

KIC 011910220

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})
011910220-01	OBS	No	4.168602	134.896787	13.6	25.965	11.9	9.0	1.65	6429	0.61	1428.77

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011910220-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV

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

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

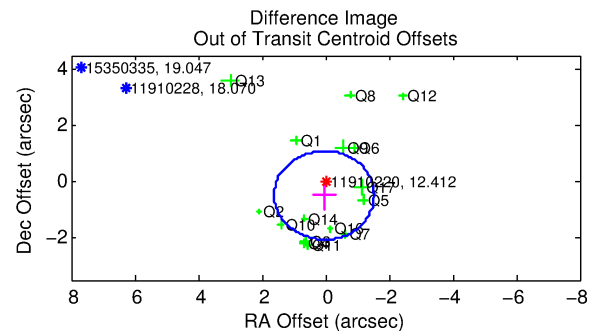
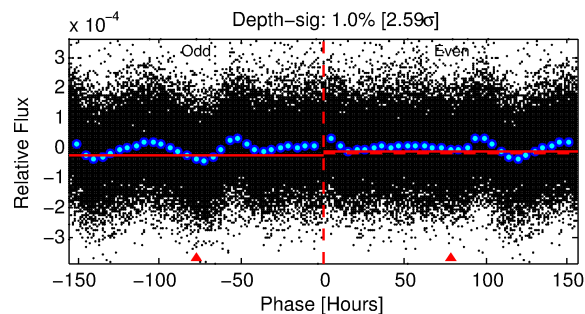
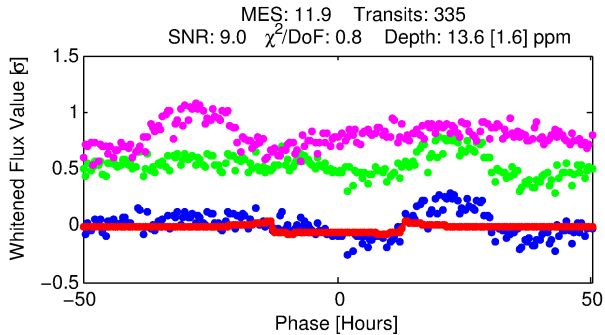
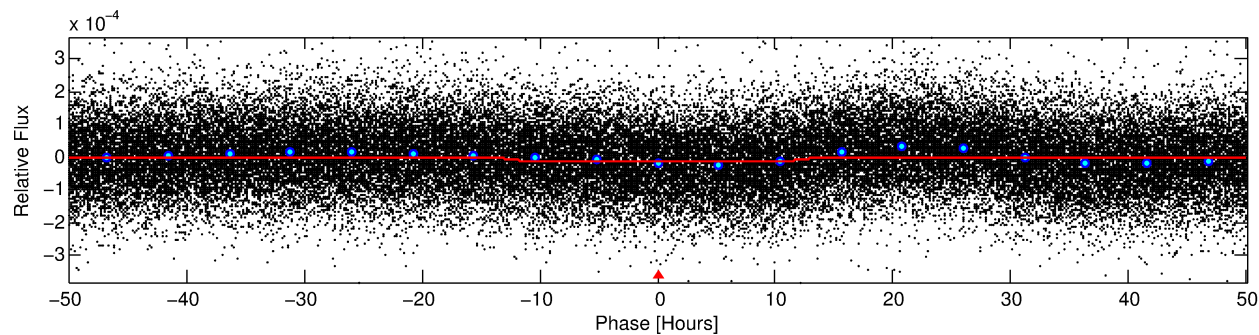
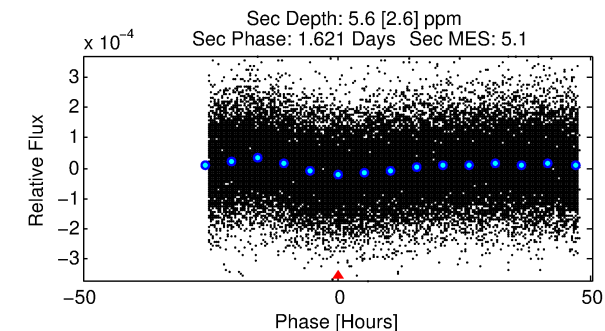
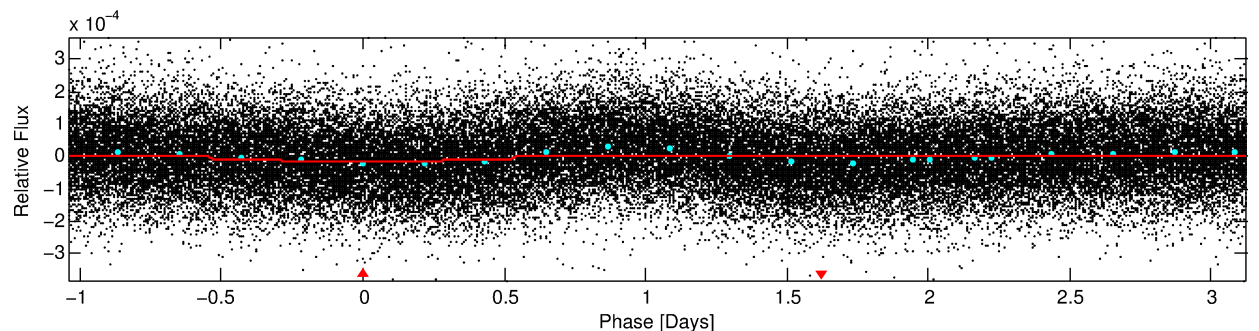
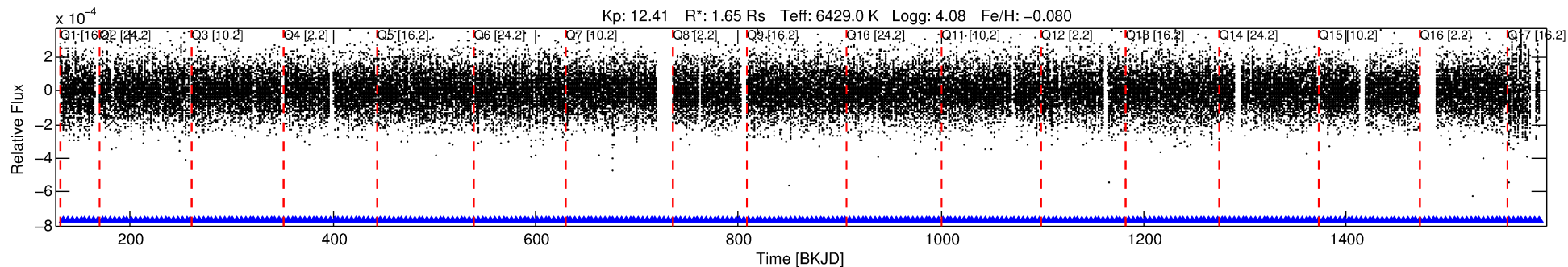
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011910220-01

No Significant Match Found

DV One-Page Summary

KIC: 11910220 Candidate: 1 of 1 Period: 4.169 d



DV Fit Results:

Period = 4.16860 [0.00008] d
Epoch = 134.8968 [0.0132] BKJD
Rp/R* = 0.0034 [0.0023]
a/R* = 1.35 [2.18]
b = 0.29 [11.20]
Seff = 1428.77 [512.66]
Teq = 1568 [141] K
Rp = 0.61 [0.44] Re
a = 0.0540 [0.0117] AU
Ag = 23.59 [34.53] [0.65σ]
Teffp = 5342 [1907] K [1.97σ]

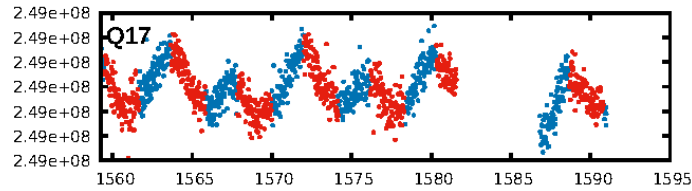
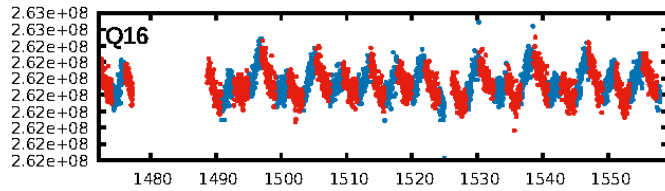
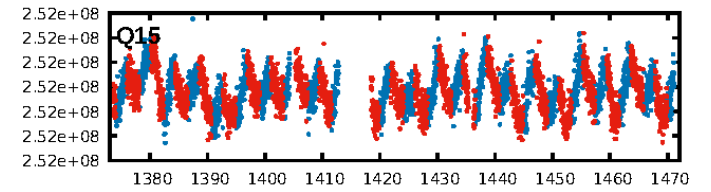
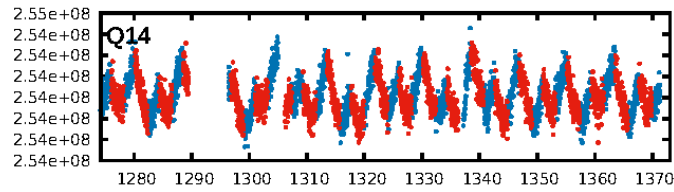
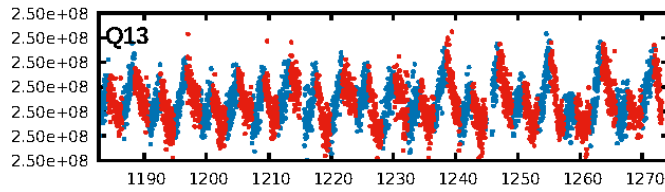
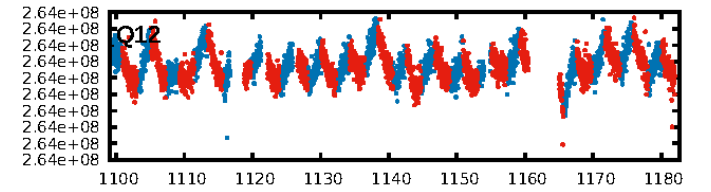
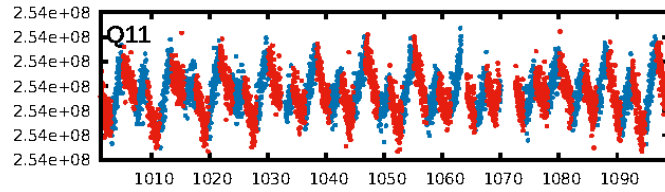
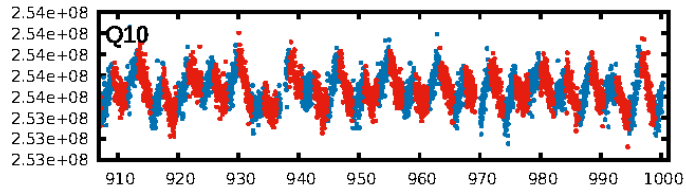
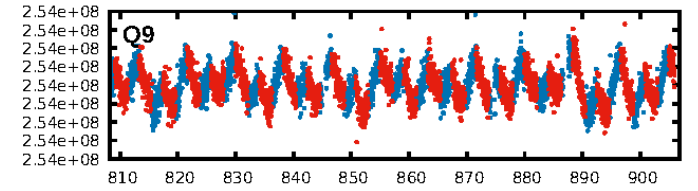
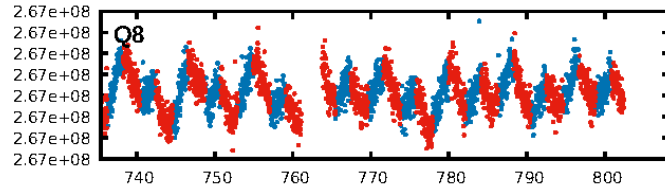
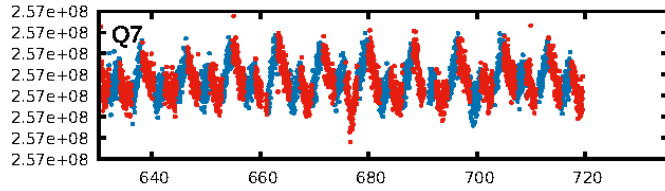
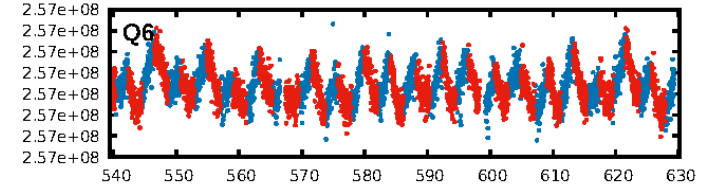
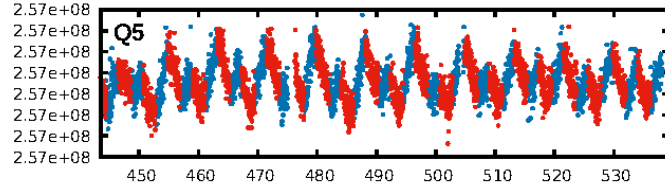
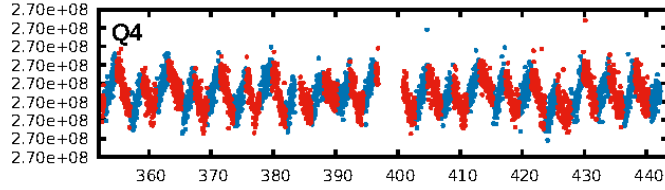
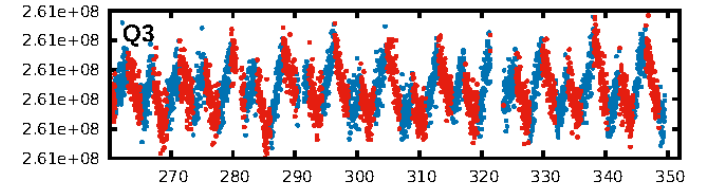
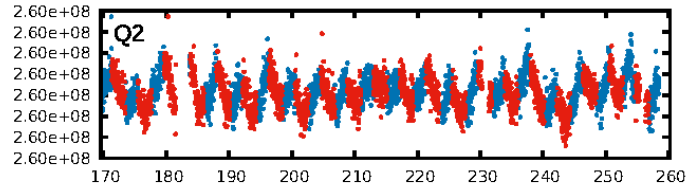
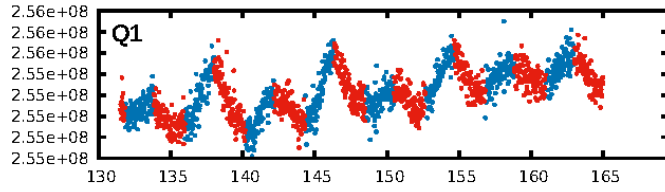
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.01e-34
RollingBand-fgt: 1.00 [320/320]
GhostDiagnostic-chr: 57.22
Centroid-sig: 0.0%
Centroid-so: 2.560 arcsec [2.32σ]
OotOffset-rm: 0.487 arcsec [0.93σ]
KicOffset-rm: 0.489 arcsec [0.93σ]
OotOffset-st: 4/3/4/5 [16]
KicOffset-st: 4/3/4/5 [16]
DiffImageQuality-fgm: 0.81 [13/16]
DiffImageOverlap-fno: 1.00 [17/17]

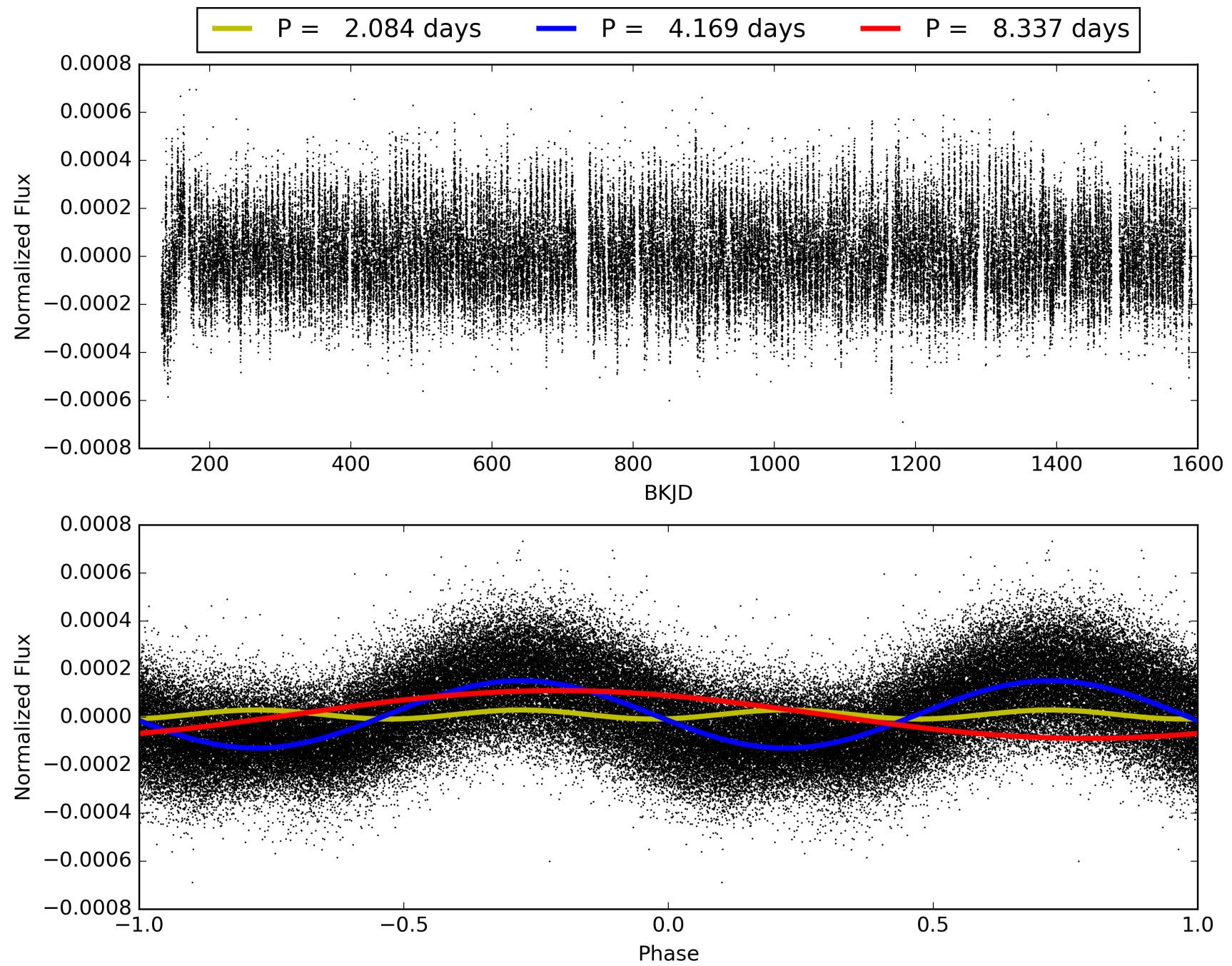
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 21:49:43 Z

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

TCE 011910220-01, PDC Light Curves

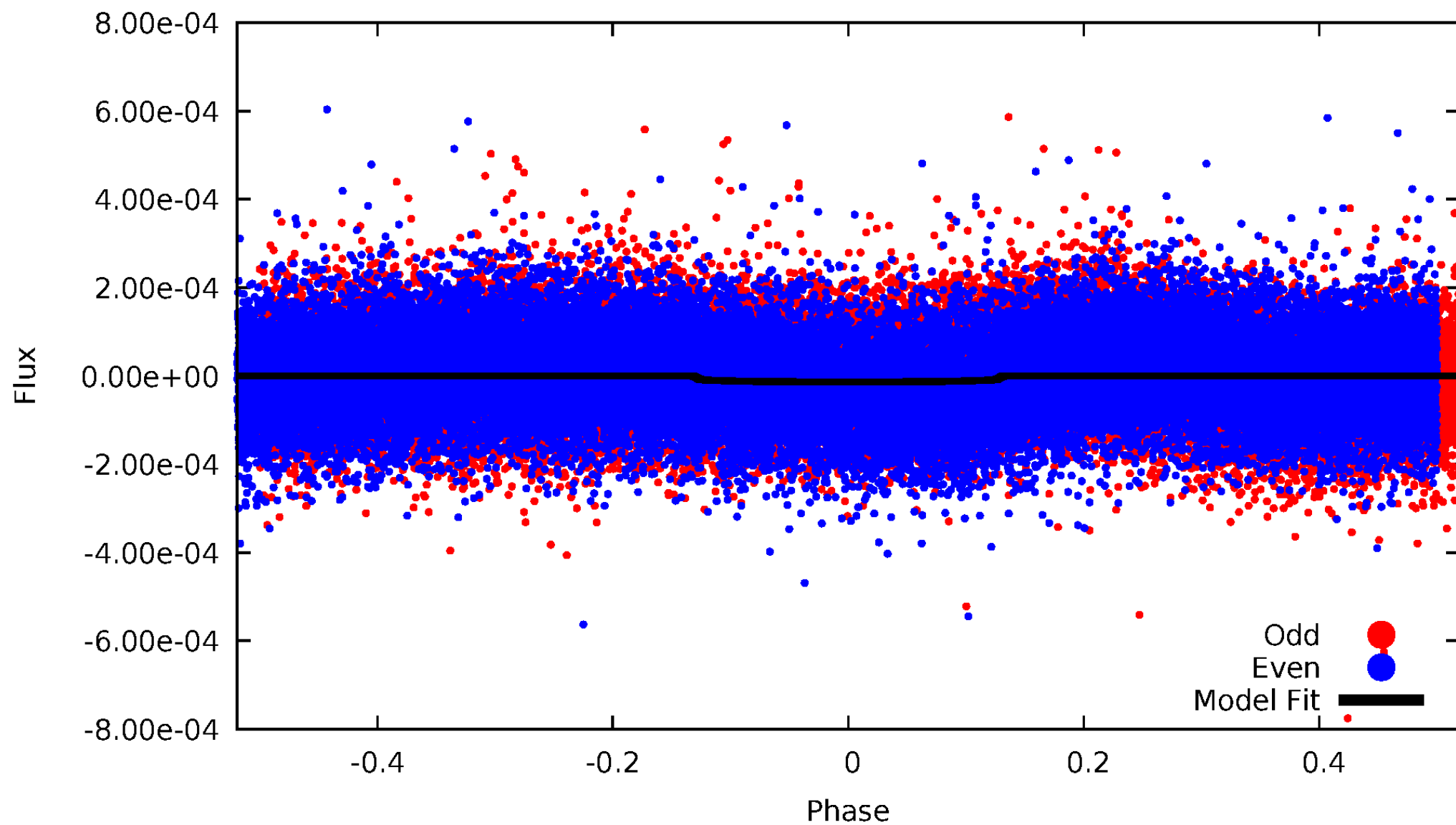


TCE 011910220-01



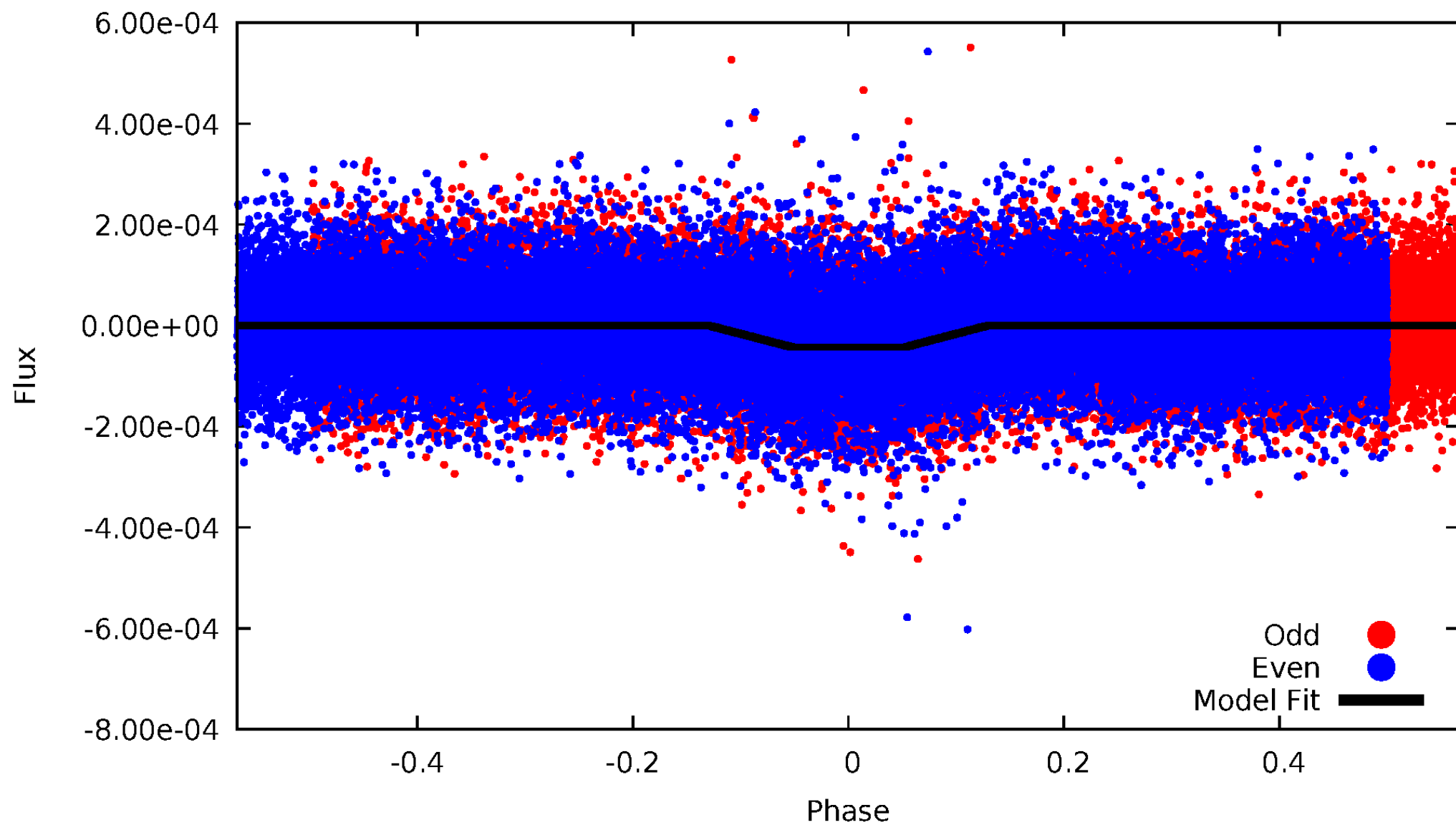
DV Odd/Even

TCE 011910220-01



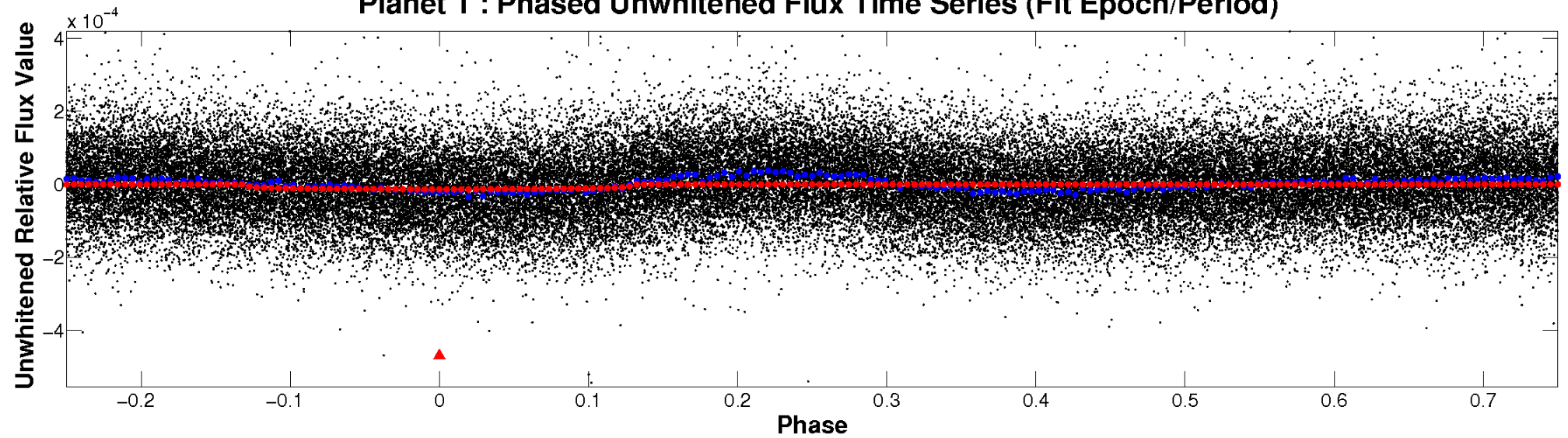
ALT Odd/Even

TCE 011910220-01

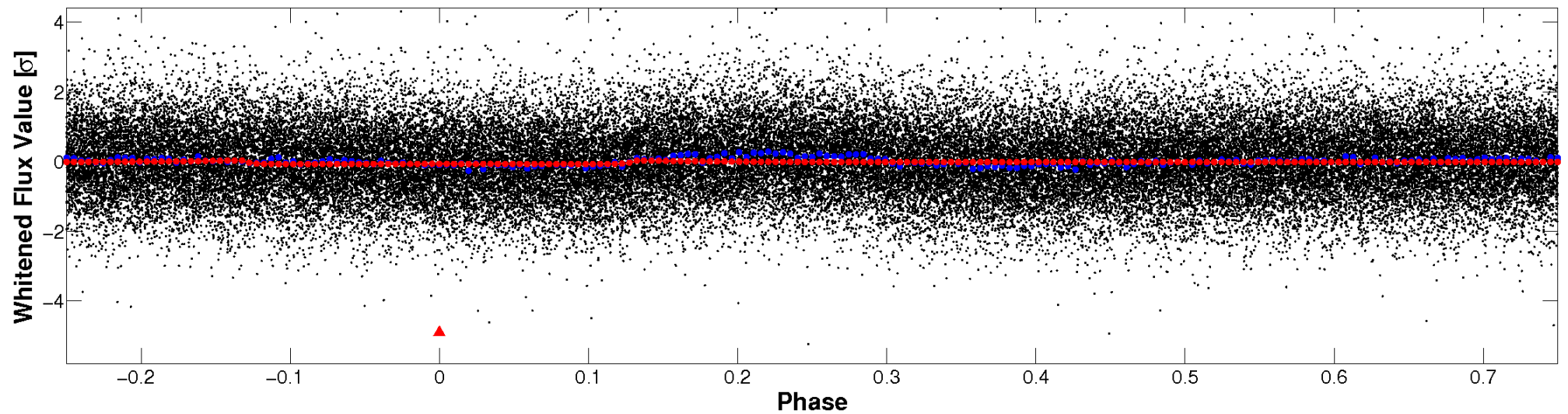


Non-Whitened Vs. Whitened Light Curve

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

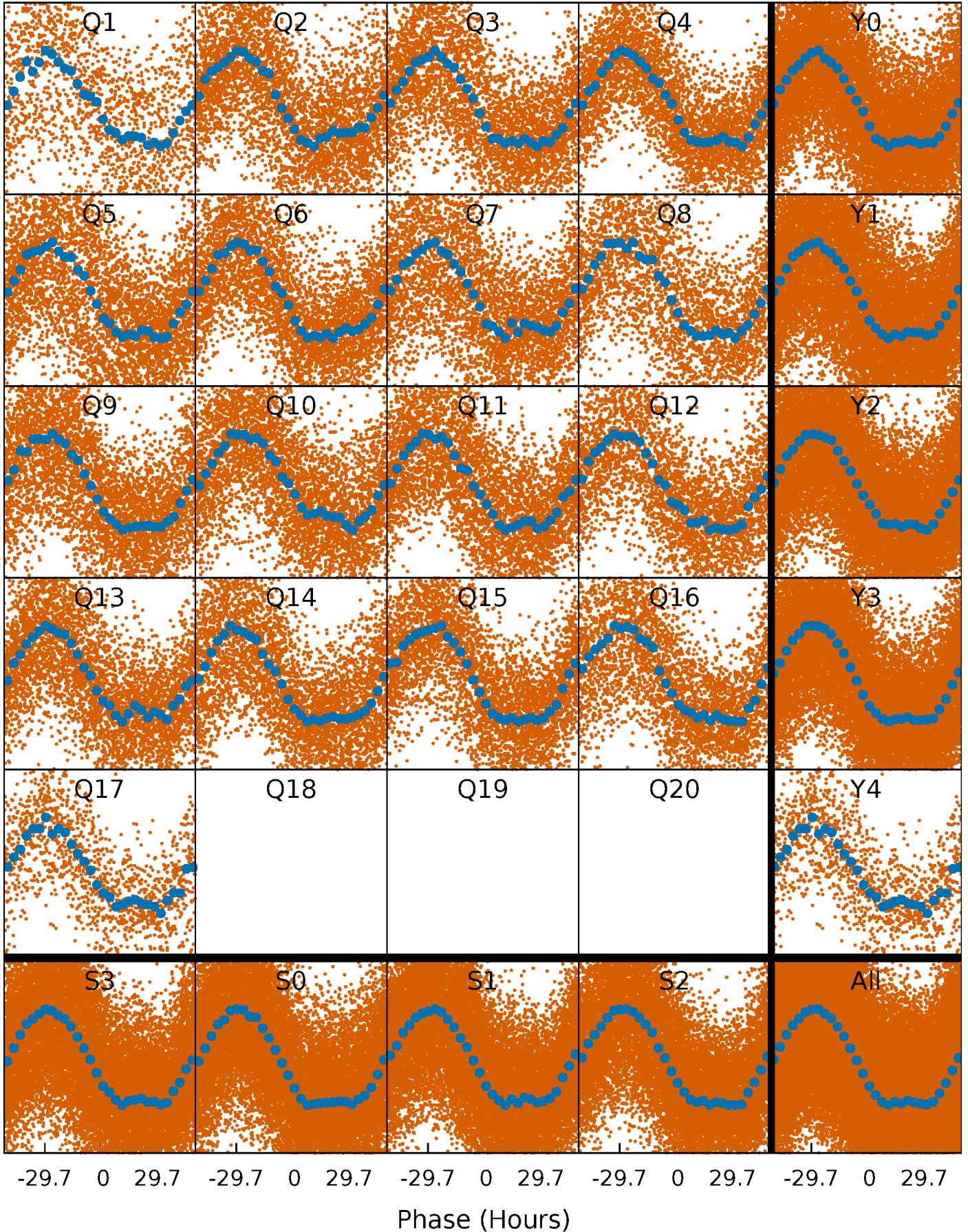


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



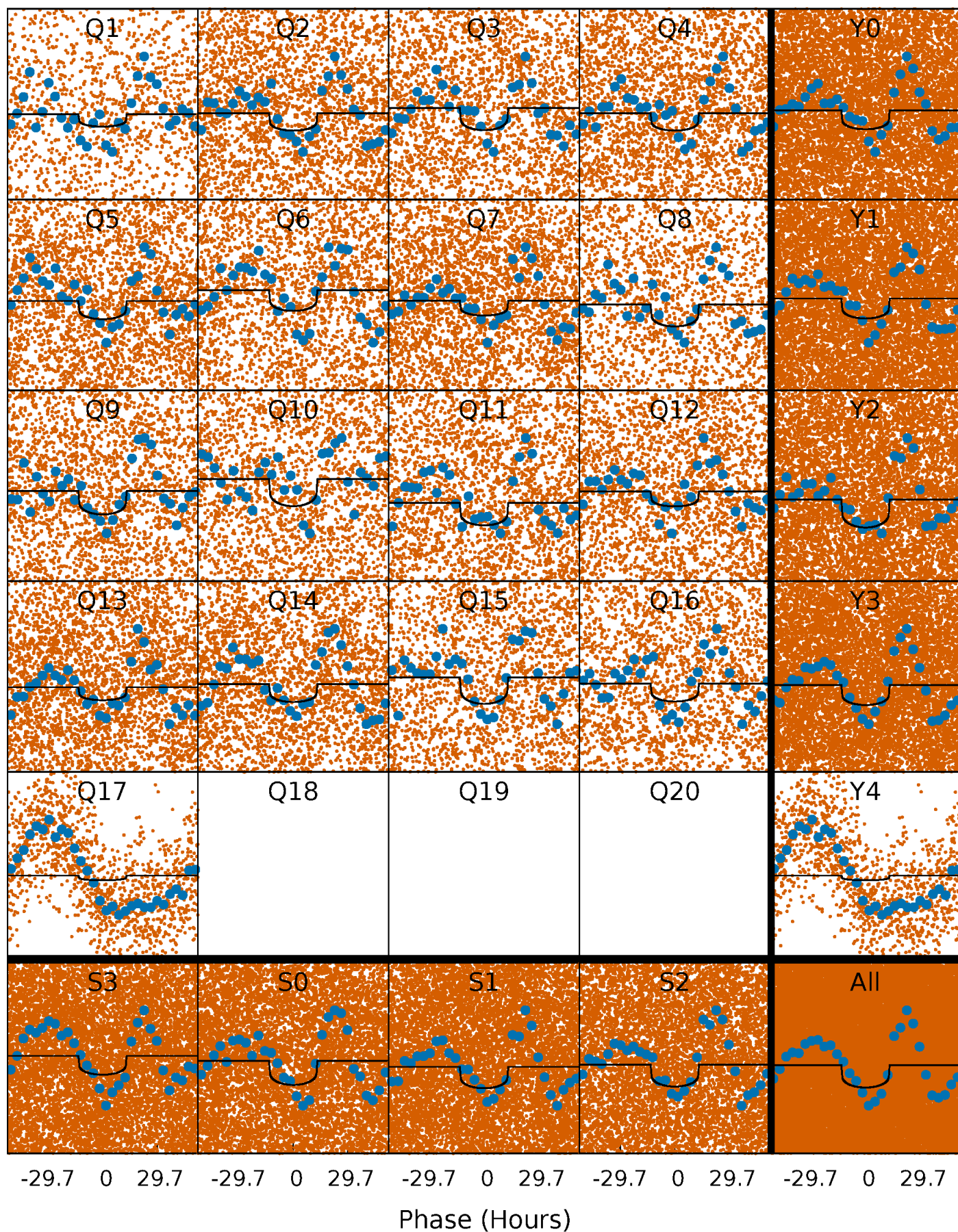
PDC Quarter-Phased Transit Curves

TCE 011910220-01 P= 4.168602 Days $T_0=134.896787$ (BKJD)



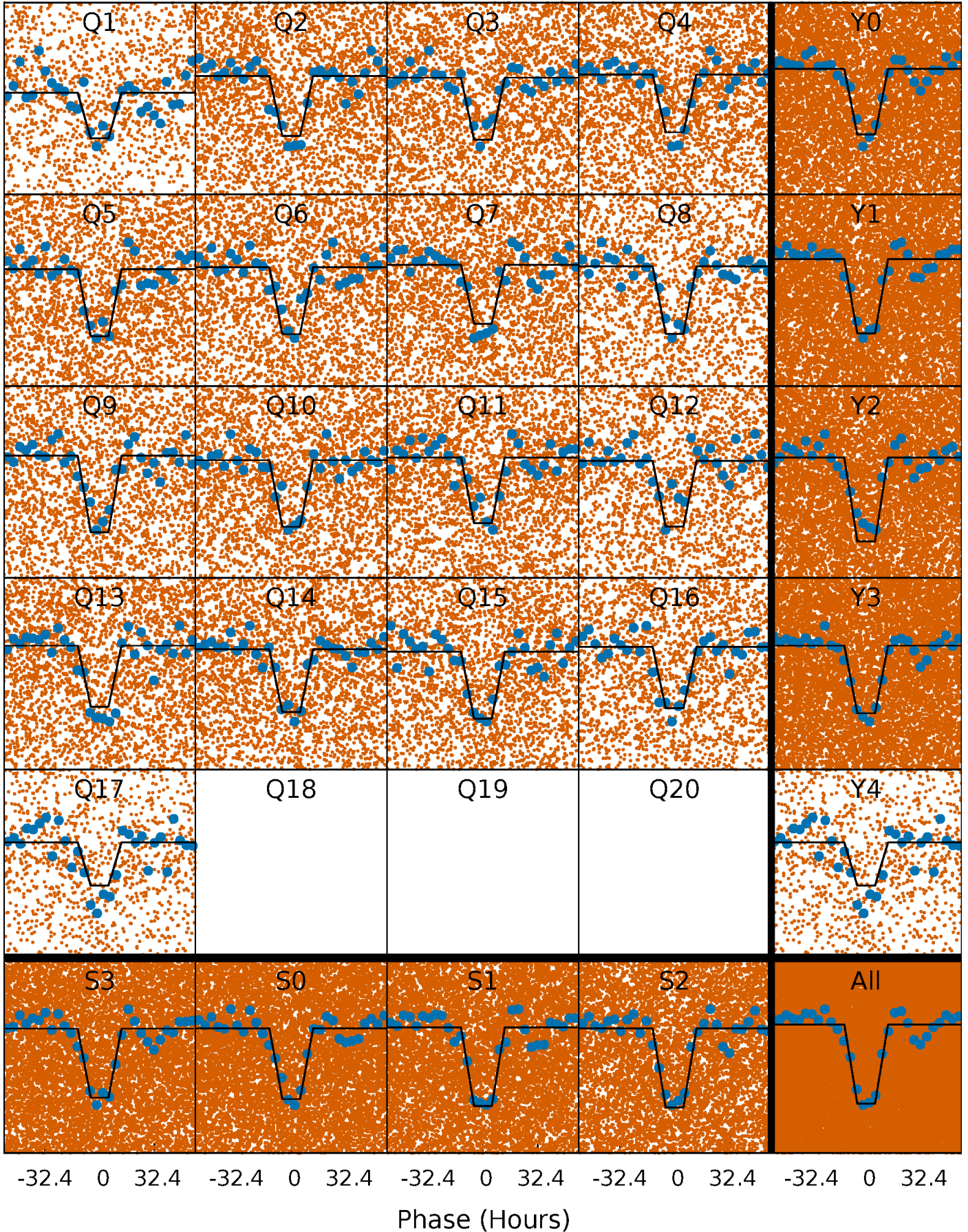
DV Quarter-Phased Transit Curves

TCE 011910220-01 P= 4.168602 Days $T_0=134.896787$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

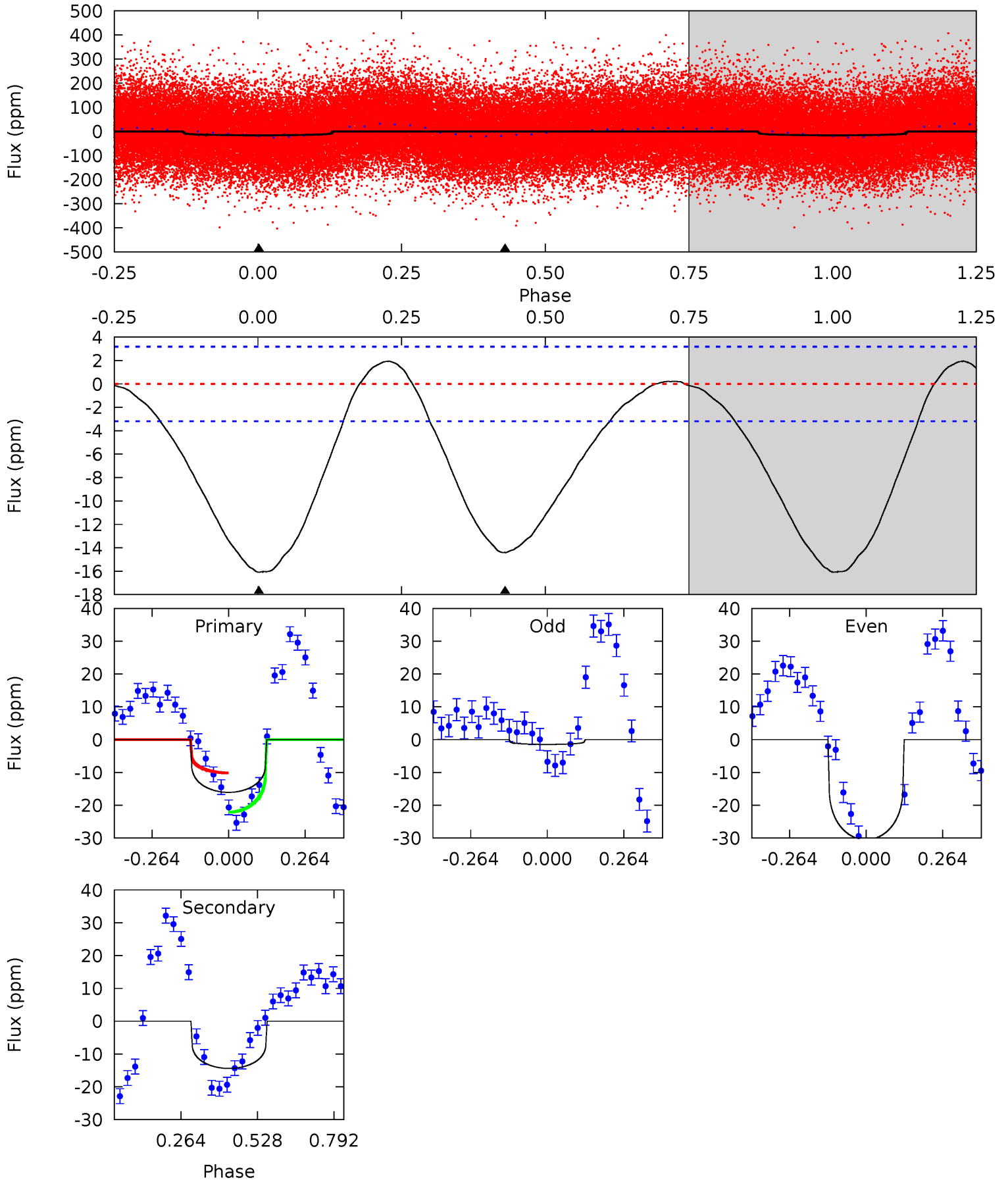
TCE 011910220-01 P= 4.168223 Days $T_0=135.182373$ (BKJD)



DV Model-Shift Uniqueness Test

011910220-01, P = 4.168602 Days, E = 130.728185 Days

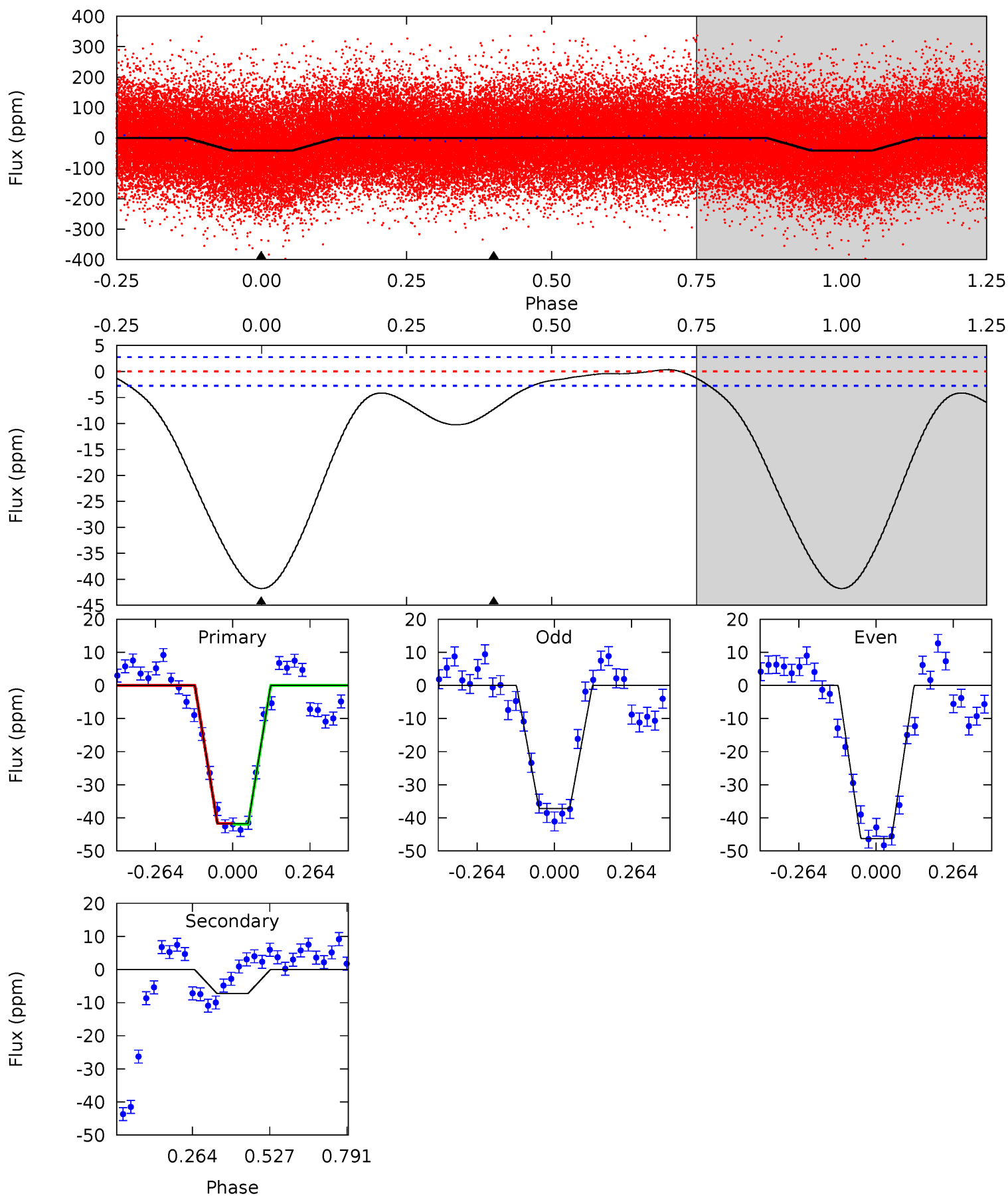
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.0	19.7	0	0	4.36	1.12	0.37	22.0	22.0	19.7	19.7	20.0	0.91	0.11	8.36



Alt Model-Shift Uniqueness Test

011910220-01, P = 4.168223 Days, E = 131.014150 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
65.8	11.5	0	0	4.36	1.12	0.69	65.8	65.8	11.5	11.5	7.15	0.94	0.01	0.19



Stellar Parameters For KIC 011910220

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	ρ_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6429^{+146}_{-178}	$4.085^{+0.198}_{-0.132}$	$-0.080^{+0.250}_{-0.250}$	$1.649^{+0.384}_{-0.384}$	$1.206^{+0.192}_{-0.157}$	$0.379^{+0.433}_{-0.151}$
	+2%/-3%	+5%/-3%	+312%/-312%	+23%/-23%	+16%/-13%	+114%/-40%
Source	PHO1	FLK73	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 011910220-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-14 ± 1	$0.62^{+0.43}_{-0.31}$	2174^{+142}_{-147}	6582^{+3648}_{-1352}	59^{+171}_{-38}
Alt.	-7 ± 1	$1.14^{+0.50}_{-0.40}$	2167^{+143}_{-138}	4339^{+844}_{-505}	$9.386^{+12.763}_{-4.851}$

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

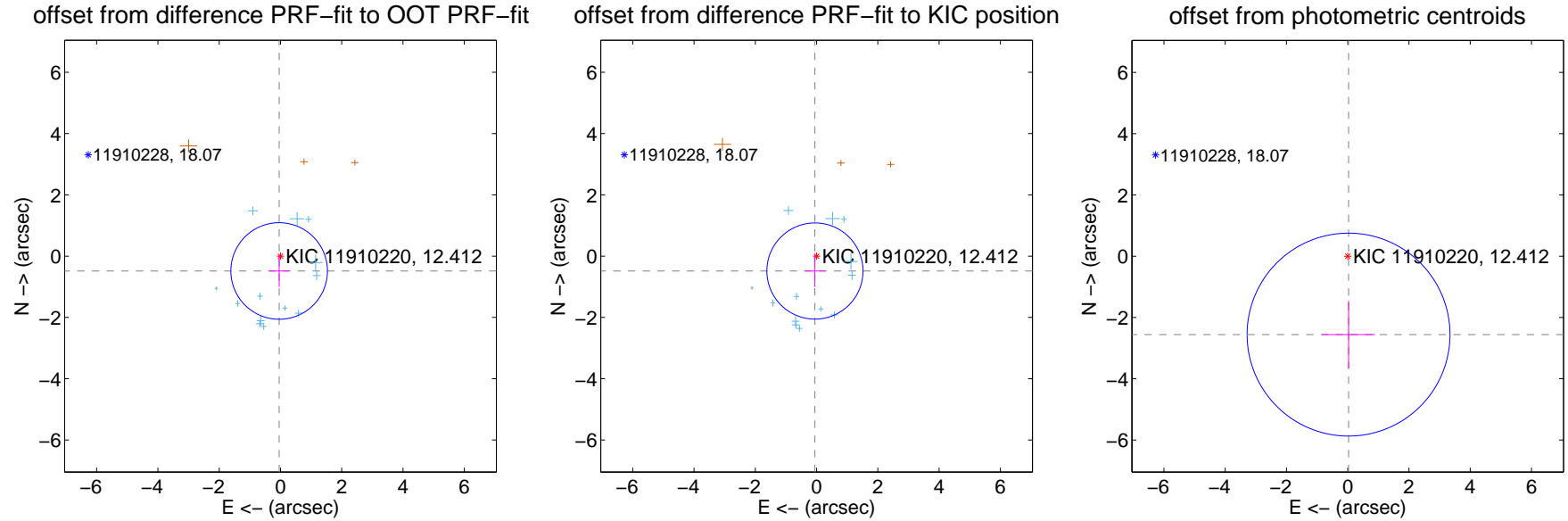
DV Centroid Data

Supplemental centroid analysis for 011910220-01. Kepler magnitude: 12.41. Transit SNR 8.98

There are 13 quarters with good PRF difference image offsets

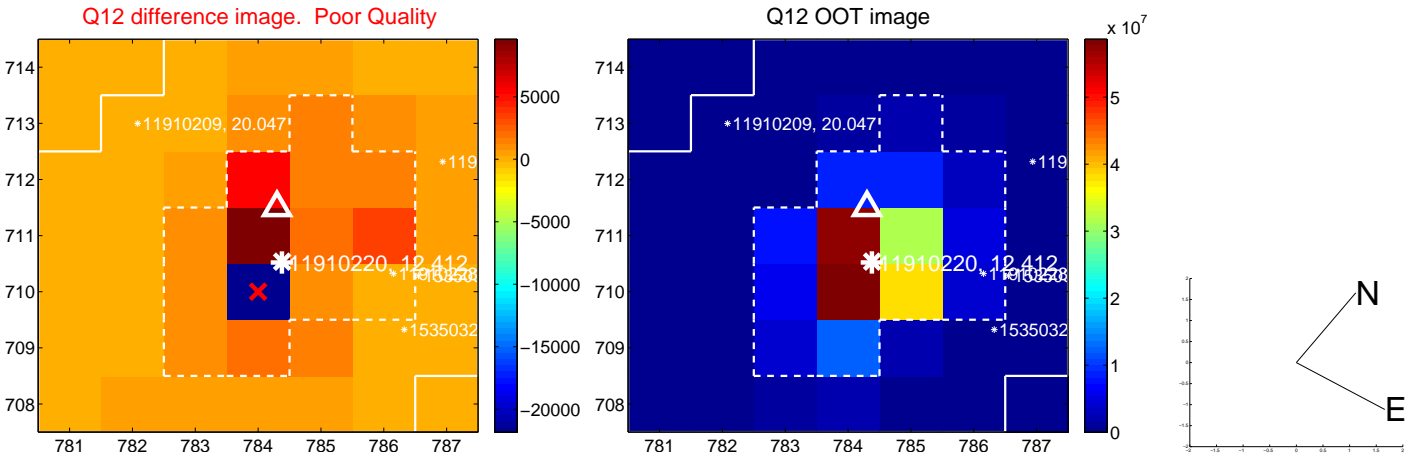
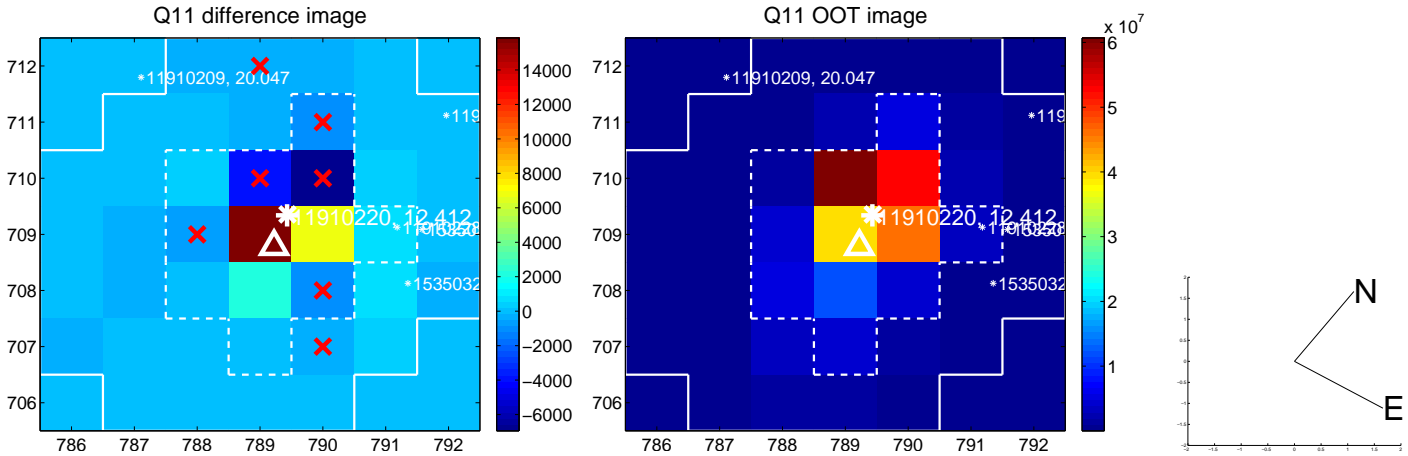
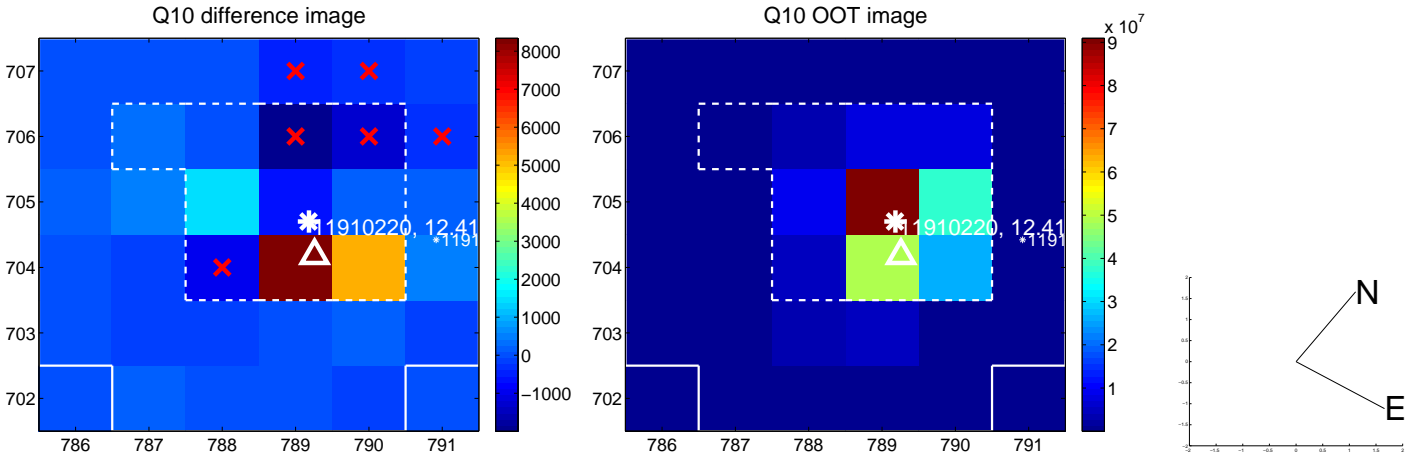
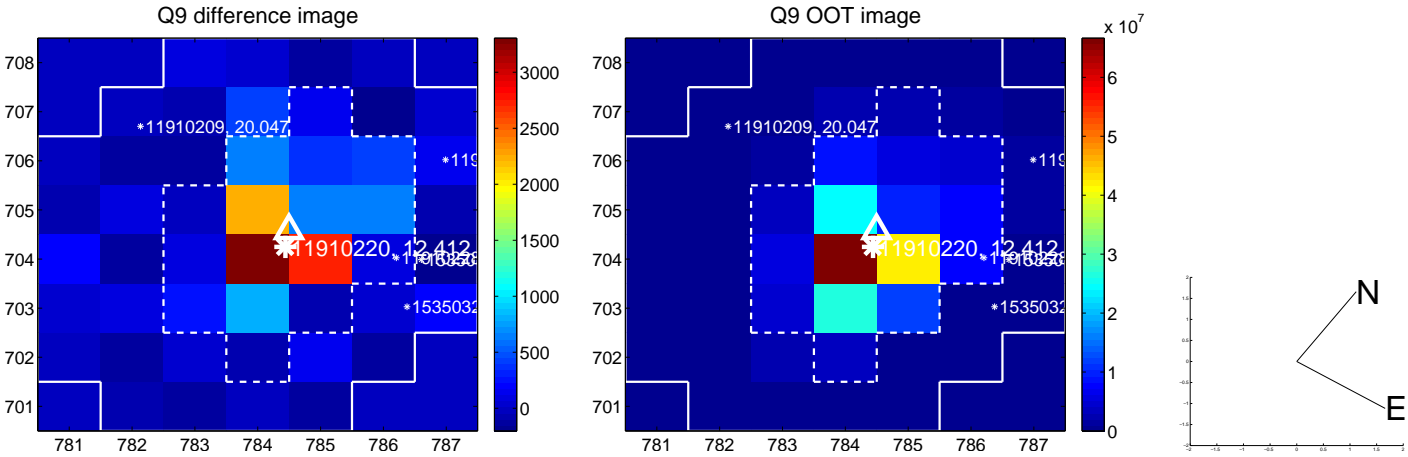
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.487 ± 0.525	0.93	0.043 ± 0.339	-0.485 ± 0.520
PRF-fit source offset from KIC position	0.489 ± 0.523	0.93	0.053 ± 0.347	-0.486 ± 0.518
photometric centroid source offset	2.56 ± 1.10	2.32	-0.03 ± 0.87	-2.56 ± 1.10

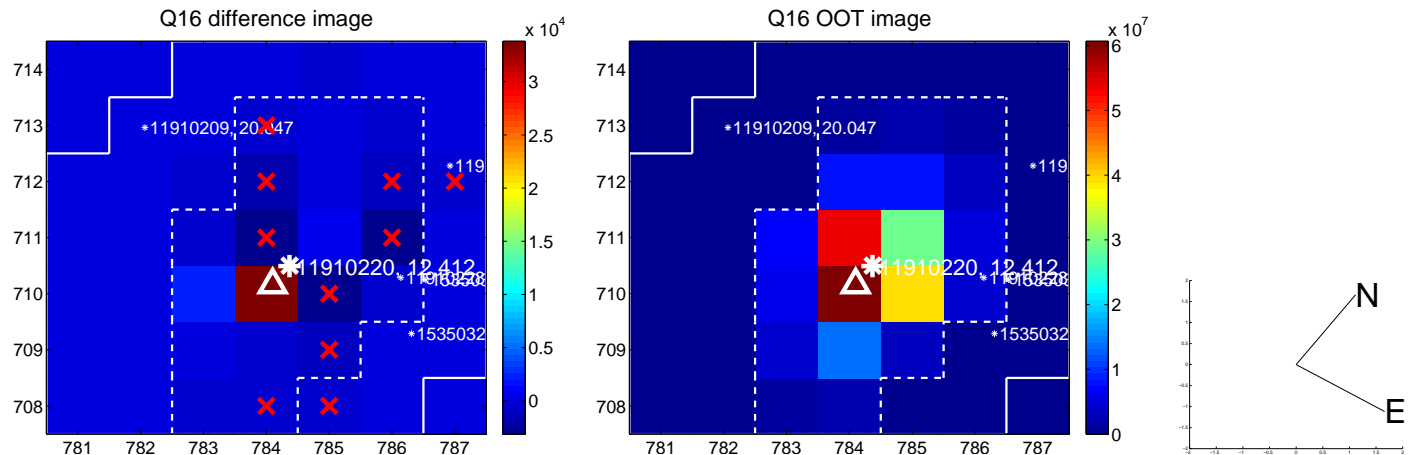
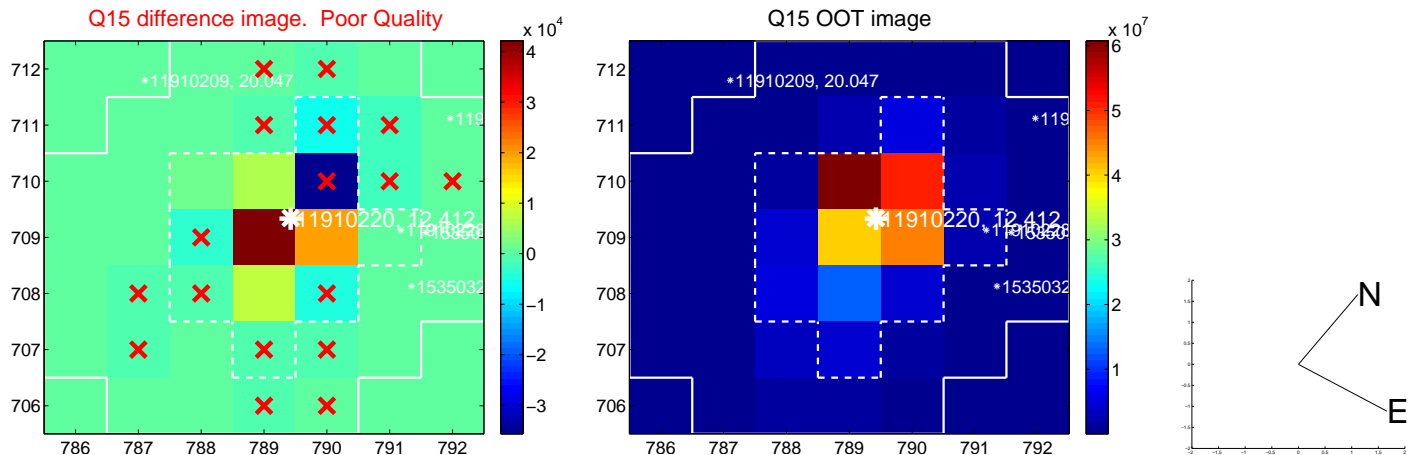
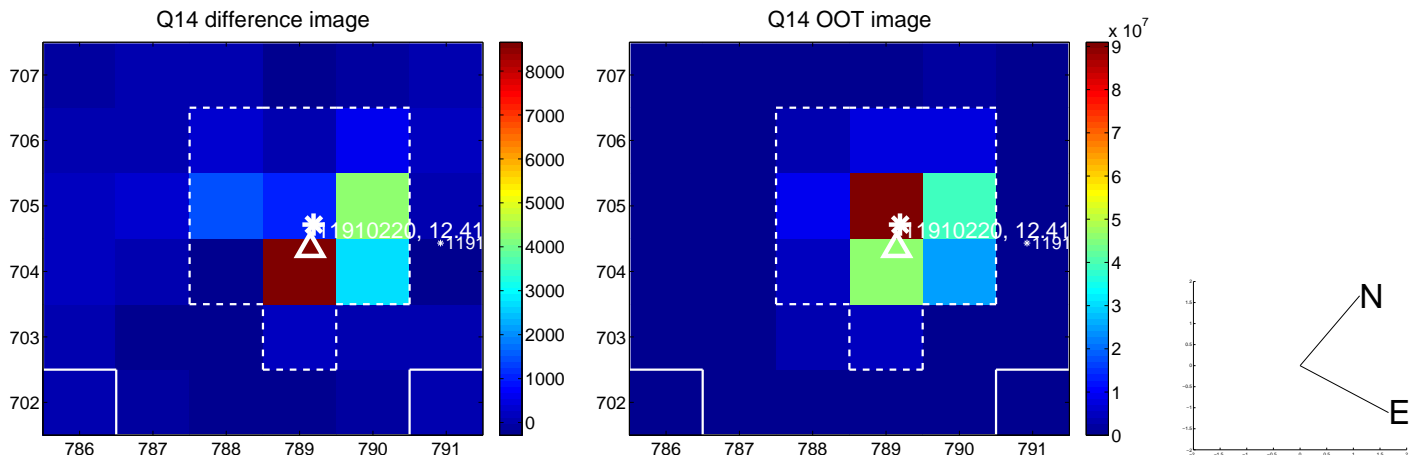
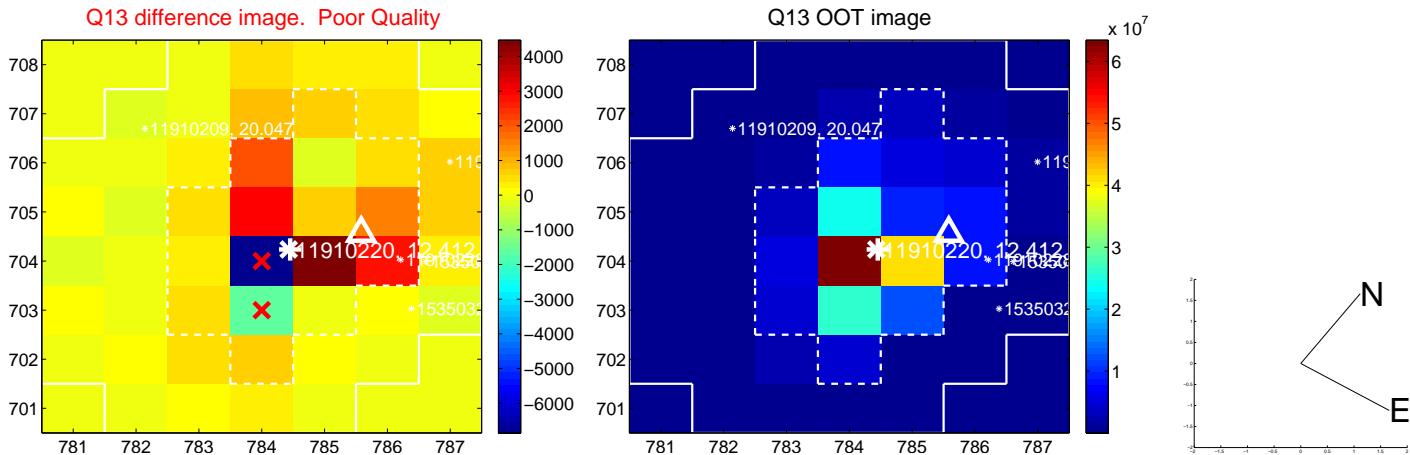


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

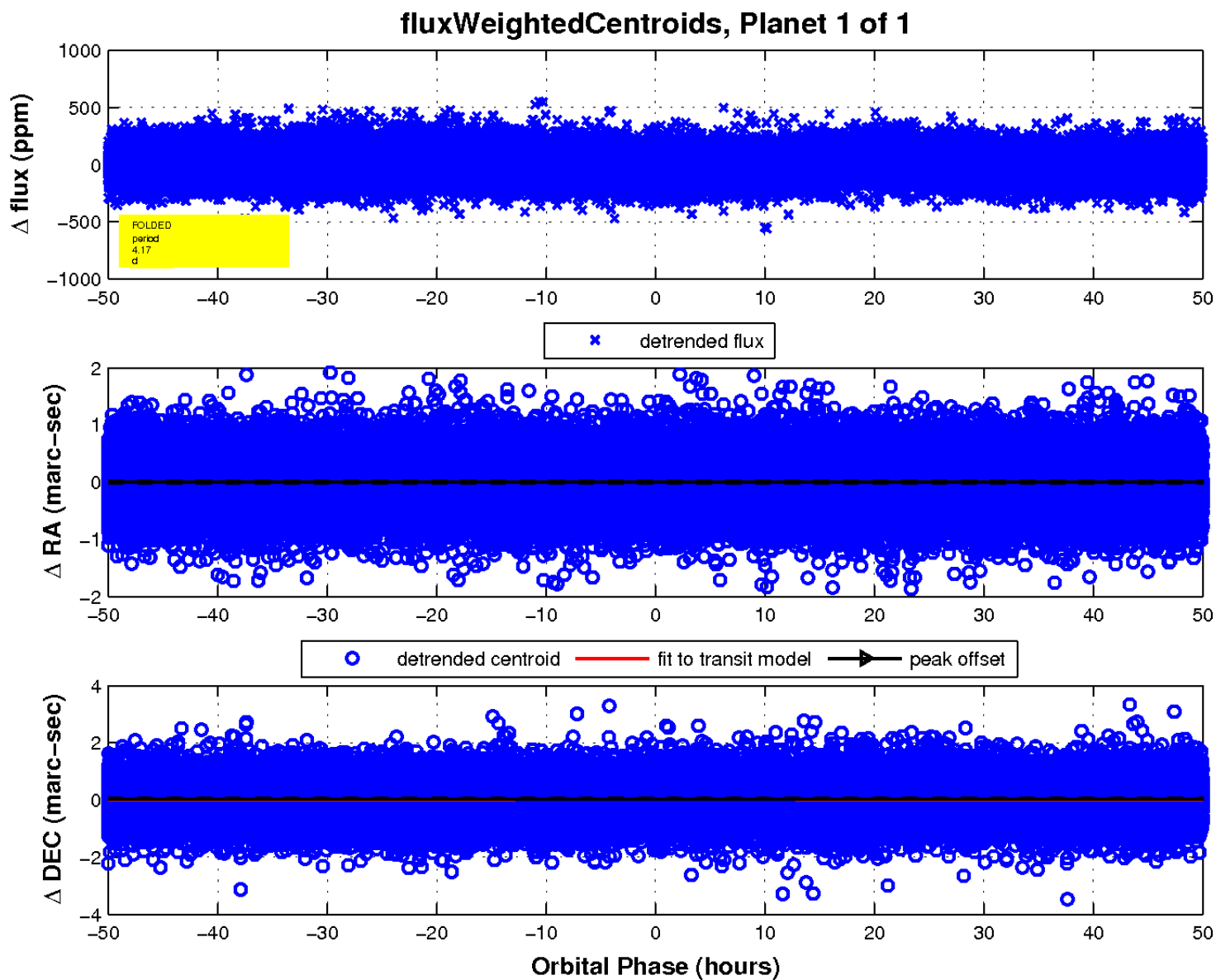
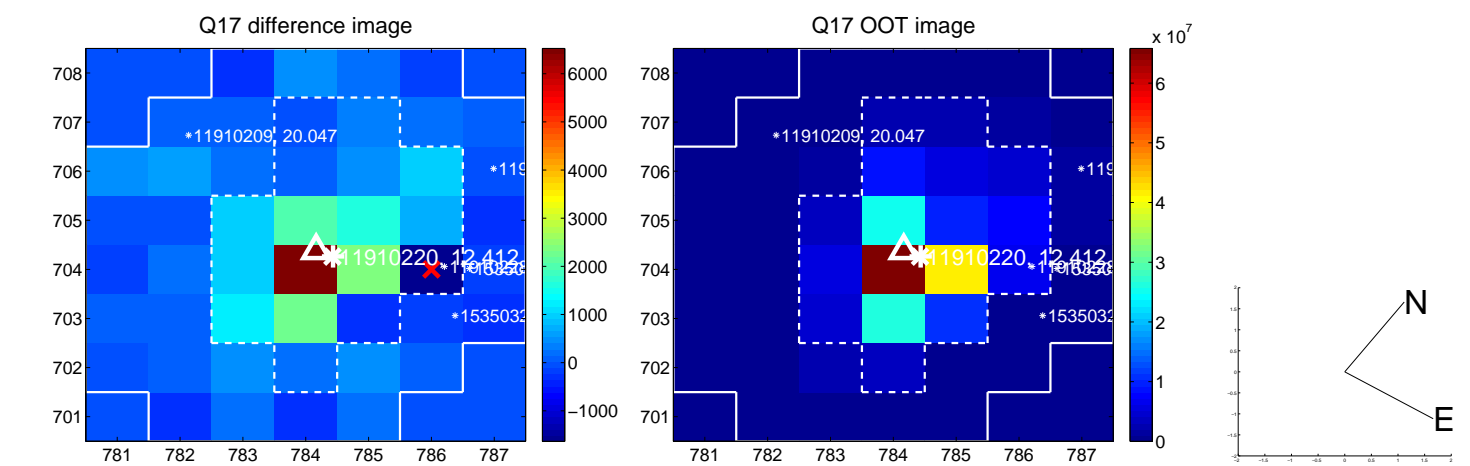
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

