

KIC 011017094

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})
011017094-01	OBS	4106.01	0.708607	132.028985	0.1	3.804	16.1	0.0	0.65	5271	0.02	1500.75

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011017094-01	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.

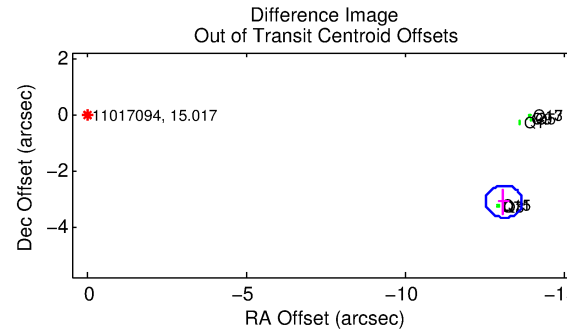
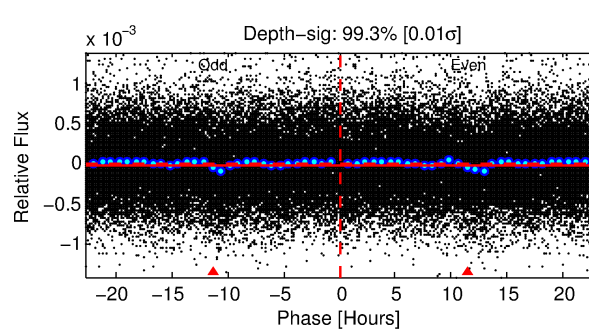
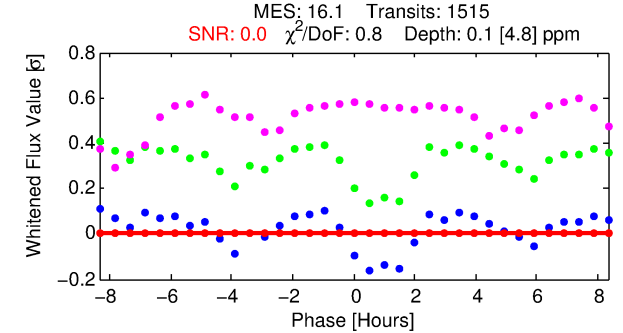
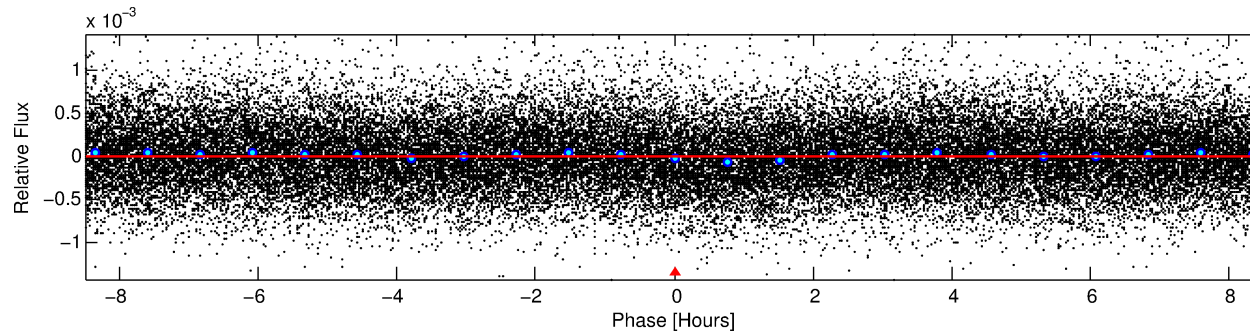
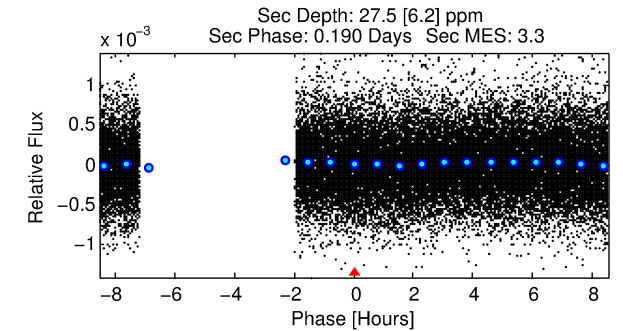
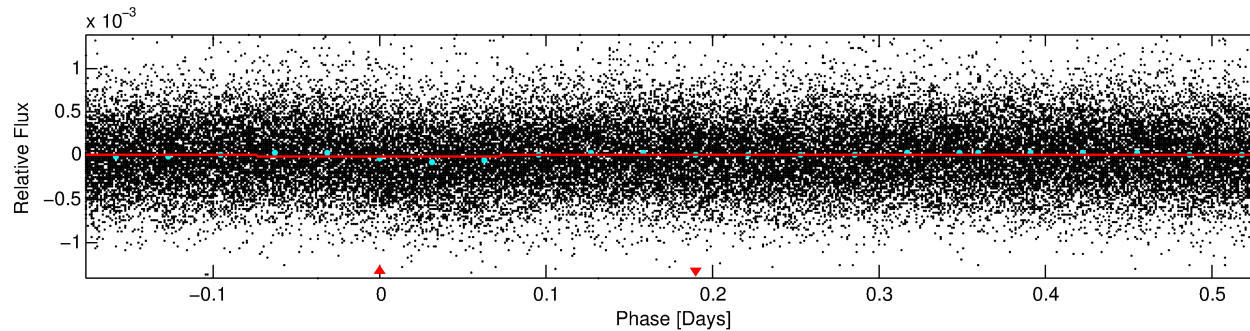
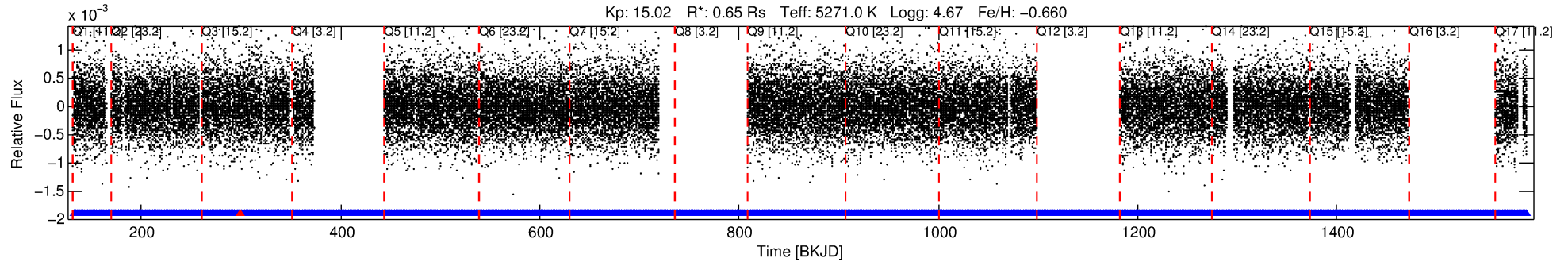
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011017094-01

No Significant Match Found

DV One-Page Summary

KIC: 11017094 Candidate: 1 of 1 Period: 0.709 d
KOI: K04106.01 Corr: 0.756



DV Fit Results:

Period = 0.70861 [0.00434] d
Epoch = 132.0290 [1.8842] BKJD
Rp/R* = 0.0003 [0.0165]
a/R* = 1.52 [190.84]
b = 0.23 [891.69]
Seff = 1500.75 [293.00]
Teq = 1587 [77] K
Rp = 0.02 [1.16] Re
a = 0.0139 [0.0015] AU
Ag = 7010.38 [798424.50] [0.01σ]
Teffp = 22453 [639321] K [0.03σ]

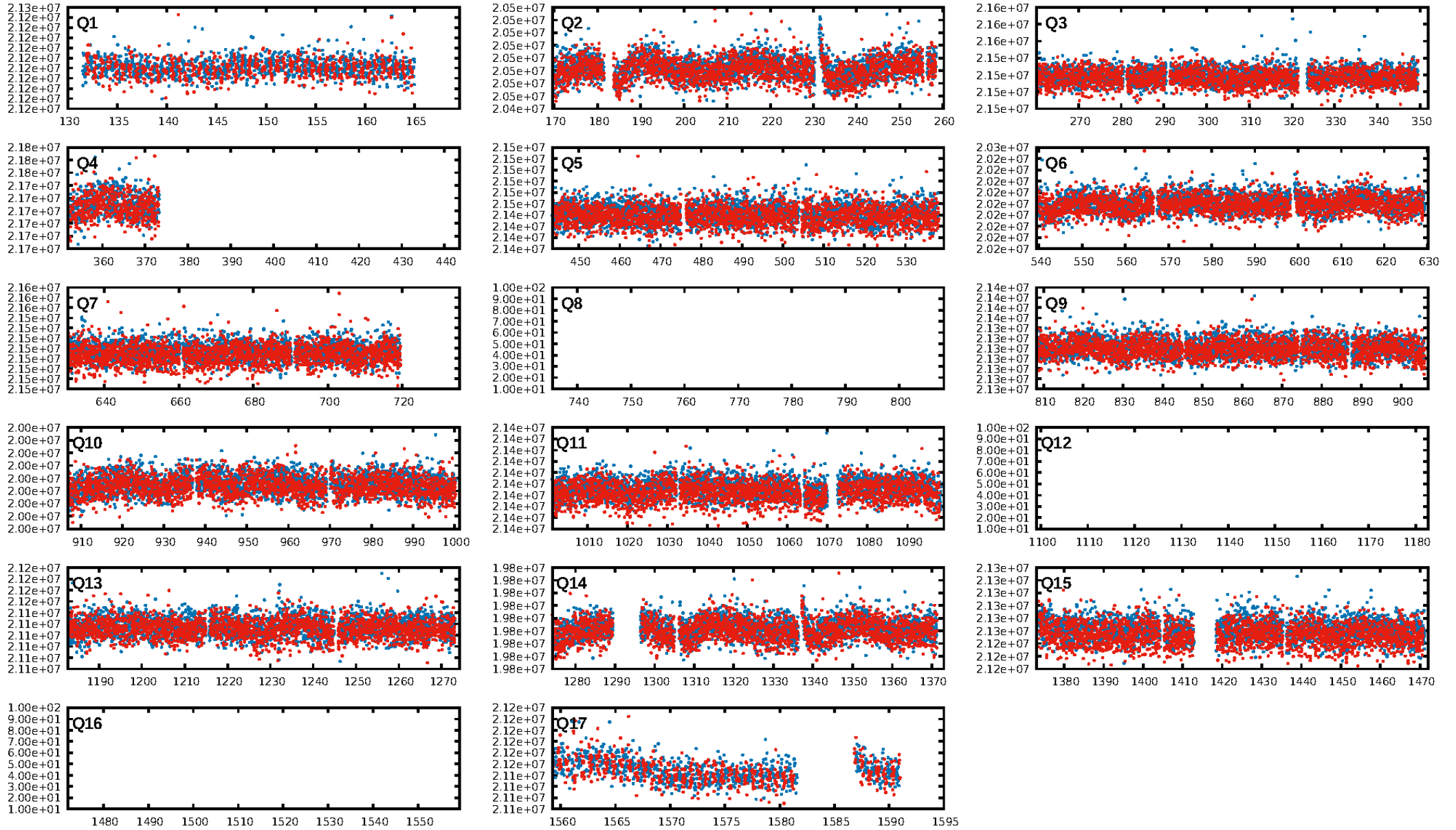
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 4.73e-41
RollingBand-fgt: 1.00 [1398/1399]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 13.443 arcsec [70.18σ]
KicOffset-rm: 13.556 arcsec [66.74σ]
OotOffset-st: 0/4/0/5 [9]
KicOffset-st: 0/4/0/5 [9]
DiffImageQuality-fgm: 1.00 [9/9]
DiffImageOverlap-fno: 1.00 [14/14]

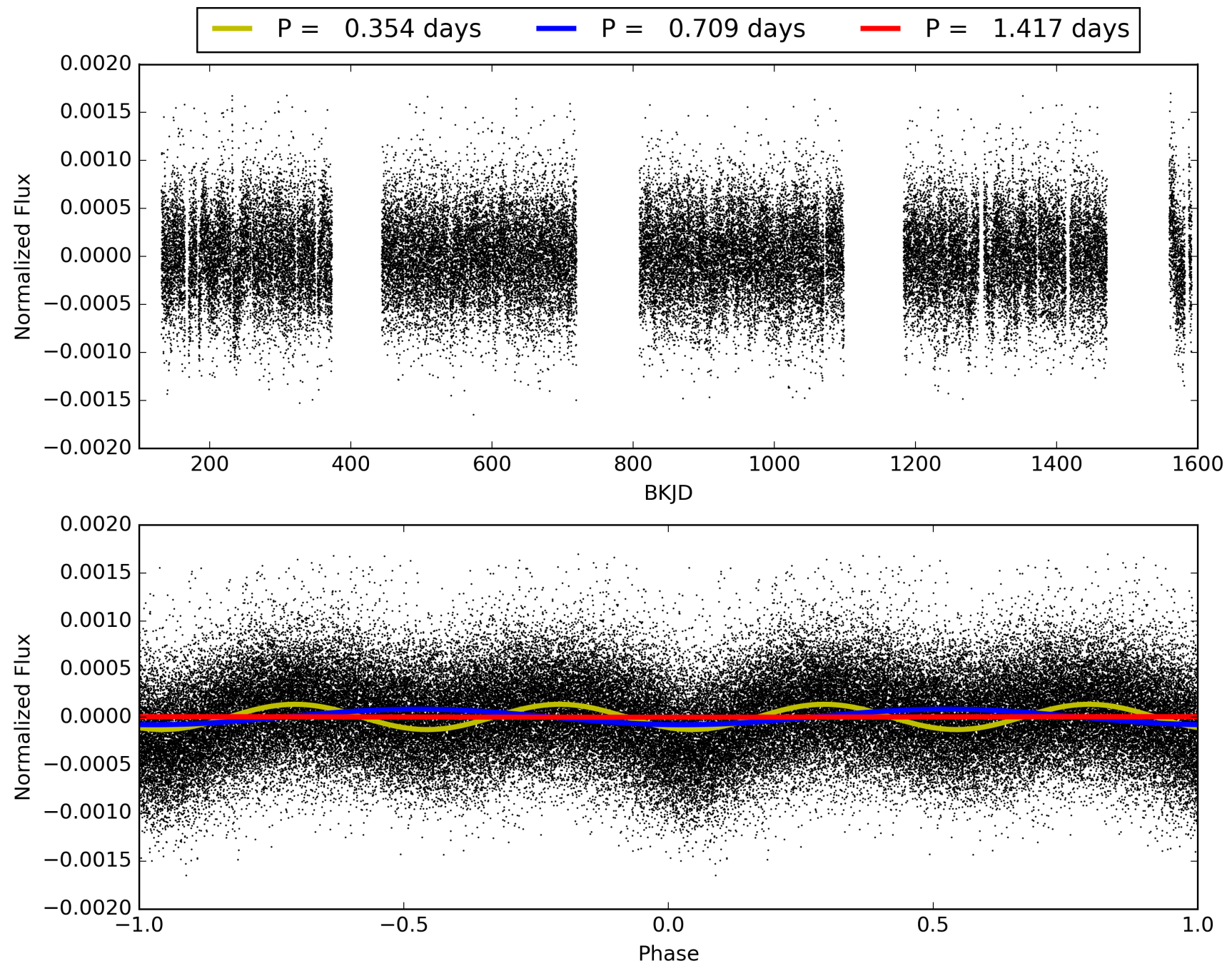
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 00:29:35 Z

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

TCE 011017094-01, PDC Light Curves

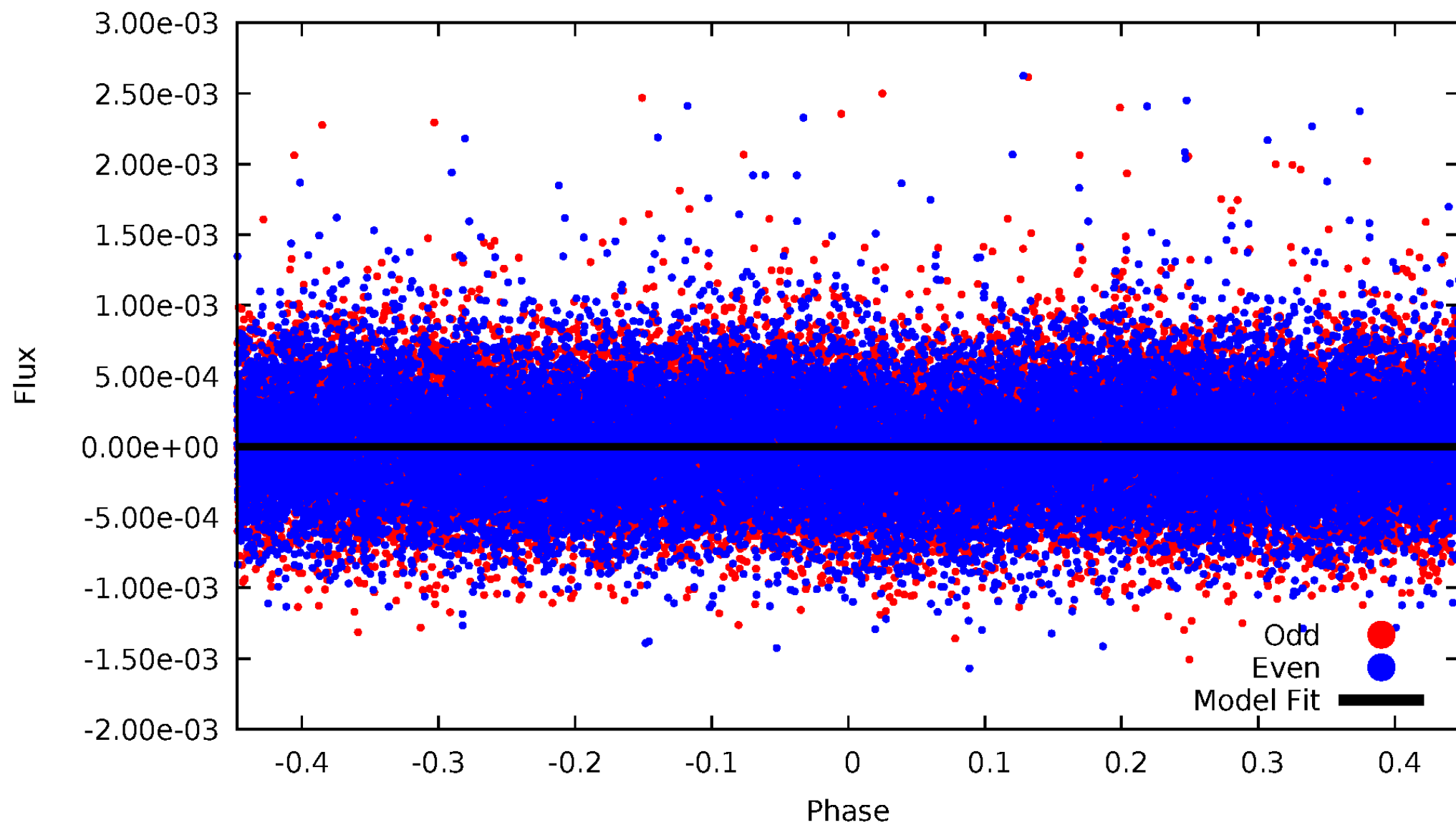


TCE 011017094-01



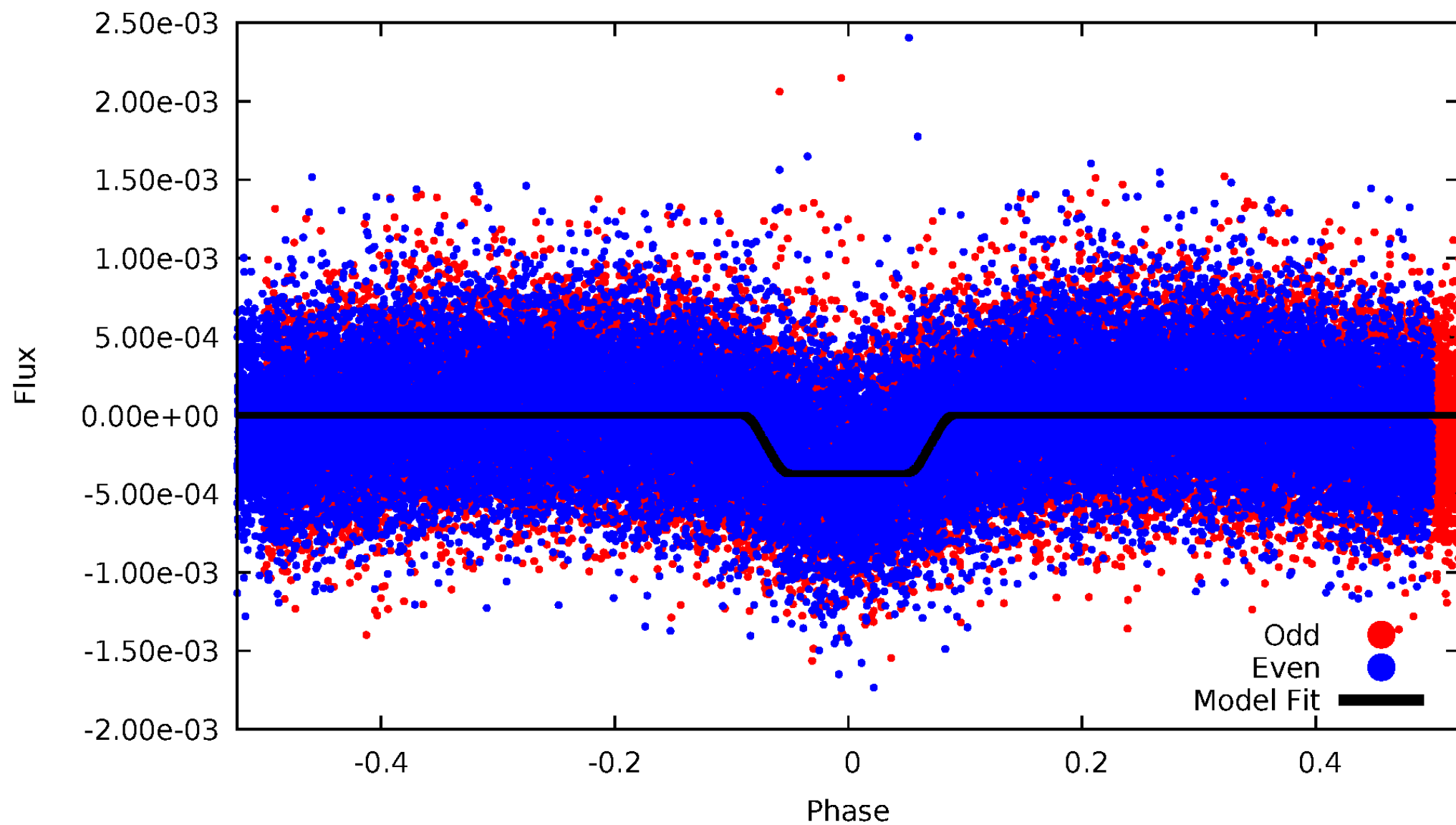
DV Odd/Even

TCE 011017094-01



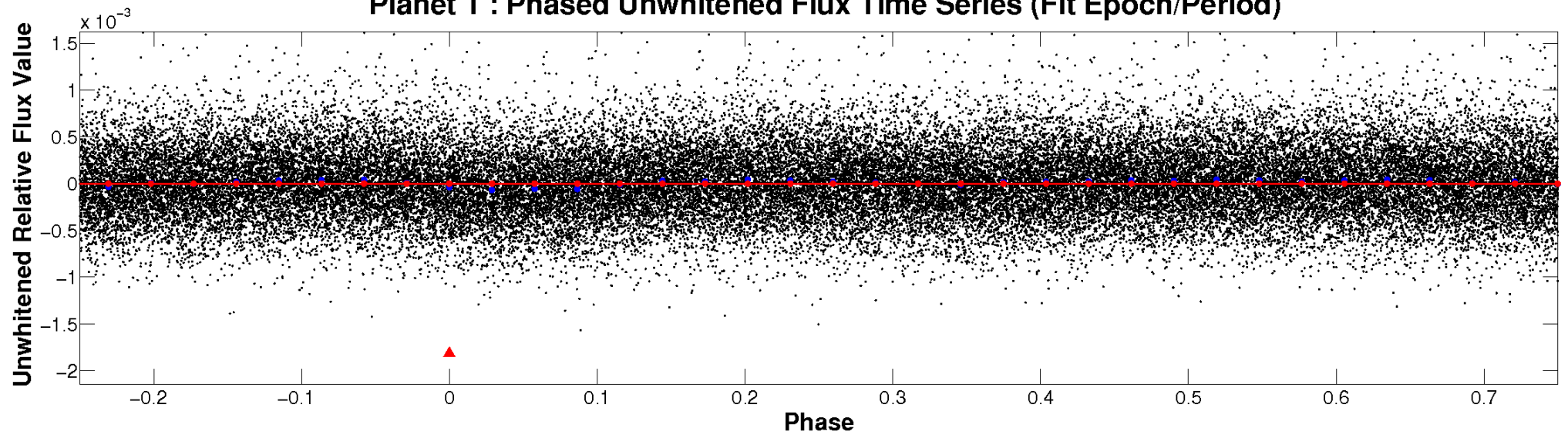
ALT Odd/Even

TCE 011017094-01

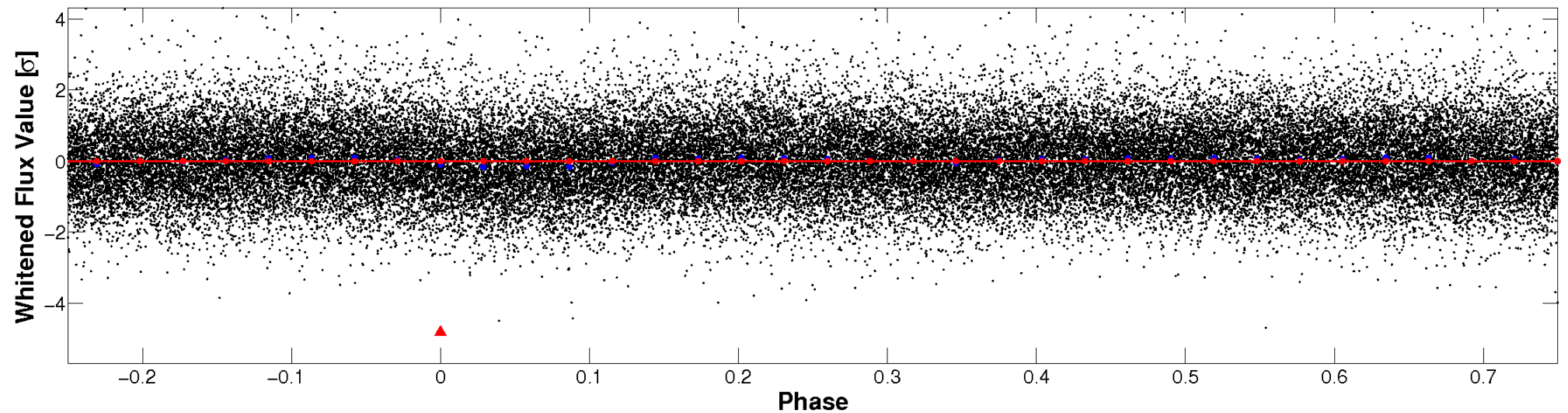


Non-Whitened Vs. Whitened Light Curve

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

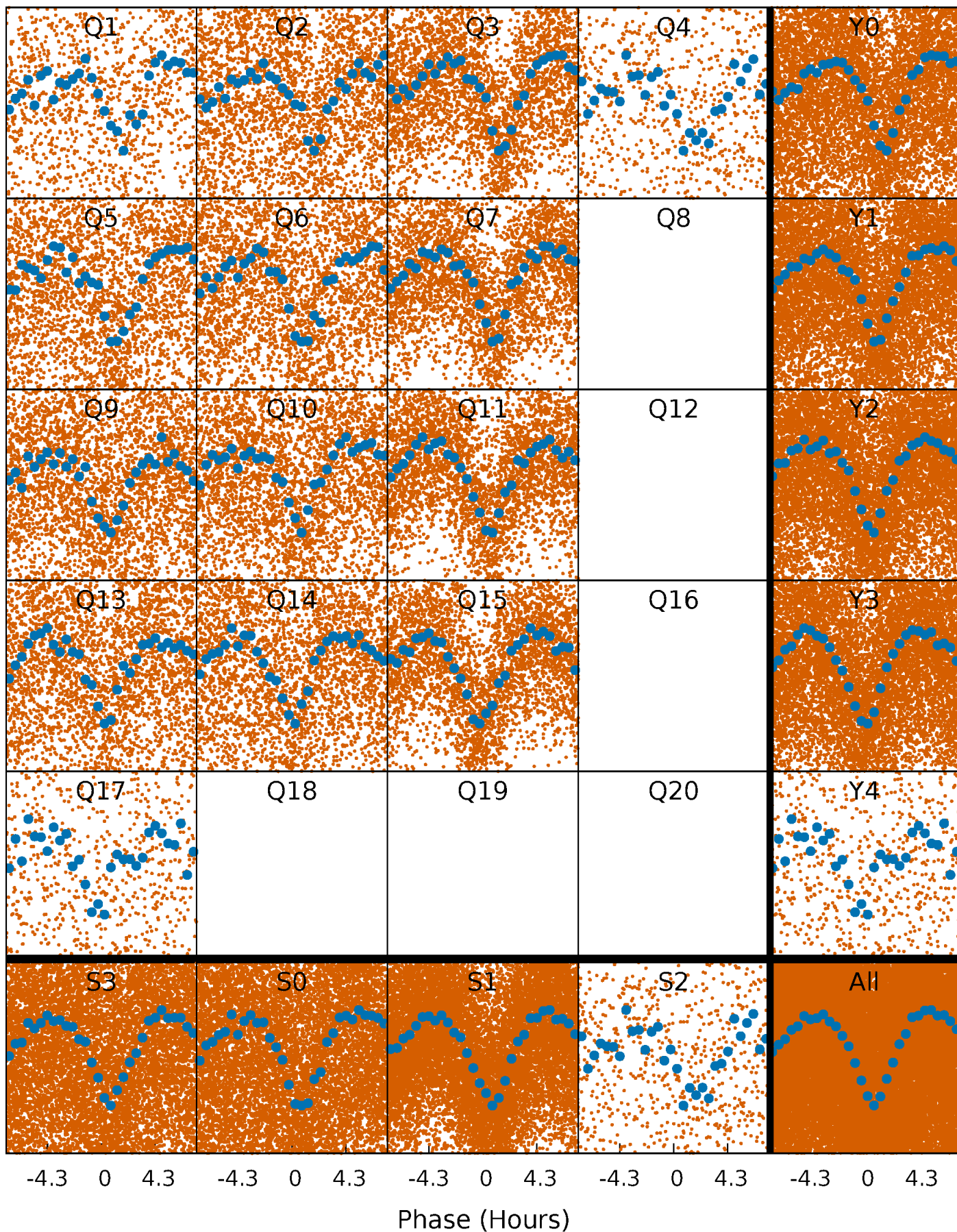


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



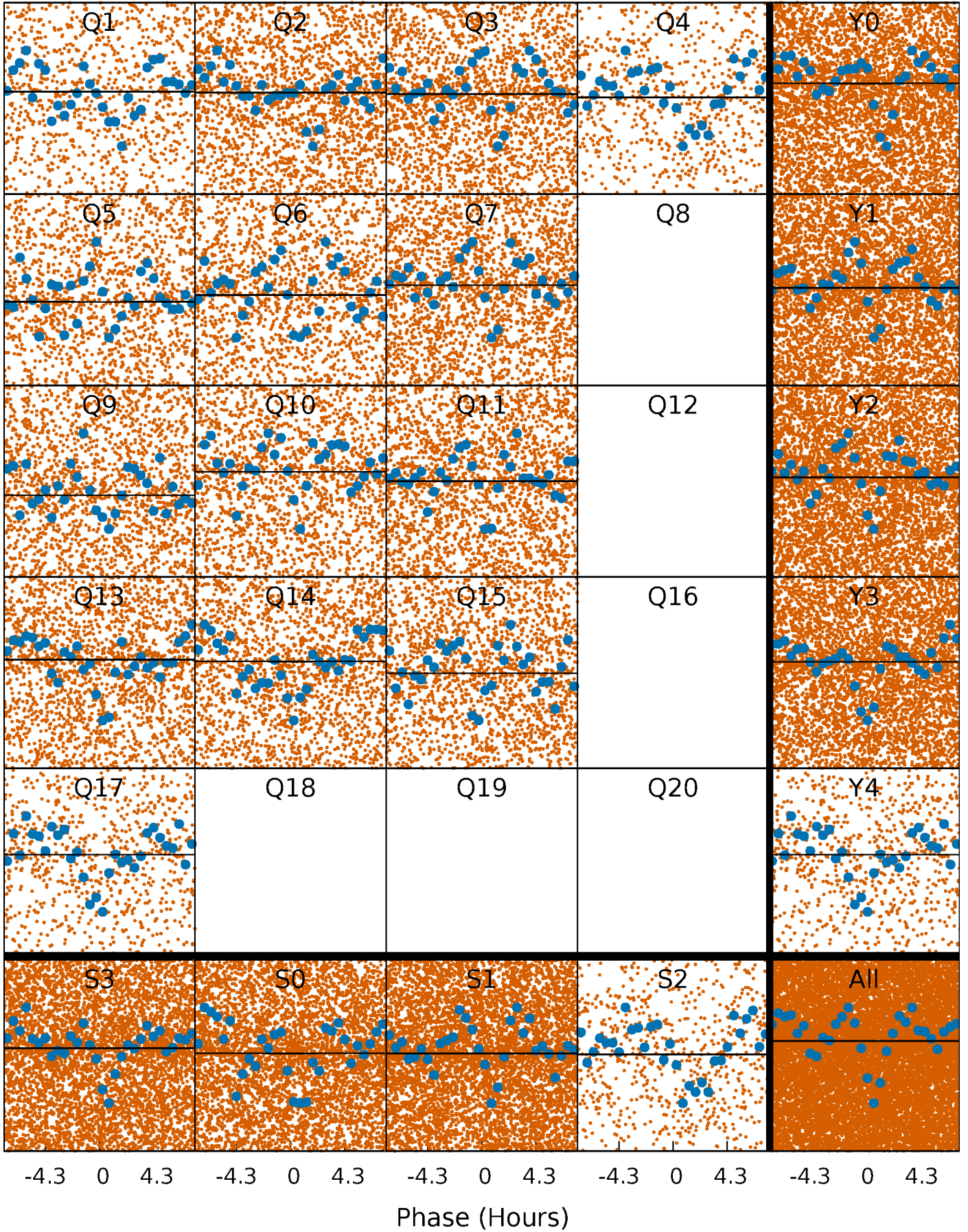
PDC Quarter-Phased Transit Curves

TCE 011017094-01 P= 0.708607 Days $T_0=132.028985$ (BKJD)



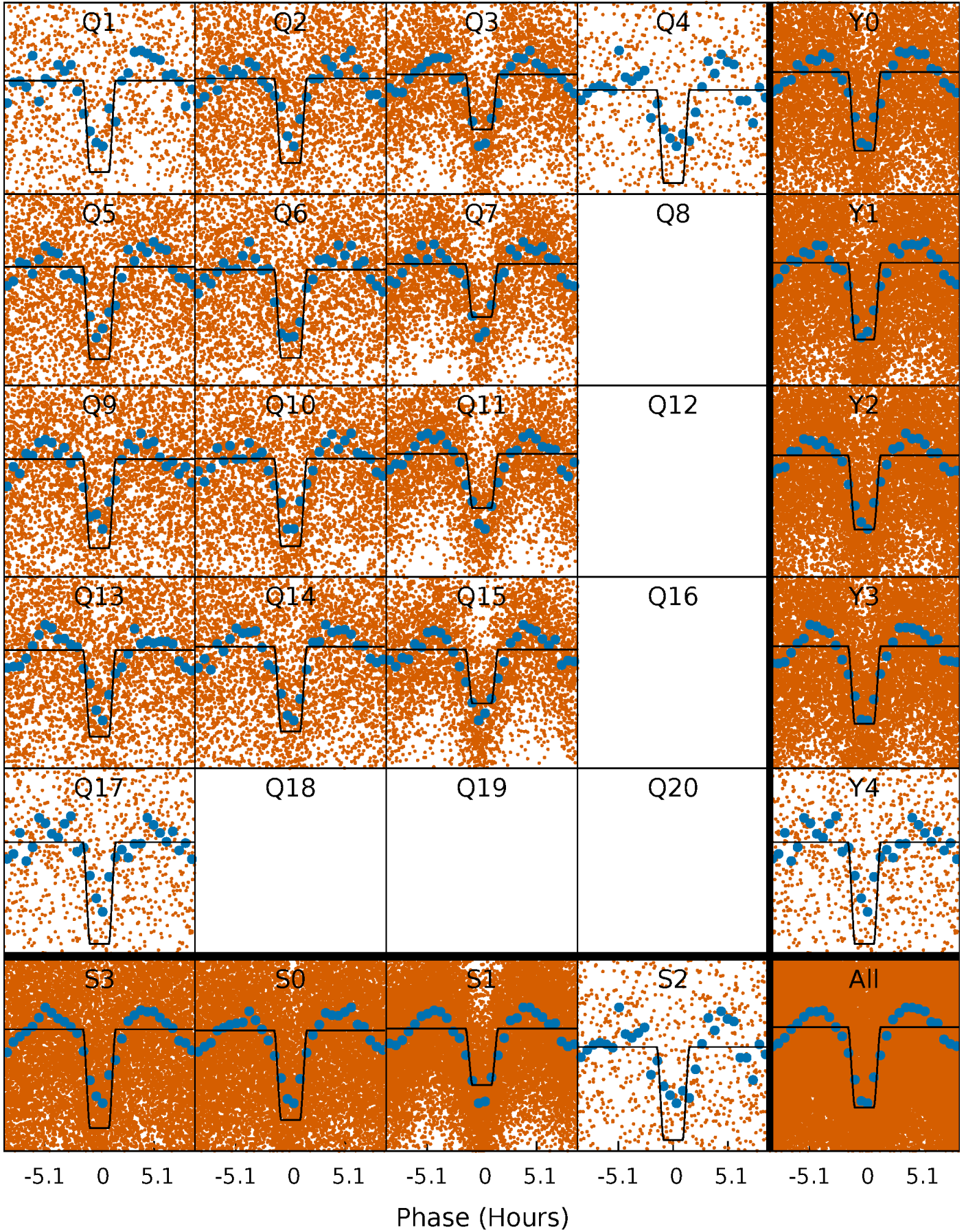
DV Quarter-Phased Transit Curves

TCE 011017094-01 P= 0.708607 Days $T_0=132.028985$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

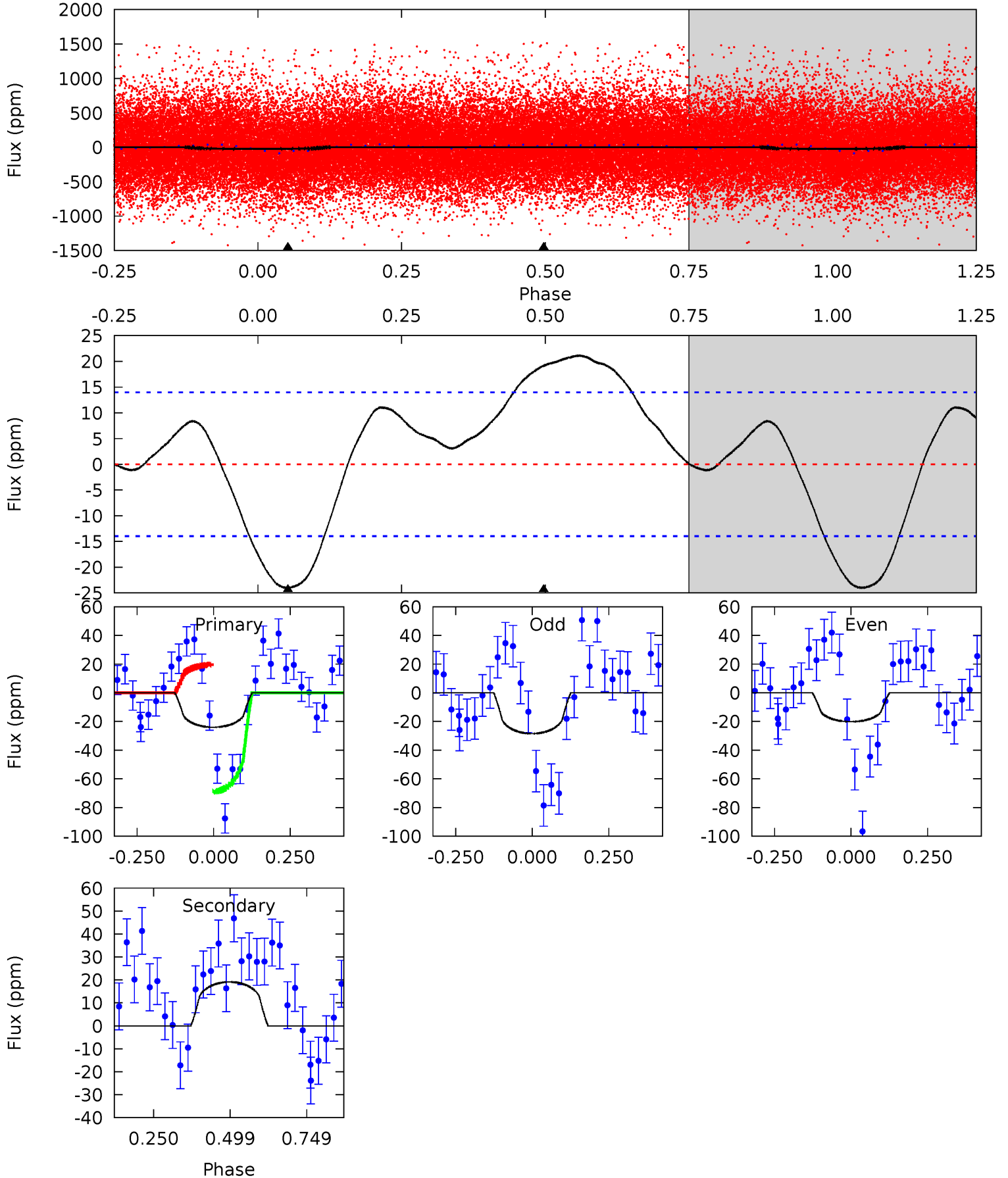
TCE 011017094-01 P= 0.708564 Days $T_0=132.103099$ (BKJD)



DV Model-Shift Uniqueness Test

011017094-01, P = 0.708607 Days, E = 131.320378 Days

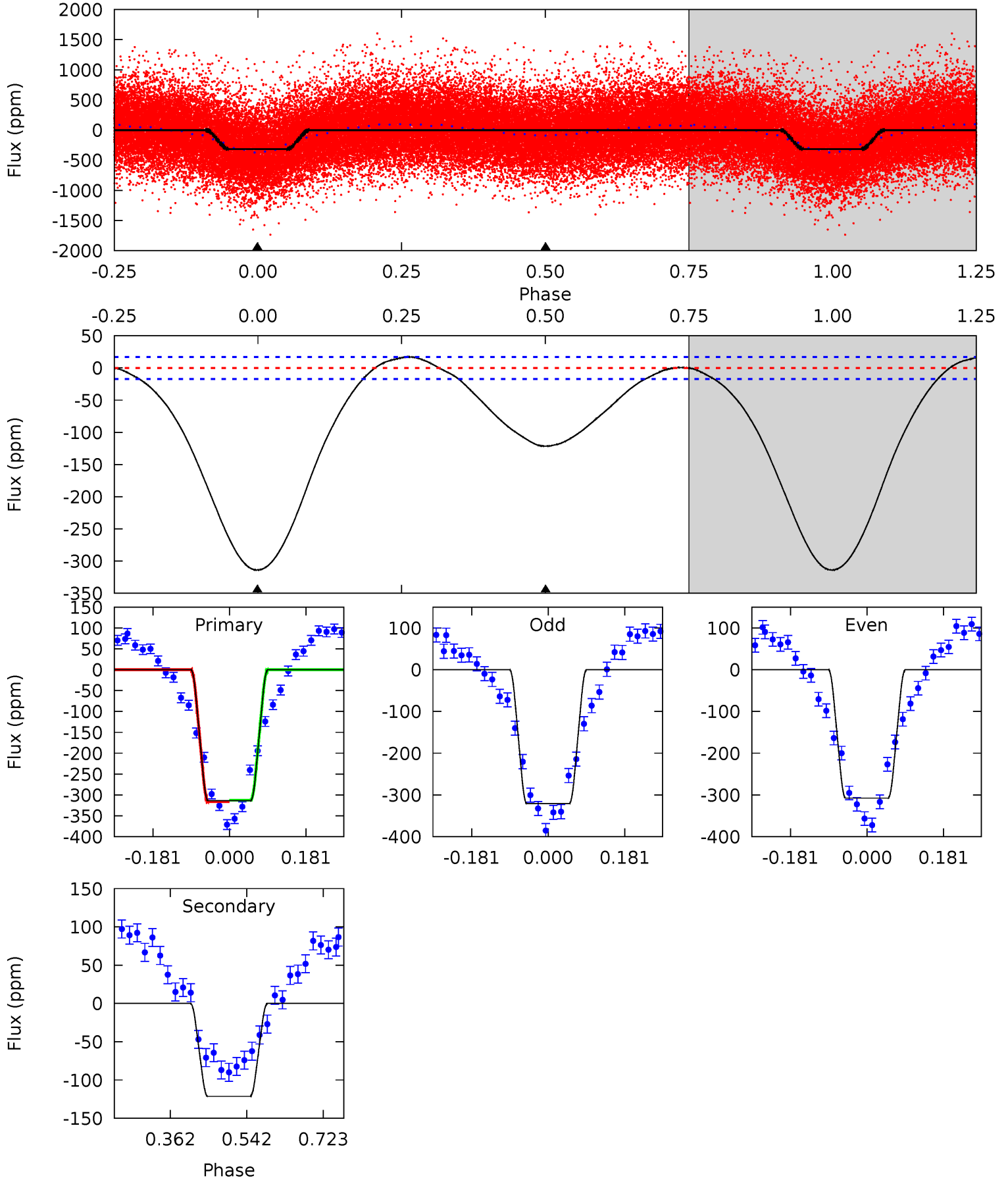
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.51	-5.98	0	0	4.37	1.15	0.37	7.51	7.51	-5.98	-5.98	1.31	0.92	0.47	7.47



Alt Model-Shift Uniqueness Test

011017094-01, P = 0.708564 Days, E = 131.394535 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
81.6	31.6	0	0	4.44	1.34	3.18	81.6	81.6	31.6	31.6	1.71	0.97	0.05	0.43



Stellar Parameters For KIC 011017094

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5271^{+141}_{-157}	$4.669^{+0.027}_{-0.082}$	$-0.660^{+0.300}_{-0.300}$	$0.648^{+0.087}_{-0.040}$	$0.718^{+0.063}_{-0.063}$	$3.711^{+0.516}_{-0.971}$
	+3%/-3%	+1%/-2%	+45%/-45%	+13%/-6%	+9%/-9%	+14%/-26%
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 011017094-01 / KOI 4106.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	19 ± 3	$0.80^{+0.88}_{-0.57}$	2239^{+86}_{-77}	-3747^{+656}_{-2246}	$-3.167^{+2.450}_{-32.830}$
Alt.	-121 ± 4	$1.58^{+1.07}_{-0.95}$	2239^{+87}_{-76}	3967^{+1857}_{-677}	$5.074^{+27.320}_{-3.279}$

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

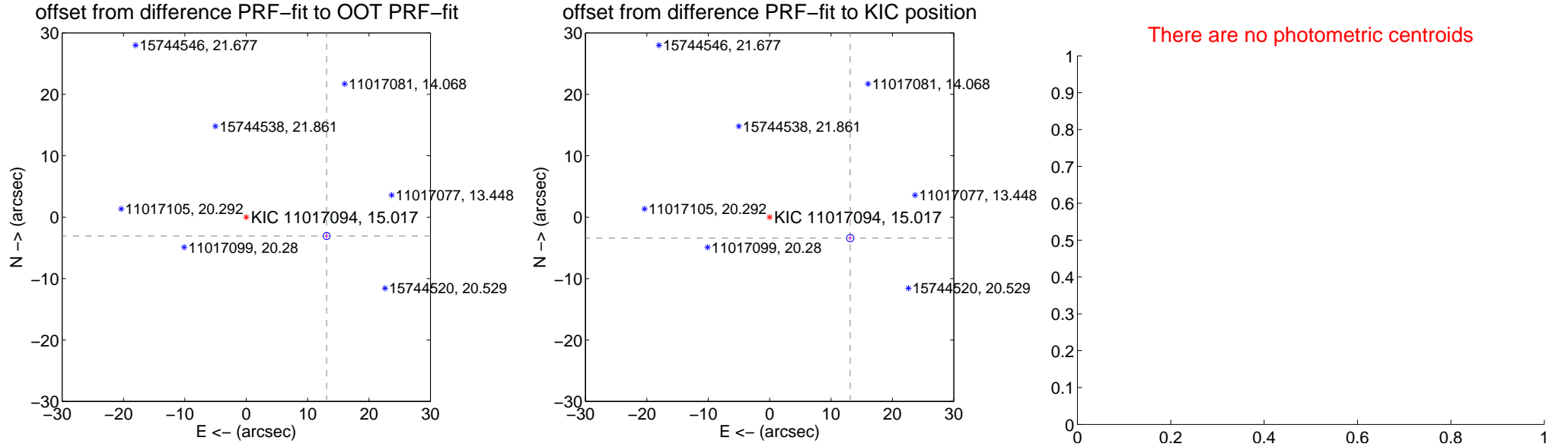
DV Centroid Data

Supplemental centroid analysis for 011017094-01. Kepler magnitude: 15.02. Transit SNR 0.02

There are 9 quarters with good PRF difference image offsets

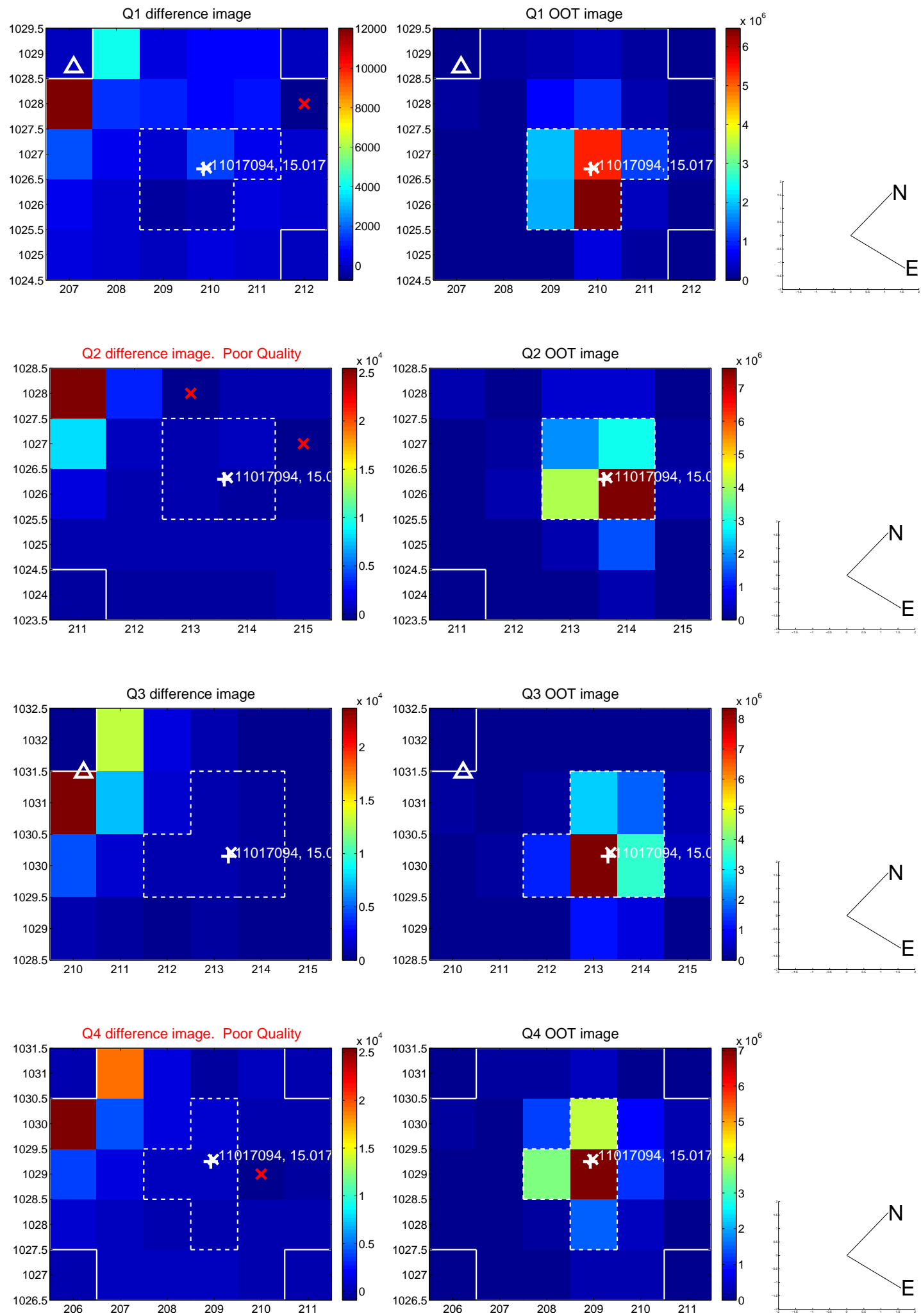
The direct PRF centroid is offset from the target star catalog position by about 0.33 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	13.443 ± 0.192	70.18	-13.088 ± 0.168	-3.069 ± 0.437
PRF-fit source offset from KIC position	13.556 ± 0.203	66.74	-13.121 ± 0.176	-3.409 ± 0.439
photometric centroid source offset	—	—	—	—

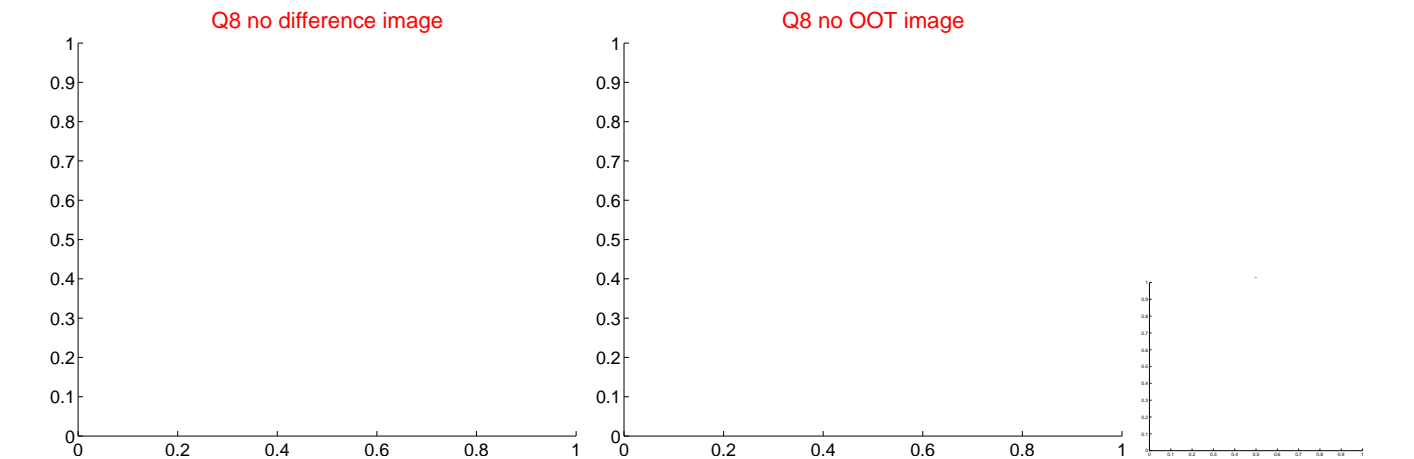
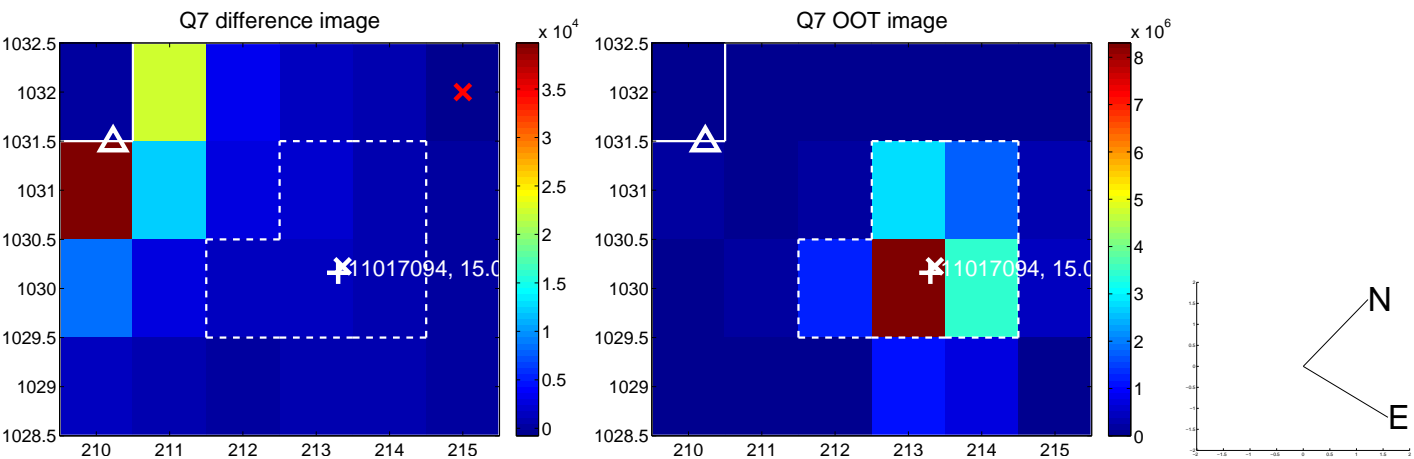
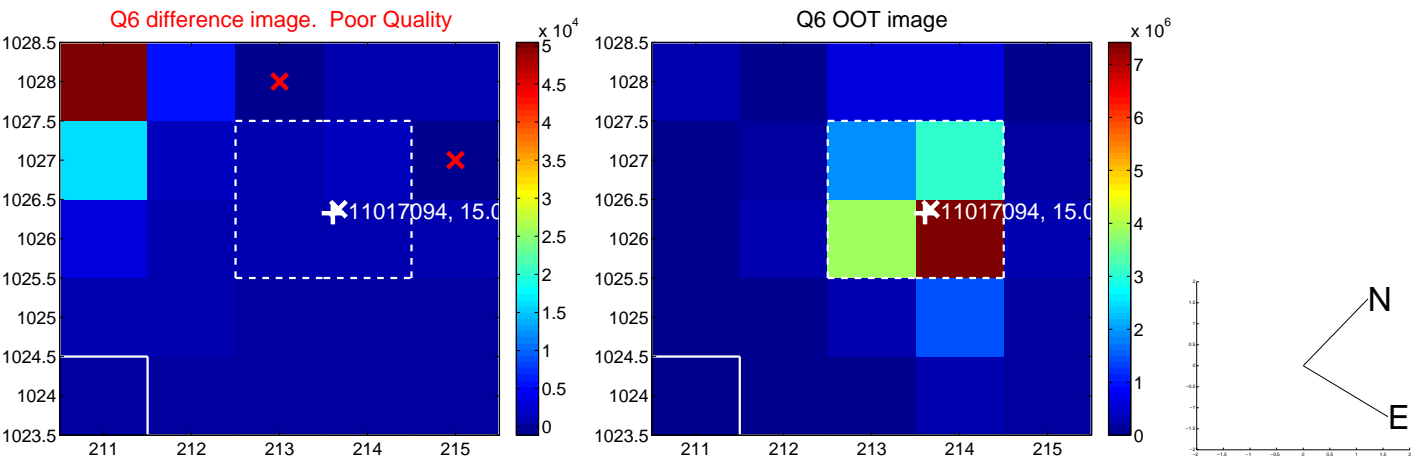
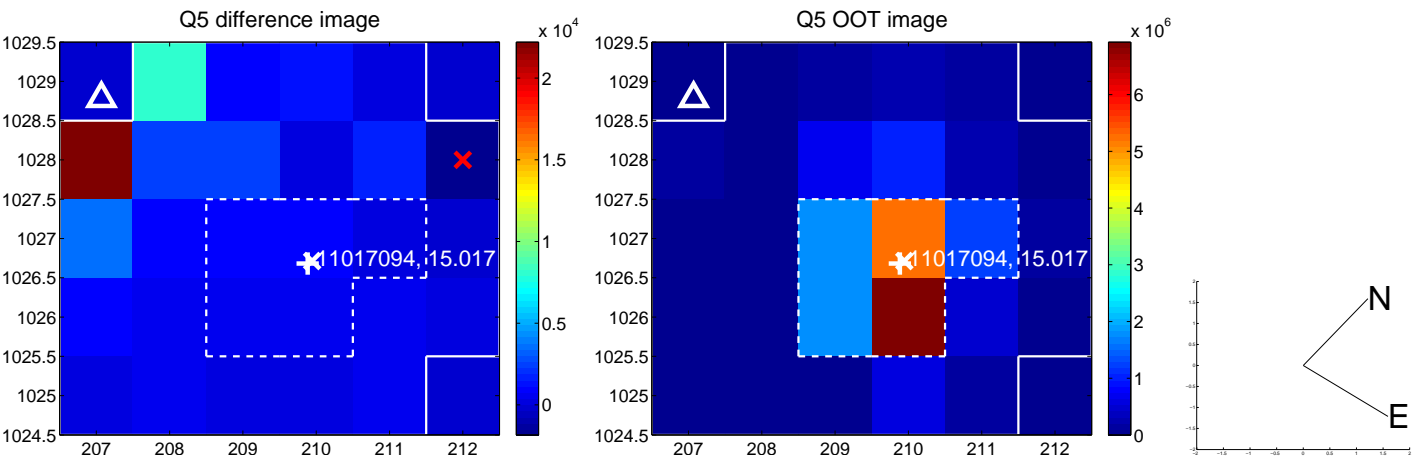


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

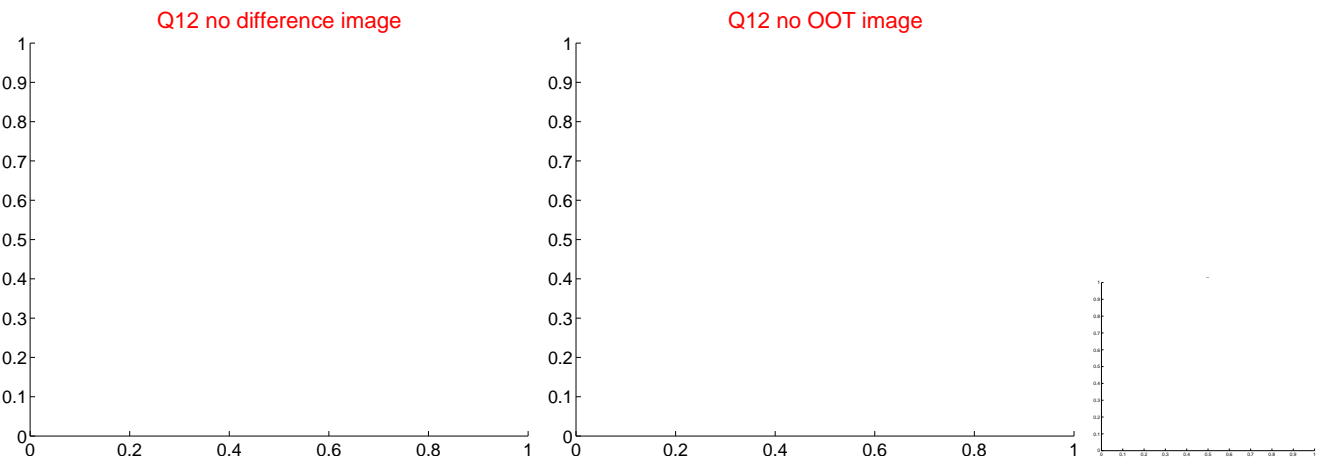
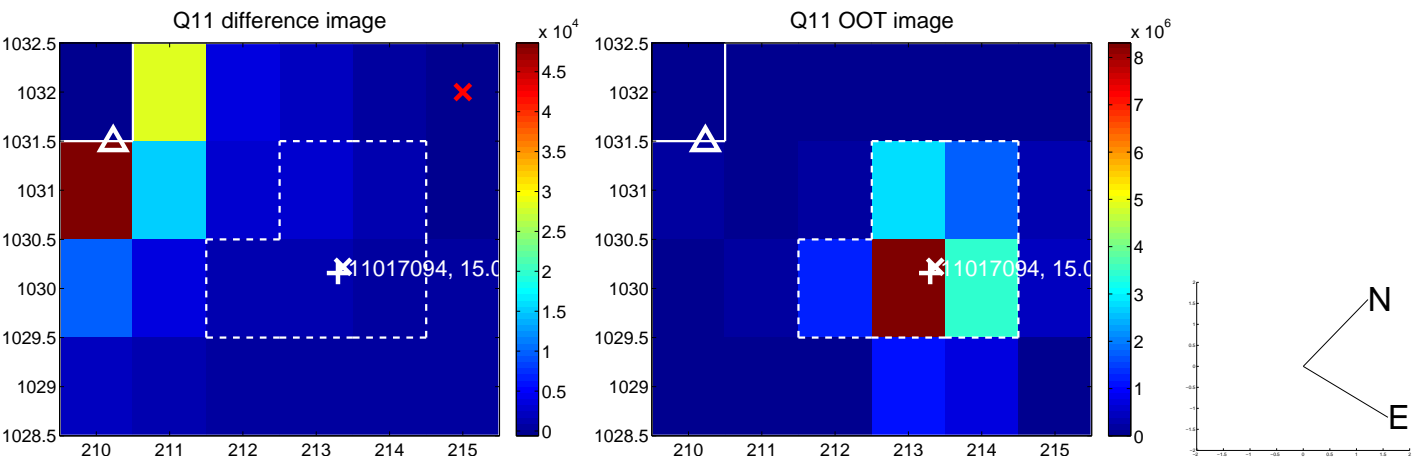
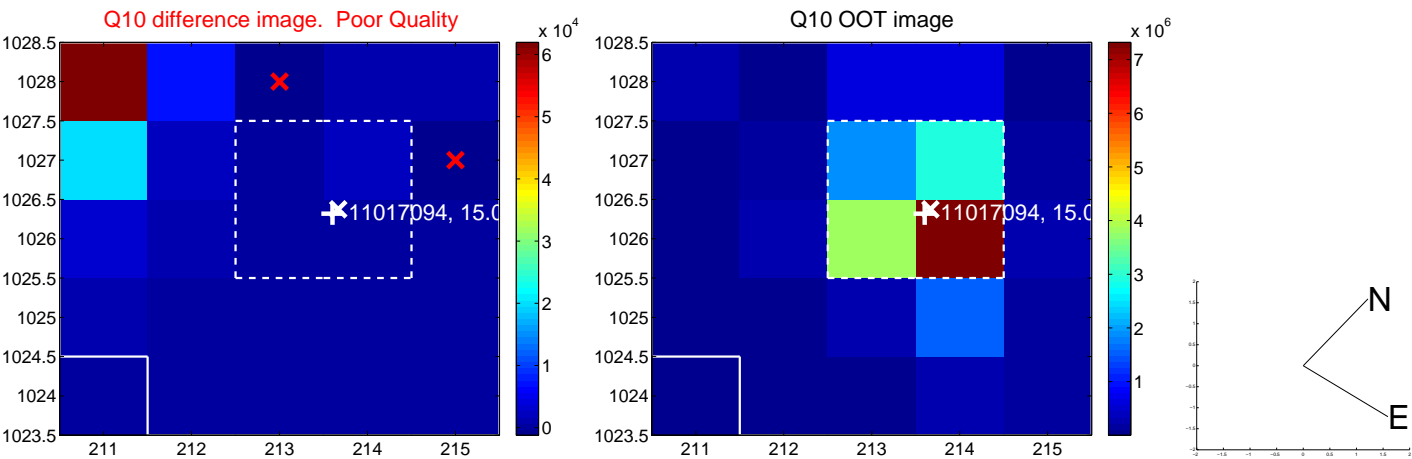
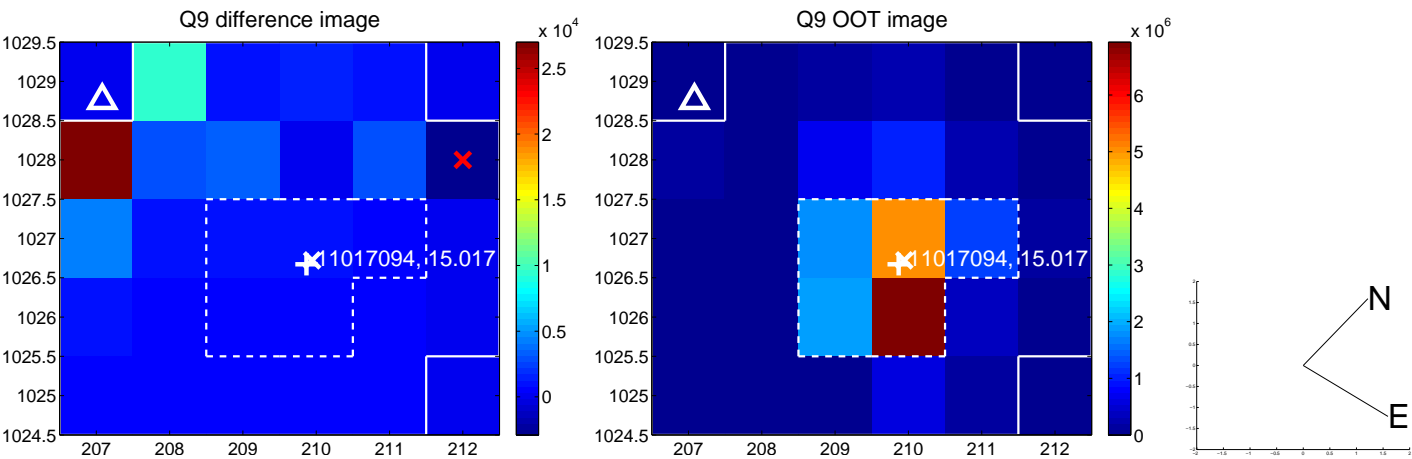
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



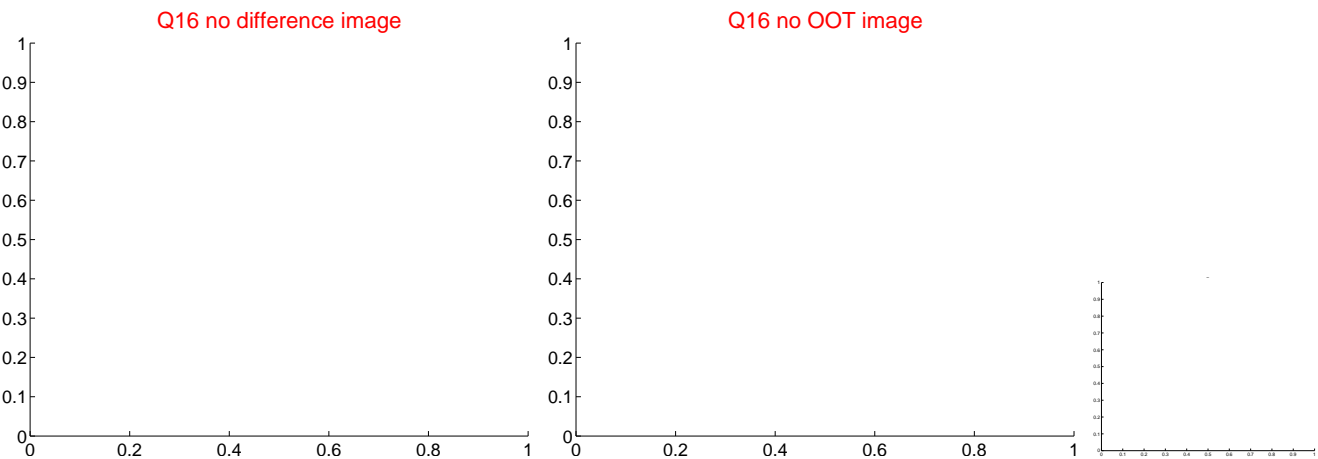
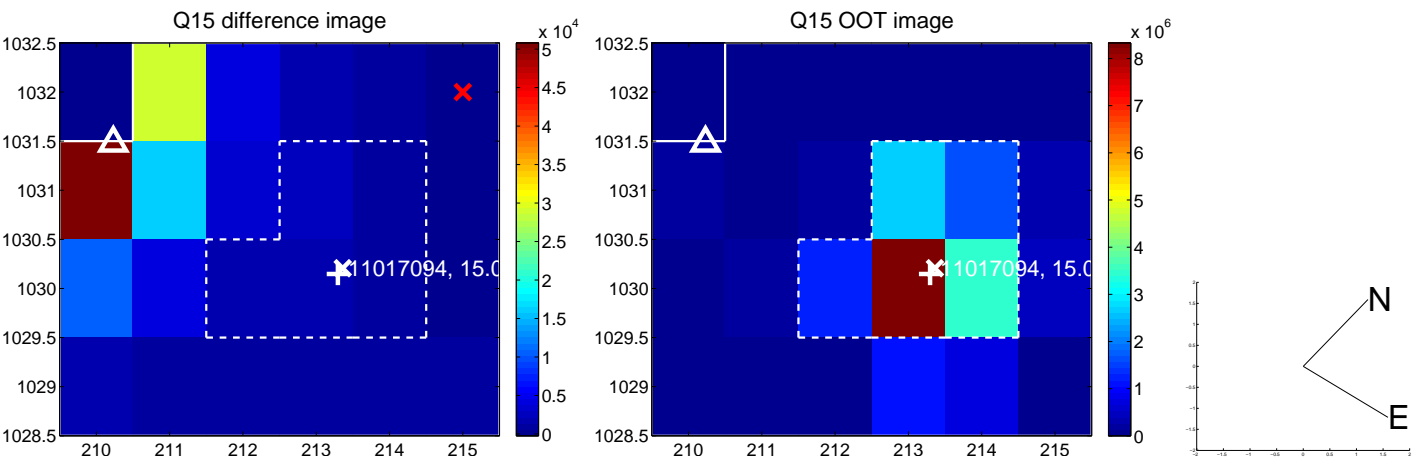
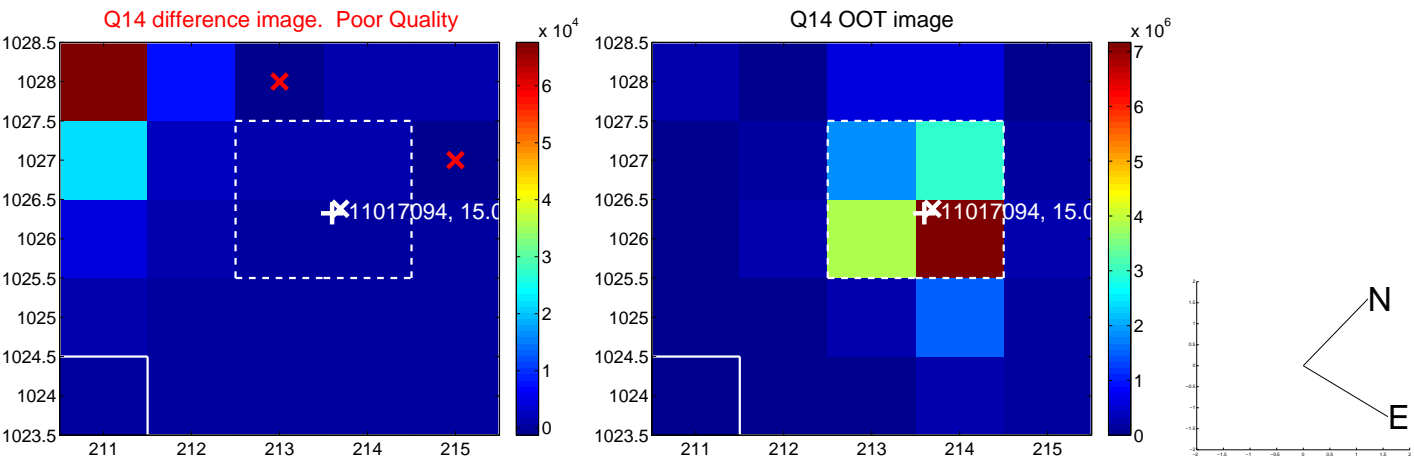
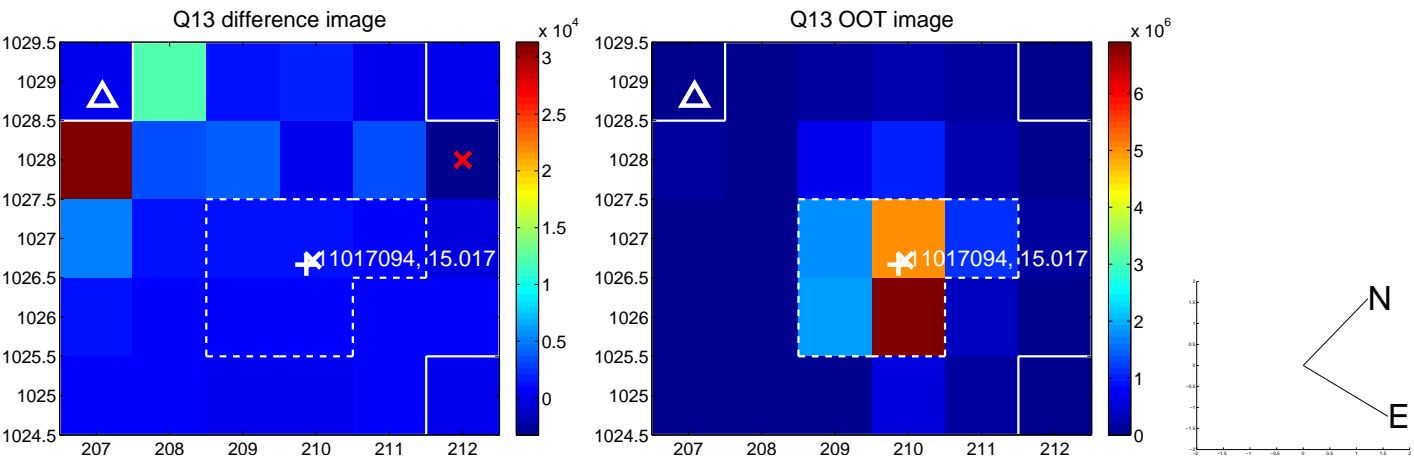
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



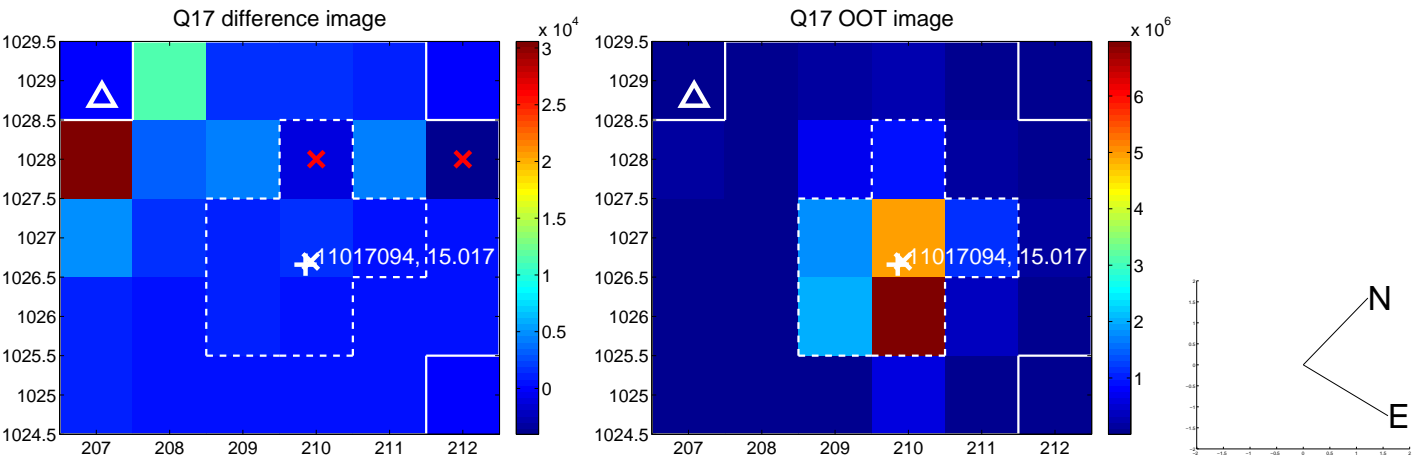
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



folded centroid time series figure for this object.

UKIRT Image

Declination

