

KIC 010614094

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})
010614094-01	OBS	No	8.116146	133.263693	148.8	36.613	7.4	11.2	1.40	5993	3.48	360.79

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010614094-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_FEW_DIFFS—HALO_GHOST

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

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

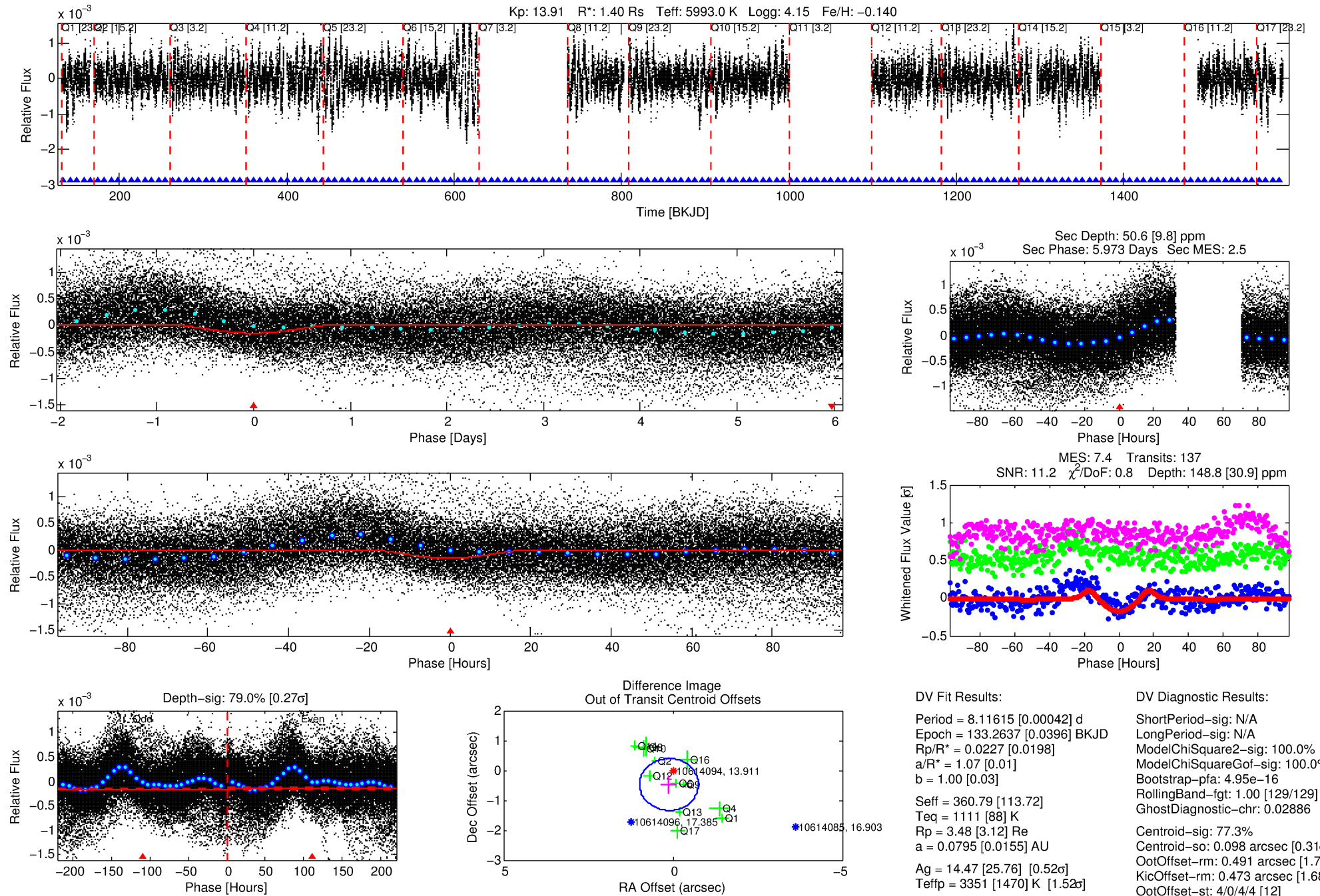
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010614094-01

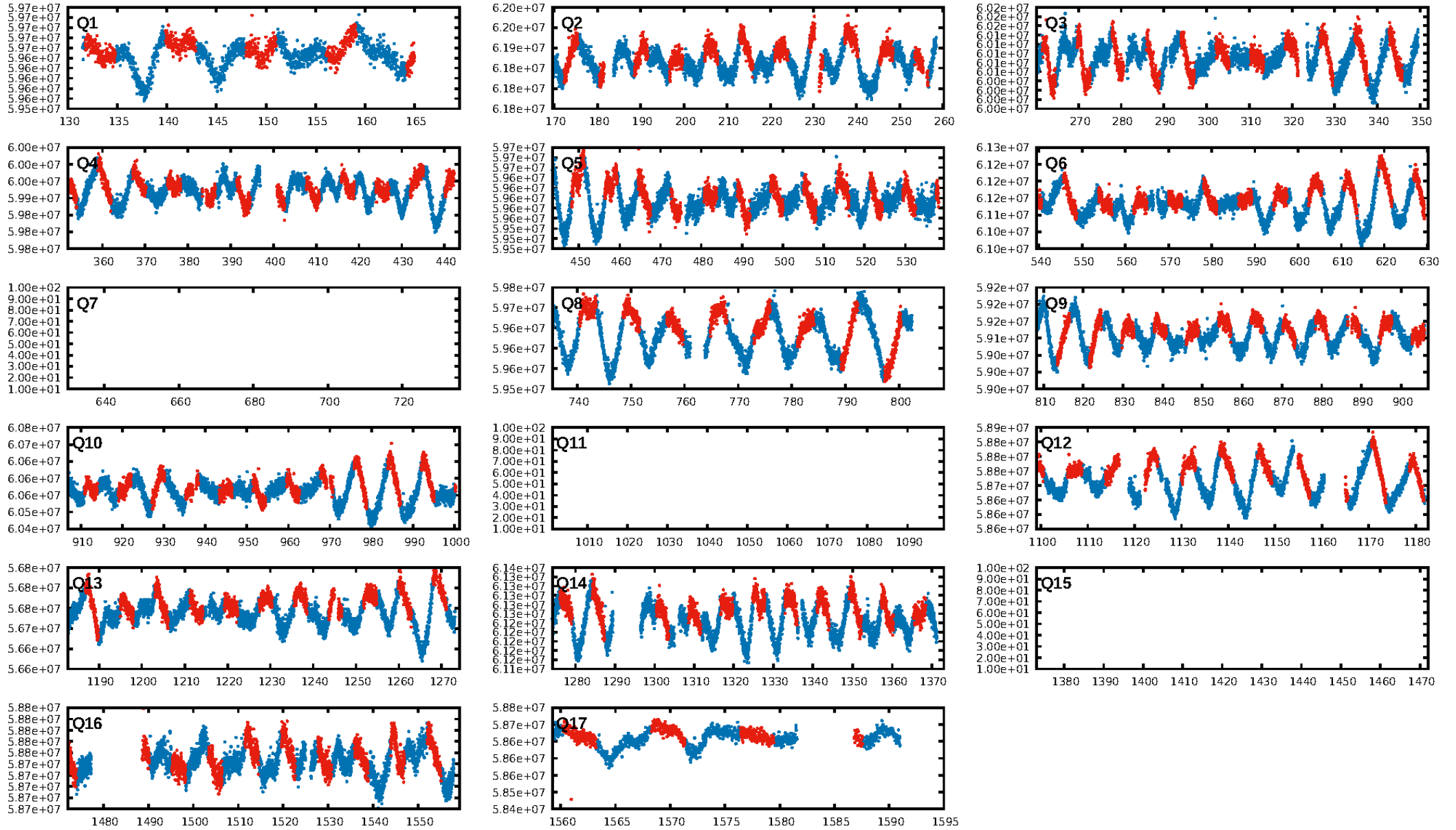
No Significant Match Found

DV One-Page Summary

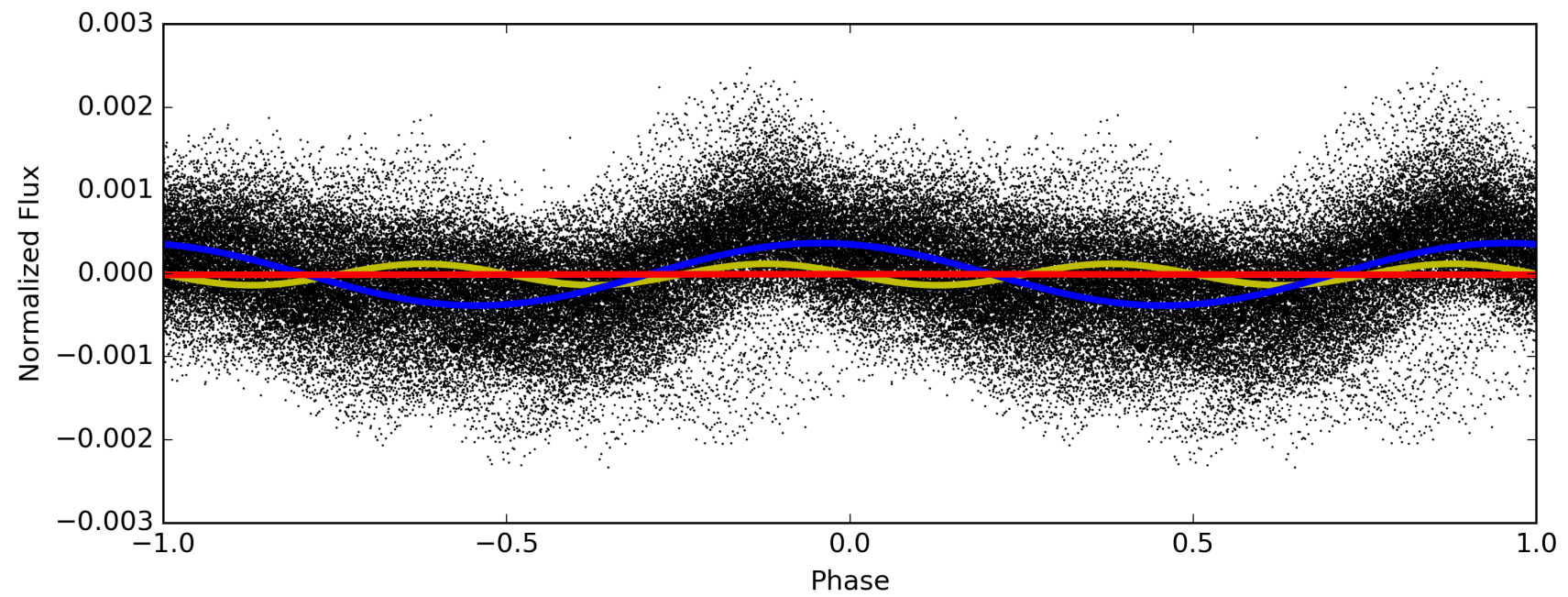
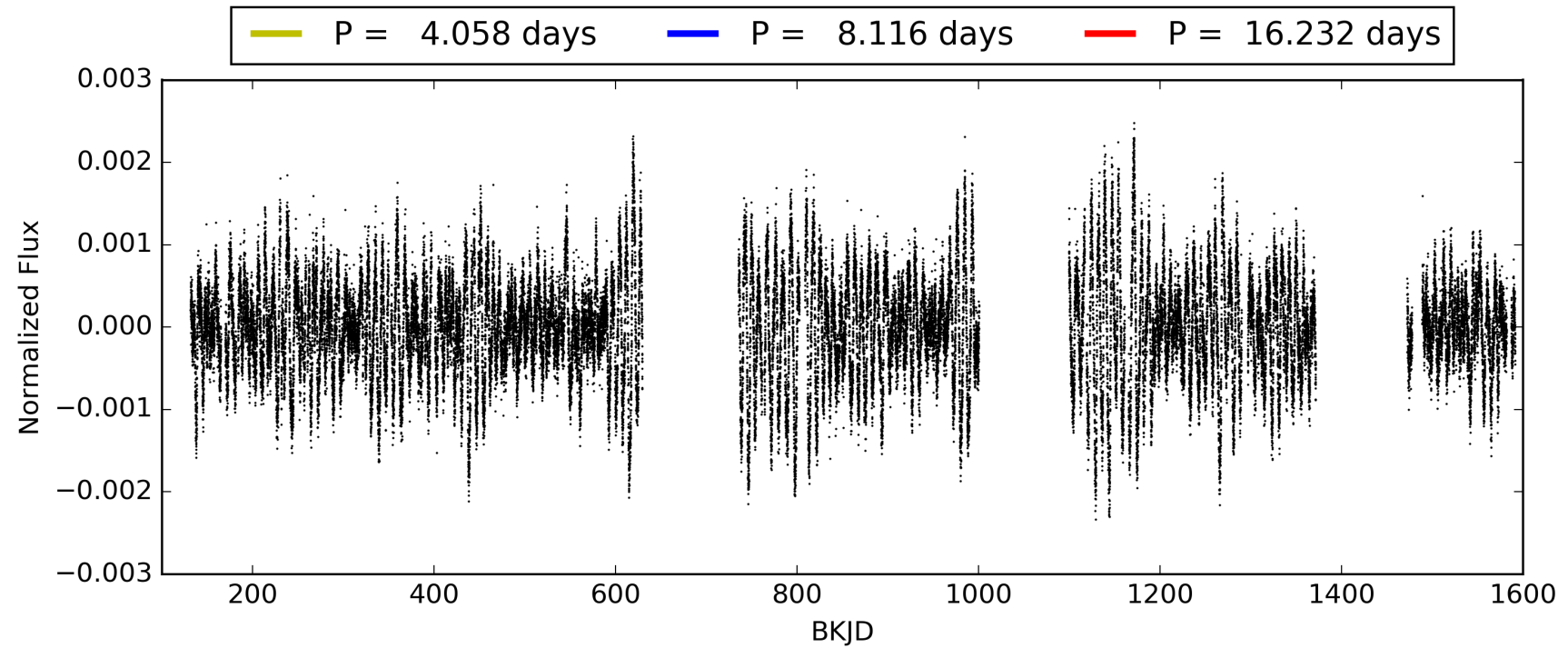
KIC: 10614094 Candidate: 1 of 1 Period: 8.116 d



TCE 010614094-01, PDC Light Curves

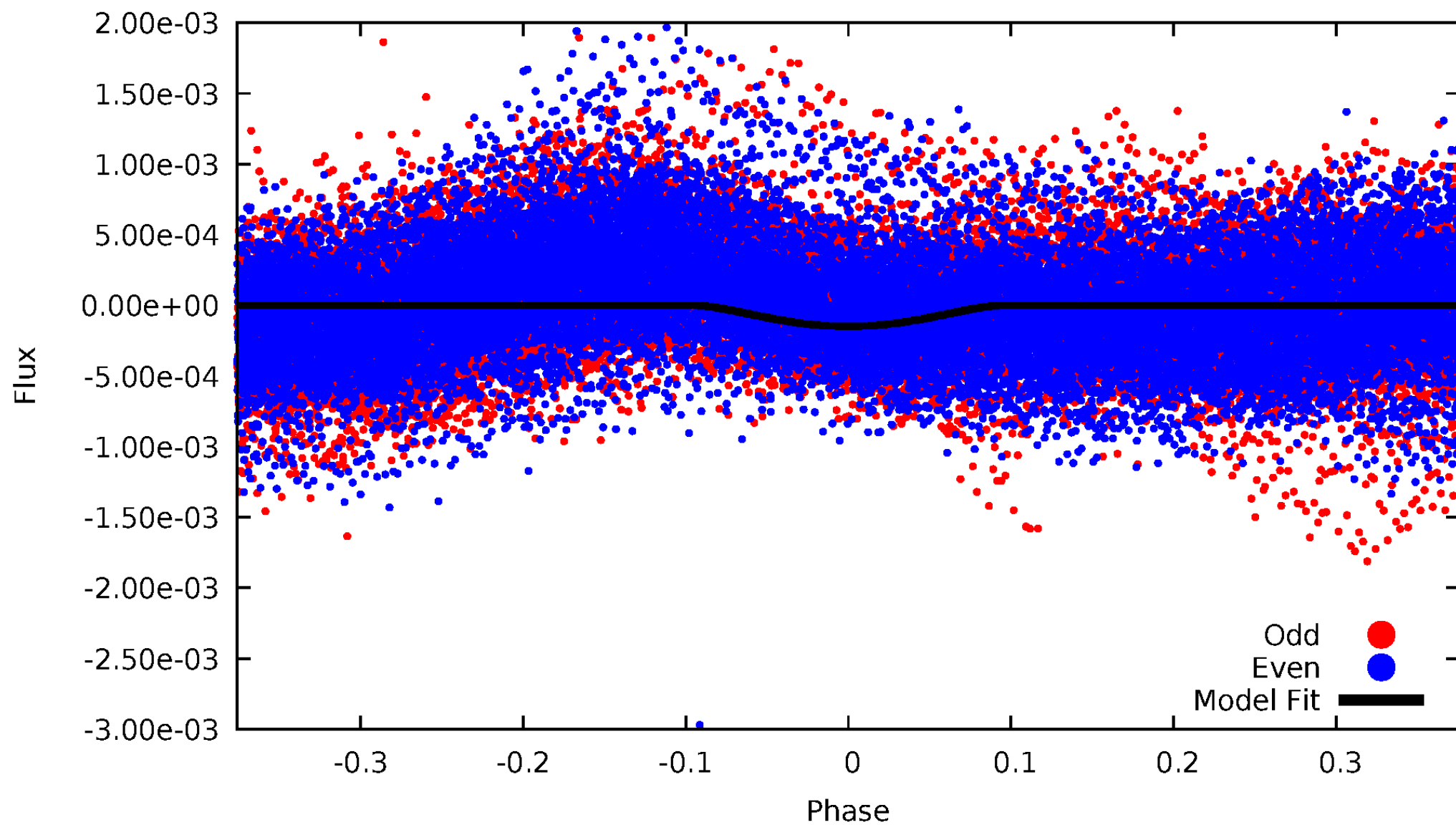


TCE 010614094-01



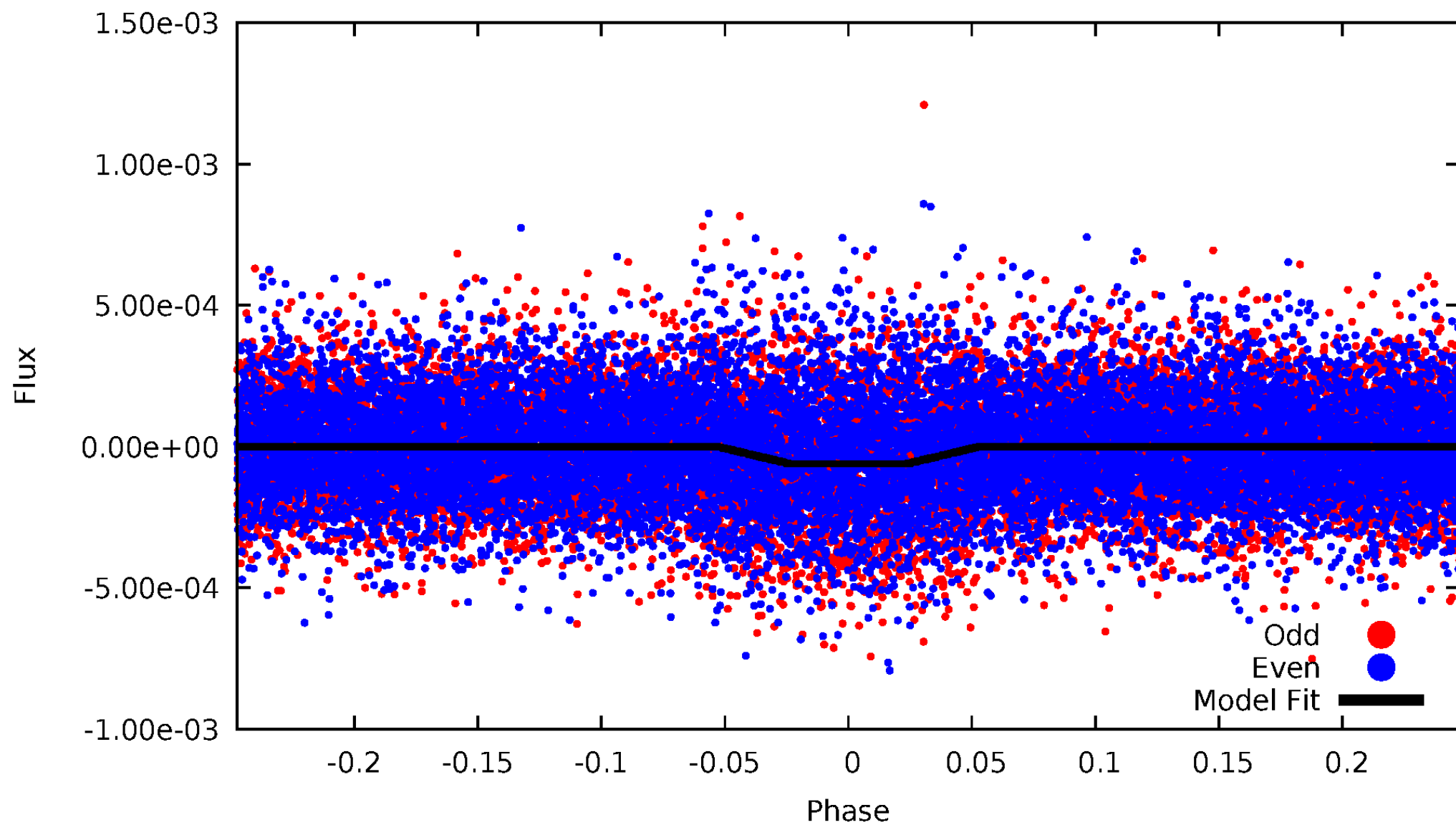
DV Odd/Even

TCE 010614094-01

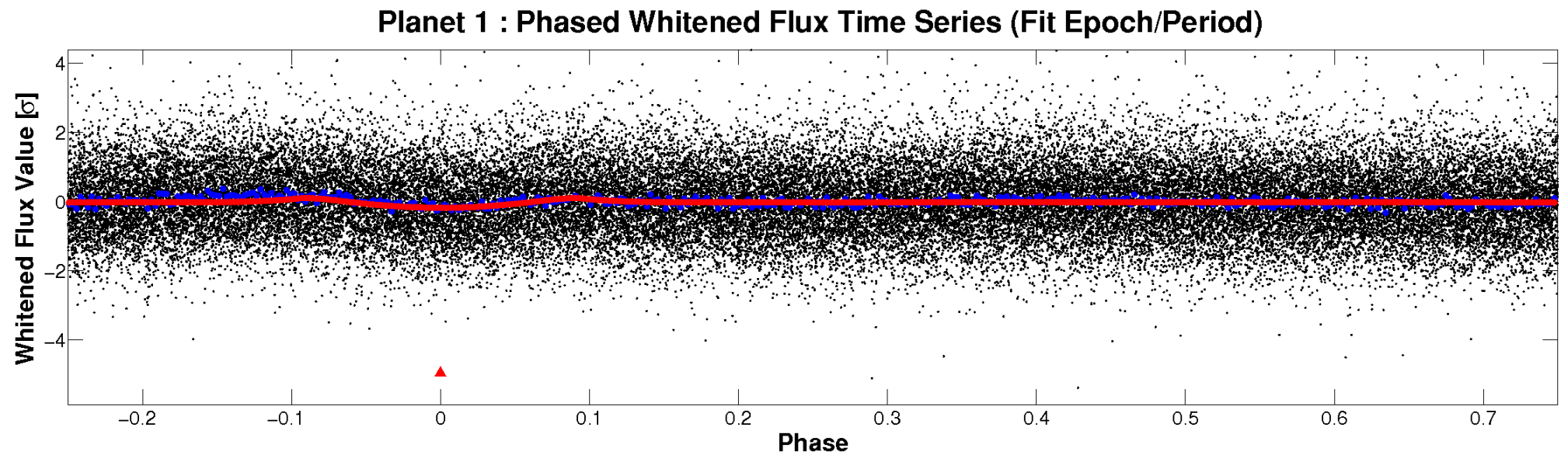
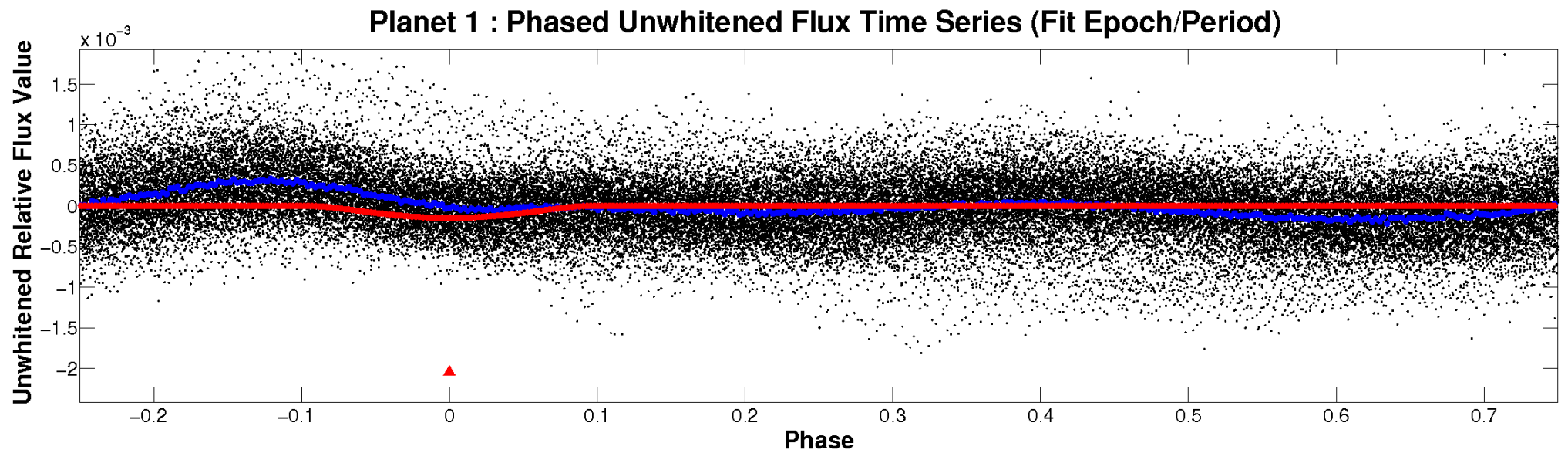


ALT Odd/Even

TCE 010614094-01

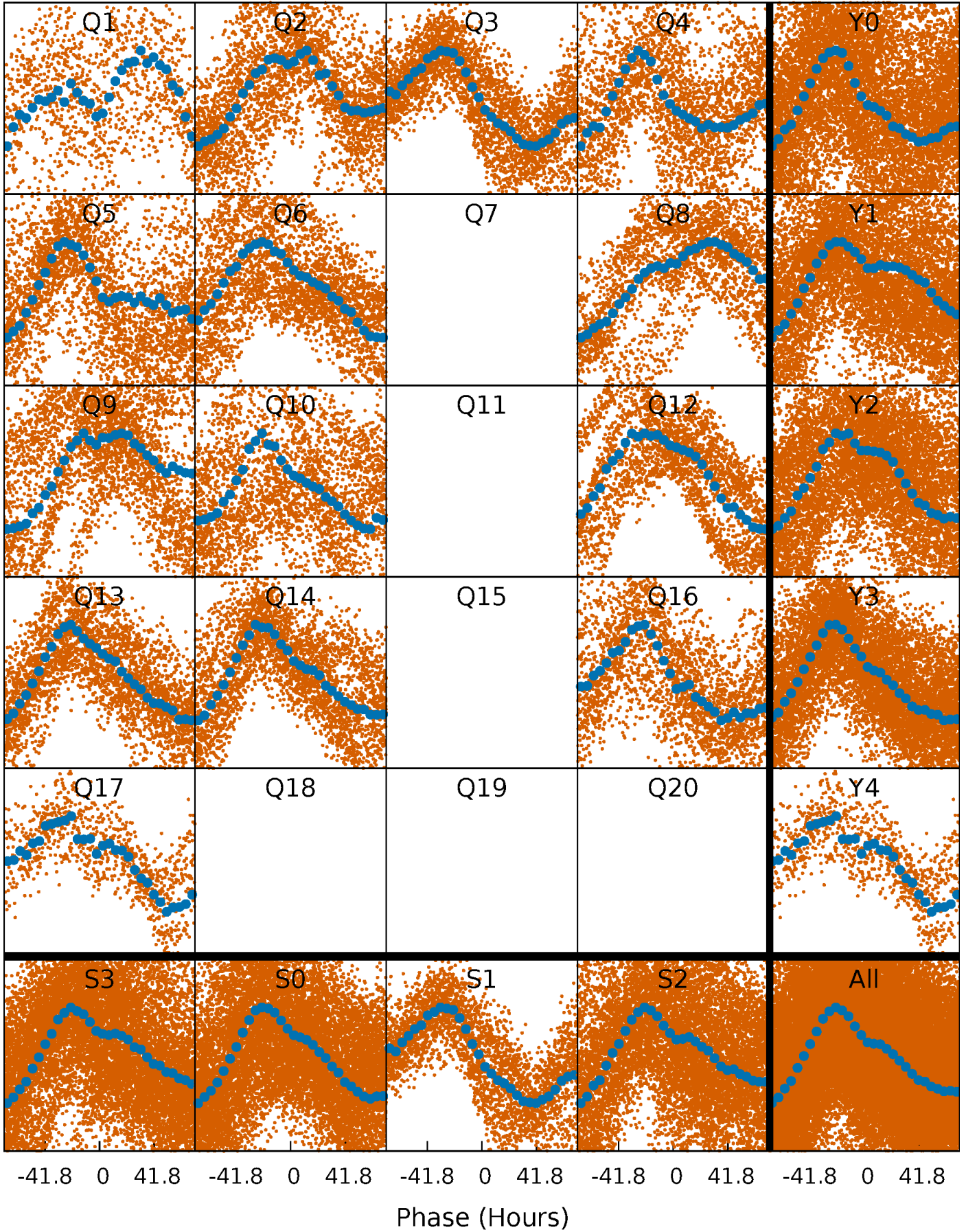


Non-Whitened Vs. Whitened Light Curve



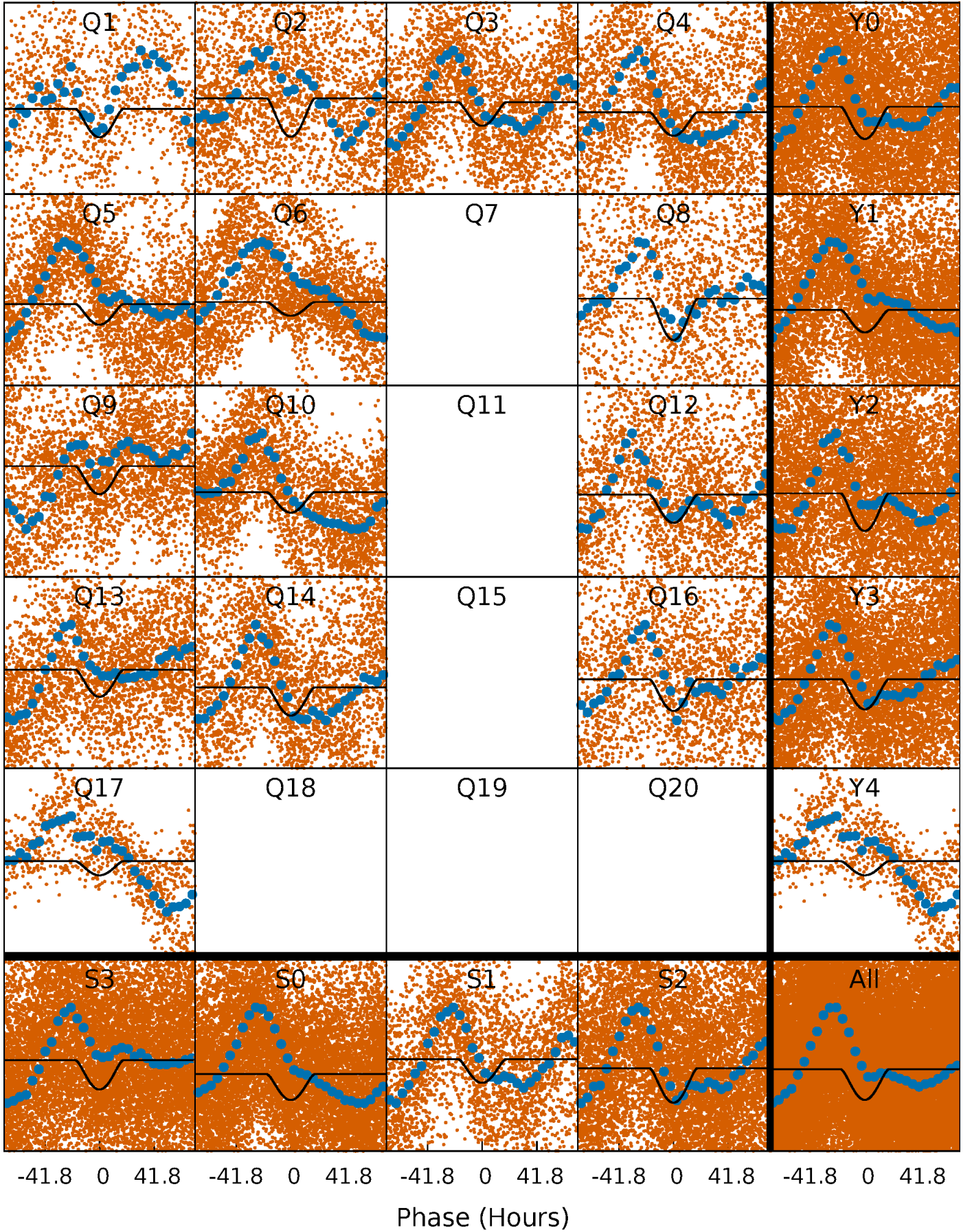
PDC Quarter-Phased Transit Curves

TCE 010614094-01 P= 8.116146 Days $T_0=133.263693$ (BKJD)



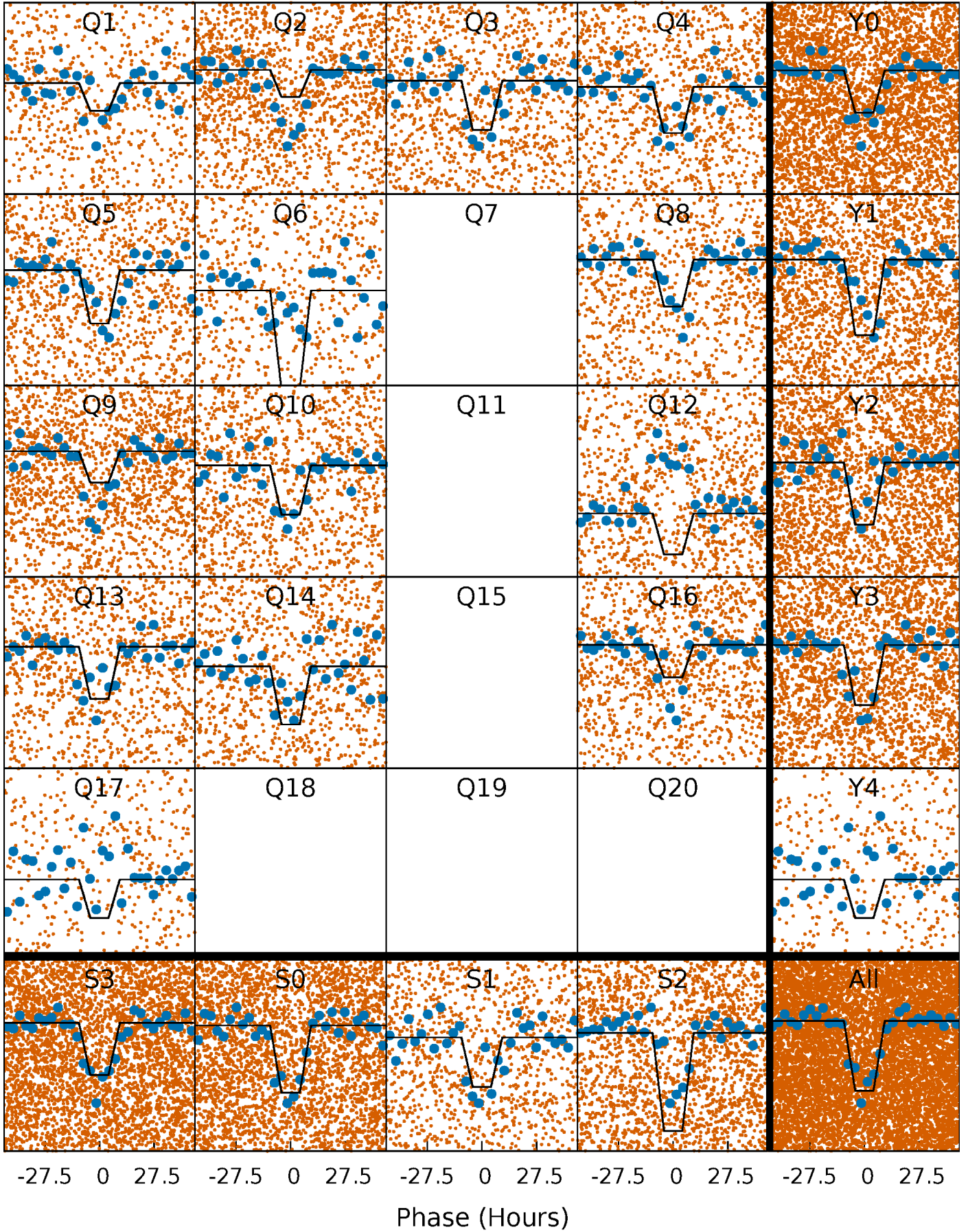
DV Quarter-Phased Transit Curves

TCE 010614094-01 P= 8.116146 Days $T_0=133.263693$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

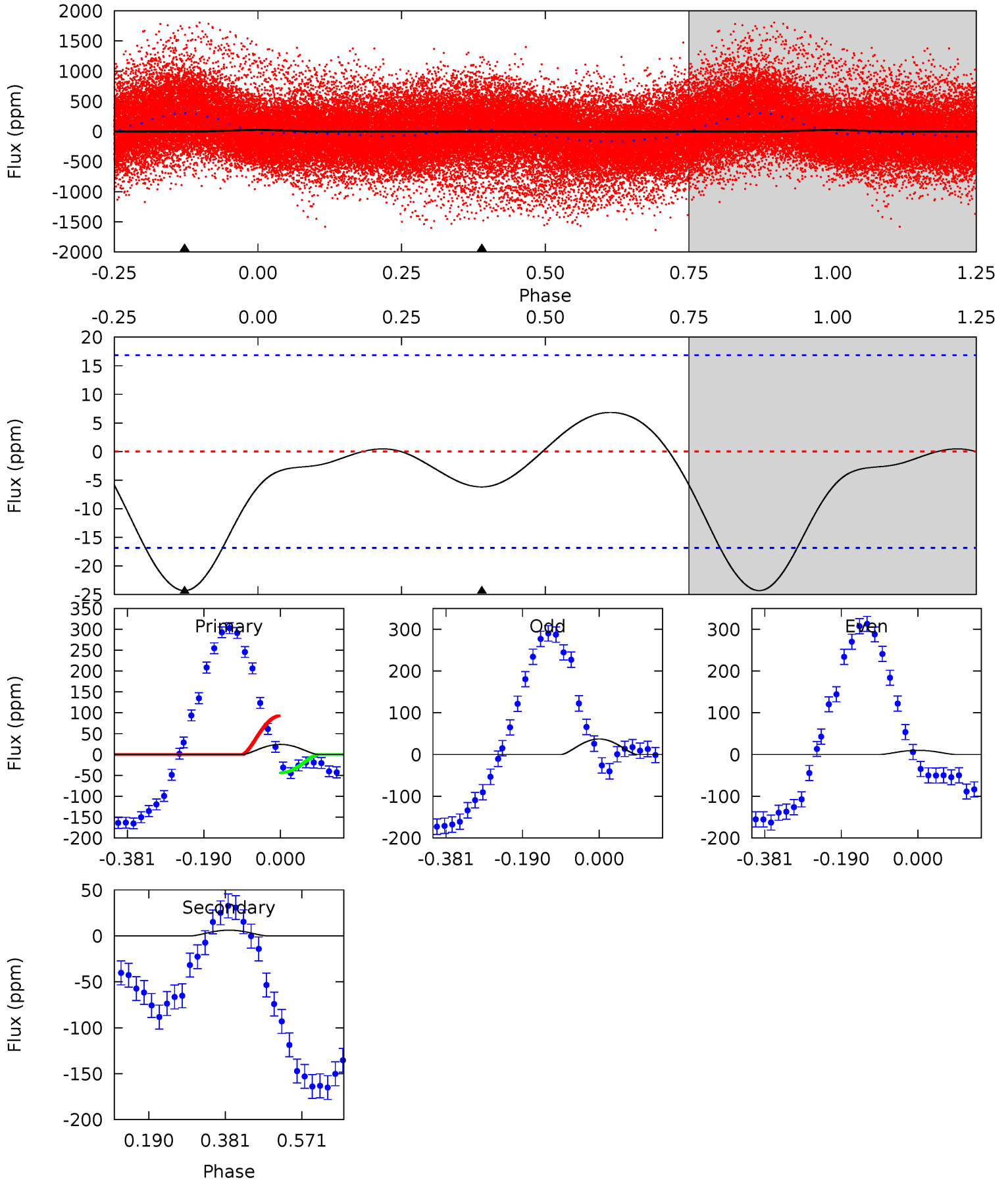
TCE 010614094-01 P= 8.117086 Days $T_0=133.152629$ (BKJD)



DV Model-Shift Uniqueness Test

010614094-01, P = 8.116146 Days, E = 125.147547 Days

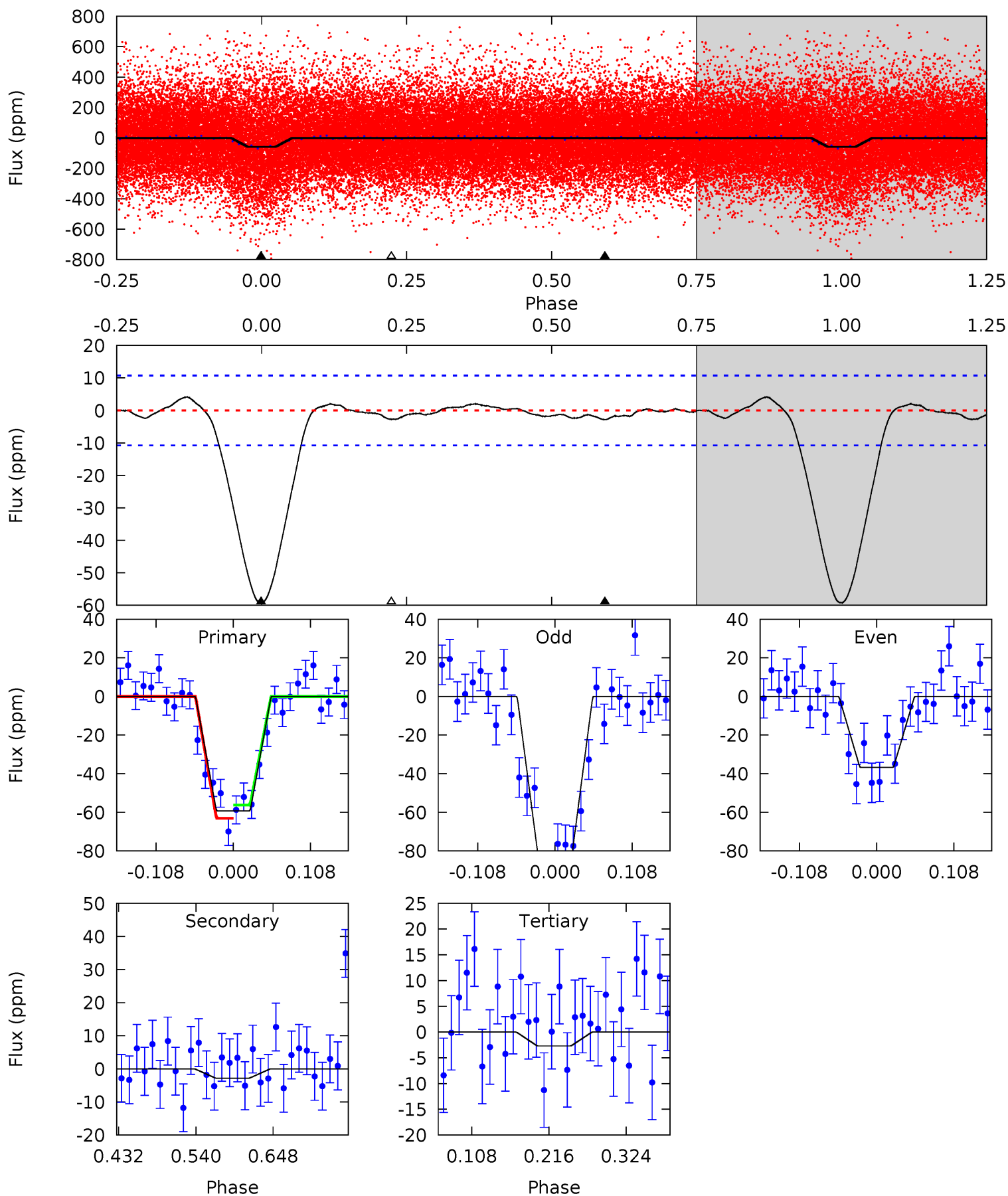
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.39	1.63	0	0	4.43	1.31	1.02	6.39	6.39	1.63	1.63	3.54	-111.5	0.22	6.56



Alt Model-Shift Uniqueness Test

010614094-01, P = 8.117086 Days, E = 125.035543 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.1	1.19	1.14	0	4.55	1.61	0.63	24.0	25.1	0.05	1.19	9.79	0.86	0.07	1.46



Stellar Parameters For KIC 010614094

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5993^{+80}_{-80}	$4.150^{+0.182}_{-0.112}$	$-0.140^{+0.150}_{-0.150}$	$1.404^{+0.234}_{-0.286}$	$1.015^{+0.086}_{-0.071}$	$0.517^{+0.440}_{-0.175}$
	+1%/-1%	+4%/-3%	+107%/-107%	+17%/-20%	+8%/-7%	+85%/-34%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 010614094-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-6 ± 4	$3.74^{+2.84}_{-2.35}$	1543^{+72}_{-85}	2545^{+950}_{-4156}	$1.347^{+8.499}_{-1.058}$
Alt.	-3 ± 2	$2.73^{+2.34}_{-1.82}$	1549^{+72}_{-79}	2453^{+1078}_{-4564}	$1.048^{+9.515}_{-0.926}$

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 $A_{obs} \gg 1.0$

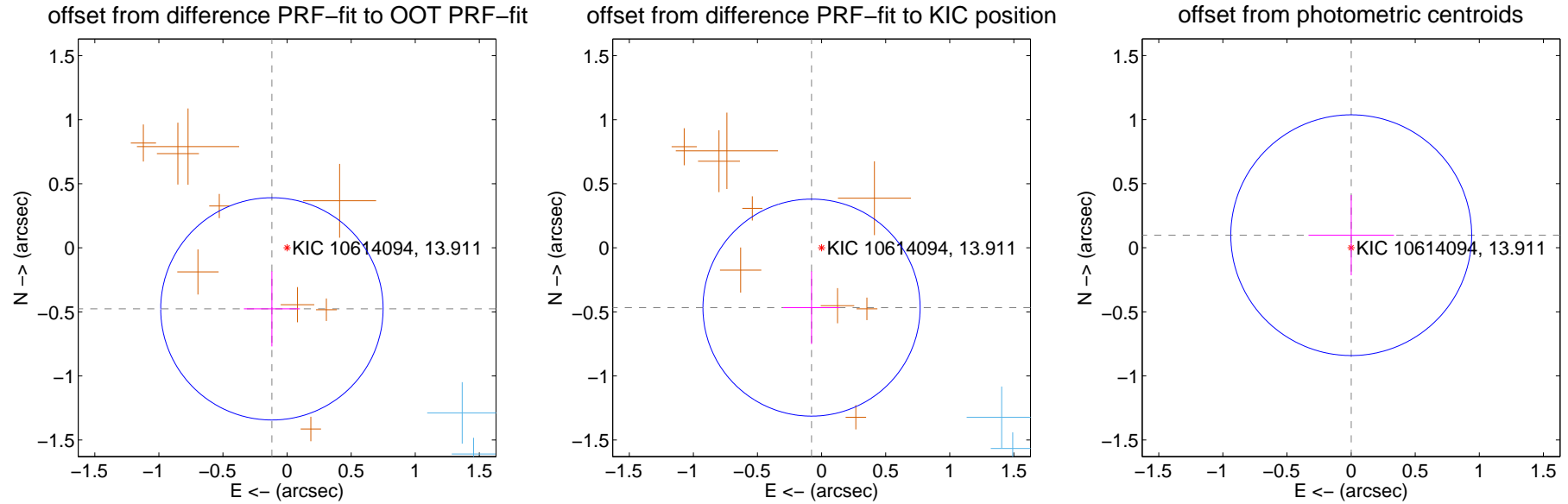
DV Centroid Data

Supplemental centroid analysis for 010614094-01. Kepler magnitude: 13.91. Transit SNR 11.24

There are 2 quarters with good PRF difference image offsets

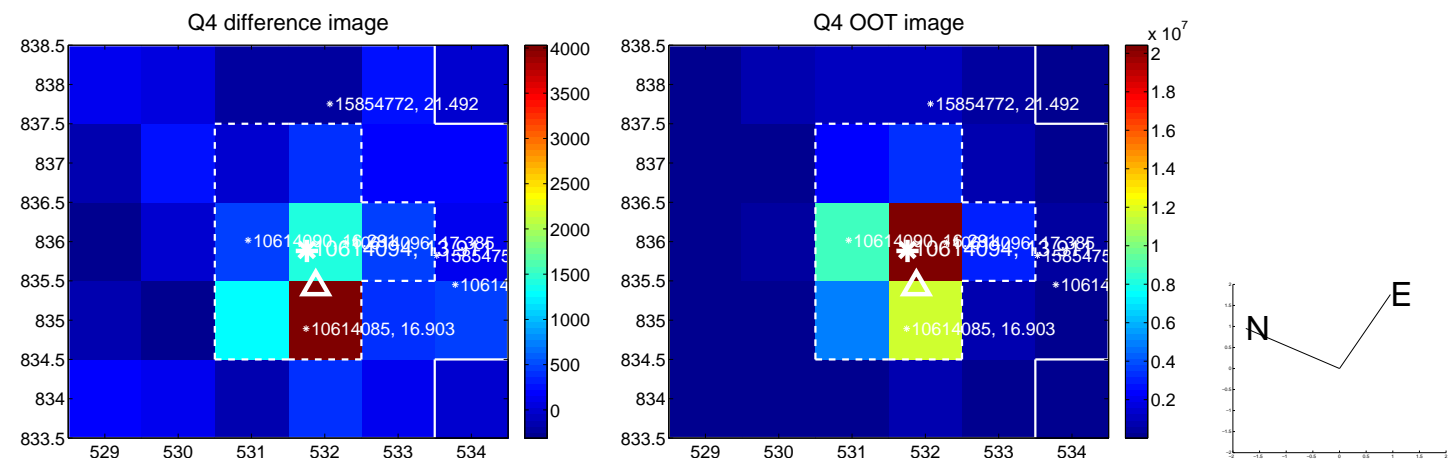
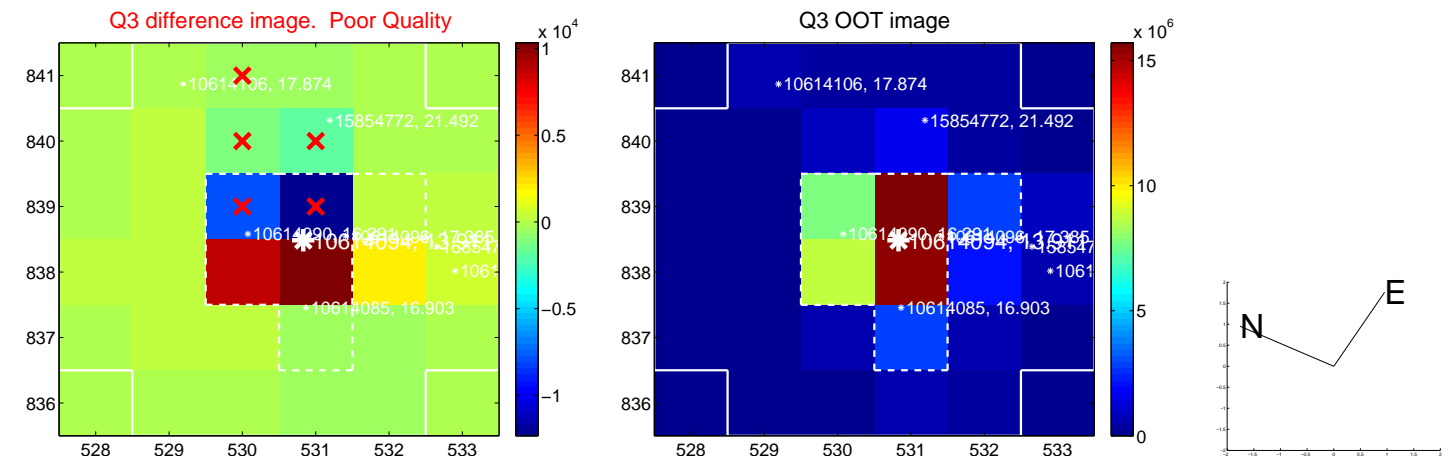
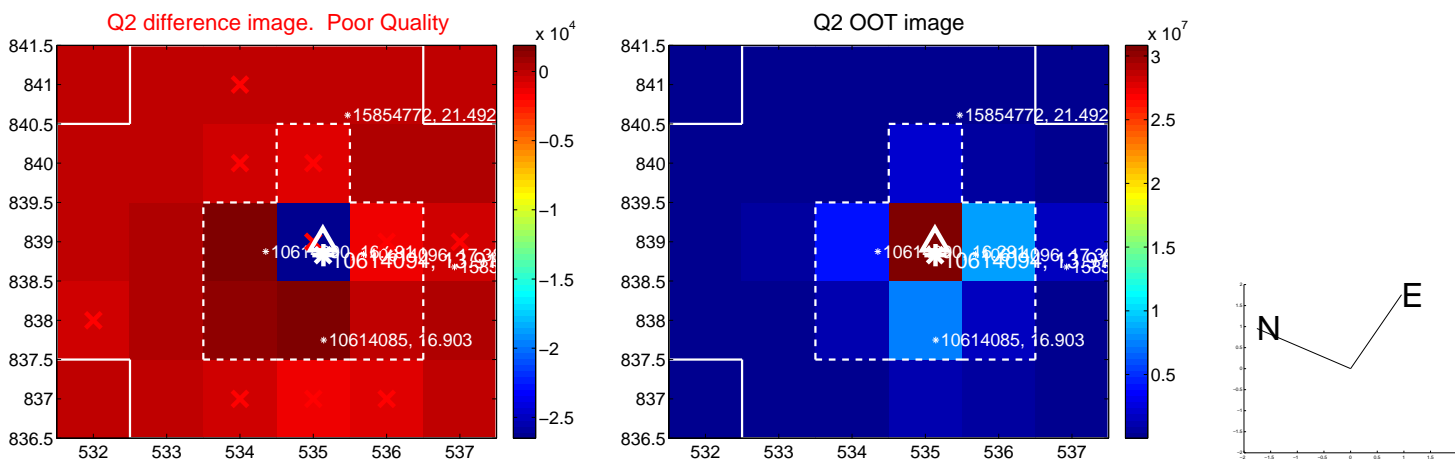
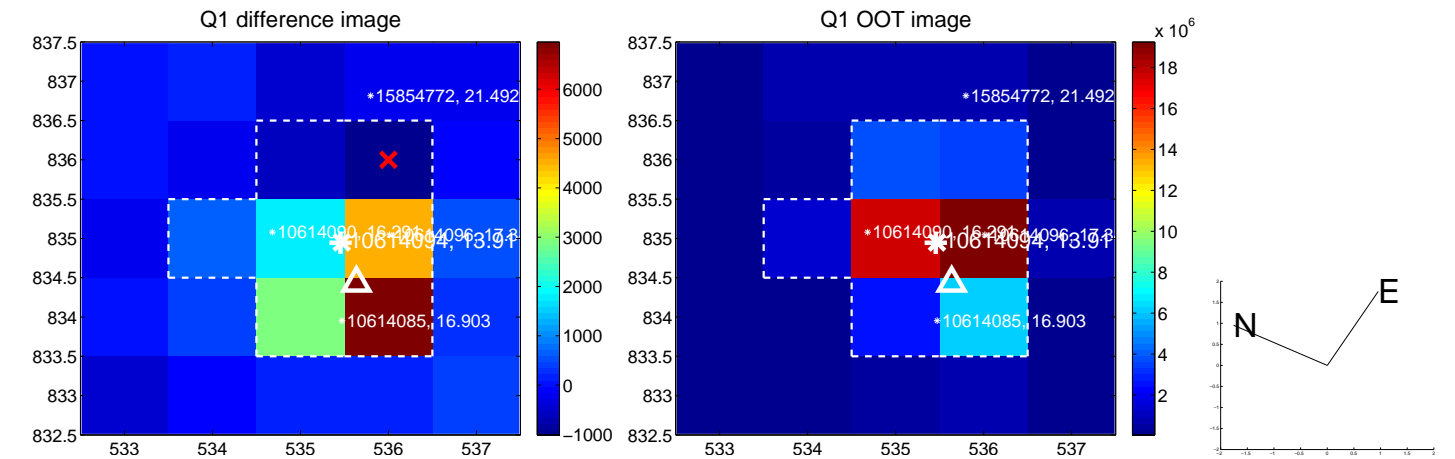
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.491 ± 0.289	1.70	0.118 ± 0.219	-0.476 ± 0.293
PRF-fit source offset from KIC position	0.473 ± 0.282	1.68	0.078 ± 0.221	-0.467 ± 0.284
photometric centroid source offset	0.10 ± 0.31	0.31	-0.00 ± 0.33	0.10 ± 0.31

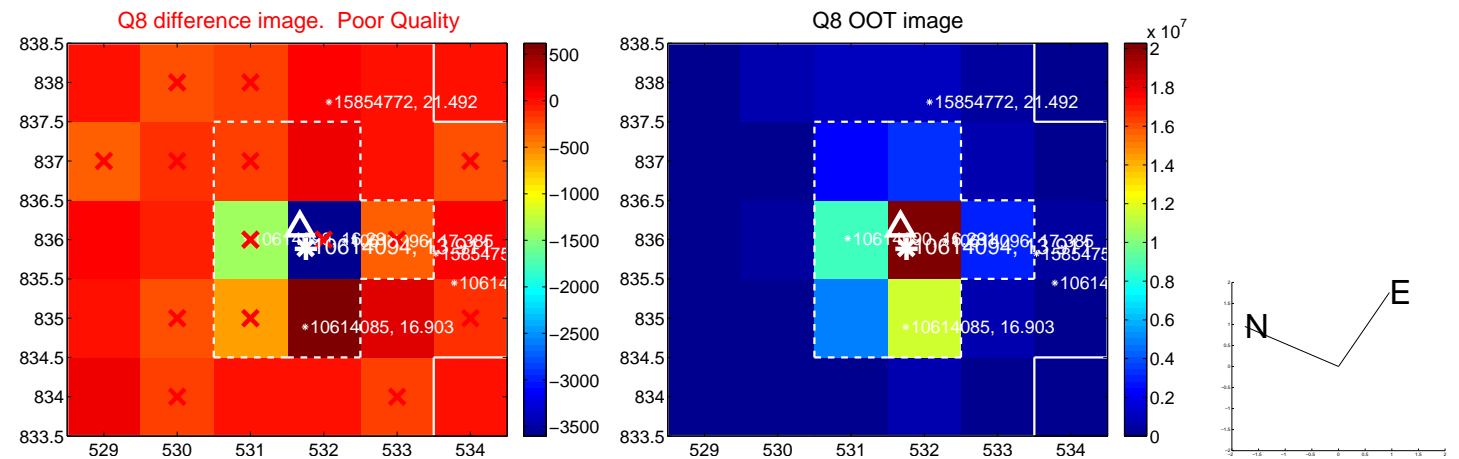
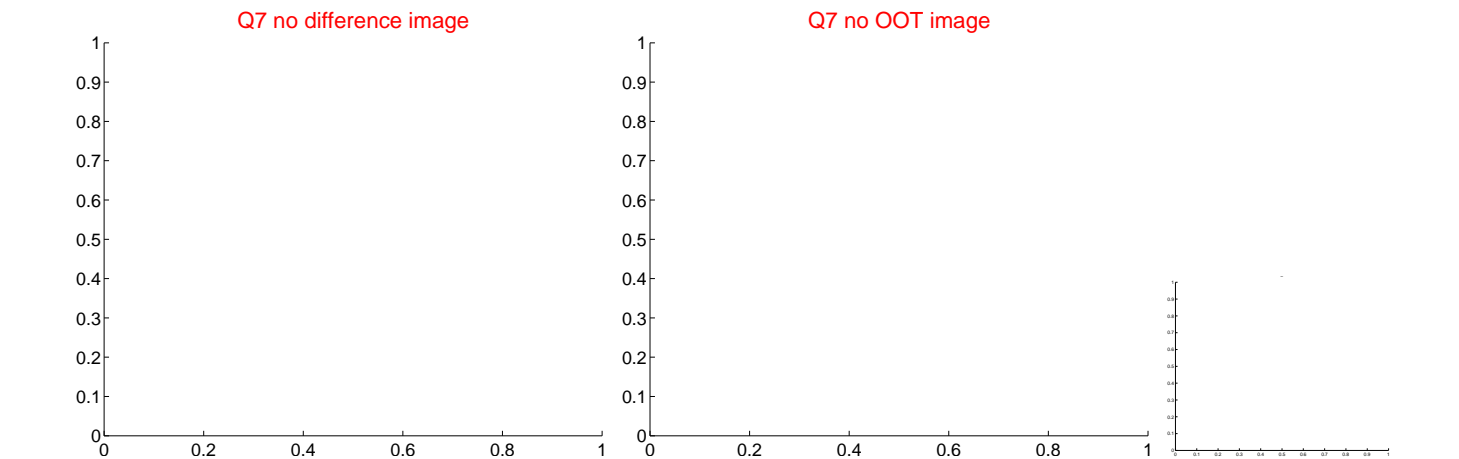
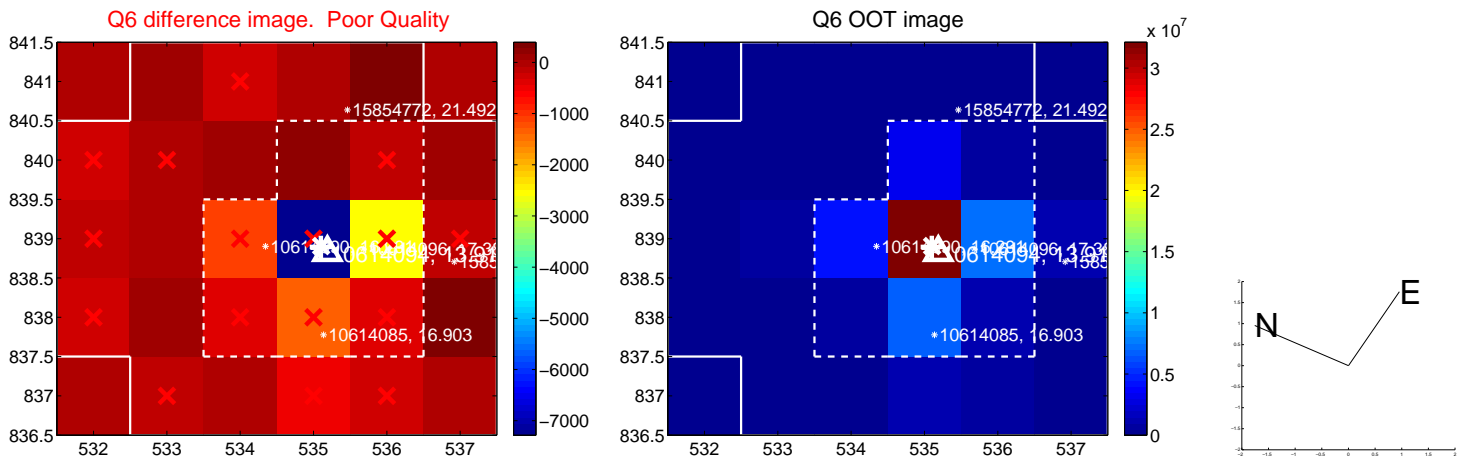
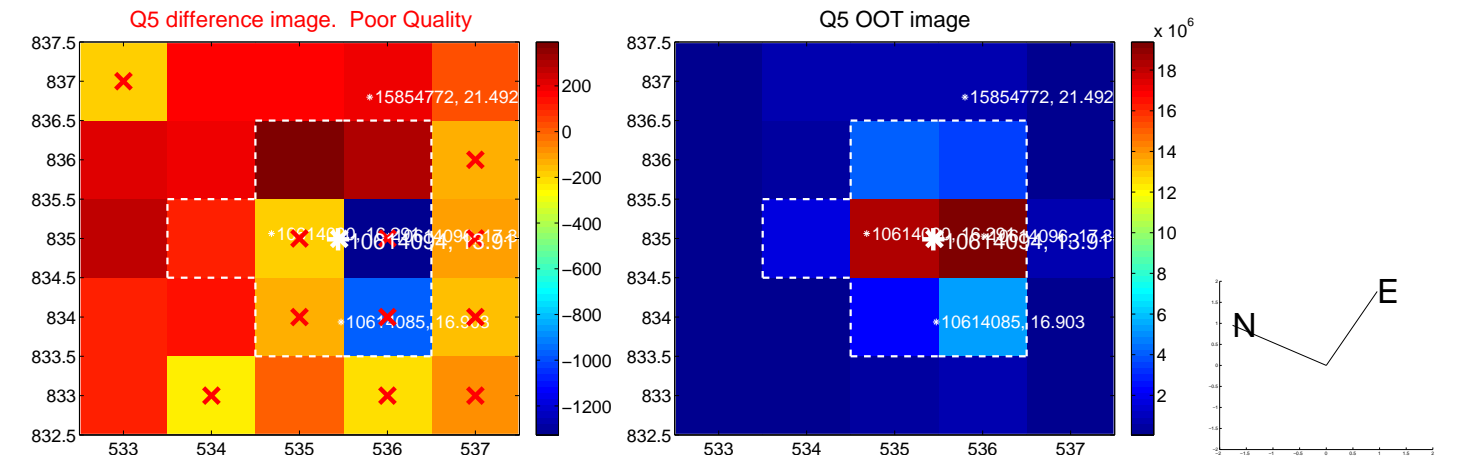


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

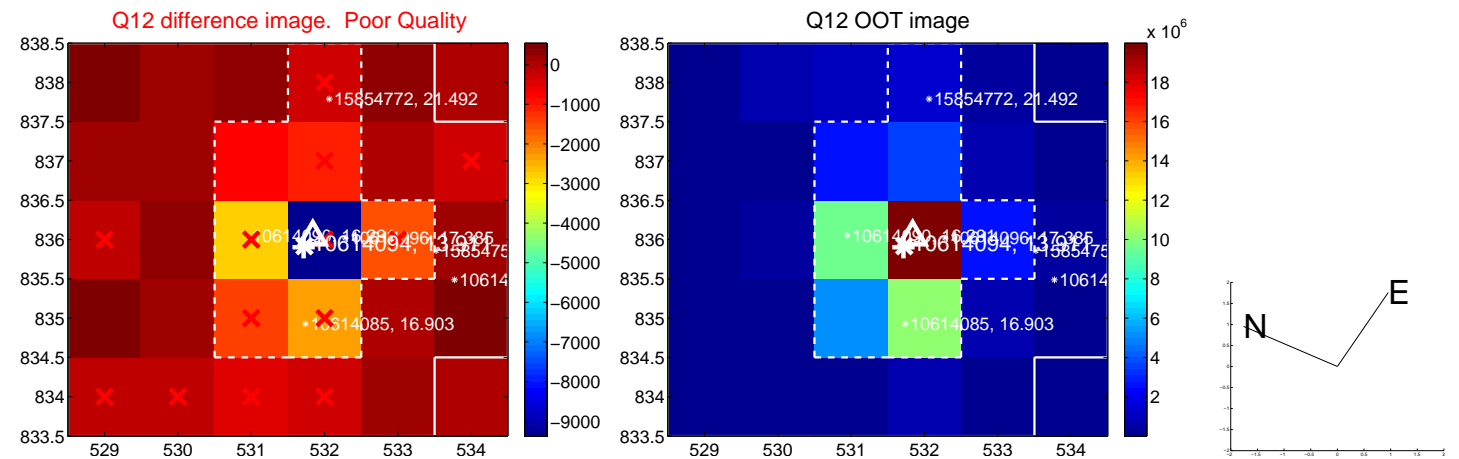
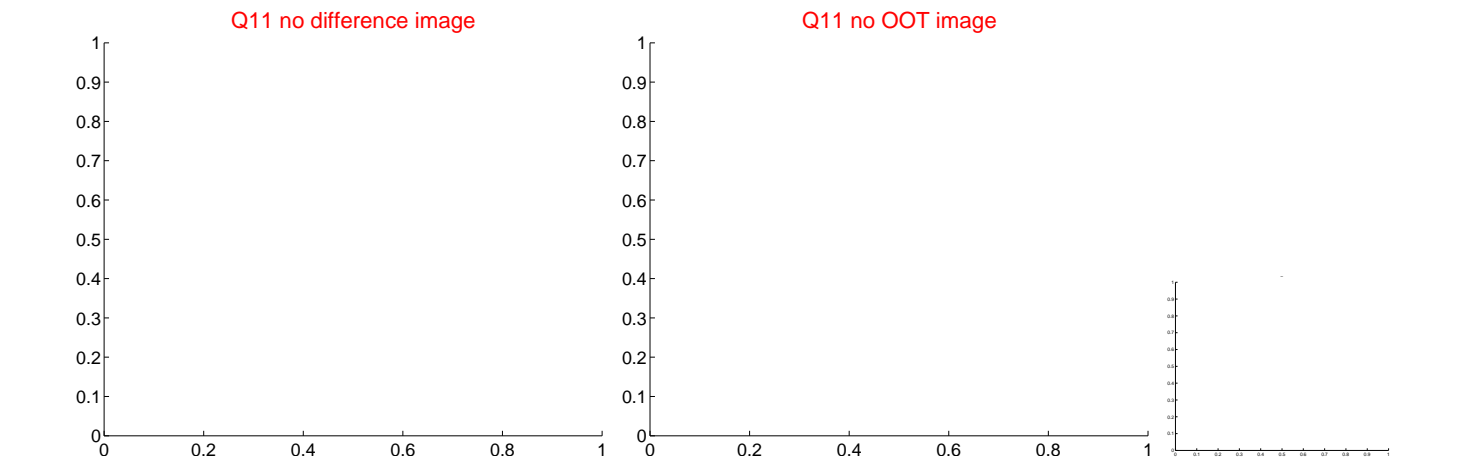
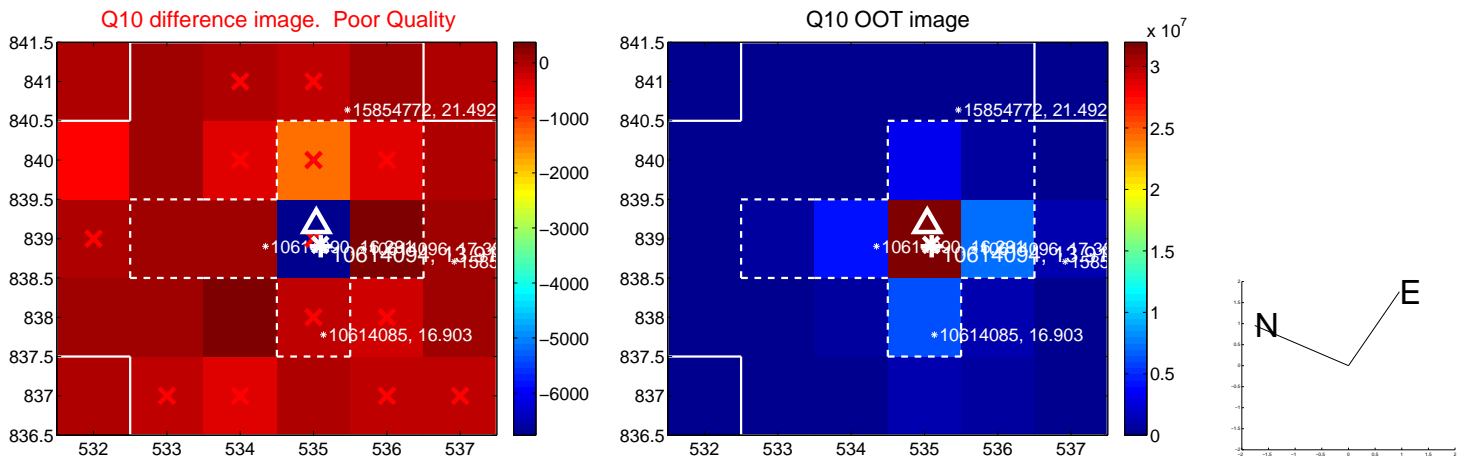
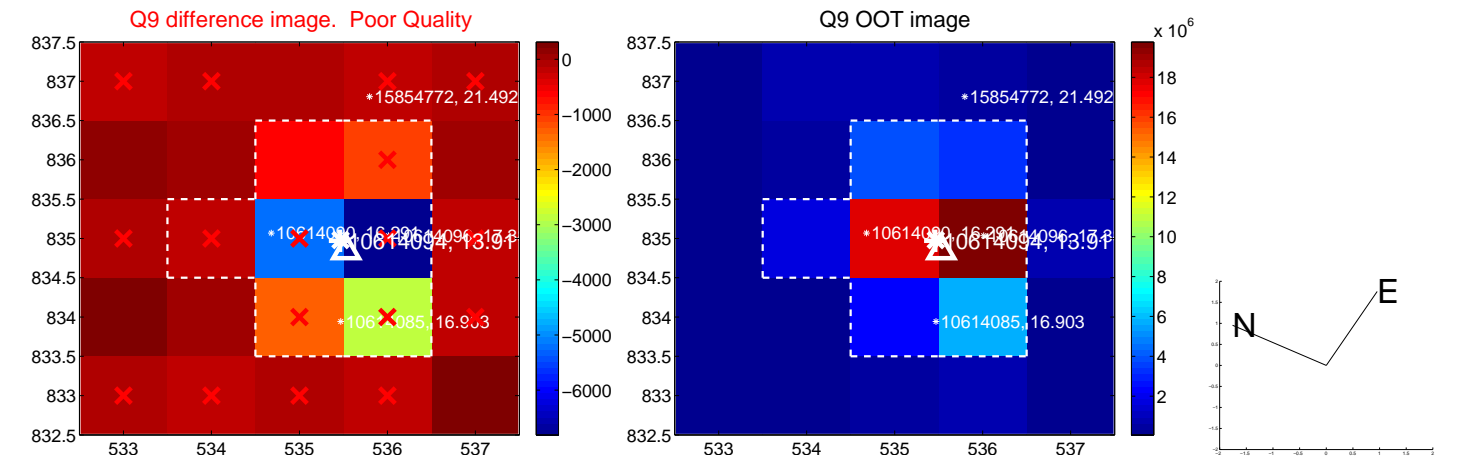
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



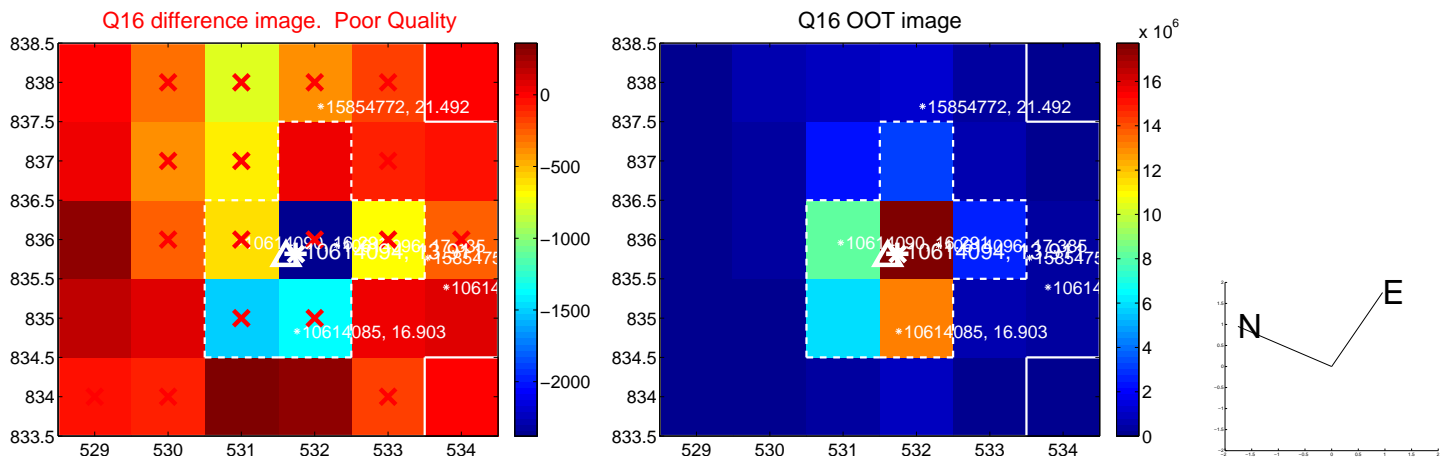
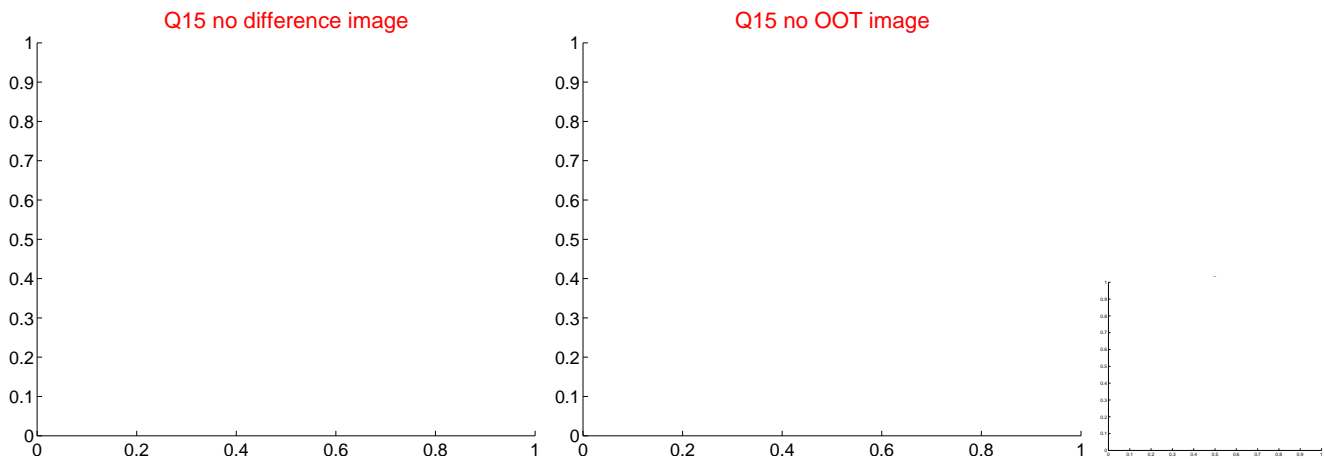
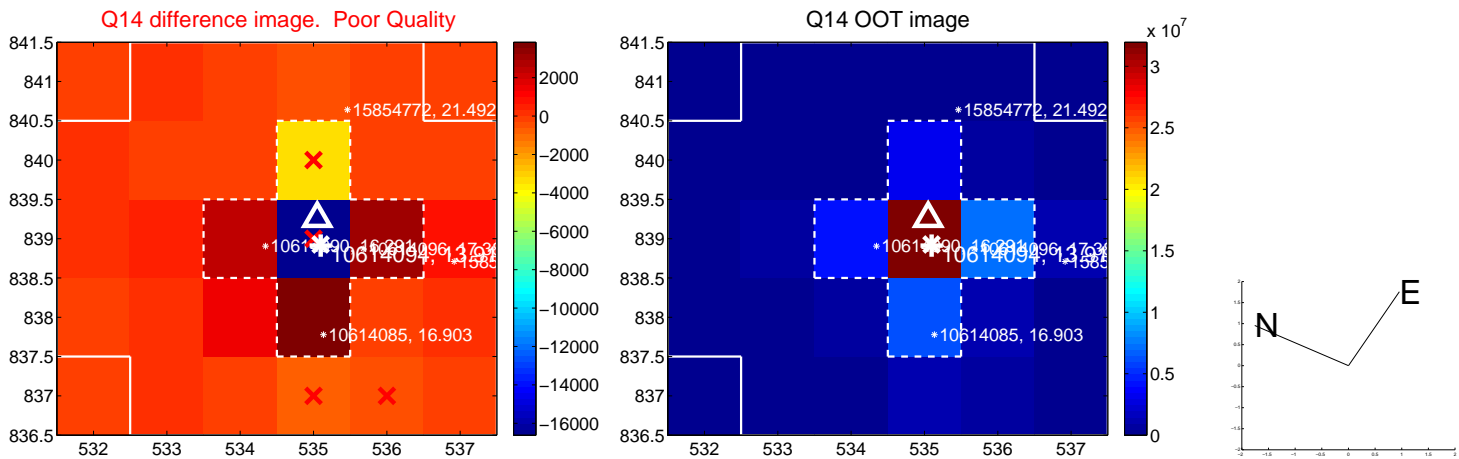
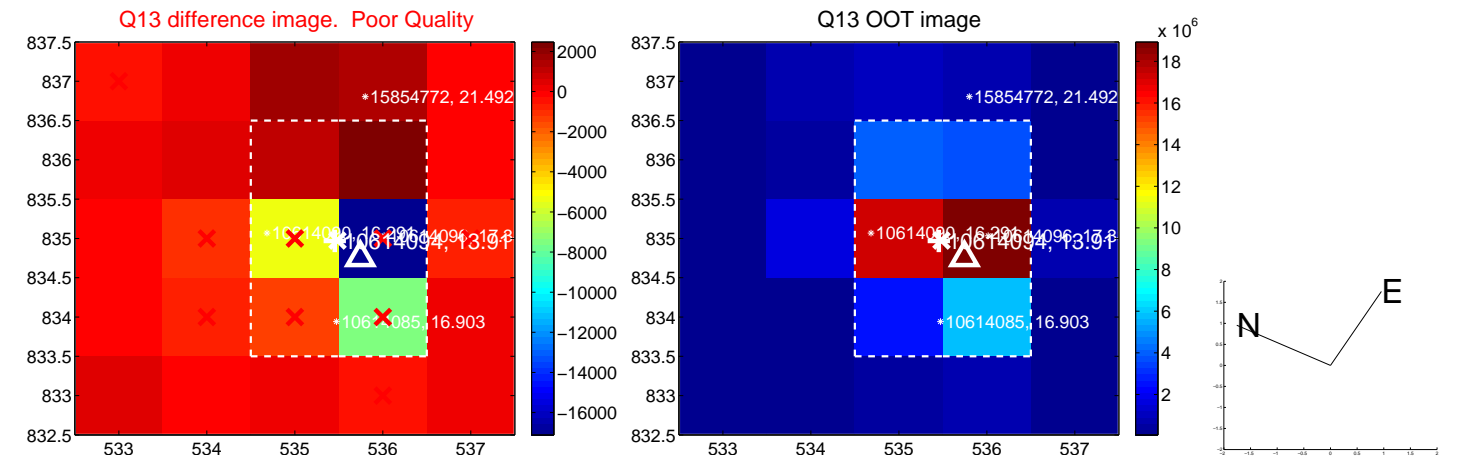
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



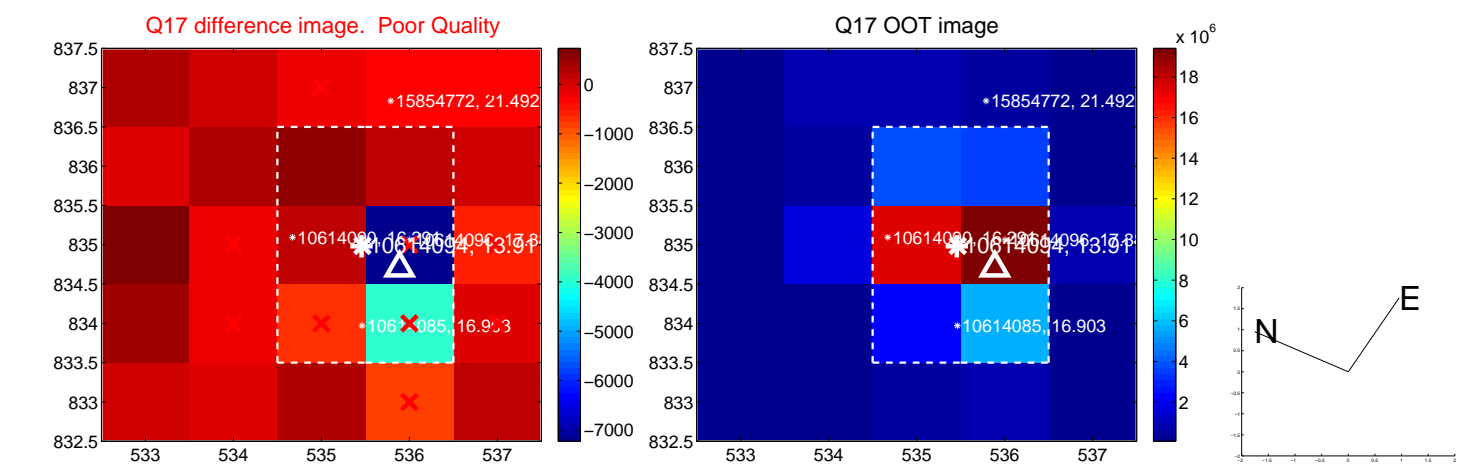
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



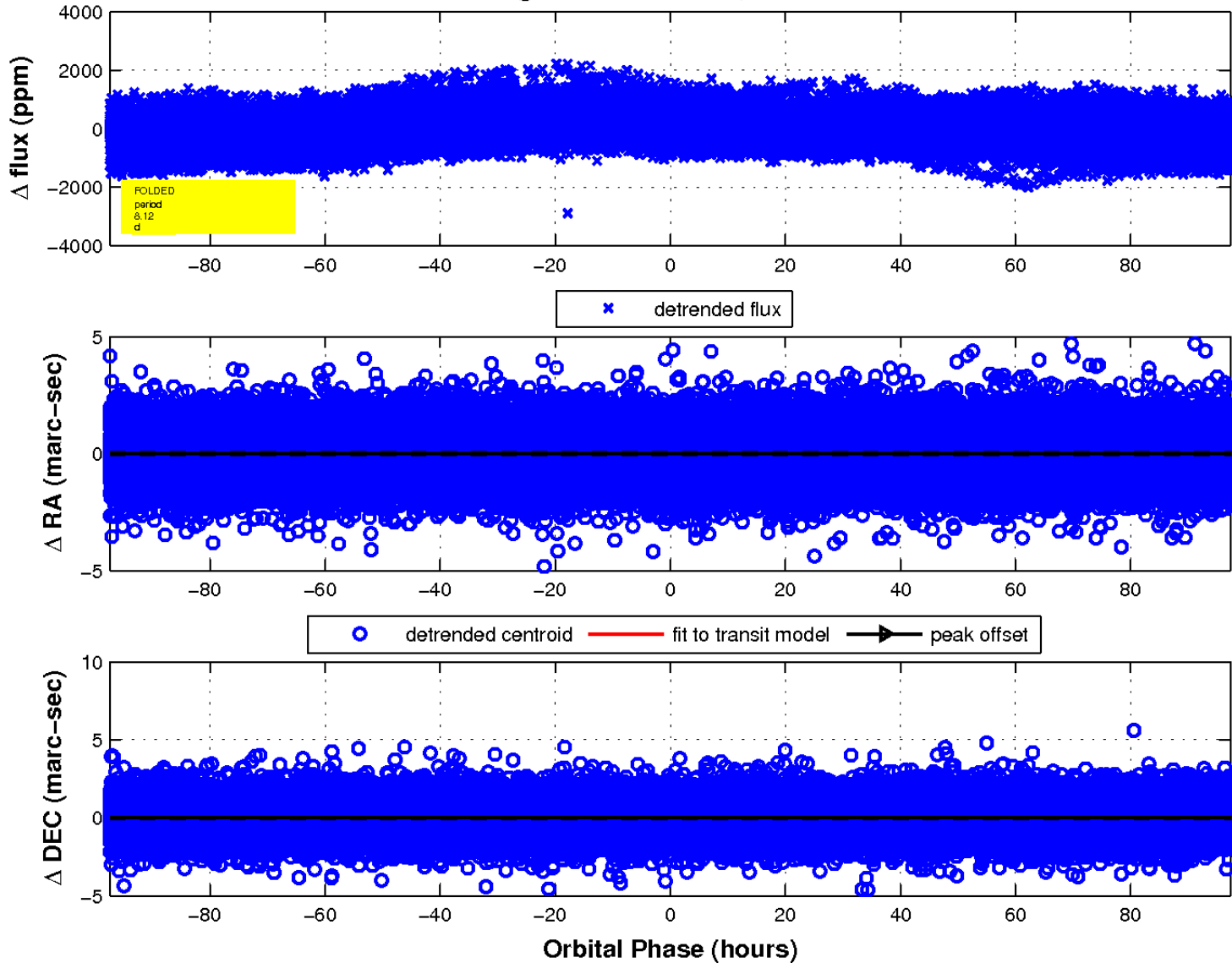
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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

