

KIC 006946819

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})
006946819-01	OBS	No	8.118011	132.291435	205.5	25.591	15.6	20.3	1.25	6201	3.56	327.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006946819-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV

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

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

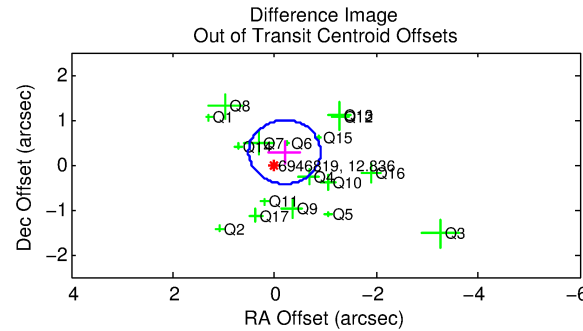
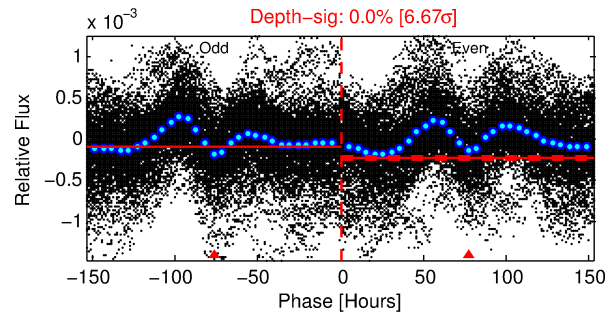
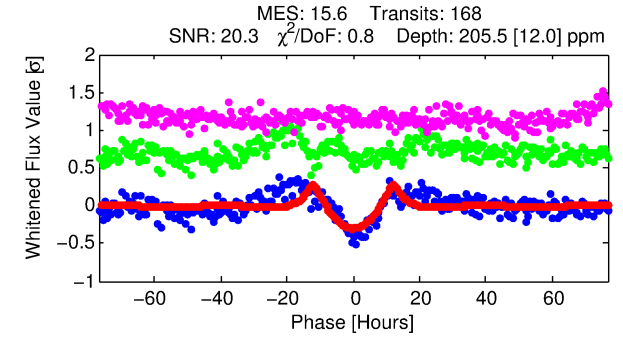
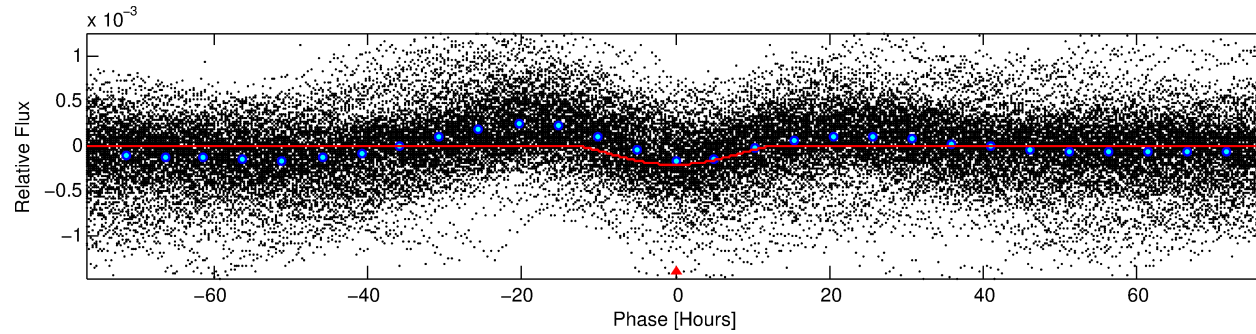
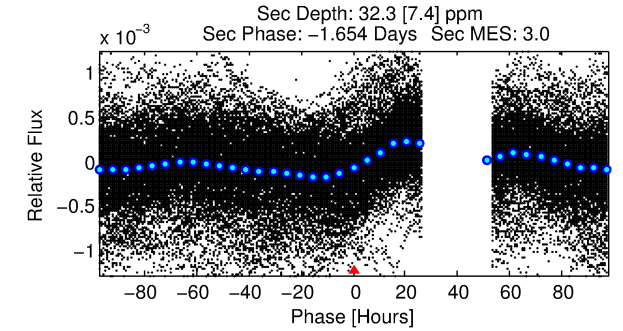
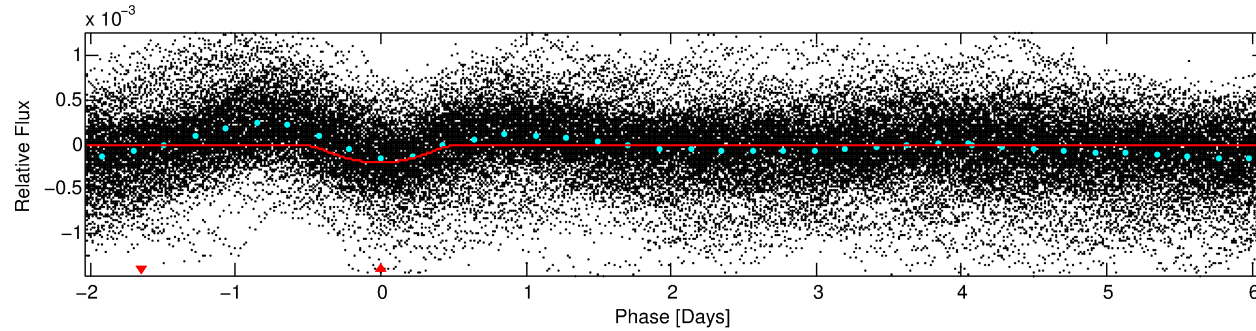
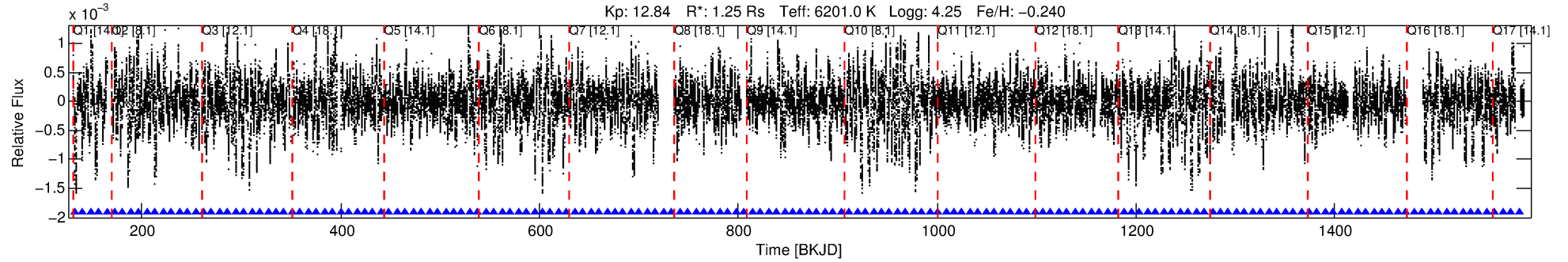
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006946819-01

No Significant Match Found

DV One-Page Summary

KIC: 6946819 Candidate: 1 of 1 Period: 8.118 d



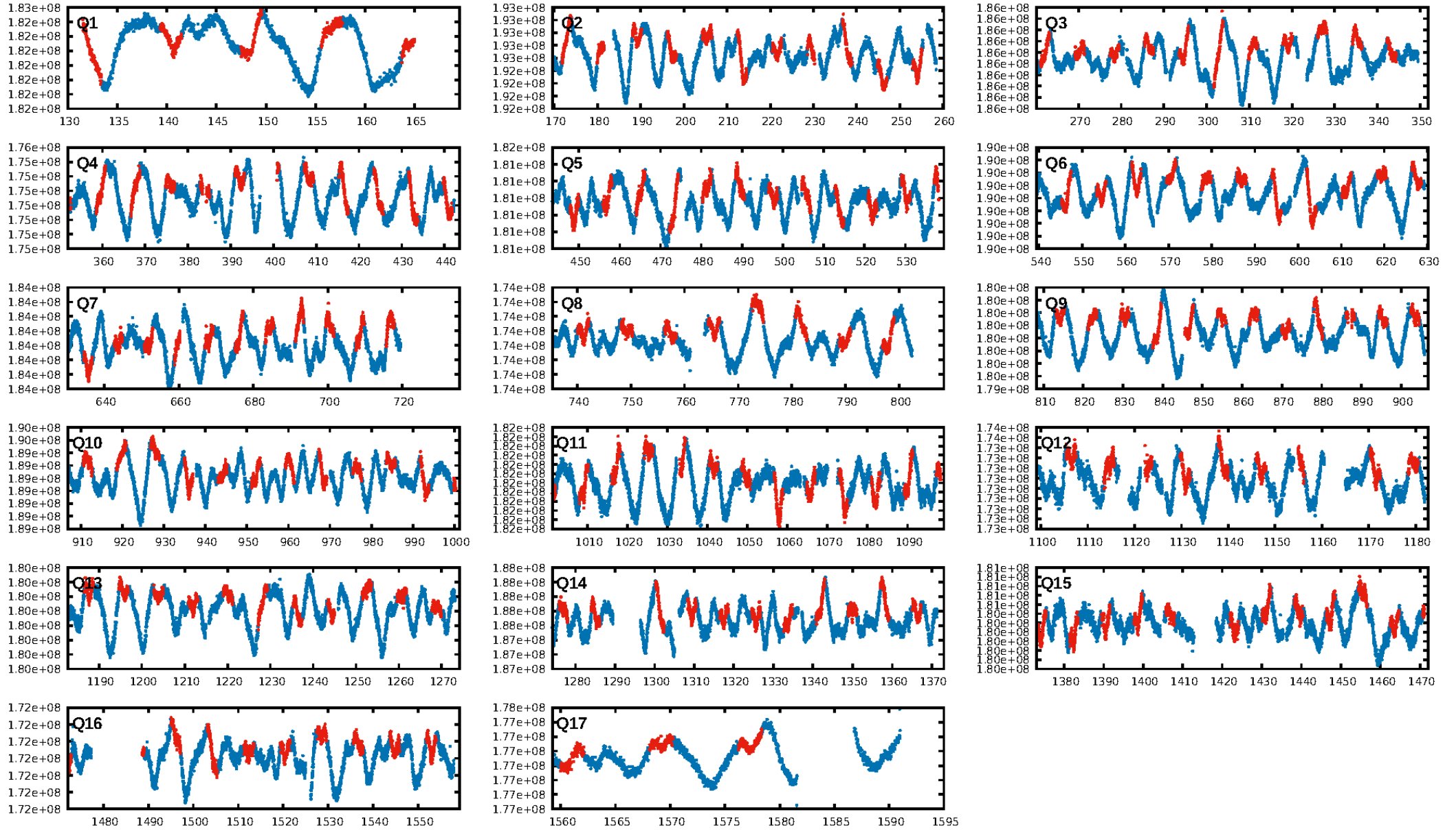
DV Fit Results:

Period = 8.11801 [0.00014] d
Epoch = 132.2914 [0.0143] BKJD
Rp/R* = 0.0260 [0.0107]
a/R* = 1.15 [0.02]
b = 1.00 [0.02]
Seff = 327.00 [97.82]
Teff = 1084 [81] K
Rp = 3.56 [1.66] Re
a = 0.0797 [0.0149] AU
Ag = 8.91 [7.98] [0.99σ]
Teffp = 2896 [624] K [2.88σ]

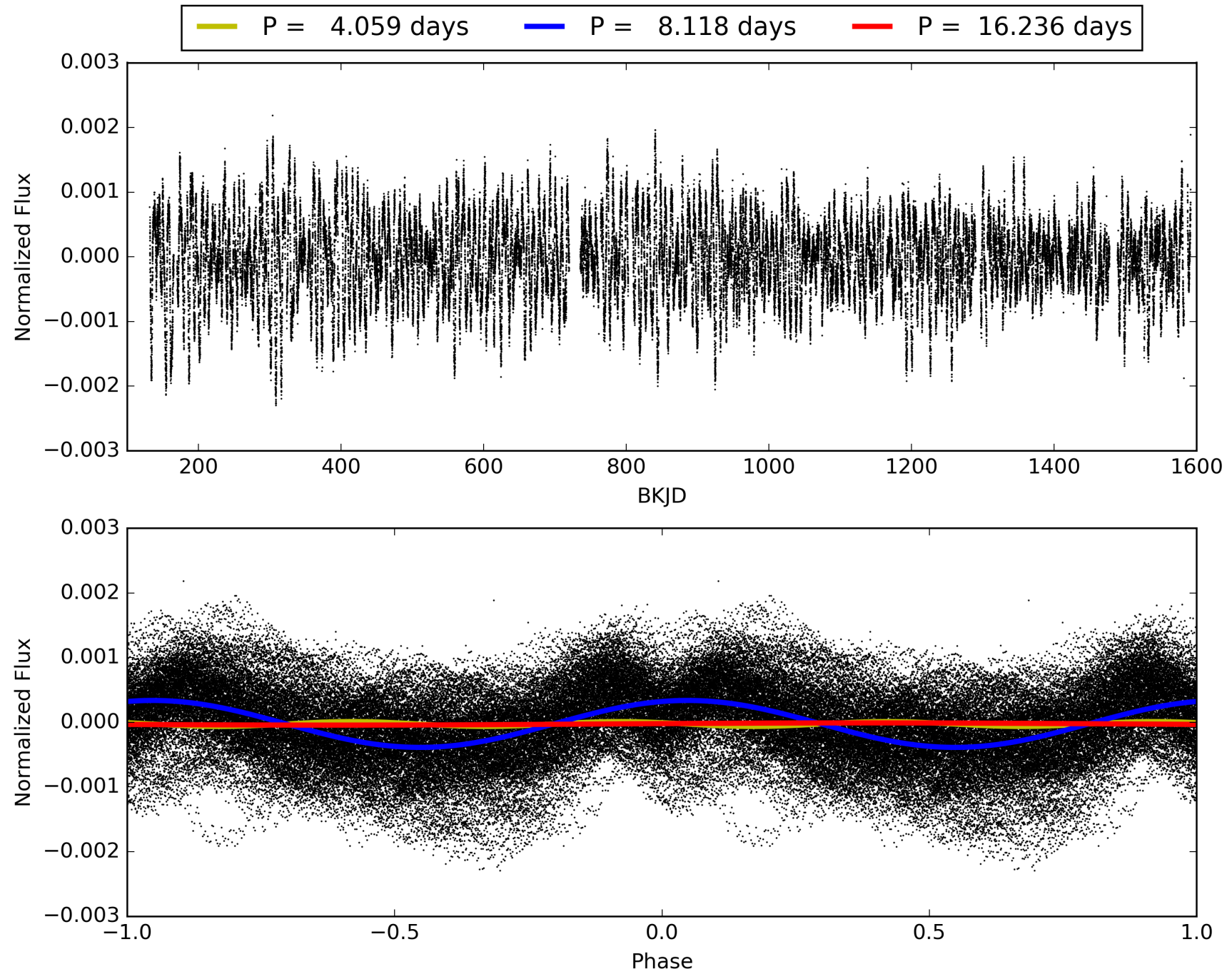
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 100.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 6.08e-62
RollingBand-fgt: 1.00 [160/160]
GhostDiagnostic-chr: 1.495
Centroid-sig: 0.0%
Centroid-so: 0.332 arcsec [2.84σ]
OotOffset-rm: 0.341 arcsec [1.45σ]
KicOffset-rm: 0.408 arcsec [1.81σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.88 [15/17]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 006946819-01, PDC Light Curves

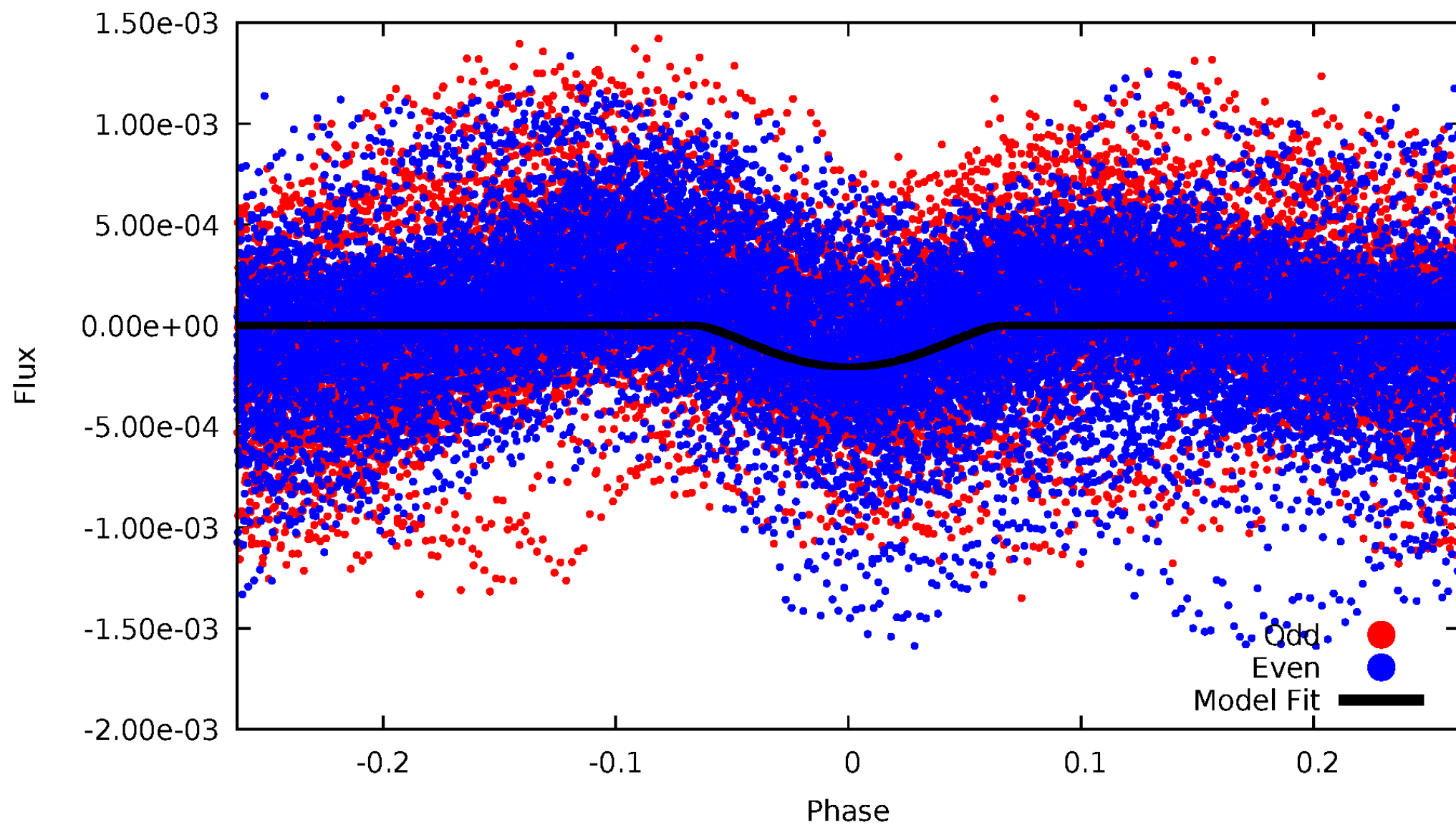


TCE 006946819-01



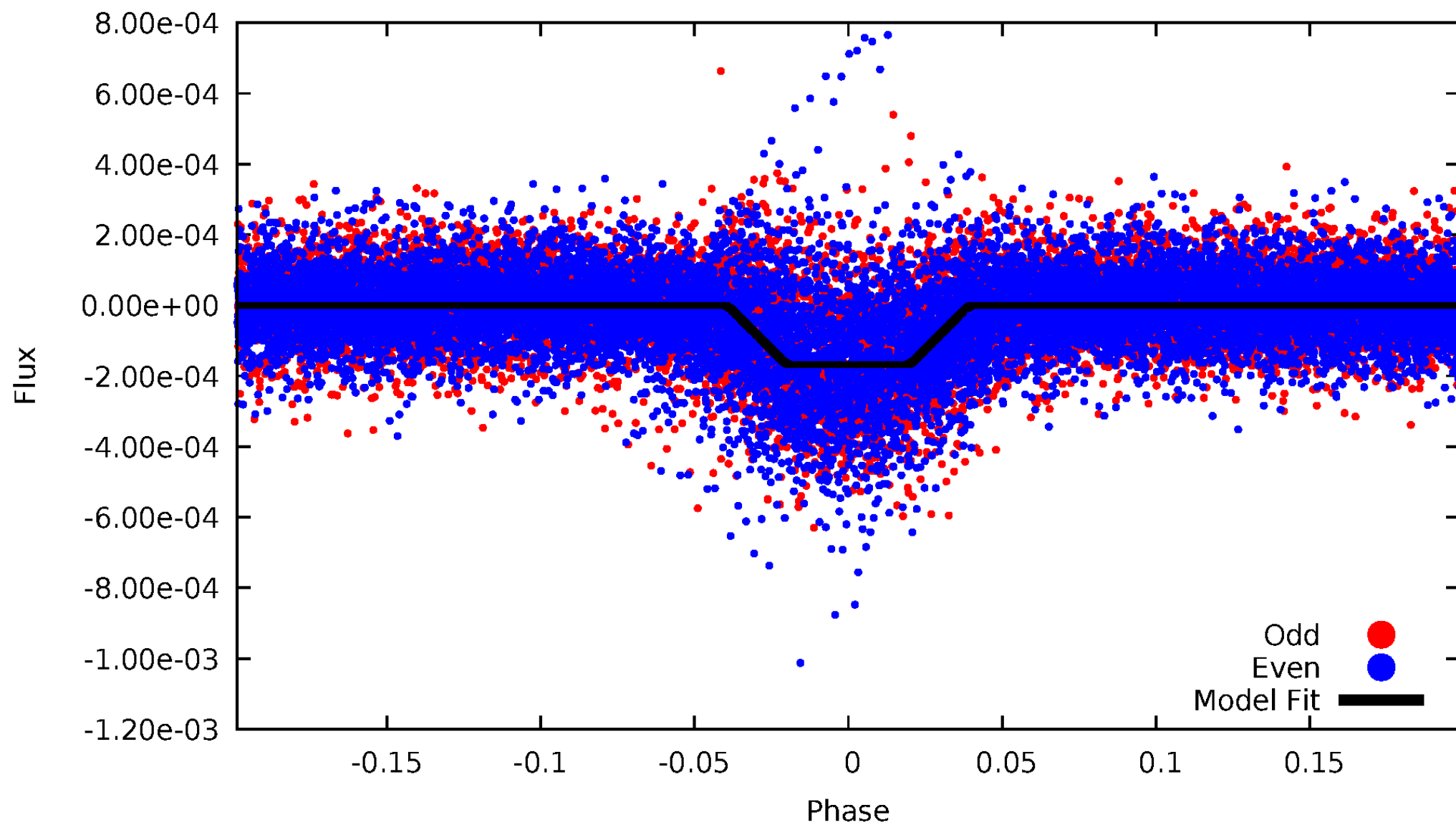
DV Odd/Even

TCE 006946819-01



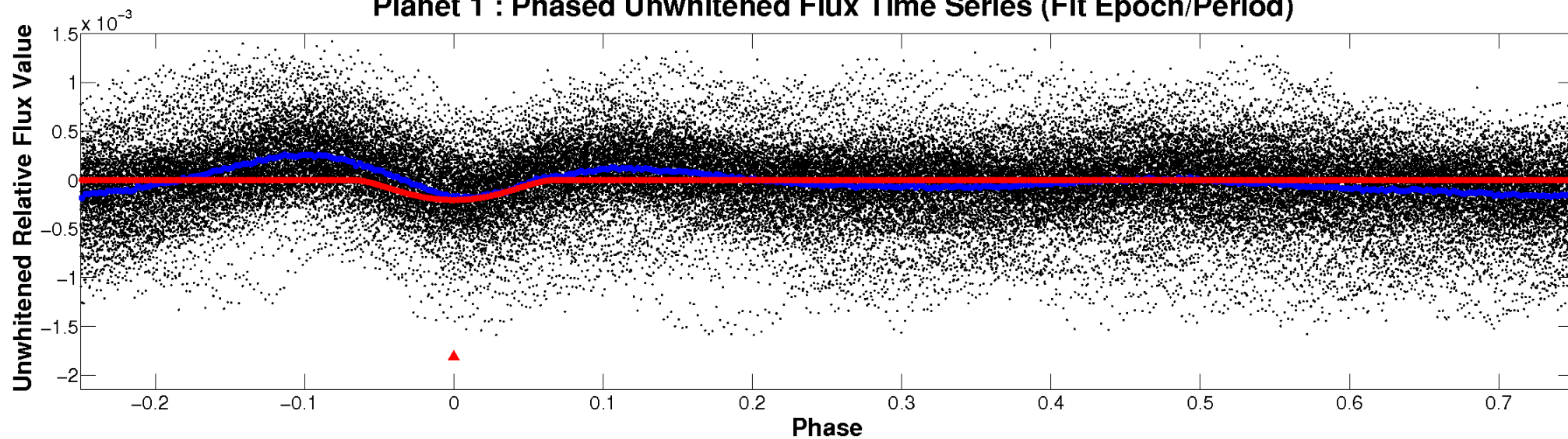
ALT Odd/Even

TCE 006946819-01

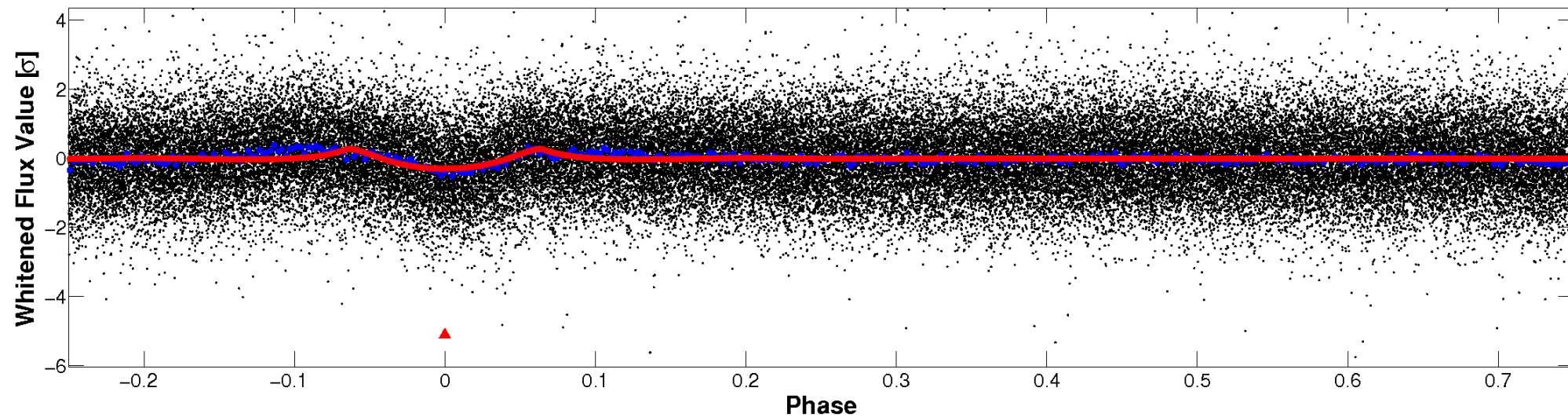


Non-Whitened Vs. Whitened Light Curve

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

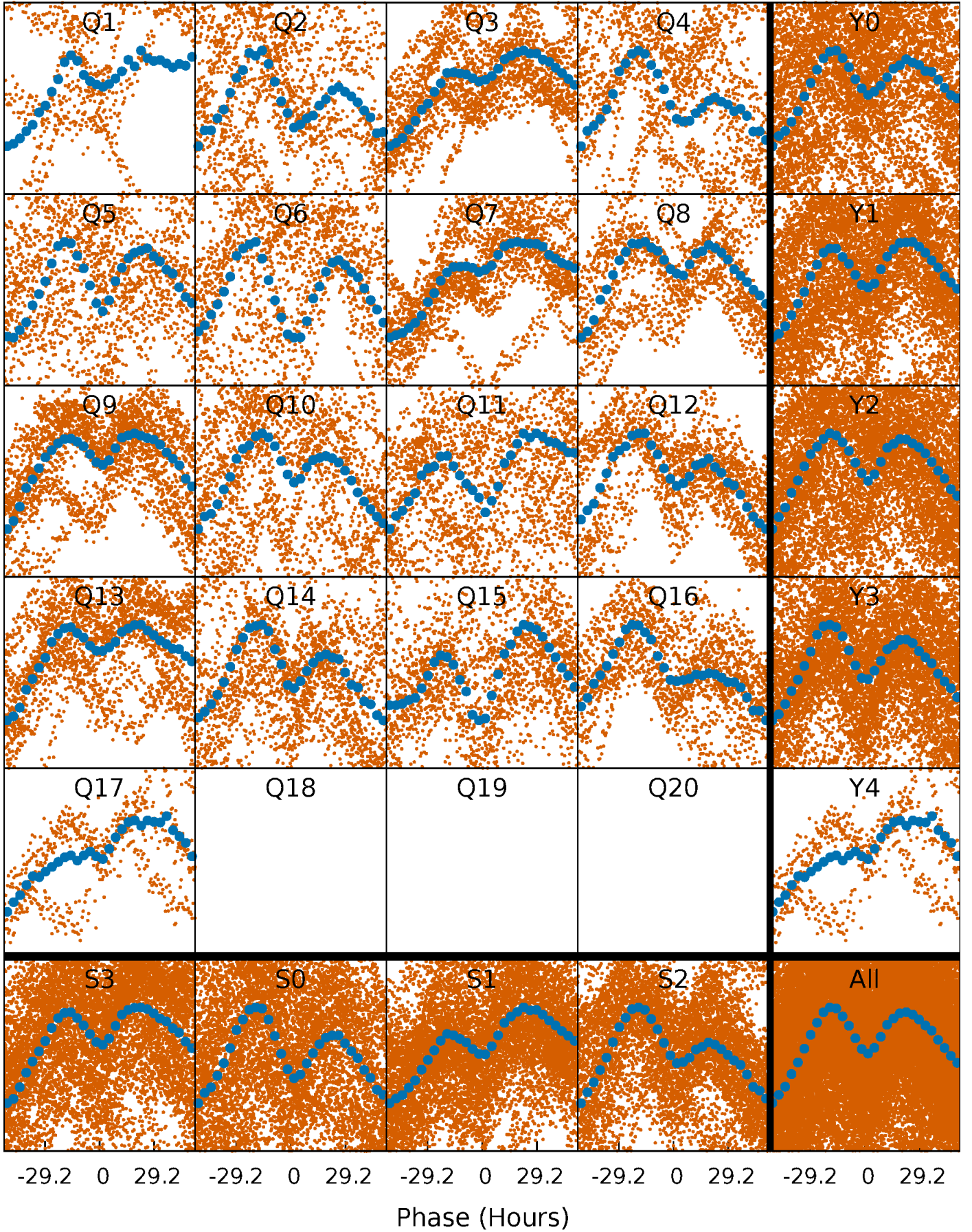


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



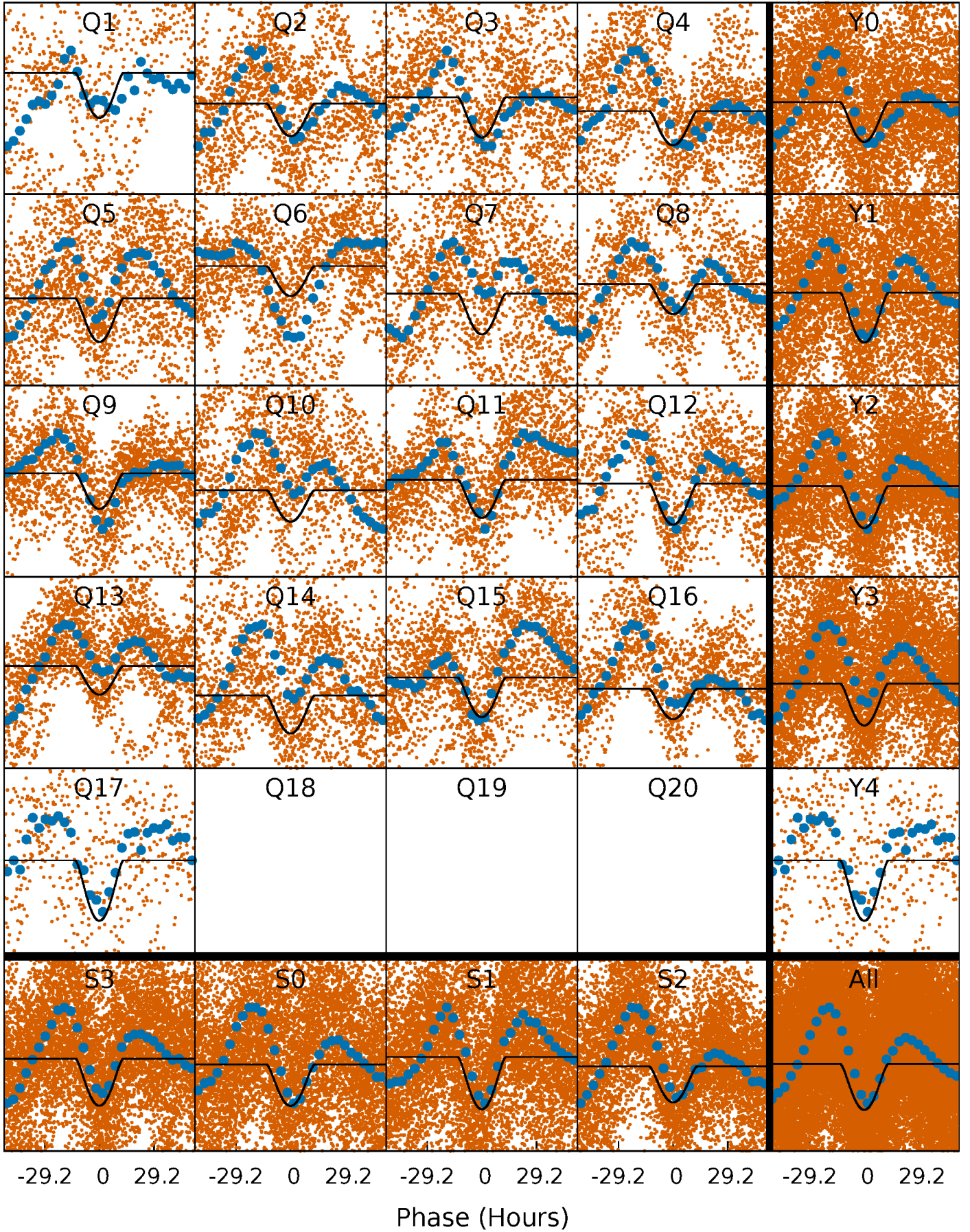
PDC Quarter-Phased Transit Curves

TCE 006946819-01 P= 8.118011 Days $T_0=132.291435$ (BKJD)



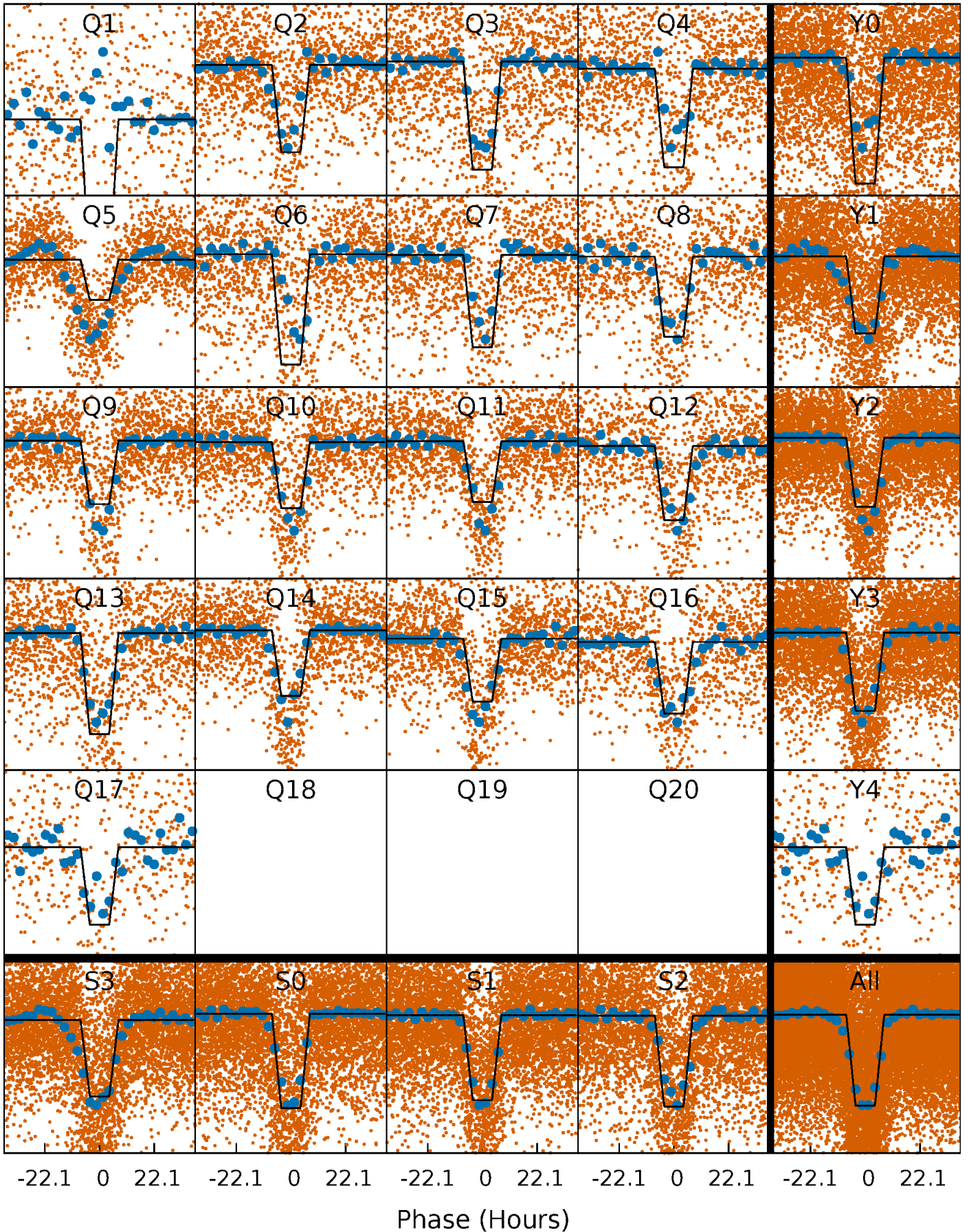
DV Quarter-Phased Transit Curves

TCE 006946819-01 P= 8.118011 Days $T_0=132.291435$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

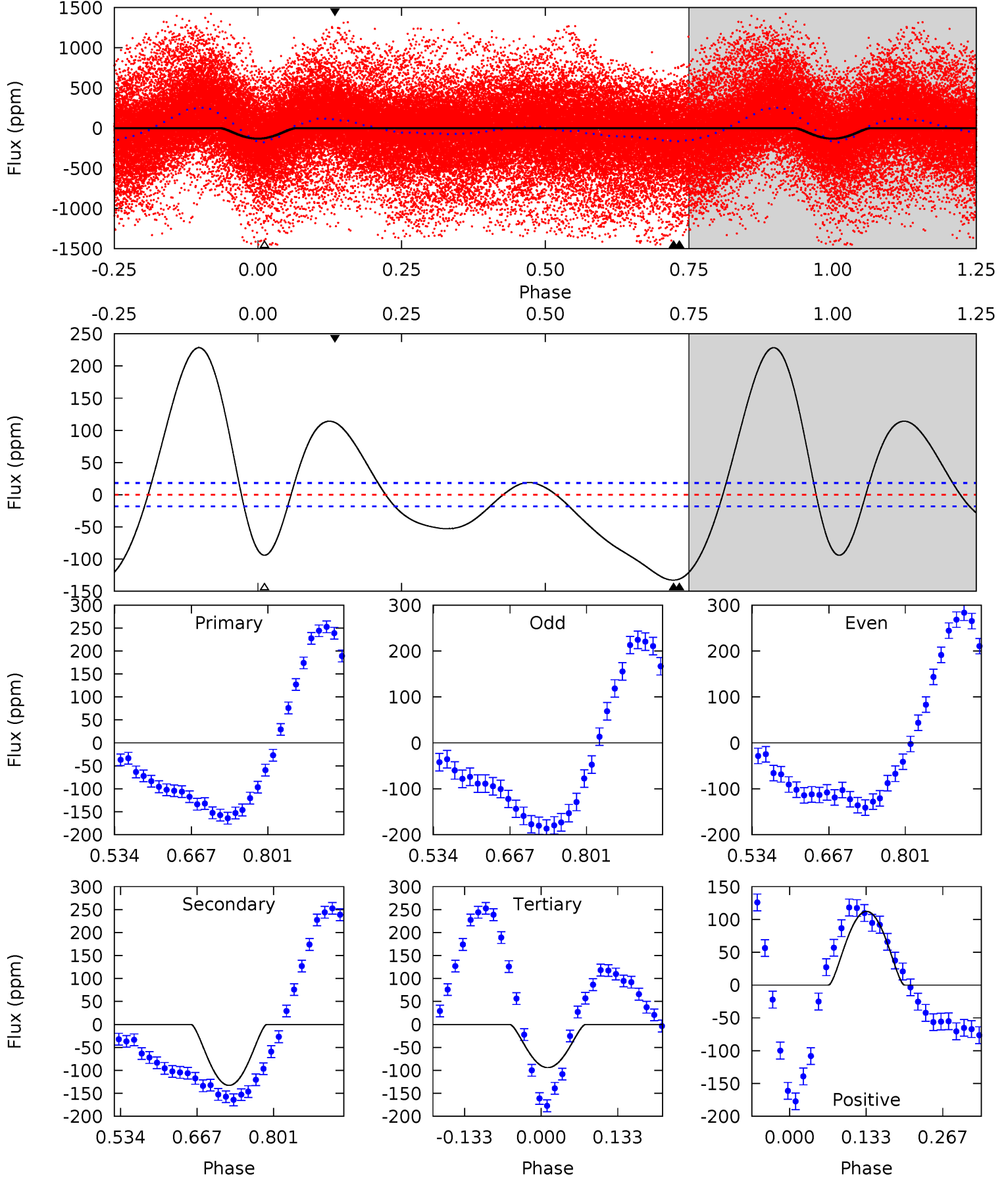
TCE 006946819-01 P= 8.117602 Days $T_0=132.409303$ (BKJD)



DV Model-Shift Uniqueness Test

006946819-01, P = 8.118011 Days, E = 124.173424 Days

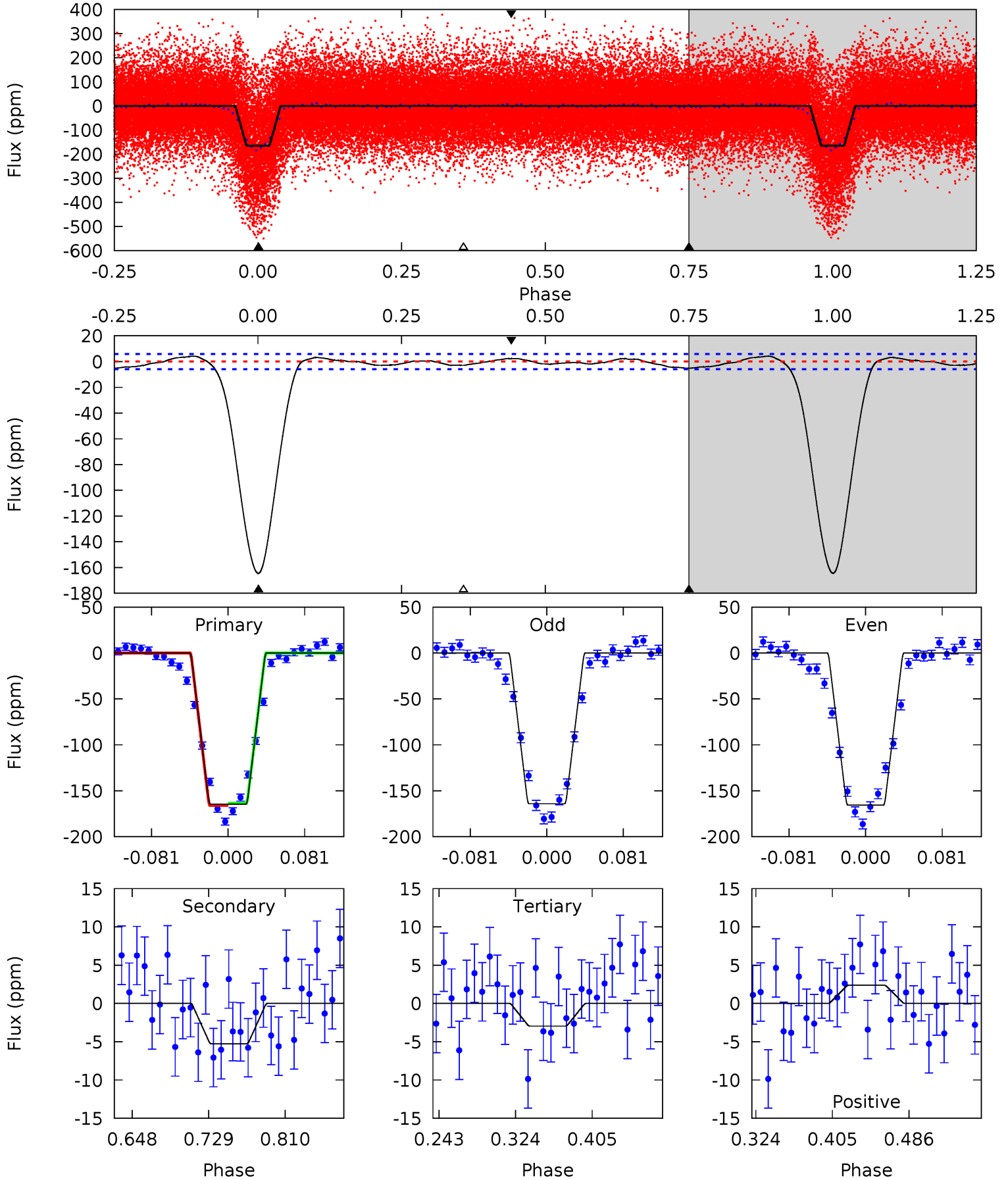
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
32.6	33.0	23.4	27.9	4.50	1.50	20.2	9.19	4.67	9.61	5.09	3.11	0.98	0.63	11.3



Alt Model-Shift Uniqueness Test

006946819-01, P = 8.117602 Days, E = 124.291701 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
128.7	4.11	2.31	1.86	4.61	1.75	1.48	126.4	126.8	1.80	2.26	0.53	1.07	0.02	1.04



Stellar Parameters For KIC 006946819

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6201^{+169}_{-188}	$4.253^{+0.150}_{-0.135}$	$-0.240^{+0.250}_{-0.300}$	$1.252^{+0.277}_{-0.227}$	$1.023^{+0.158}_{-0.115}$	$0.735^{+0.591}_{-0.280}$
	+3%/-3%	+4%/-3%	+104%/-125%	+22%/-18%	+15%/-11%	+80%/-38%
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 006946819-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-133 ± 4	$3.54^{+1.66}_{-1.36}$	1506^{+95}_{-89}	4330^{+1037}_{-543}	38^{+64}_{-20}
Alt.	-5 ± 1	$1.95^{+1.49}_{-1.14}$	1514^{+90}_{-96}	3072^{+1037}_{-490}	$4.688^{+21.386}_{-3.189}$

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 $A_{obs} \gg 1.0$

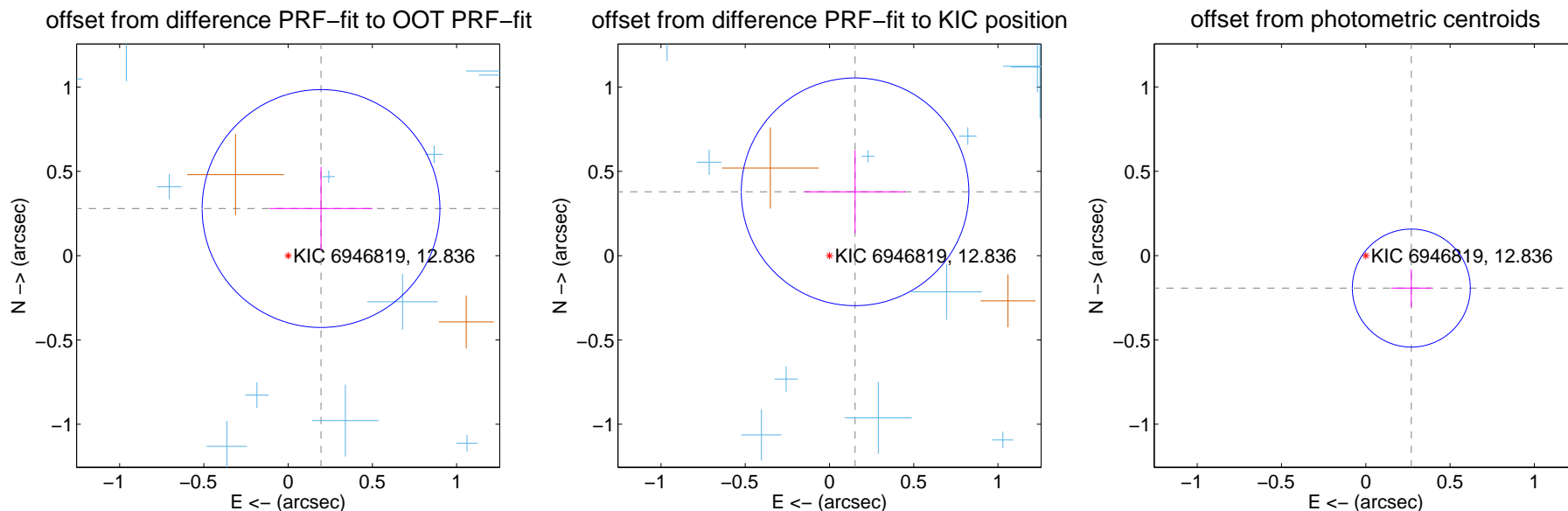
DV Centroid Data

Supplemental centroid analysis for 006946819-01. Kepler magnitude: 12.84. Transit SNR 20.25

There are 15 quarters with good PRF difference image offsets

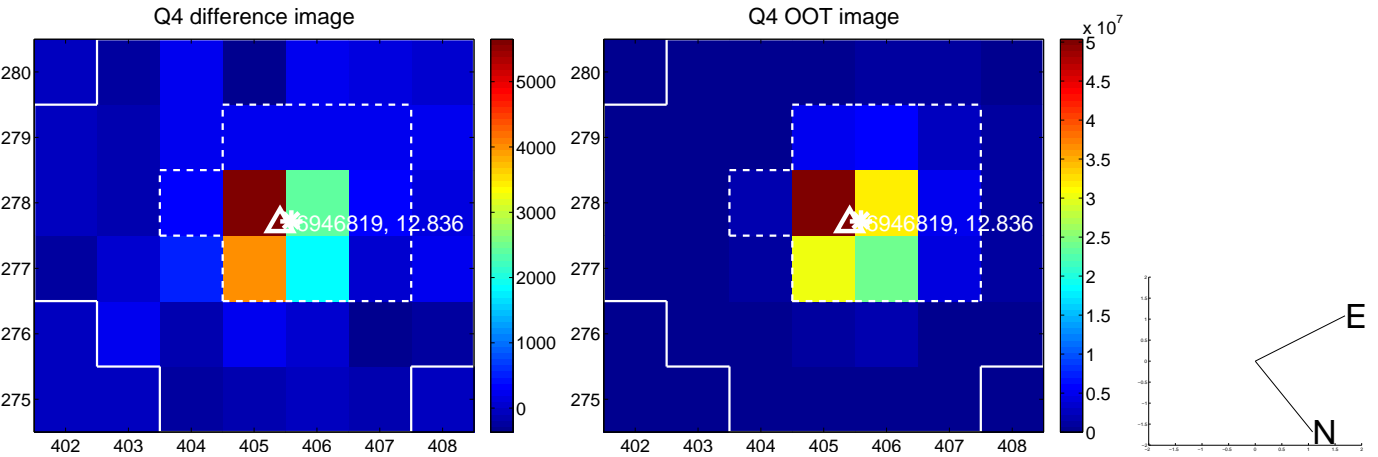
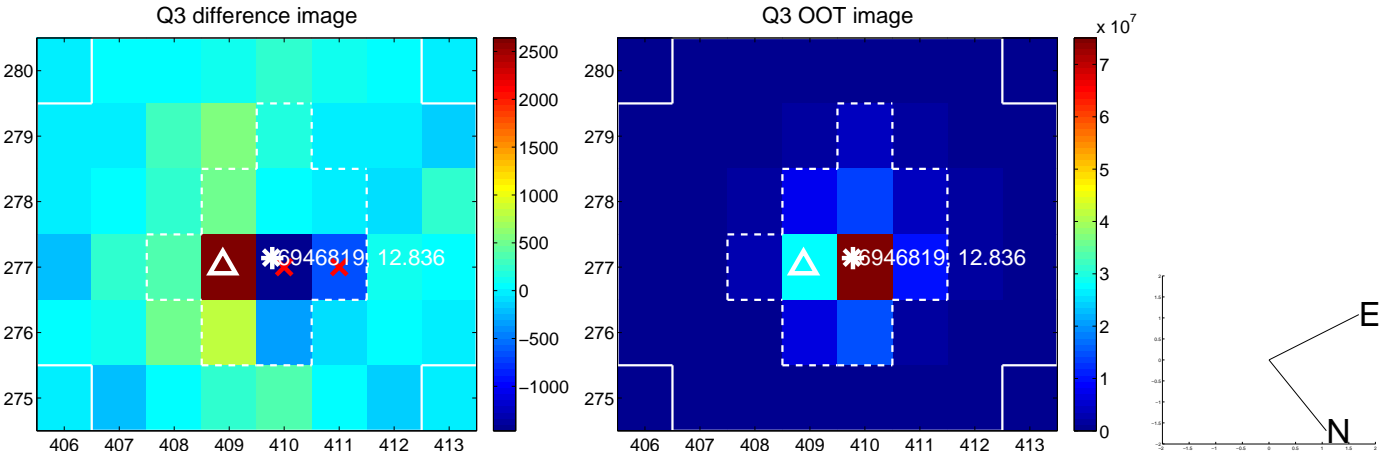
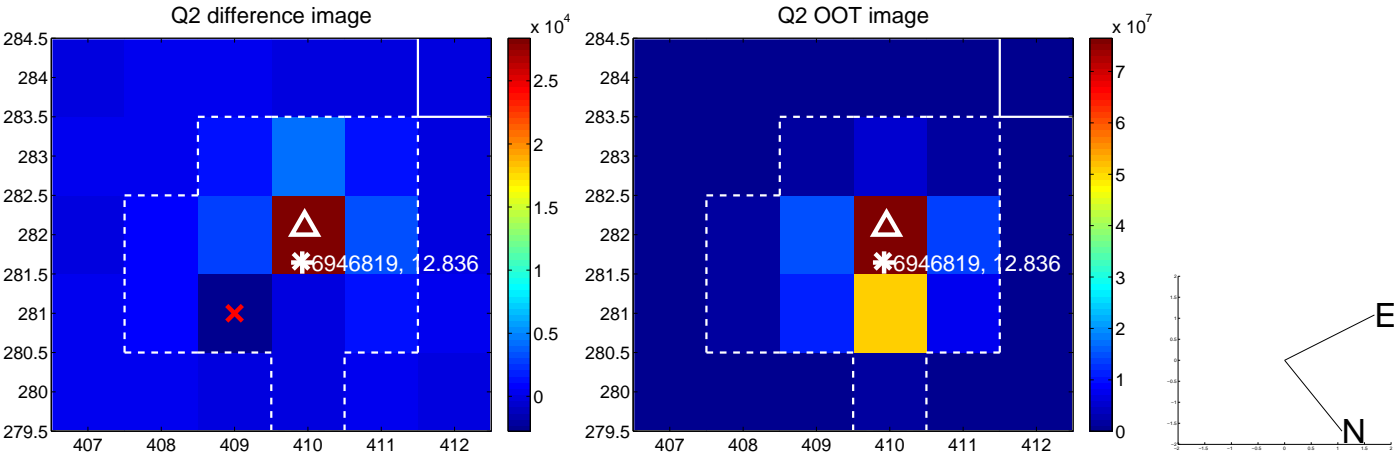
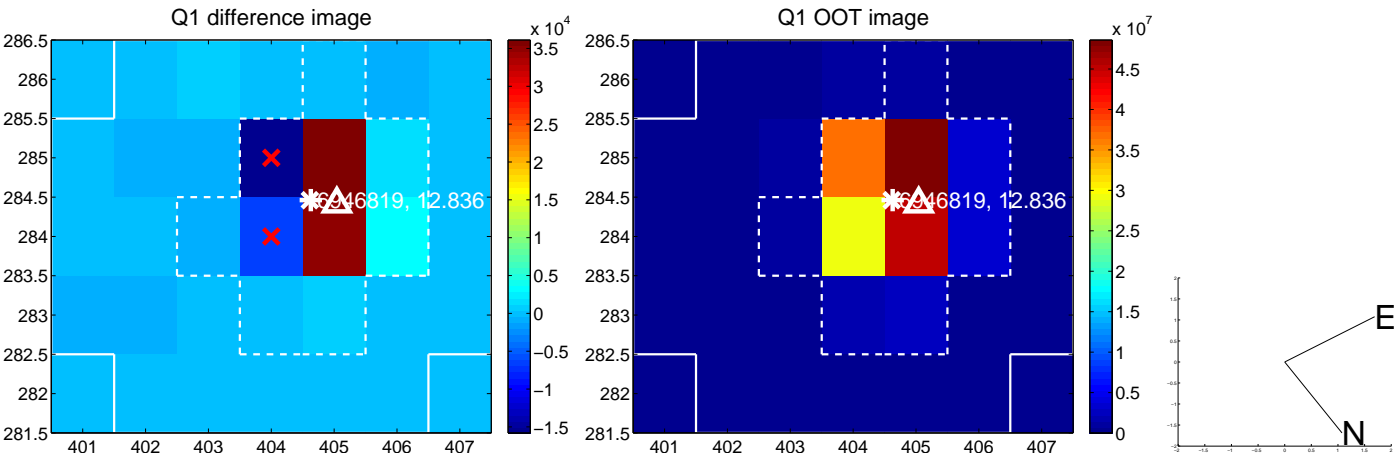
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.341 ± 0.235	1.45	-0.195 ± 0.305	0.280 ± 0.247
PRF-fit source offset from KIC position	0.408 ± 0.225	1.81	-0.152 ± 0.299	0.379 ± 0.245
photometric centroid source offset	0.33 ± 0.12	2.84	-0.27 ± 0.12	-0.19 ± 0.11

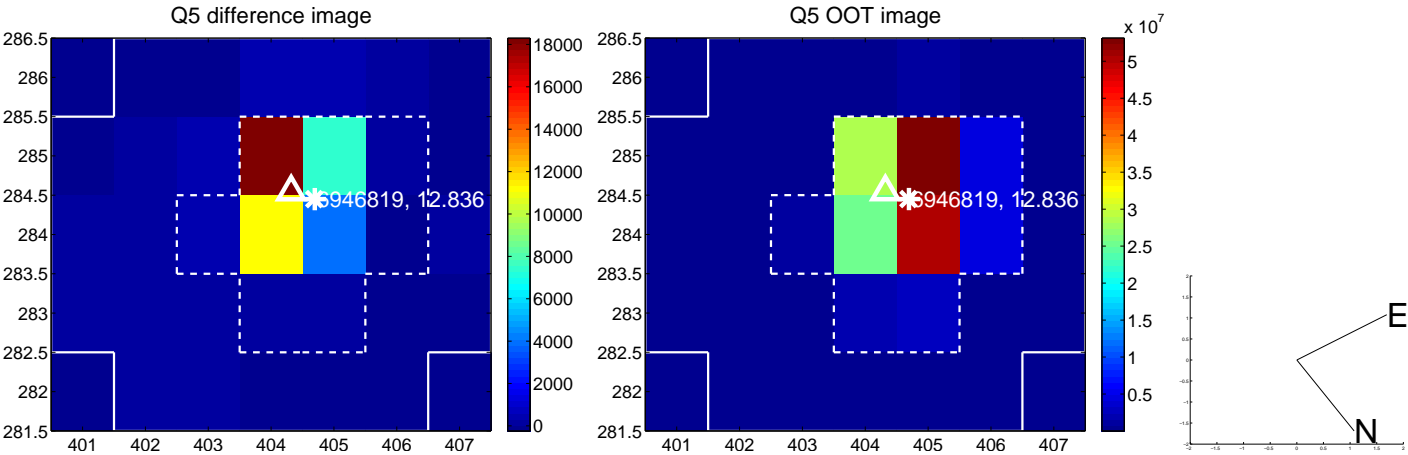


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

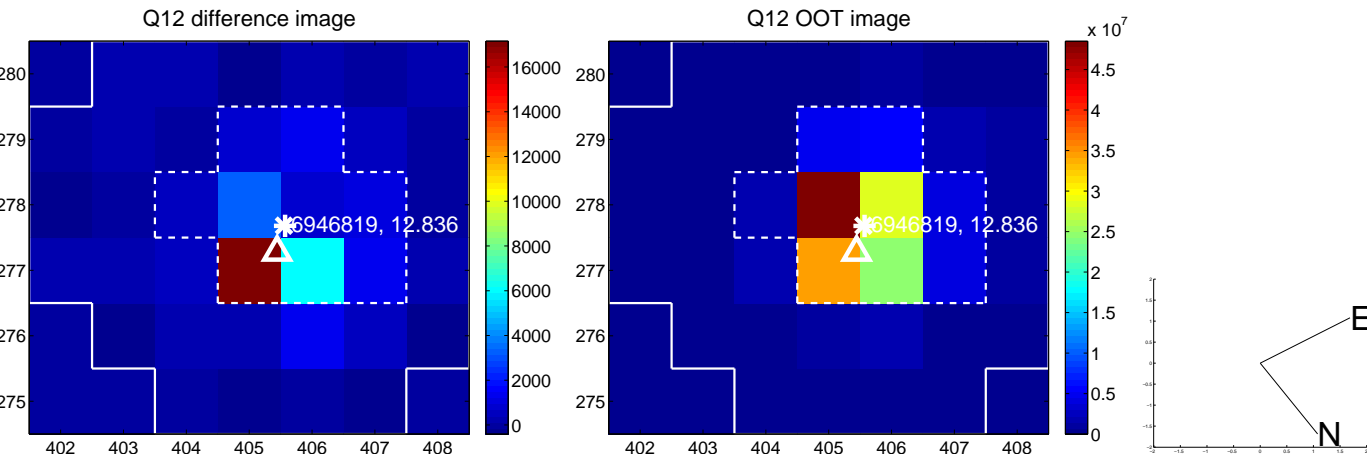
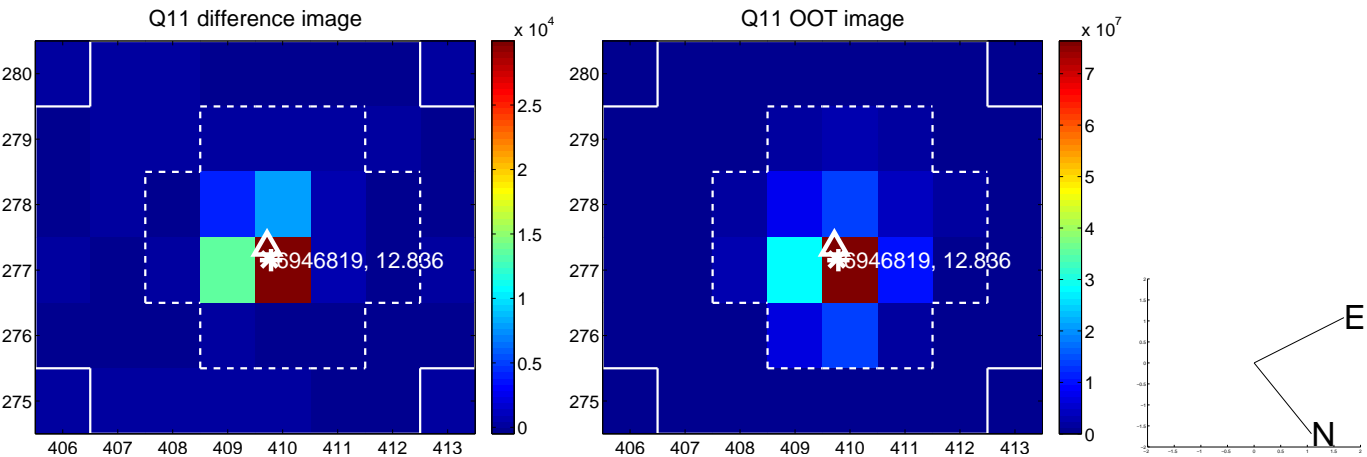
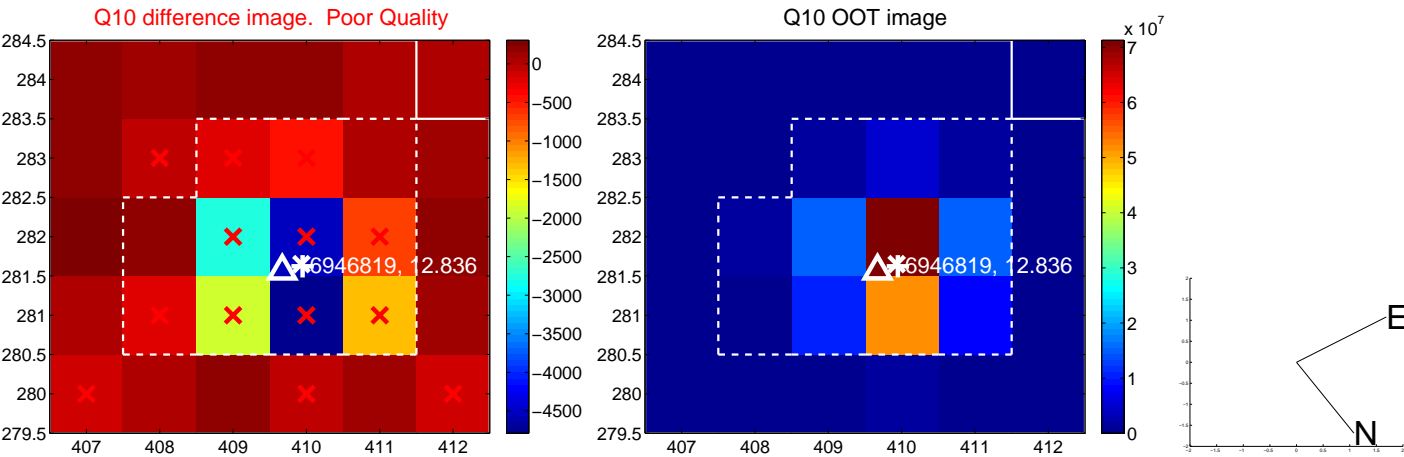
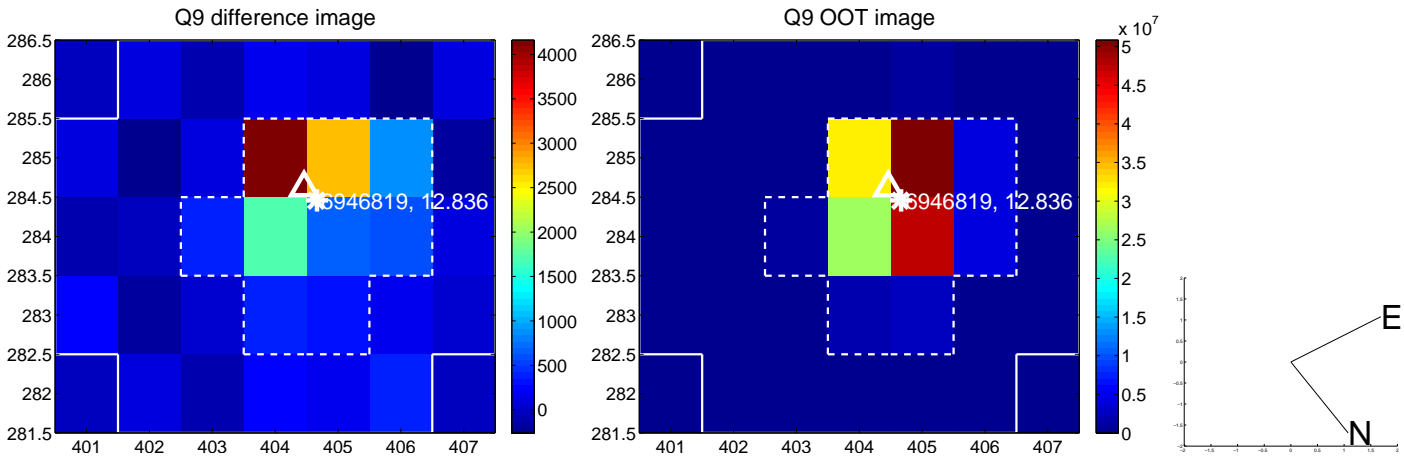
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



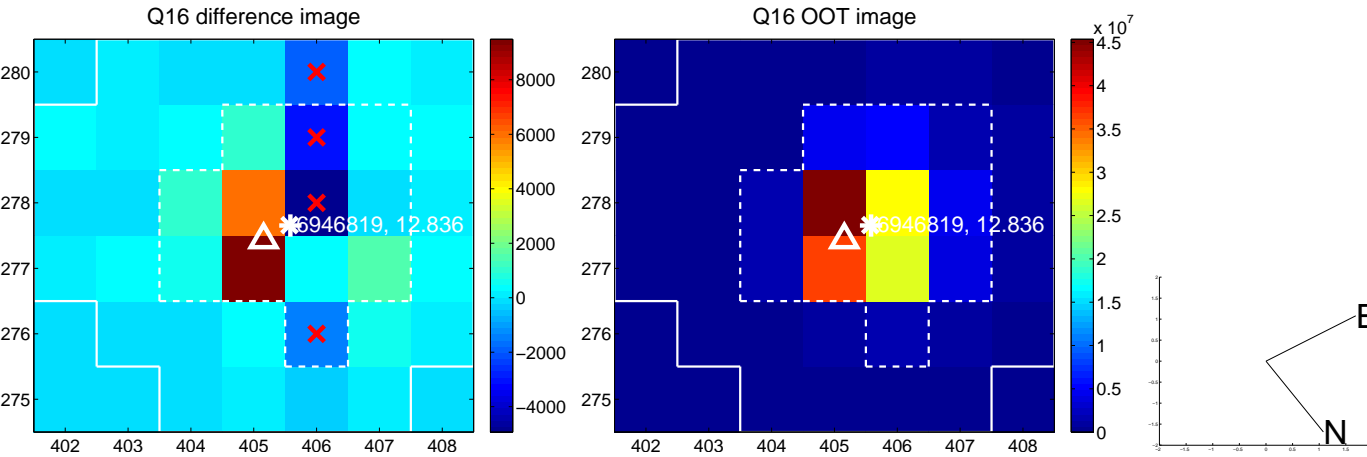
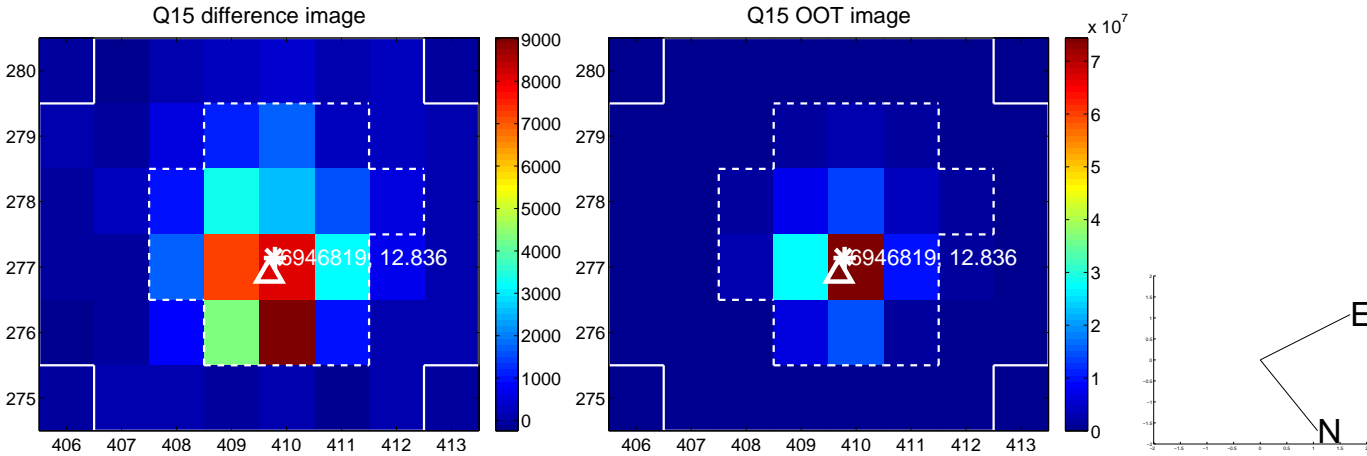
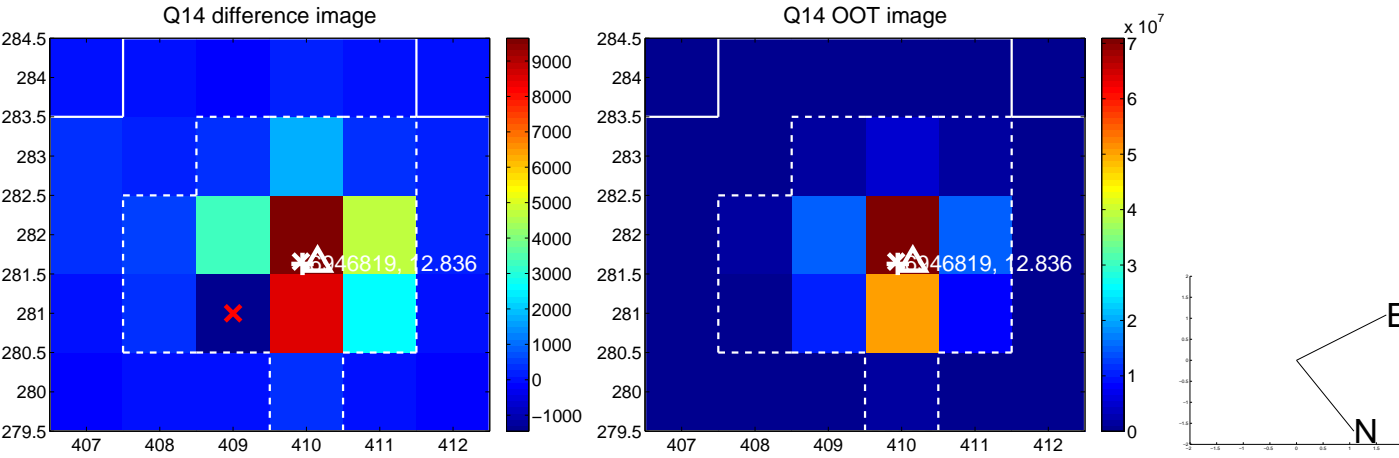
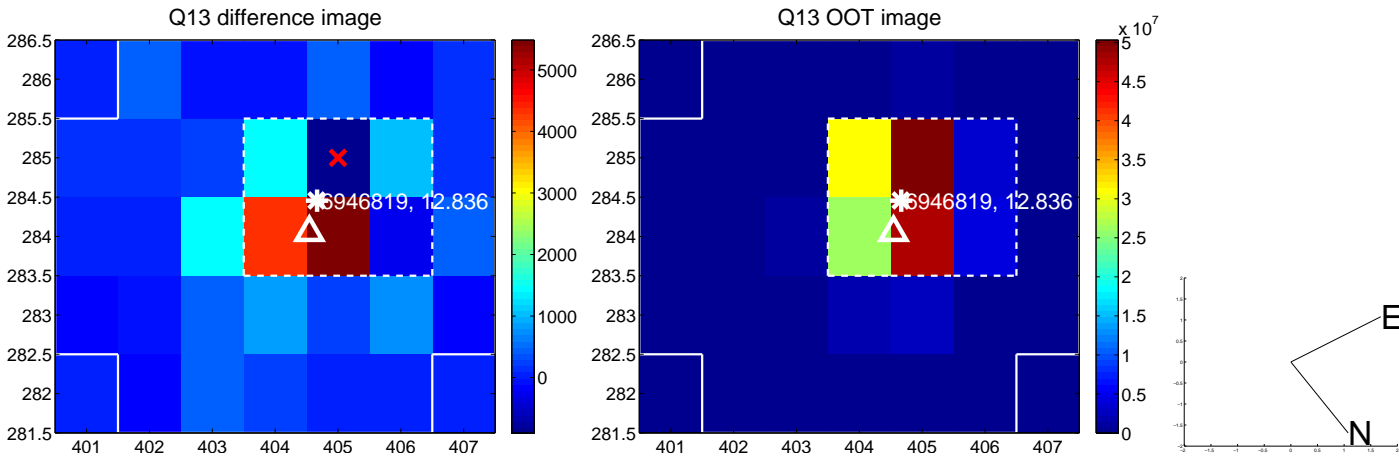
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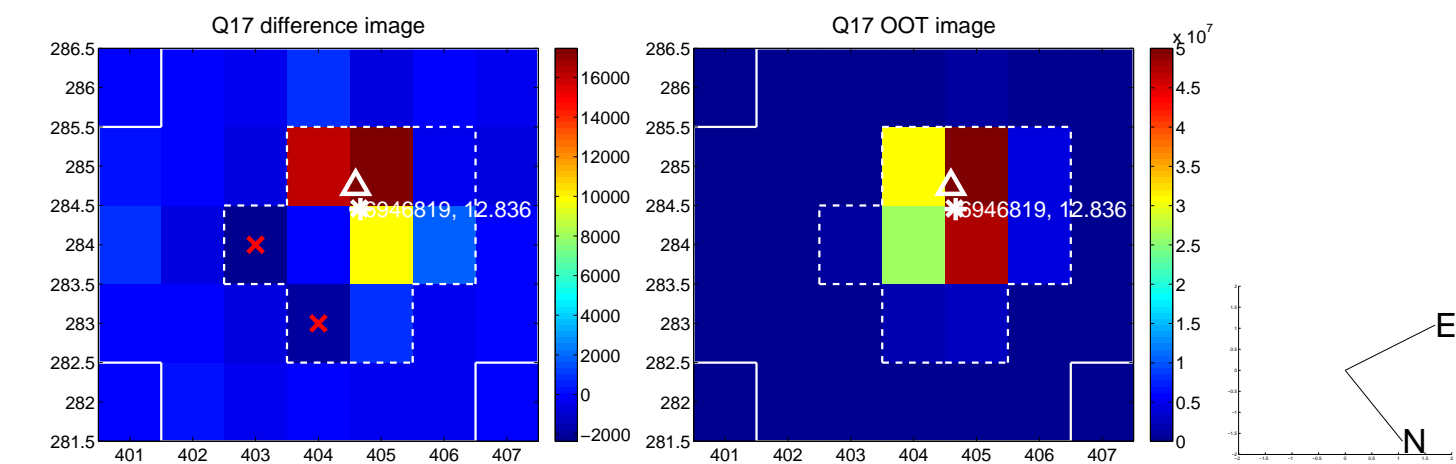
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



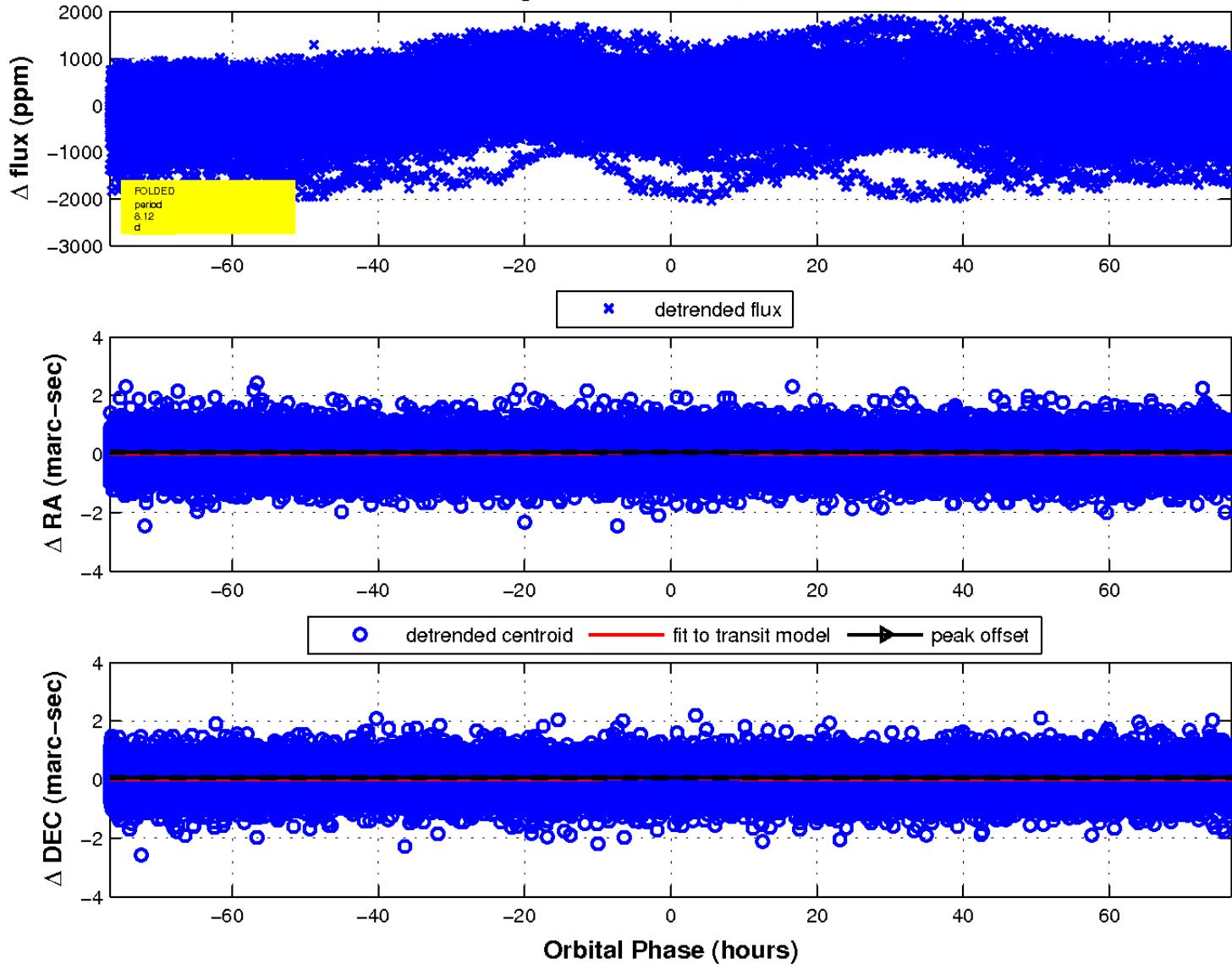
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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

