

KIC 011666429

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})
011666429-01	OBS	No	0.721482	132.008023	0.1	0.795	12.4	0.0	1.55	7024	0.05	18694.46

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011666429-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT

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

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

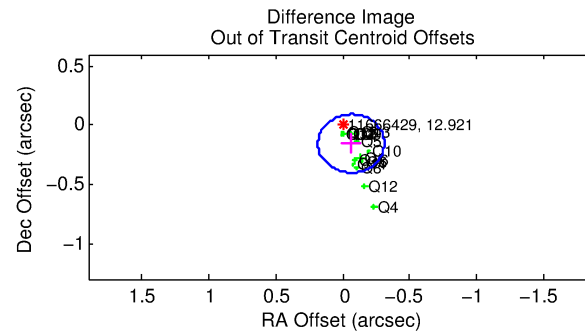
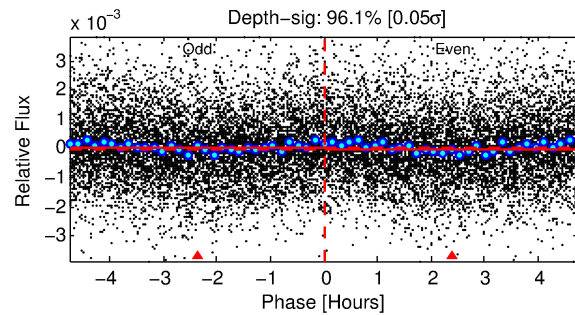
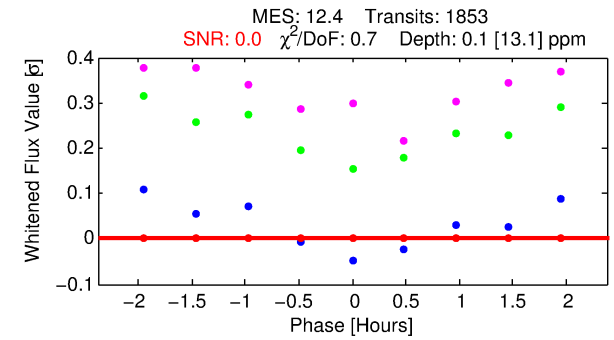
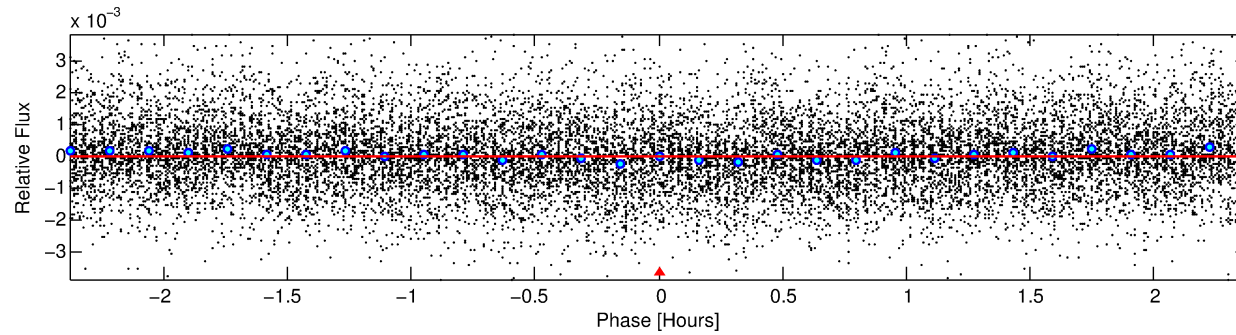
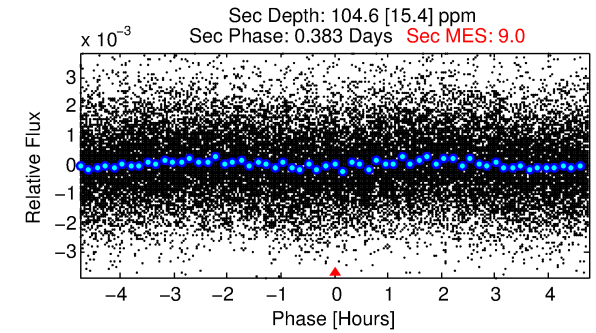
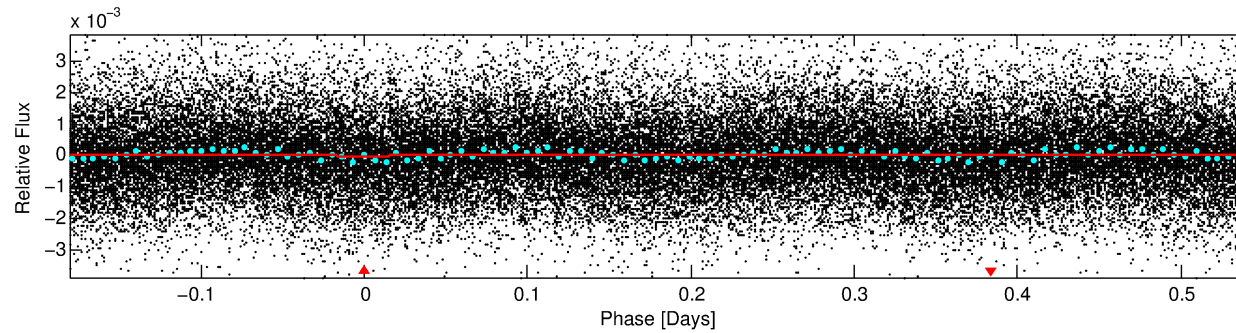
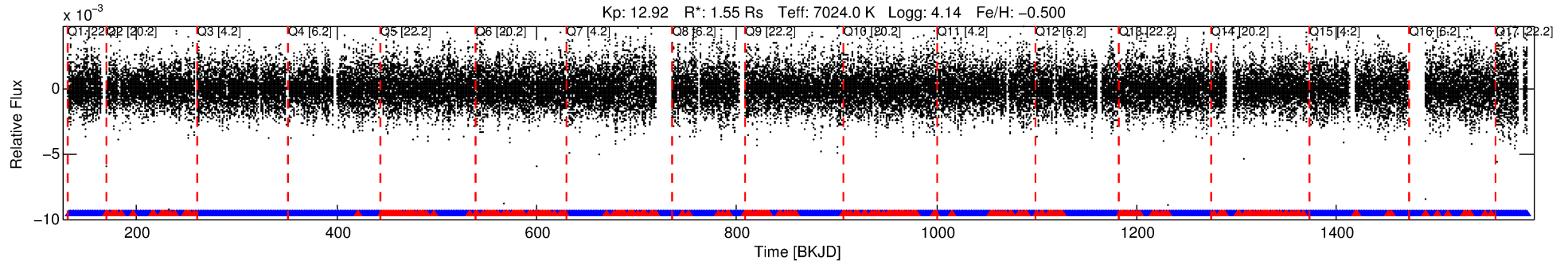
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011666429-01

No Significant Match Found

DV One-Page Summary

KIC: 11666429 Candidate: 1 of 1 Period: 0.721 d



DV Fit Results:

Period = 0.72148 [0.01203] d
Epoch = 132.0080 [1.2203] BKJD
Rp/R* = 0.0003 [0.0276]
a/R* = 2.14 [95.22]
b = 0.96 [4.60]
Seff = 18694.46 [7605.65]
Teq = 2982 [303] K
Rp = 0.05 [4.68] Re
a = 0.0168 [0.0040] AU
Ag = 5537.64 [959372.73] [0.01σ]
Teffp = 39767 [1722527] K [0.02σ]

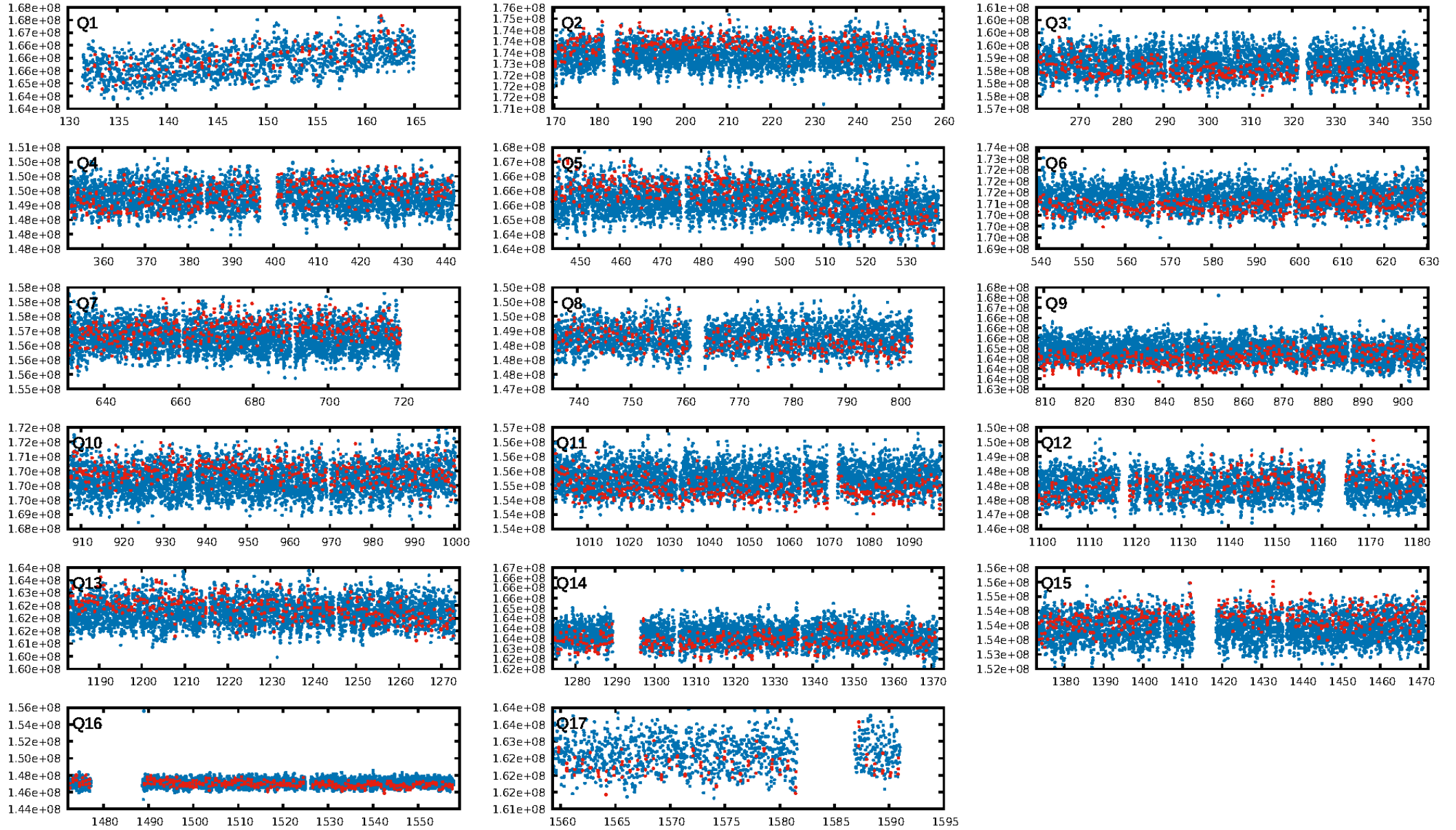
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 7.49e-31
RollingBand-fgt: 0.81 [1440/1770]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.166 arcsec [2.02σ]
KicOffset-rm: 0.193 arcsec [2.54σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.47 [8/17]
DiffImageOverlap-fno: 1.00 [17/17]

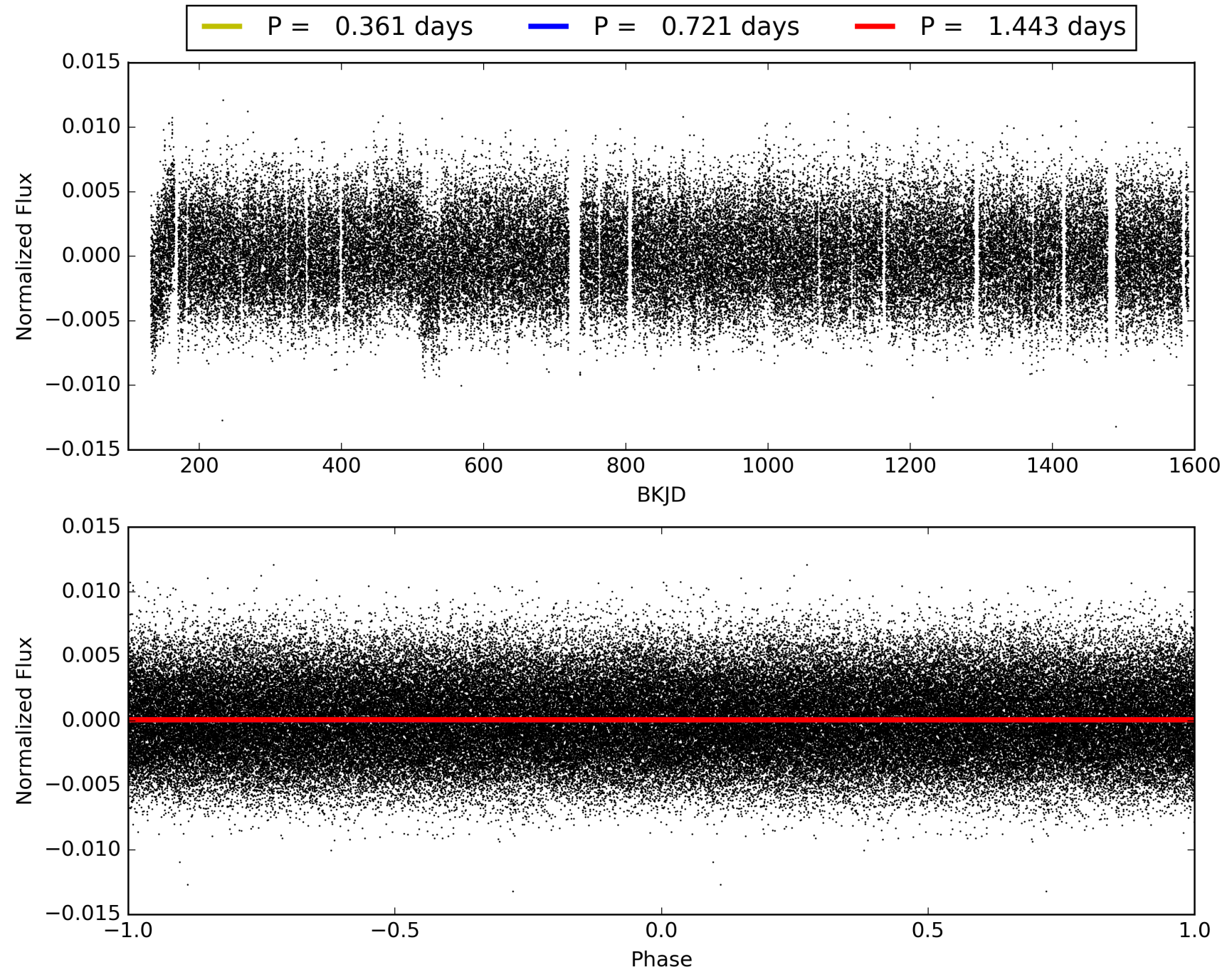
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 04:26:03 Z

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

TCE 011666429-01, PDC Light Curves

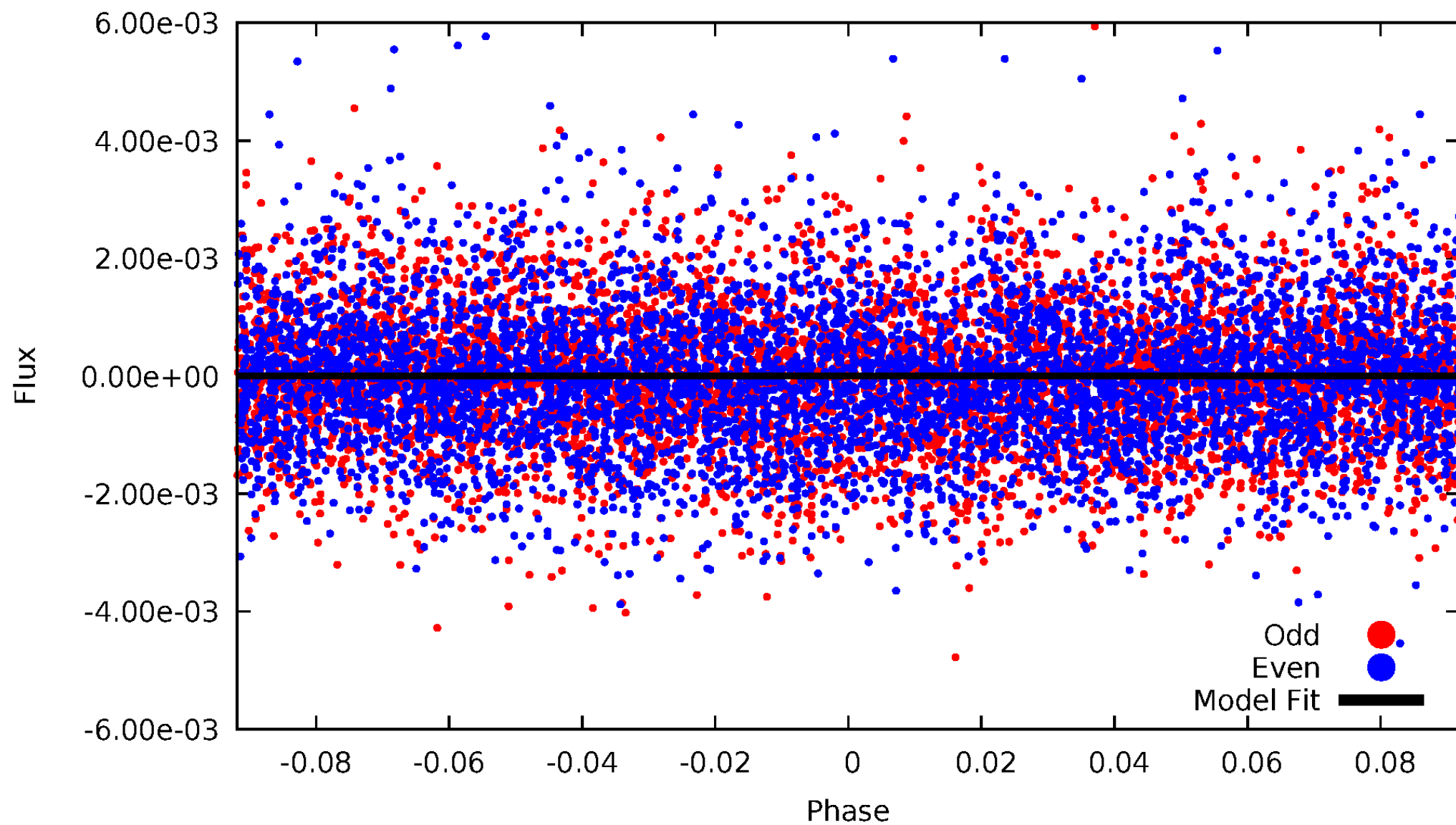


TCE 011666429-01



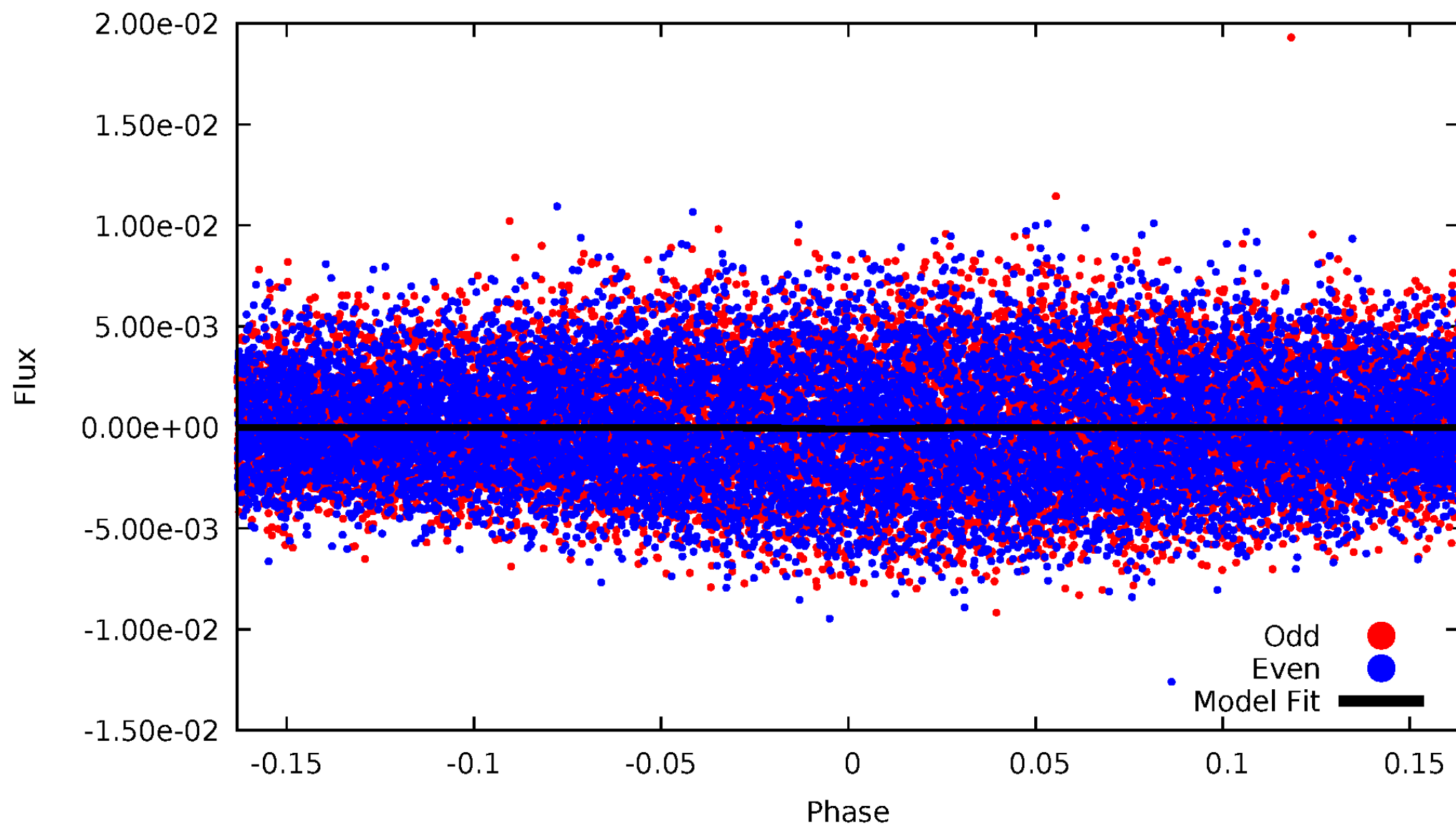
DV Odd/Even

TCE 011666429-01



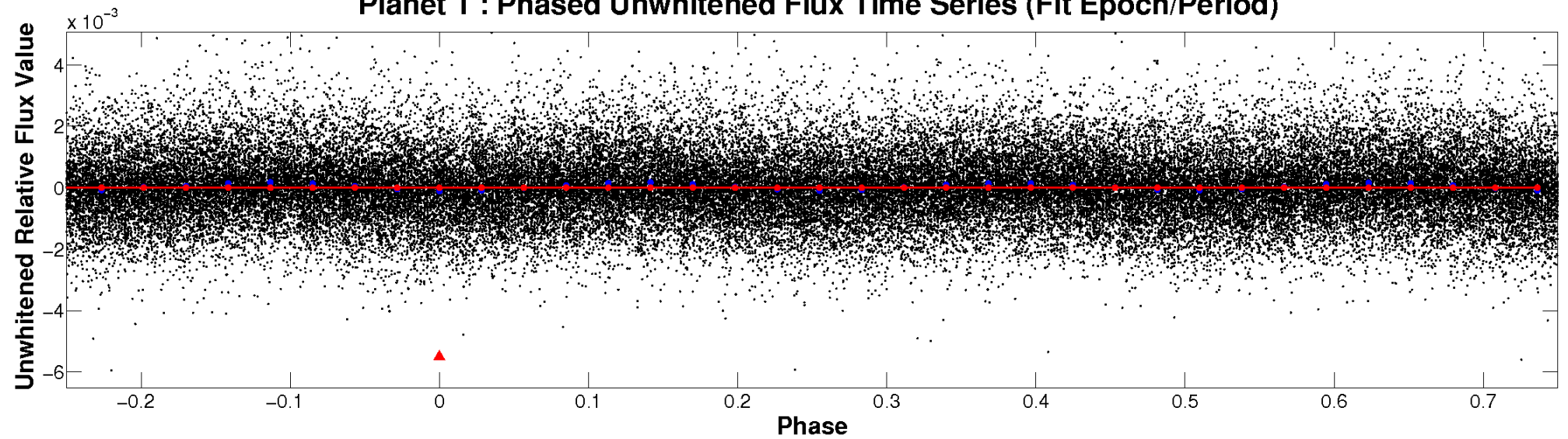
ALT Odd/Even

TCE 011666429-01

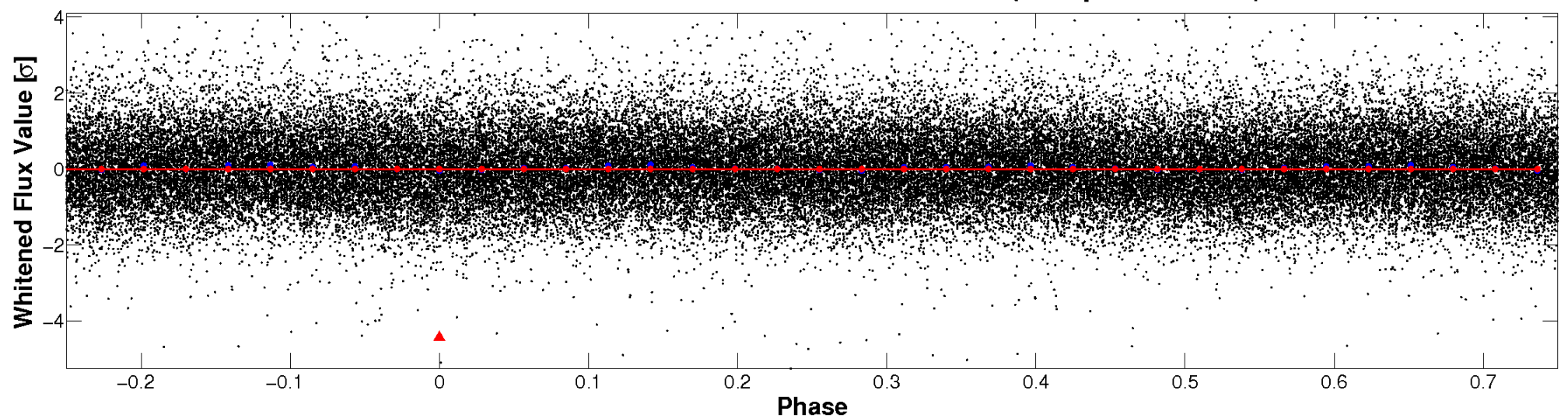


Non-Whitened Vs. Whitened Light Curve

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

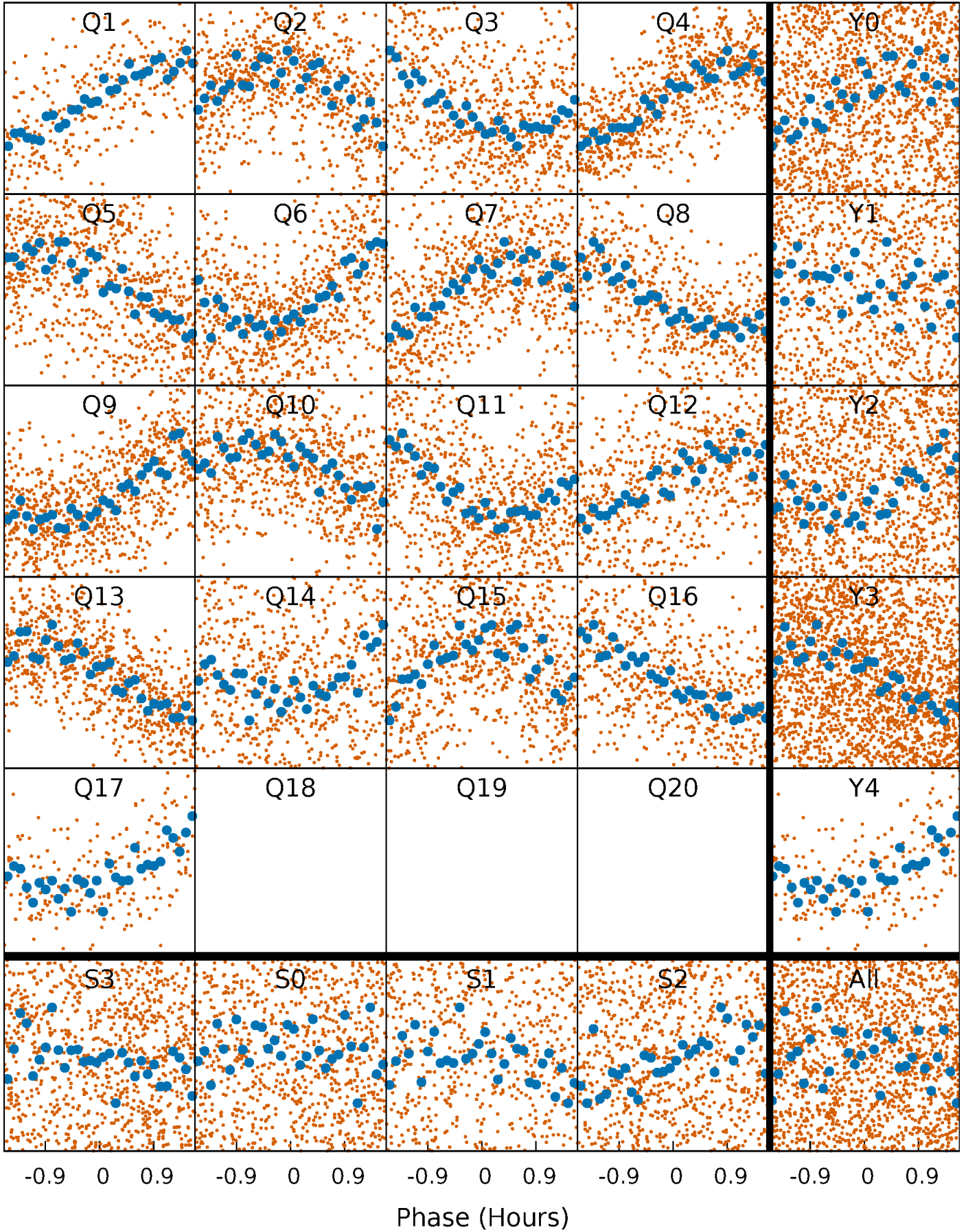


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



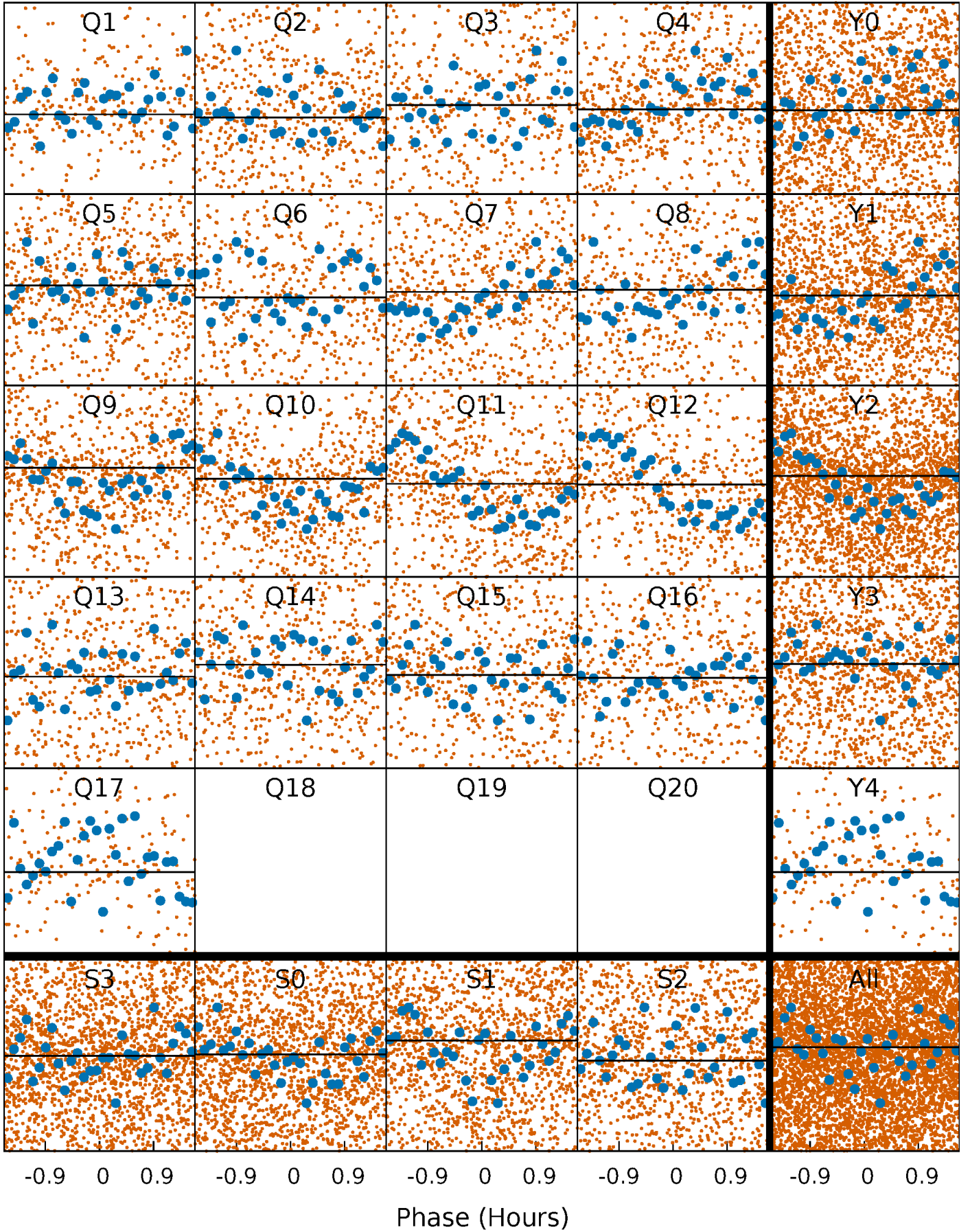
PDC Quarter-Phased Transit Curves

TCE 011666429-01 P= 0.721482 Days $T_0=132.008023$ (BKJD)



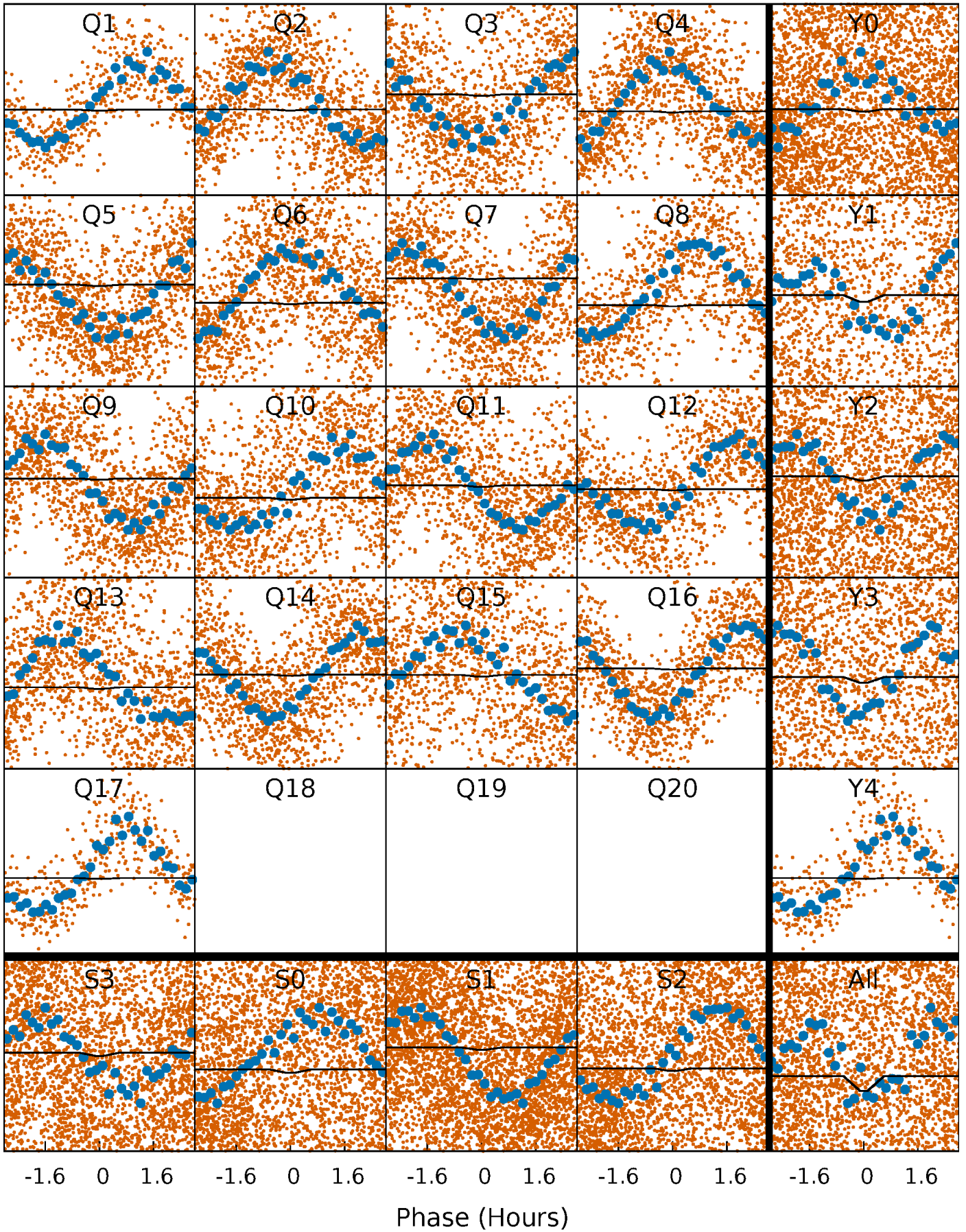
DV Quarter-Phased Transit Curves

TCE 011666429-01 P= 0.721482 Days $T_0=132.008023$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

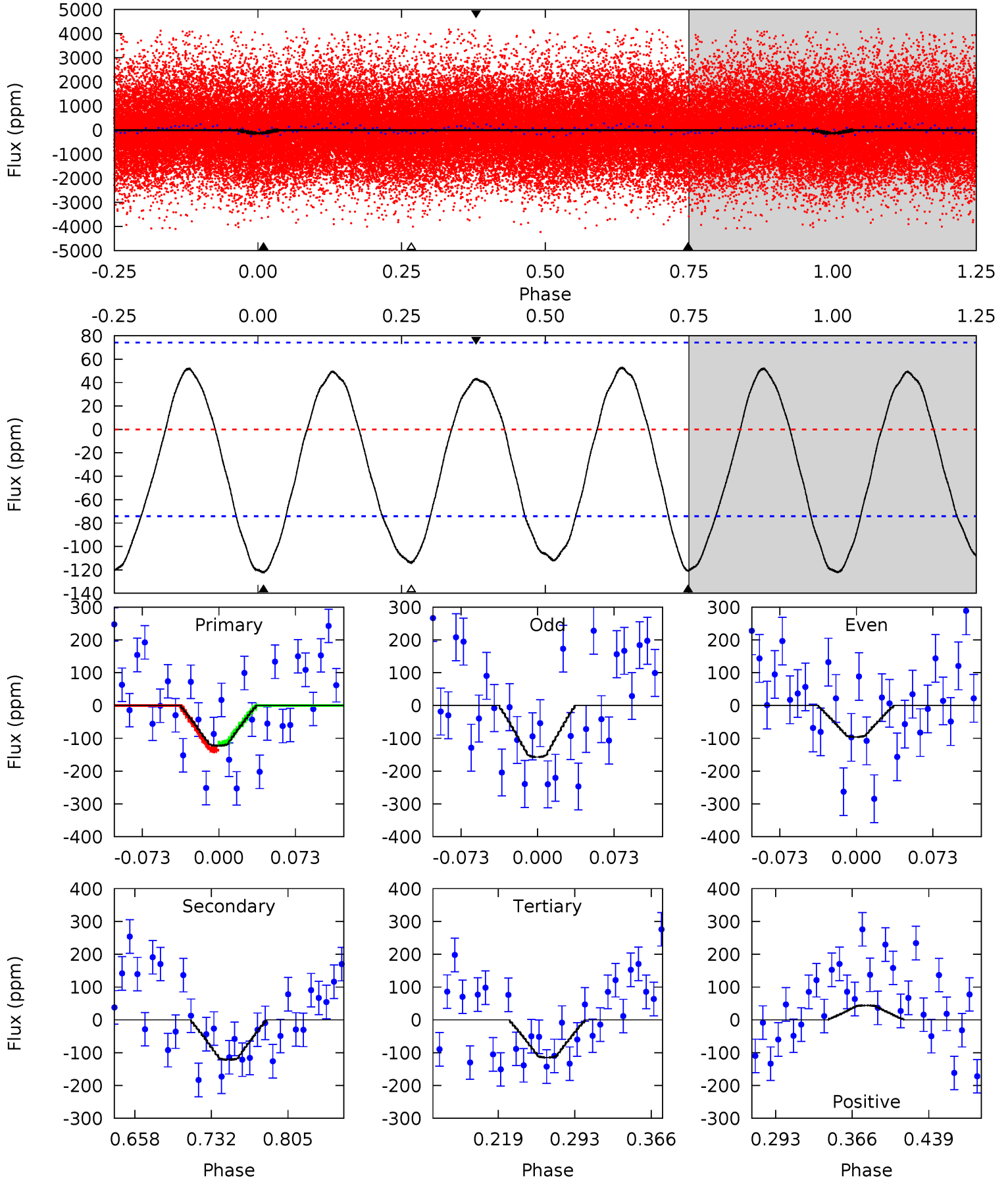
TCE 011666429-01 P= 0.721638 Days $T_0=132.004168$ (BKJD)



DV Model-Shift Uniqueness Test

011666429-01, P = 0.721482 Days, E = 131.286541 Days

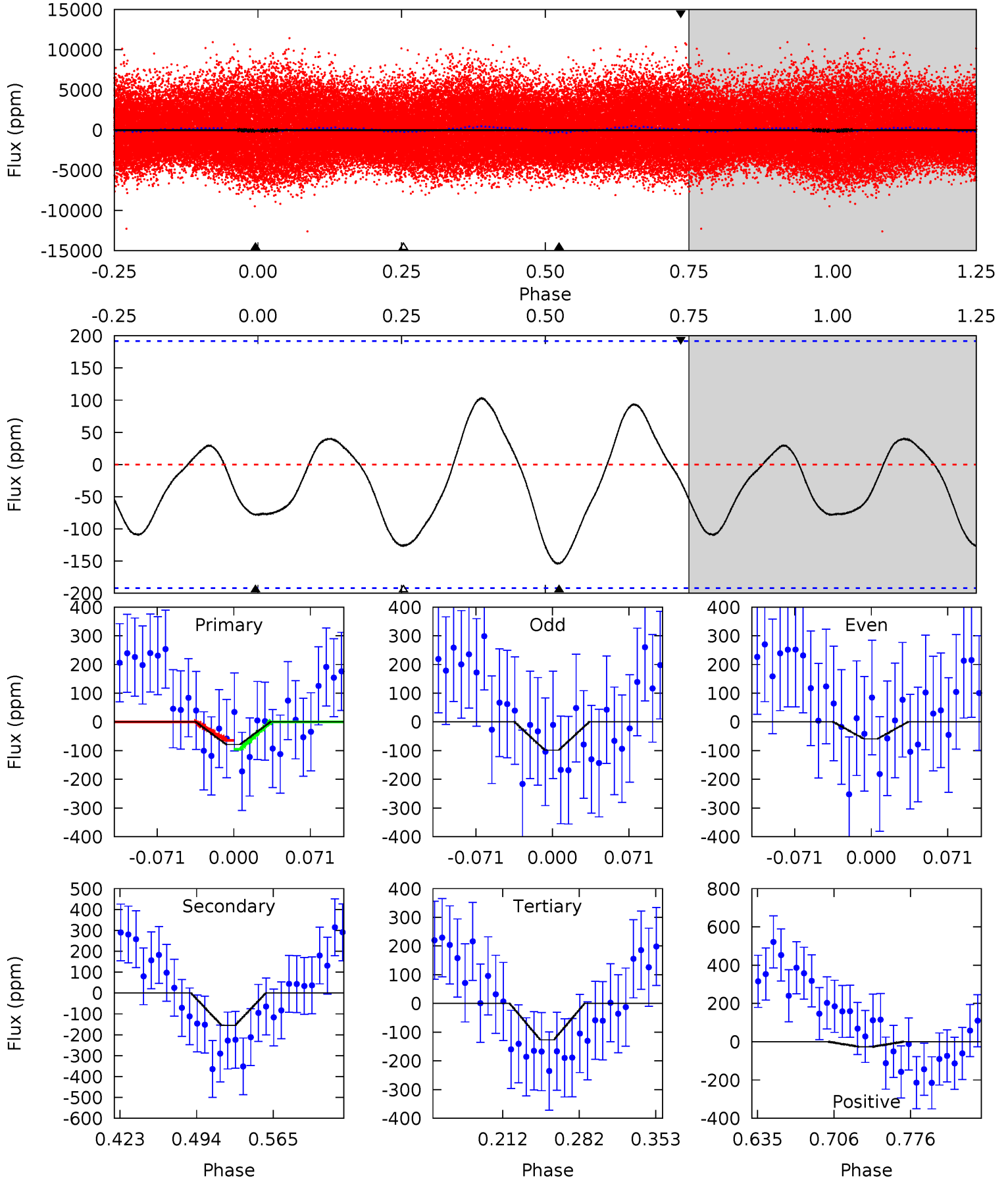
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.65	7.58	7.15	2.74	4.63	1.79	3.49	0.50	4.91	0.43	4.85	1.92	1.09	0.30	0.62



Alt Model-Shift Uniqueness Test

011666429-01, P = 0.721638 Days, E = 131.282530 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.91	3.74	3.06	-0.63	4.64	1.81	1.54	-1.16	2.54	0.68	4.37	0.48	1.14	0.40	0.37



Stellar Parameters For KIC 011666429

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7024^{+216}_{-312}	$4.138^{+0.209}_{-0.171}$	$-0.500^{+0.250}_{-0.300}$	$1.553^{+0.407}_{-0.407}$	$1.207^{+0.189}_{-0.154}$	$0.454^{+0.519}_{-0.211}$
	+3%/-4%	+5%/-4%	+50%/-60%	+26%/-26%	+16%/-13%	+114%/-47%
Source	PHO54	PHO54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011666429-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-122±16	$3.11^{+3.40}_{-2.21}$	4156^{+328}_{-303}	5313^{+5949}_{-1877}	$2.073^{+21.183}_{-1.620}$
Alt.	-155±41	$3.85^{+3.54}_{-2.62}$	4142^{+326}_{-327}	4896^{+4948}_{-1775}	$1.613^{+14.786}_{-1.221}$

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 $A_{obs} \gg 1.0$

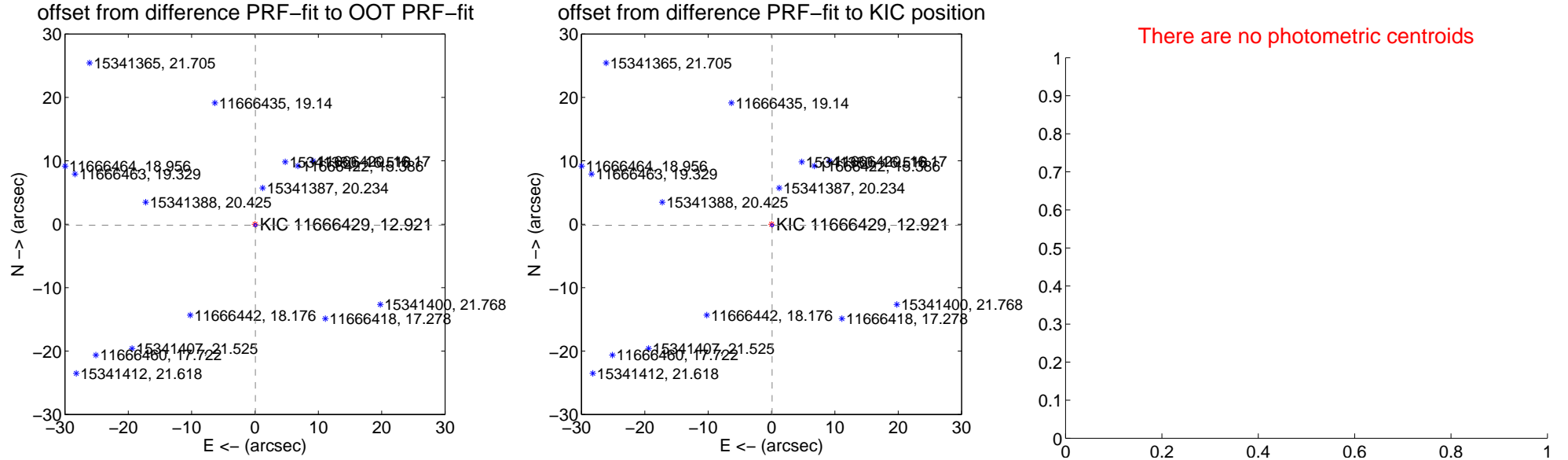
DV Centroid Data

Supplemental centroid analysis for 011666429-01. Kepler magnitude: 12.92. Transit SNR 0.01

There are 8 quarters with good PRF difference image offsets

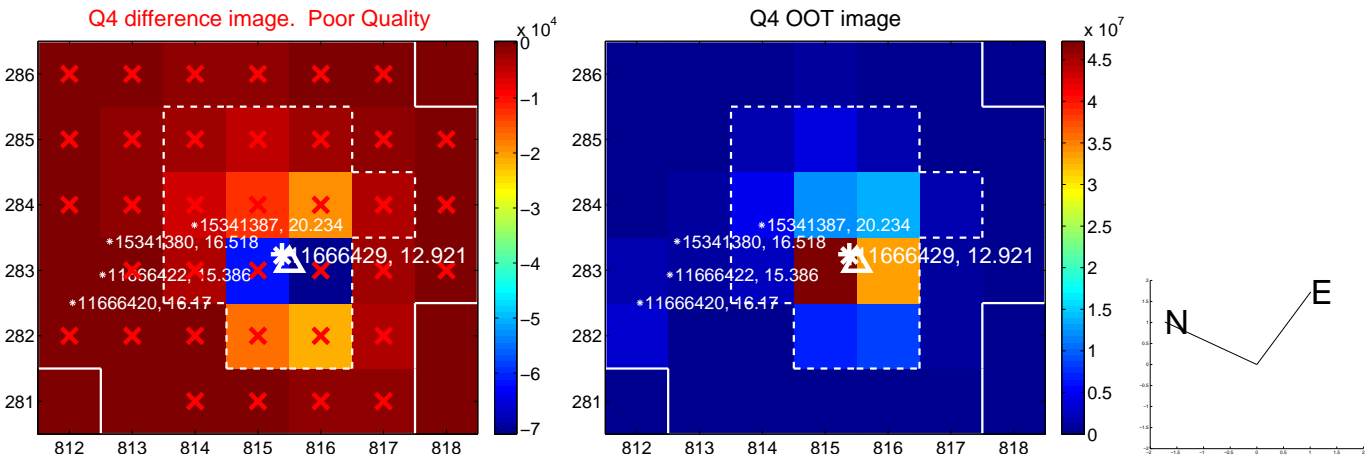
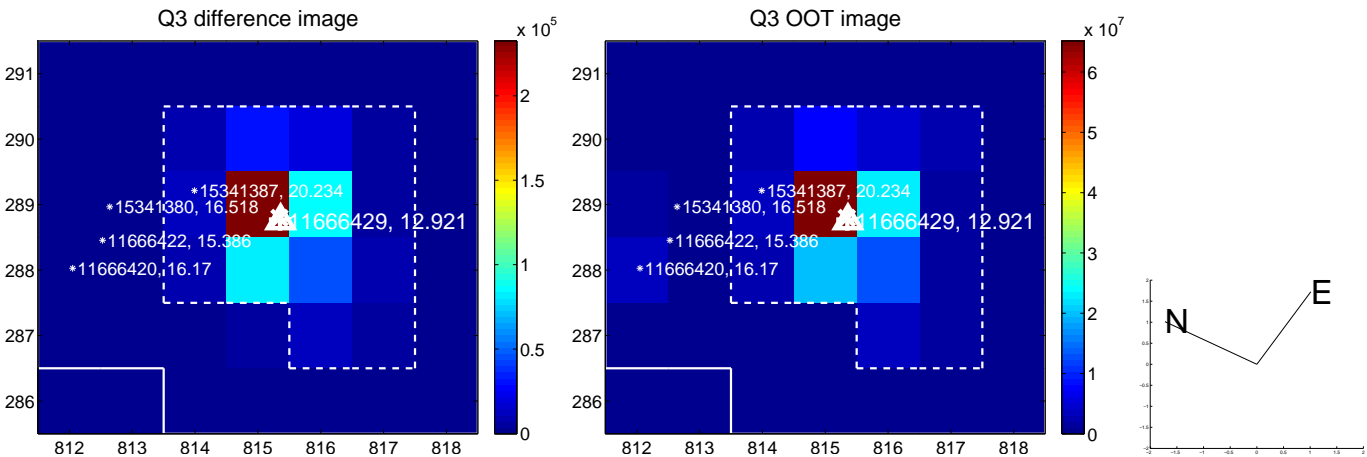
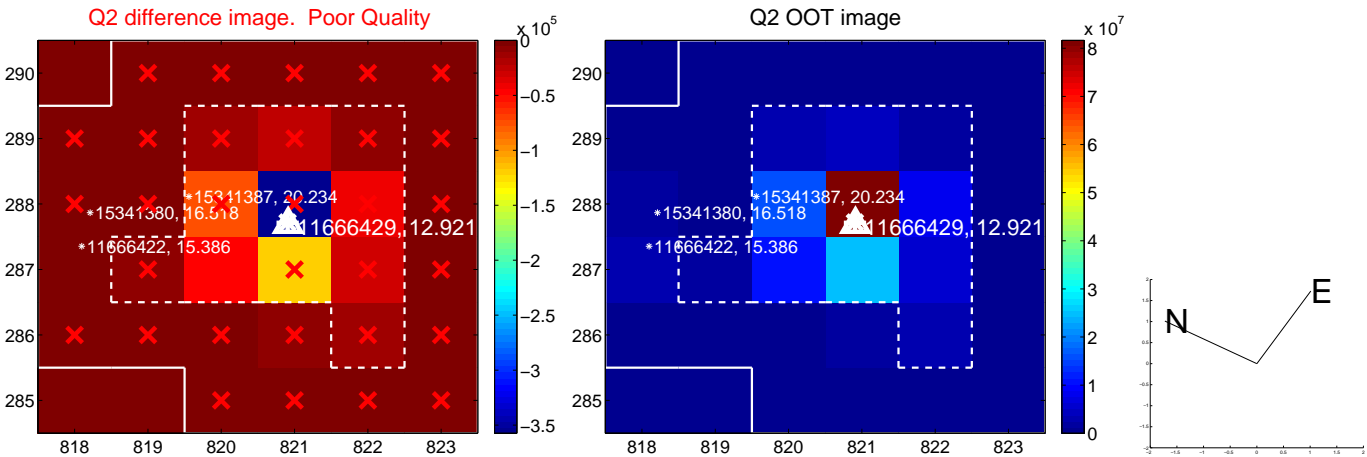
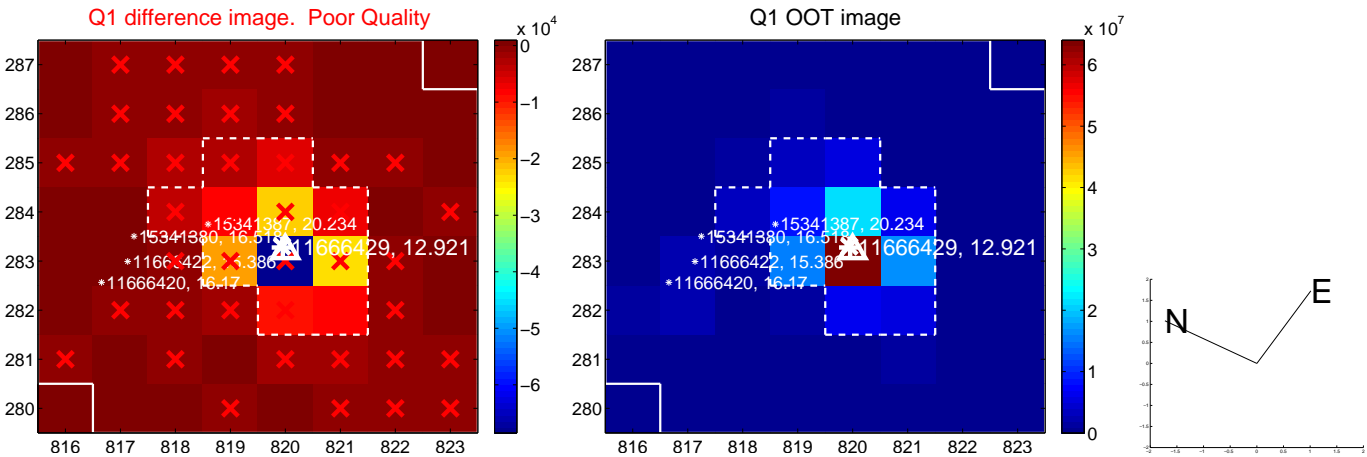
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.166 ± 0.083	2.02	-0.063 ± 0.069	-0.154 ± 0.082
PRF-fit source offset from KIC position	0.193 ± 0.076	2.54	-0.092 ± 0.068	-0.170 ± 0.077
photometric centroid source offset	—	—	—	—

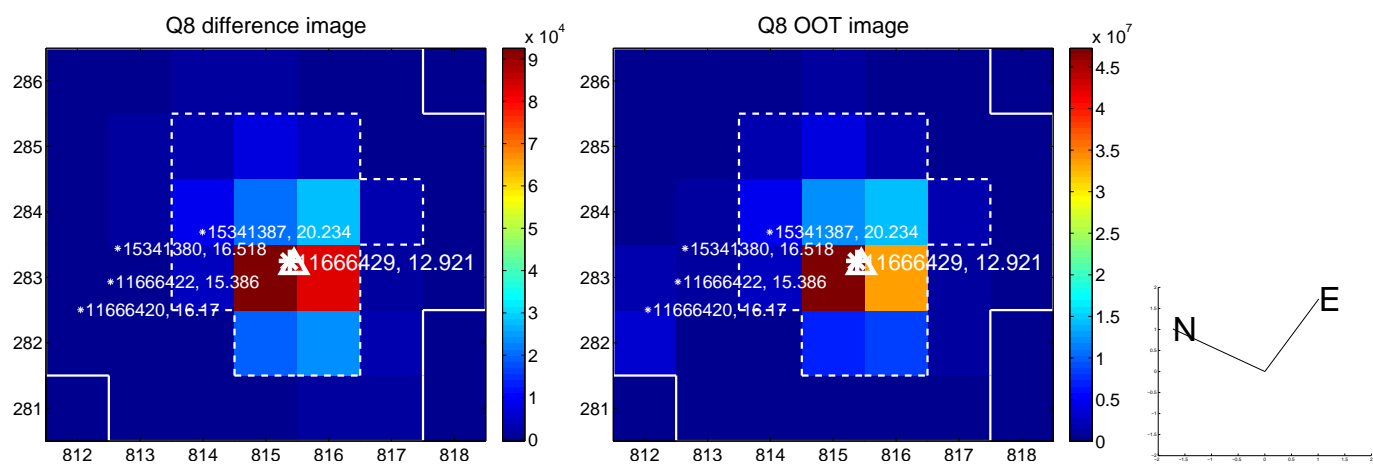
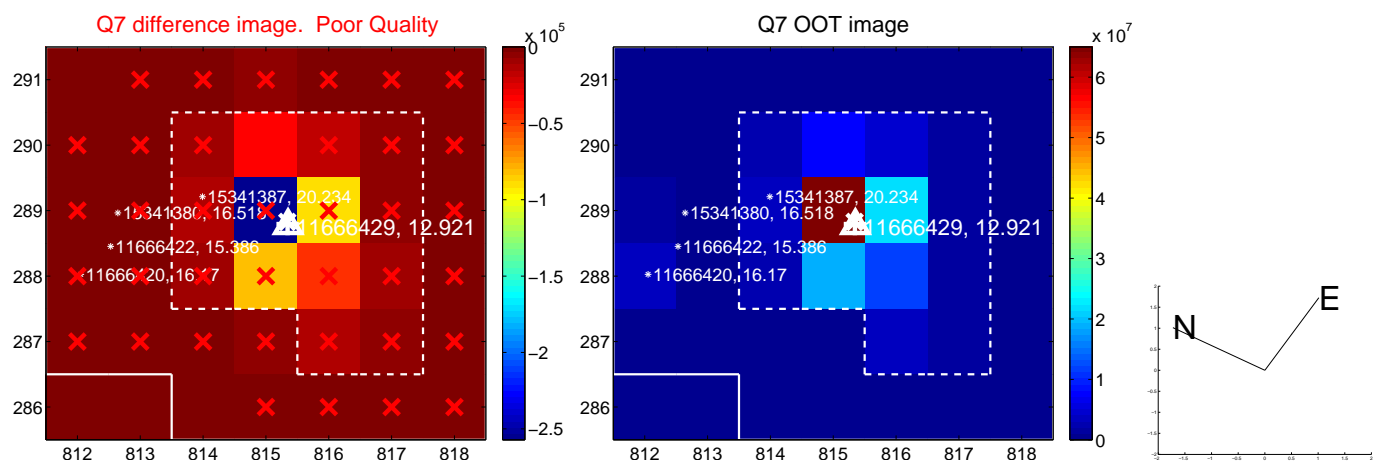
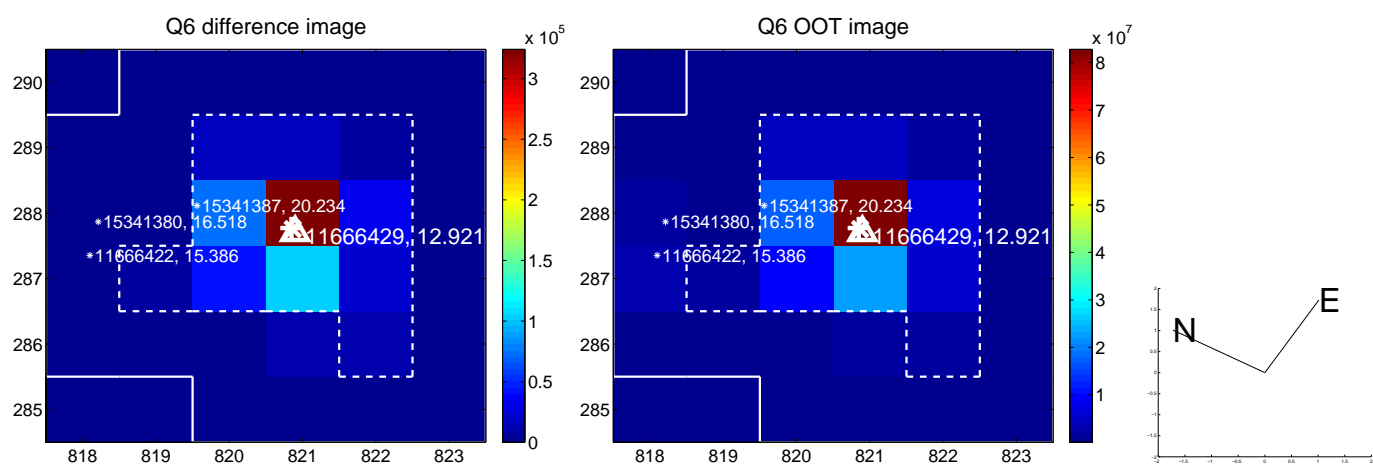
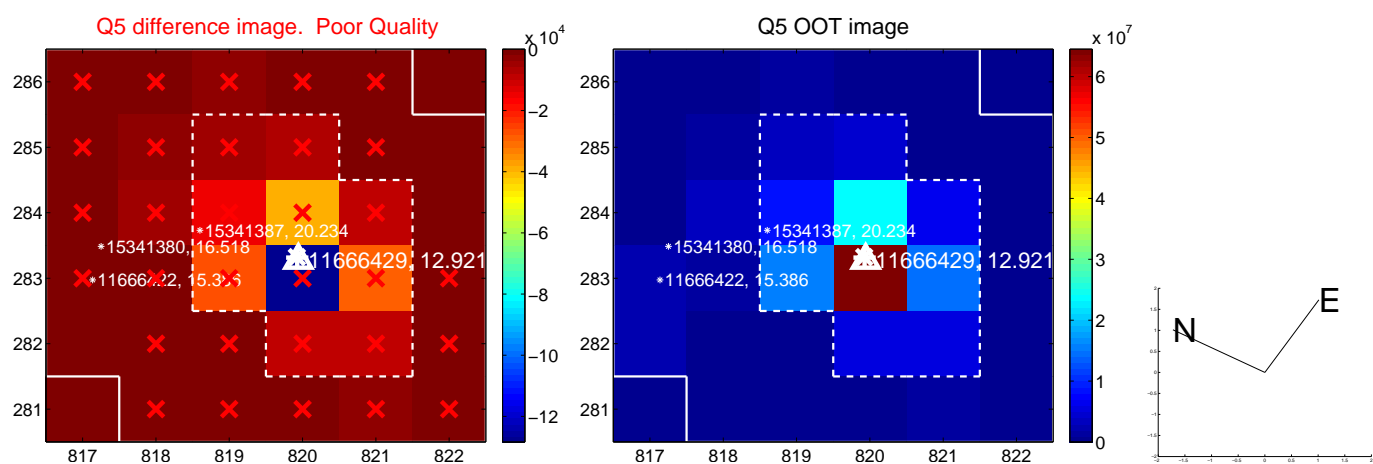


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

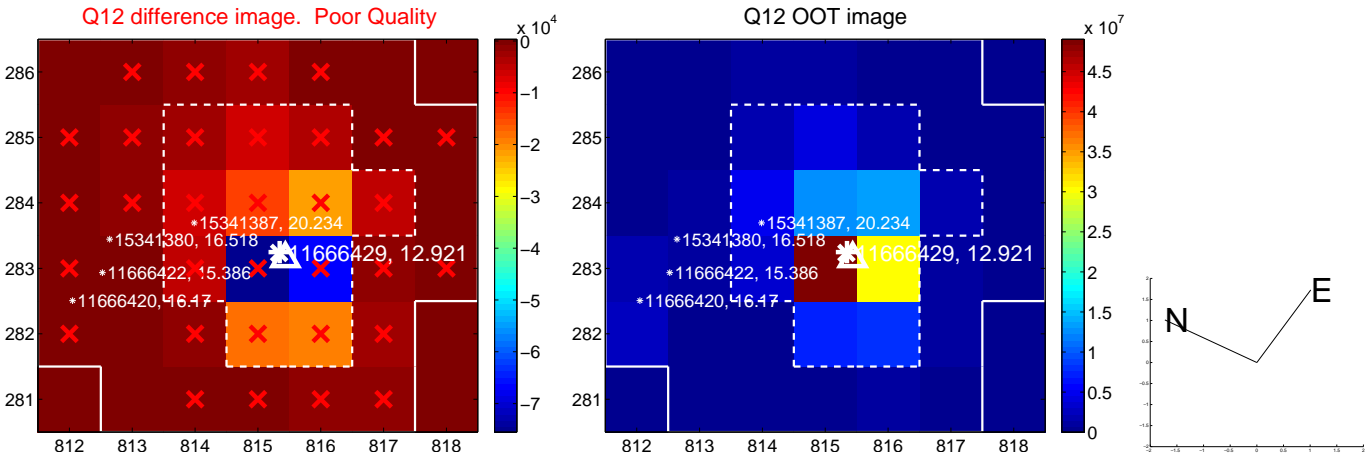
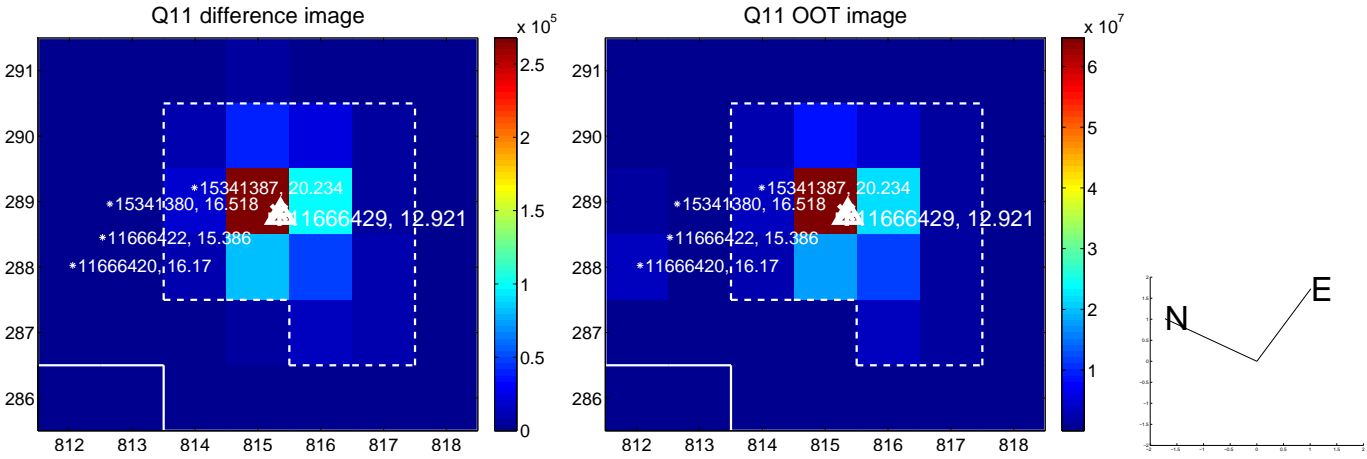
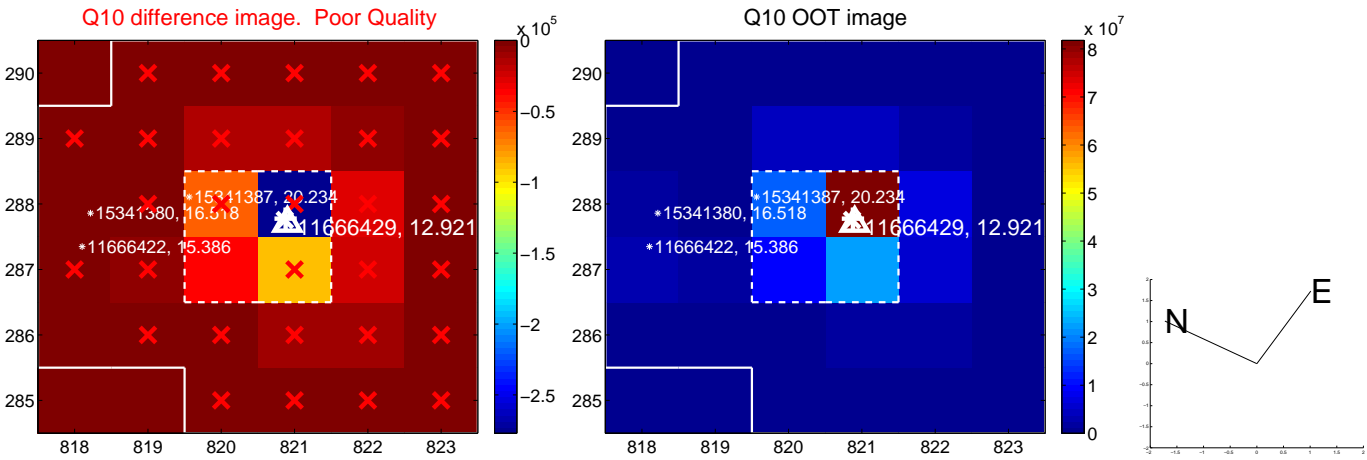
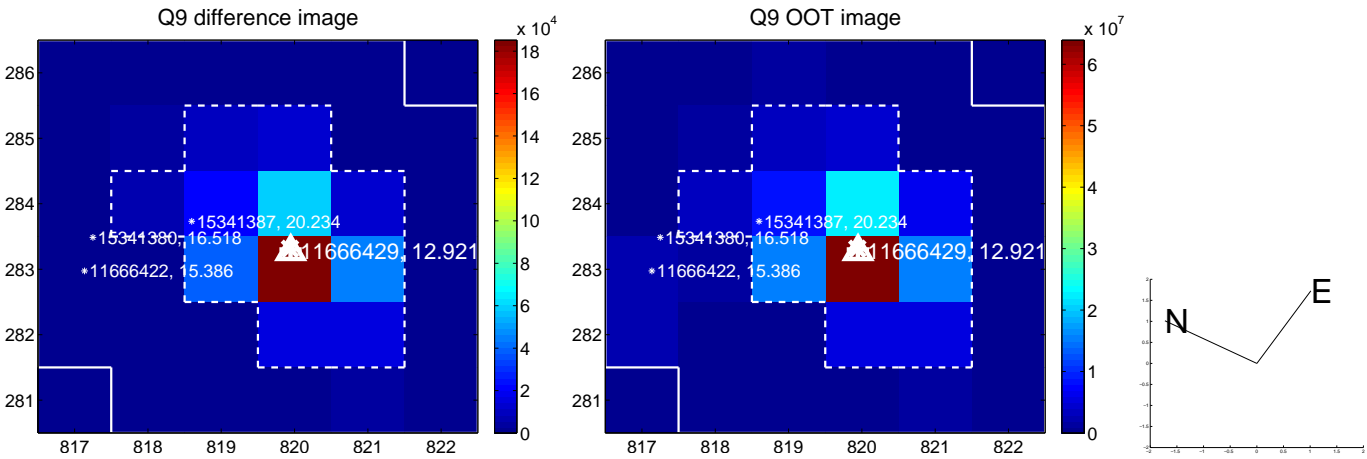
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



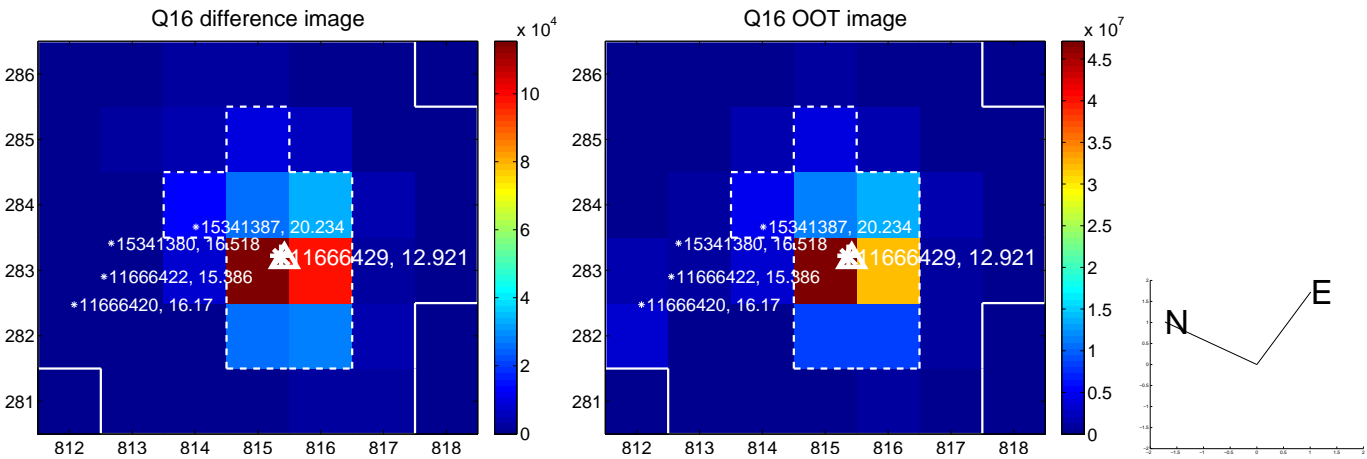
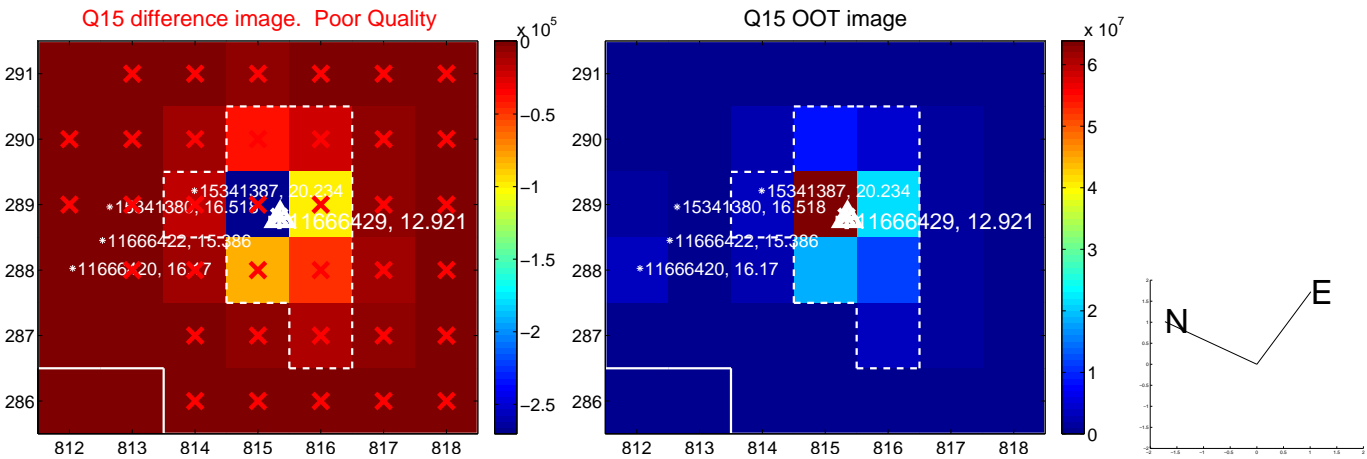
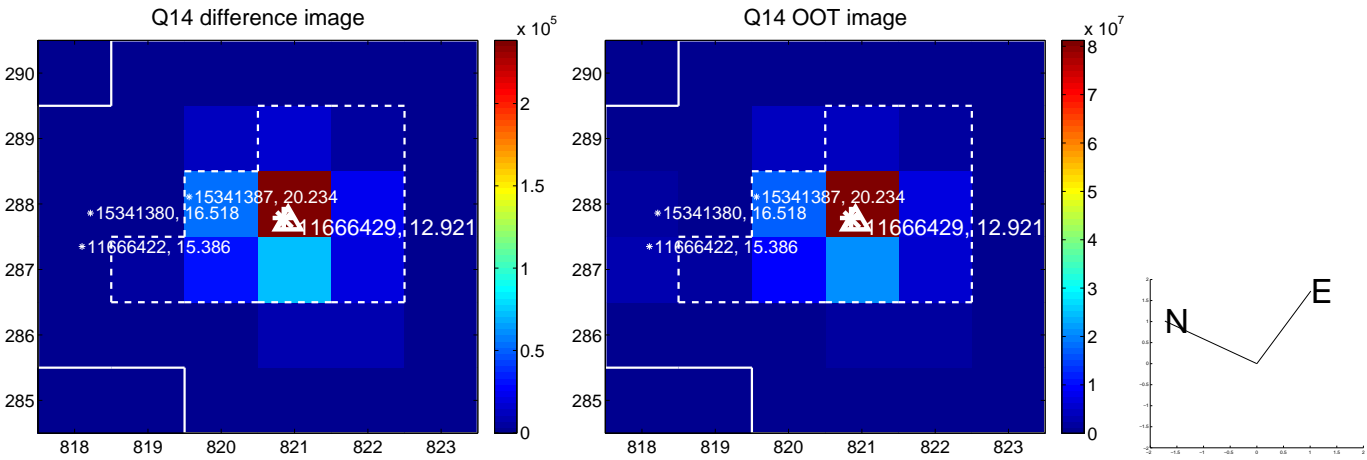
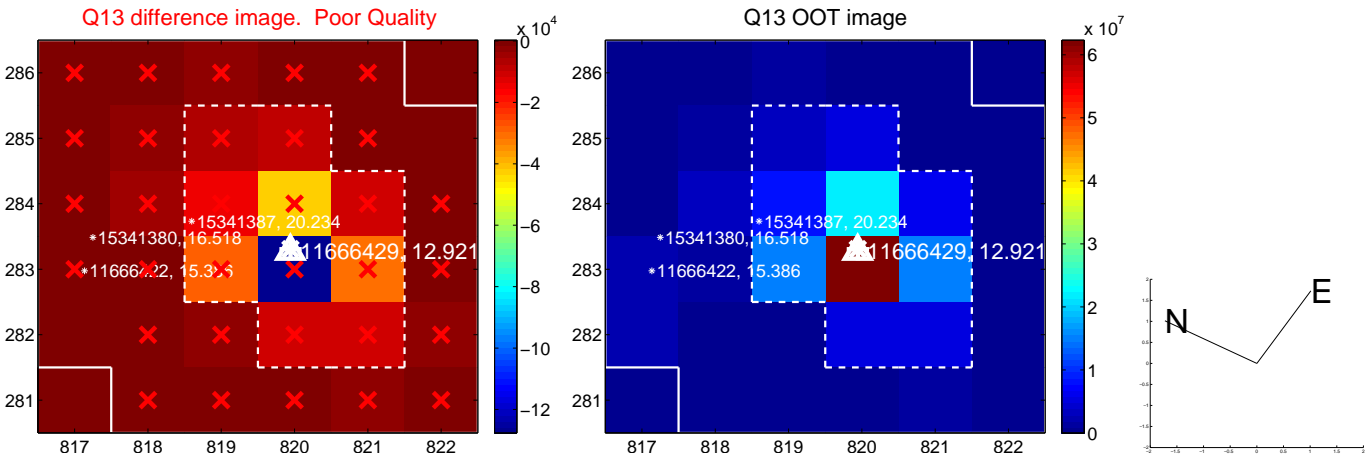
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



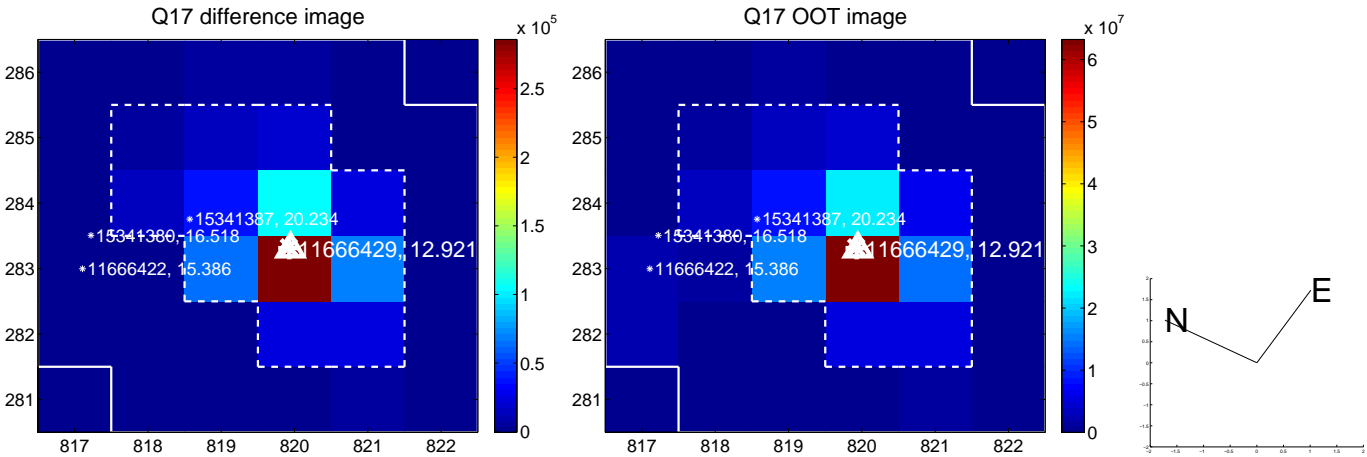
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination

