

KIC 002715119

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})
002715119-01	OBS	No	1.965402	132.094159	40.9	4.347	7.5	7.2	0.92	5881	0.67	999.72

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002715119-01	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET

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

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

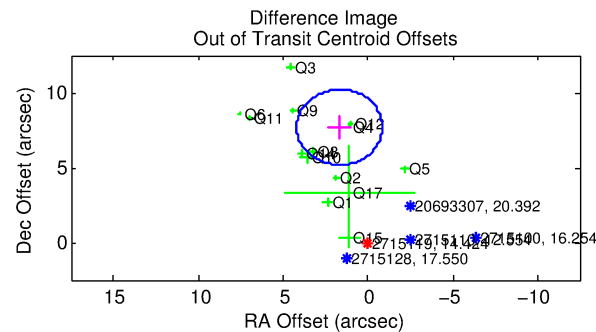
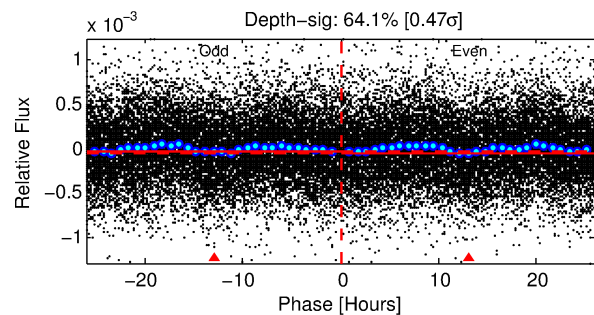
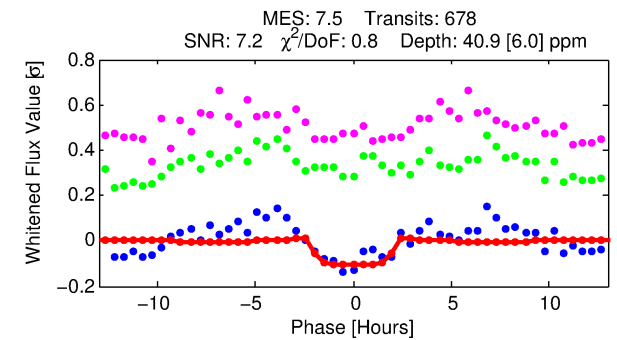
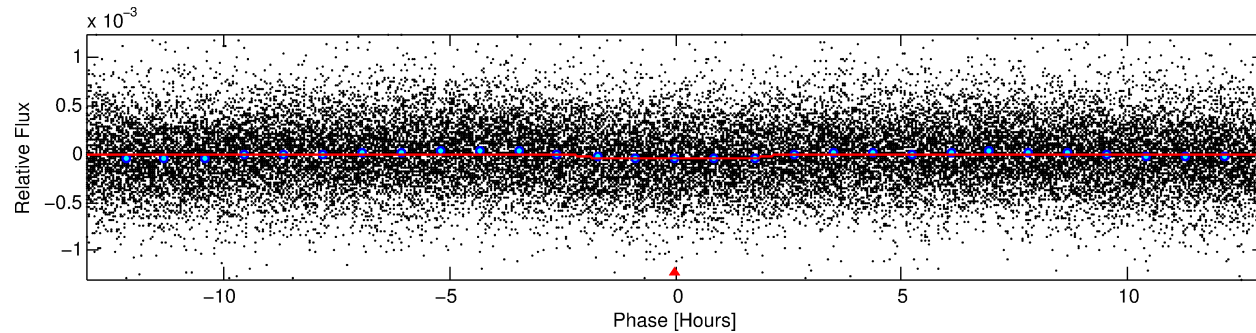
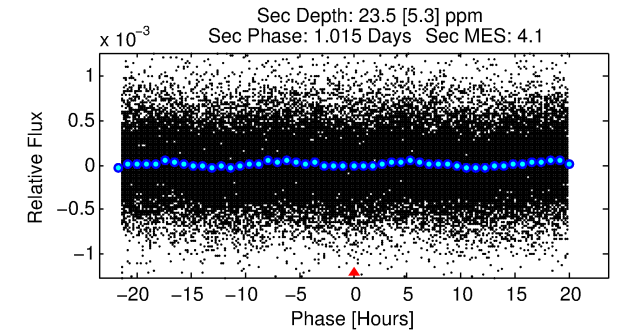
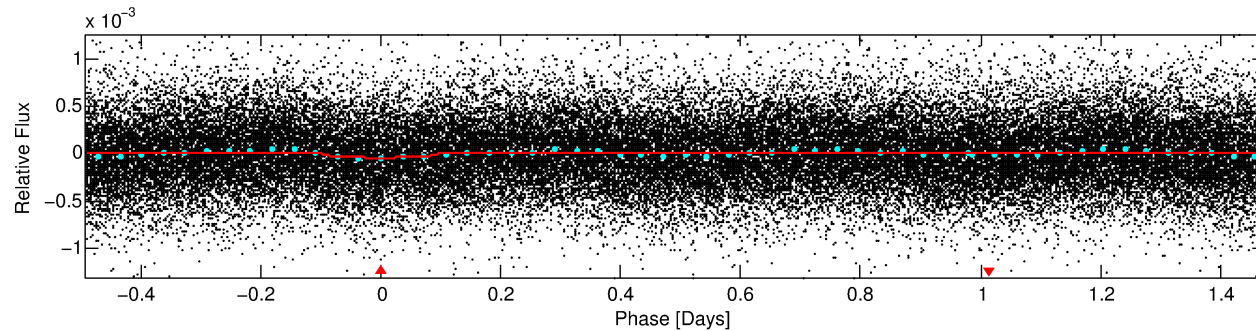
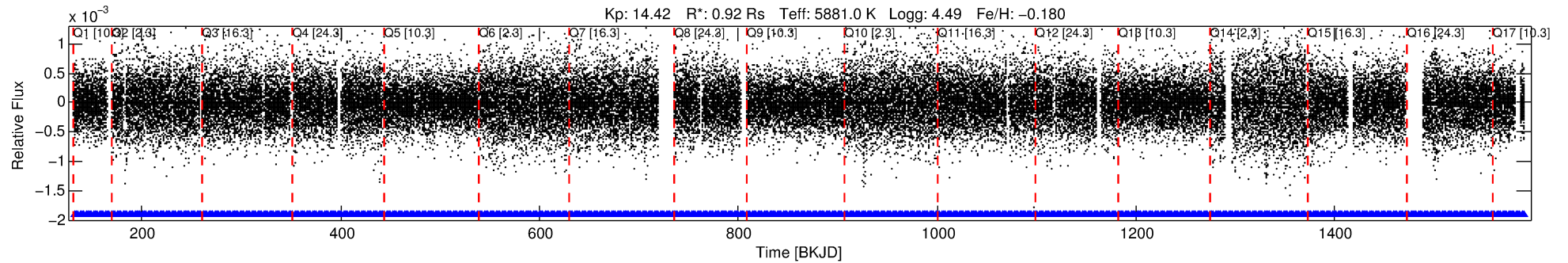
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 002715119-01

No Significant Match Found

DV One-Page Summary

KIC: 2715119 Candidate: 1 of 1 Period: 1.965 d



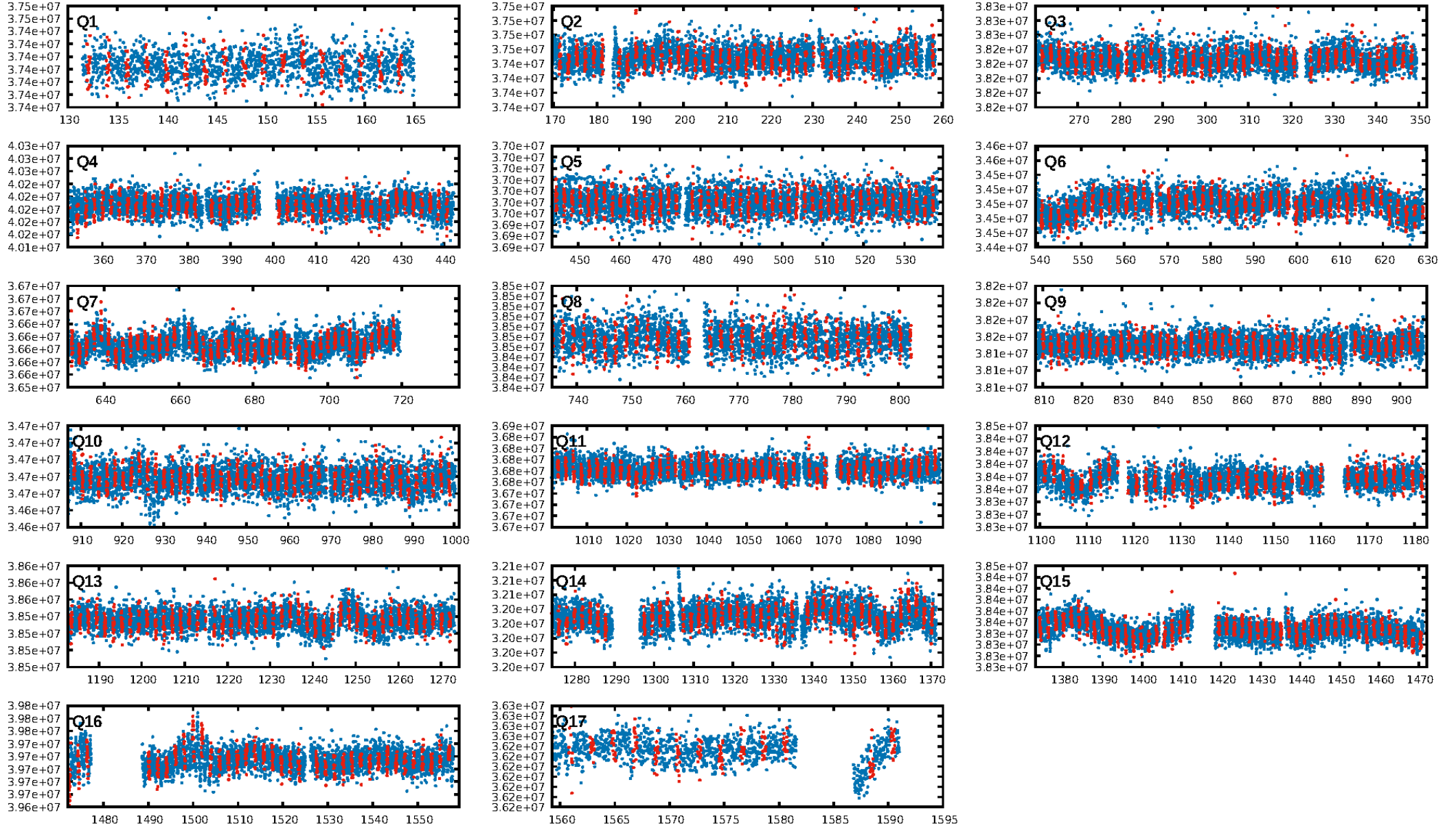
DV Fit Results:

Period = 1.96540 [0.00003] d
Epoch = 132.0942 [0.0068] BKJD
Rp/R* = 0.0066 [0.0043]
a/R* = 2.16 [5.36]
b = 0.83 [1.20]
Seff = 999.72 [376.04]
Teff = 1434 [135] K
Rp = 0.66 [0.47] Re
a = 0.0303 [0.0074] AU
Ag = 26.79 [36.66] [0.70 σ]
Teffp = 5043 [1673] K [2.15 σ]

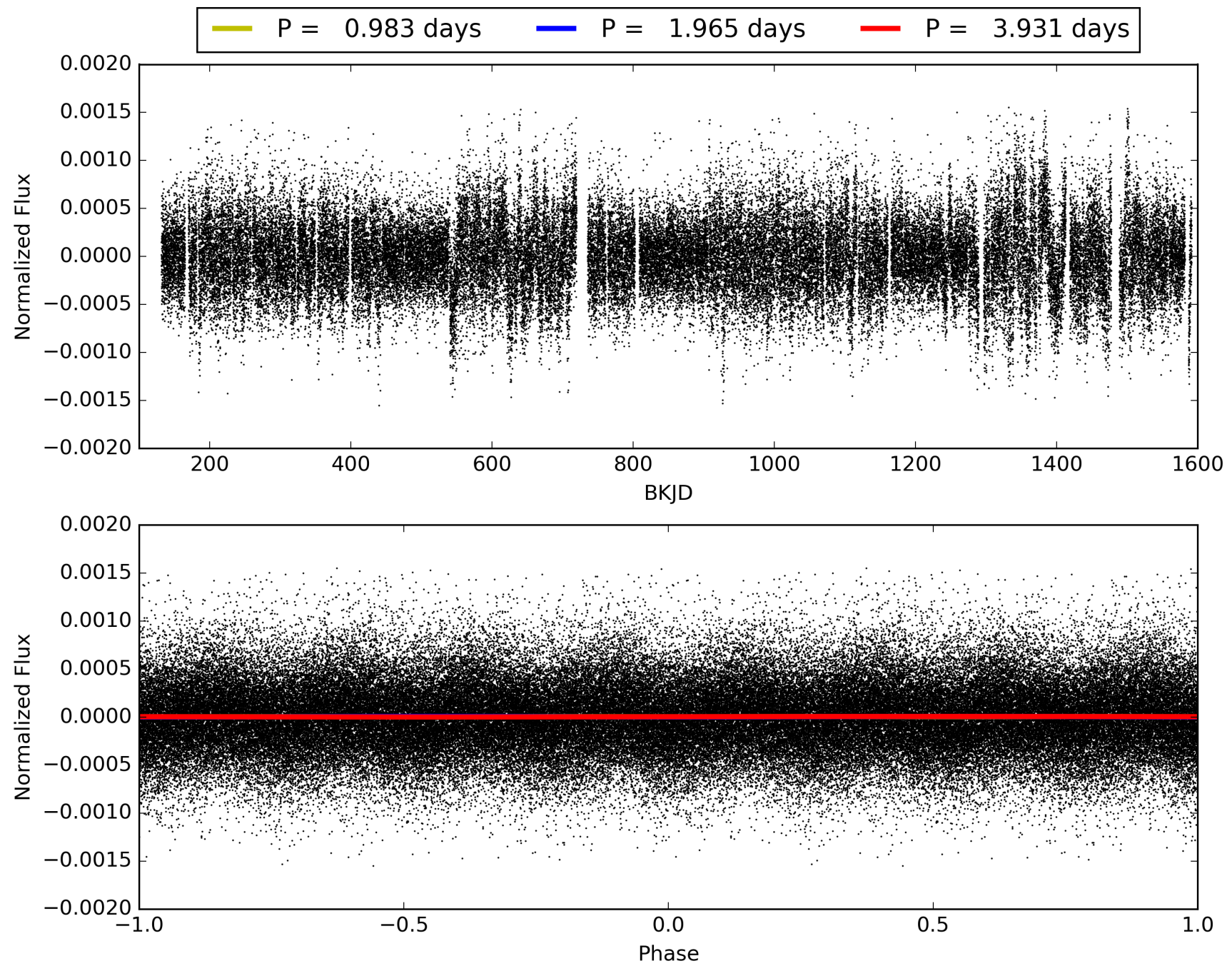
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.85e-13
RollingBand-fgt: 1.00 [648/648]
GhostDiagnostic-chr: -0.2973
Centroid-sig: 0.0%
Centroid-so: 3.873 arcsec [2.28 σ]
OotOffset-rm: 7.879 arcsec [9.38 σ]
KicOffset-rm: 7.809 arcsec [9.34 σ]
OotOffset-st: 4/3/3/4 [14]
KicOffset-st: 4/3/3/4 [14]
DiffImageQuality-fgm: 0.14 [2/14]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 002715119-01, PDC Light Curves

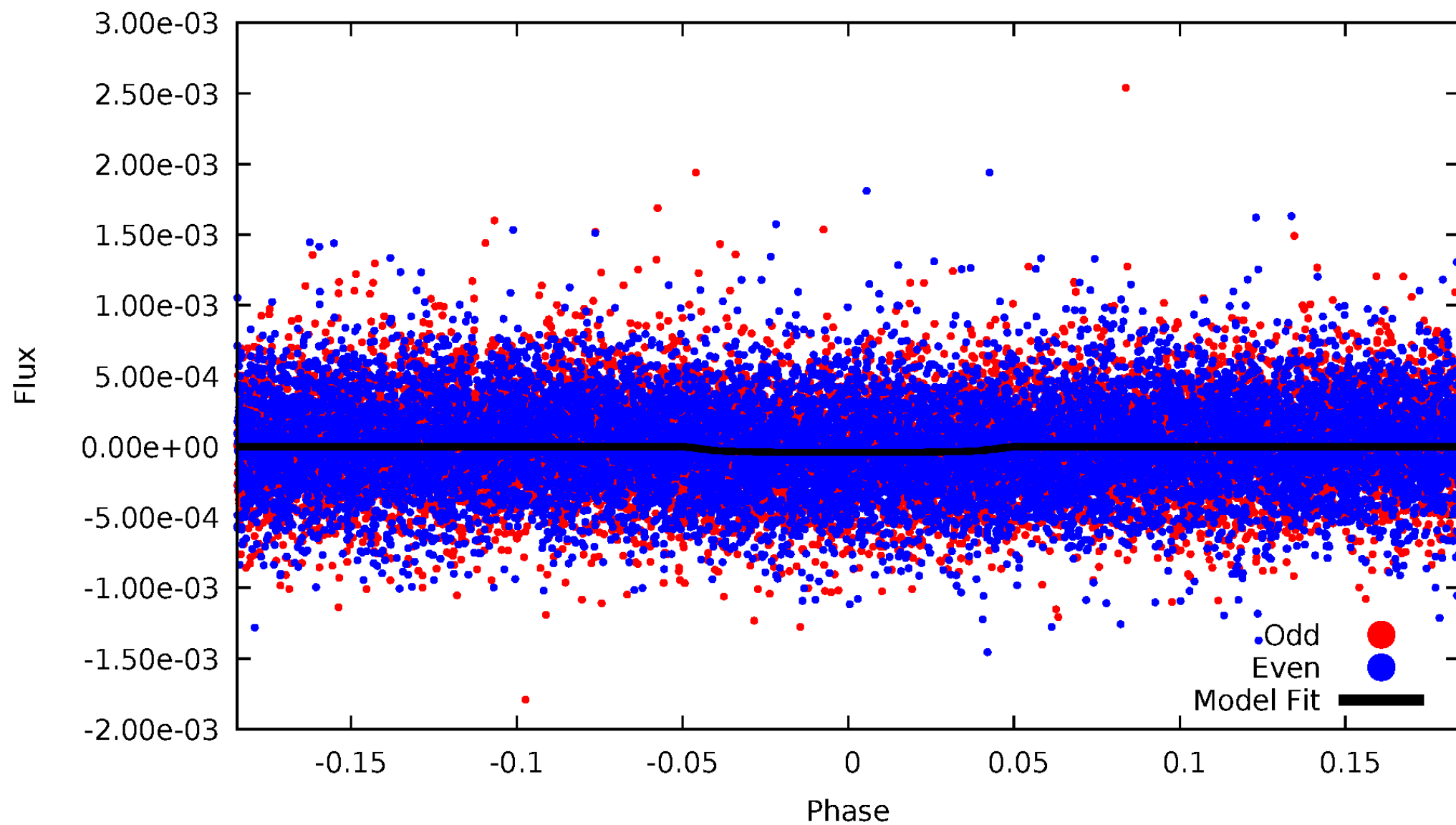


TCE 002715119-01



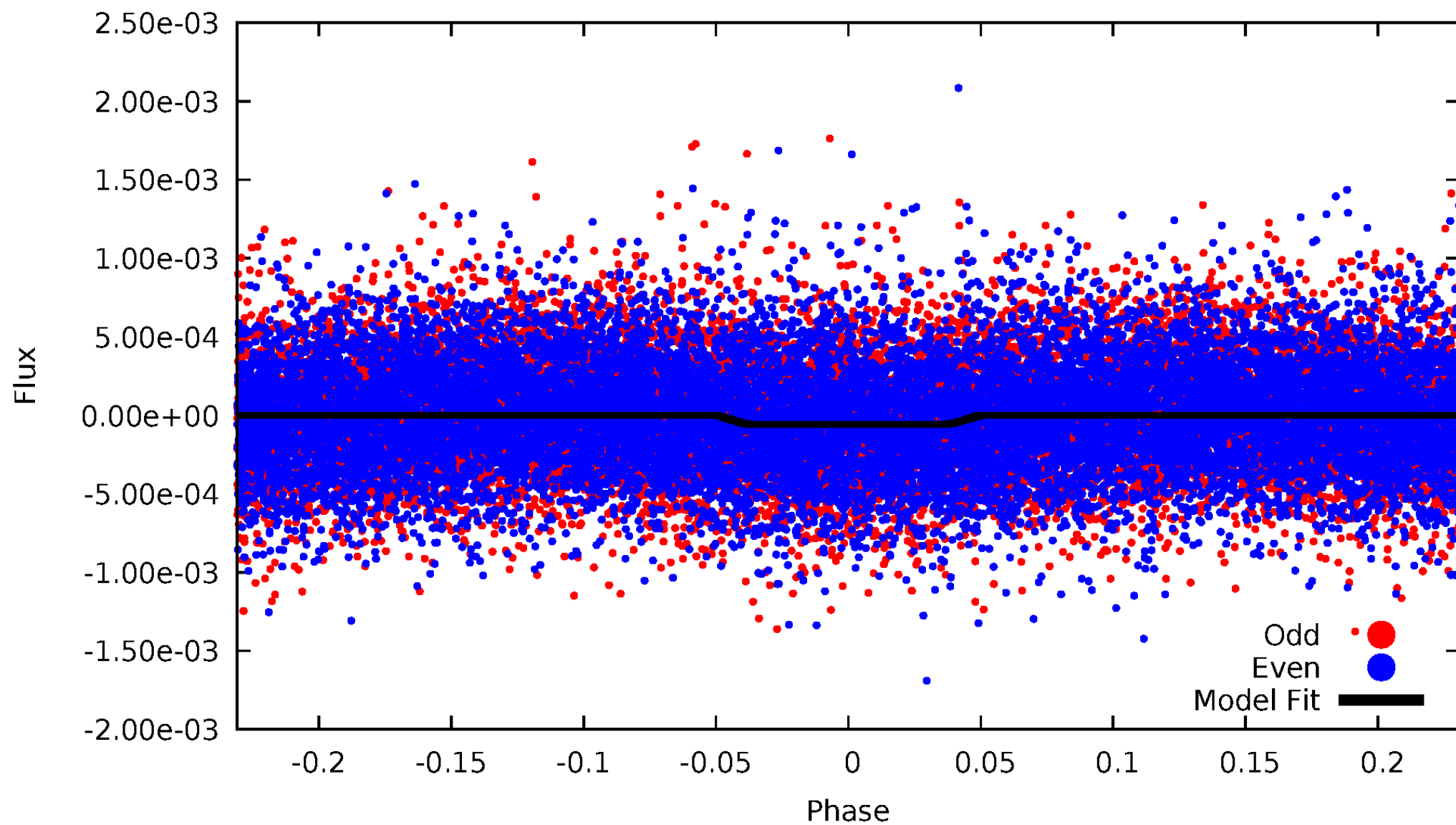
DV Odd/Even

TCE 002715119-01

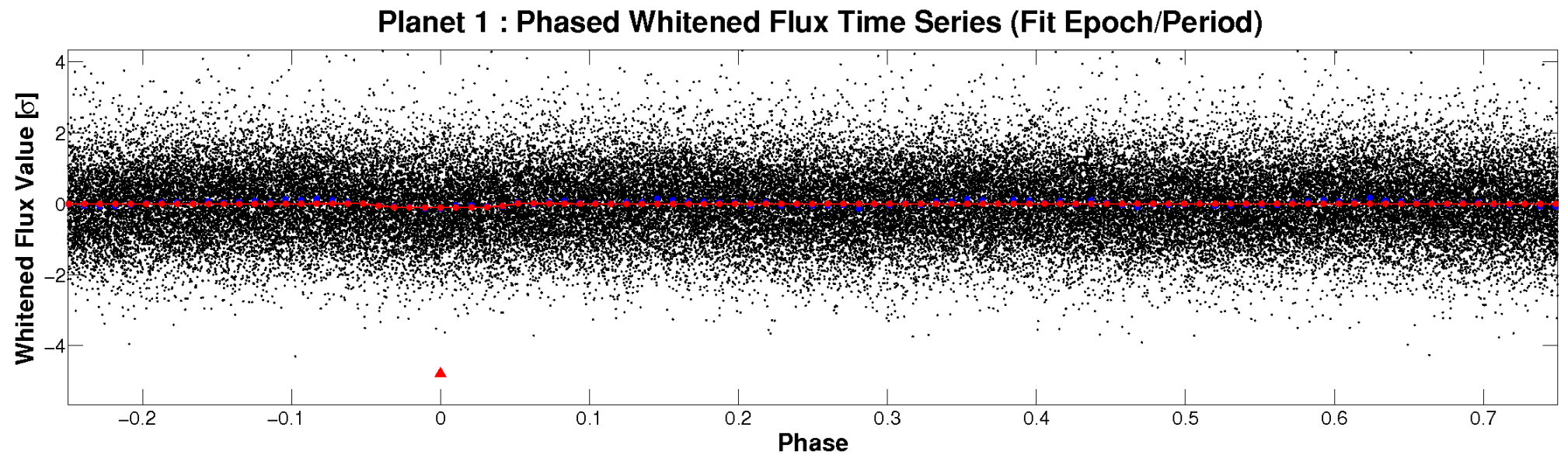
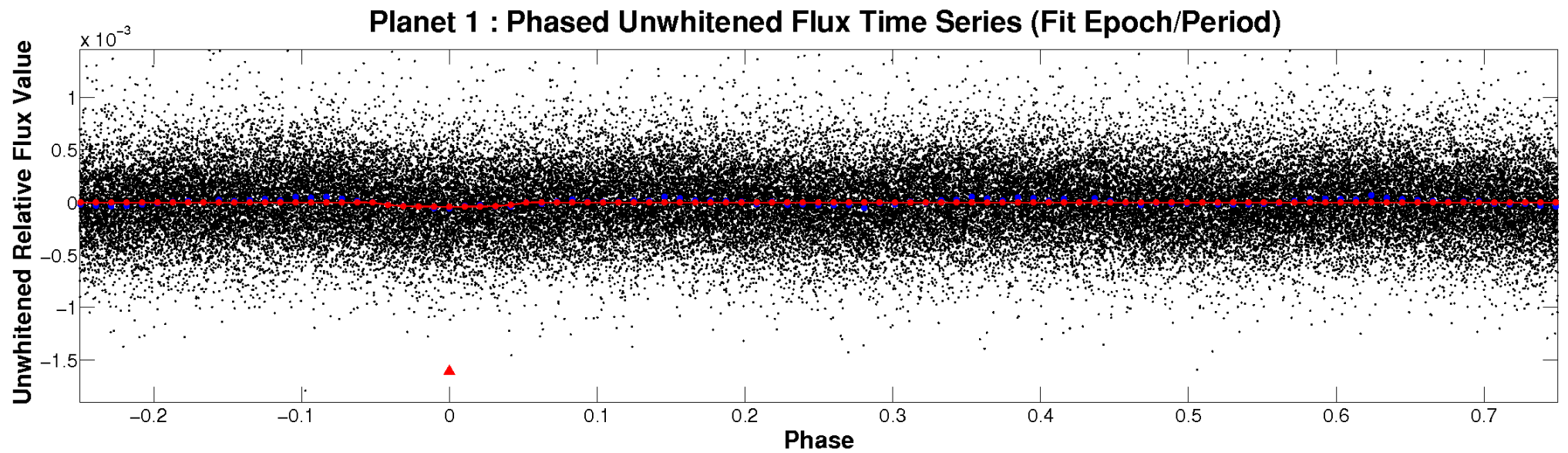


ALT Odd/Even

TCE 002715119-01

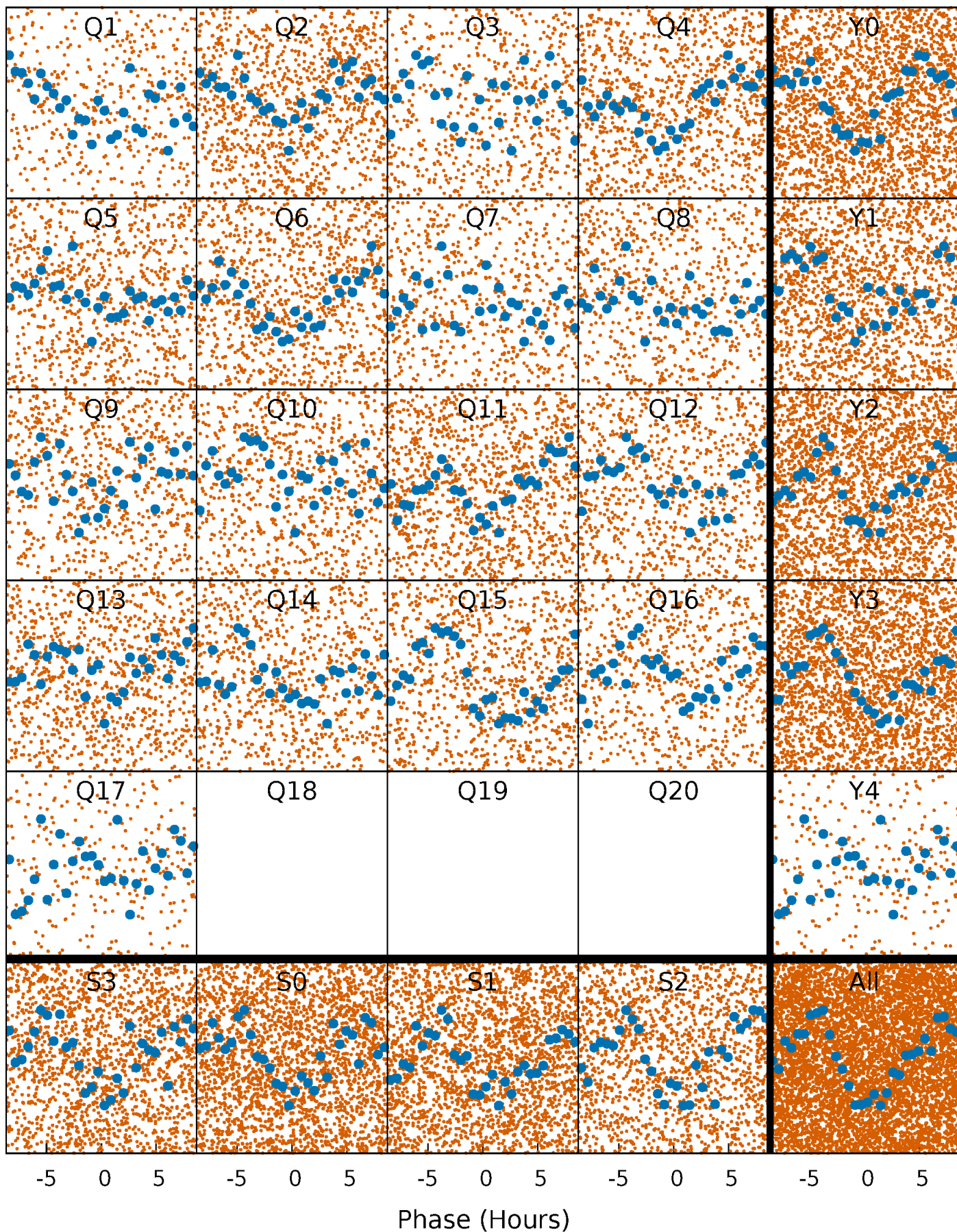


Non-Whitened Vs. Whitened Light Curve



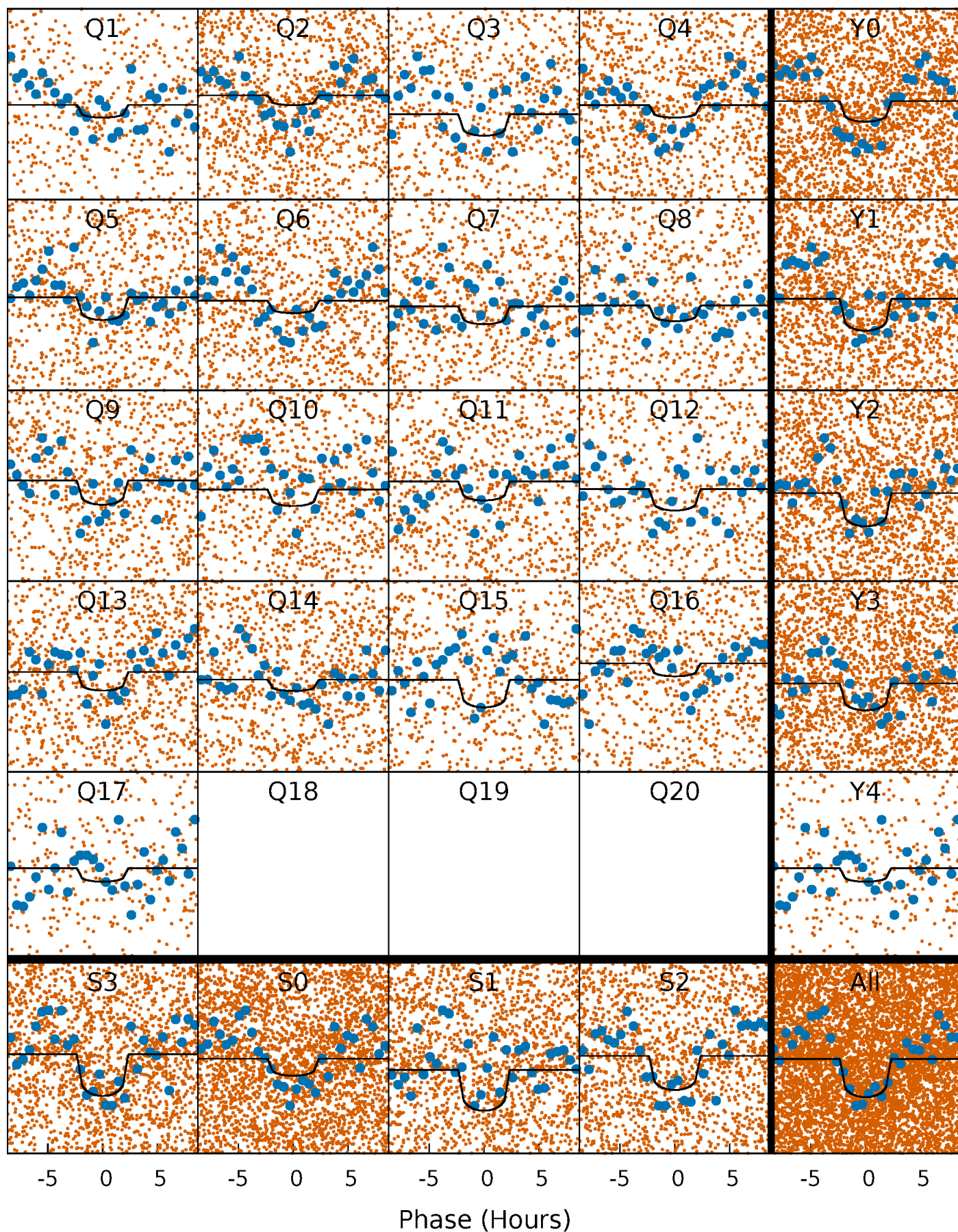
PDC Quarter-Phased Transit Curves

TCE 002715119-01 P= 1.965402 Days $T_0=132.094159$ (BKJD)



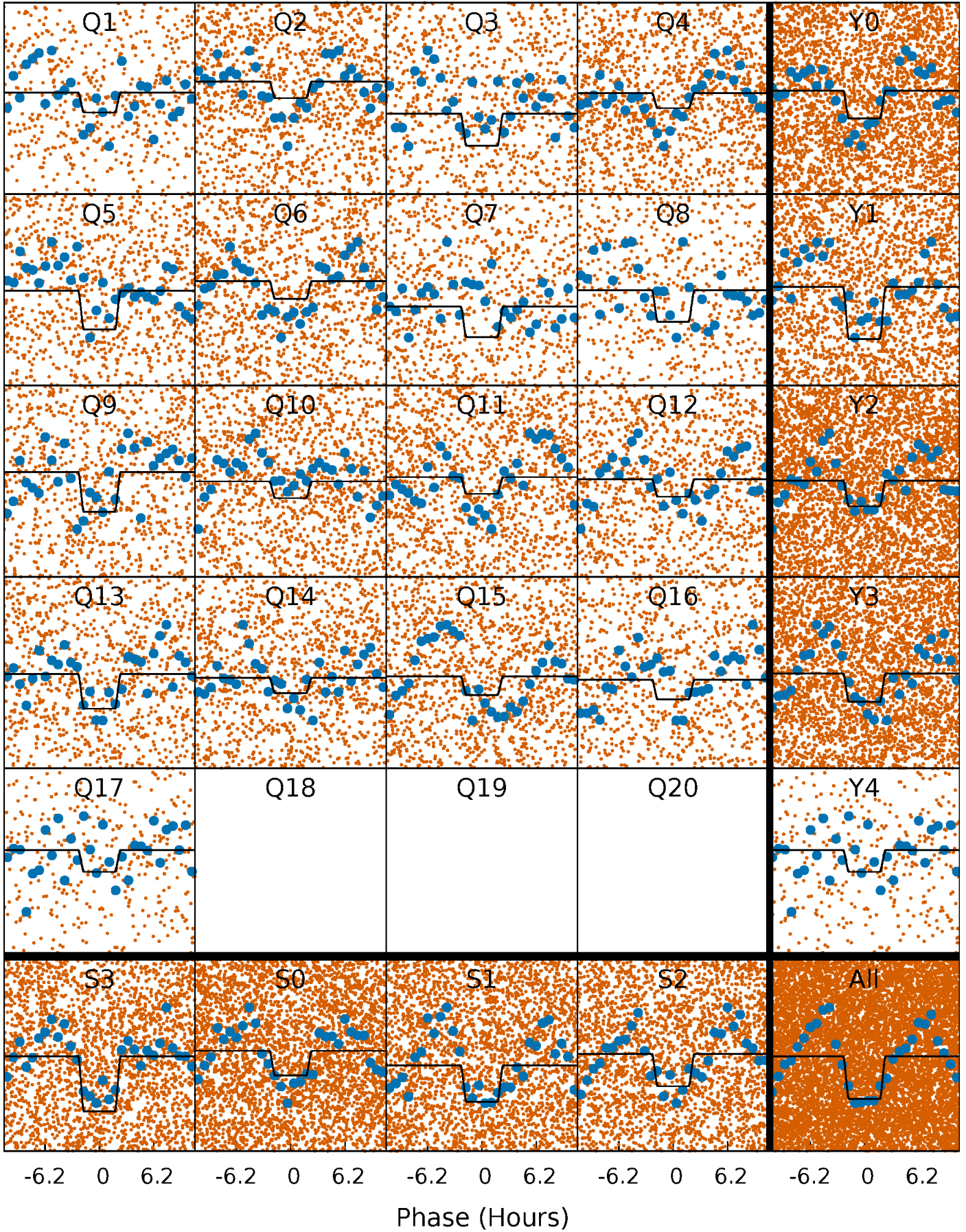
DV Quarter-Phased Transit Curves

TCE 002715119-01 P= 1.965402 Days $T_0=132.094159$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

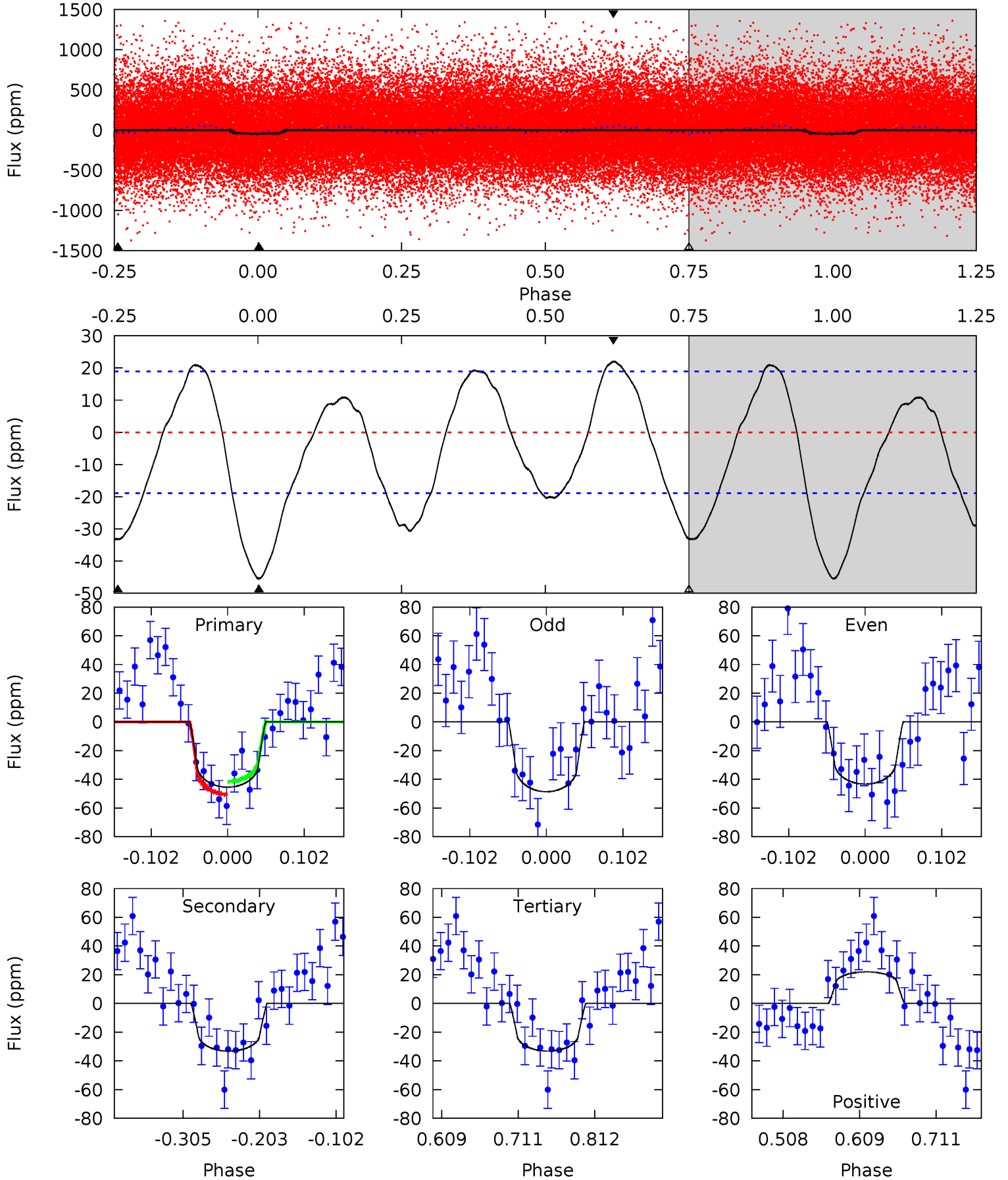
TCE 002715119-01 P= 1.965445 Days $T_0=132.092042$ (BKJD)



DV Model-Shift Uniqueness Test

002715119-01, P = 1.965402 Days, E = 130.128757 Days

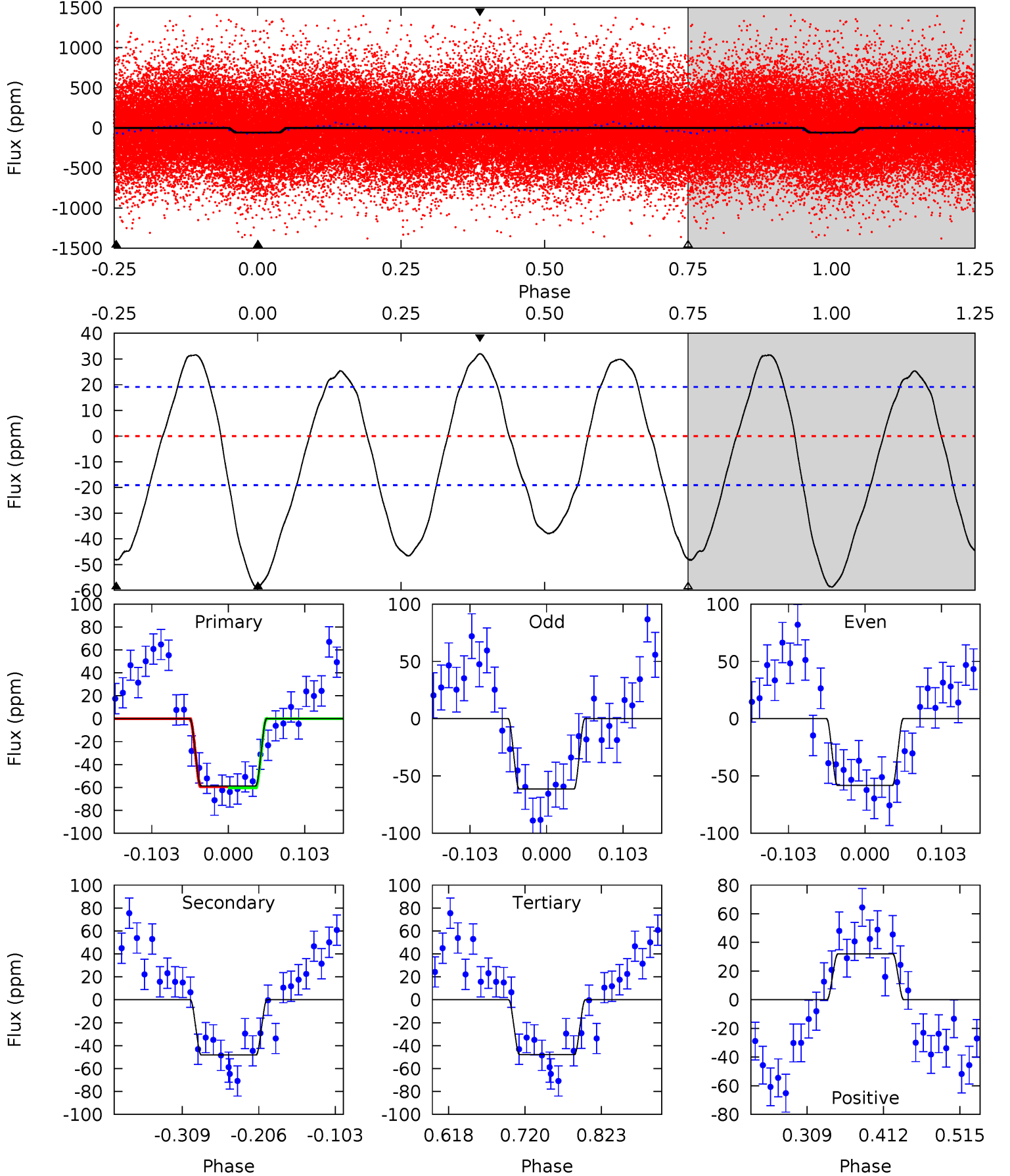
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.0	8.01	8.00	5.30	4.56	1.64	3.93	2.96	5.66	0.01	2.70	0.64	1.06	0.33	1.09



Alt Model-Shift Uniqueness Test

002715119-01, P = 1.965445 Days, E = 130.126597 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.0	11.5	11.4	7.65	4.56	1.63	6.27	2.57	6.36	0.07	3.86	0.35	0.91	0.35	0.11



Stellar Parameters For KIC 002715119

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5881^{+159}_{-177}	$4.487^{+0.065}_{-0.195}$	$-0.180^{+0.300}_{-0.300}$	$0.924^{+0.268}_{-0.096}$	$0.955^{+0.120}_{-0.108}$	$1.706^{+0.565}_{-0.867}$
	+3%/-3%	+1%/-4%	+167%/-167%	+29%/-10%	+13%/-11%	+33%/-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 002715119-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-33 ± 4	$0.70^{+0.46}_{-0.38}$	2040^{+139}_{-97}	5443^{+2979}_{-1054}	33^{+125}_{-22}
Alt.	-48 ± 4	$0.82^{+0.42}_{-0.41}$	2041^{+140}_{-98}	5514^{+2504}_{-887}	35^{+98}_{-20}

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 $A_{obs} \gg 1.0$

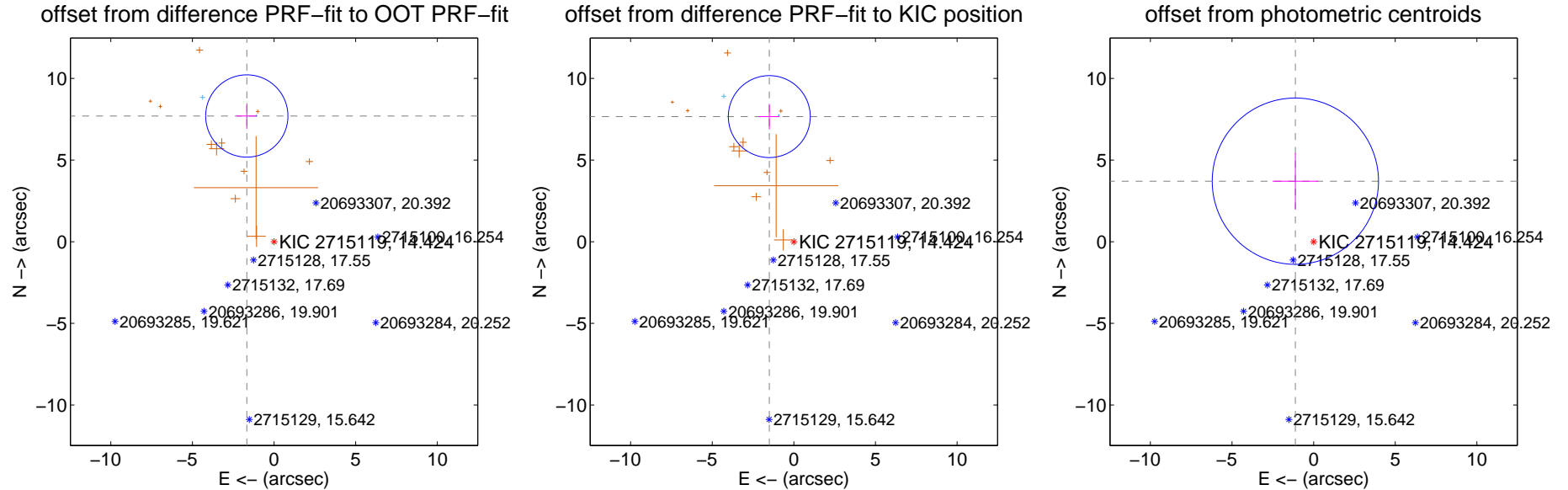
DV Centroid Data

Supplemental centroid analysis for 002715119-01. Kepler magnitude: 14.42. Transit SNR 7.23

There are 2 quarters with good PRF difference image offsets

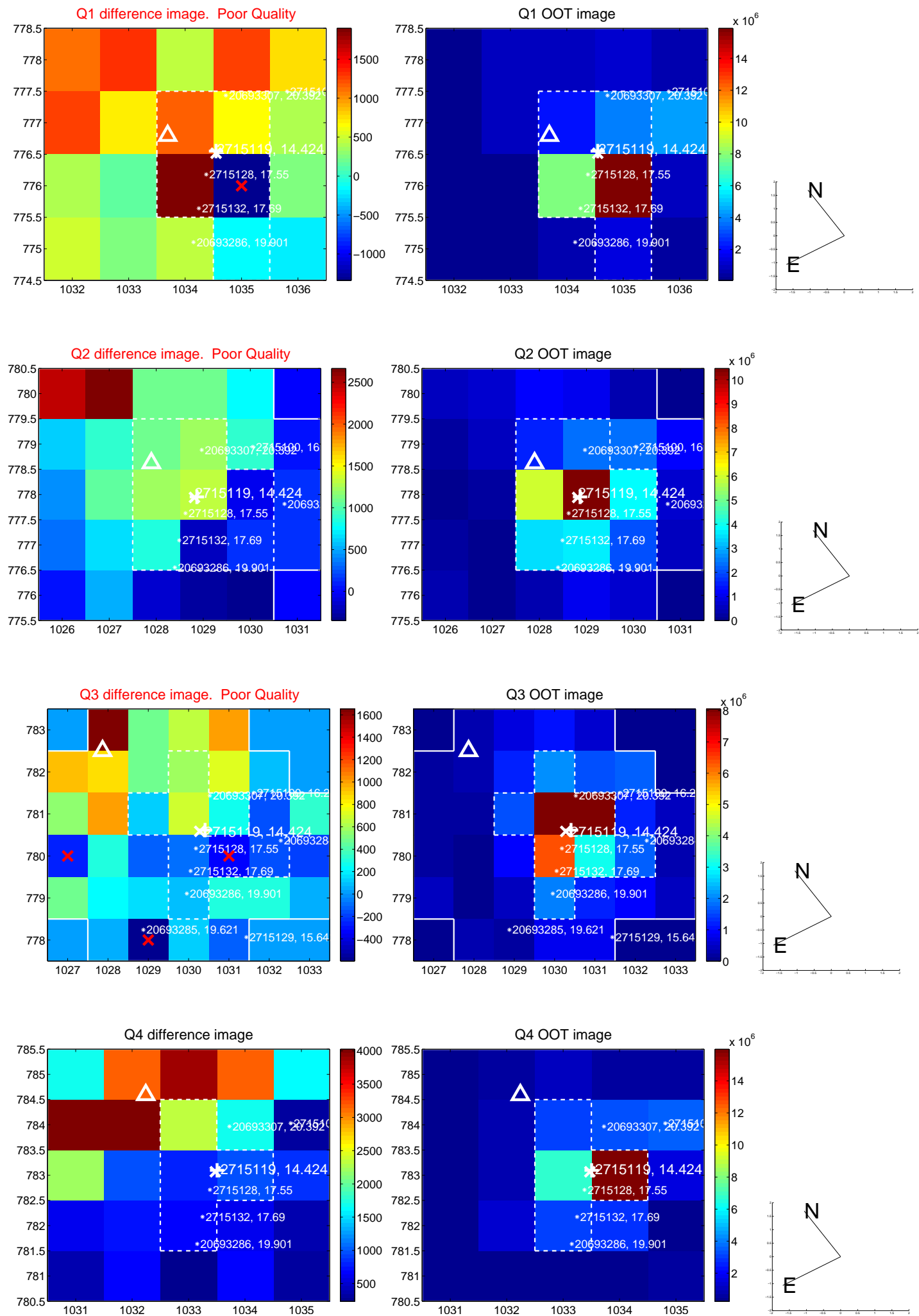
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.879 ± 0.840	9.38	1.670 ± 0.630	7.700 ± 0.779
PRF-fit source offset from KIC position	7.809 ± 0.836	9.34	1.504 ± 0.631	7.663 ± 0.782
photometric centroid source offset	3.87 ± 1.70	2.28	1.12 ± 1.40	3.71 ± 1.72

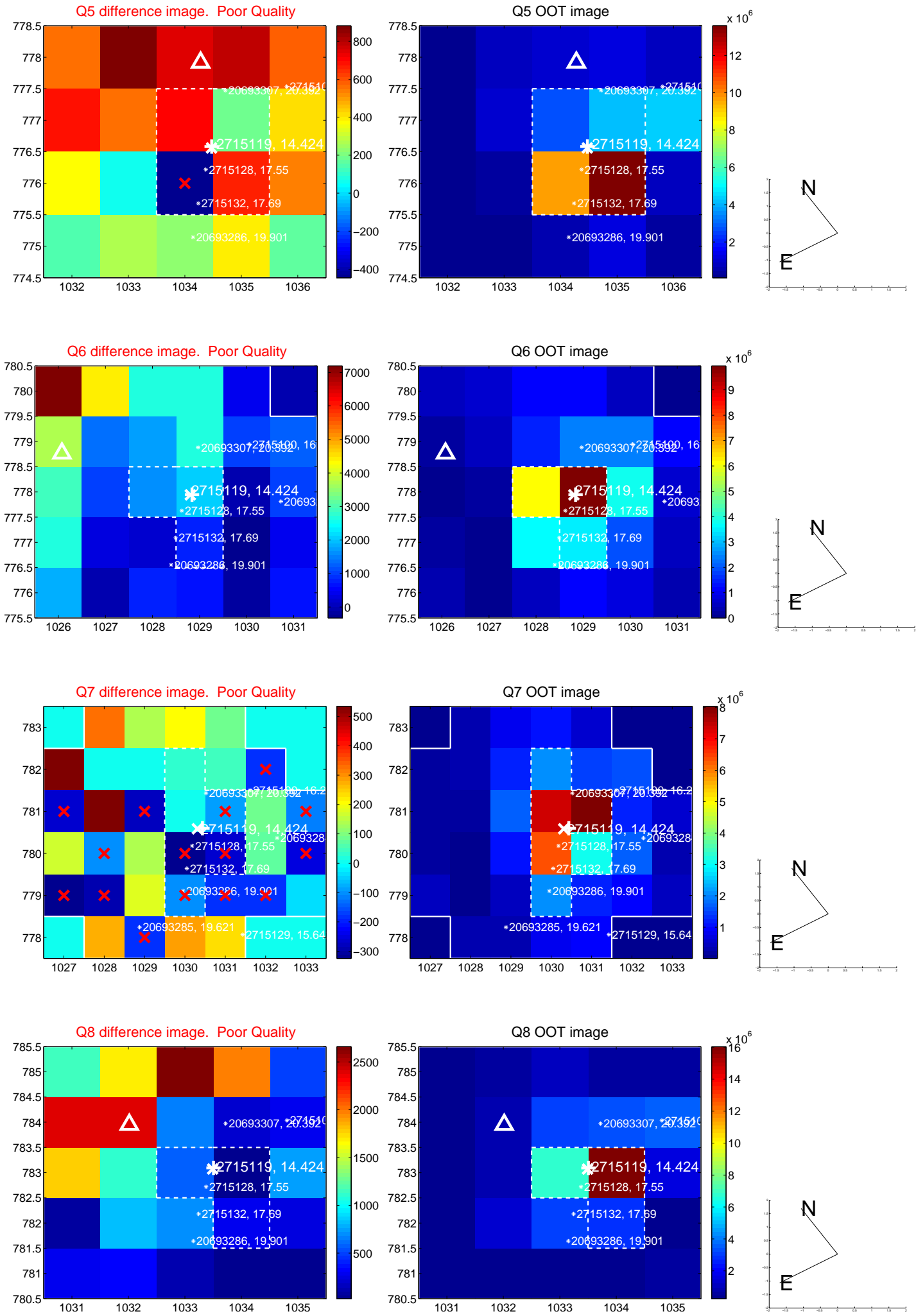


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

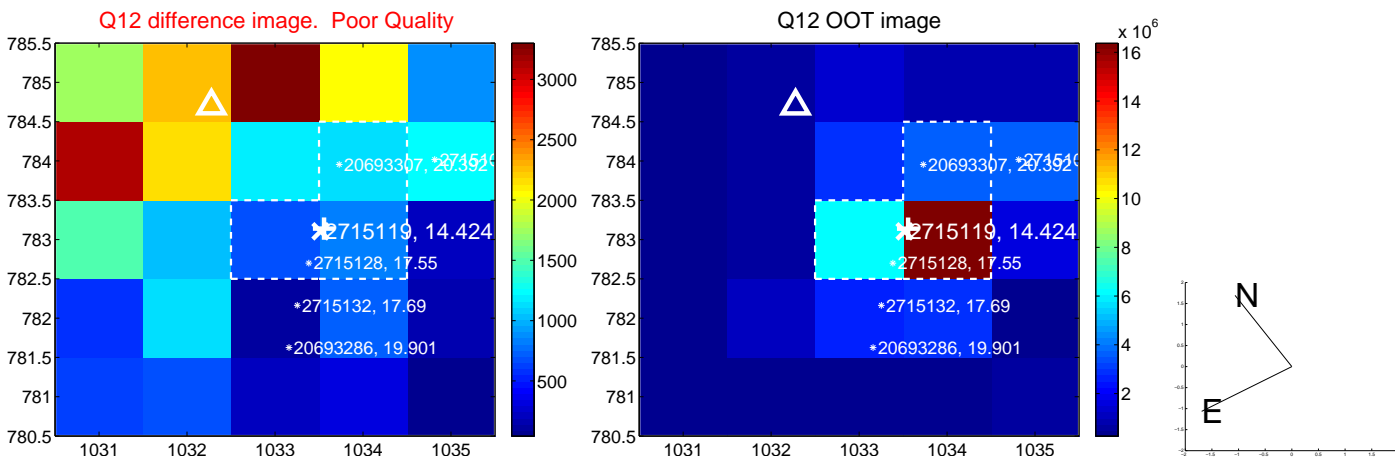
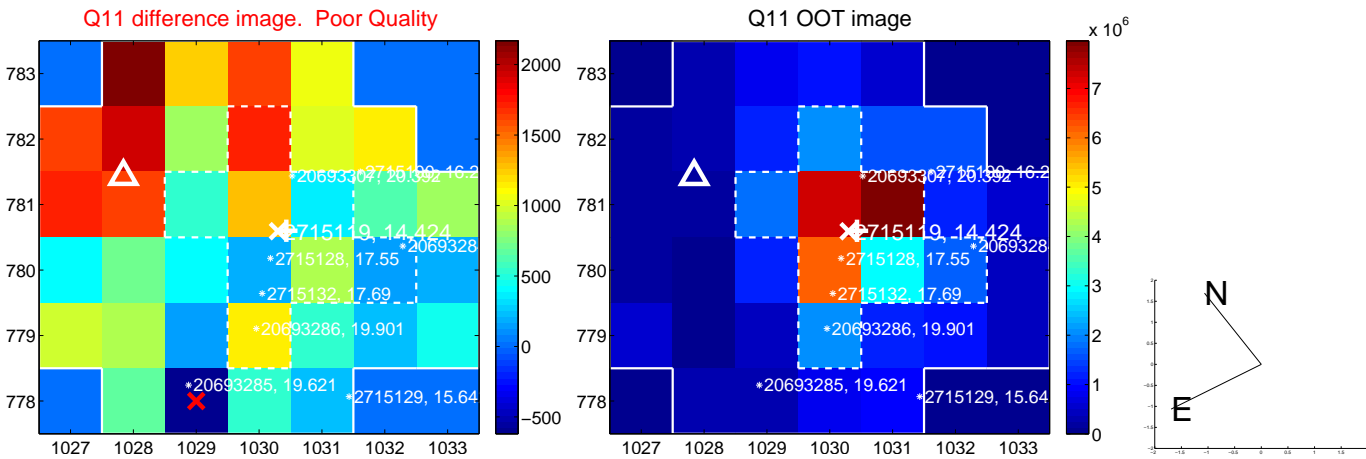
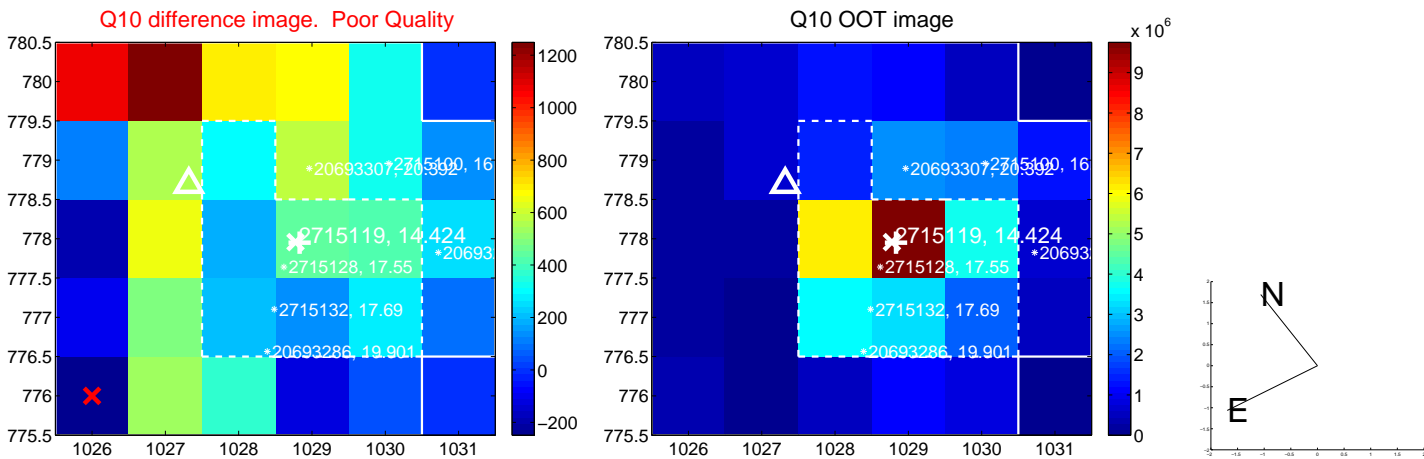
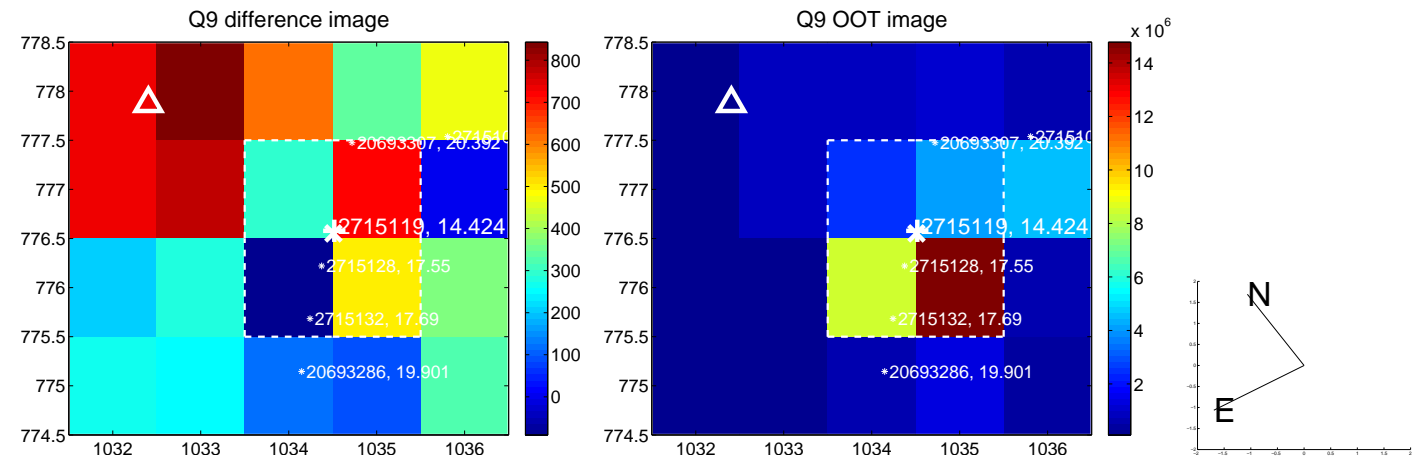
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



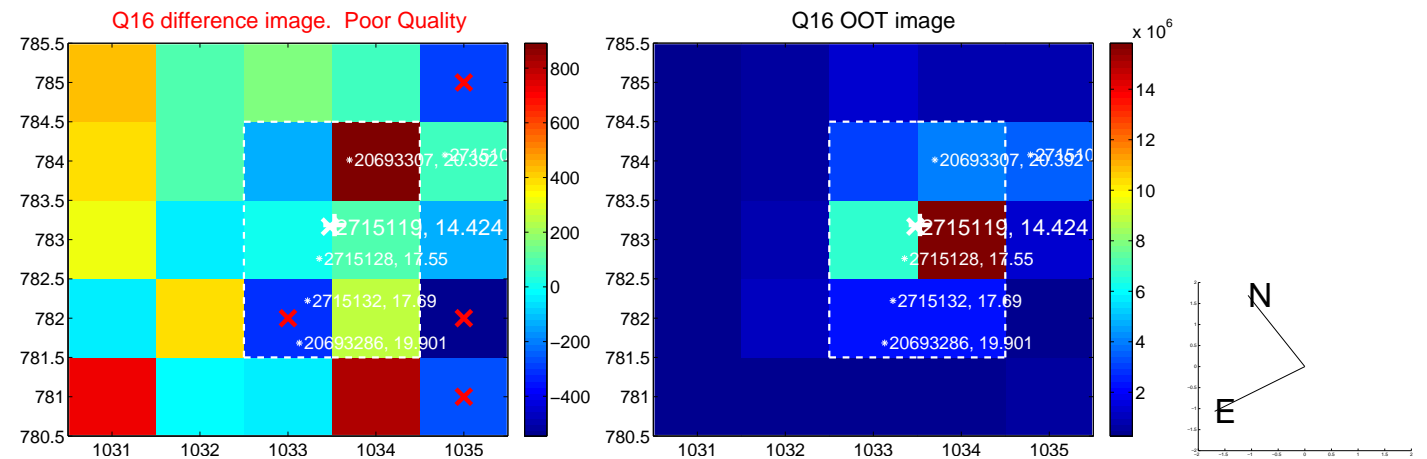
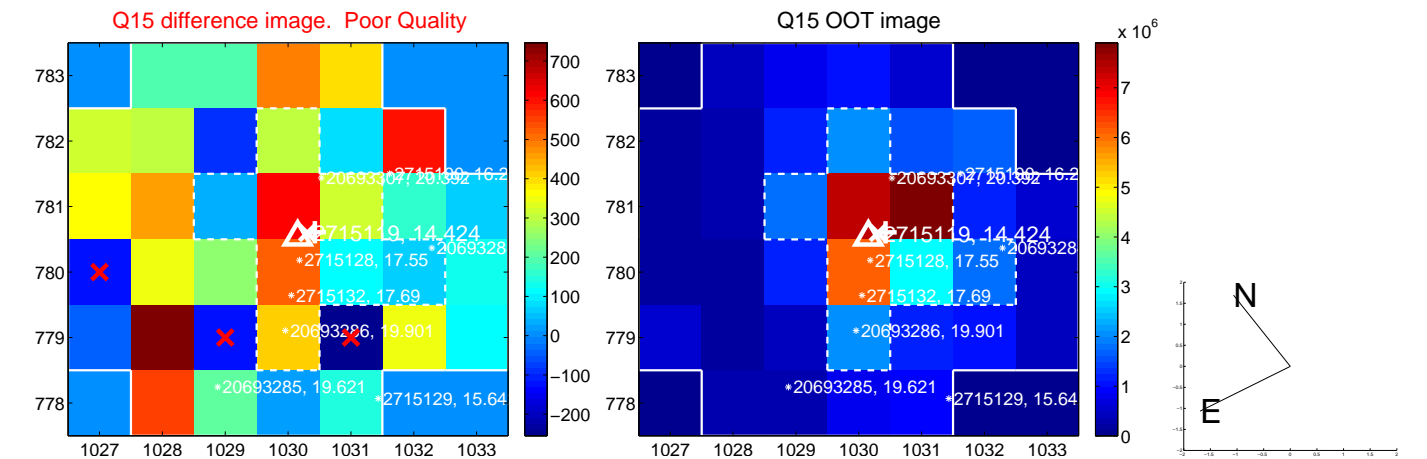
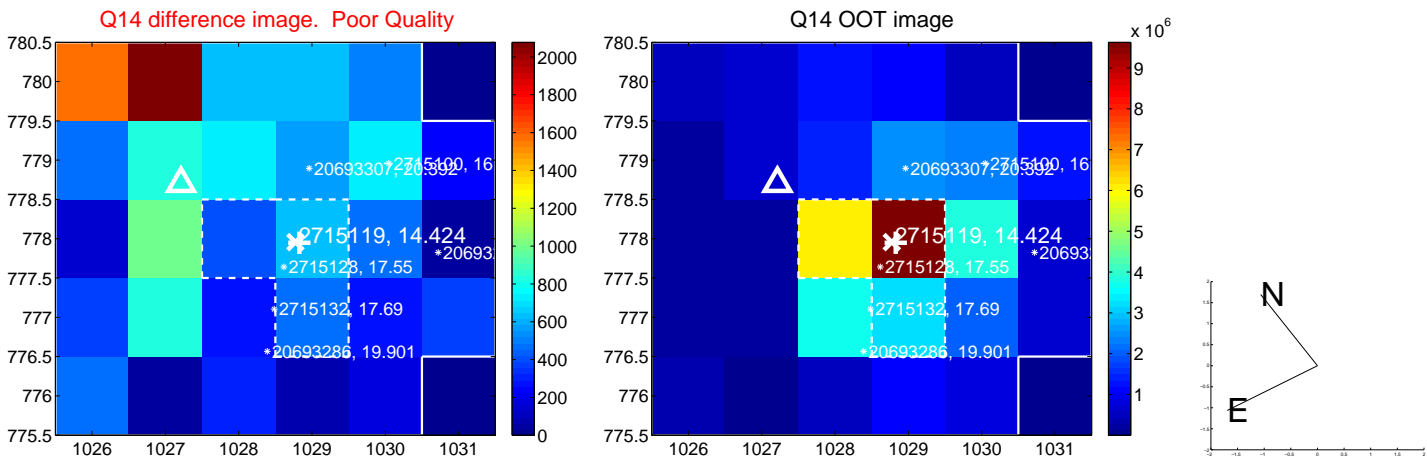
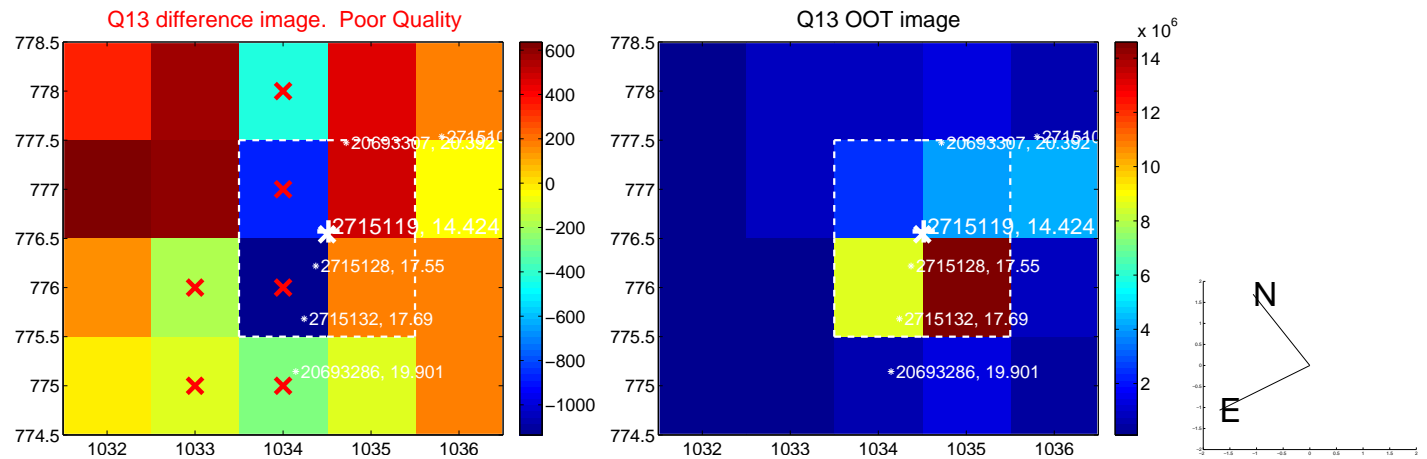
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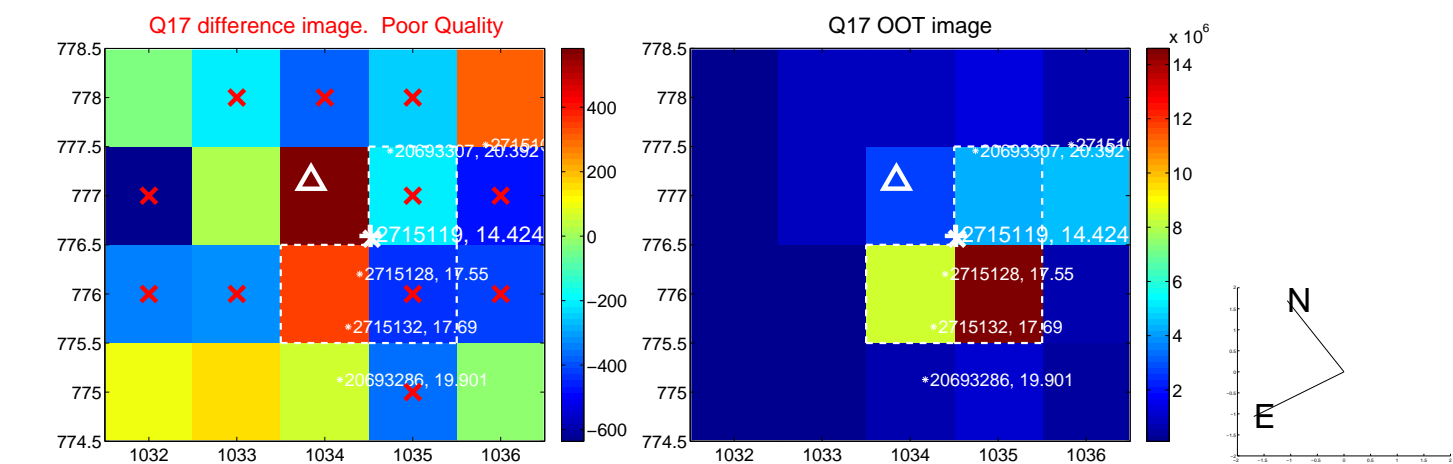
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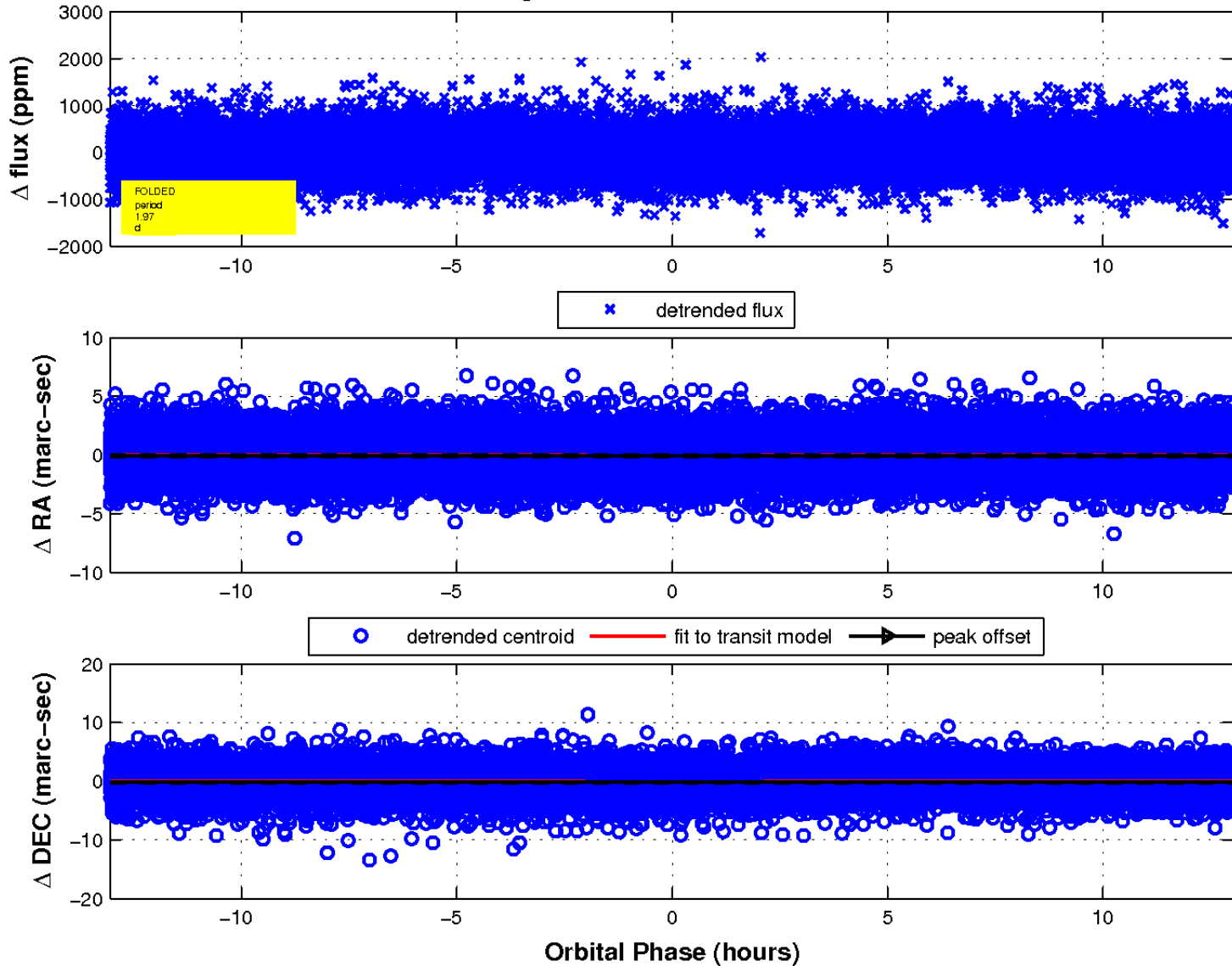
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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

