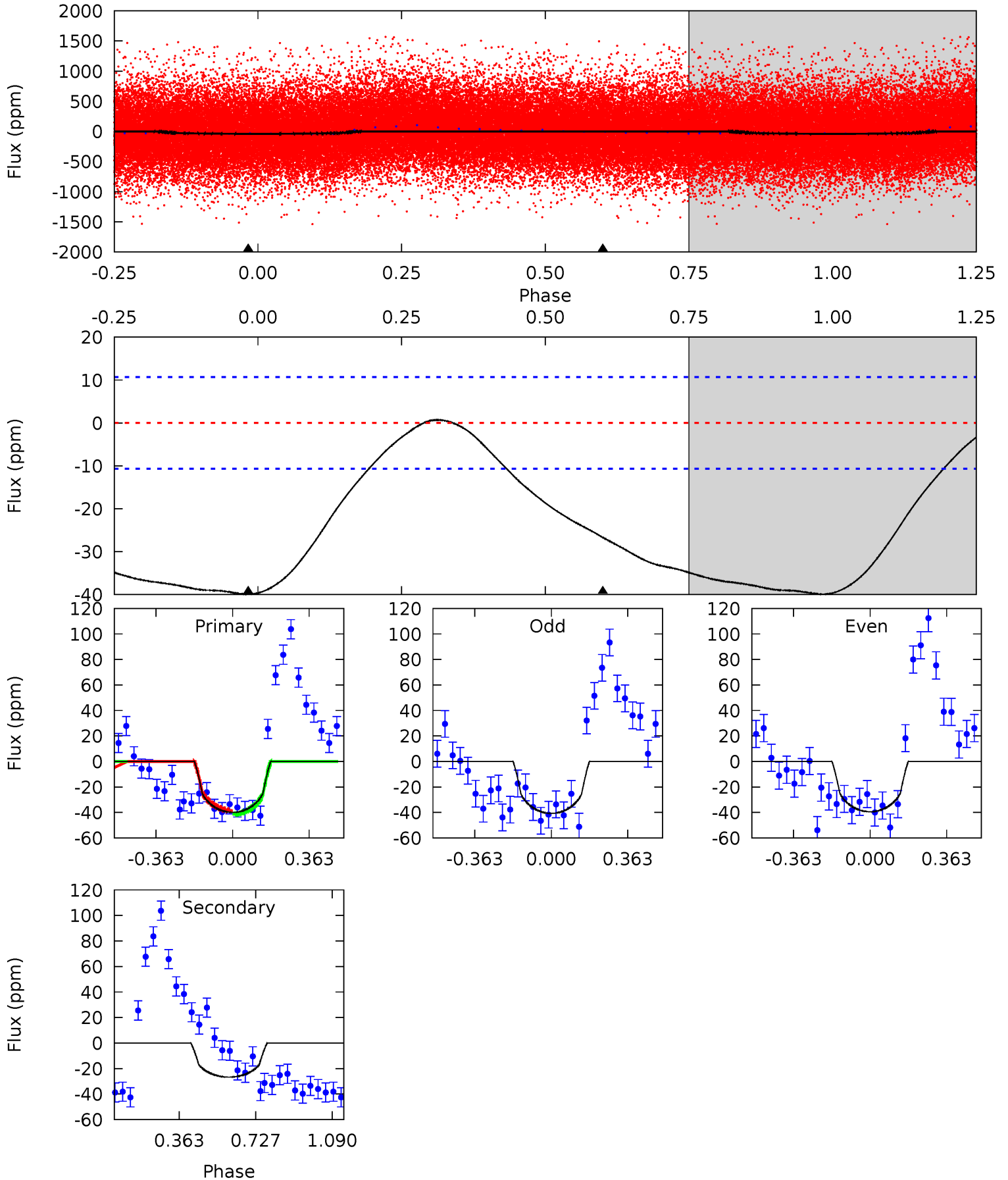
TCE 011229102-01 P= 0.545956 Days $T_0=131.720681$ (BKJD)



DV Model-Shift Uniqueness Test

011229102-01, P = 0.545932 Days, E = 131.155743 Days

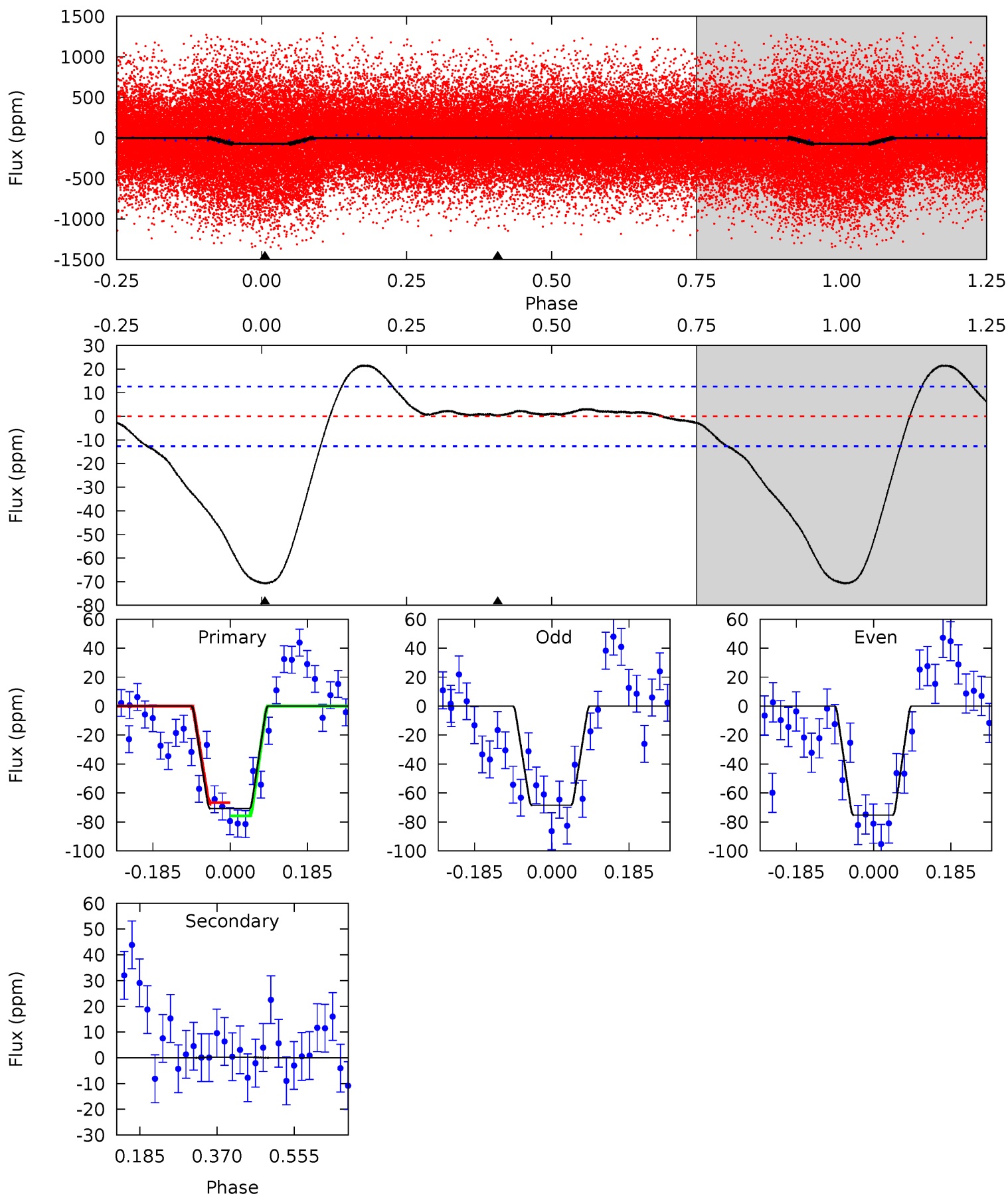
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.0	10.7	0	0	4.29	0.91	0.60	16.0	16.0	10.7	10.7	0.26	1.12	0.02	0.56



Alt Model-Shift Uniqueness Test

011229102-01, P = 0.545956 Days, E = 131.174725 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.9	-0.08	0	0	4.43	1.33	2.88	24.9	24.9	-0.08	-0.08	1.21	1.01	0.23	1.61



Stellar Parameters For KIC 011229102

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5631^{+150}_{-183}	$4.526^{+0.037}_{-0.200}$	$0.210^{+0.200}_{-0.300}$	$0.913^{+0.268}_{-0.084}$	$1.020^{+0.084}_{-0.115}$	$1.887^{+0.368}_{-0.959}$
	+3%/-3%	+1%/-4%	+95%/-143%	+29%/-9%	+8%/-11%	+20%/-51%
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 011229102-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-27 ± 2	$0.76^{+0.78}_{-0.54}$	2949^{+205}_{-131}	4704^{+4472}_{-1174}	$4.310^{+48.022}_{-3.277}$
Alt.	0 ± 3	$1.08^{+0.74}_{-0.65}$	2960^{+210}_{-130}	-3113^{+918}_{-379}	$-0.014^{+0.293}_{-0.345}$

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 $A_{obs} \gg 1.0$

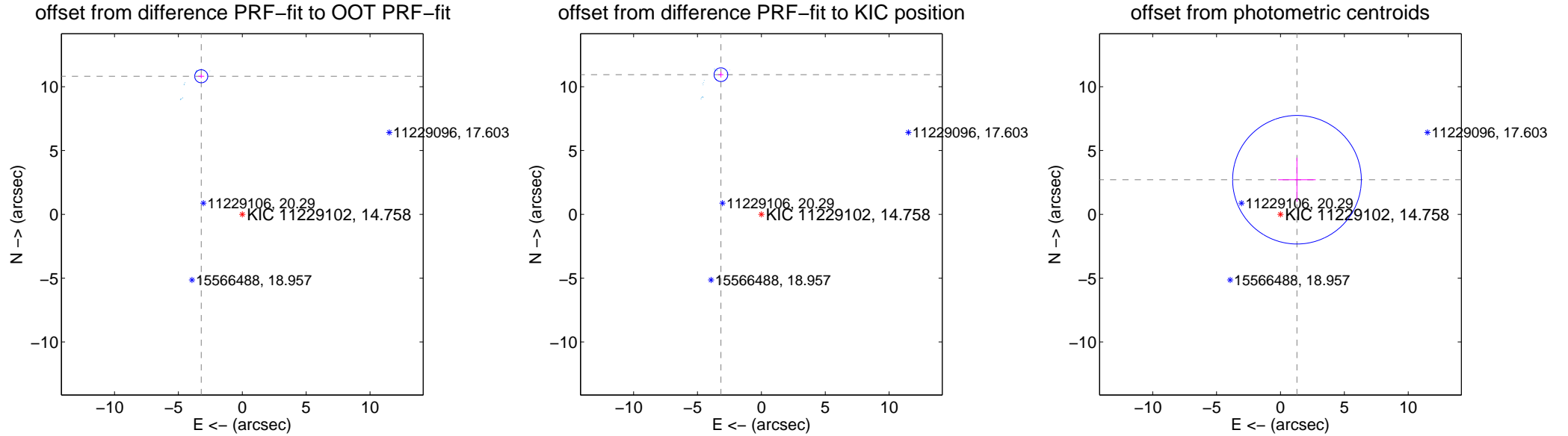
DV Centroid Data

Supplemental centroid analysis for 011229102-01. Kepler magnitude: 14.76. Transit SNR 6.42

There are 17 quarters with good PRF difference image offsets

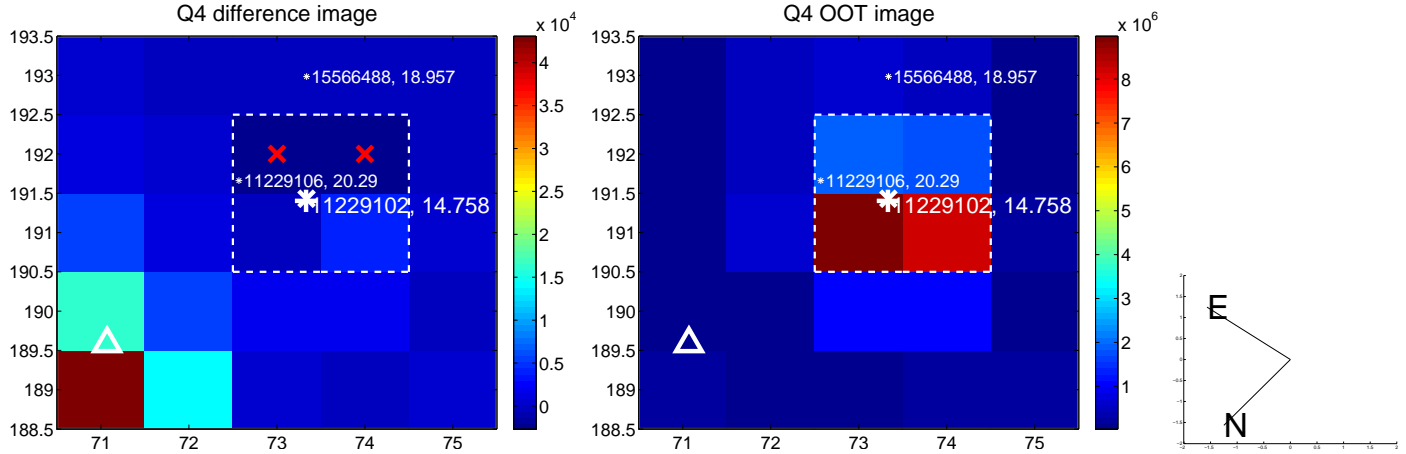
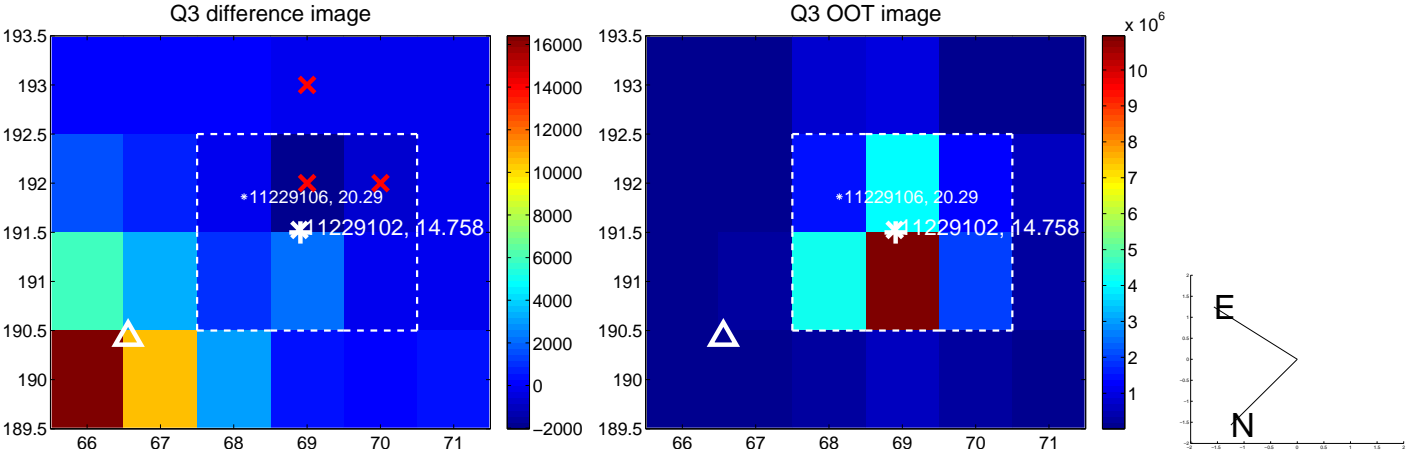
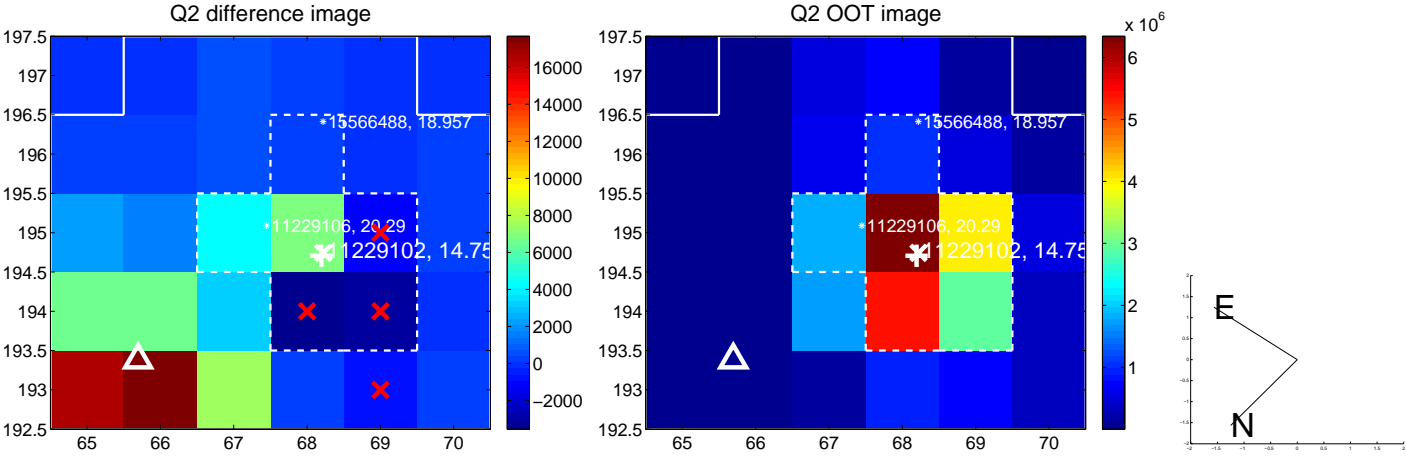
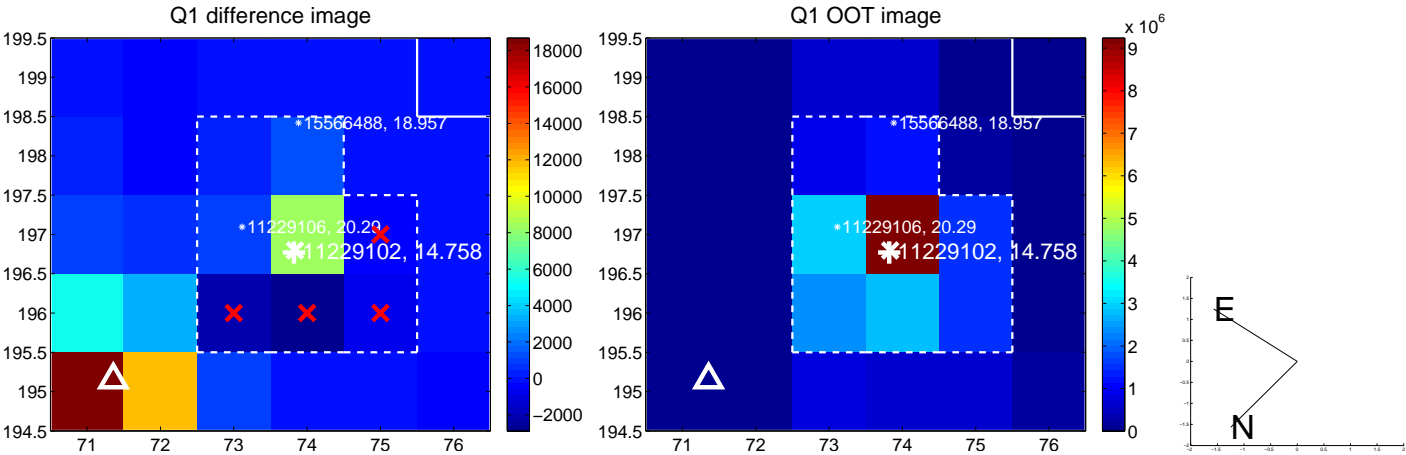
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	11.282 \pm 0.171	66.12	3.211 \pm 0.236	10.815 \pm 0.164
PRF-fit source offset from KIC position	11.389 \pm 0.179	63.51	3.166 \pm 0.202	10.941 \pm 0.222
photometric centroid source offset	3.00 \pm 1.68	1.79	-1.29 \pm 1.47	2.71 \pm 1.72

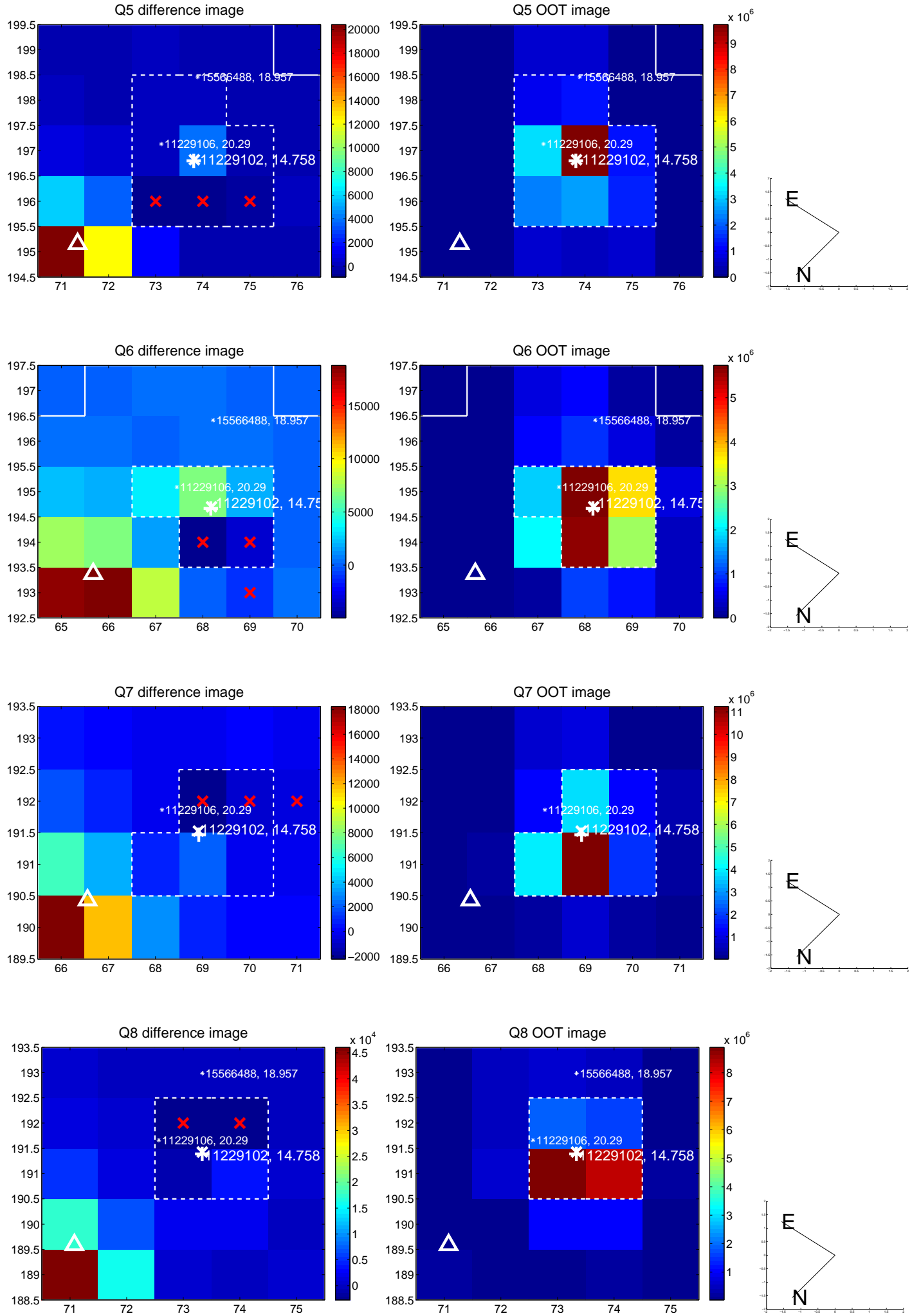


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

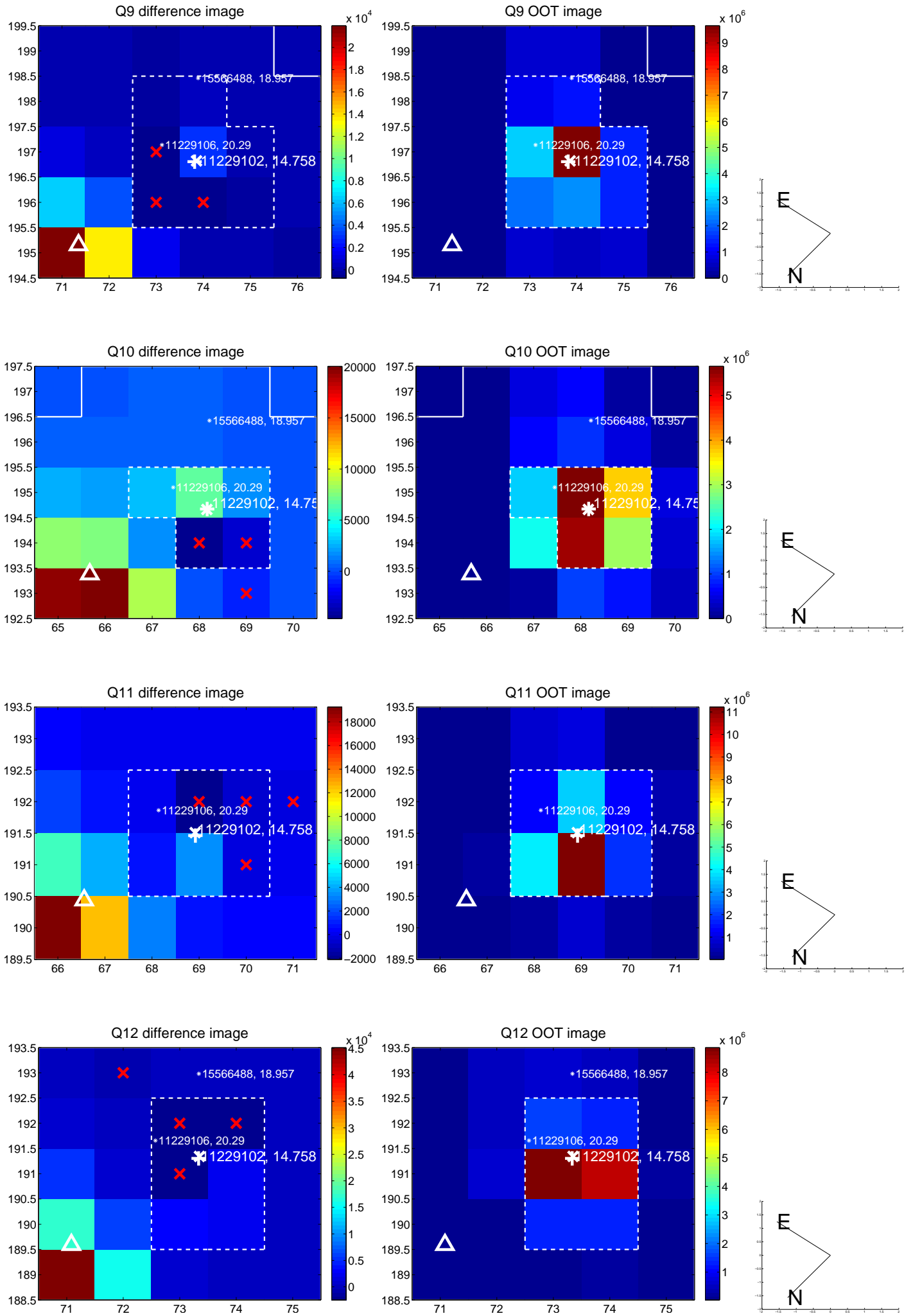
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



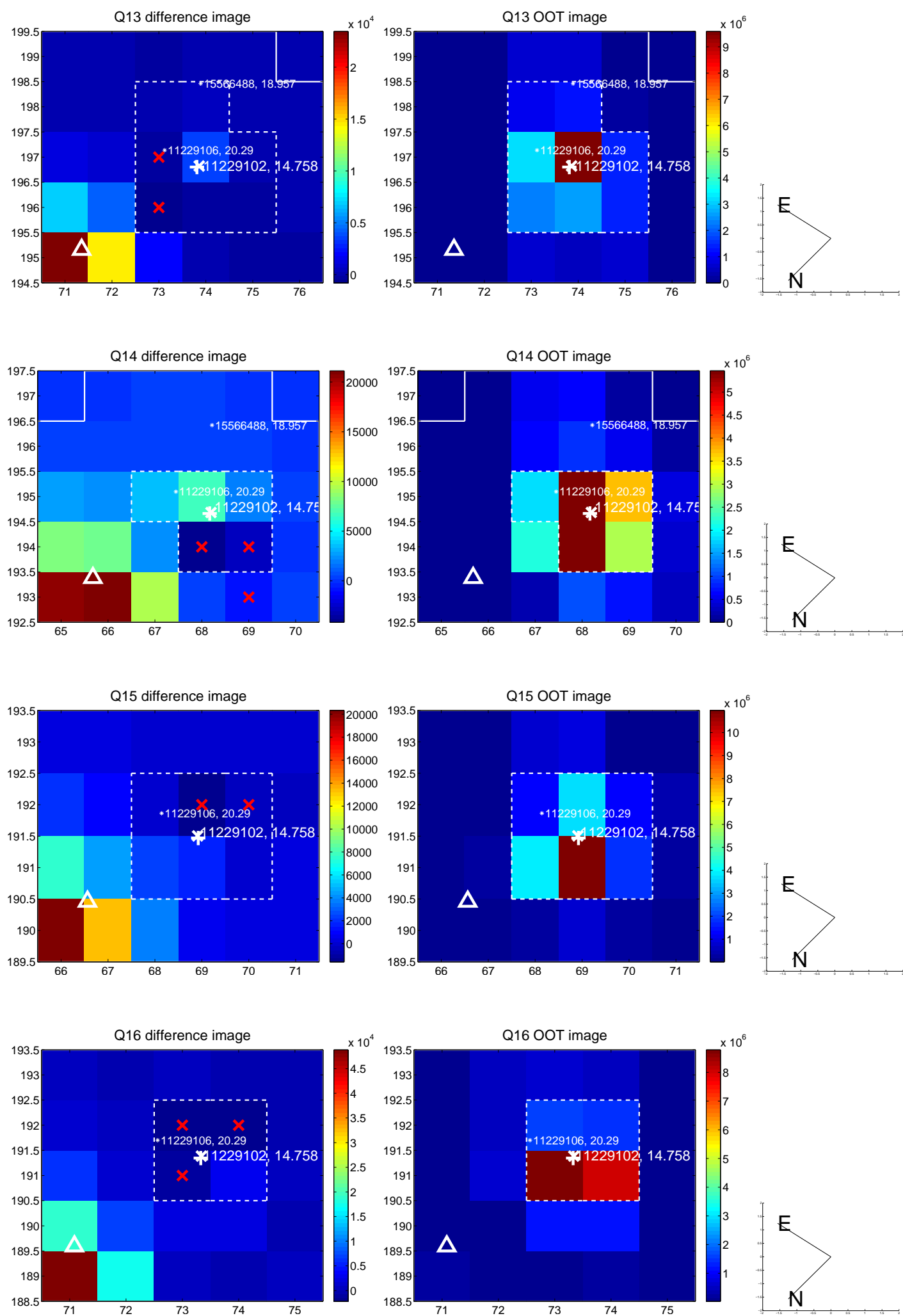
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



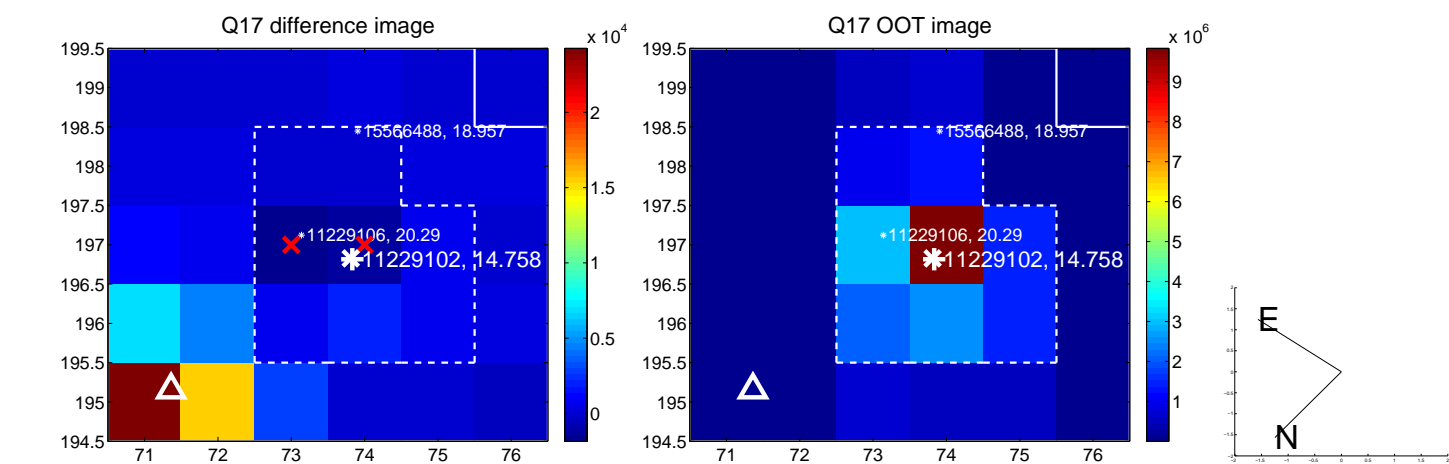
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



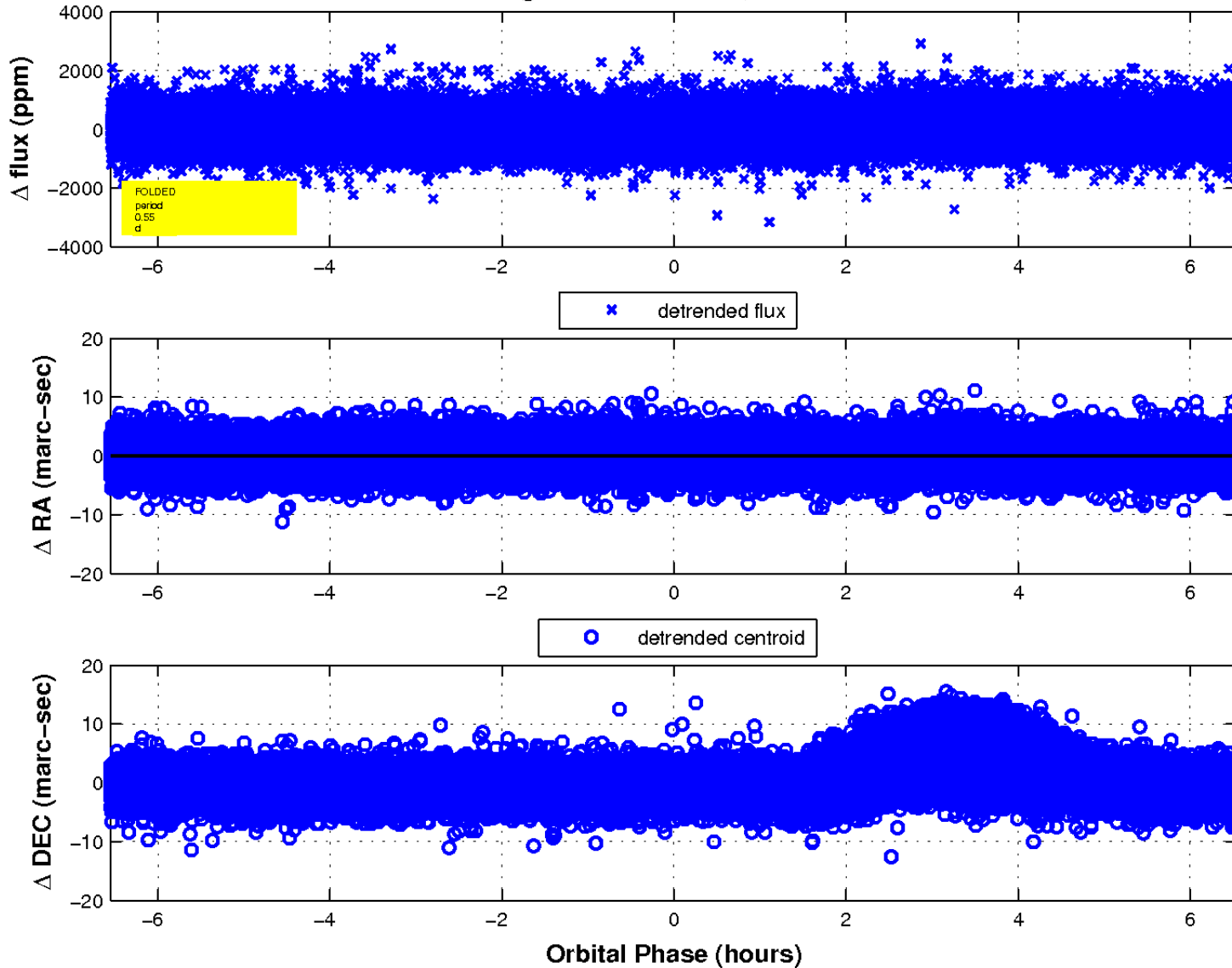
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

