

KIC 011402995

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})
011402995-01	OBS	0173.01	10.060838	138.966455	455.3	4.806	68.9	77.3	1.14	5705	2.89	154.53

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011402995-01	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.

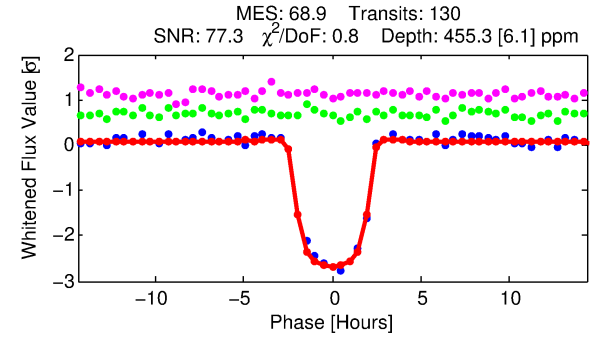
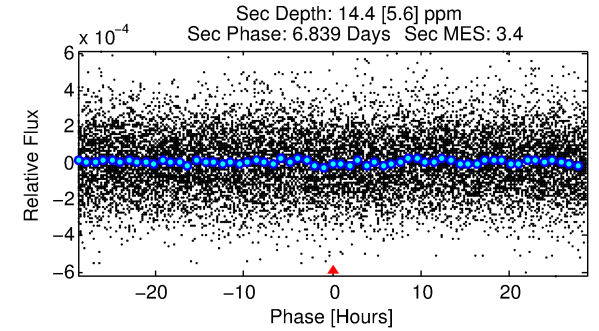
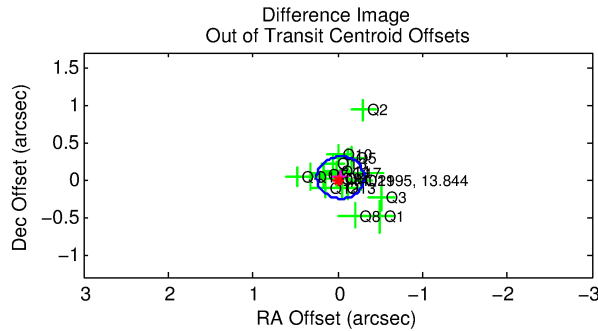
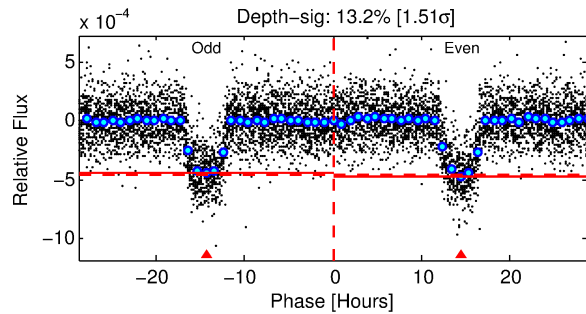
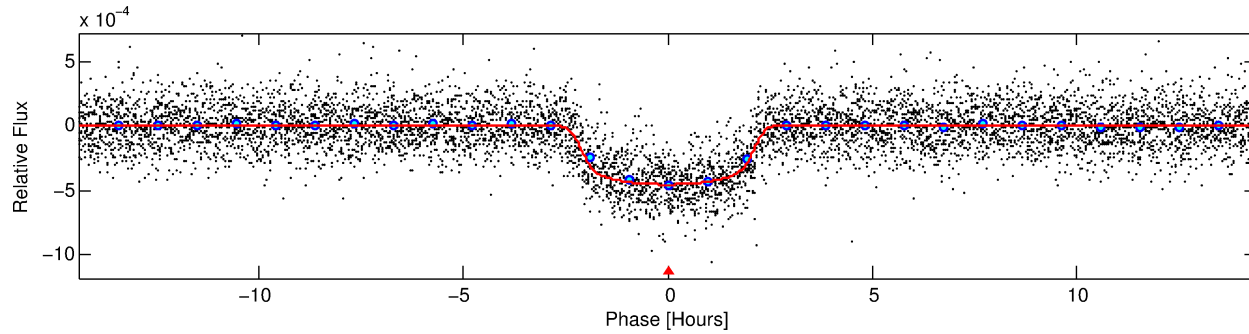
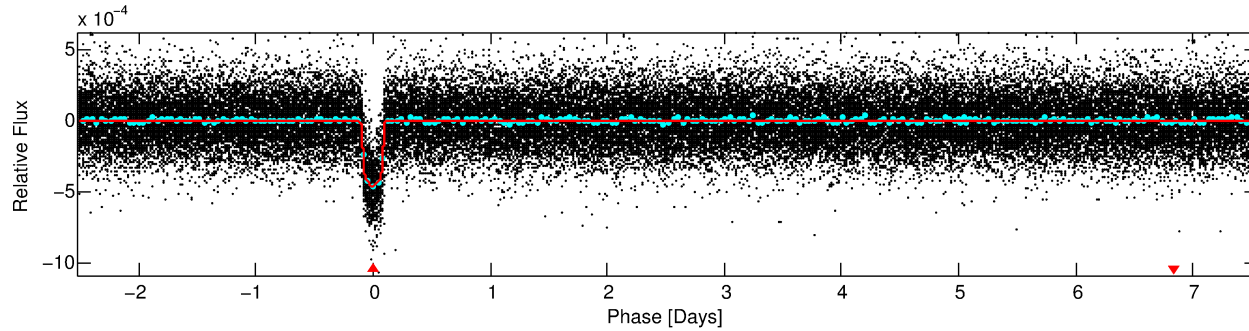
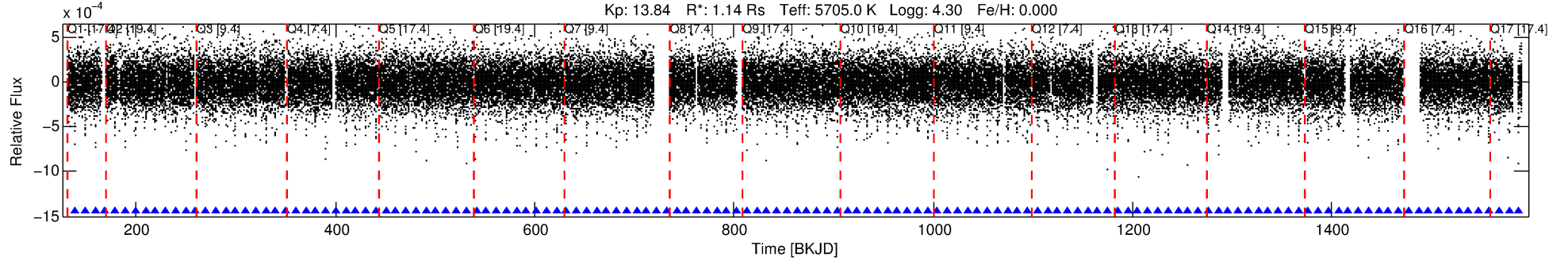
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011402995-01

No Significant Match Found

DV One-Page Summary

KIC: 11402995 Candidate: 1 of 1 Period: 10.061 d
KOI: K00173.01 Corr: 0.976



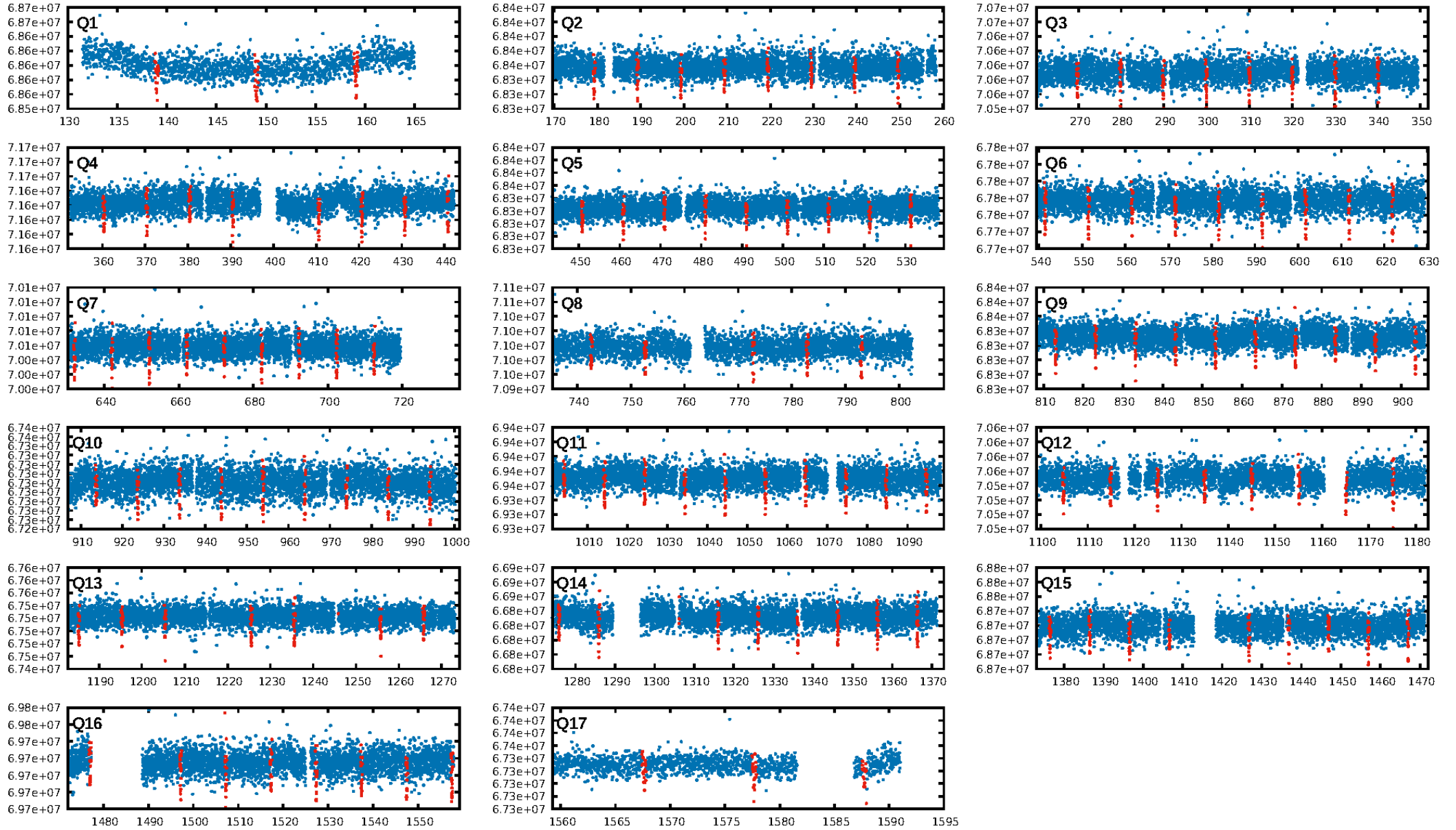
DV Fit Results:

Period = 10.06084 [0.00002] d
Epoch = 138.9665 [0.0013] BKJD
Rp/R* = 0.0232 [0.0007]
a/R* = 7.94 [1.08]
b = 0.90 [0.03]
Seff = 154.53 [42.16]
Teq = 899 [61] K
Rp = 2.89 [0.46] Re
a = 0.0893 [0.0141] AU
Ag = 7.56 [3.59] [1.82 σ]
Teffp = 2305 [234] K [5.82 σ]

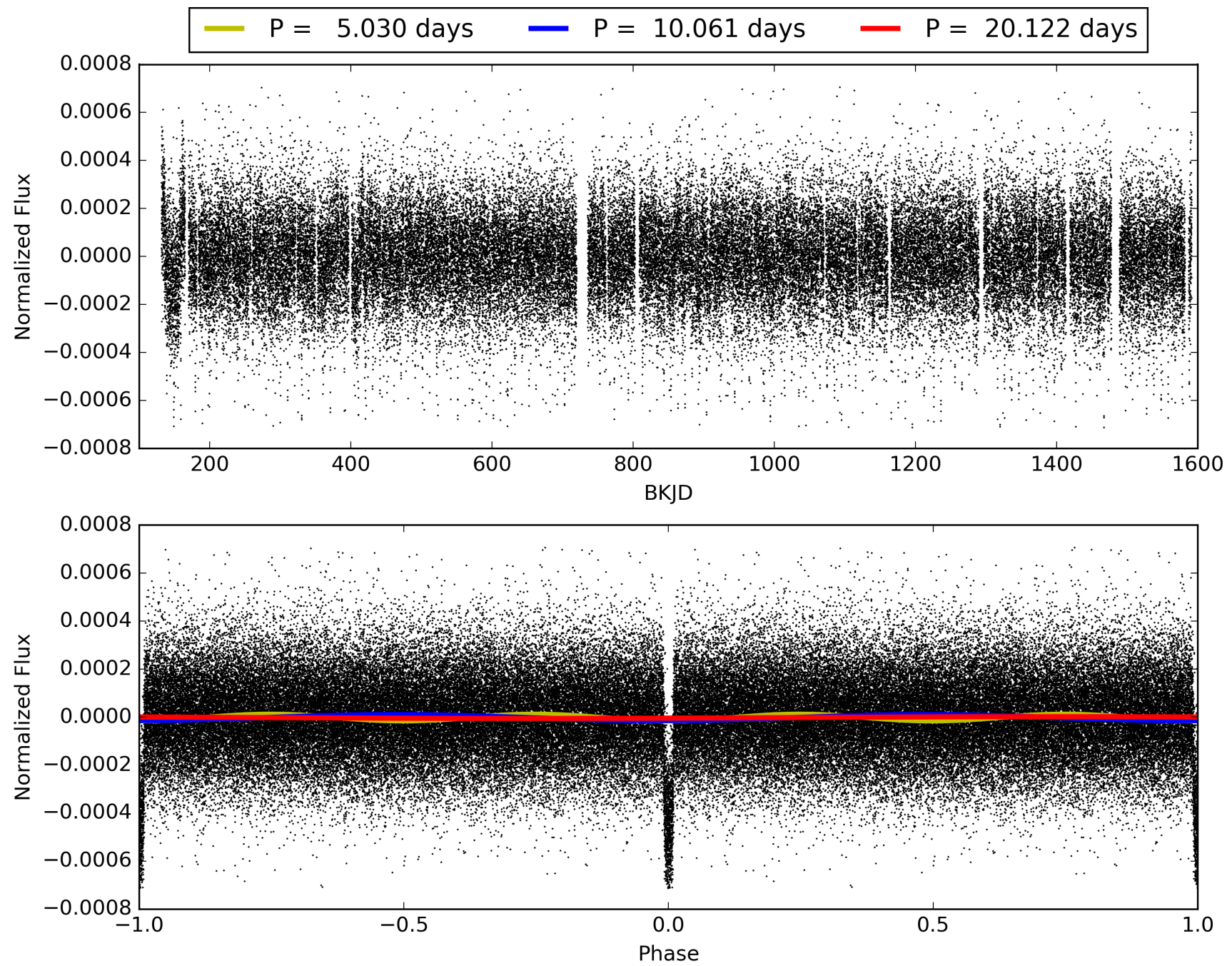
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 93.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [124/124]
GhostDiagnostic-chr: 9.253
Centroid-sig: 0.0%
Centroid-so: 0.105 arcsec [0.69 σ]
OotOffset-rm: 0.043 arcsec [0.46 σ]
KicOffset-rm: 0.270 arcsec [2.67 σ]
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]

TCE 011402995-01, PDC Light Curves

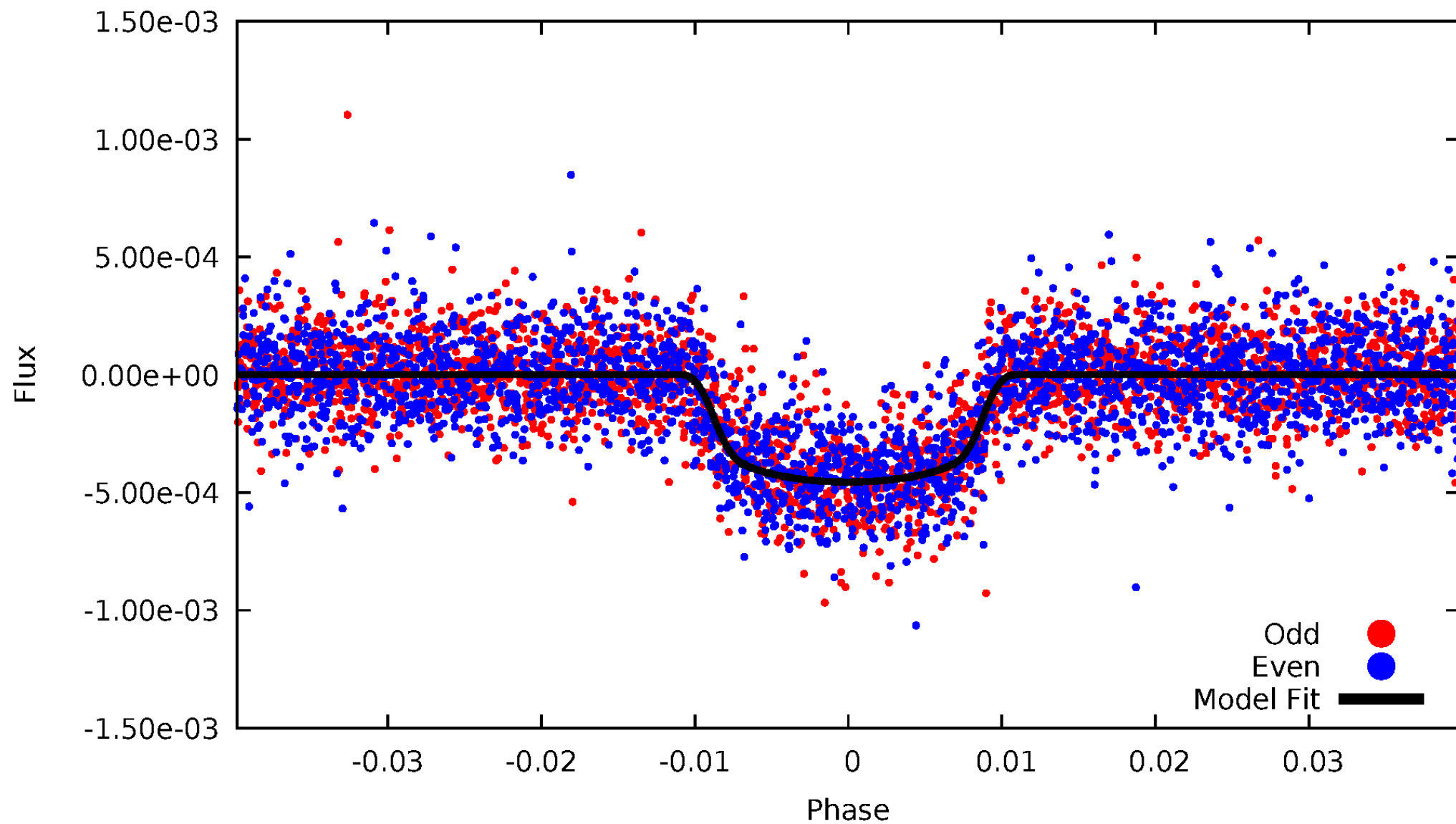


TCE 011402995-01



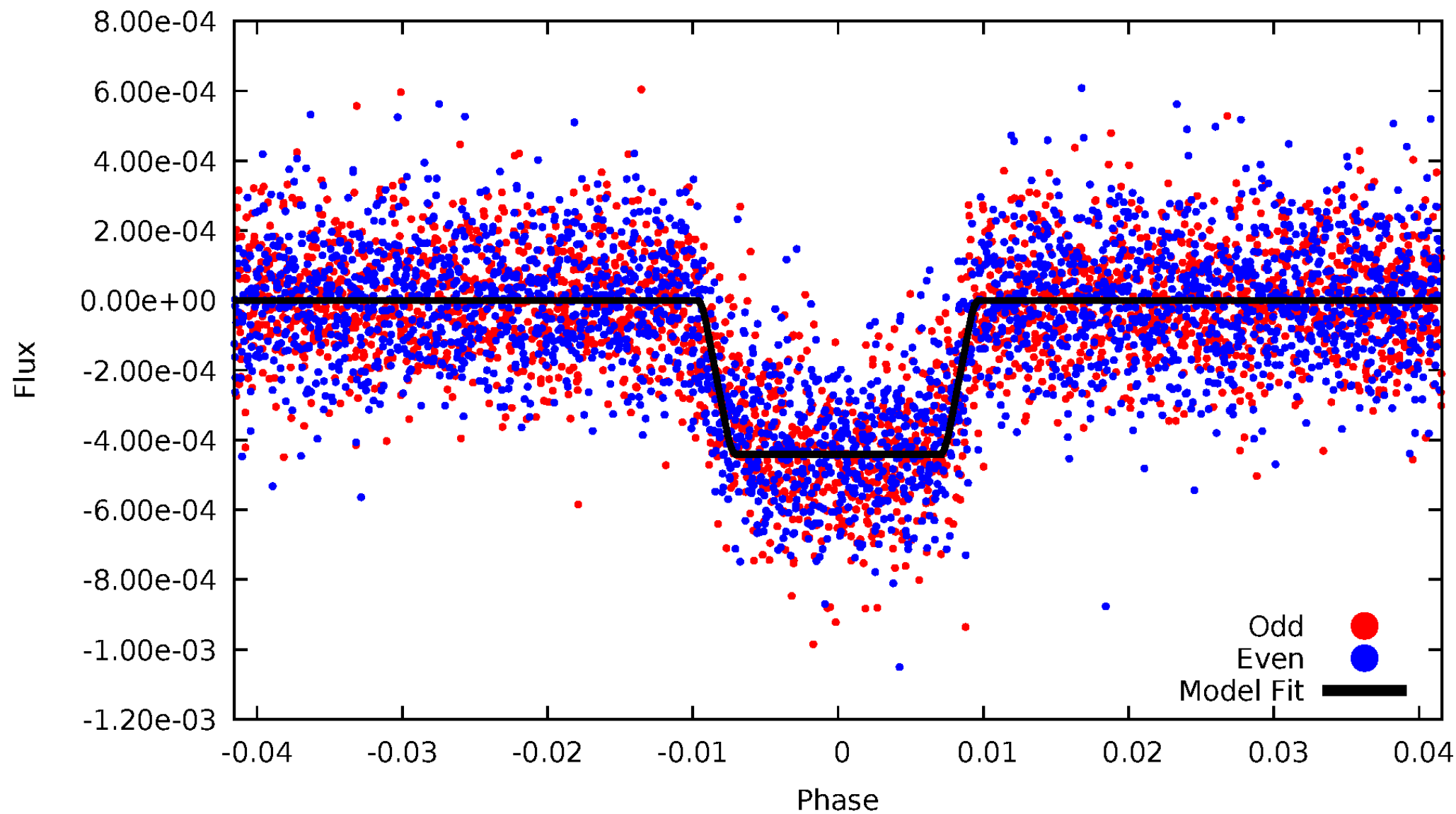
DV Odd/Even

TCE 011402995-01



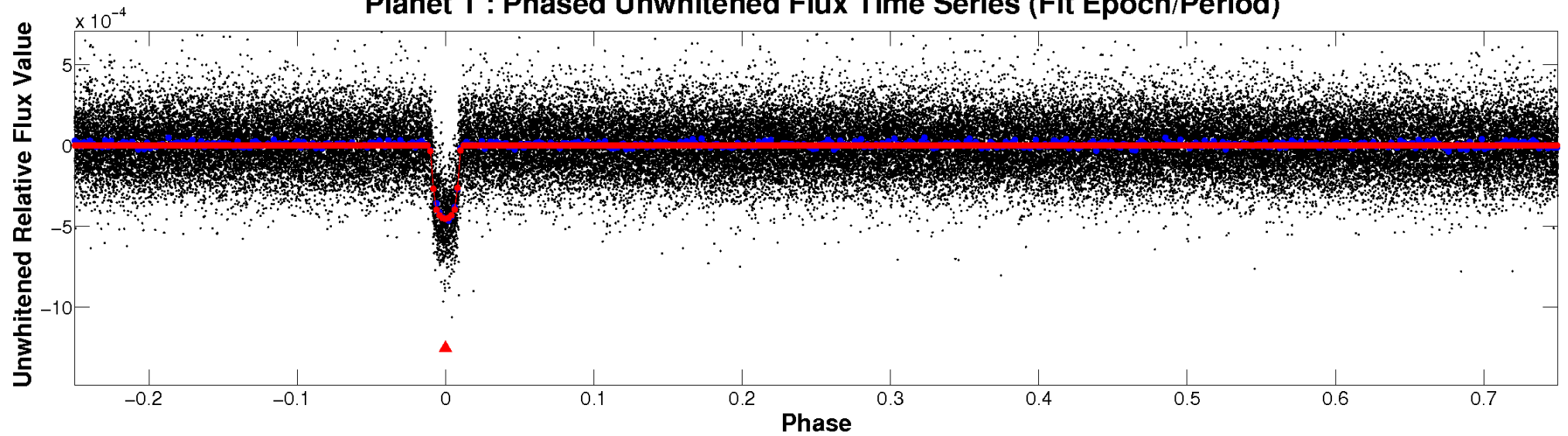
ALT Odd/Even

TCE 011402995-01

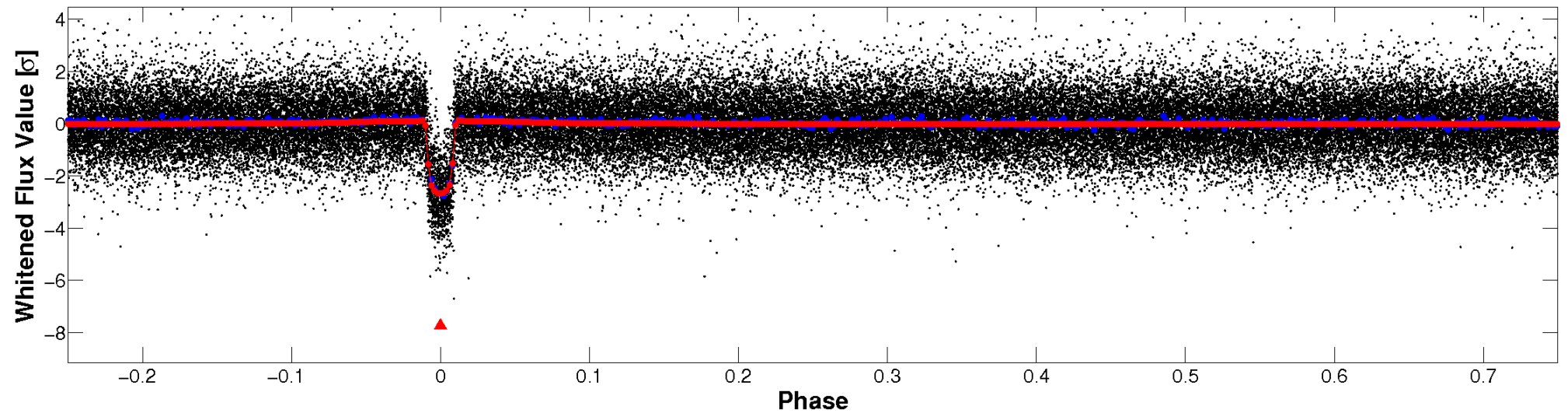


Non-Whitened Vs. Whitened Light Curve

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

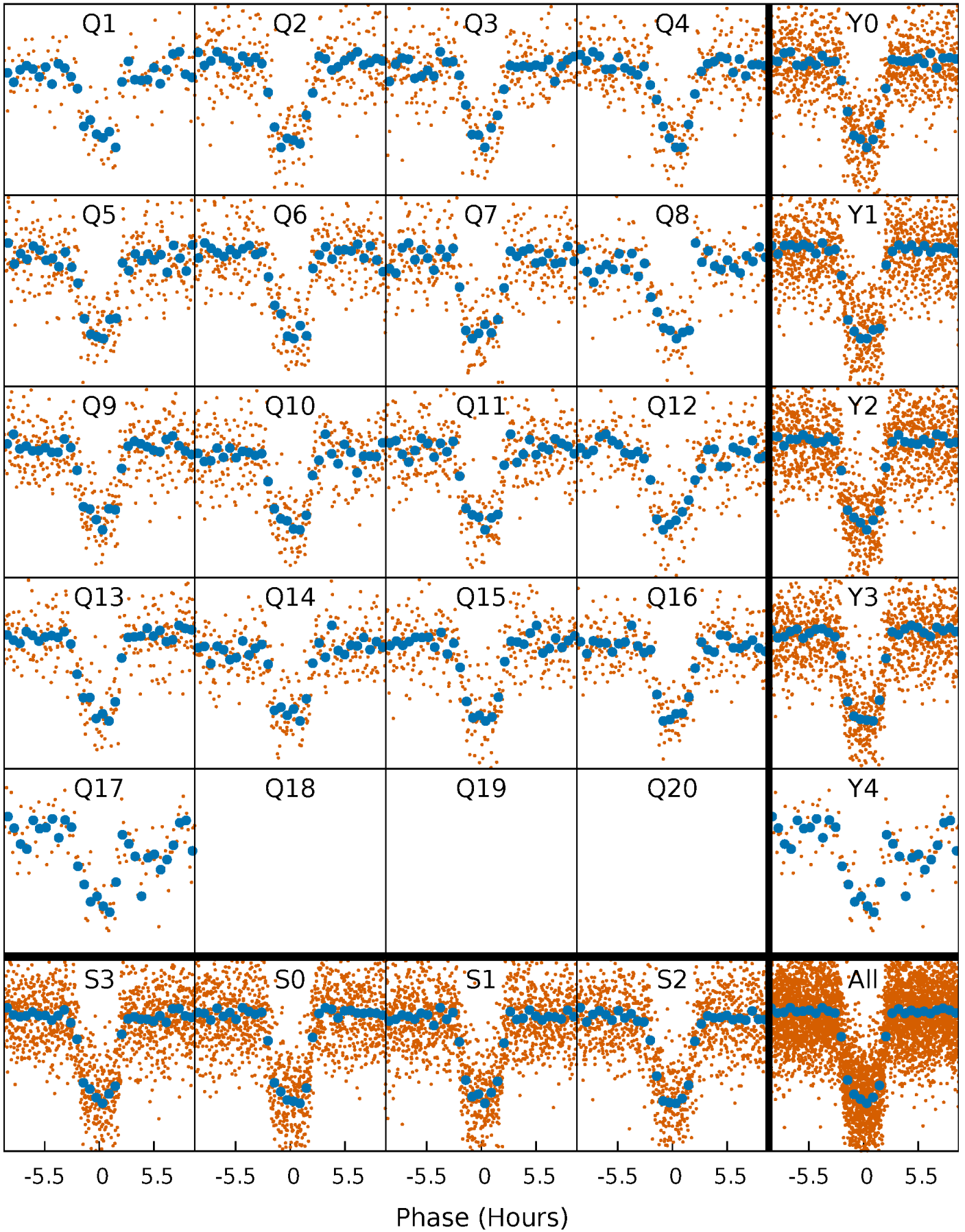


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



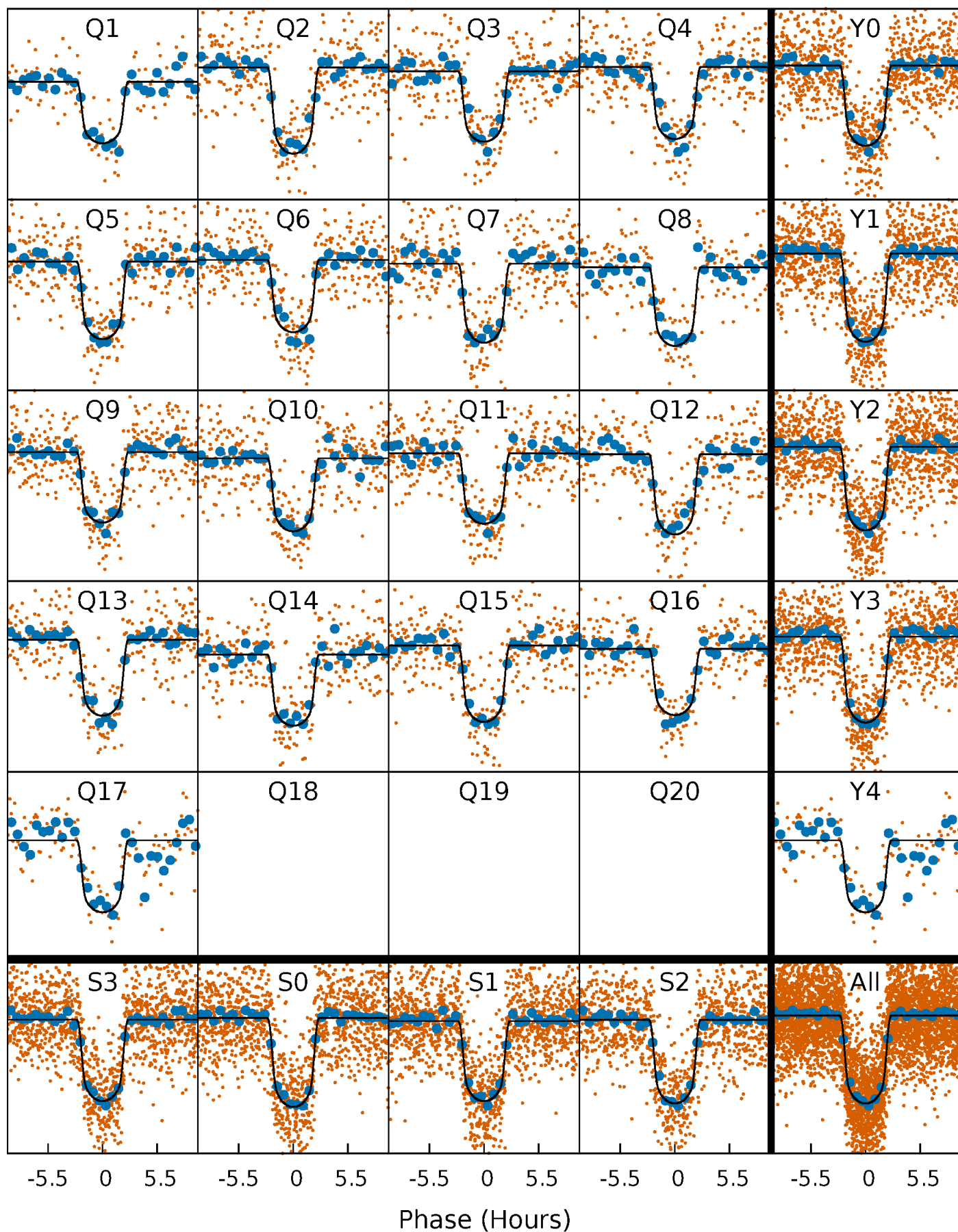
PDC Quarter-Phased Transit Curves

TCE 011402995-01 P= 10.060838 Days $T_0=138.966455$ (BKJD)



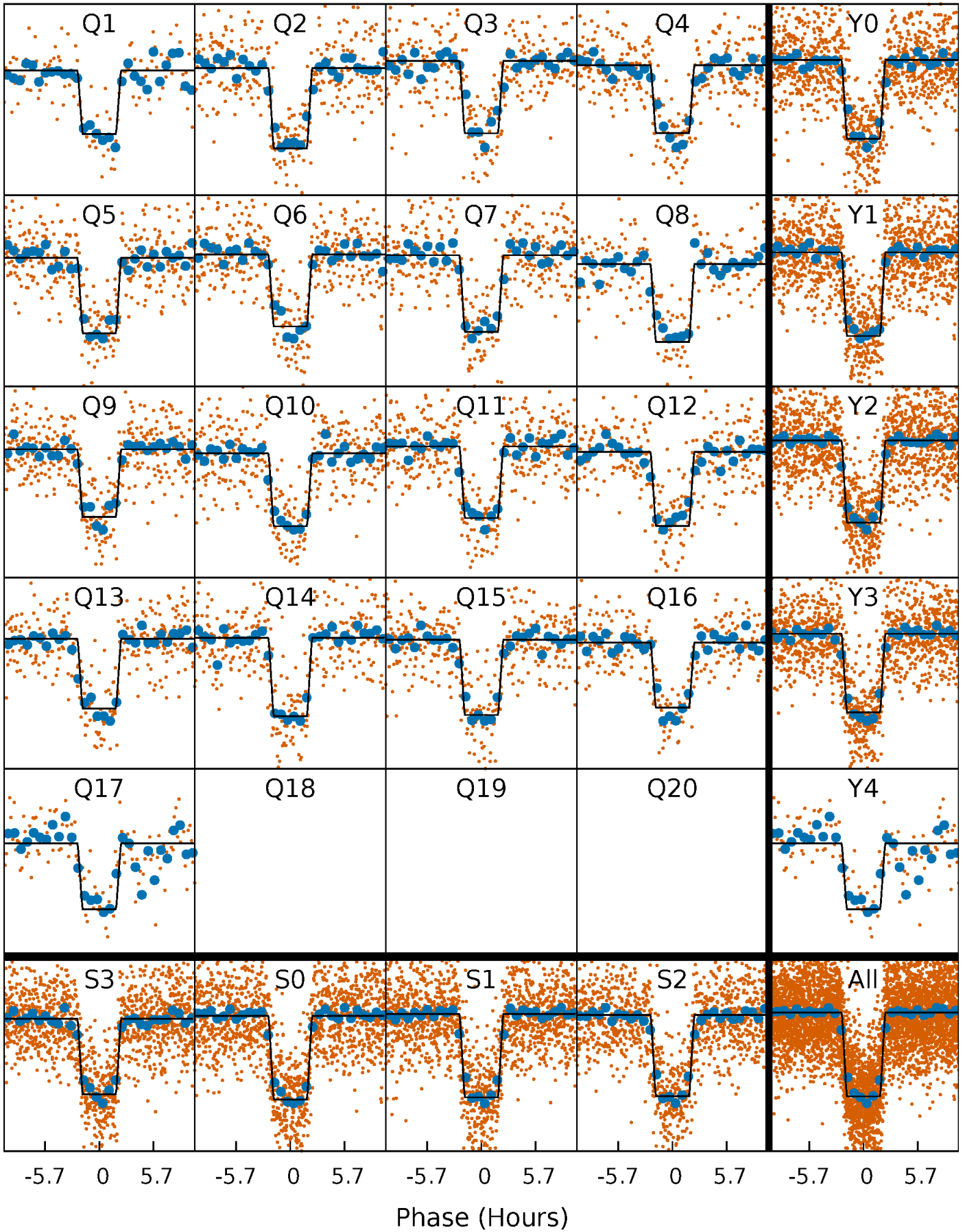
DV Quarter-Phased Transit Curves

TCE 011402995-01 P= 10.060838 Days $T_0=138.966455$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

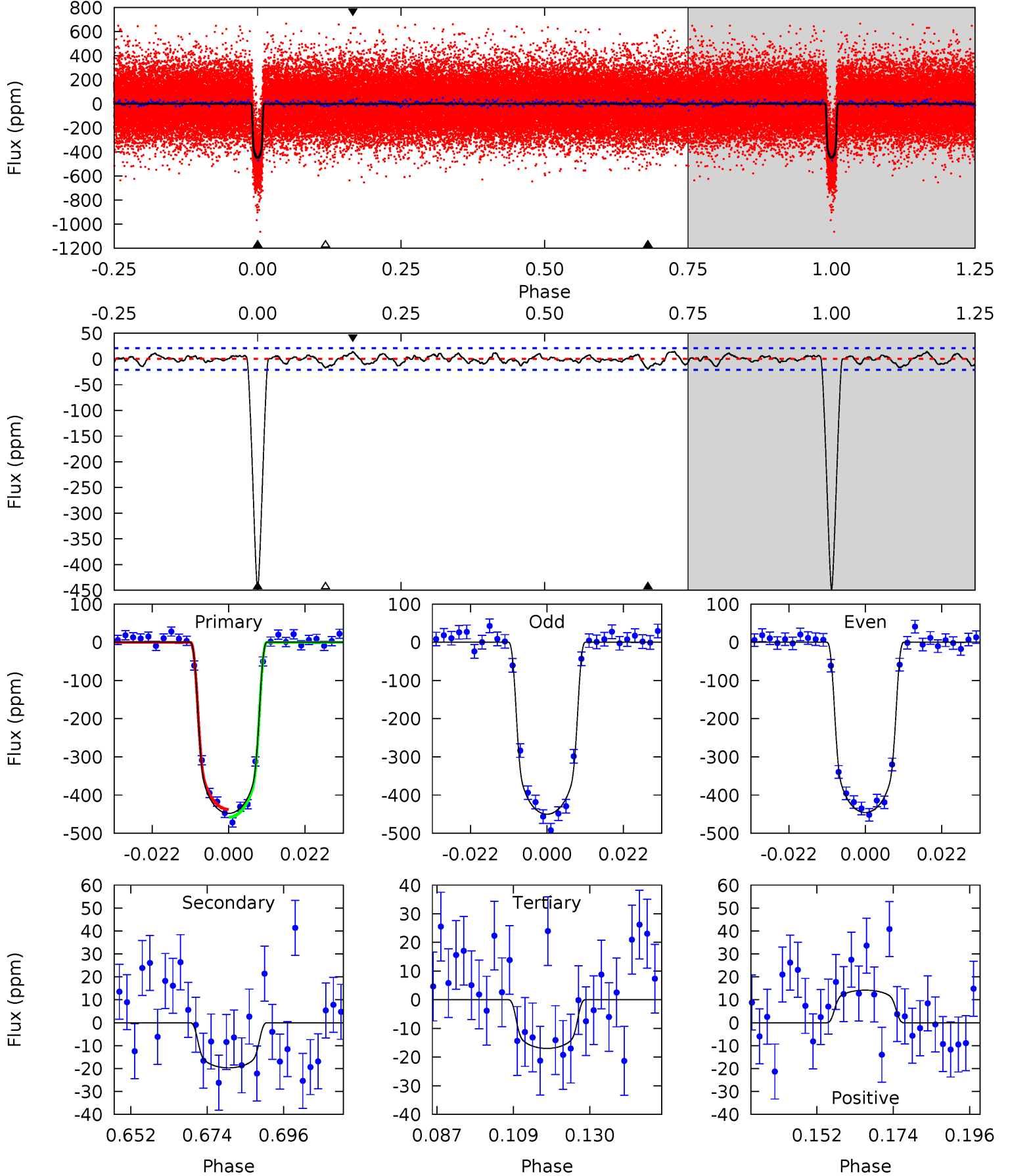
TCE 011402995-01 P= 10.060871 Days $T_0=138.964768$ (BKJD)



DV Model-Shift Uniqueness Test

011402995-01, $P = 10.060838$ Days, $E = 128.905617$ Days

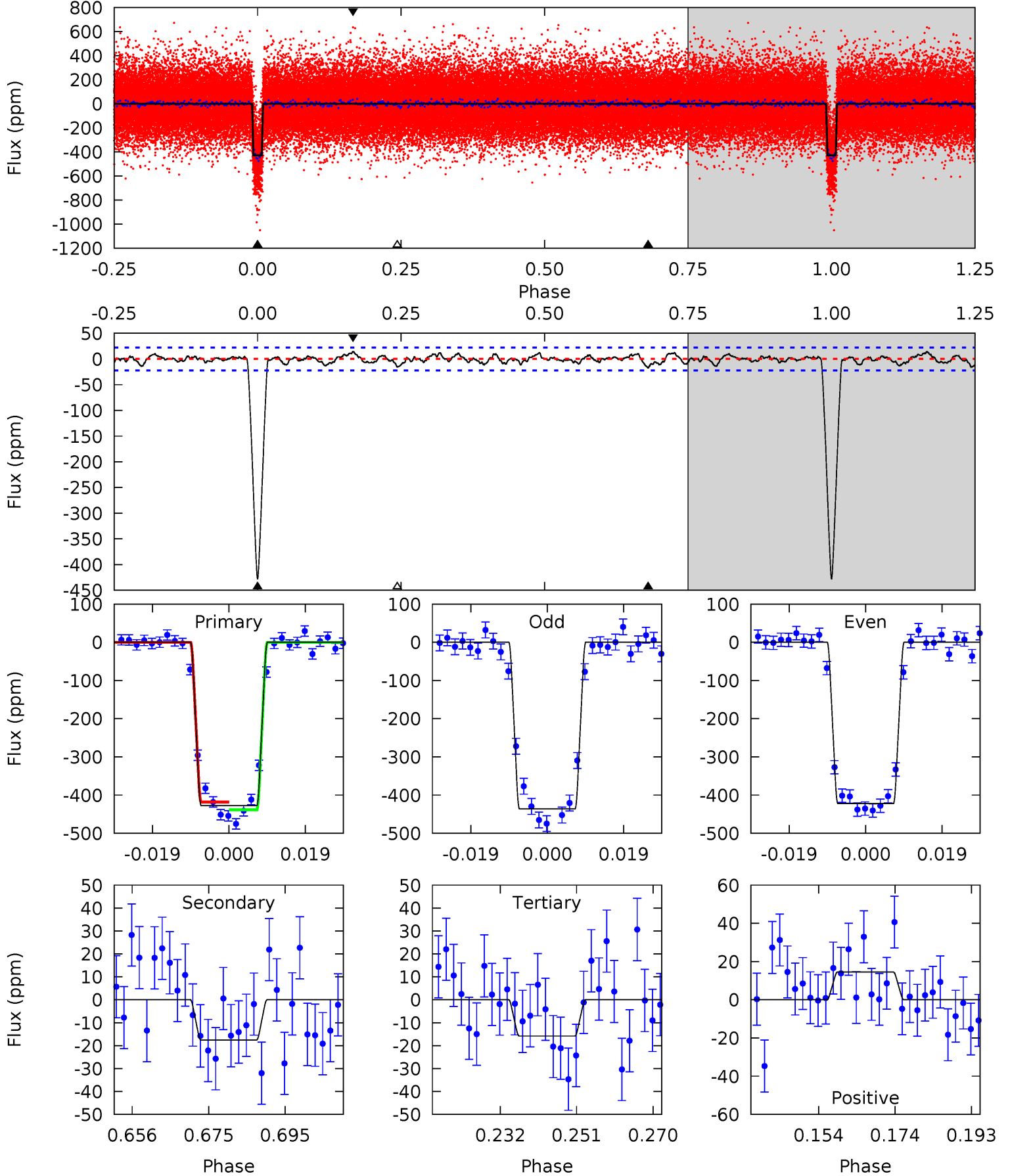
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
103.7	4.56	3.93	3.28	4.88	2.29	1.39	99.8	100.4	0.63	1.27	0.51	0.99	0.03	2.39



Alt Model-Shift Uniqueness Test

011402995-01, $P = 10.060871$ Days, $E = 128.903897$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
94.1	3.86	3.48	3.20	4.90	2.34	1.22	90.6	90.9	0.38	0.66	1.54	0.99	0.03	2.20



Stellar Parameters For KIC 011402995

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5705^{+114}_{-103}	$4.297^{+0.156}_{-0.104}$	$0.000^{+0.150}_{-0.150}$	$1.140^{+0.177}_{-0.177}$	$0.939^{+0.074}_{-0.054}$	$0.893^{+0.627}_{-0.292}$
	+2%/-2%	+4%/-2%	+inf%/-inf%	+16%/-16%	+8%/-6%	+70%/-33%
Source	SPE57	SPE57	SPE57	DSEP		

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

Secondary Eclipse Parameters for KIC 011402995-01 / KOI 0173.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-20 ± 4	$2.87^{+0.26}_{-0.27}$	1253^{+54}_{-63}	3108^{+107}_{-129}	10^{+4}_{-3}
Alt.	-18 ± 5	$2.59^{+0.27}_{-0.26}$	1252^{+60}_{-61}	3145^{+129}_{-142}	12^{+4}_{-4}

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 $A_{obs} \gg 1.0$

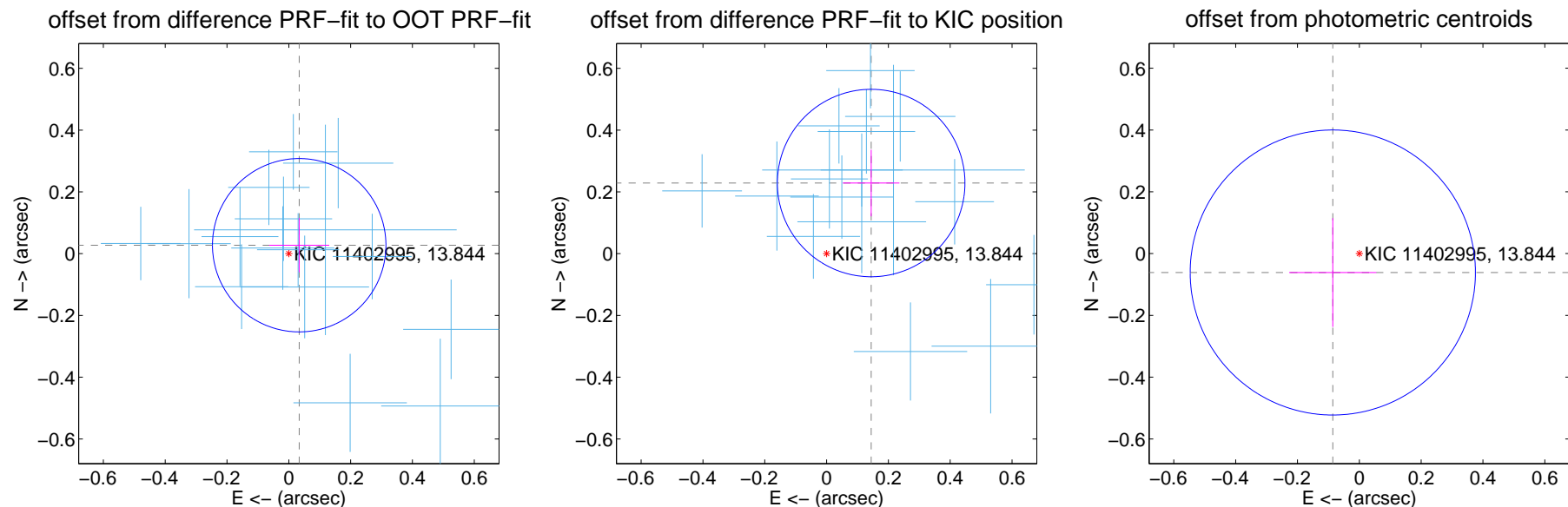
DV Centroid Data

Supplemental centroid analysis for 011402995-01. Kepler magnitude: 13.84. Transit SNR 77.30

There are 17 quarters with good PRF difference image offsets

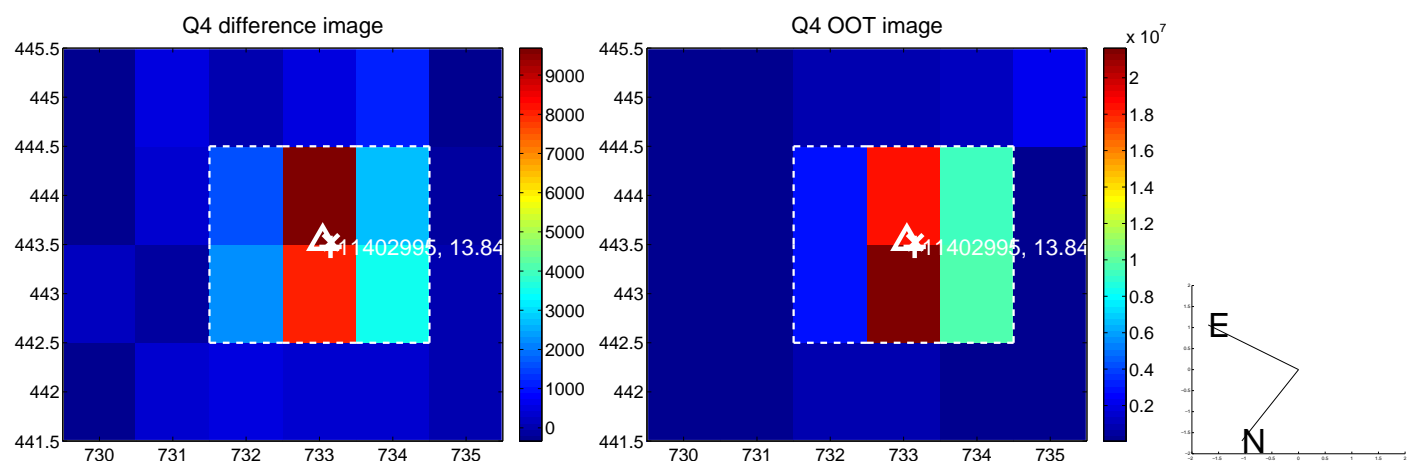
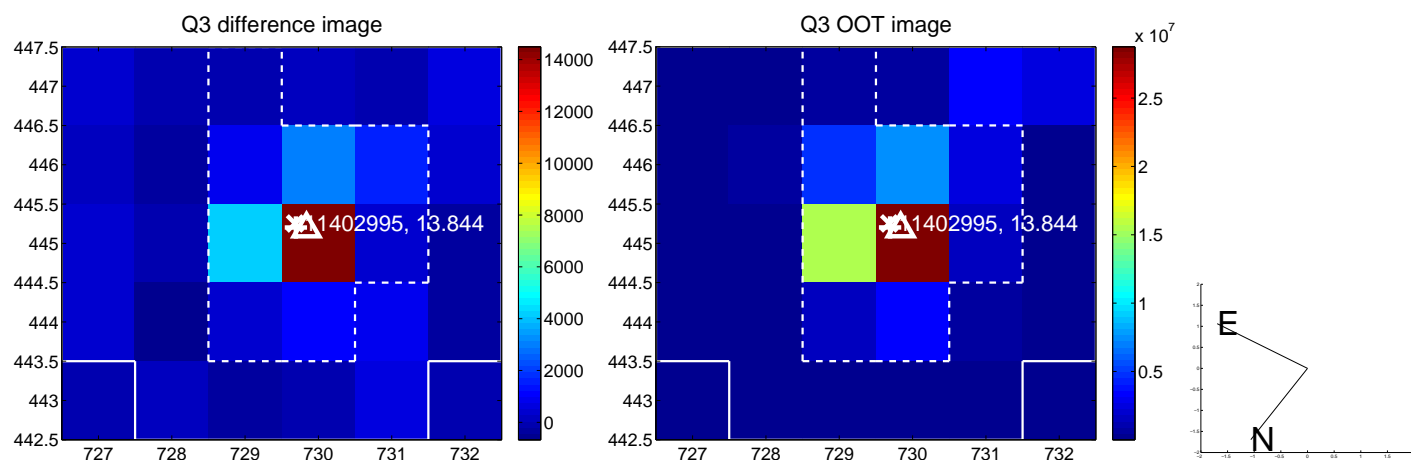
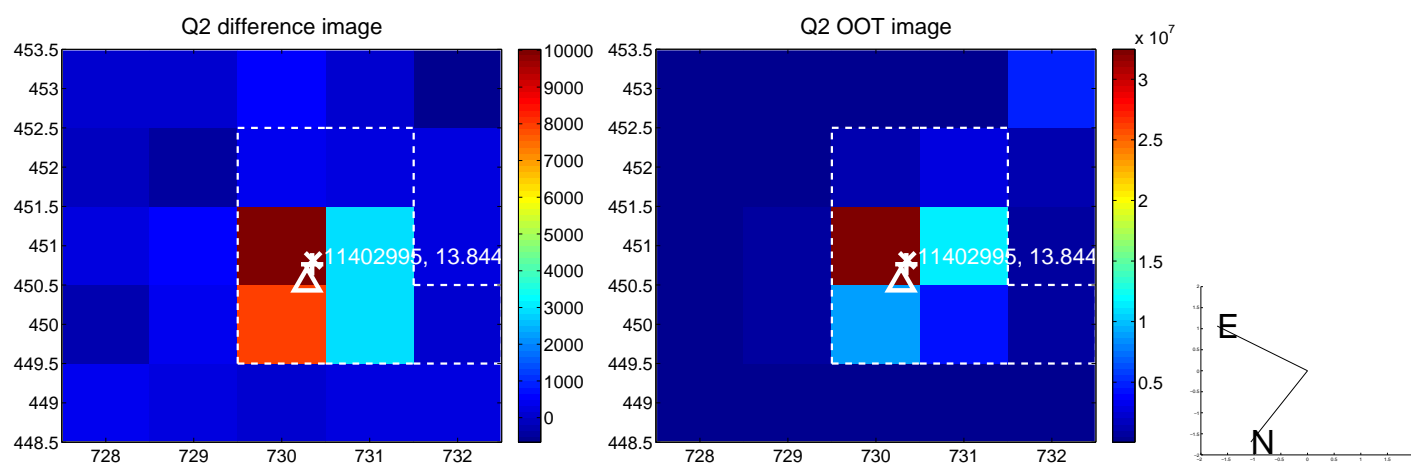
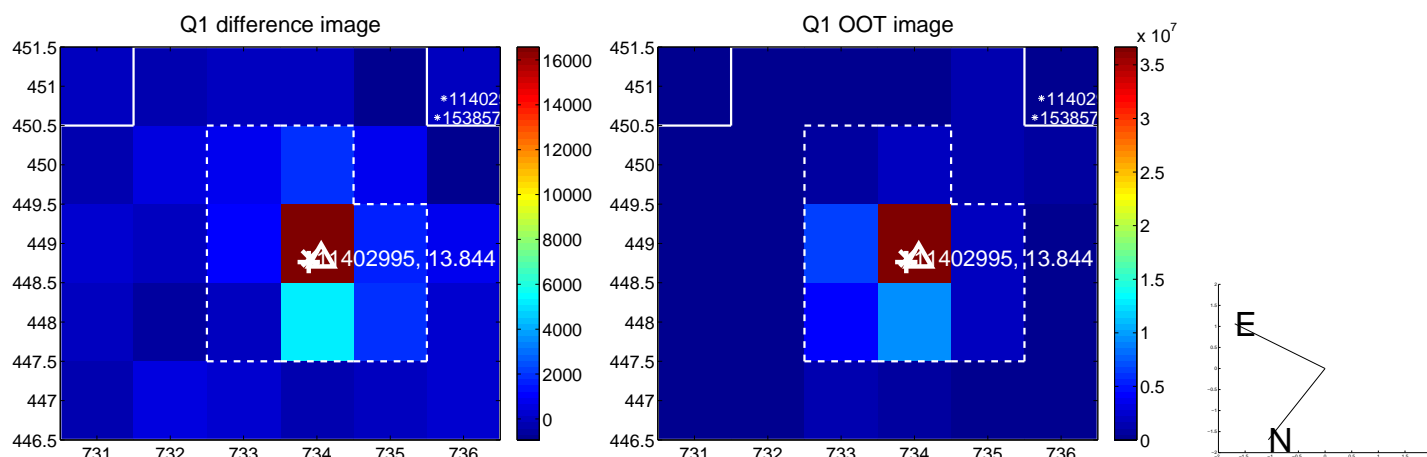
The direct PRF centroid is offset from the target star catalog position by about 0.22 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.043 ± 0.094	0.46	-0.034 ± 0.097	0.027 ± 0.088
PRF-fit source offset from KIC position	0.270 ± 0.101	2.67	-0.144 ± 0.092	0.229 ± 0.108
photometric centroid source offset	0.11 ± 0.15	0.69	0.09 ± 0.14	-0.06 ± 0.18

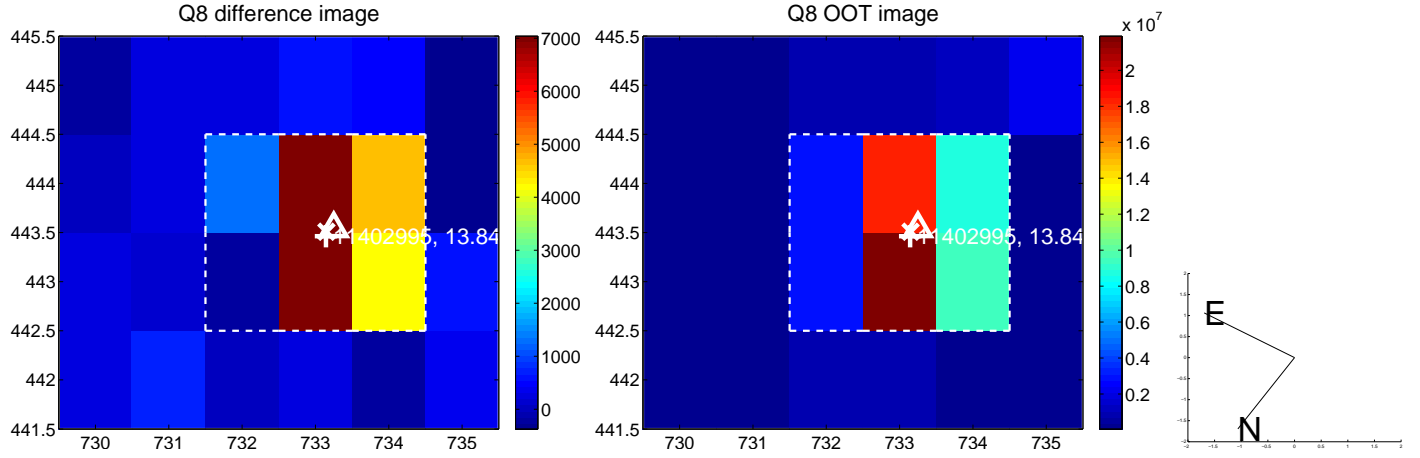
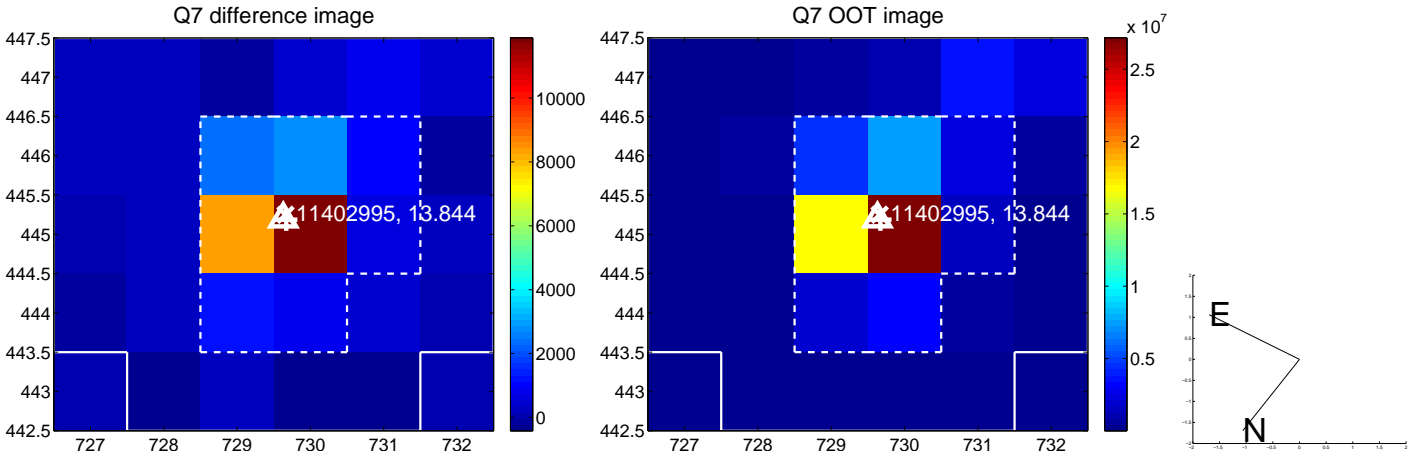
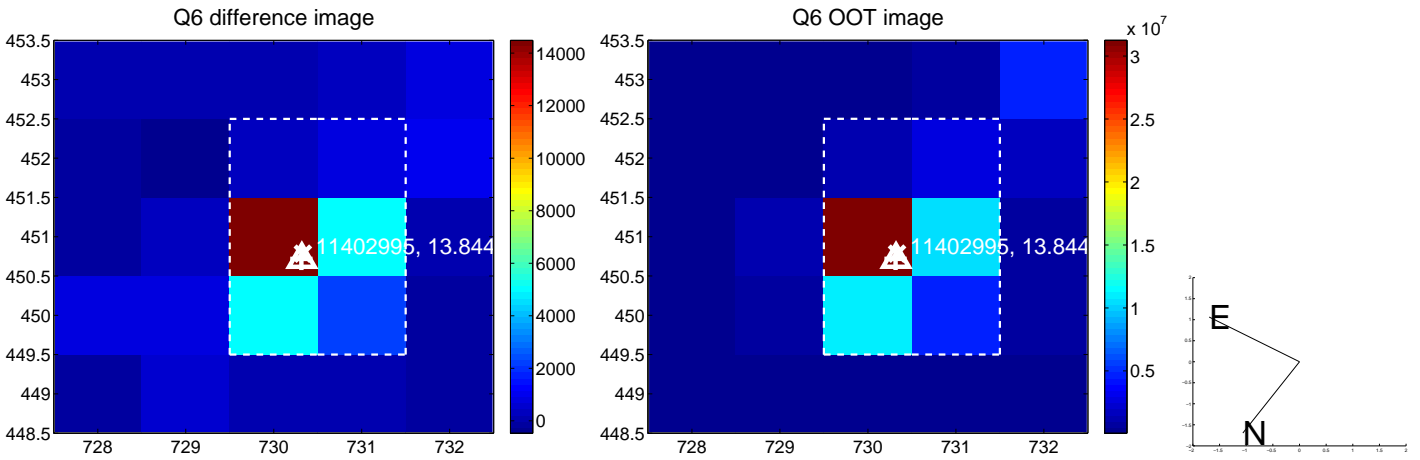
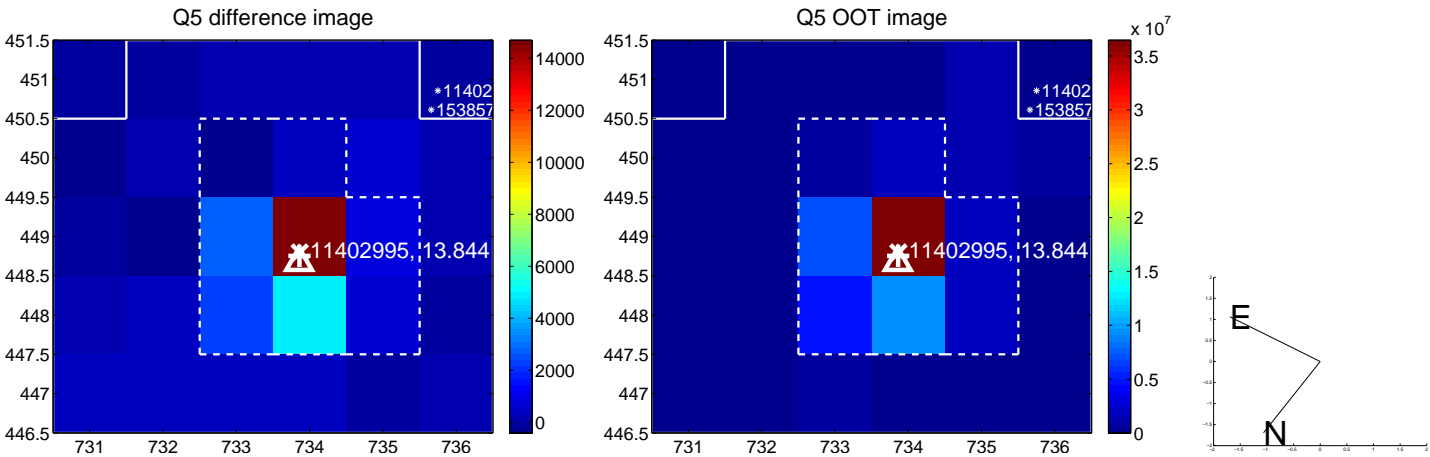


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

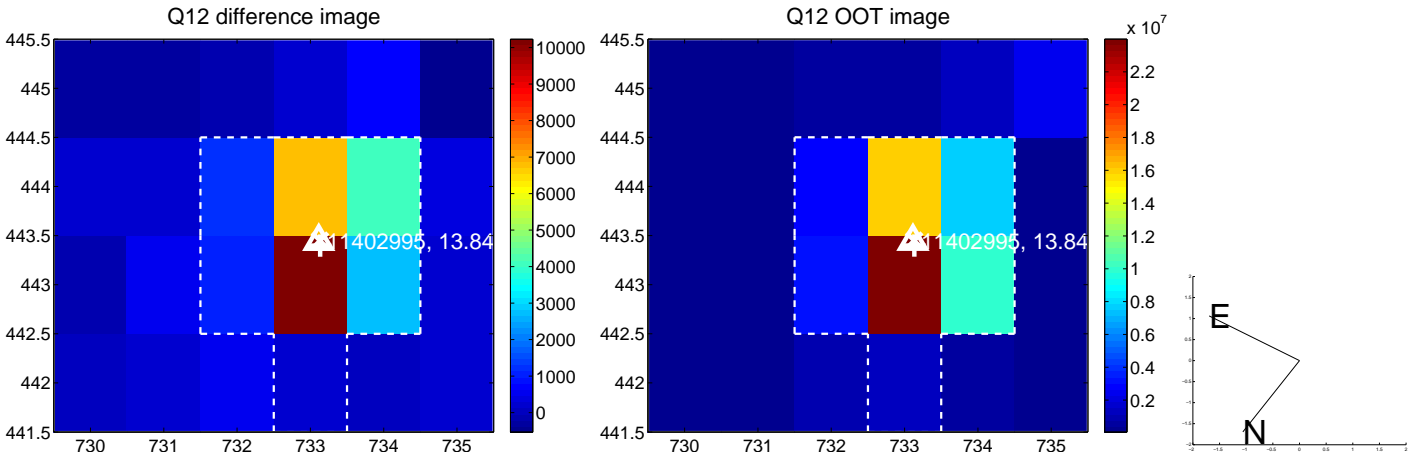
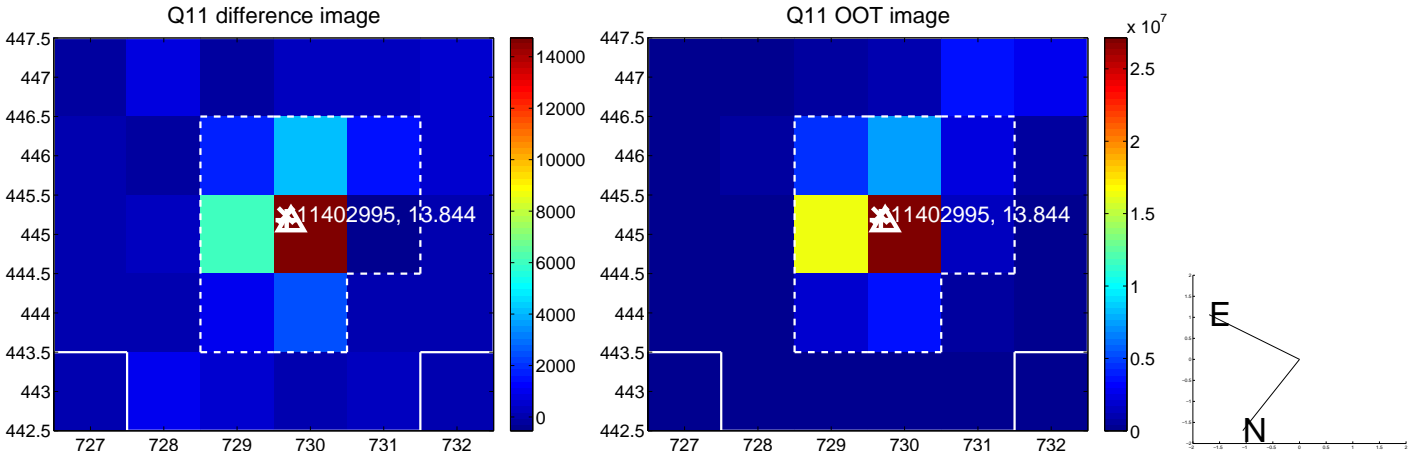
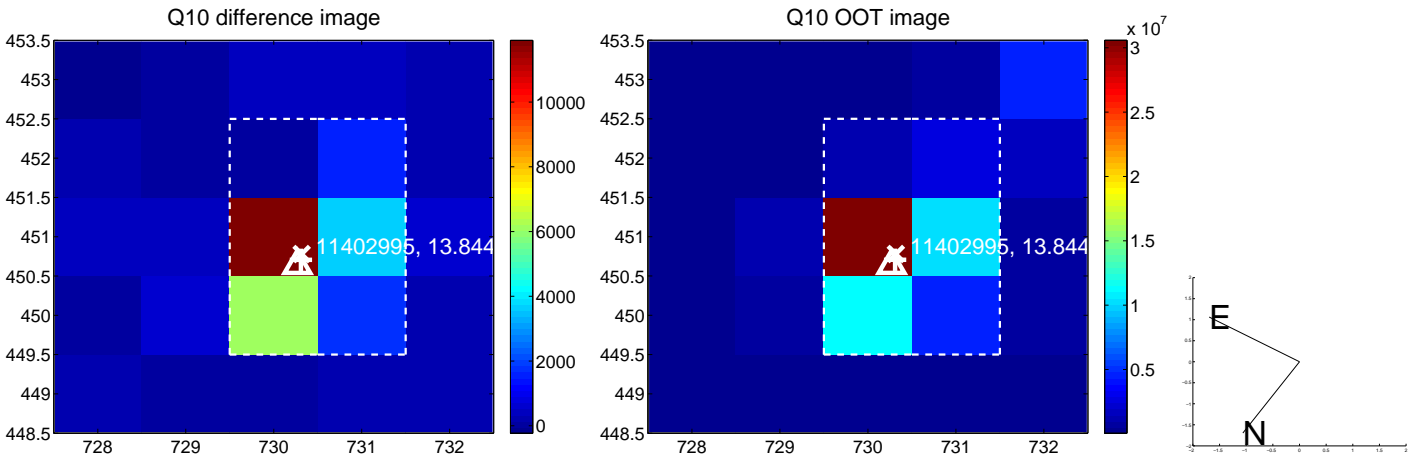
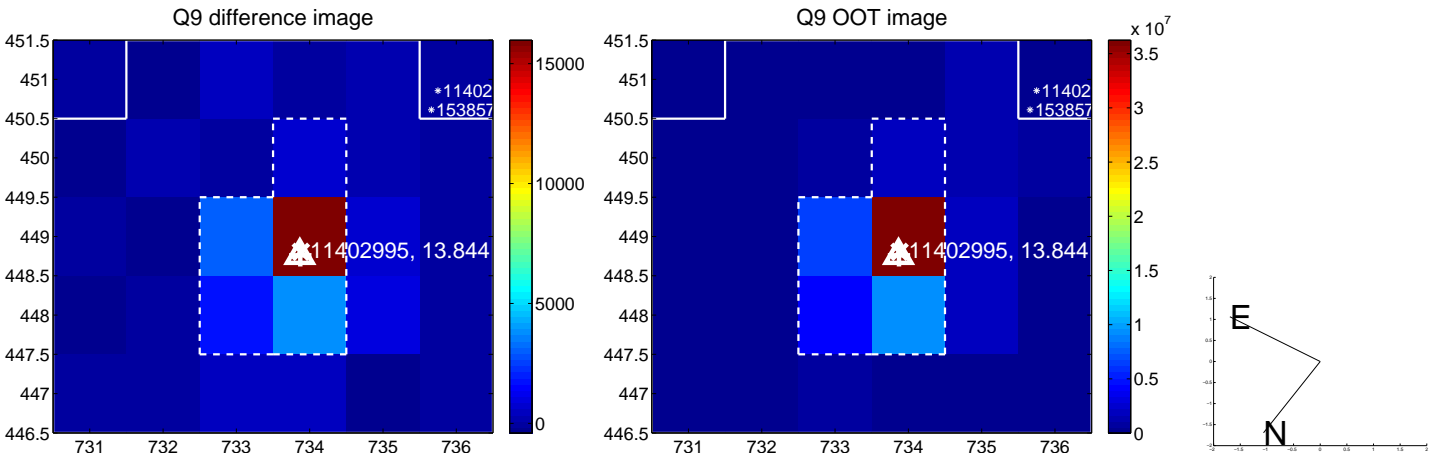
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



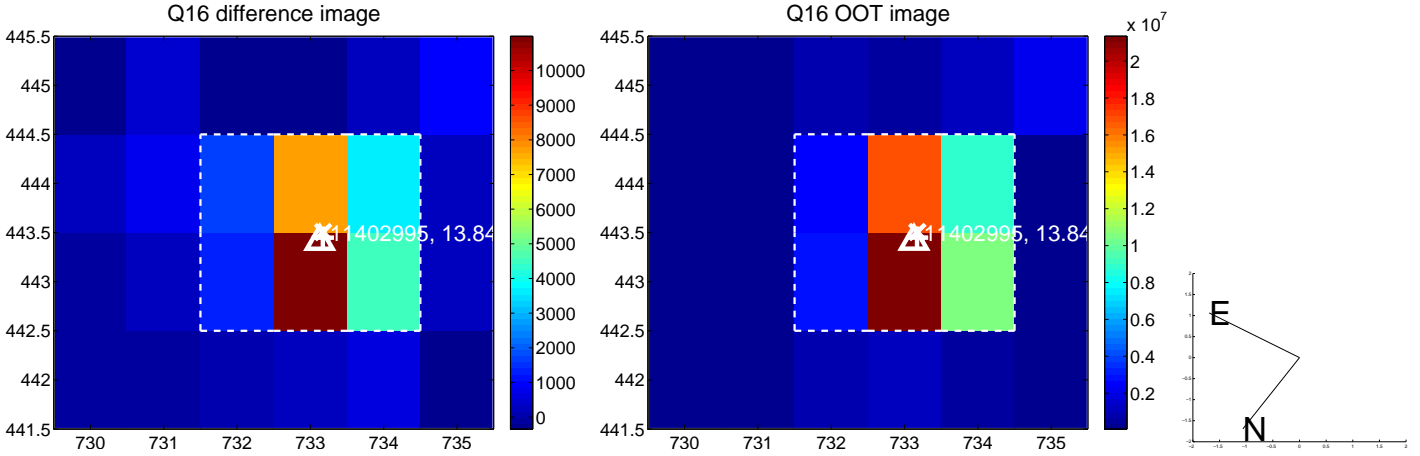
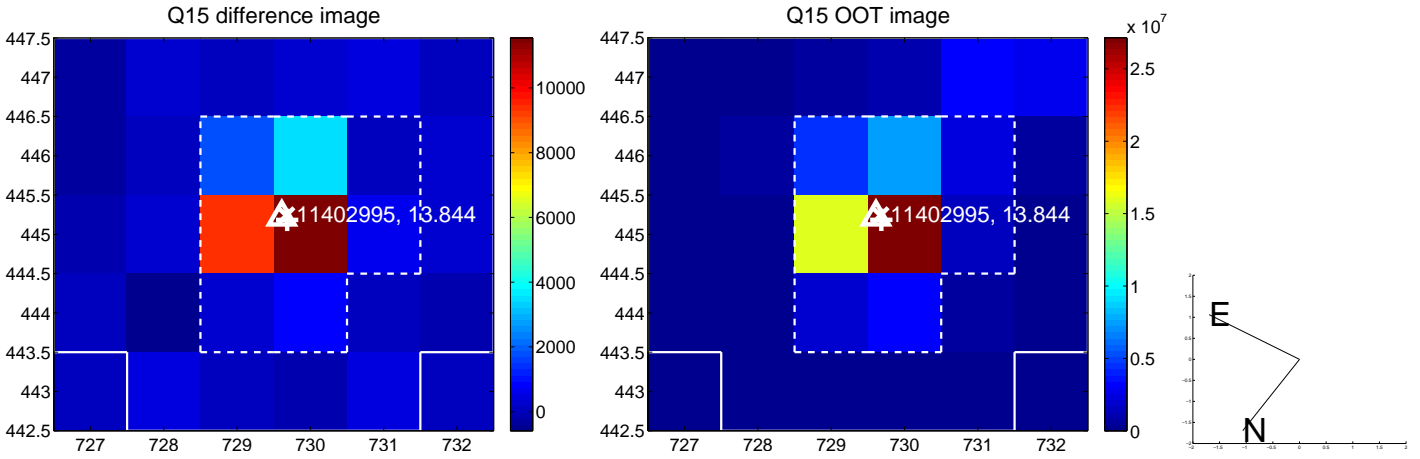
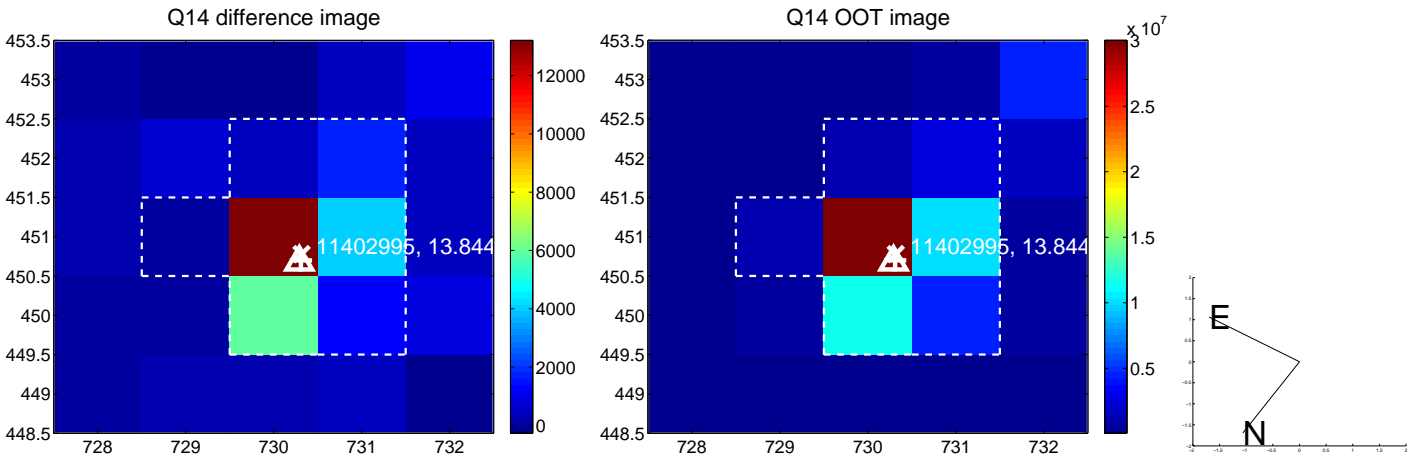
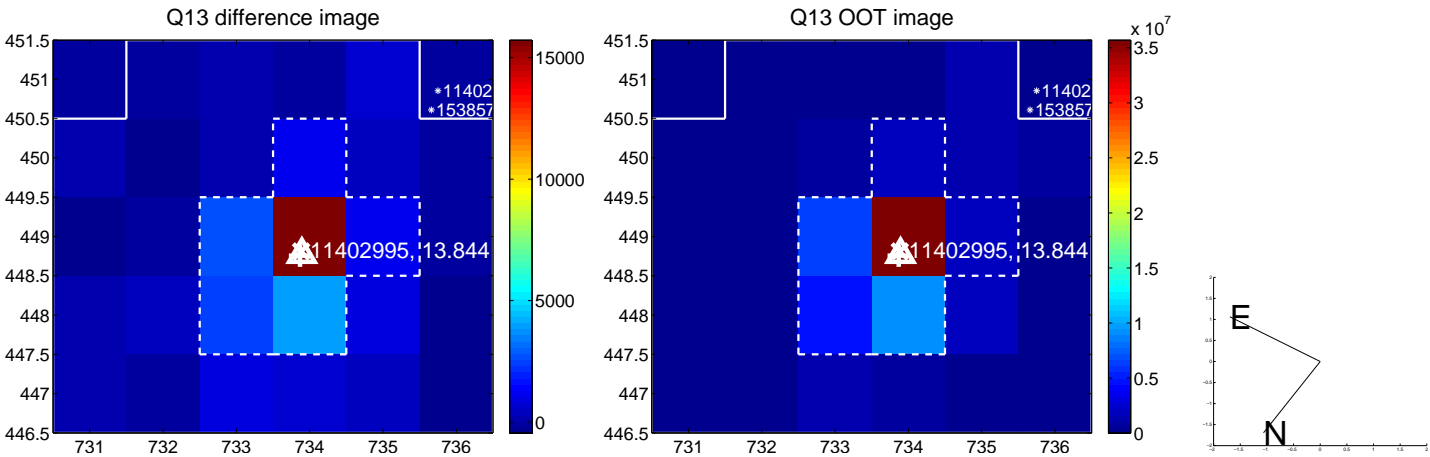
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



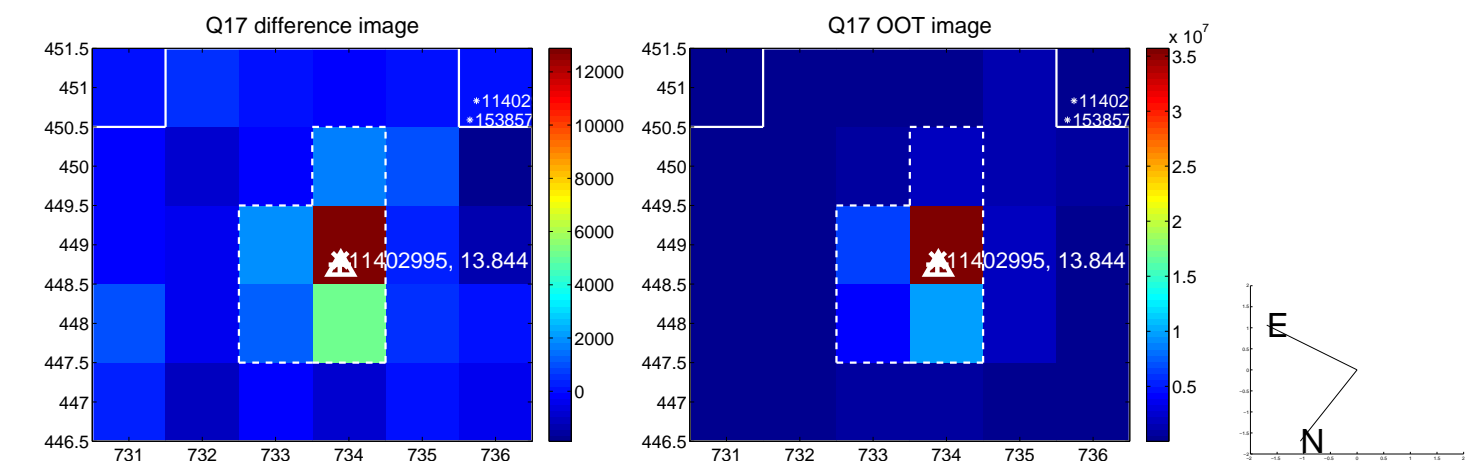
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



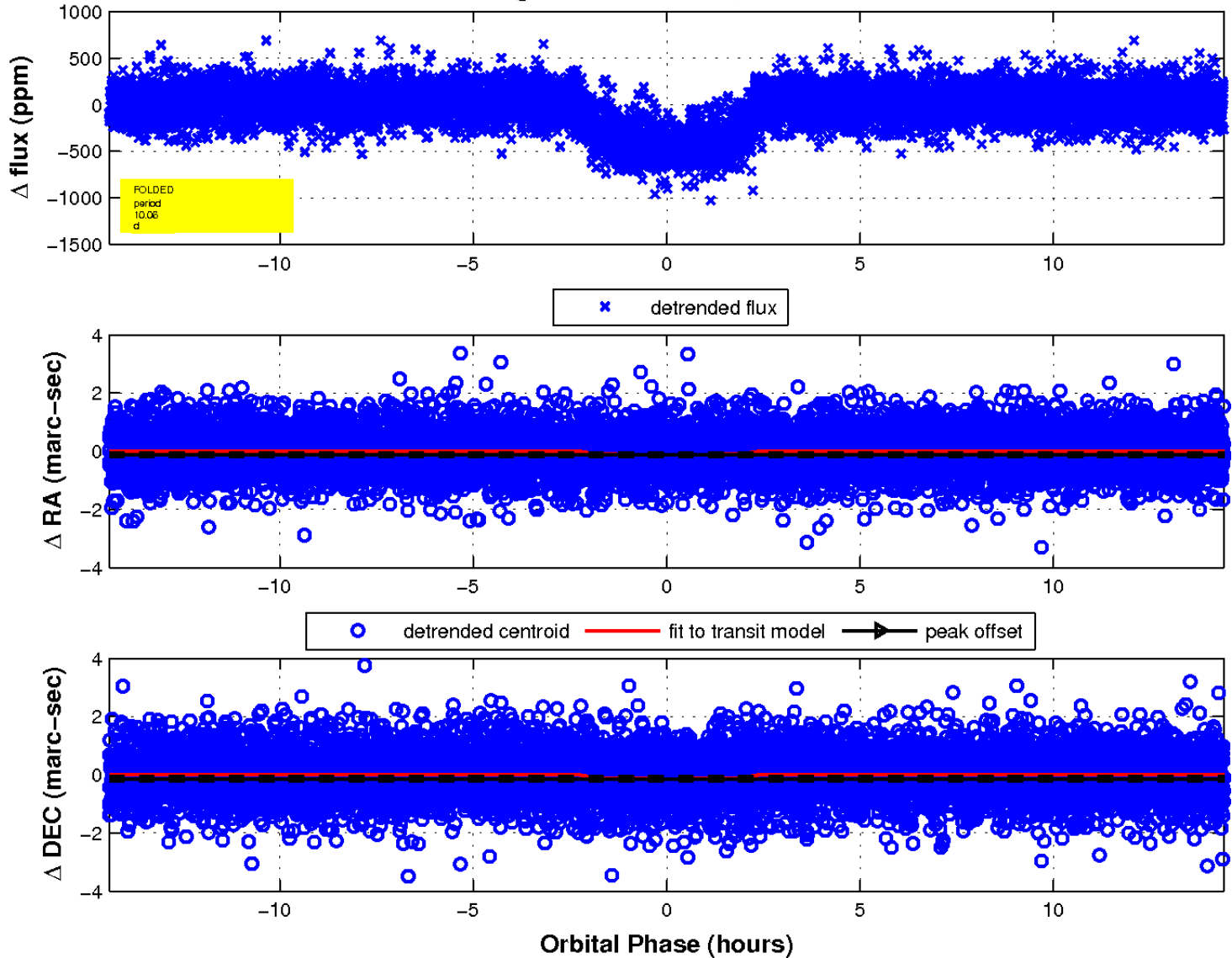
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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

