

KIC 011718389

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})
011718389-01	OBS	4444.01	5.943718	135.260238	291.4	1.942	11.1	12.8	0.68	4391	1.27	48.93

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011718389-01	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.

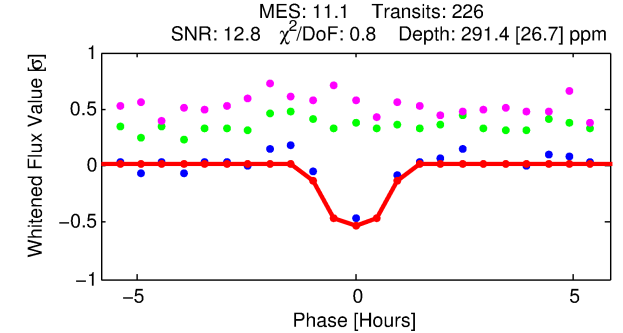
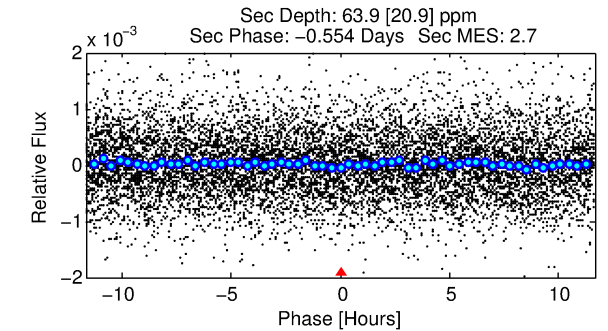
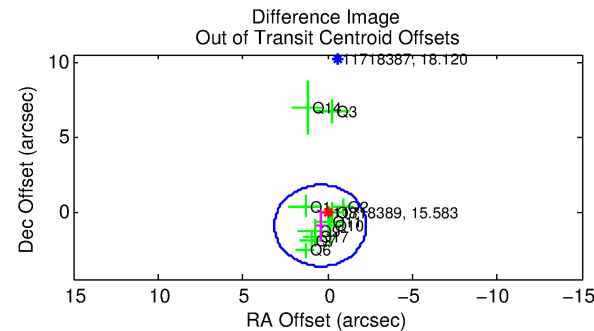
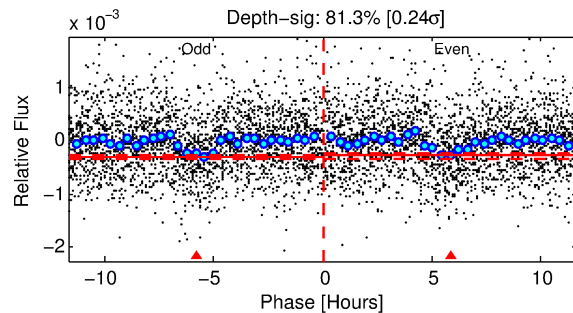
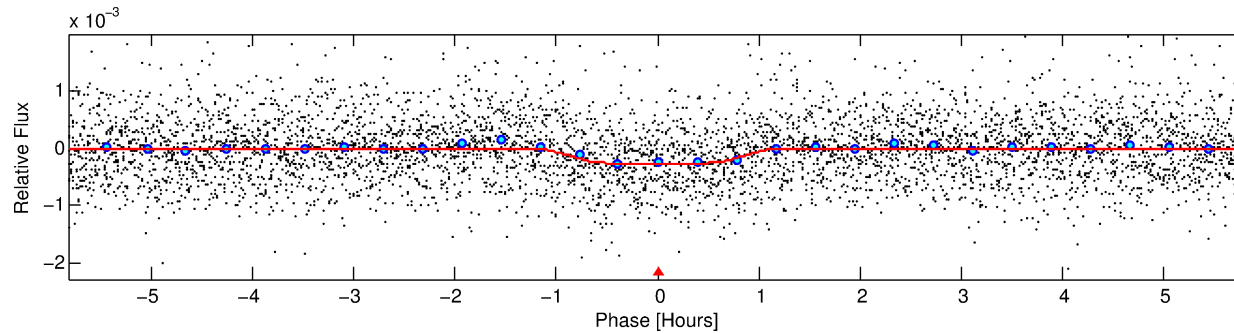
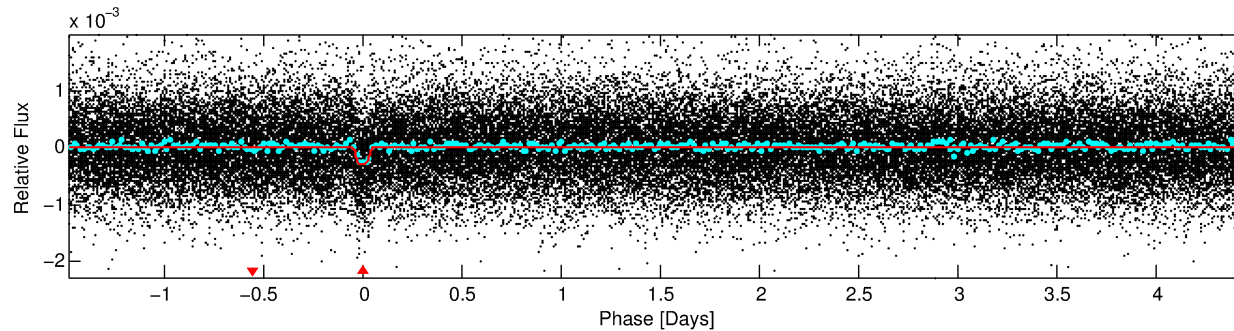
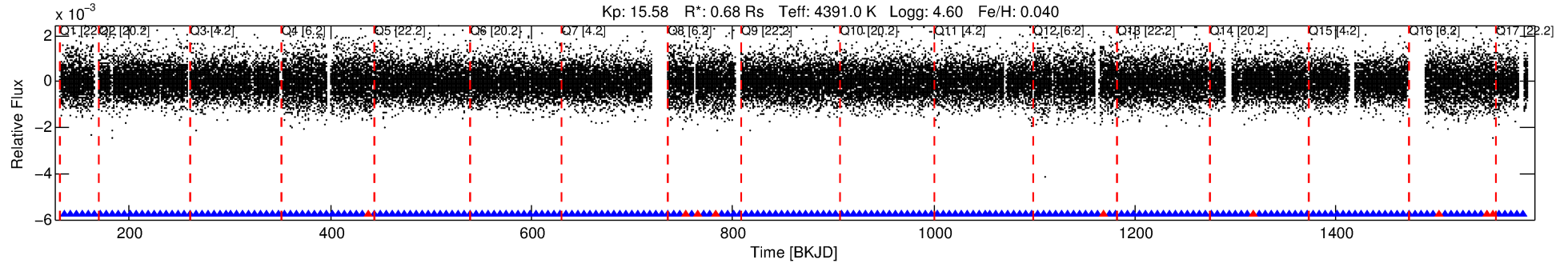
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011718389-01

No Significant Match Found

DV One-Page Summary

KIC: 11718389 Candidate: 1 of 1 Period: 5.944 d
KOI: K04444.01 Corr: 0.967



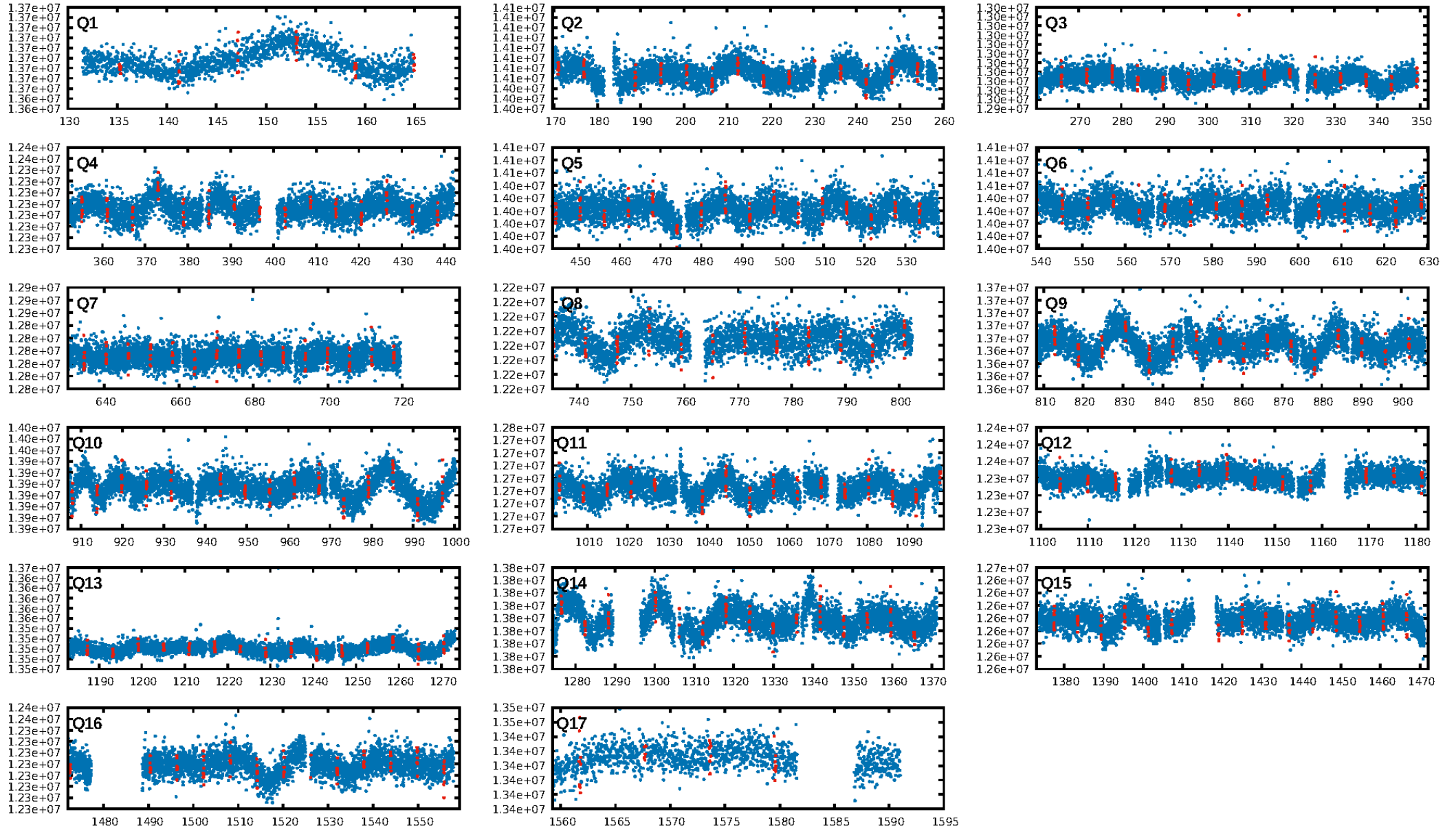
DV Fit Results:

Period = 5.94372 [0.00003] d
Epoch = 135.2602 [0.0033] BKJD
Rp/R* = 0.0170 [0.0189]
a/R* = 16.46 [56.42]
b = 0.74 [2.23]
Seff = 48.93 [7.63]
Teq = 674 [26] K
Rp = 1.27 [1.41] Re
a = 0.0563 [0.0040] AU
Ag = 69.27 [155.69] [0.44 σ]
Teffp = 3008 [1691] K [1.38 σ]

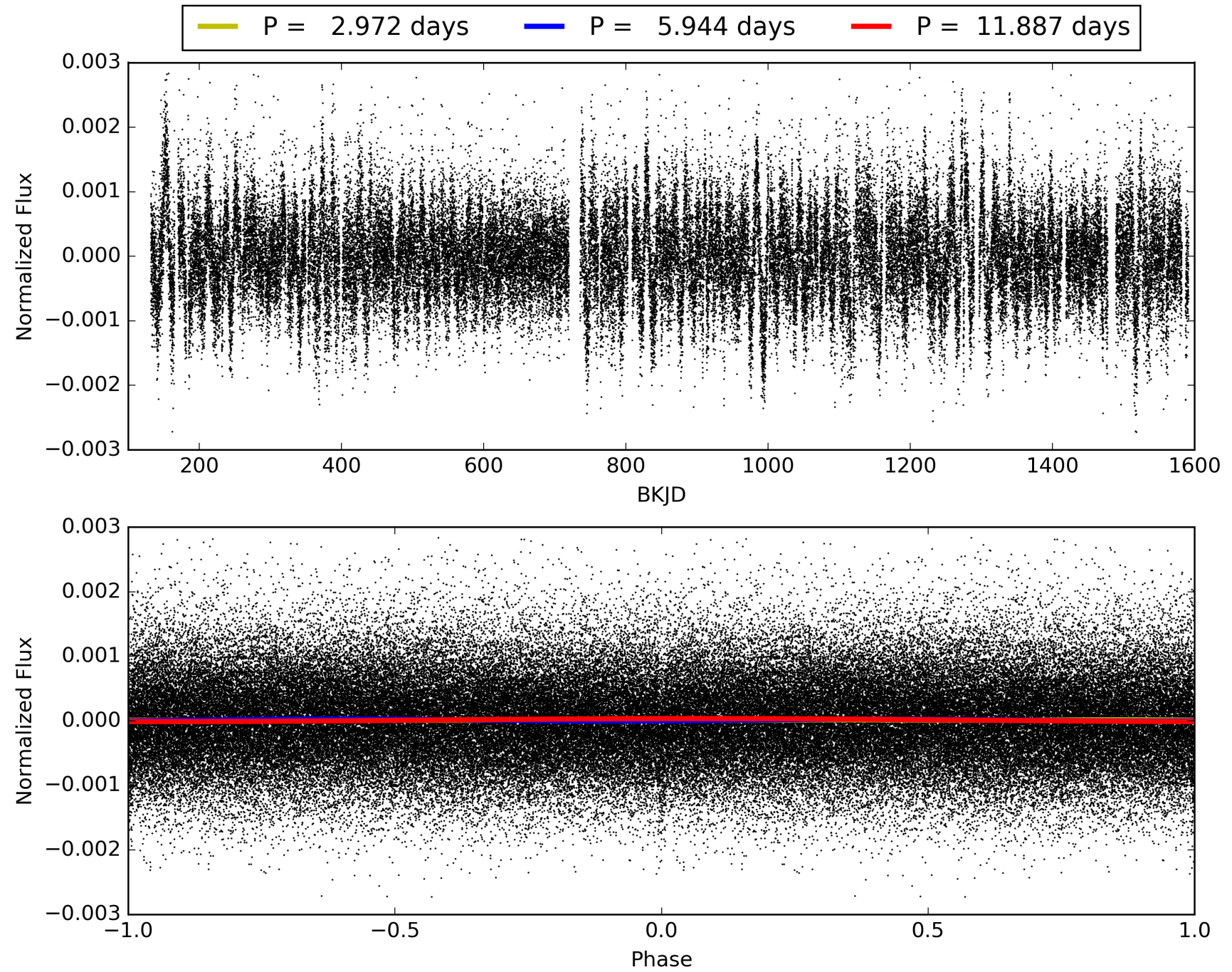
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.03e-28
RollingBand-fgt: 0.96 [207/216]
GhostDiagnostic-chr: 0.5717
Centroid-sig: 0.4%
Centroid-so: 1.904 arcsec [1.53 σ]
OotOffset-rm: 1.029 arcsec [1.14 σ]
KicOffset-rm: 0.694 arcsec [0.80 σ]
OotOffset-st: 4/3/1/3 [11]
KicOffset-st: 4/3/1/3 [11]
DiffImageQuality-fgm: 0.55 [6/11]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 011718389-01, PDC Light Curves

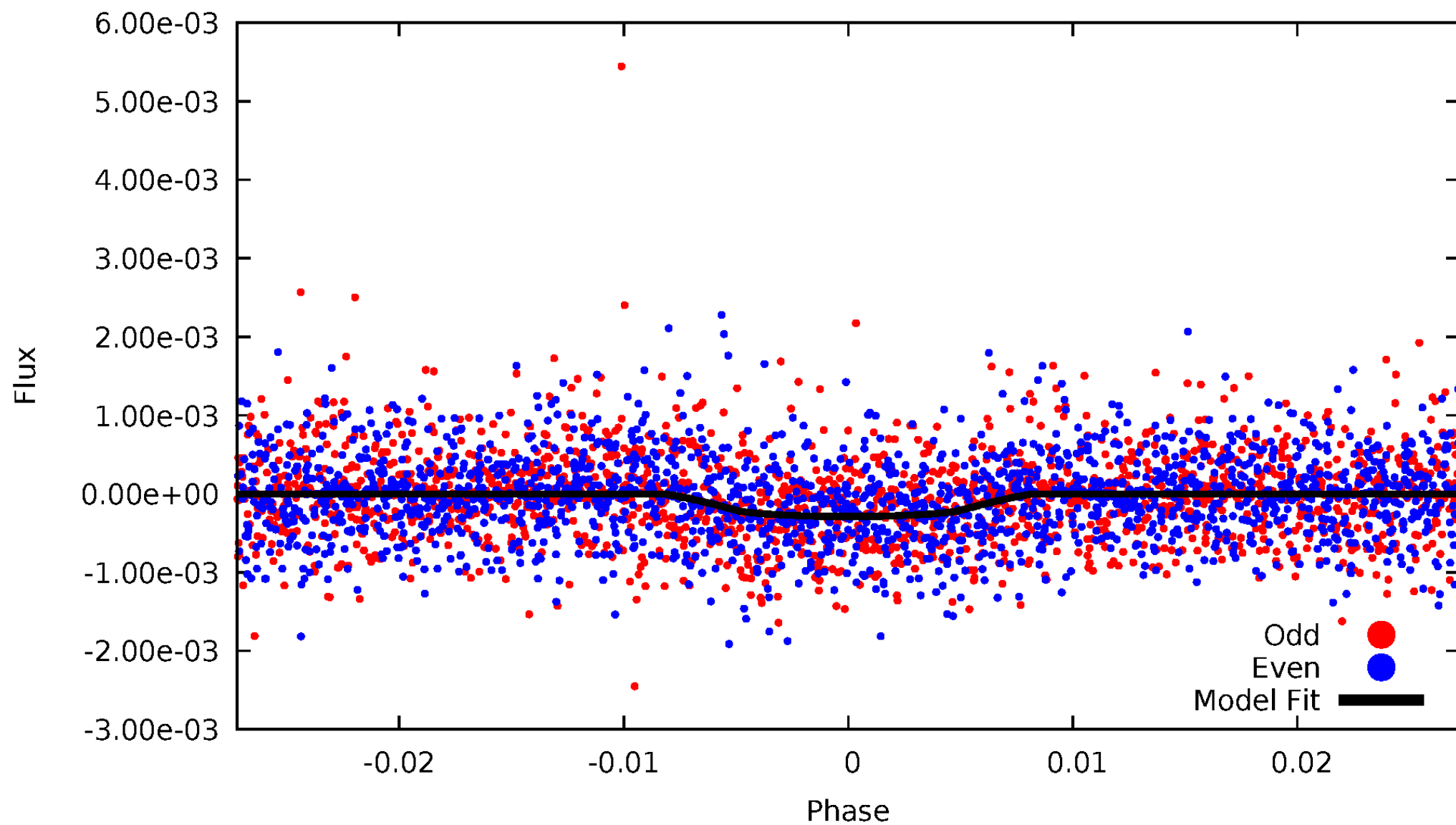


TCE 011718389-01



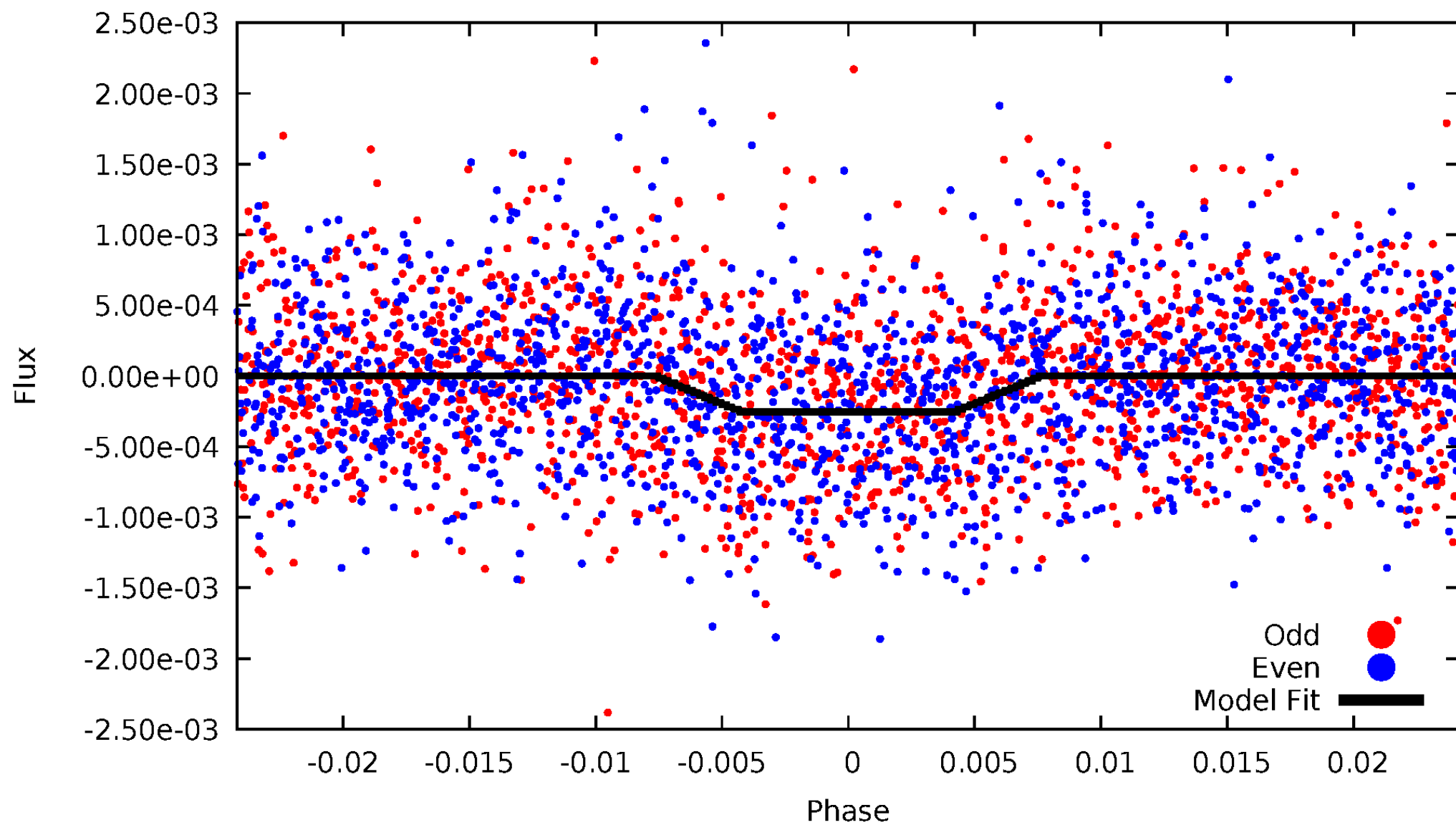
DV Odd/Even

TCE 011718389-01



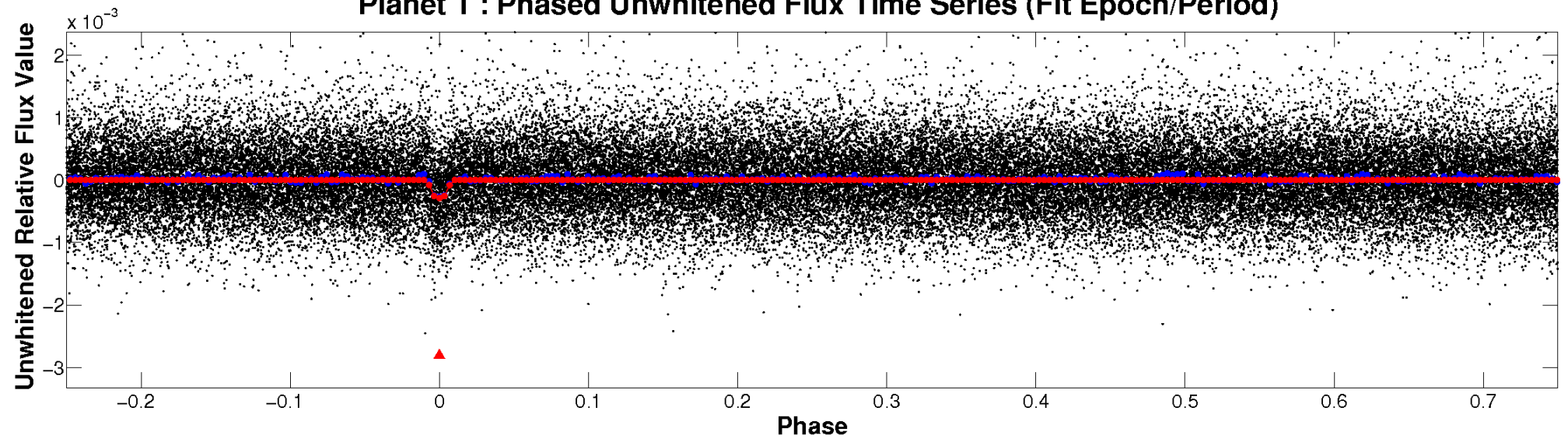
ALT Odd/Even

TCE 011718389-01

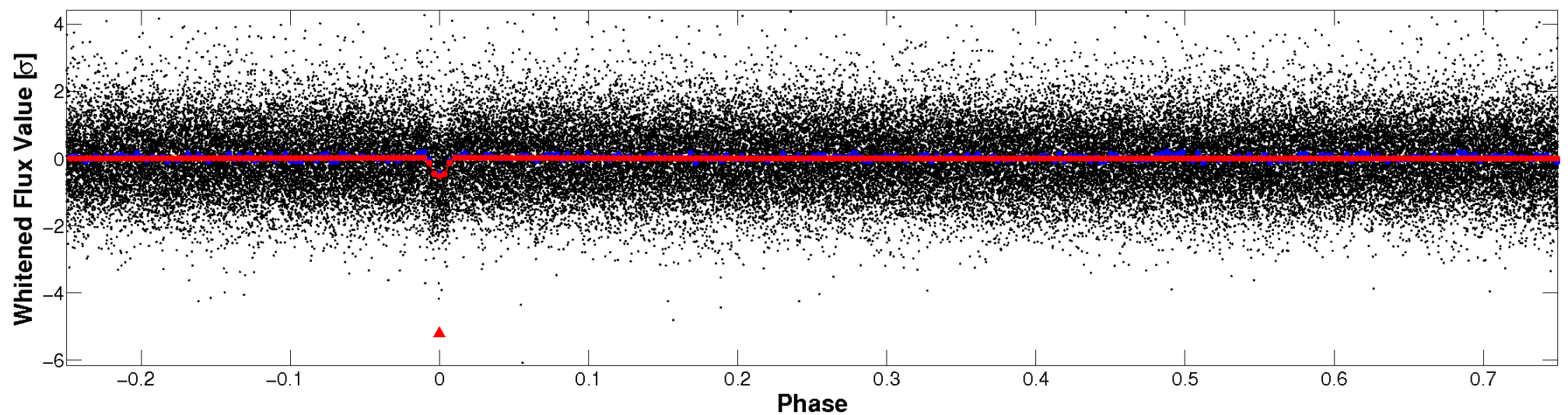


Non-Whitened Vs. Whitened Light Curve

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

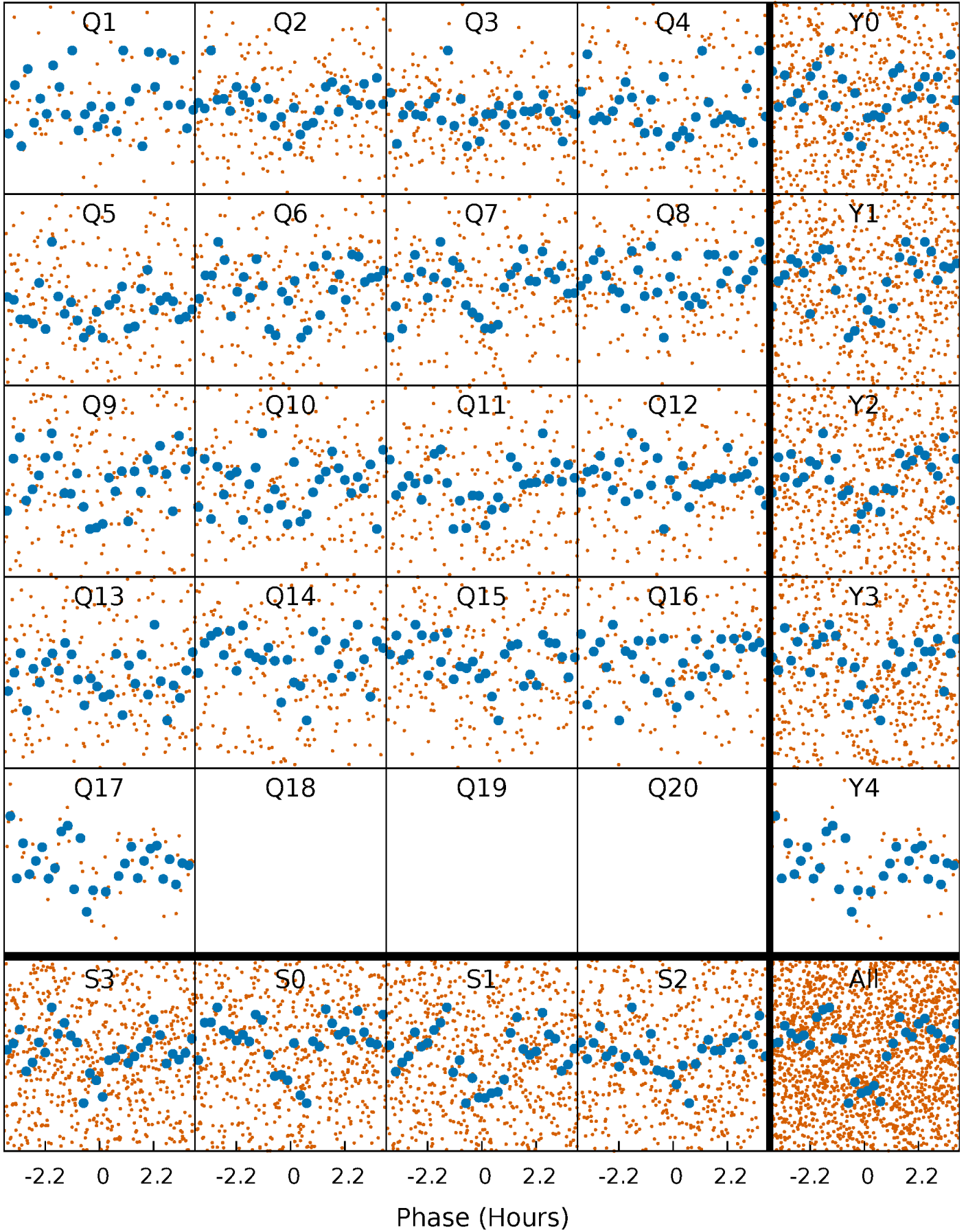


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



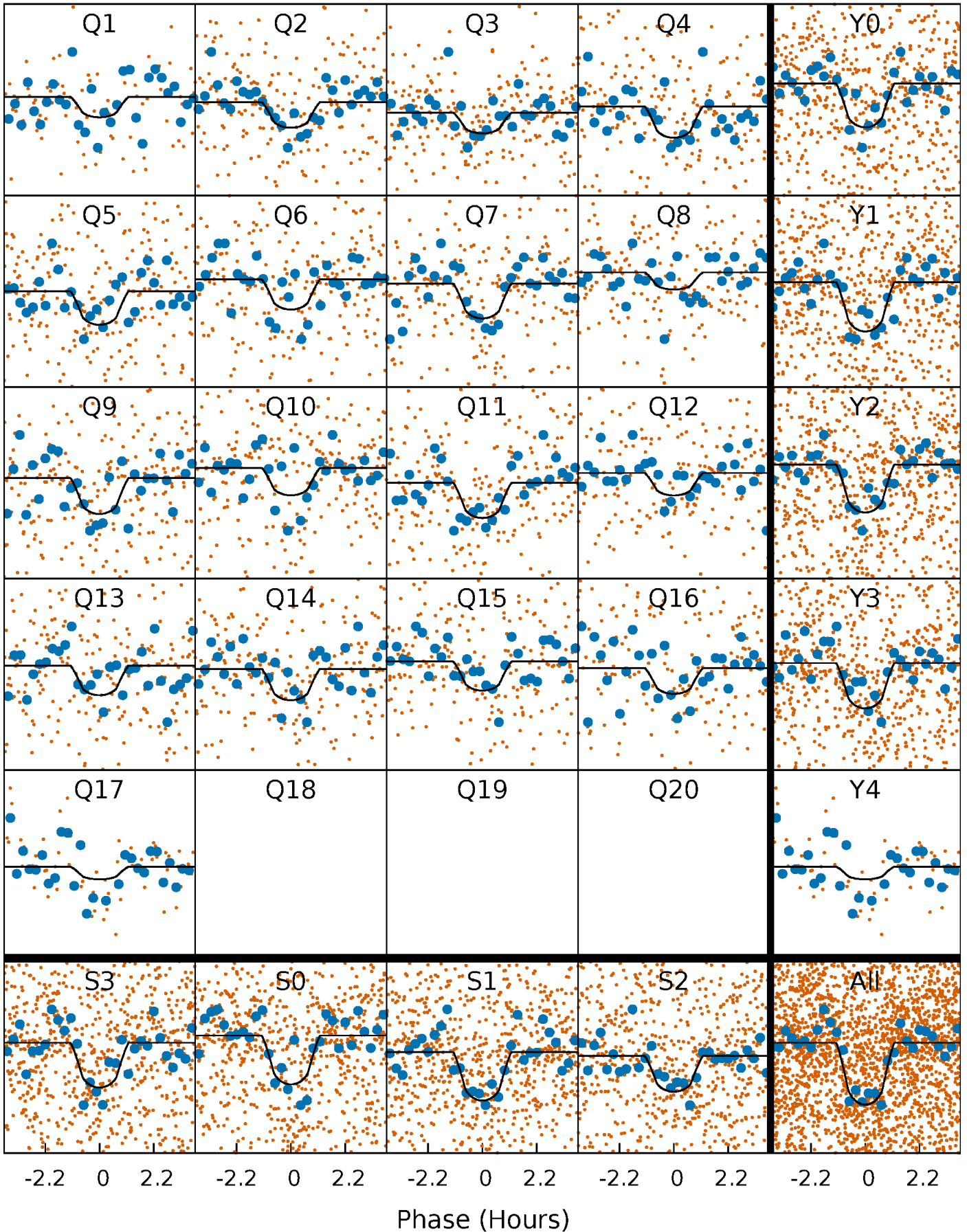
PDC Quarter-Phased Transit Curves

TCE 011718389-01 P= 5.943718 Days $T_0=135.260238$ (BKJD)



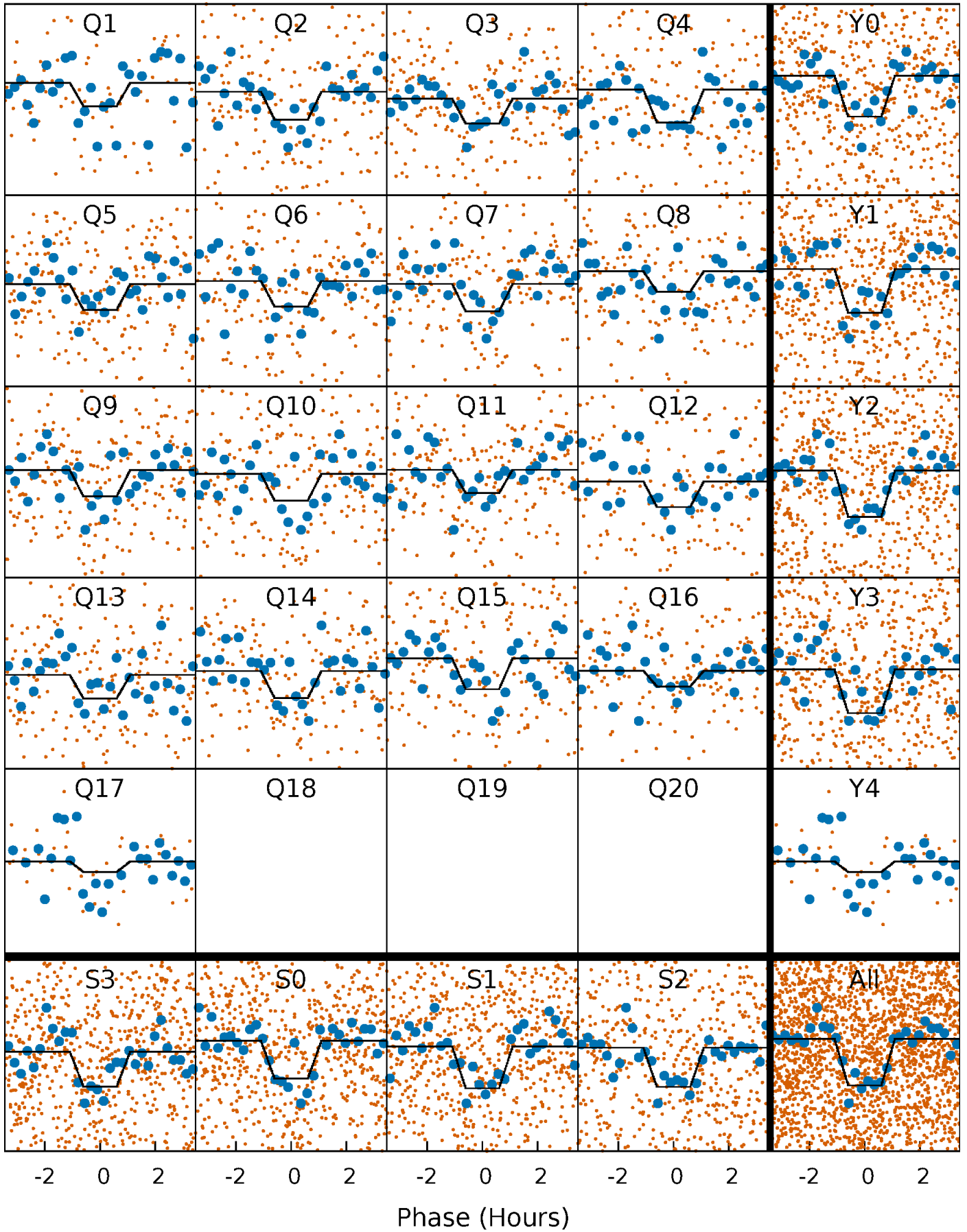
DV Quarter-Phased Transit Curves

TCE 011718389-01 P= 5.943718 Days $T_0=135.260238$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

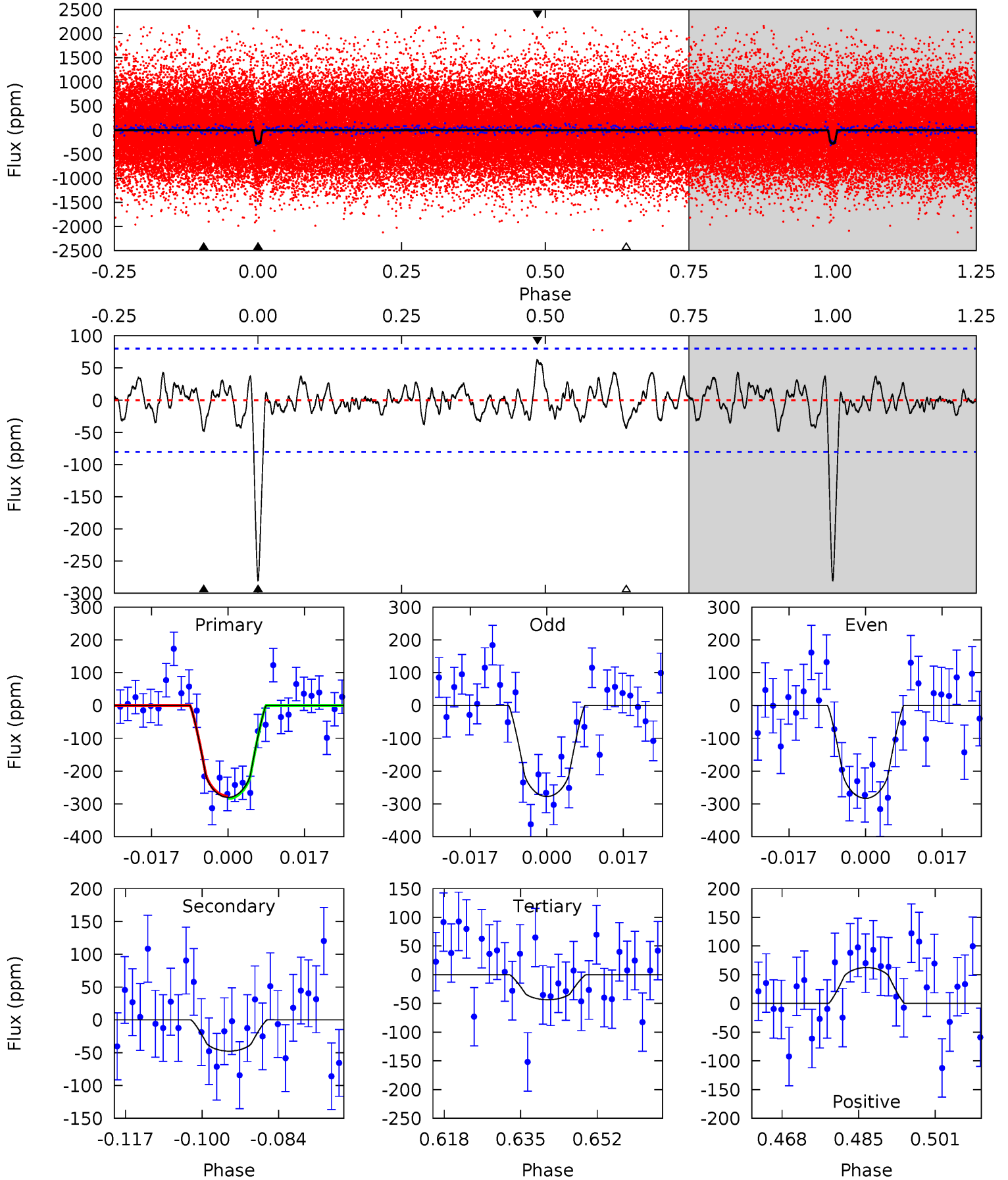
TCE 011718389-01 P= 5.943711 Days $T_0=135.261930$ (BKJD)



DV Model-Shift Uniqueness Test

011718389-01, P = 5.943718 Days, E = 129.316520 Days

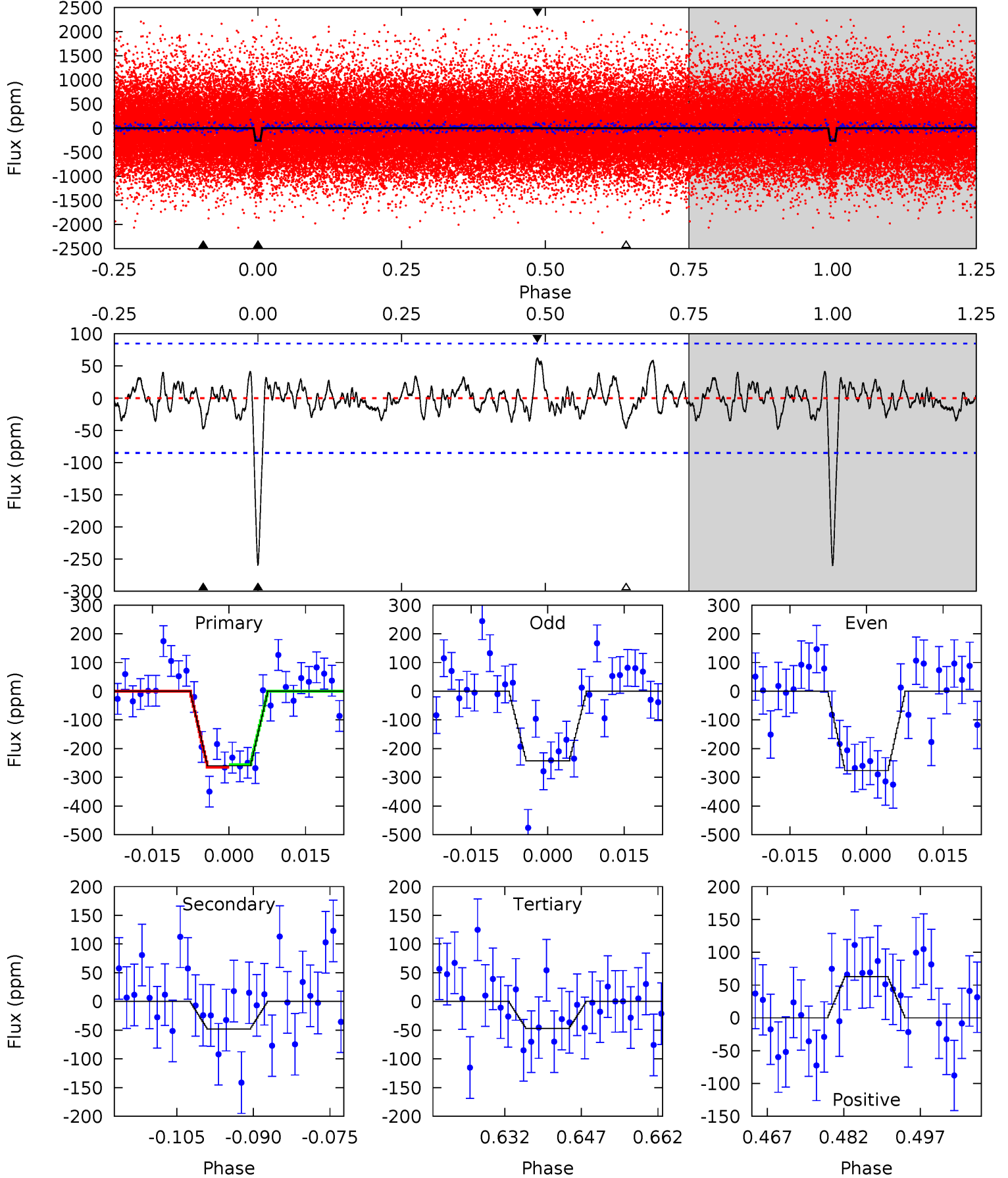
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.2	2.93	2.68	3.85	4.93	2.39	1.15	14.6	13.4	0.26	-0.91	0.17	0.99	0.18	0.20



Alt Model-Shift Uniqueness Test

011718389-01, P = 5.943711 Days, E = 129.318219 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.1	2.79	2.73	3.65	4.95	2.43	1.06	12.4	11.5	0.05	-0.87	0.98	1.04	0.19	0.26



Stellar Parameters For KIC 011718389

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4391^{+118}_{-131}	$4.598^{+0.053}_{-0.018}$	$0.040^{+0.250}_{-0.300}$	$0.682^{+0.032}_{-0.060}$	$0.671^{+0.057}_{-0.052}$	$2.983^{+0.697}_{-0.257}$
	+3%/-3%	+1%/-0%	+625%/-750%	+5%/-9%	+8%/-8%	+23%/-9%
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 011718389-01 / KOI 4444.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-48 ± 16	$1.52^{+1.32}_{-0.99}$	935^{+28}_{-32}	3023^{+1201}_{-459}	34^{+241}_{-25}
Alt.	-48 ± 17	$1.55^{+1.26}_{-0.90}$	936^{+26}_{-32}	2979^{+1089}_{-436}	31^{+186}_{-21}

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

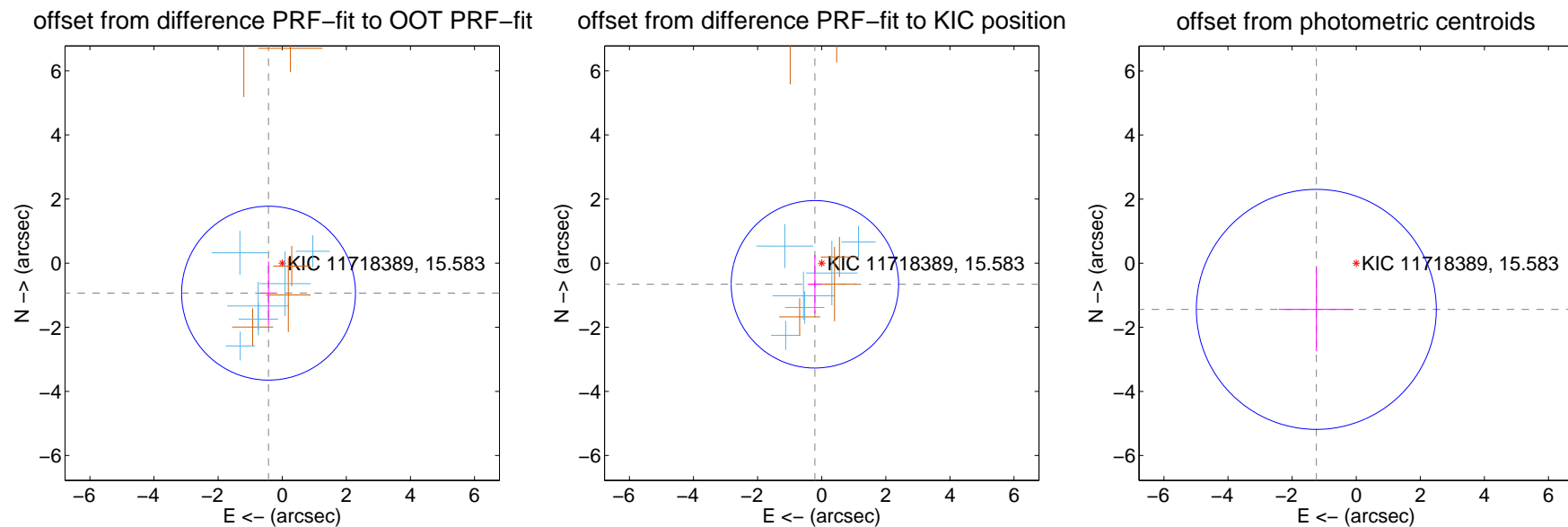
DV Centroid Data

Supplemental centroid analysis for 011718389-01. Kepler magnitude: 15.58. Transit SNR 12.84

There are 6 quarters with good PRF difference image offsets

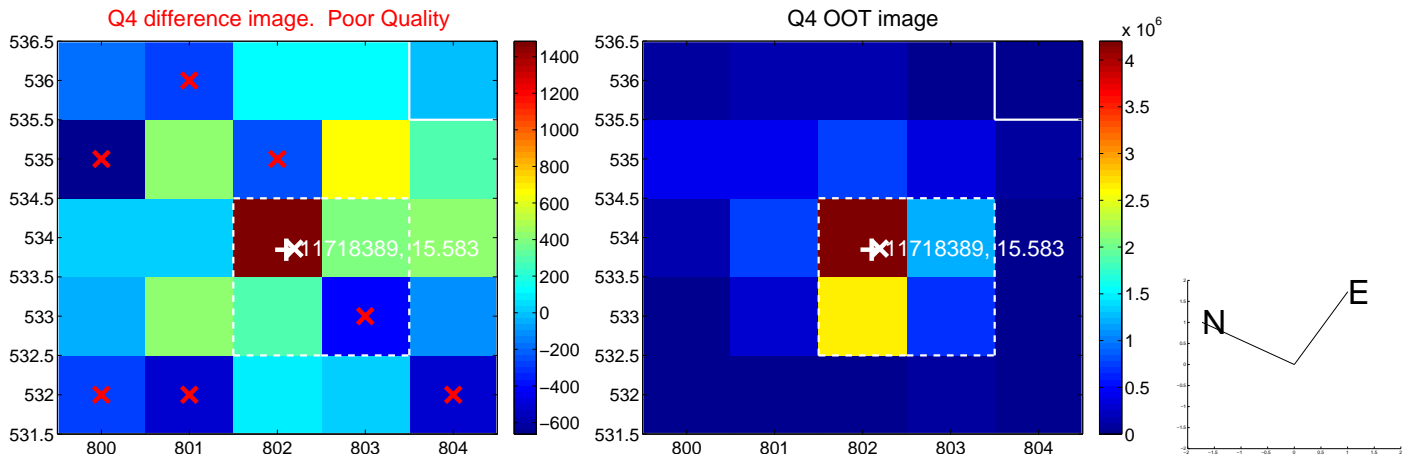
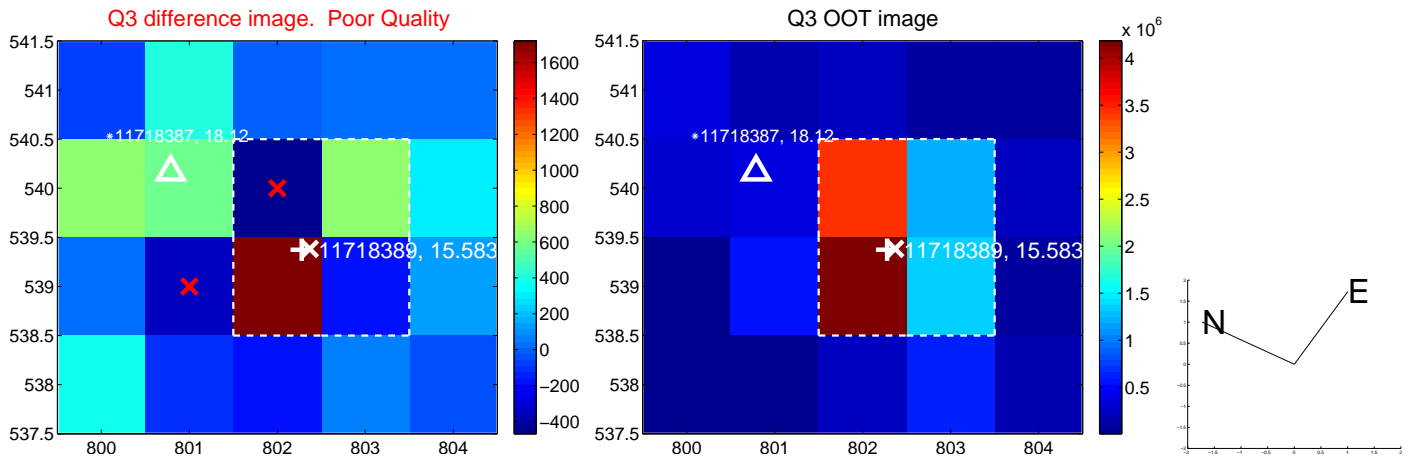
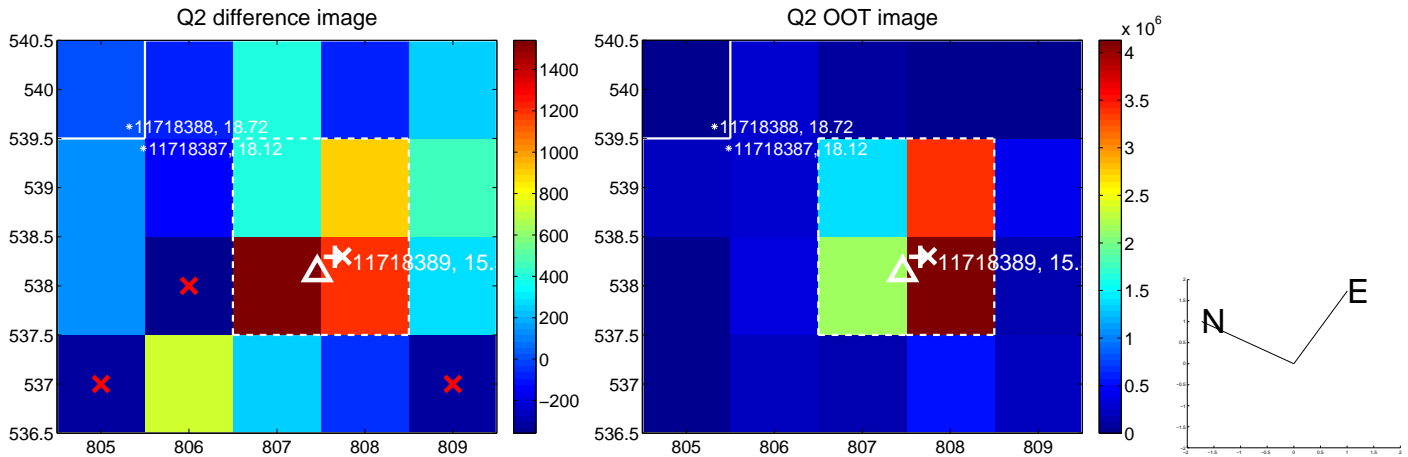
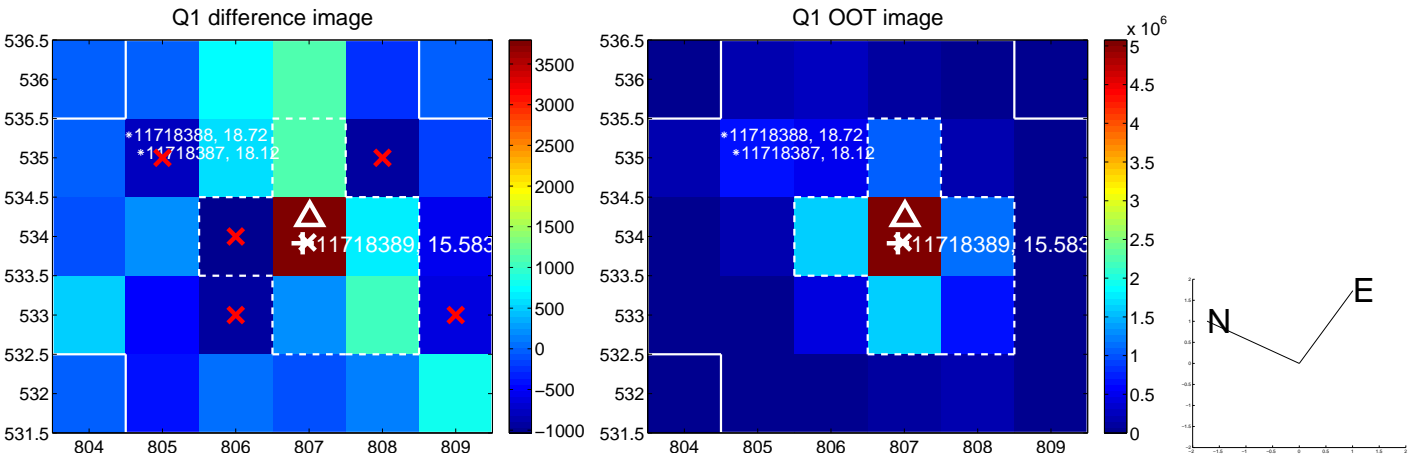
The direct PRF centroid is offset from the target star catalog position by about 0.42 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.029 ± 0.904	1.14	0.427 ± 0.230	-0.937 ± 0.988
PRF-fit source offset from KIC position	0.694 ± 0.871	0.80	0.213 ± 0.226	-0.660 ± 0.911
photometric centroid source offset	1.90 ± 1.25	1.53	1.24 ± 1.17	-1.44 ± 1.30

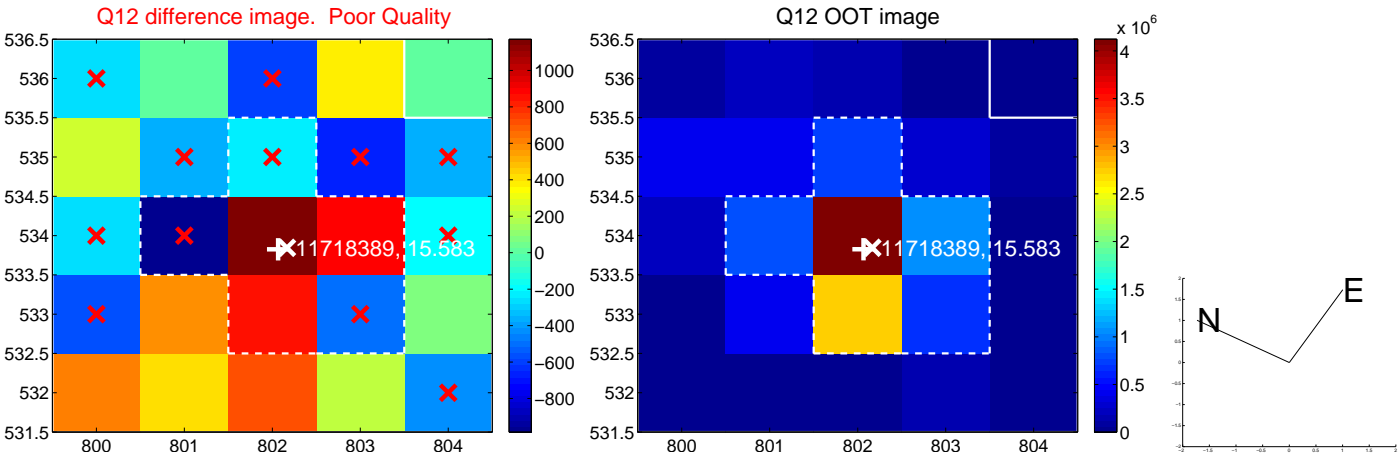
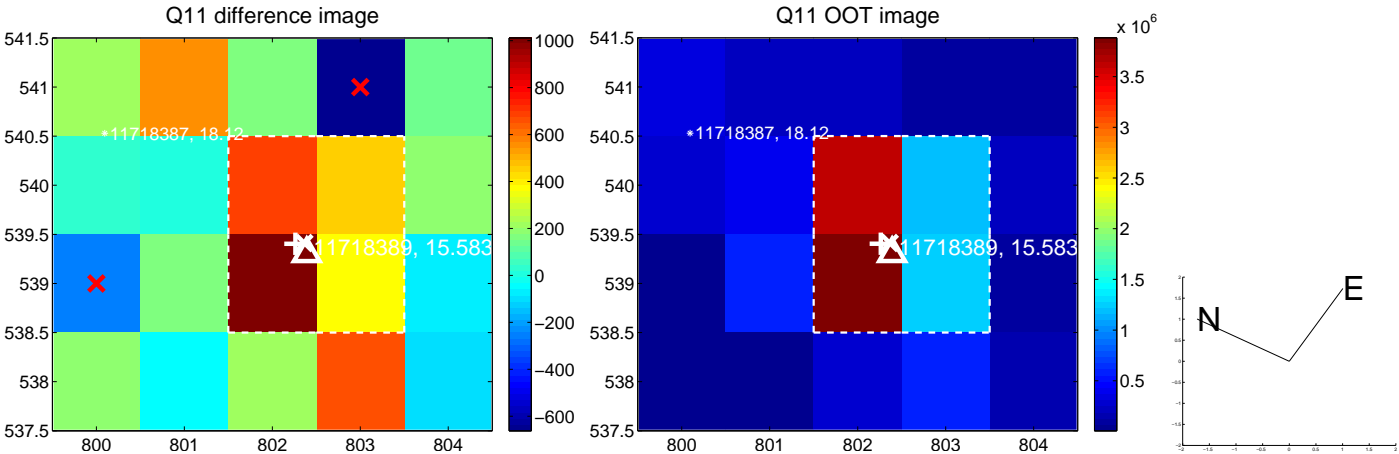
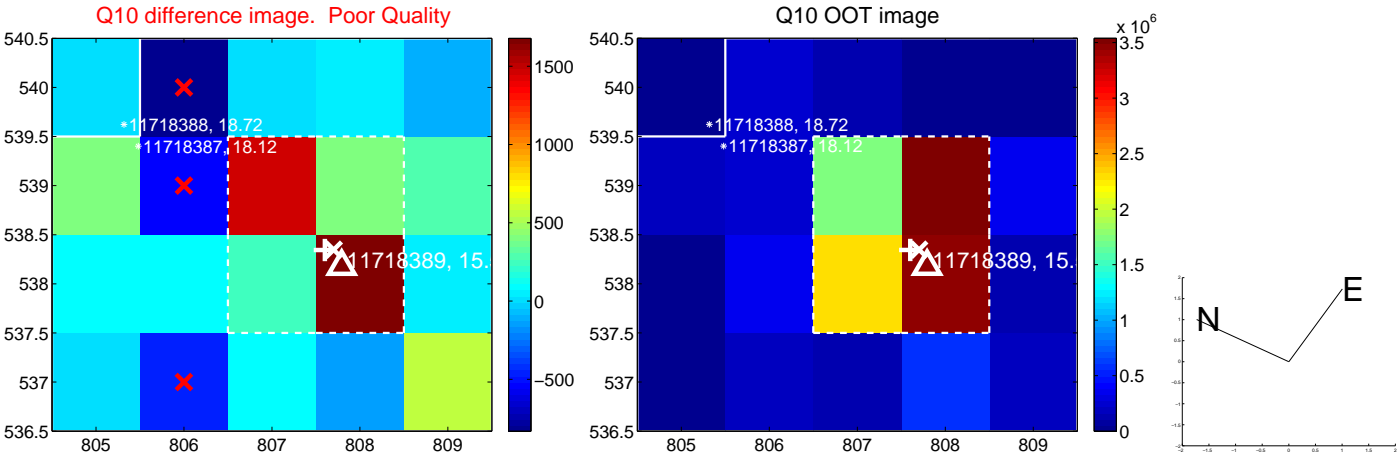
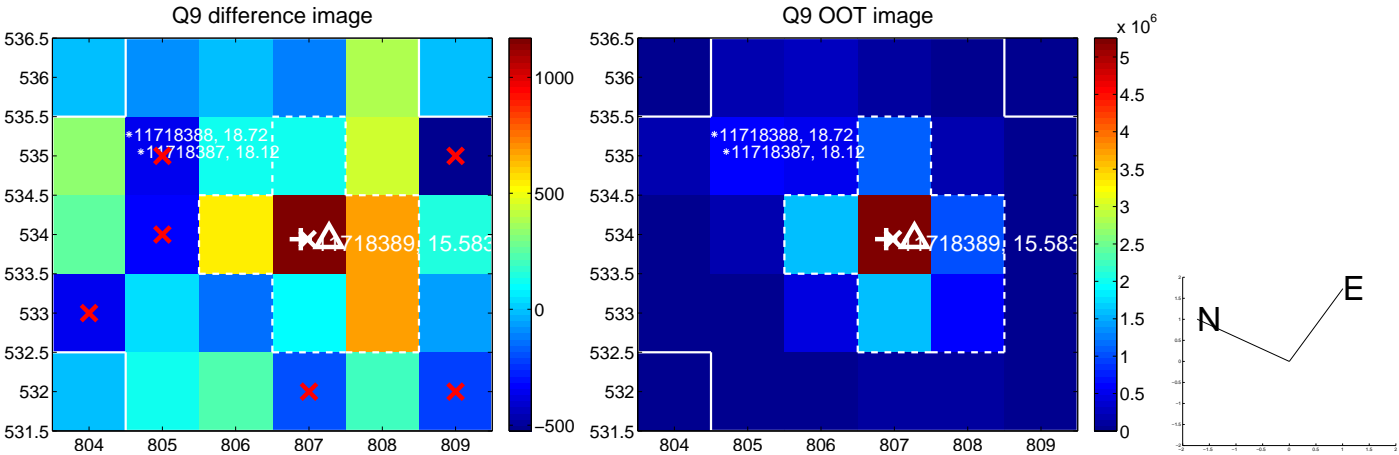


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

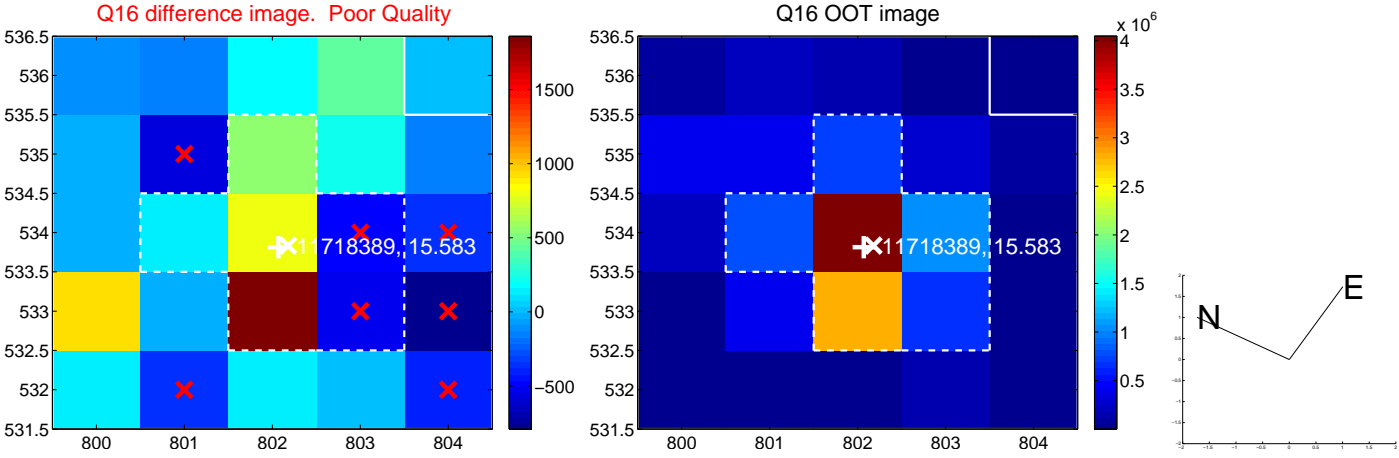
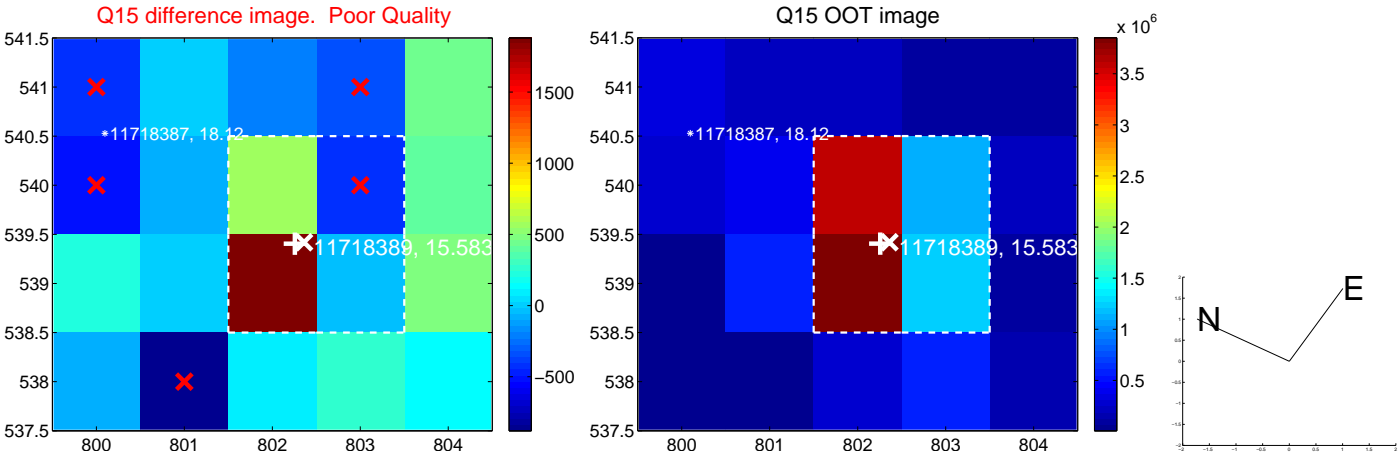
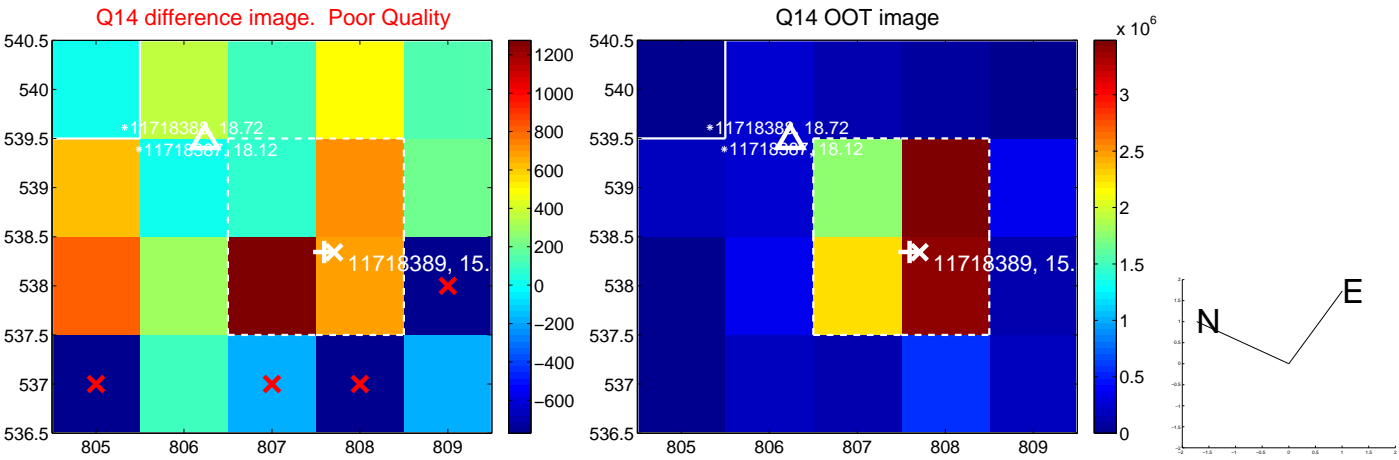
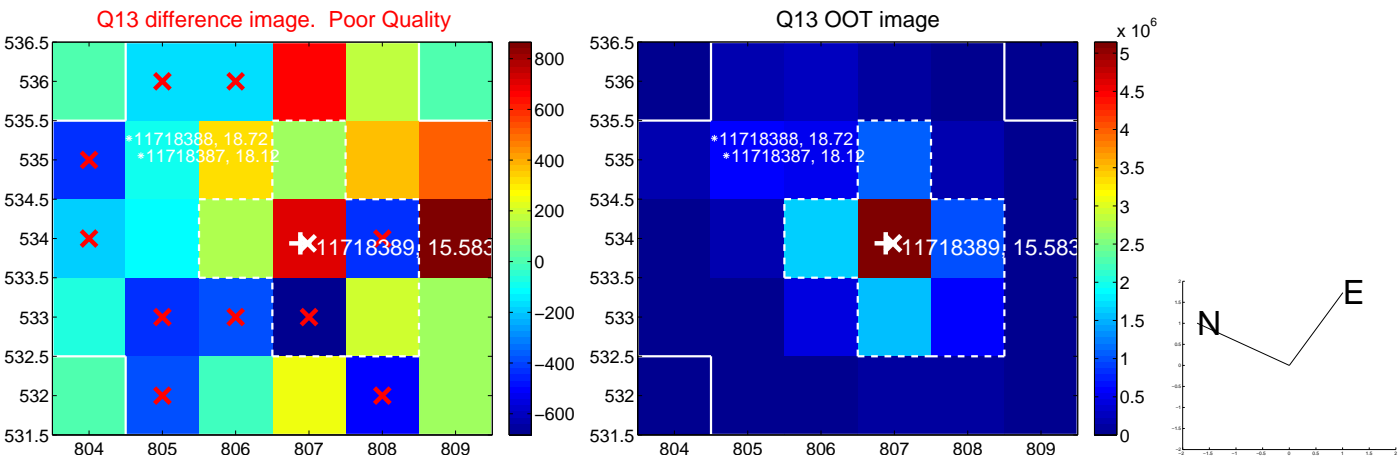
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



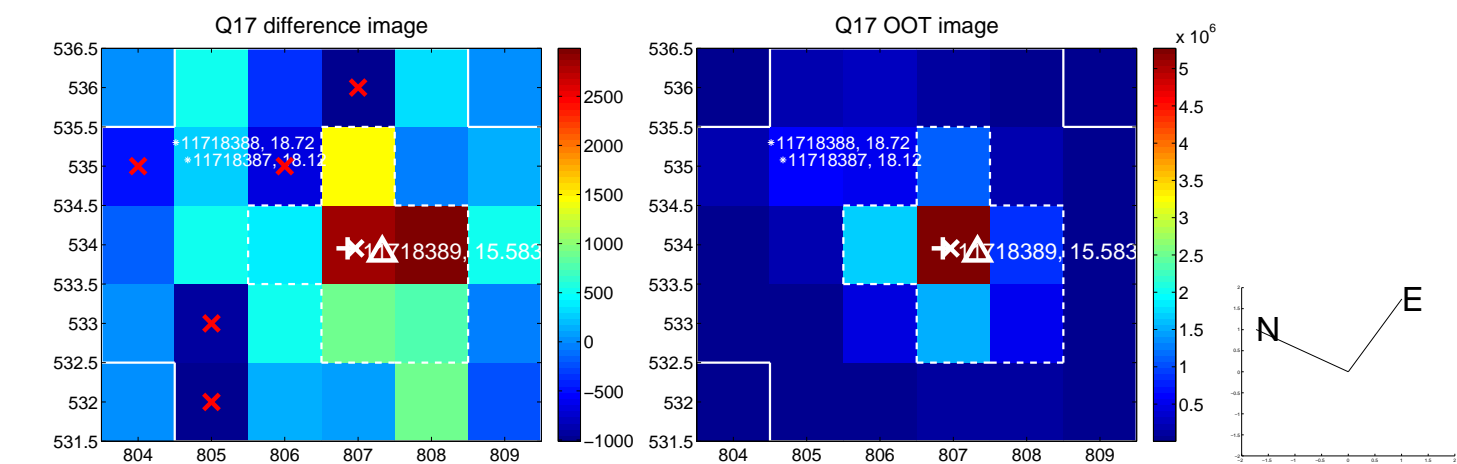
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



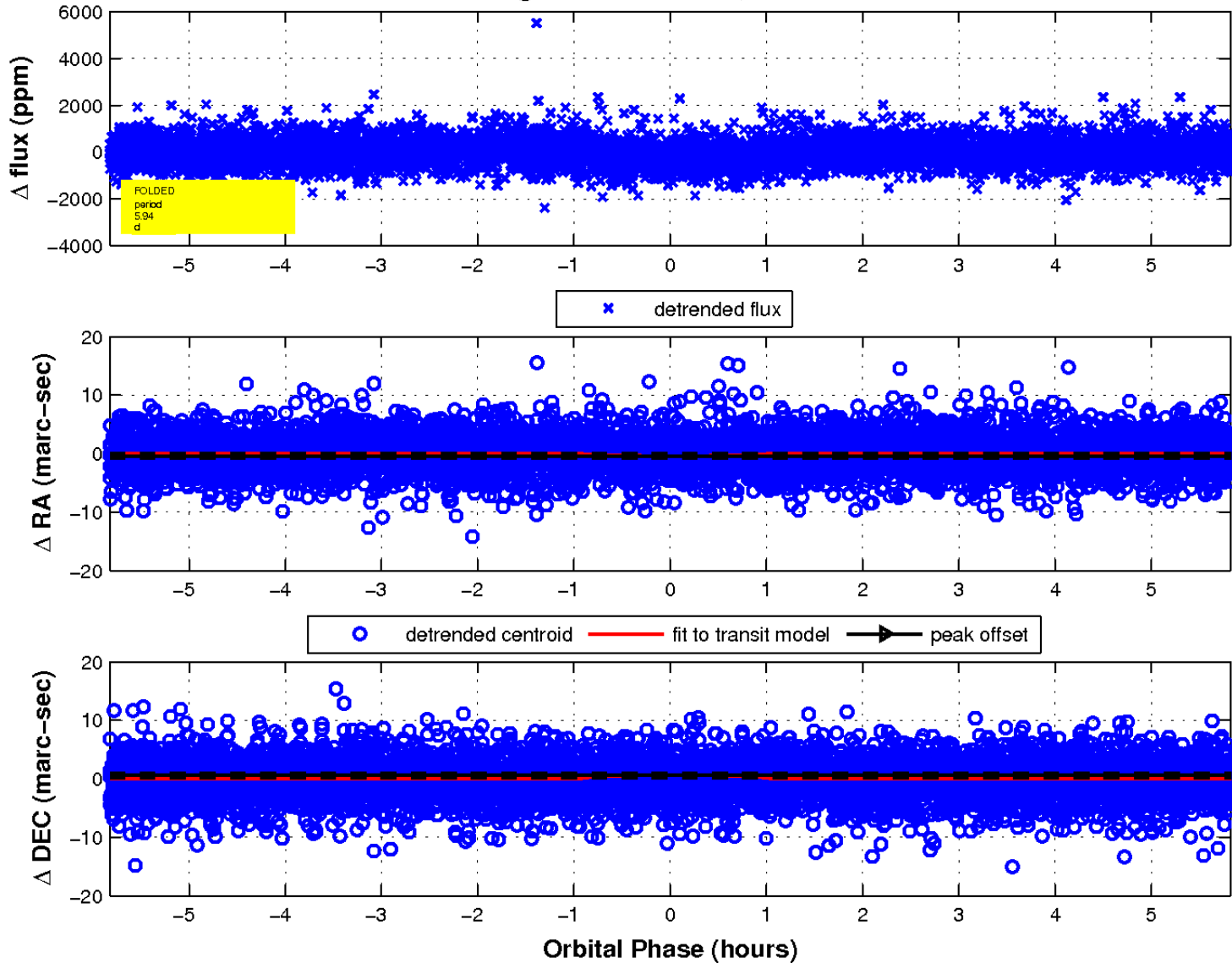
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

