

KIC 006128245

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})
006128245-01	OBS	6666.01	1.118496	131.615804	54.0	1.389	8.0	8.3	0.86	5918	0.75	1905.87

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006128245-01	OBS	PC	0.95	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.

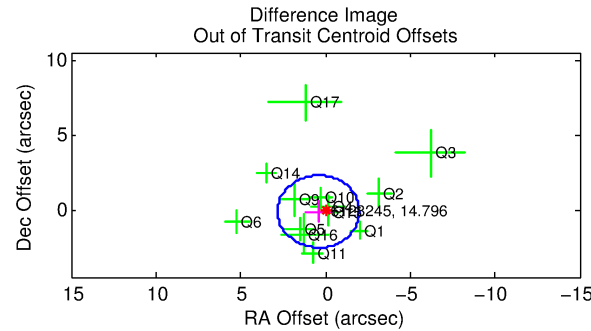
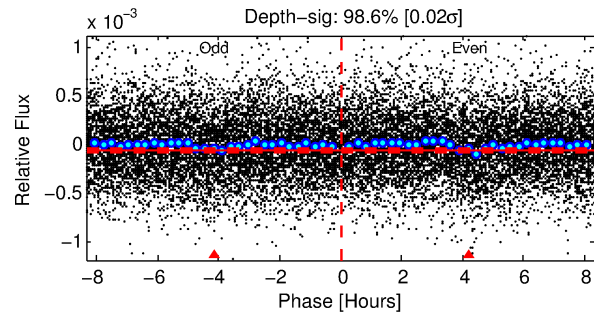
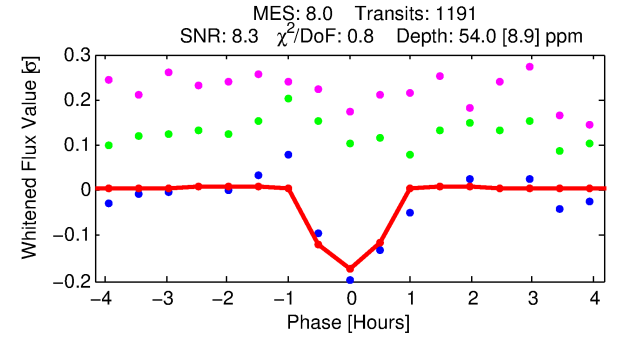
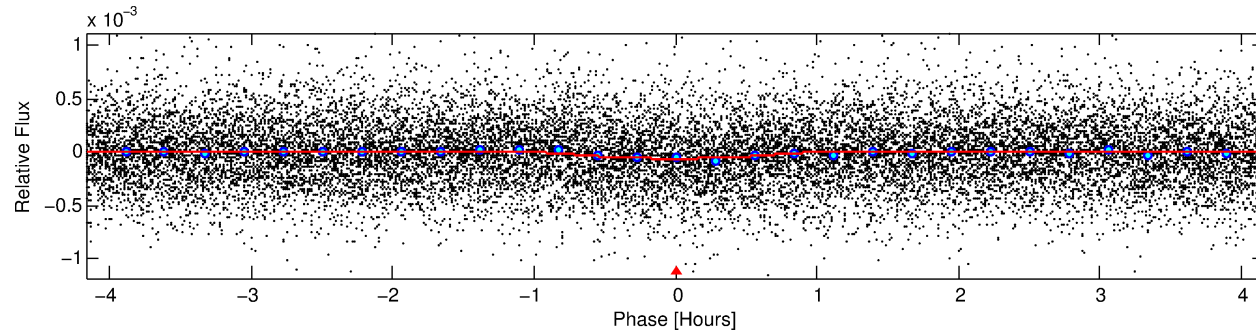
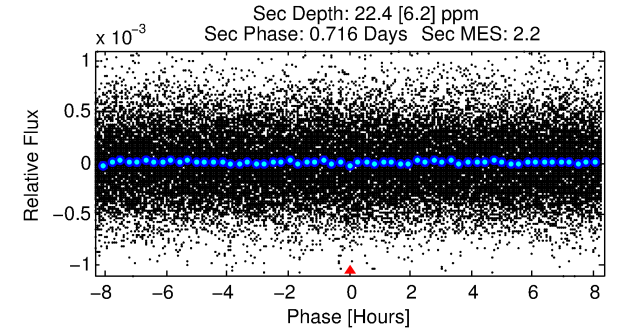
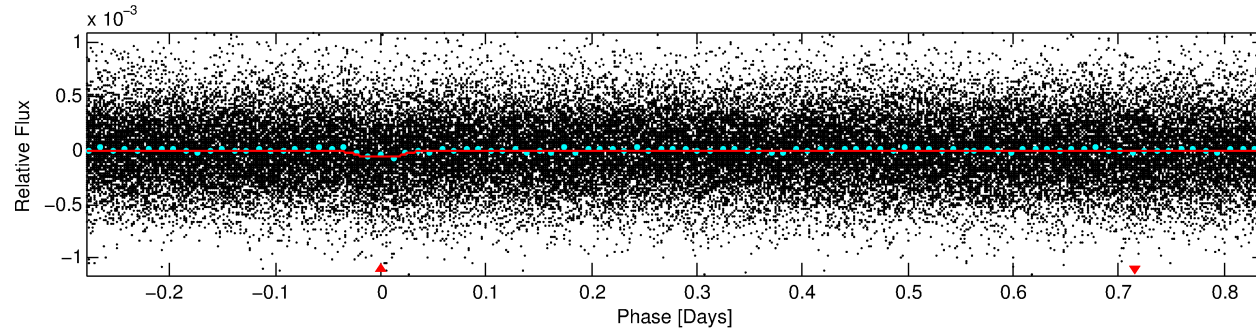
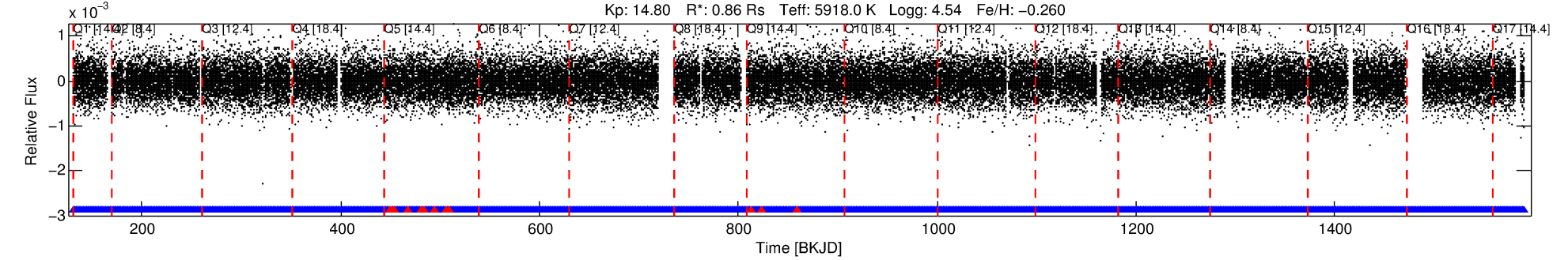
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006128245-01

No Significant Match Found

DV One-Page Summary

KIC: 6128245 Candidate: 1 of 1 Period: 1.118 d
KOI: K06666.01 Corr: 0.909



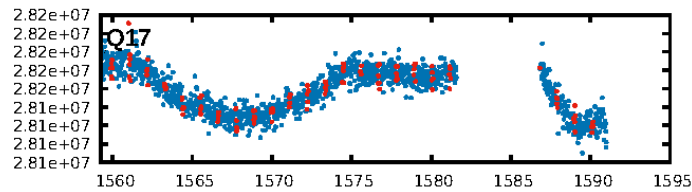
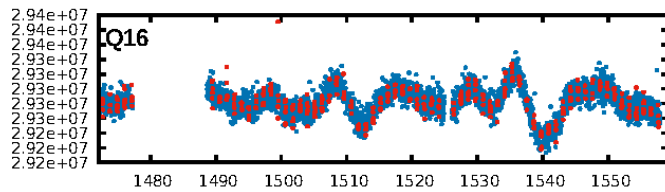
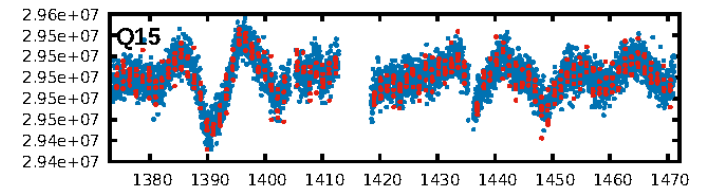
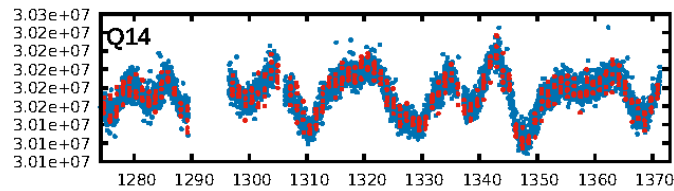
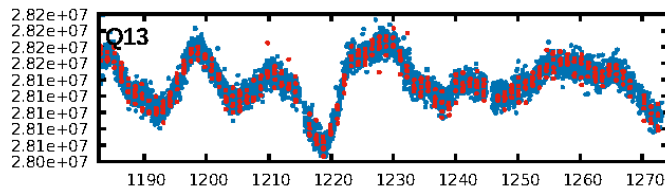
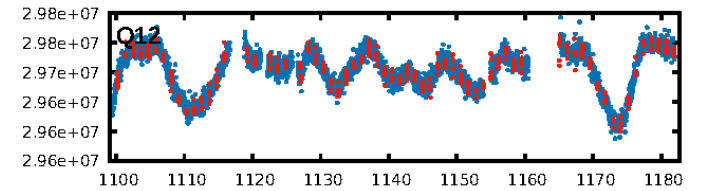
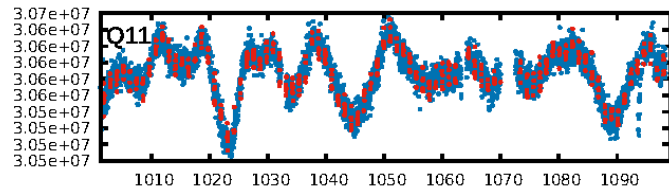
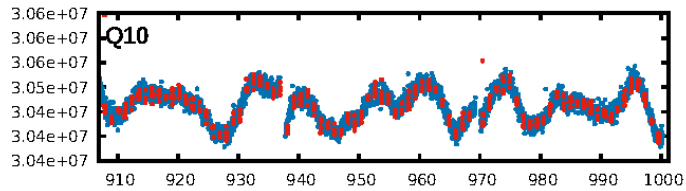
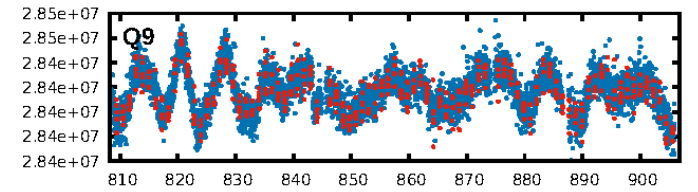
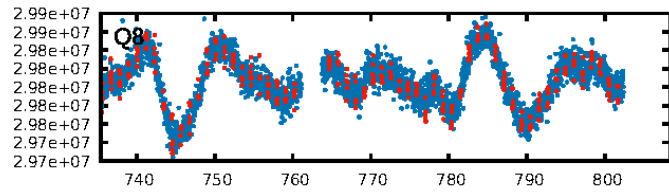
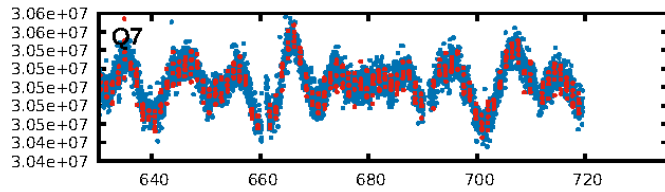
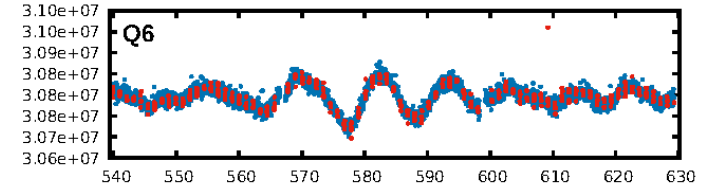
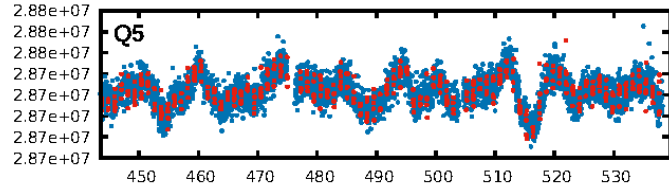
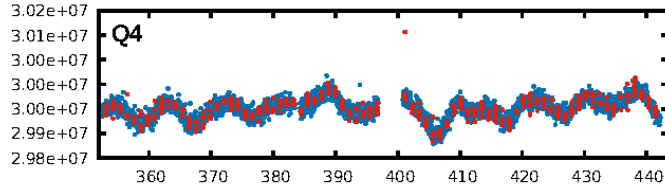
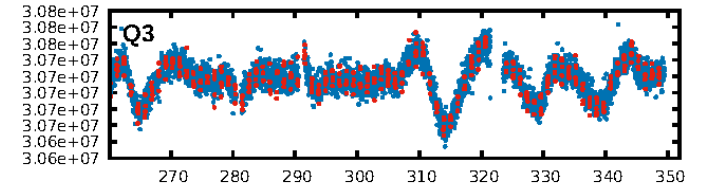
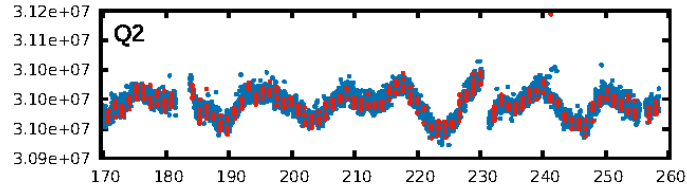
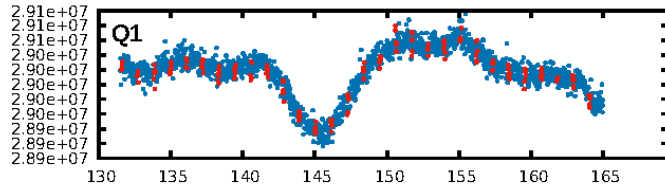
DV Fit Results:

Period = 1.11850 [0.00001] d
Epoch = 131.6158 [0.0025] BKJD
Rp/R* = 0.0080 [0.0054]
a/R* = 2.95 [8.97]
b = 0.90 [0.74]
Seff = 1905.87 [733.68]
Teq = 1685 [162] K
Rp = 0.75 [0.55] Re
a = 0.0208 [0.0051] AU
Ag = 9.38 [13.34] [0.63σ]
Teffp = 4558 [1573] K [1.82σ]

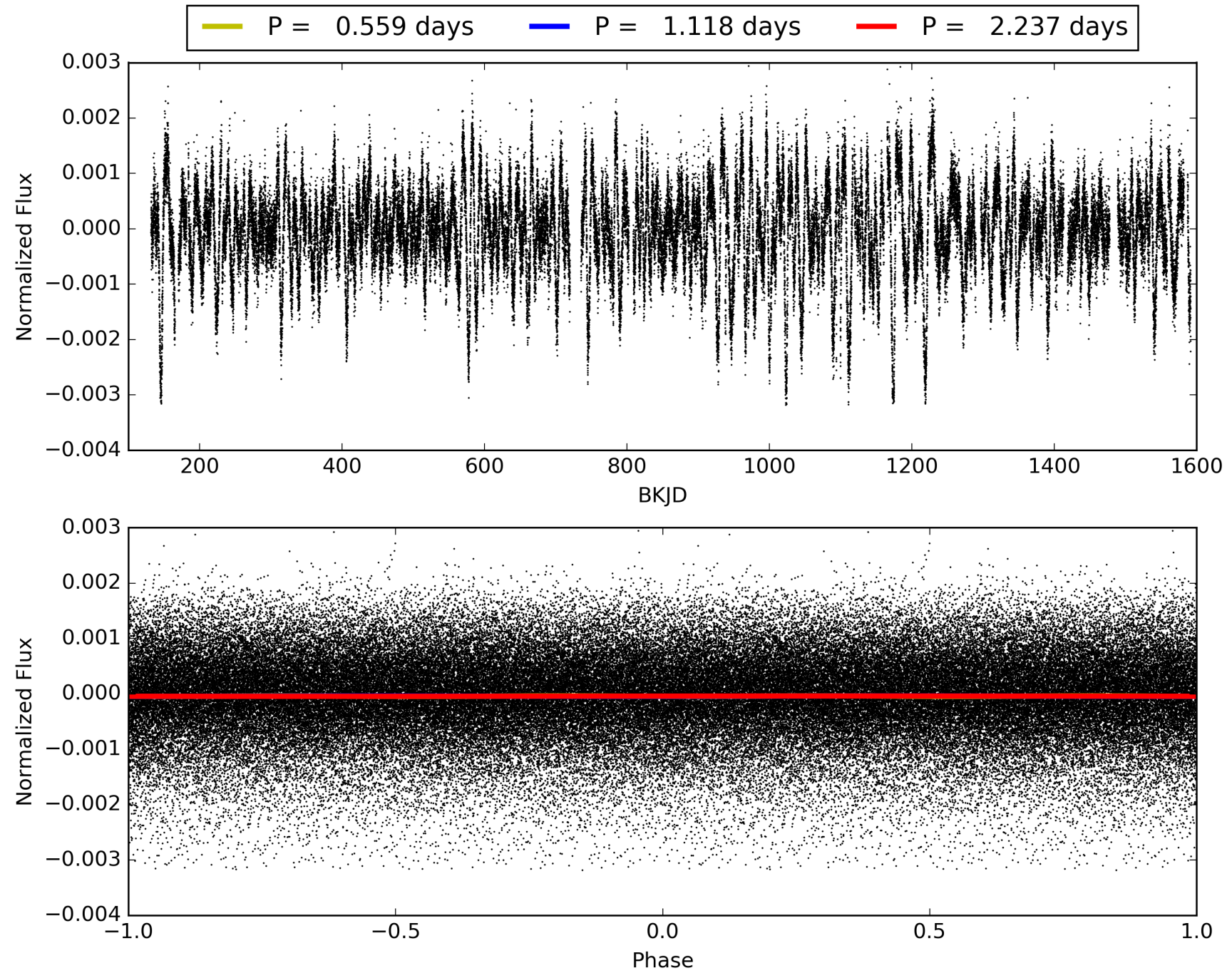
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.80e-16
RollingBand-fgt: 0.99 [1126/1138]
GhostDiagnostic-chr: 1.321
Centroid-sig: 40.9%
Centroid-so: 1.275 arcsec [0.80σ]
OotOffset-rm: 0.443 arcsec [0.55σ]
KicOffset-rm: 0.733 arcsec [0.90σ]
OotOffset-st: 4/3/2/4 [13]
KicOffset-st: 4/3/2/4 [13]
DiffImageQuality-fgm: 0.31 [4/13]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 006128245-01, PDC Light Curves

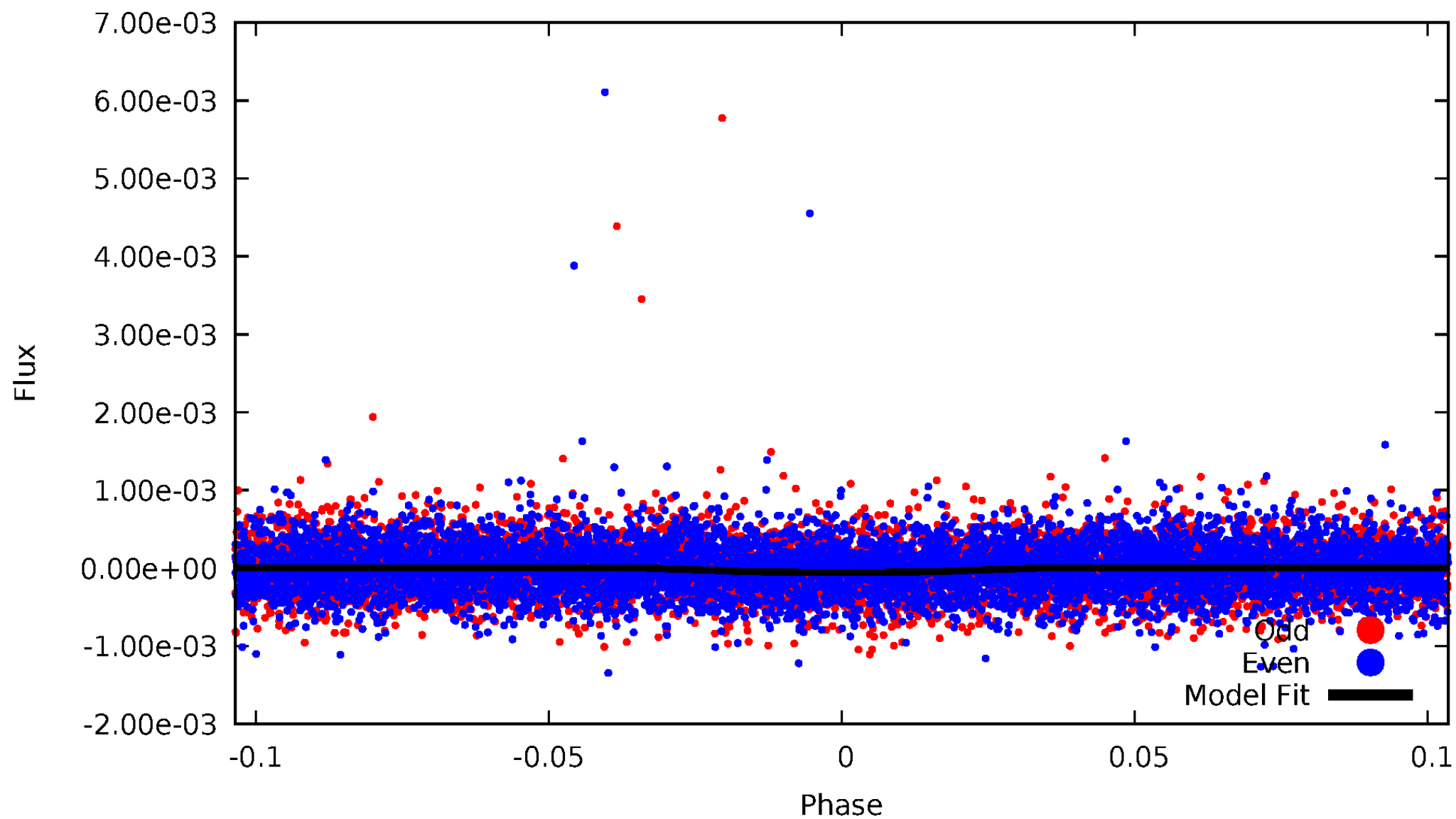


TCE 006128245-01



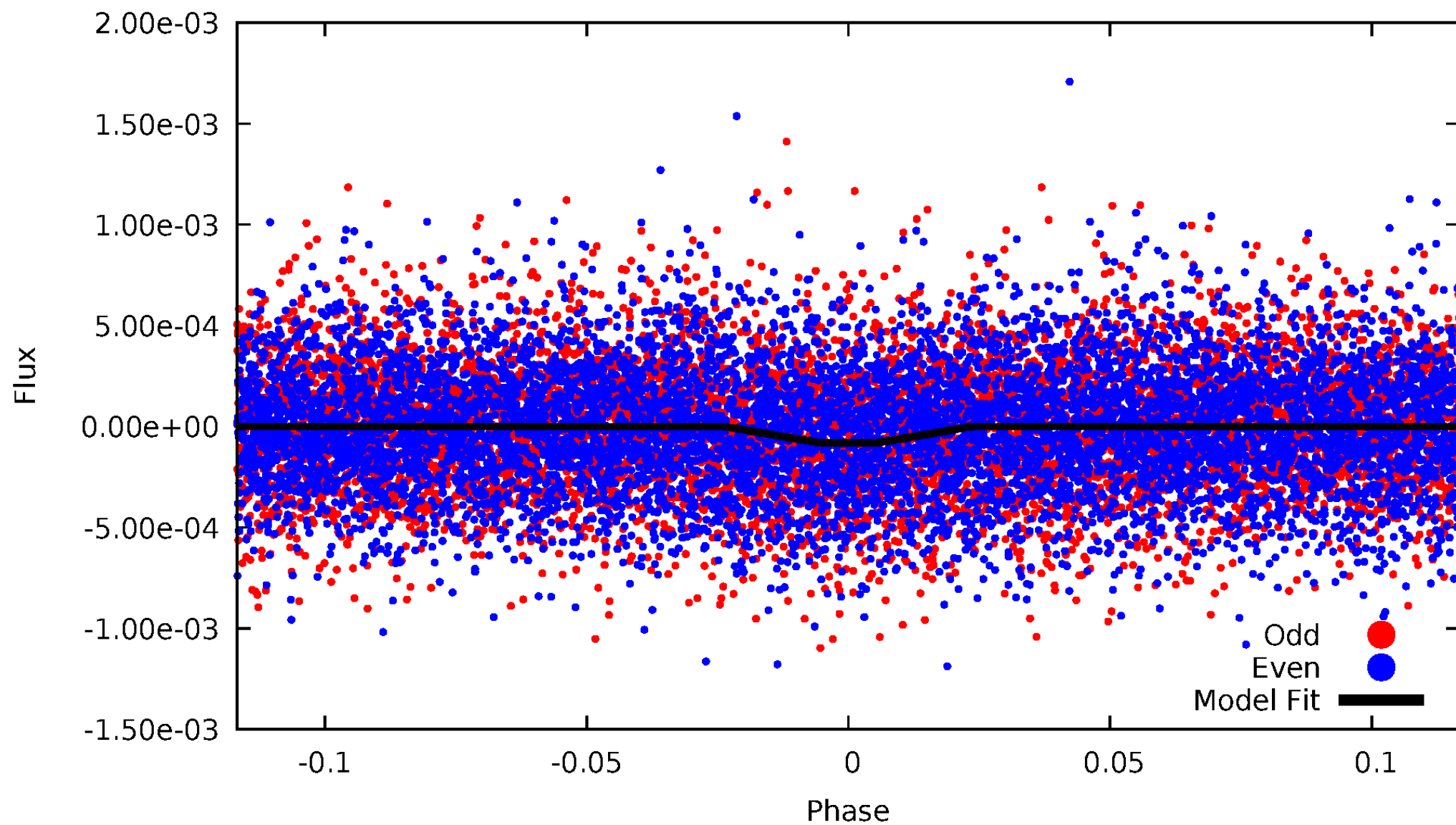
DV Odd/Even

TCE 006128245-01



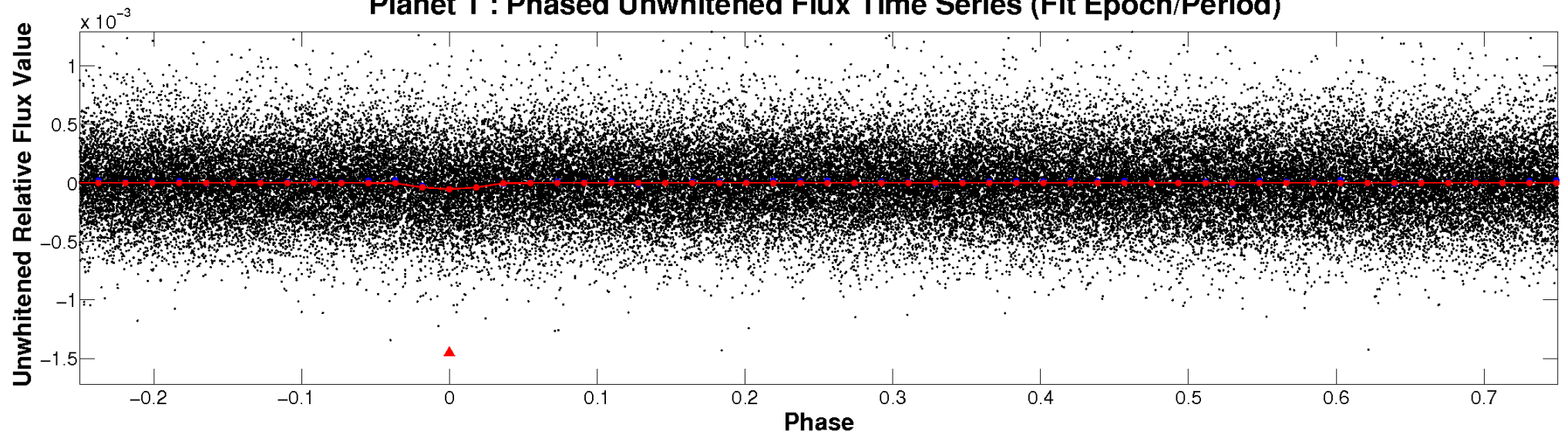
ALT Odd/Even

TCE 006128245-01

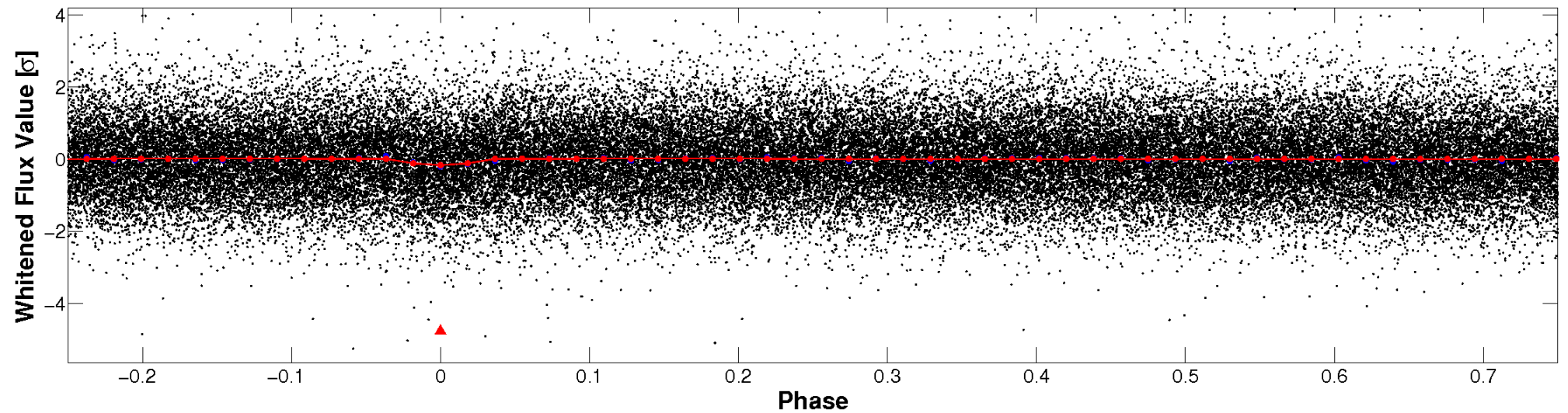


Non-Whitened Vs. Whitened Light Curve

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

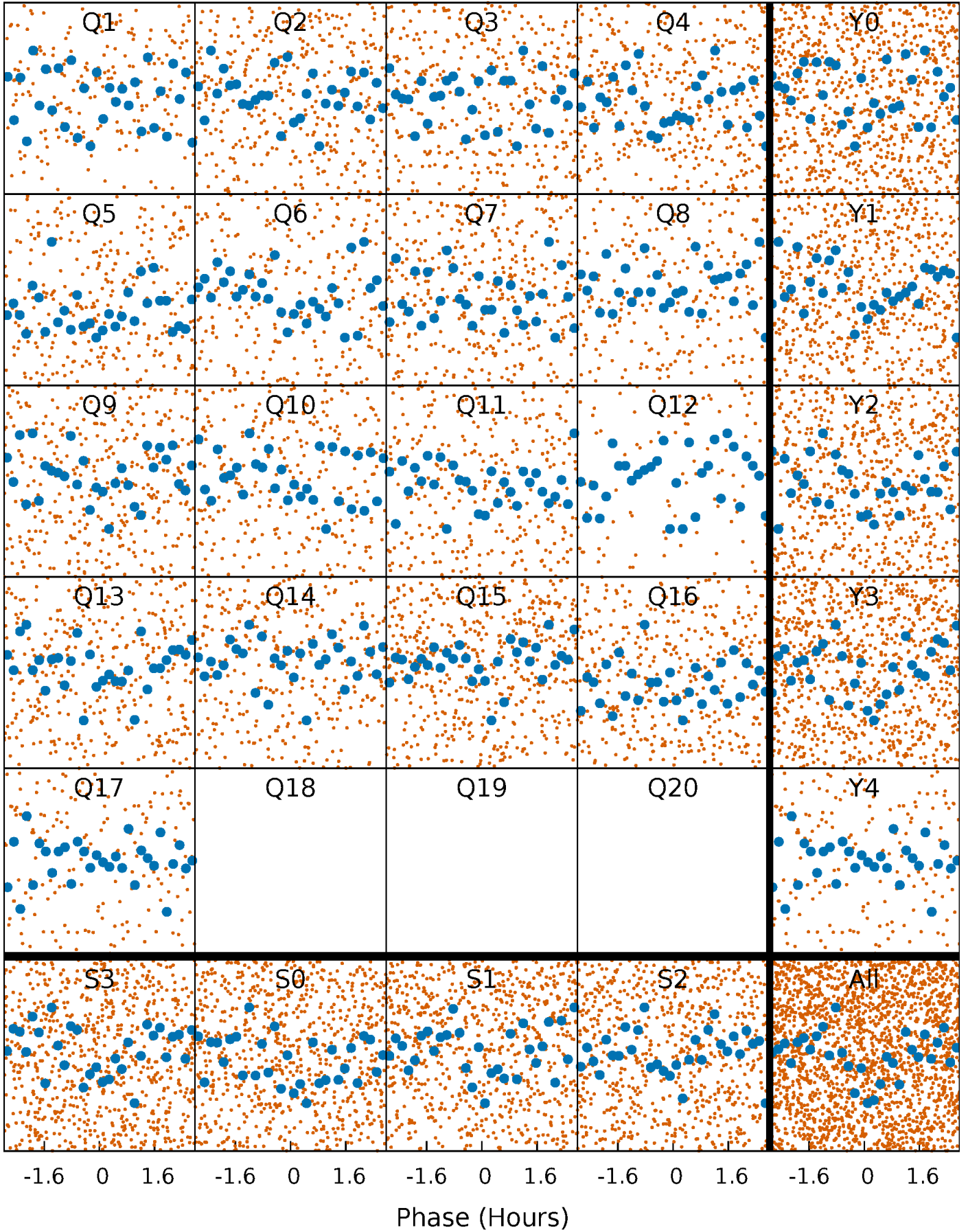


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



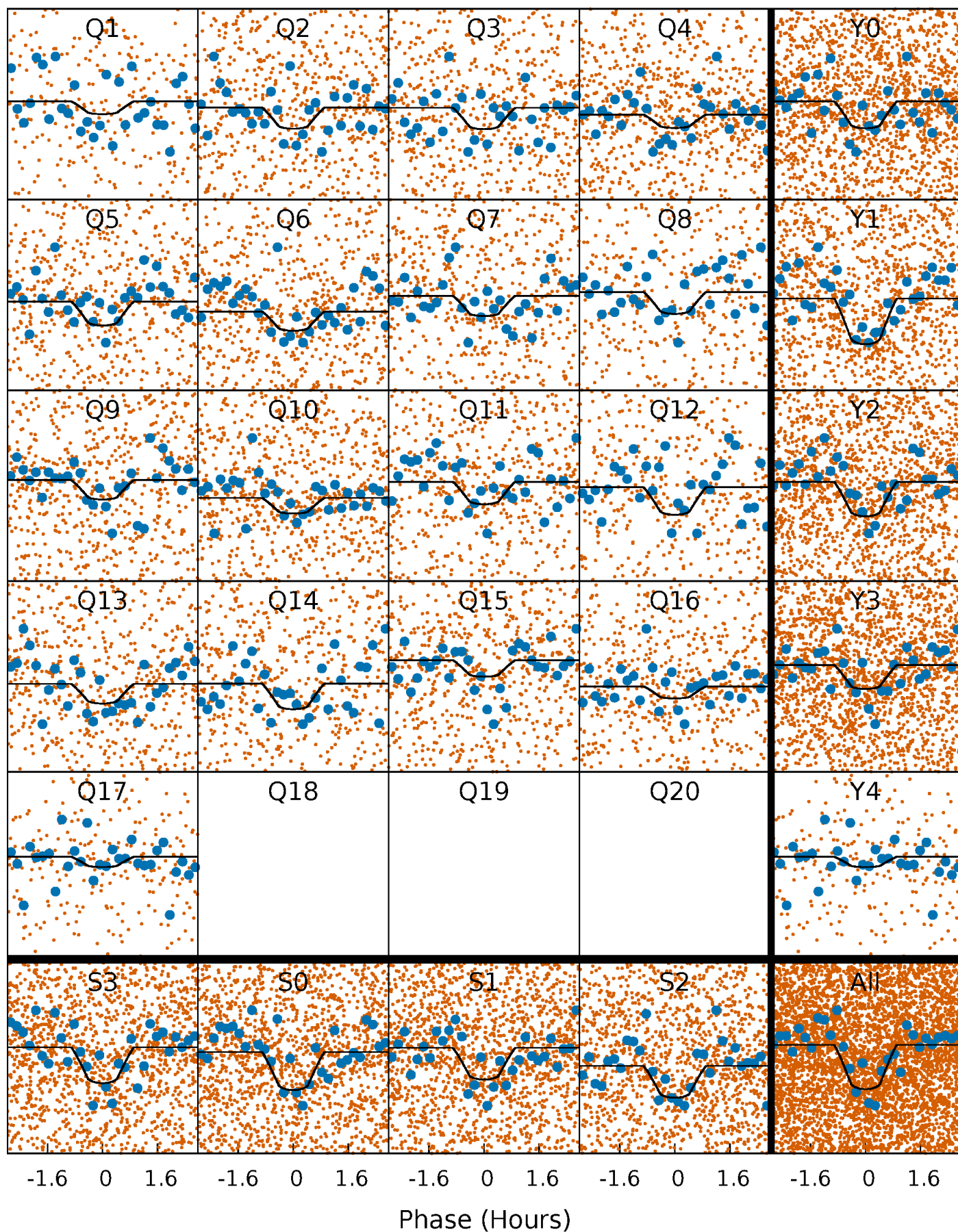
PDC Quarter-Phased Transit Curves

TCE 006128245-01 P= 1.118496 Days $T_0=131.615804$ (BKJD)



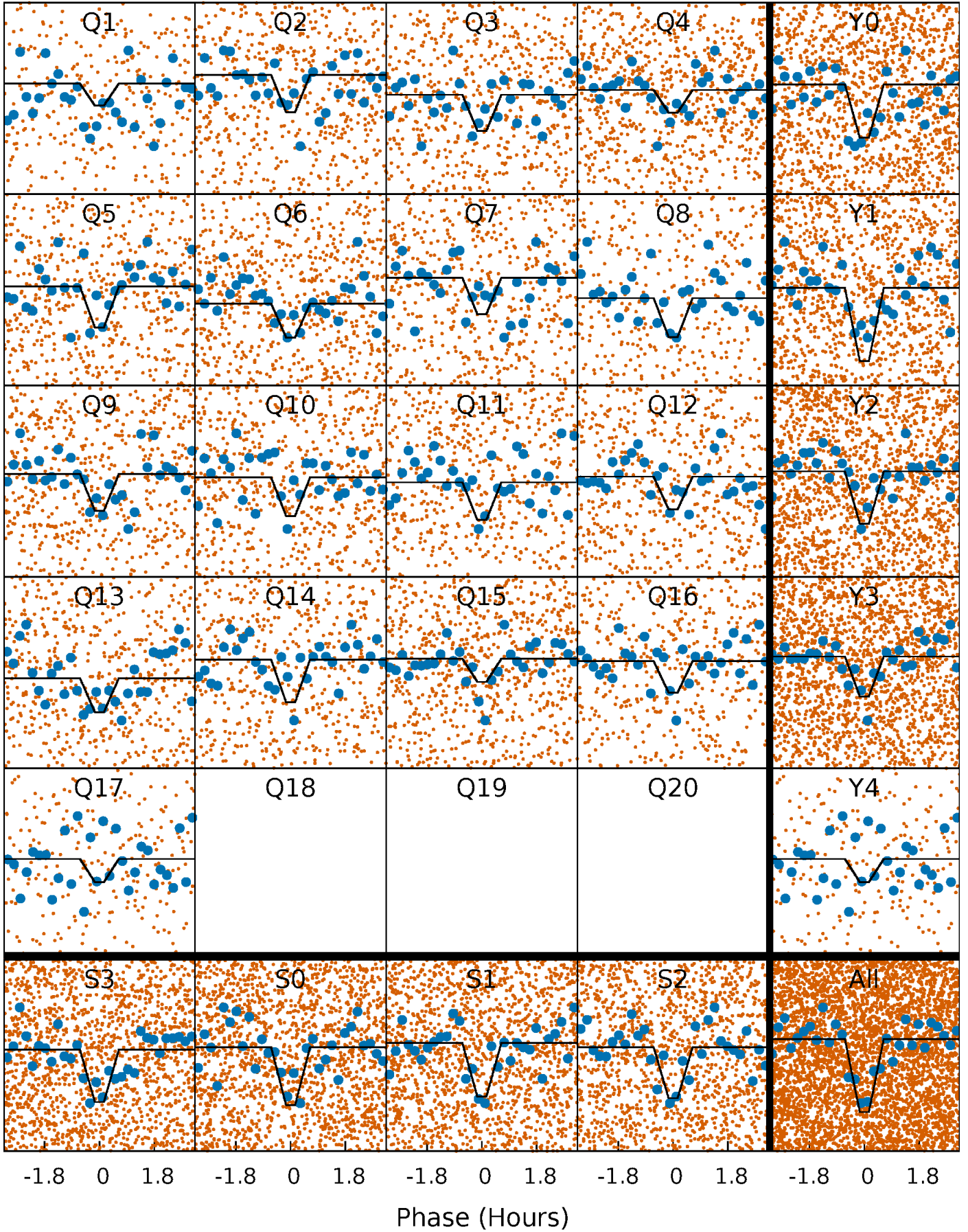
DV Quarter-Phased Transit Curves

TCE 006128245-01 P= 1.118496 Days $T_0=131.615804$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

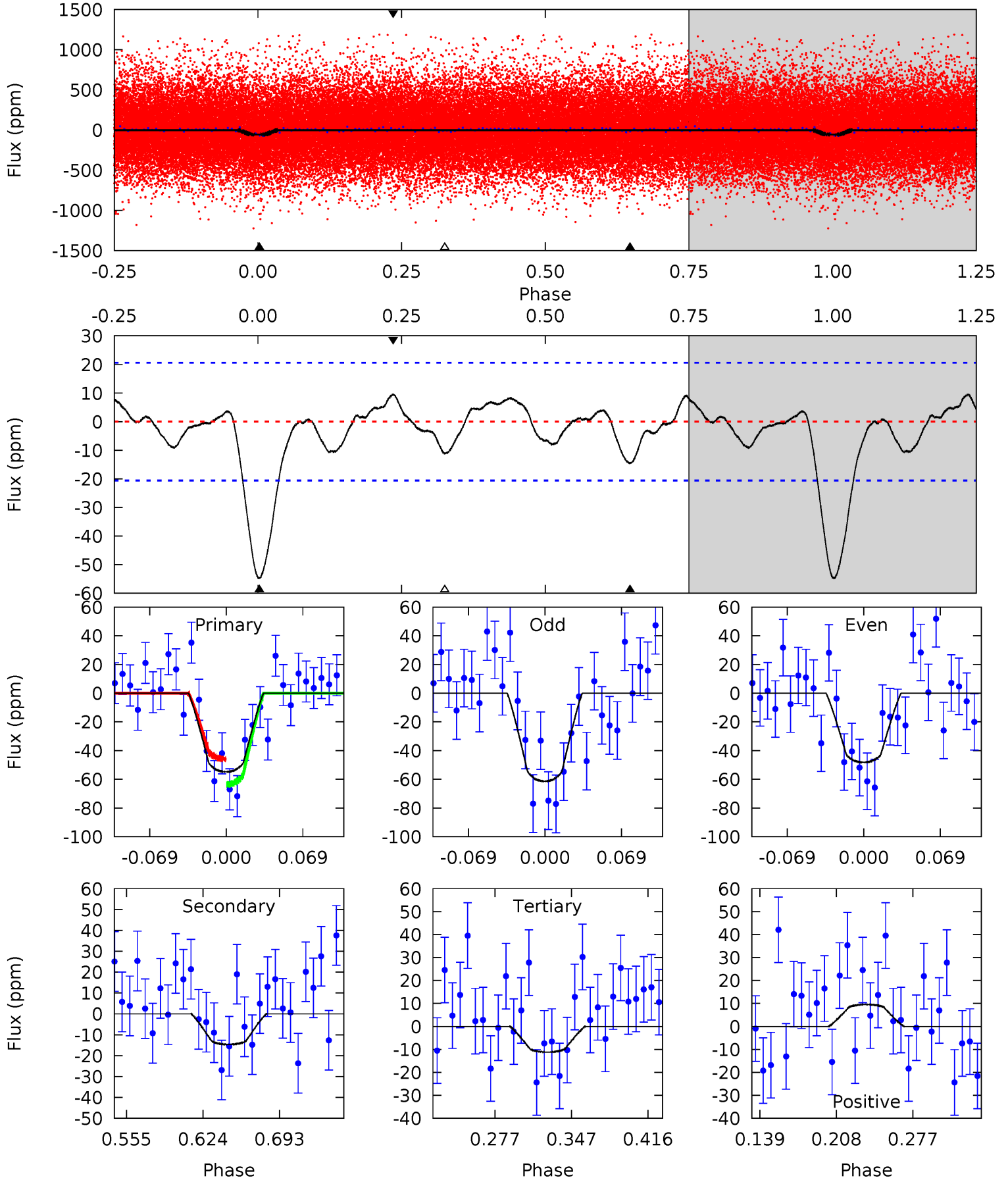
TCE 006128245-01 P= 1.118507 Days $T_0=131.611558$ (BKJD)



DV Model-Shift Uniqueness Test

006128245-01, P = 1.118496 Days, E = 130.497308 Days

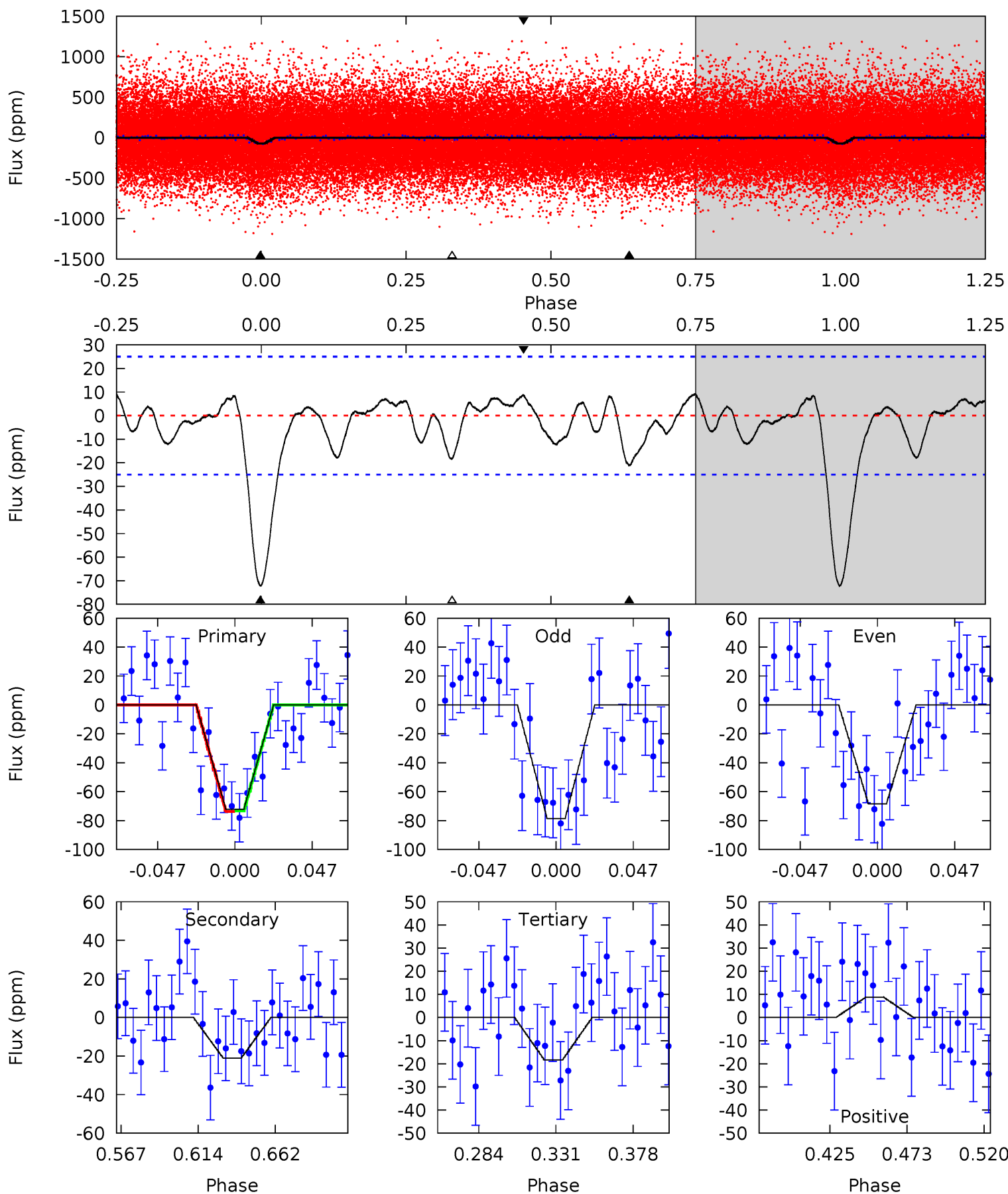
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.4	3.31	2.52	2.15	4.64	1.82	1.20	9.85	10.2	0.78	1.16	1.48	1.02	0.15	2.00



Alt Model-Shift Uniqueness Test

006128245-01, P = 1.118507 Days, E = 130.493051 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.6	3.97	3.47	1.65	4.72	1.98	1.22	10.1	12.0	0.50	2.33	0.96	1.03	0.11	0.03



Stellar Parameters For KIC 006128245

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5918^{+160}_{-178}	$4.544^{+0.036}_{-0.204}$	$-0.260^{+0.300}_{-0.300}$	$0.865^{+0.245}_{-0.082}$	$0.956^{+0.107}_{-0.119}$	$2.079^{+0.406}_{-1.057}$
	+3%/-3%	+1%/-4%	+115%/-115%	+28%/-9%	+11%/-12%	+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 006128245-01 / KOI 6666.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-15 ± 4	$0.85^{+0.55}_{-0.46}$	2415^{+162}_{-109}	4159^{+1731}_{-755}	$4.664^{+17.708}_{-3.031}$
Alt.	-21 ± 5	$0.95^{+0.57}_{-0.46}$	2421^{+158}_{-113}	4282^{+1495}_{-734}	$5.331^{+15.175}_{-3.363}$

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 $A_{obs} \gg 1.0$

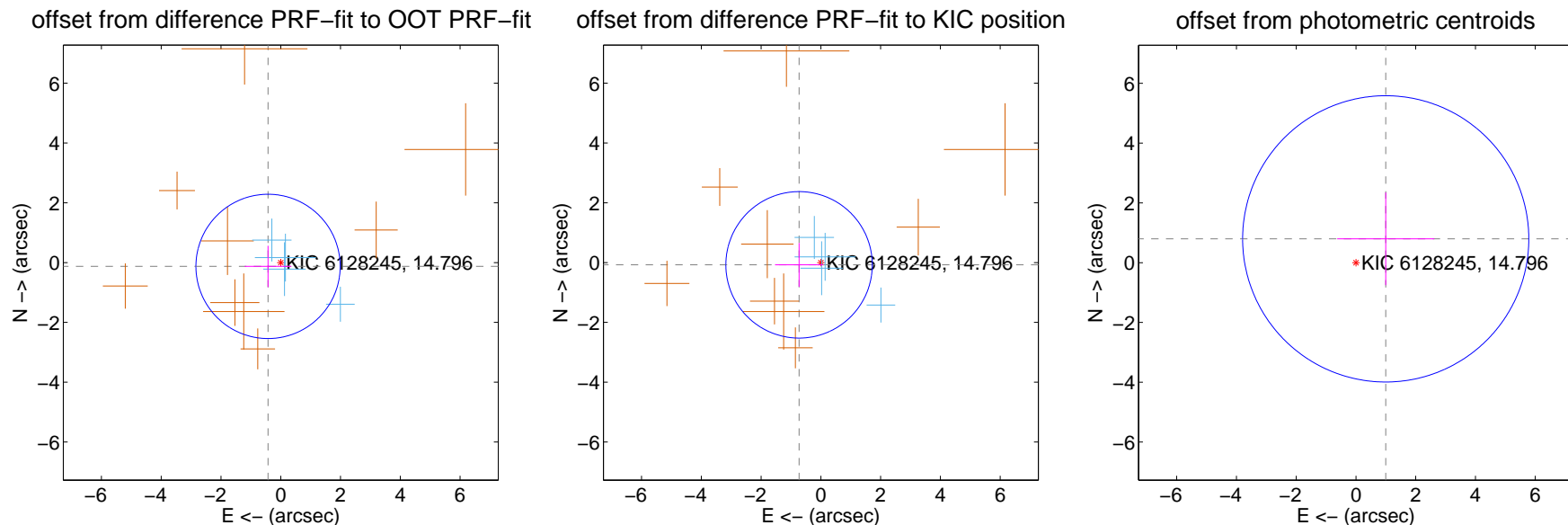
DV Centroid Data

Supplemental centroid analysis for 006128245-01. Kepler magnitude: 14.80. Transit SNR 8.31

There are 4 quarters with good PRF difference image offsets

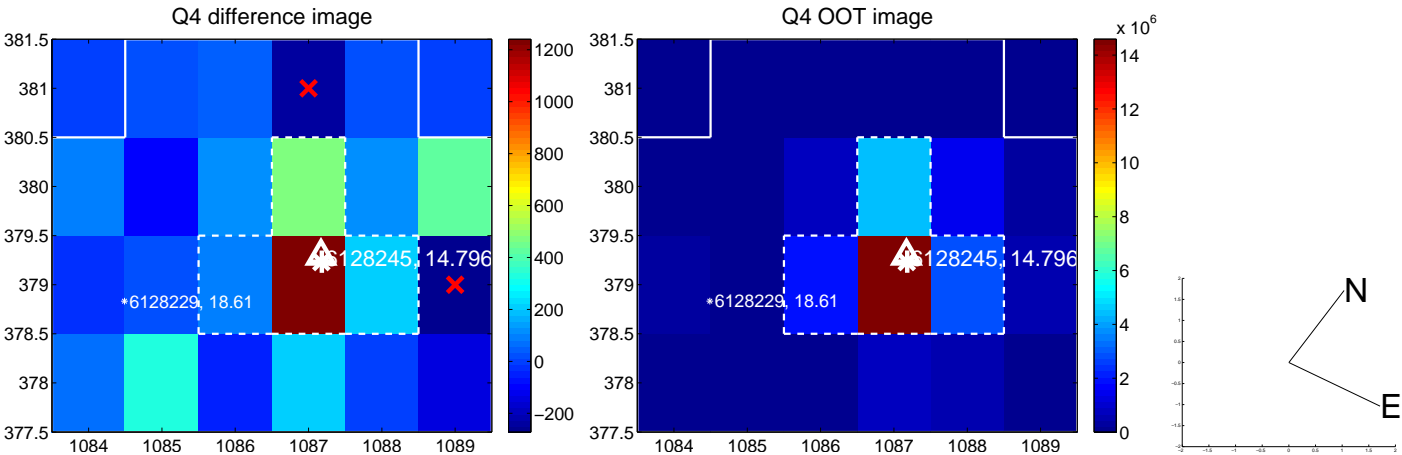
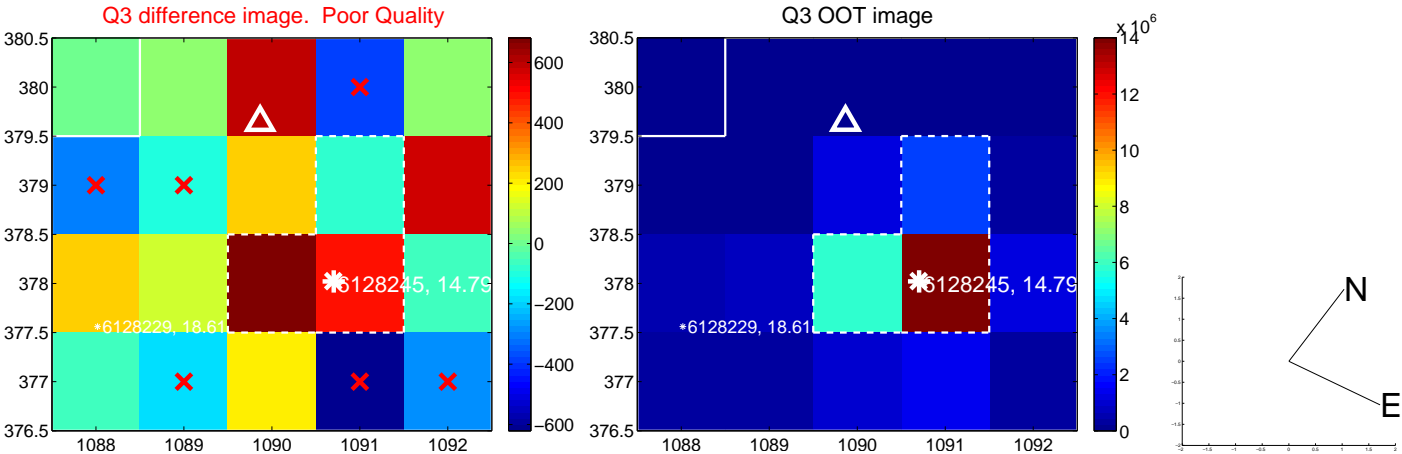
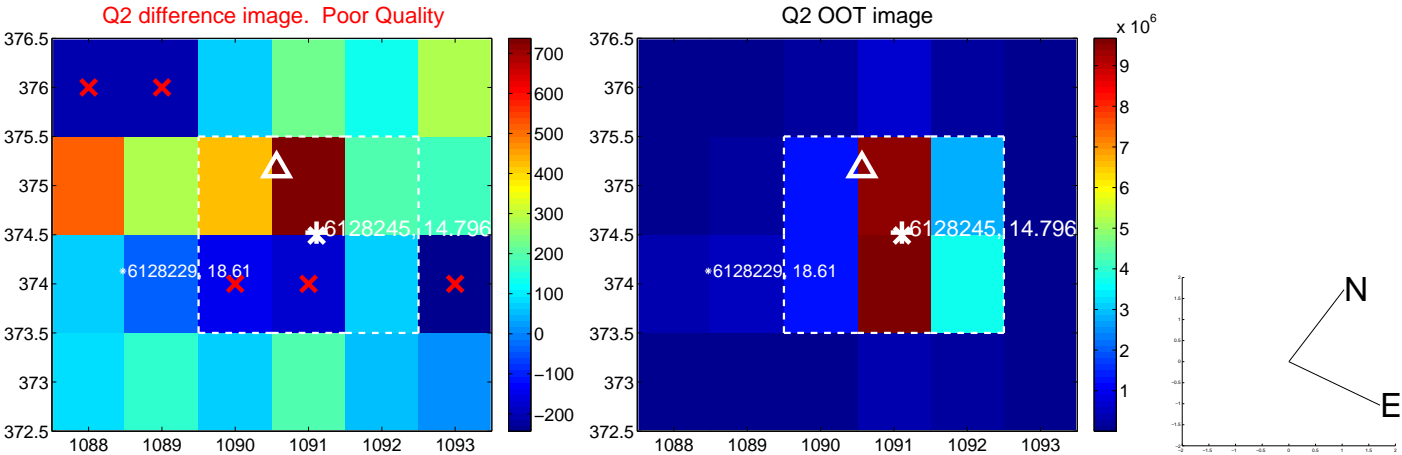
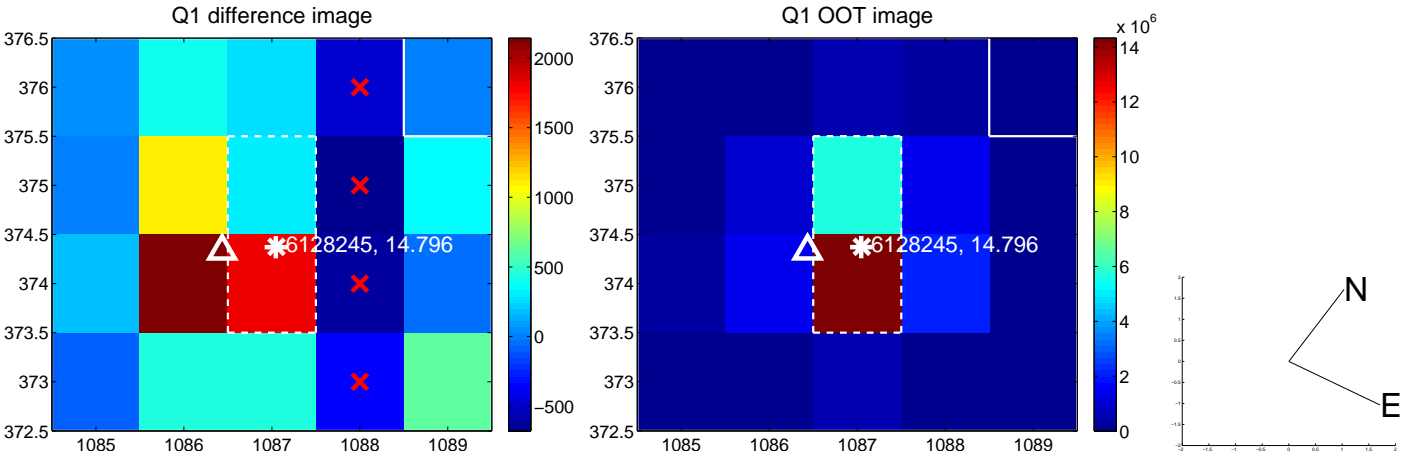
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.443 ± 0.804	0.55	0.425 ± 0.781	-0.127 ± 0.690
PRF-fit source offset from KIC position	0.733 ± 0.816	0.90	0.729 ± 0.804	-0.076 ± 0.730
photometric centroid source offset	1.27 ± 1.60	0.80	-1.00 ± 1.63	0.80 ± 1.55

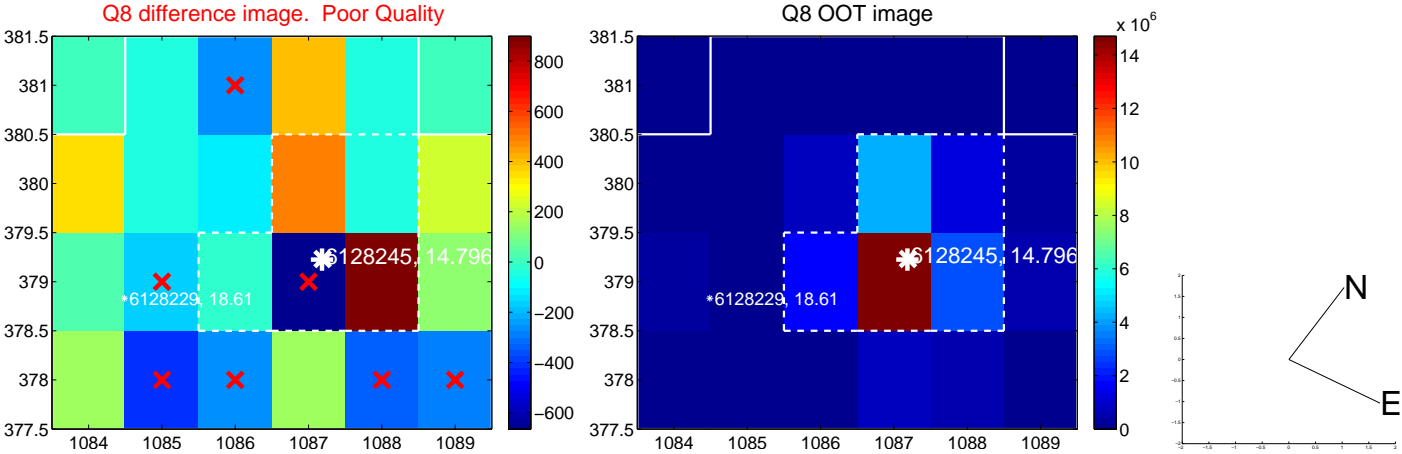
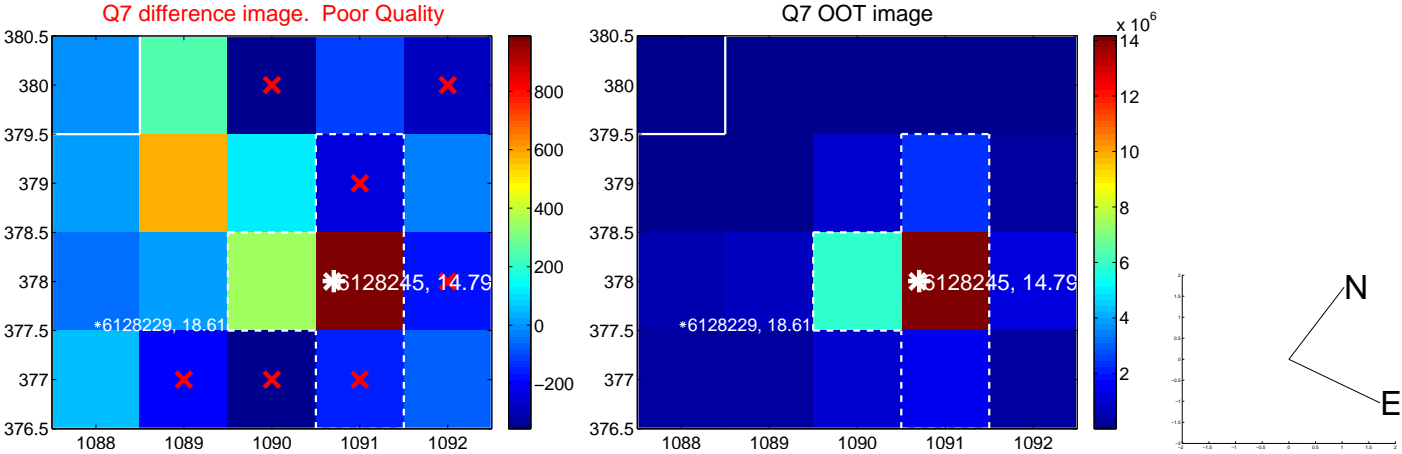
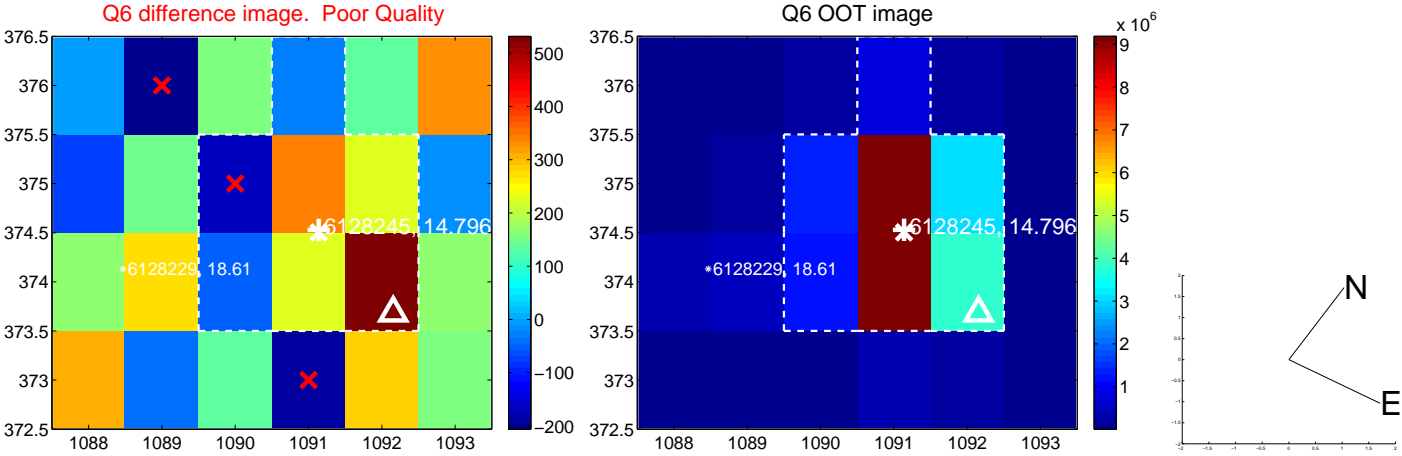
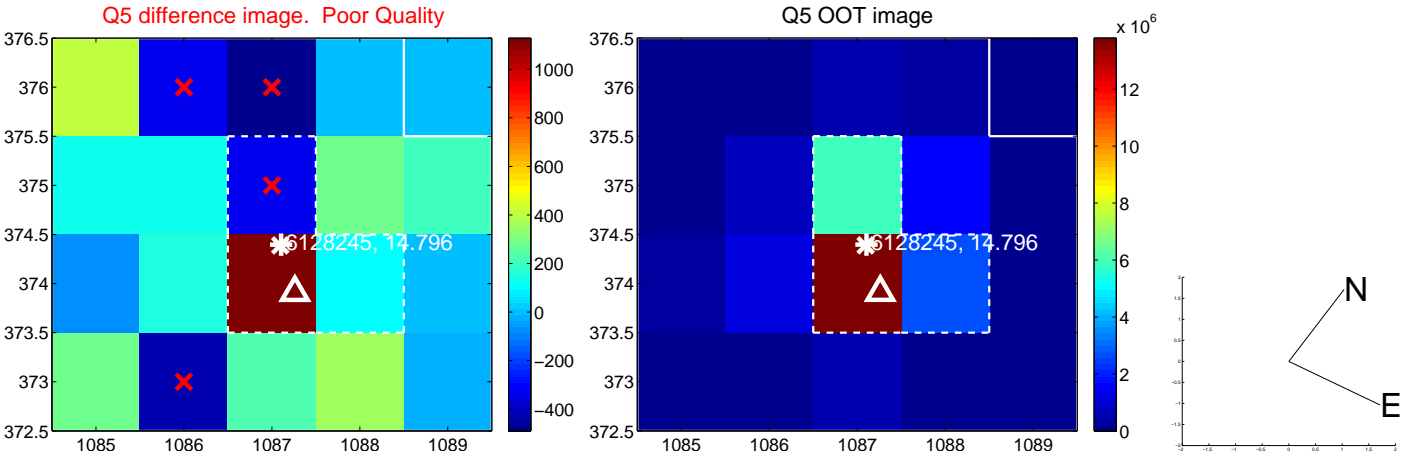


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

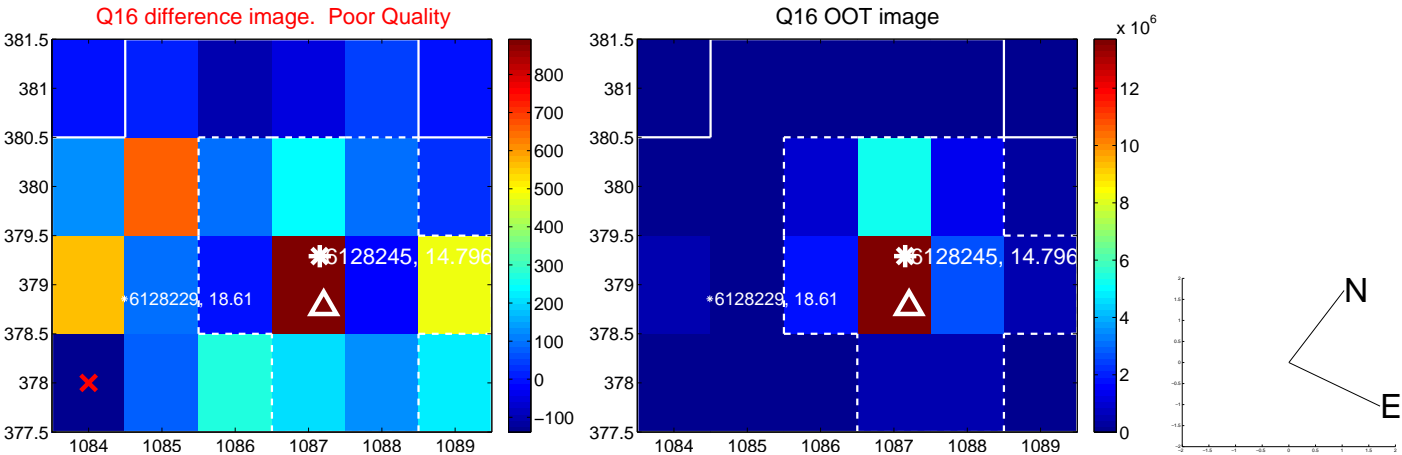
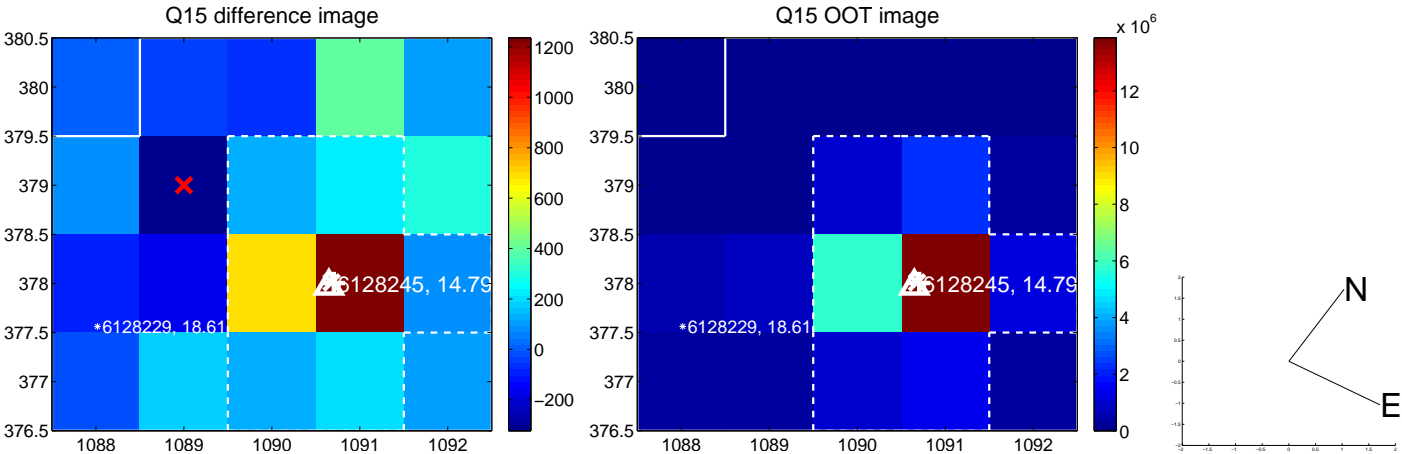
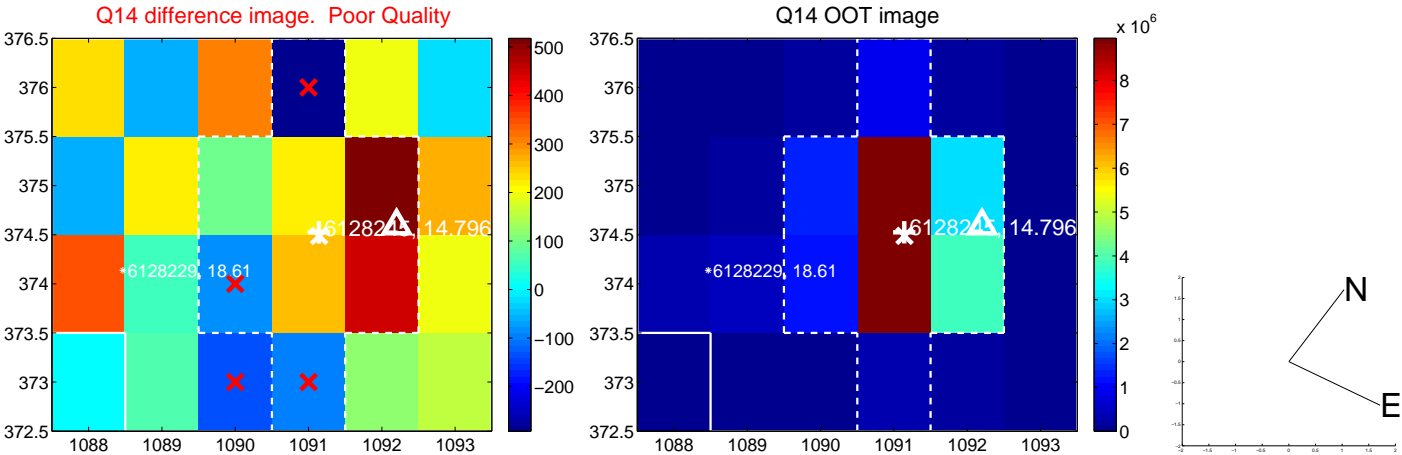
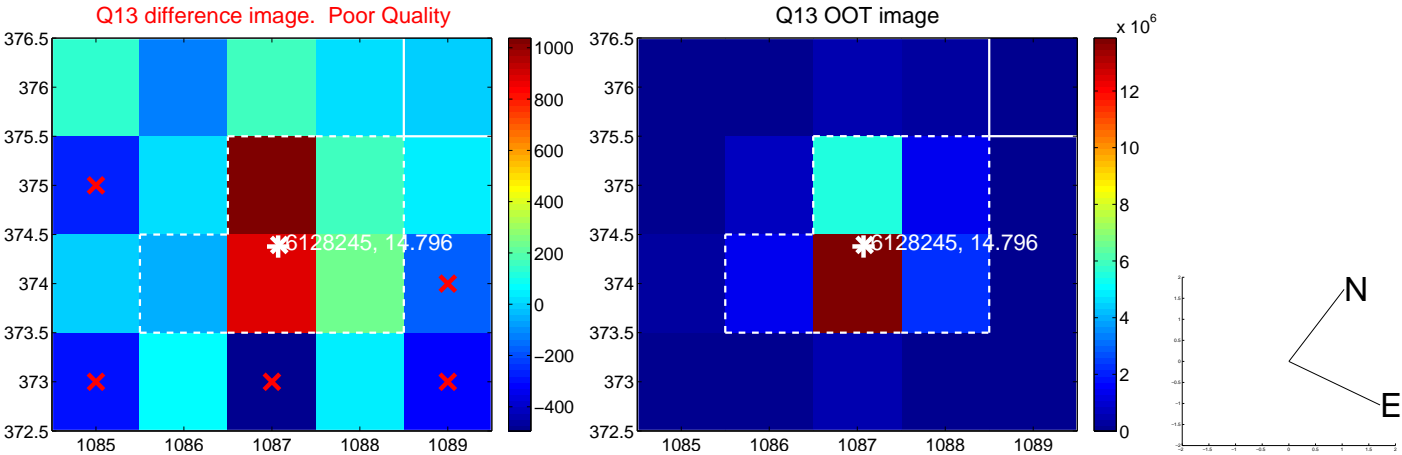
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



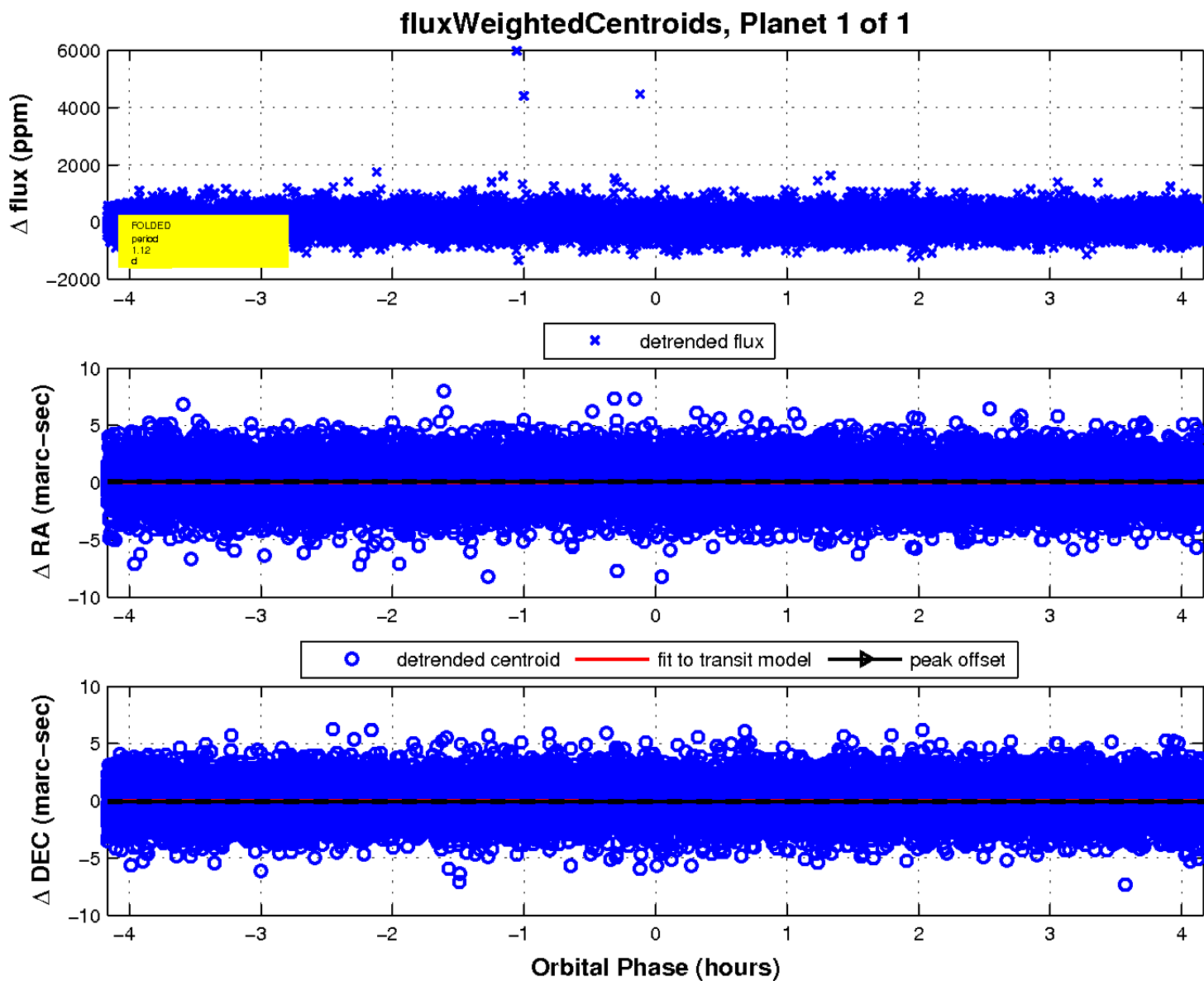
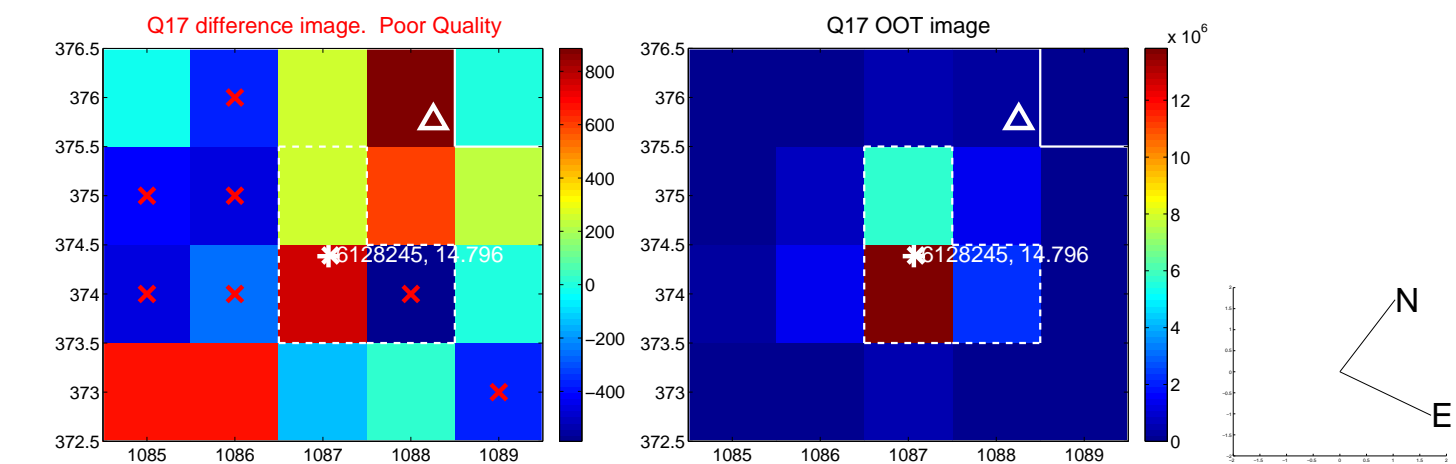
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

