

KIC 009711769

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})
009711769-01	OBS	No	12.937429	138.245775	267.0	26.659	20.9	25.3	1.78	6725	5.68	390.23

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009711769-01	OBS	FP	0.00	1	0	0	0	LPP_DV

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

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

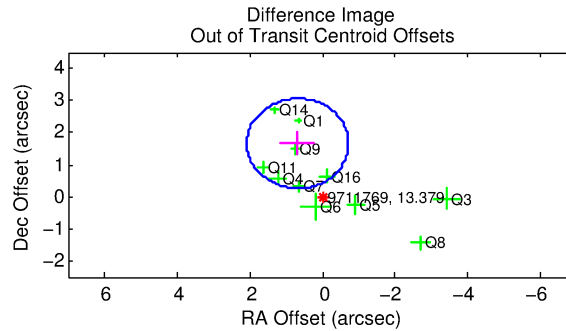
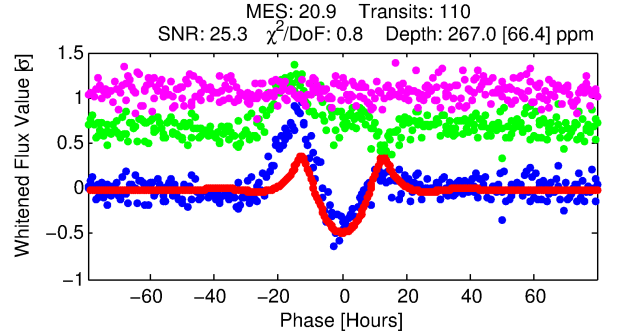
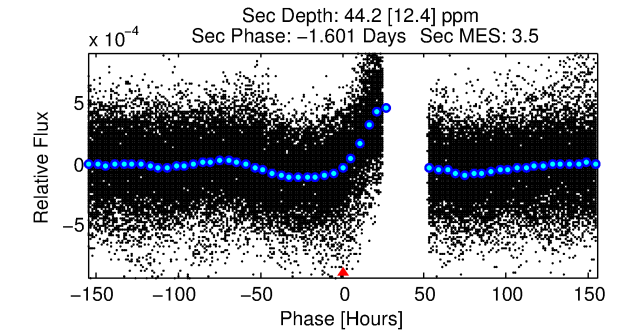
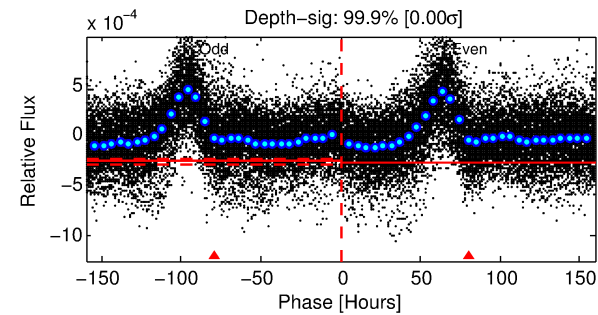
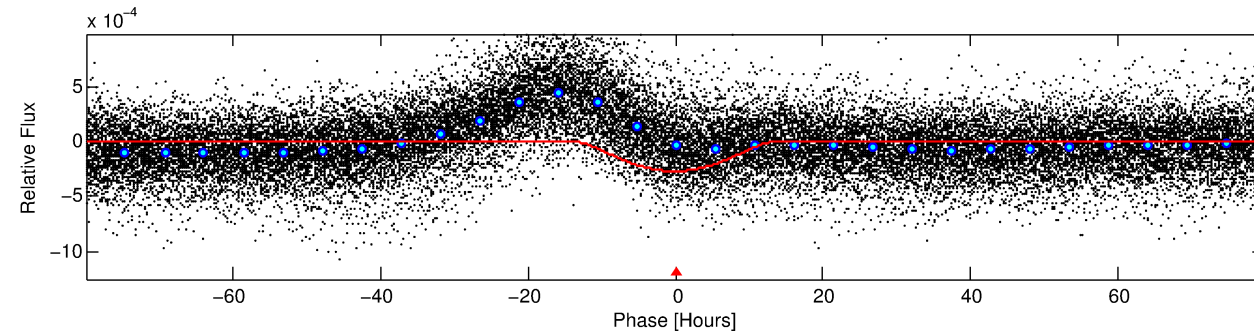
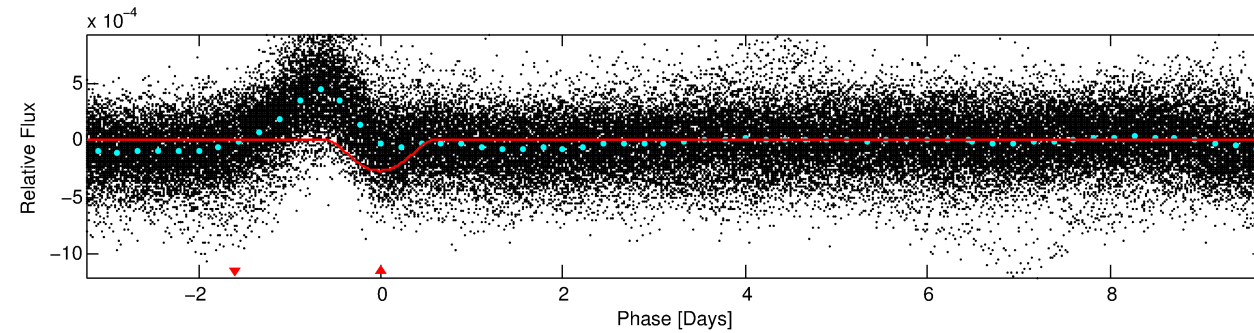
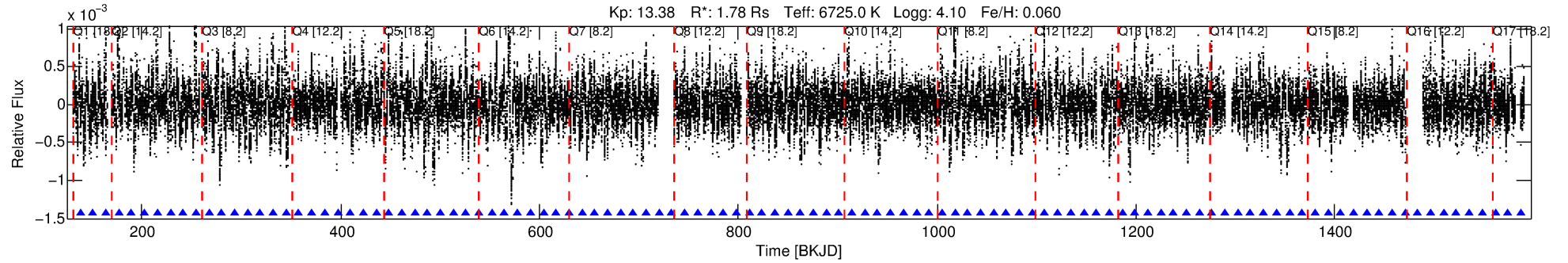
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009711769-01

No Significant Match Found

DV One-Page Summary

KIC: 9711769 Candidate: 1 of 1 Period: 12.937 d



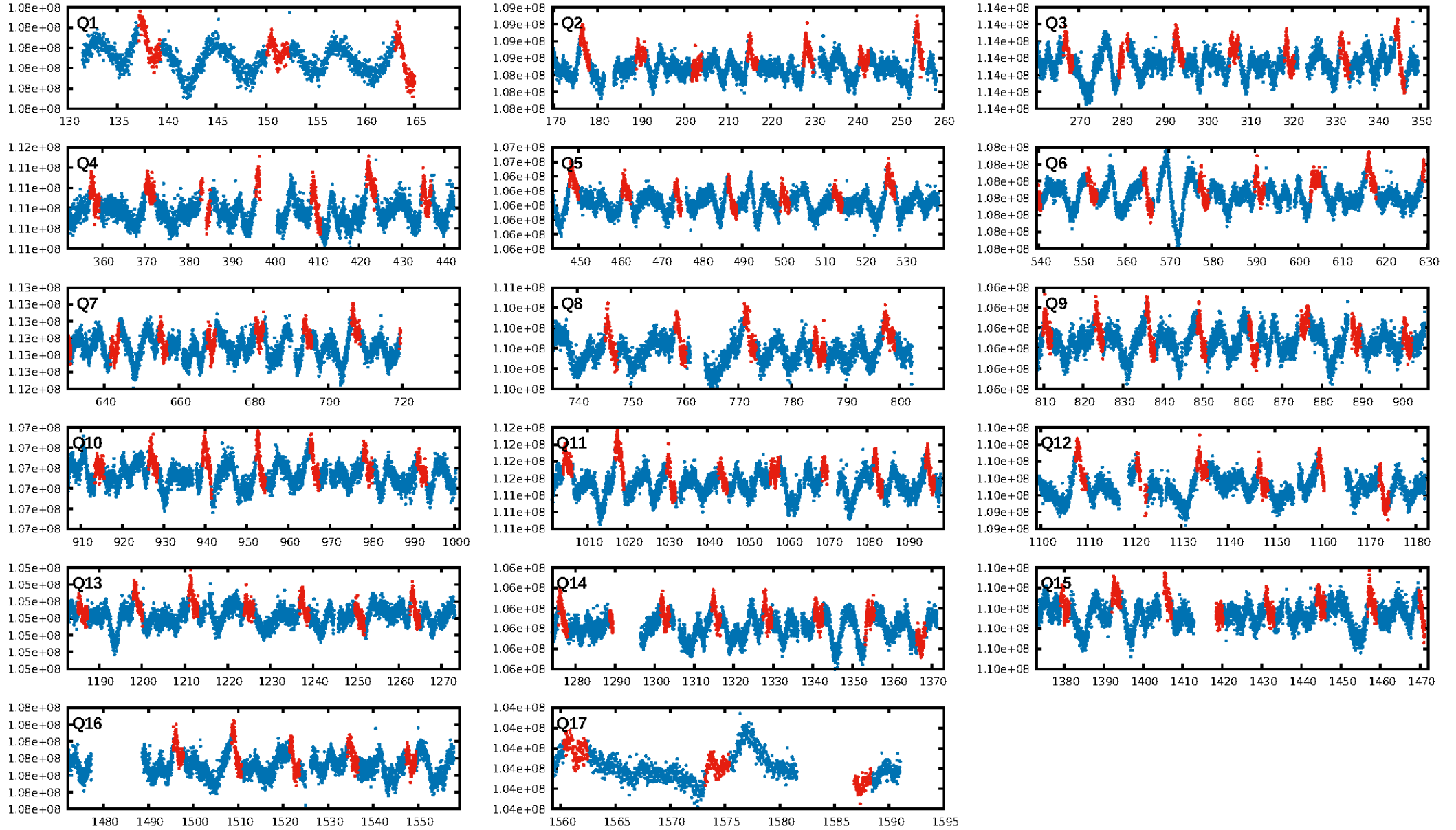
DV Fit Results:

Period = 12.93743 [0.00021] d
Epoch = 138.2458 [0.0138] BKJD
Rp/R* = 0.0293 [0.0130]
a/R* = 1.36 [0.06]
b = 1.00 [0.01]
Seff = 390.23 [130.79]
Teff = 1133 [95] K
Rp = 5.68 [2.84] Re
a = 0.1219 [0.0247] AU
Ag = 11.19 [10.96] [0.93 σ]
Teffp = 3205 [754] K [2.73 σ]

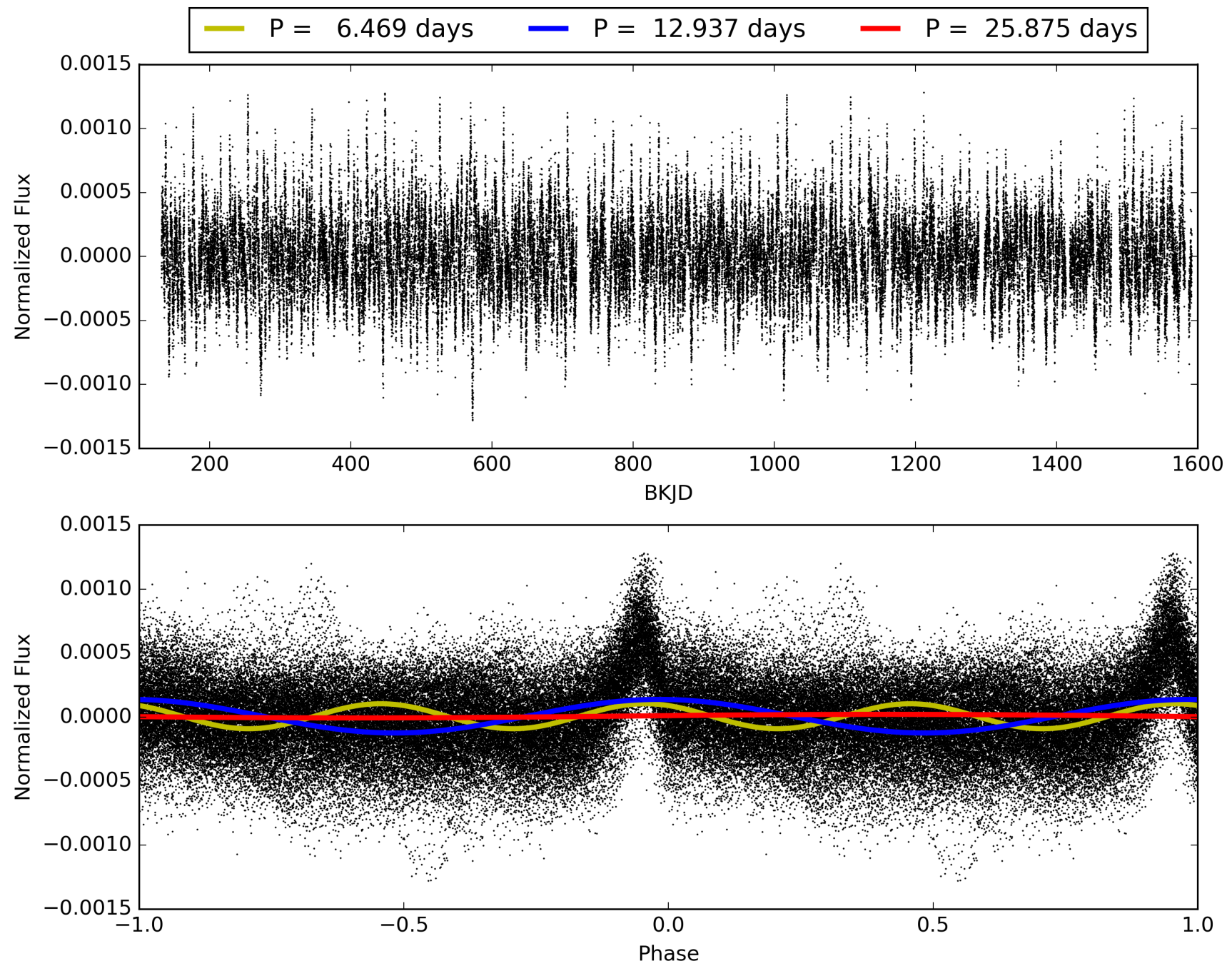
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 7.47e-102
RollingBand-fgt: 1.00 [104/104]
GhostDiagnostic-chr: 2.905
Centroid-sig: 45.0%
Centroid-so: 0.101 arcsec [0.60 σ]
OotOffset-rm: 1.794 arcsec [3.85 σ]
KicOffset-rm: 1.727 arcsec [3.39 σ]
OotOffset-st: 2/3/3/3 [11]
KicOffset-st: 2/3/3/3 [11]
DiffImageQuality-fgm: 0.55 [6/11]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 009711769-01, PDC Light Curves

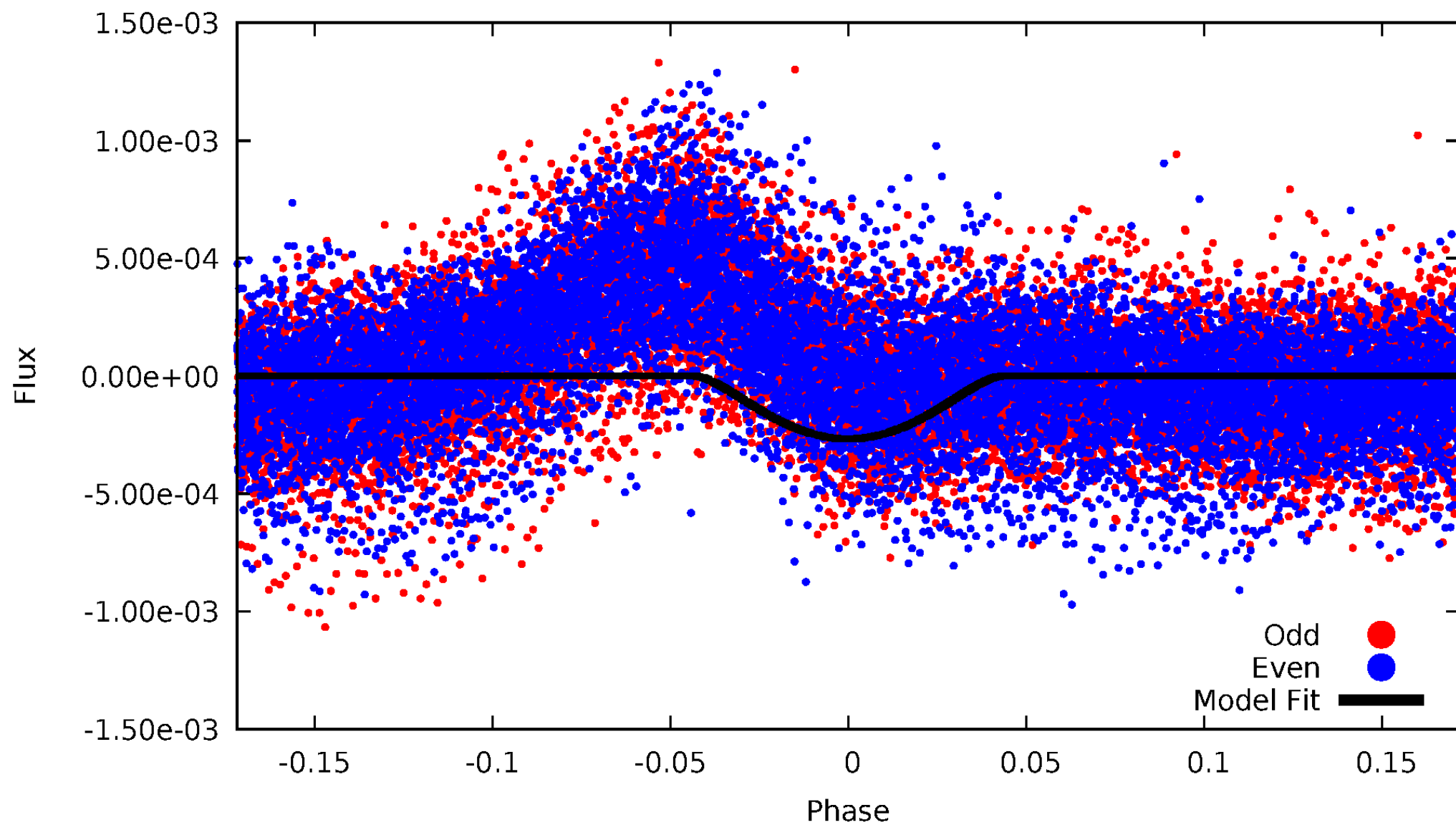


TCE 009711769-01



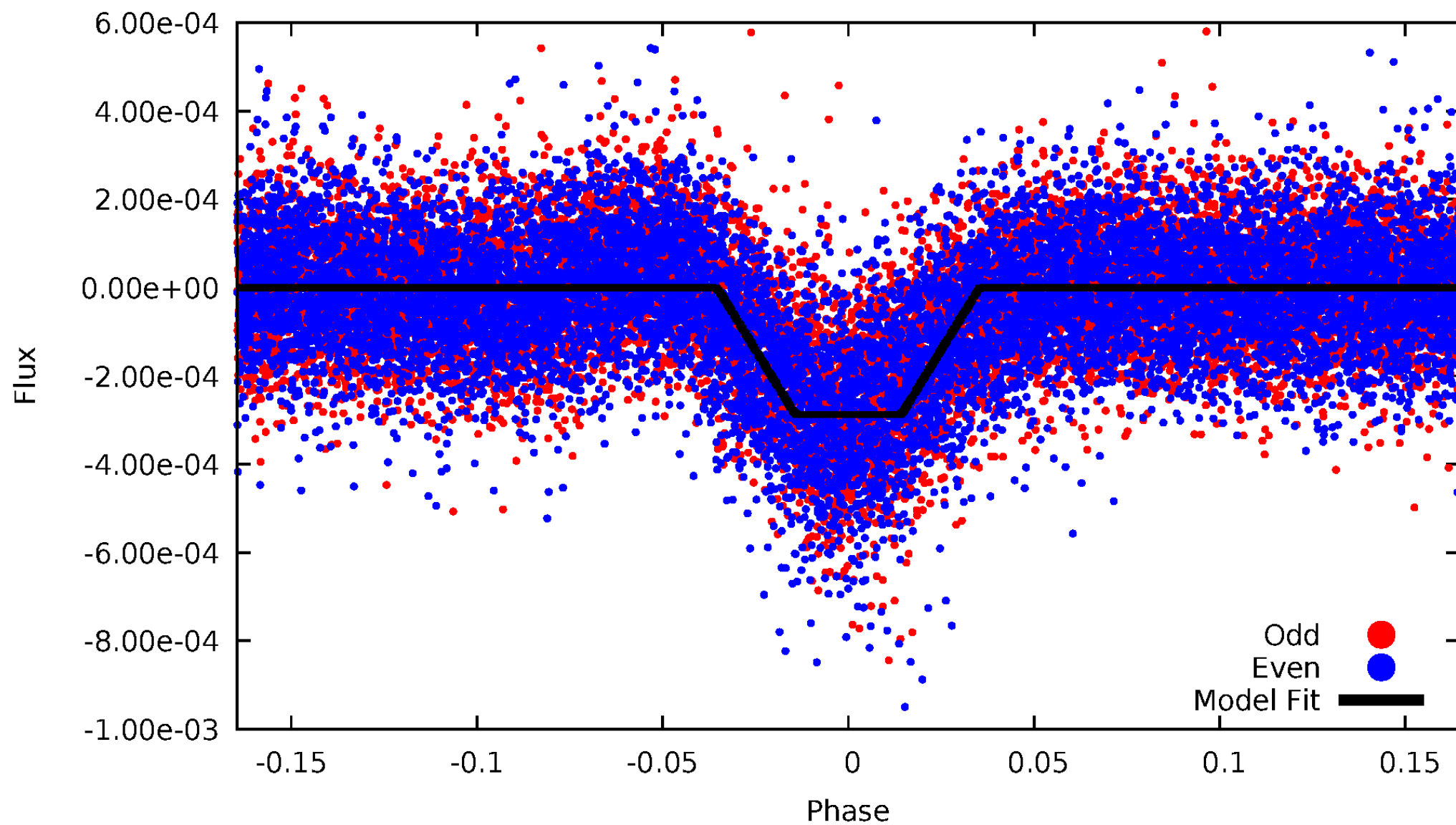
DV Odd/Even

TCE 009711769-01

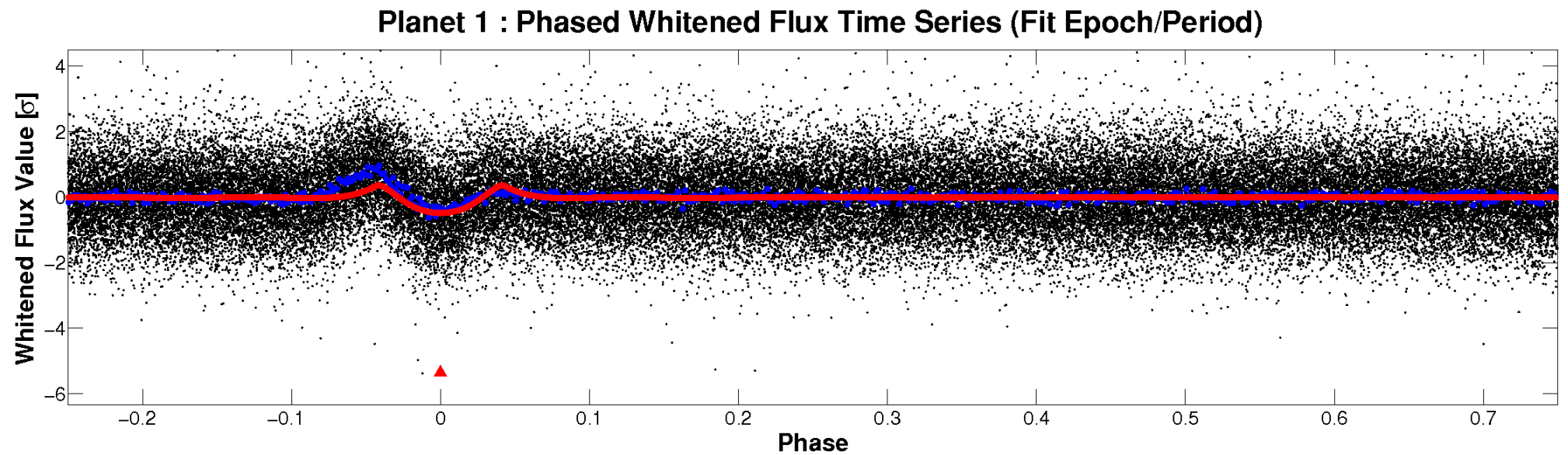
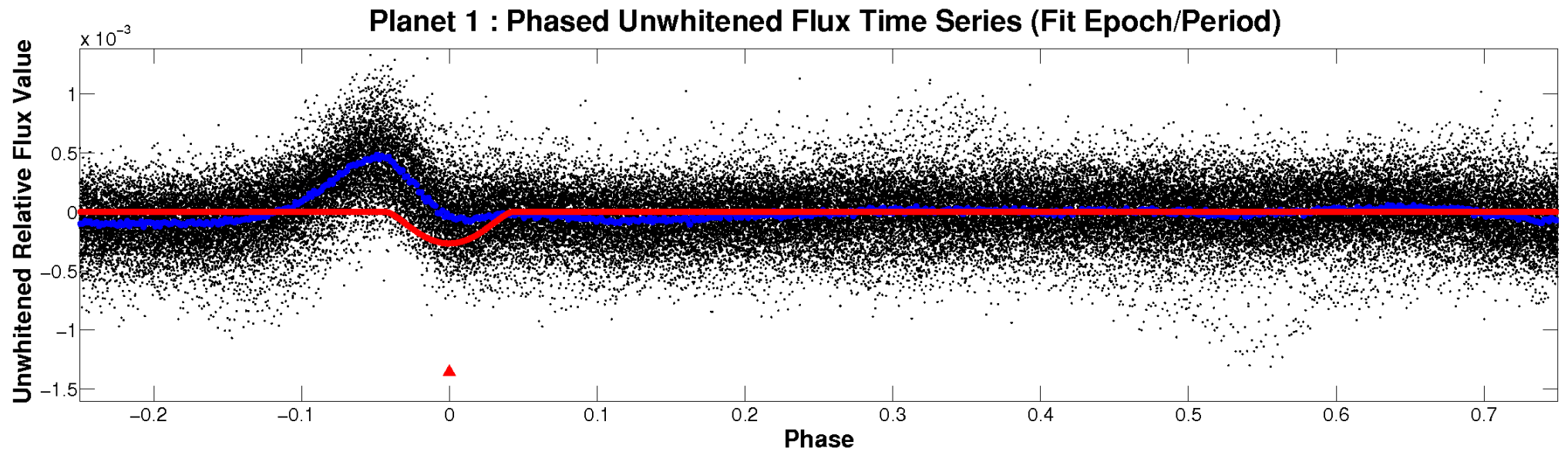


ALT Odd/Even

TCE 009711769-01

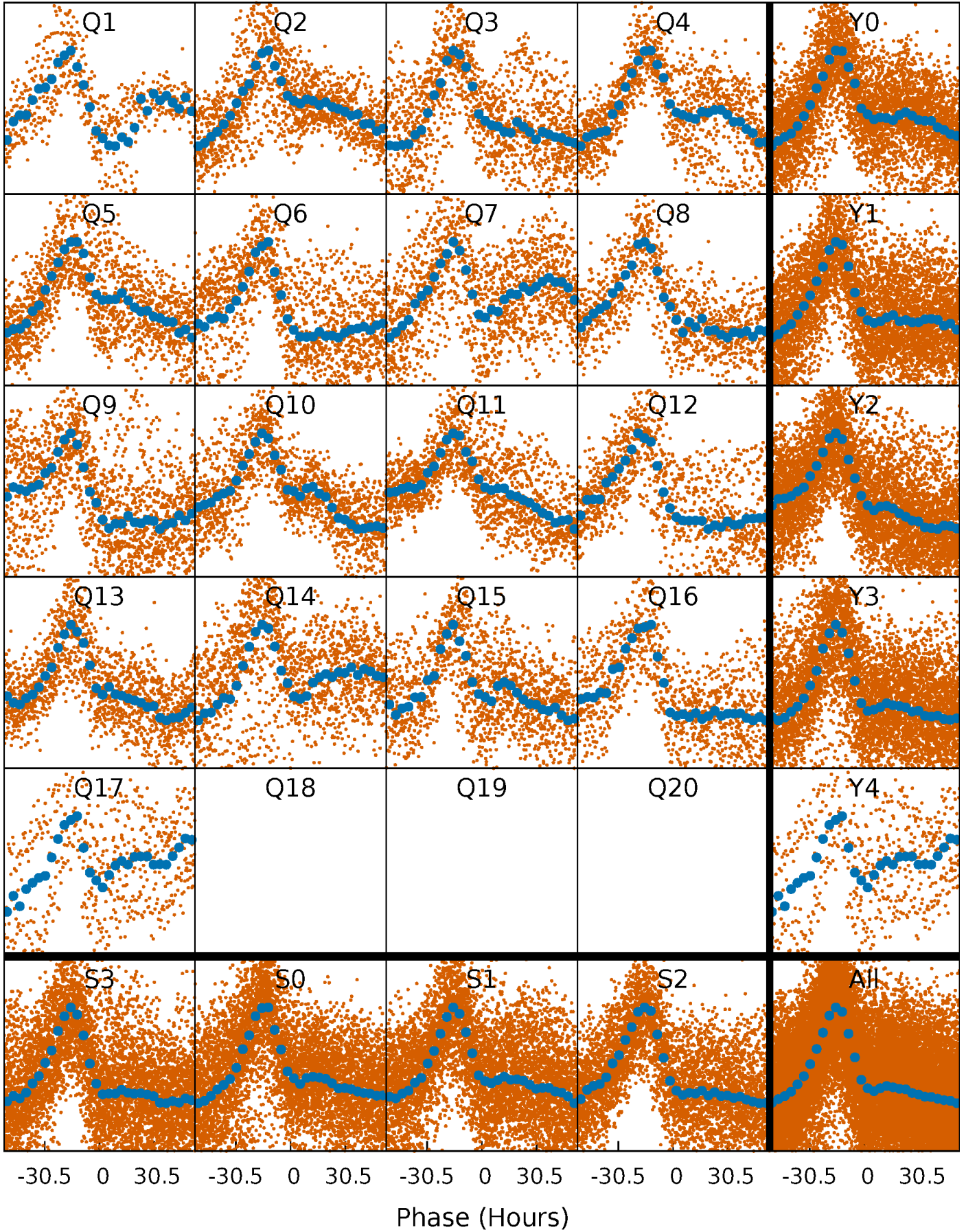


Non-Whitened Vs. Whitened Light Curve



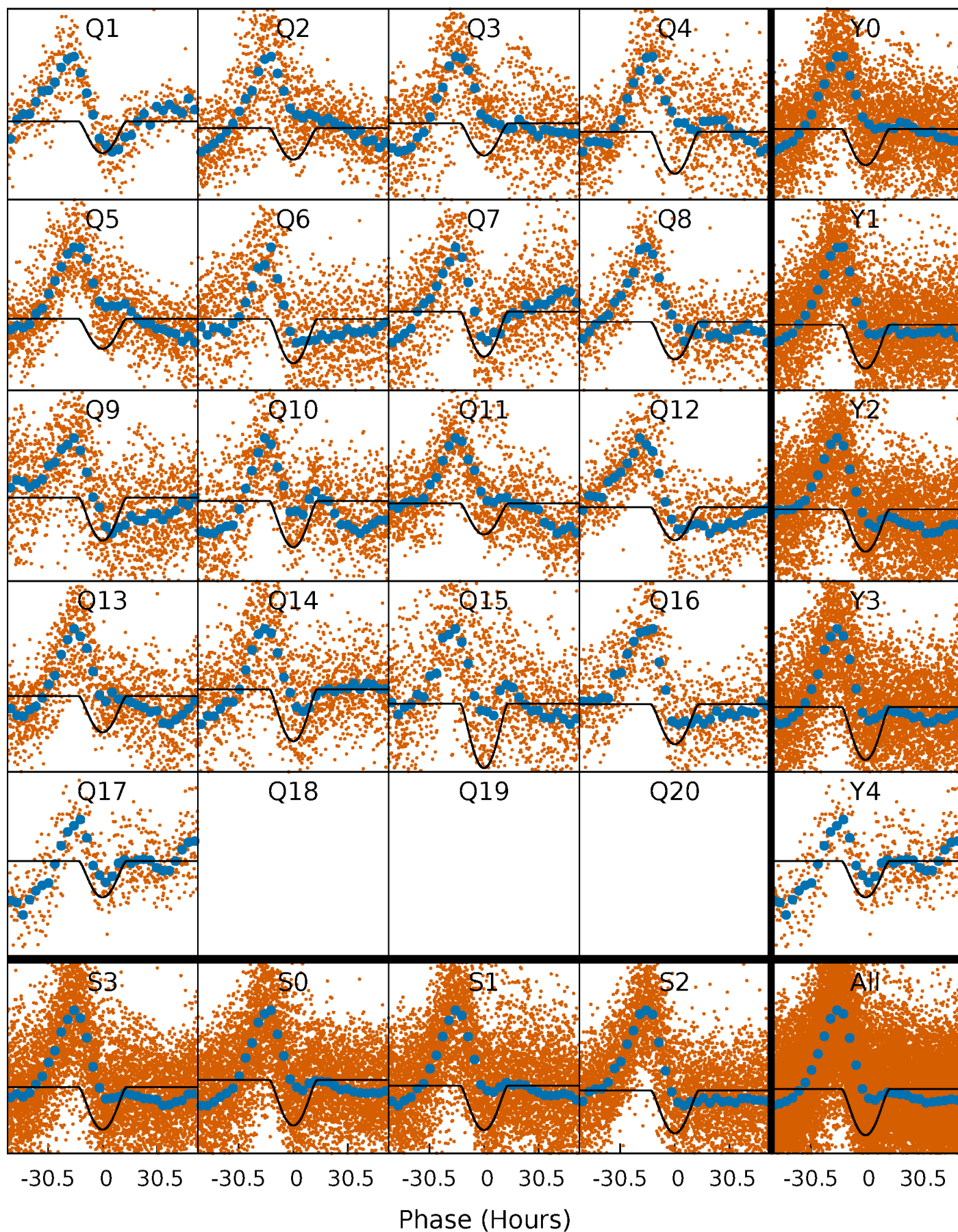
PDC Quarter-Phased Transit Curves

TCE 009711769-01 P= 12.937429 Days $T_0=138.245775$ (BKJD)



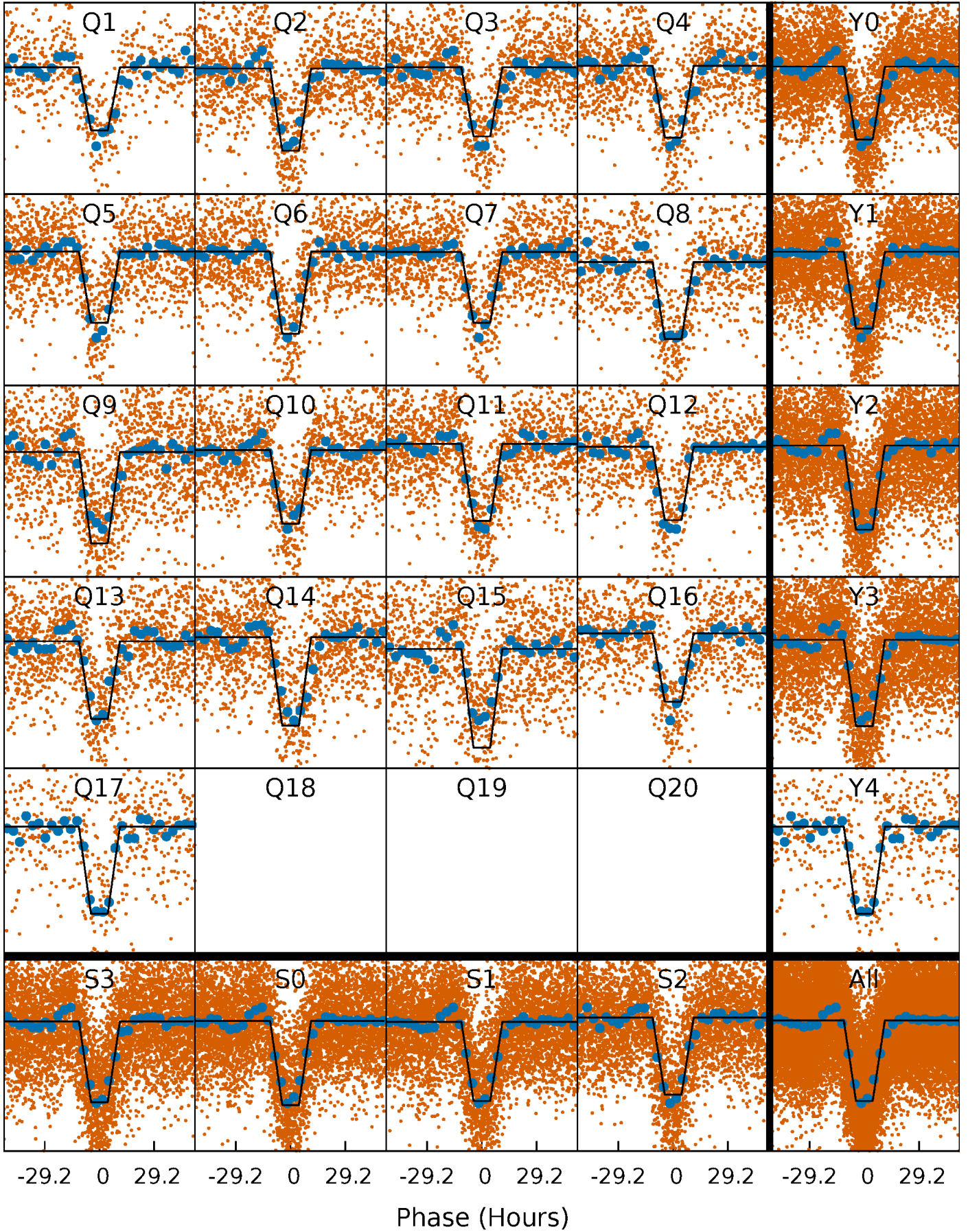
DV Quarter-Phased Transit Curves

TCE 009711769-01 P= 12.937429 Days $T_0=138.245775$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

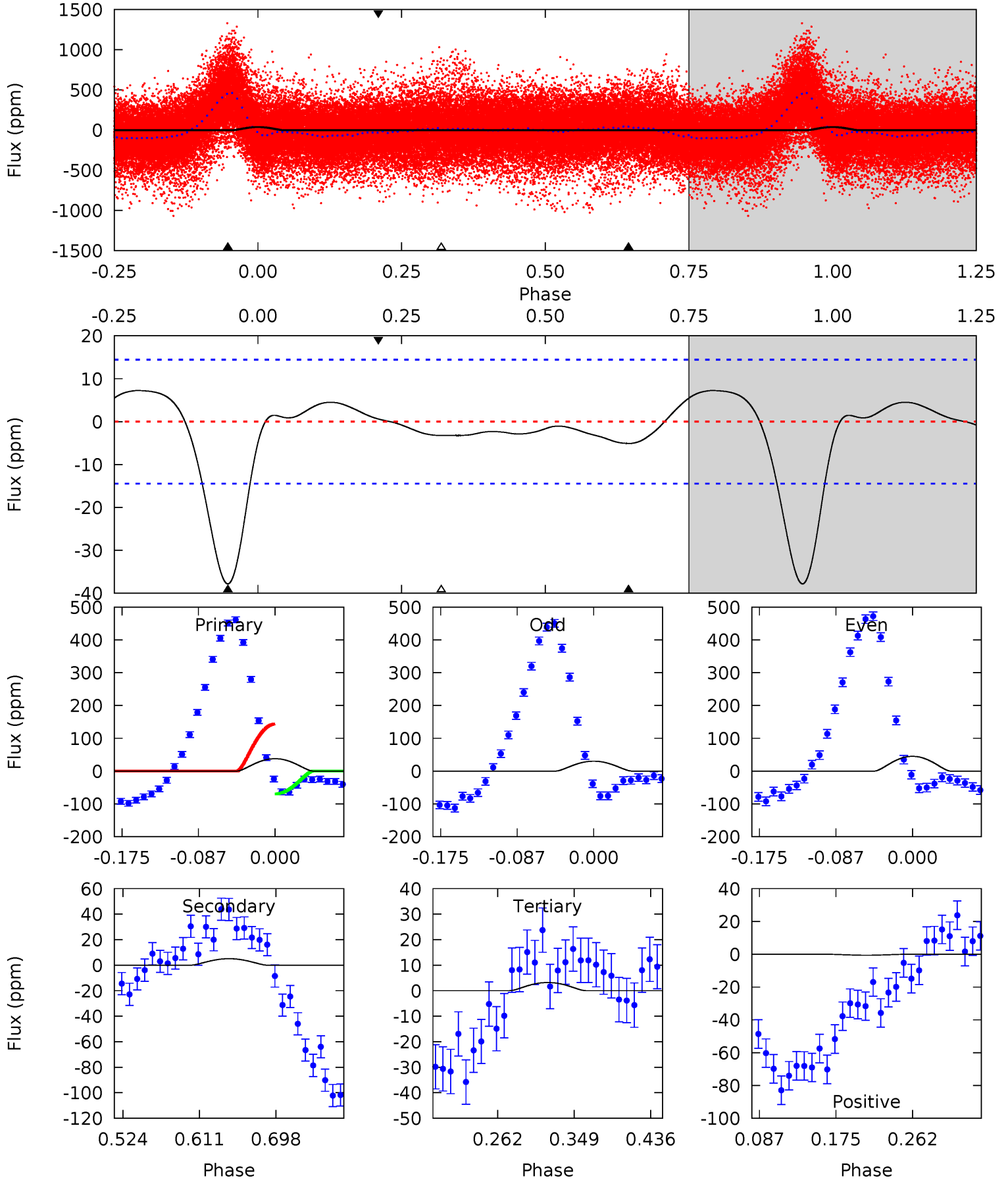
TCE 009711769-01 P= 12.937038 Days $T_0=138.276711$ (BKJD)



DV Model-Shift Uniqueness Test

009711769-01, P = 12.937429 Days, E = 125.308346 Days

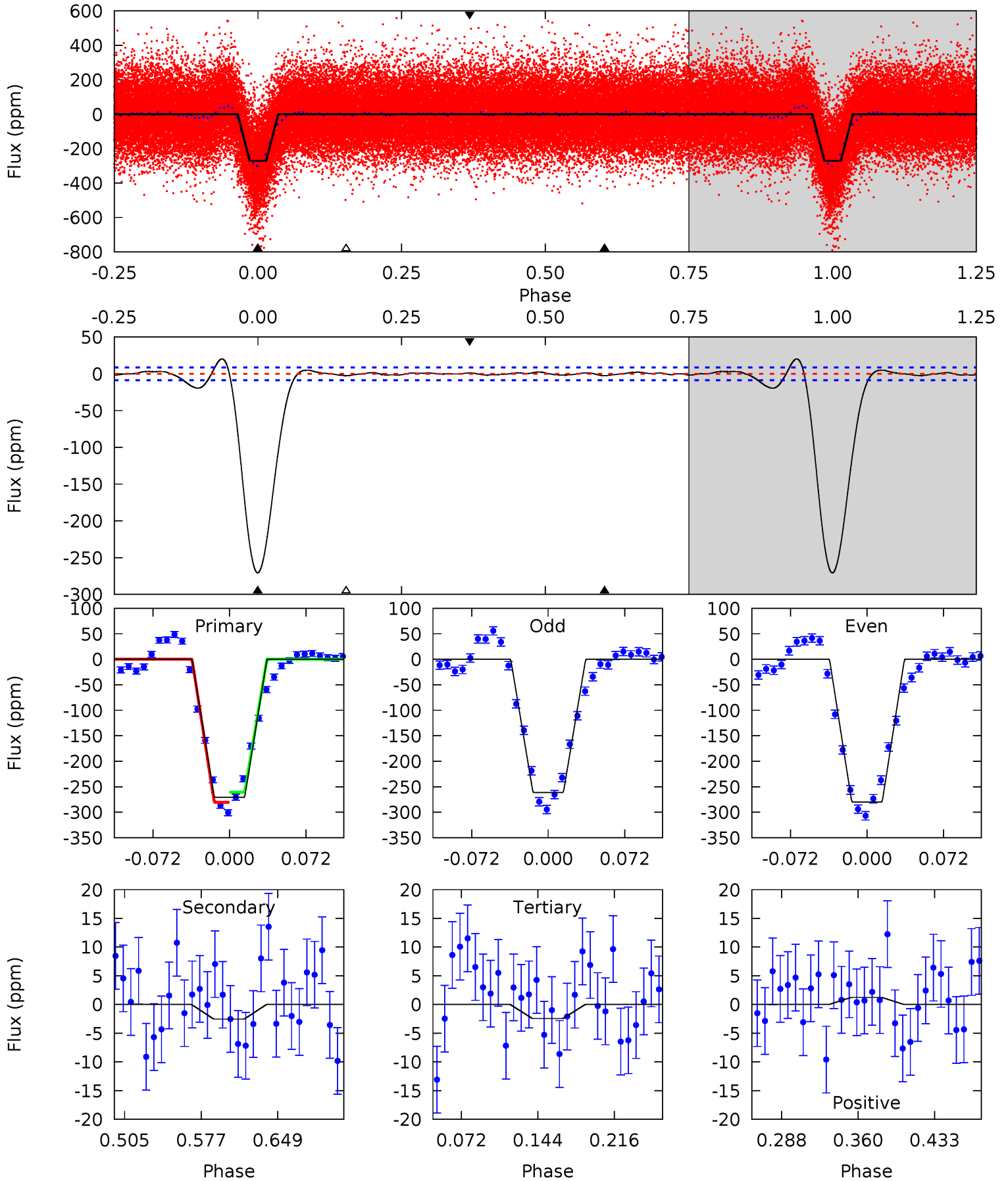
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.0	1.61	1.02	0.20	4.59	1.71	1.12	11.0	11.8	0.59	1.41	2.42	1.19	0.16	11.6



Alt Model-Shift Uniqueness Test

009711769-01, P = 12.937038 Days, E = 125.339673 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
144.9	1.37	1.31	0.66	4.63	1.80	2.33	143.6	144.2	0.05	0.70	5.04	1.04	0.07	5.32



Stellar Parameters For KIC 009711769

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6725^{+151}_{-236}	$4.097^{+0.171}_{-0.140}$	$0.060^{+0.200}_{-0.350}$	$1.779^{+0.370}_{-0.411}$	$1.442^{+0.163}_{-0.245}$	$0.361^{+0.349}_{-0.142}$
	+2%/-4%	+4%/-3%	+333%/-583%	+21%/-23%	+11%/-17%	+97%/-39%
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 009711769-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-5 ± 3	$5.40^{+2.93}_{-2.38}$	1579^{+95}_{-100}	2553^{+606}_{-652}	$1.281^{+4.080}_{-0.921}$
Alt.	-3 ± 2	$3.56^{+2.76}_{-2.07}$	1572^{+103}_{-101}	2603^{+854}_{-4600}	$1.387^{+7.375}_{-1.199}$

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 $A_{obs} \gg 1.0$

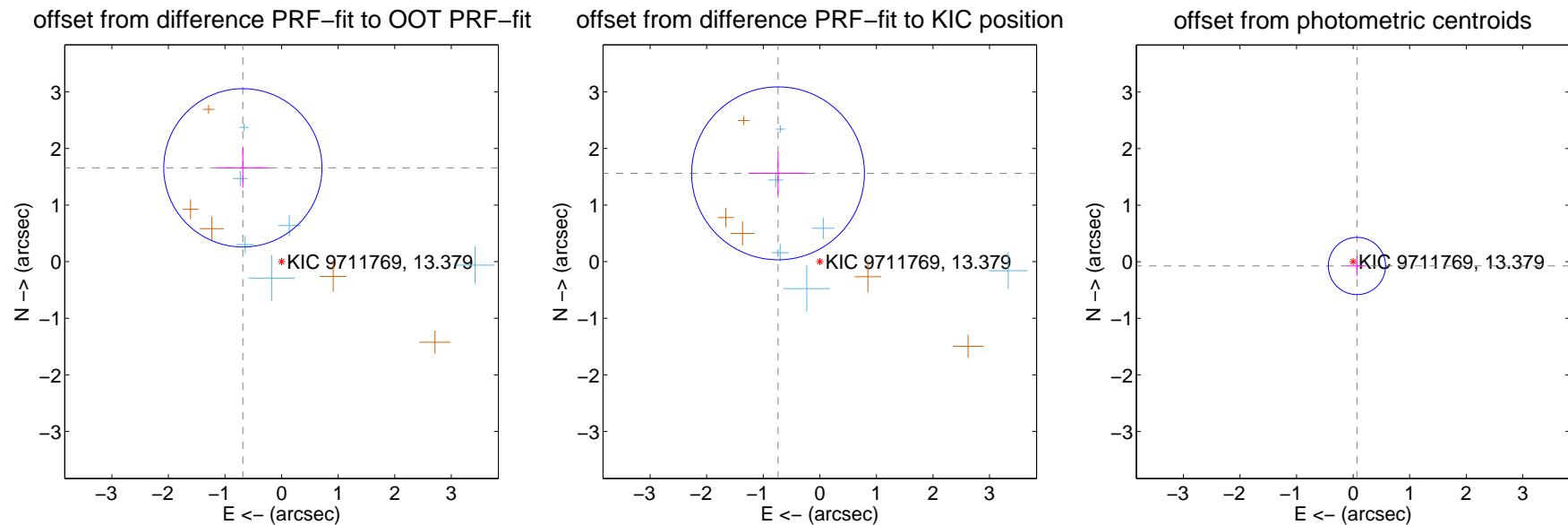
DV Centroid Data

Supplemental centroid analysis for 009711769-01. Kepler magnitude: 13.38. Transit SNR 25.30

There are 6 quarters with good PRF difference image offsets

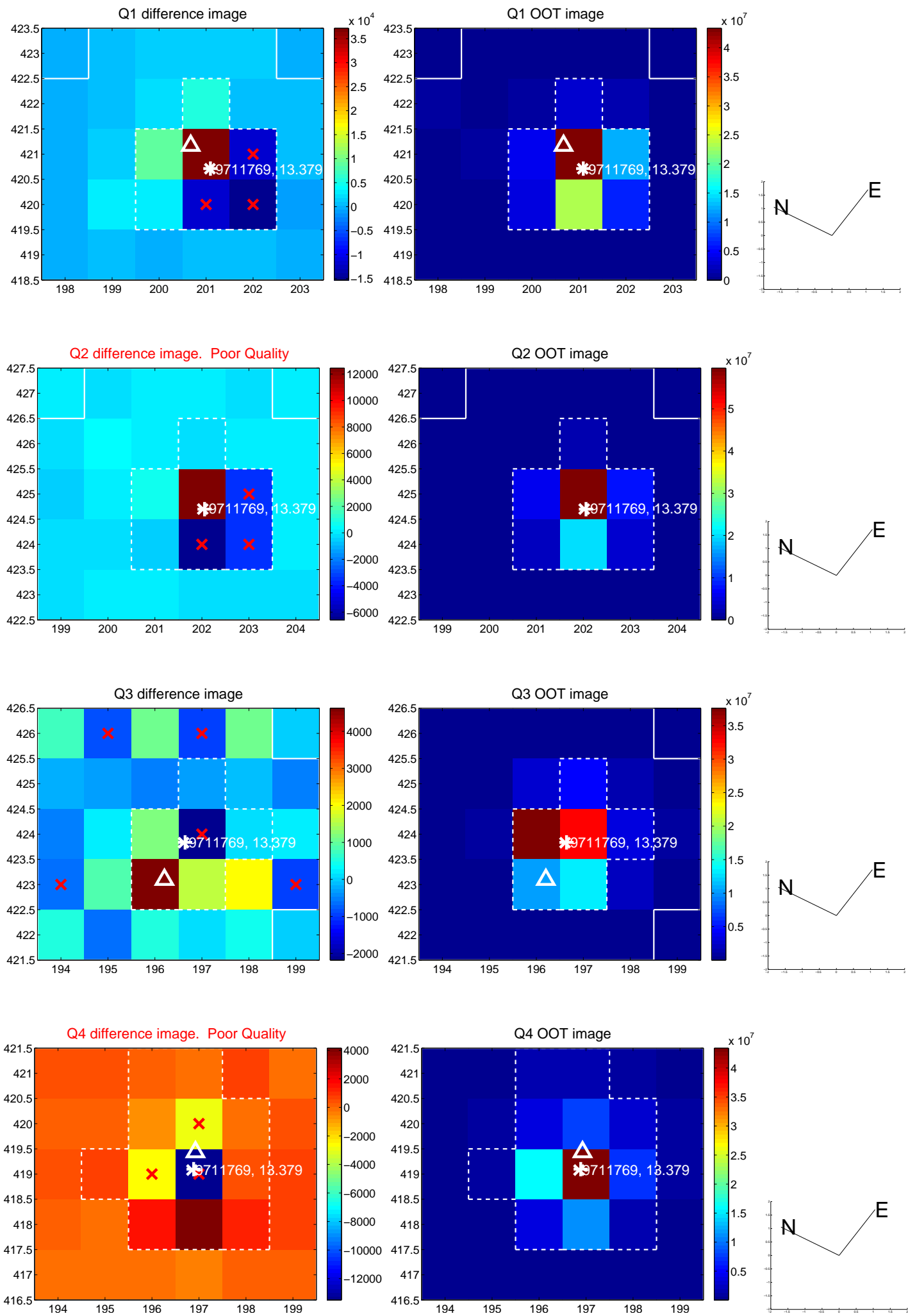
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.794 ± 0.466	3.85	0.684 ± 0.463	1.658 ± 0.351
PRF-fit source offset from KIC position	1.727 ± 0.509	3.39	0.739 ± 0.518	1.561 ± 0.368
photometric centroid source offset	0.10 ± 0.17	0.60	-0.07 ± 0.16	-0.07 ± 0.17

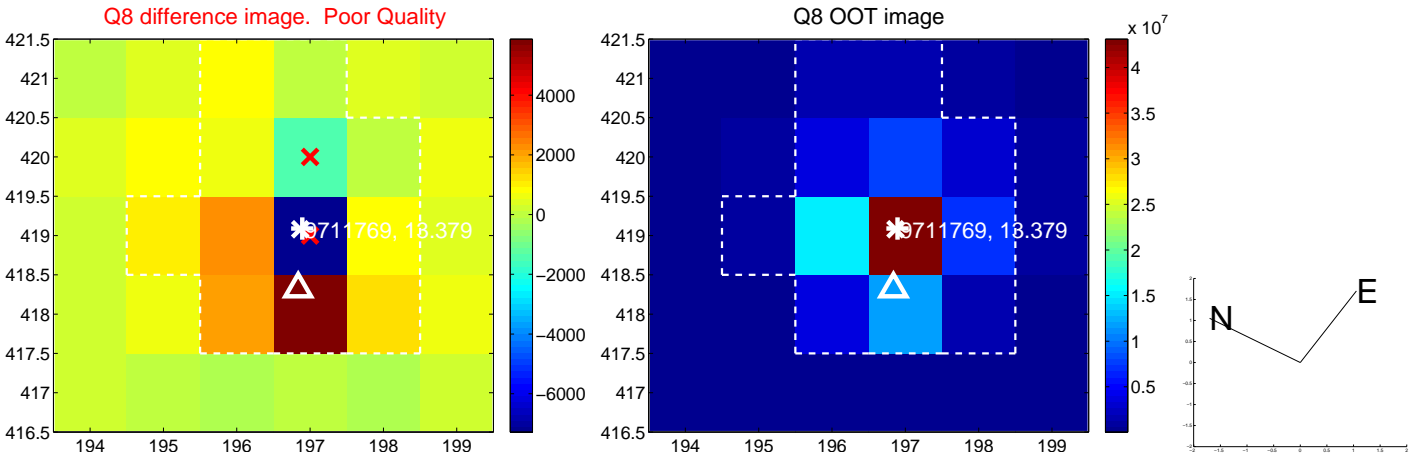
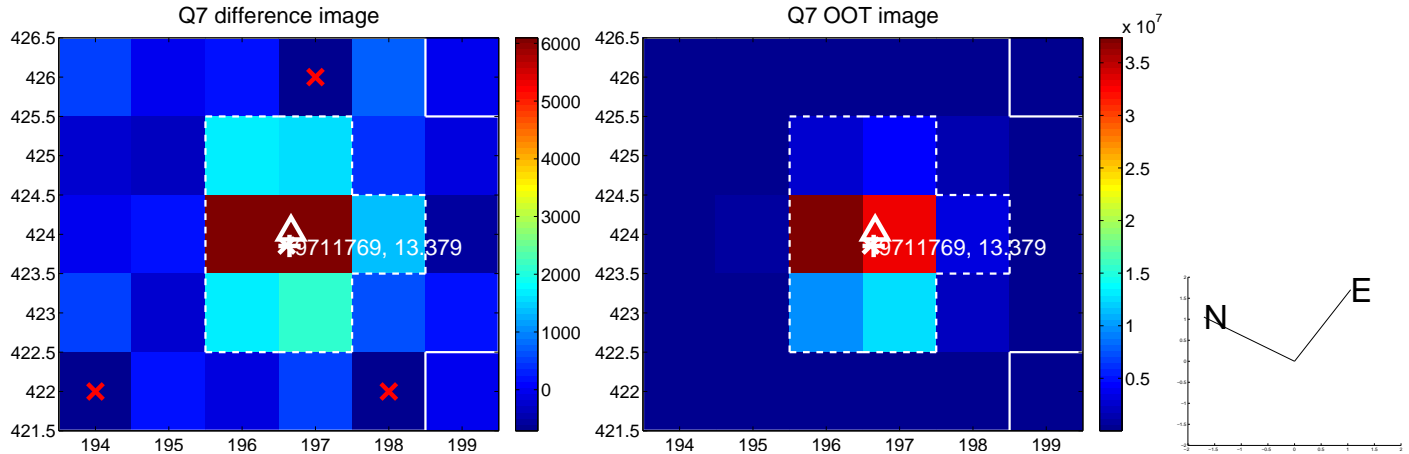
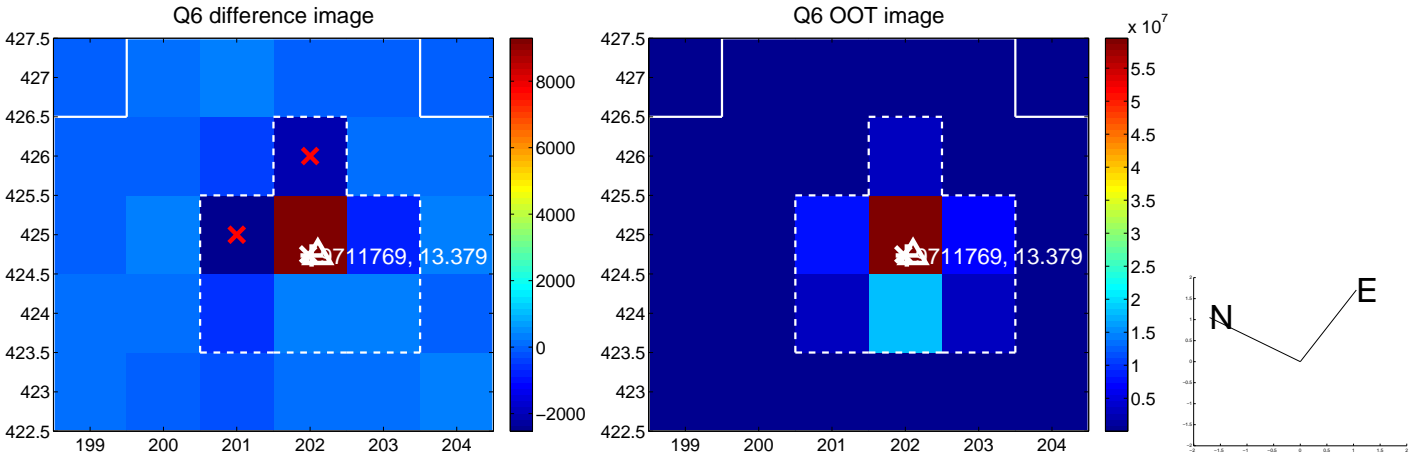
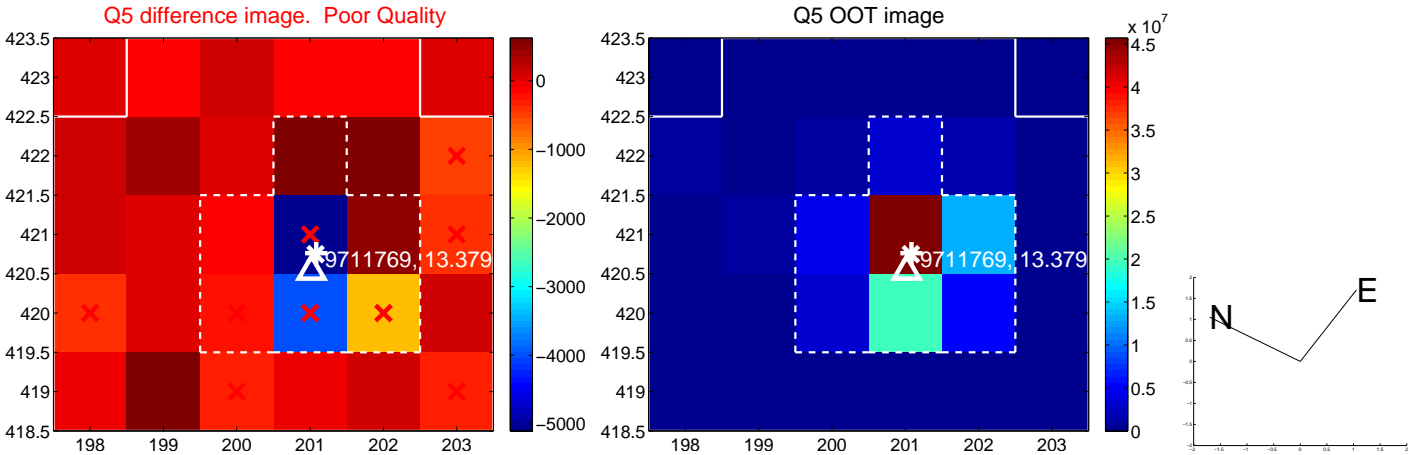


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

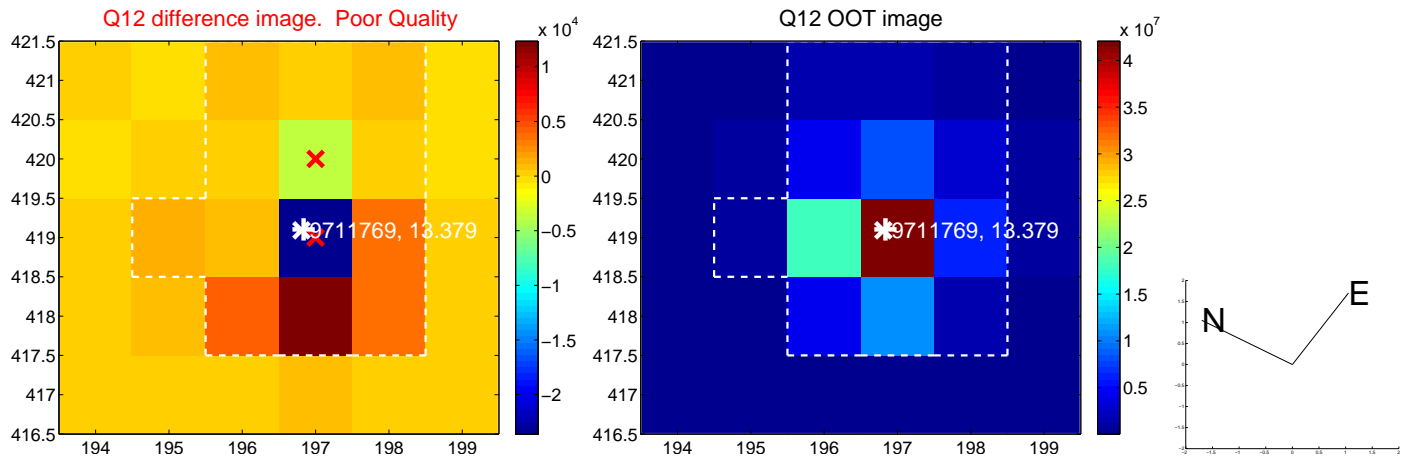
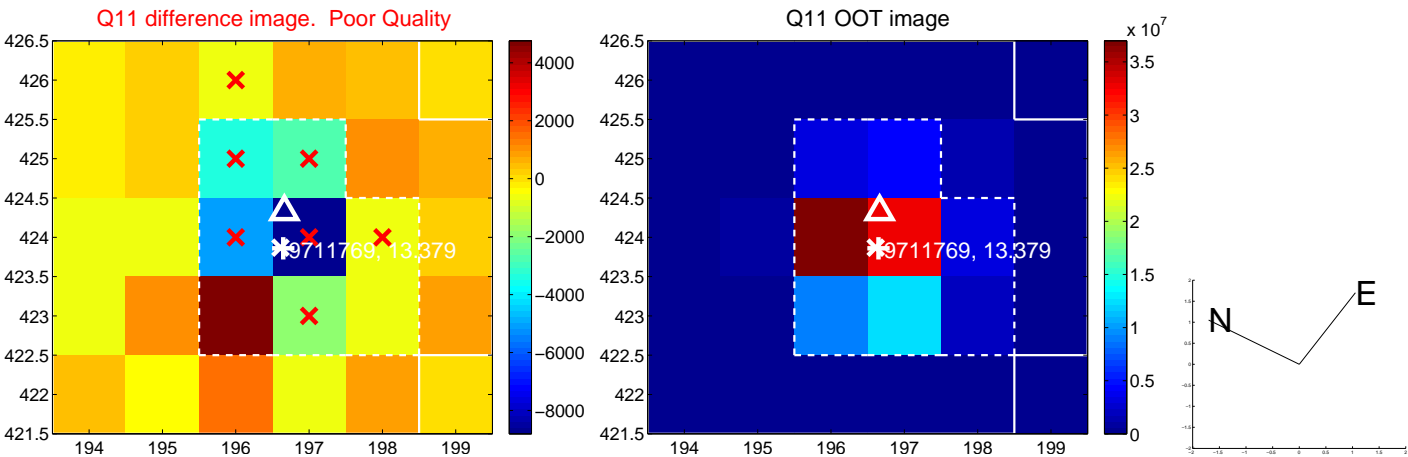
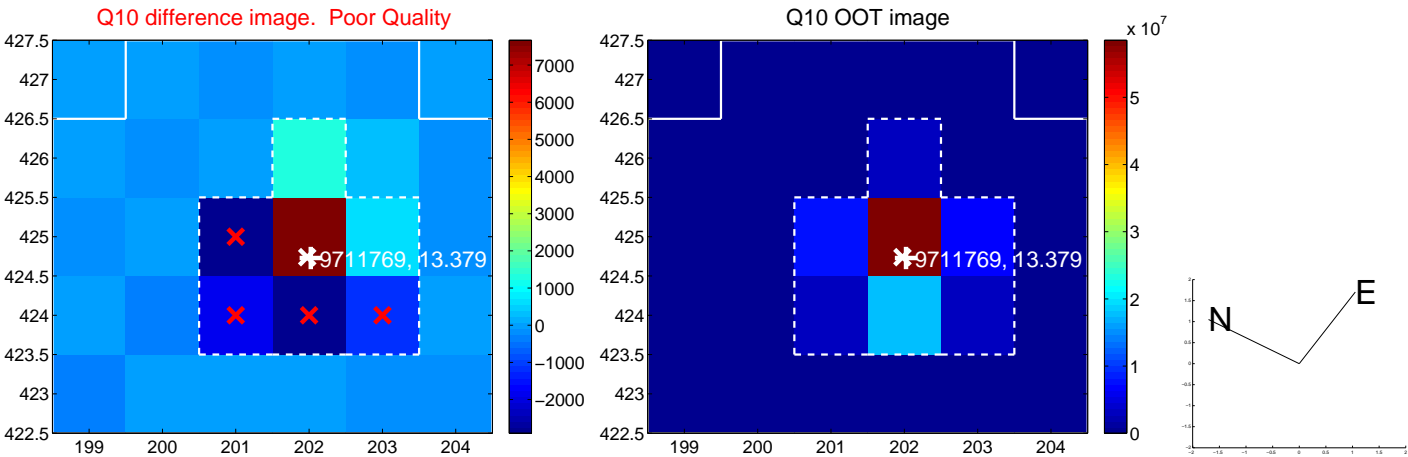
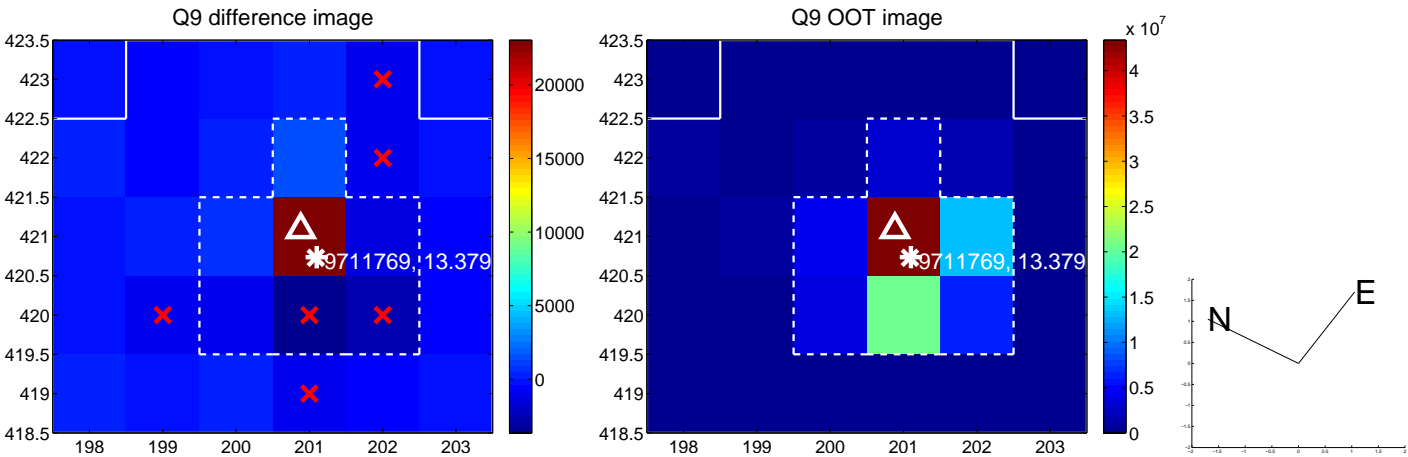
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



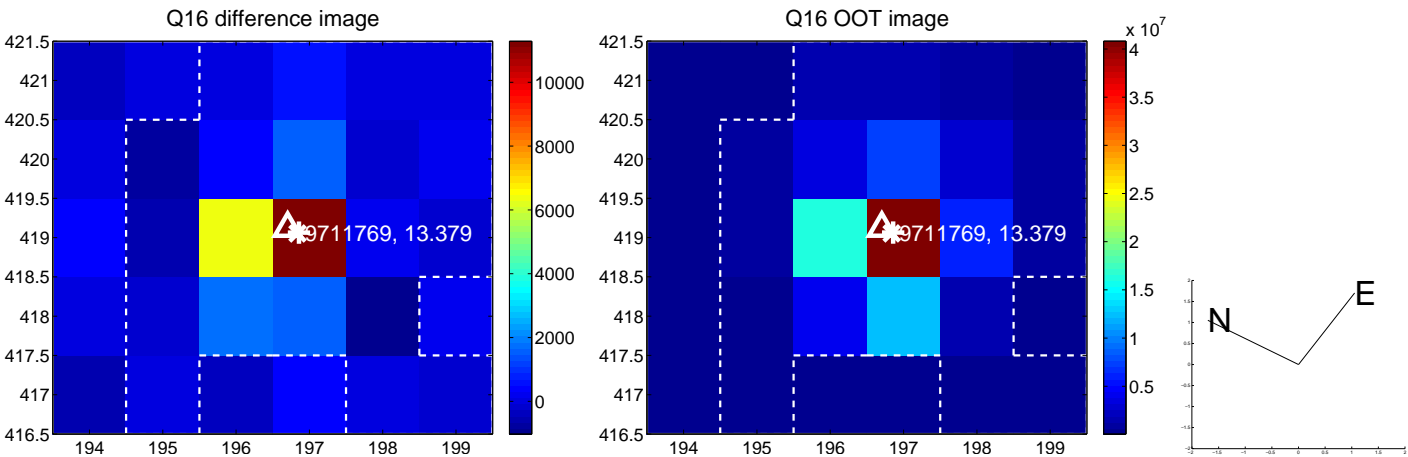
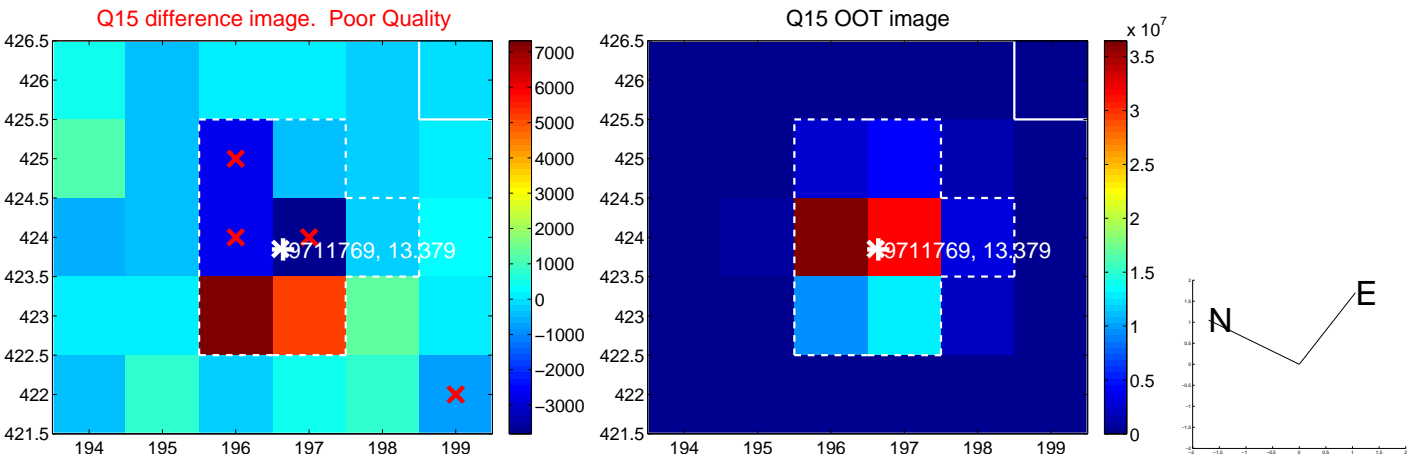
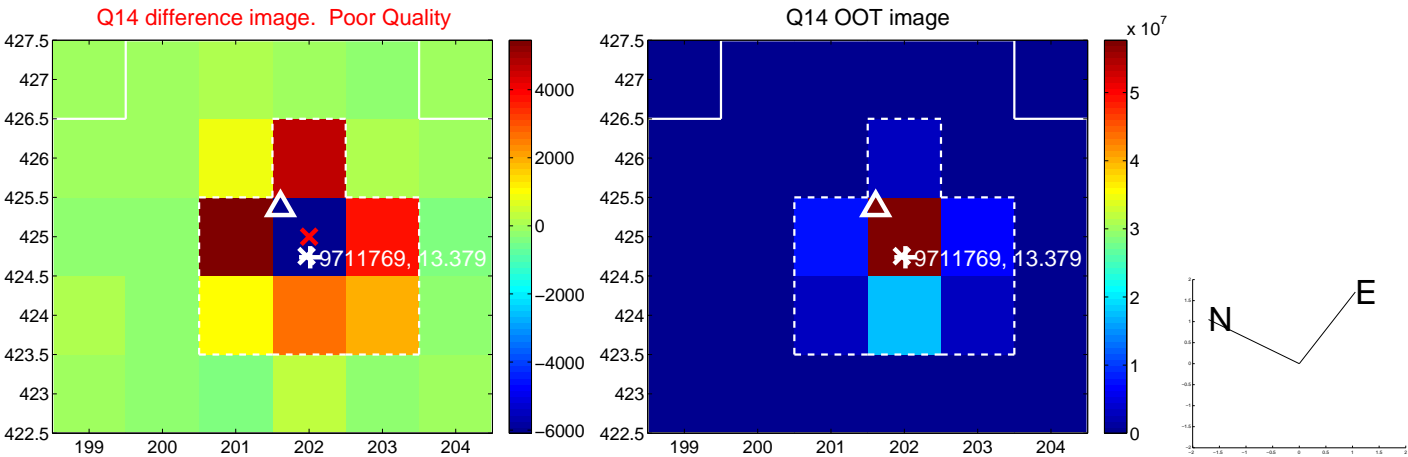
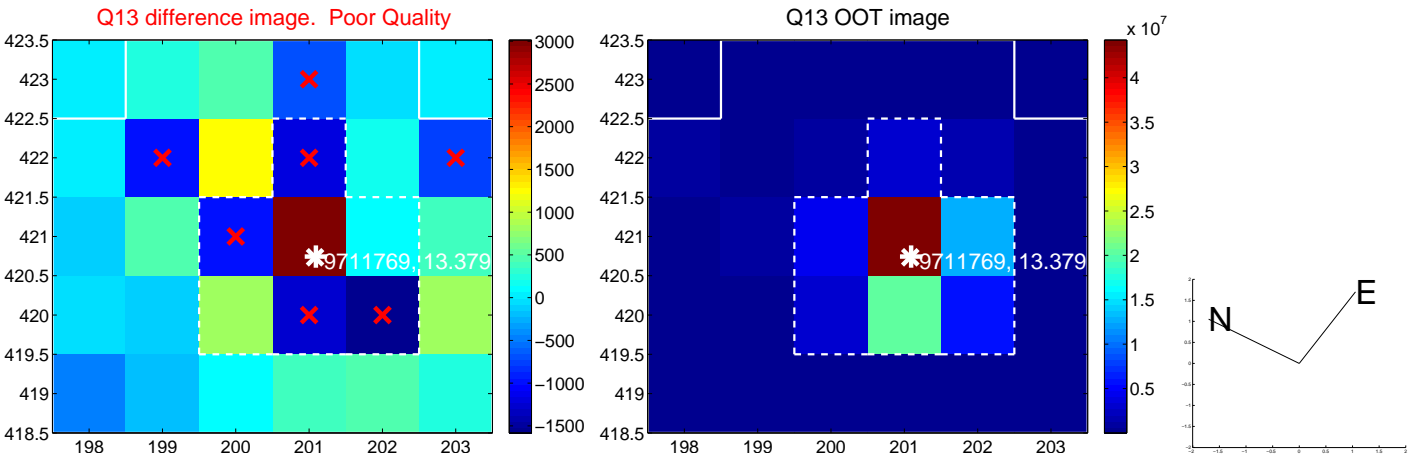
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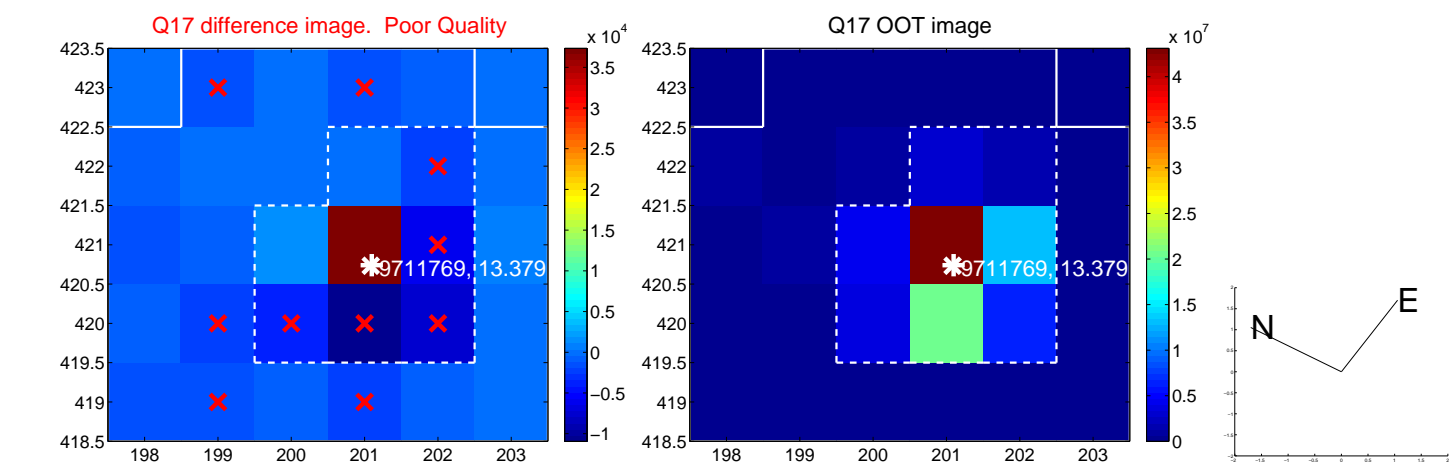
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



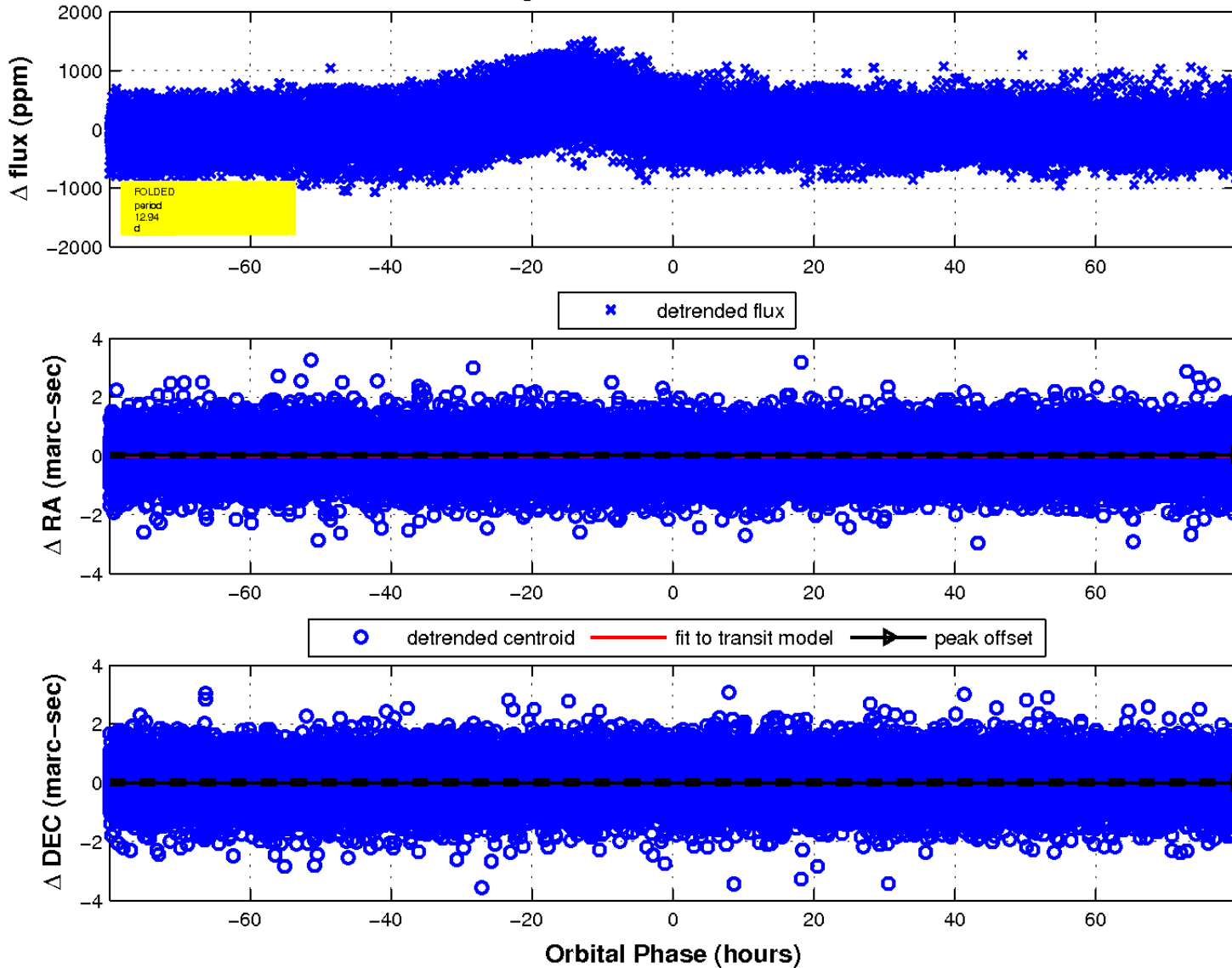
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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

