

KIC 011600889

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})
011600889-01	OBS	1442.01	0.669317	132.121770	71.3	1.542	21.1	37.5	1.00	5475	1.02	3662.60

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011600889-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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

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

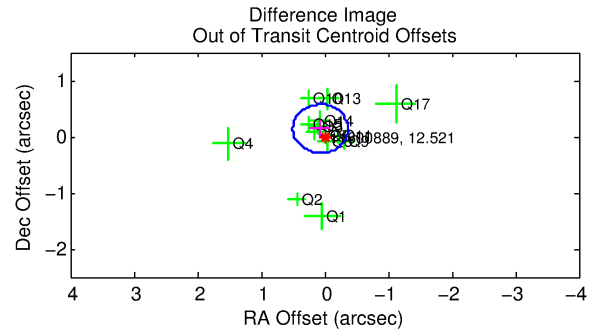
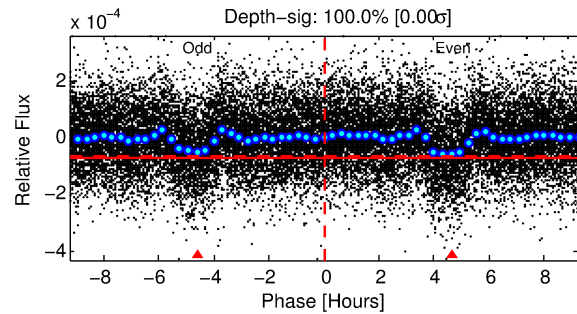
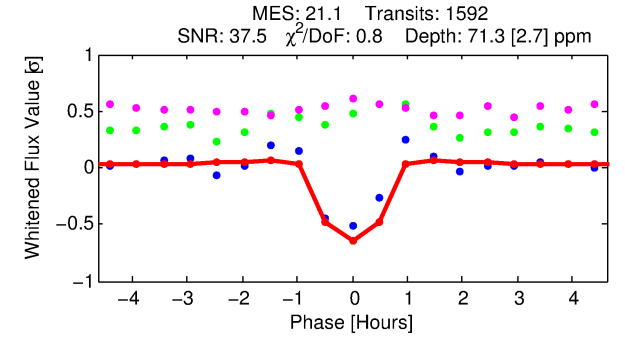
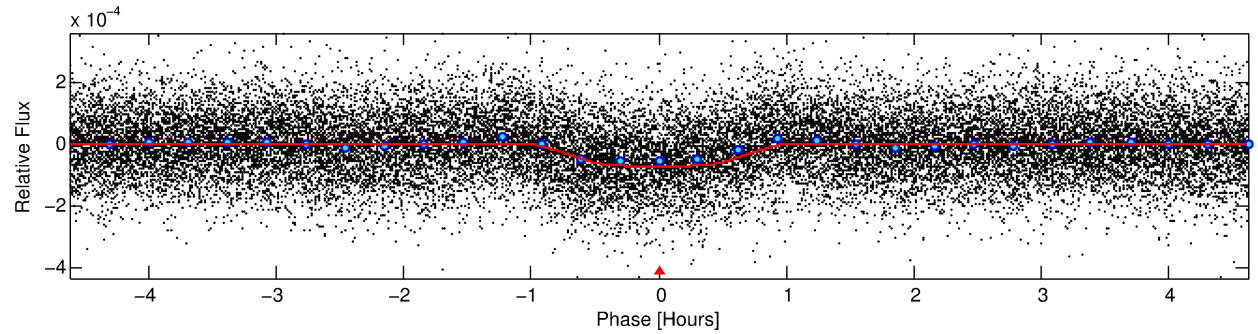
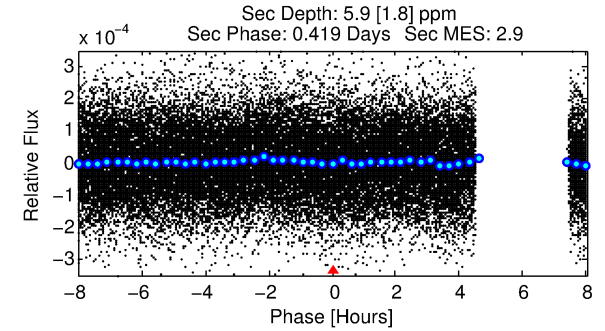
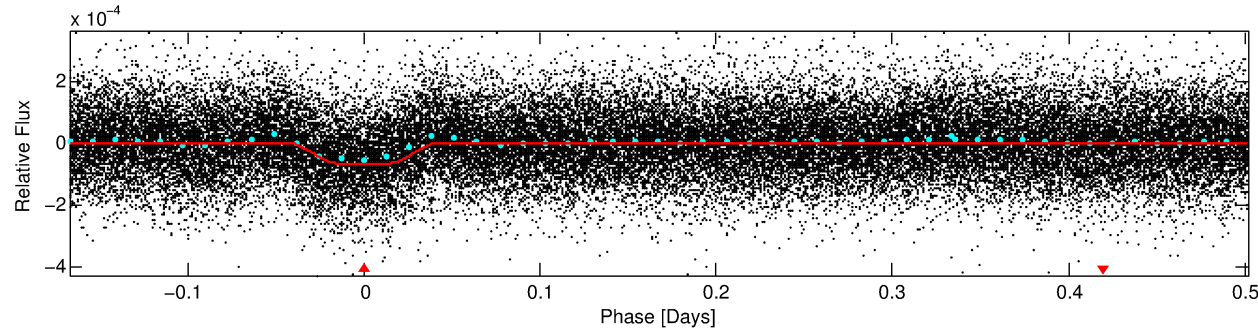
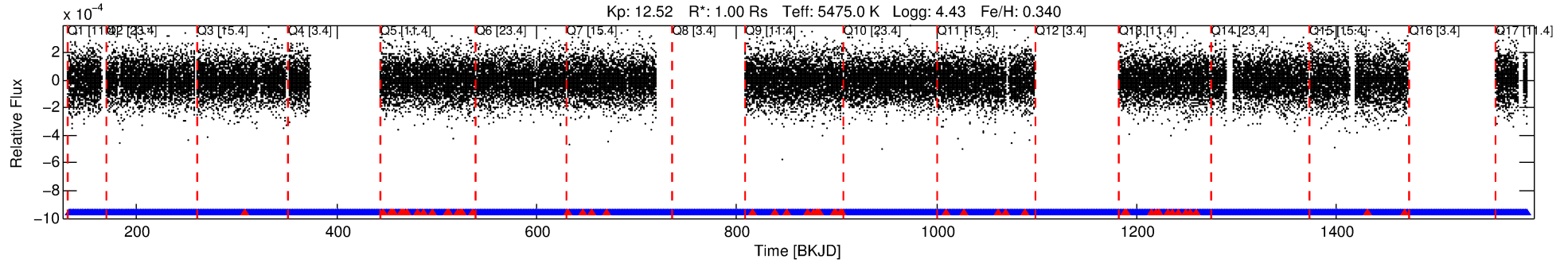
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011600889-01

No Significant Match Found

DV One-Page Summary

KIC: 11600889 Candidate: 1 of 1 Period: 0.669 d
KOI: K01442.01 Name: Kepler-407b Corr: 0.915



DV Fit Results:

Period = 0.66932 [0.00000] d
Epoch = 132.1218 [0.0006] BKJD
Rp/R* = 0.0094 [0.0019]
a/R* = 1.78 [1.07]
b = 0.90 [0.19]
Seff = 3662.60 [733.62]
Teq = 1984 [99] K
Rp = 1.02 [0.25] Re
a = 0.0149 [0.0018] AU
Ag = 0.68 [0.37] [-0.86σ]
Teffp = 2788 [358] K [2.16σ]

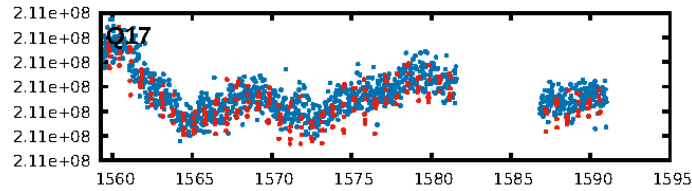
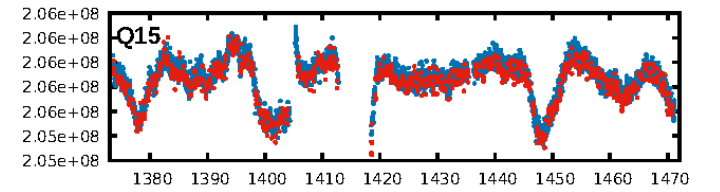
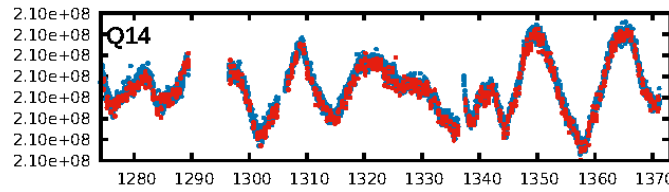
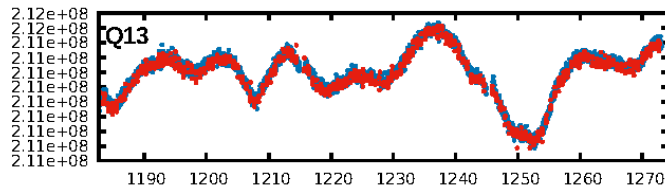
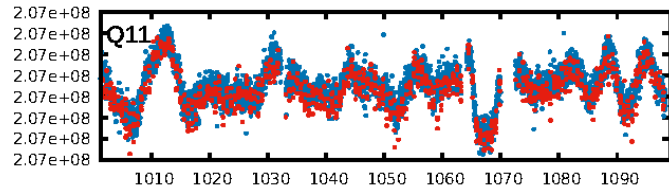
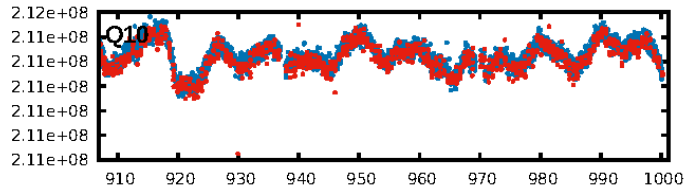
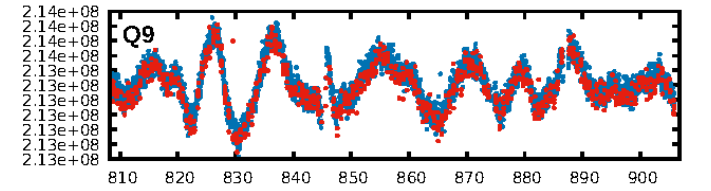
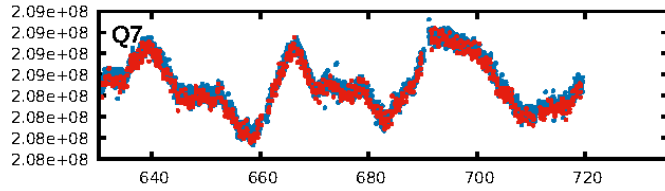
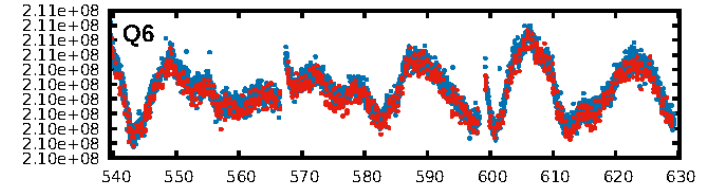
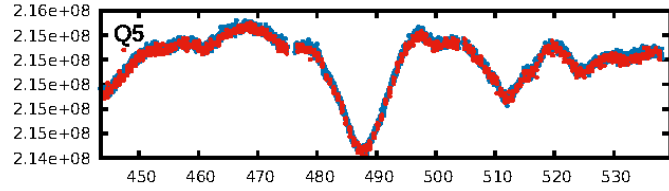
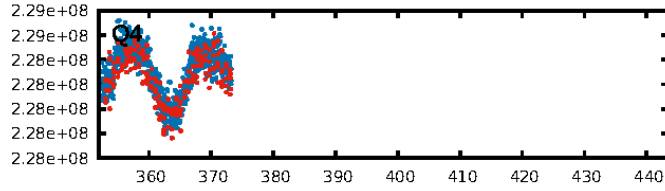
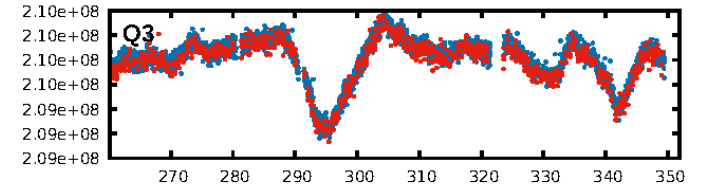
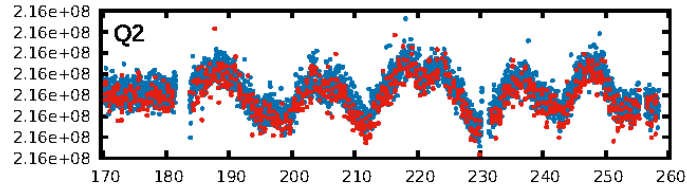
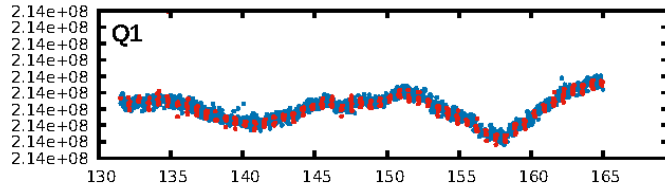
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.22e-88
RollingBand-fgt: 0.96 [1417/1472]
GhostDiagnostic-chr: 3.606
Centroid-sig: 66.4%
Centroid-so: 0.145 arcsec [0.46σ]
OotOffset-rm: 0.154 arcsec [1.07σ]
KicOffset-rm: 0.183 arcsec [1.10σ]
OotOffset-st: 4/4/1/5 [14]
KicOffset-st: 4/4/1/5 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [14/14]

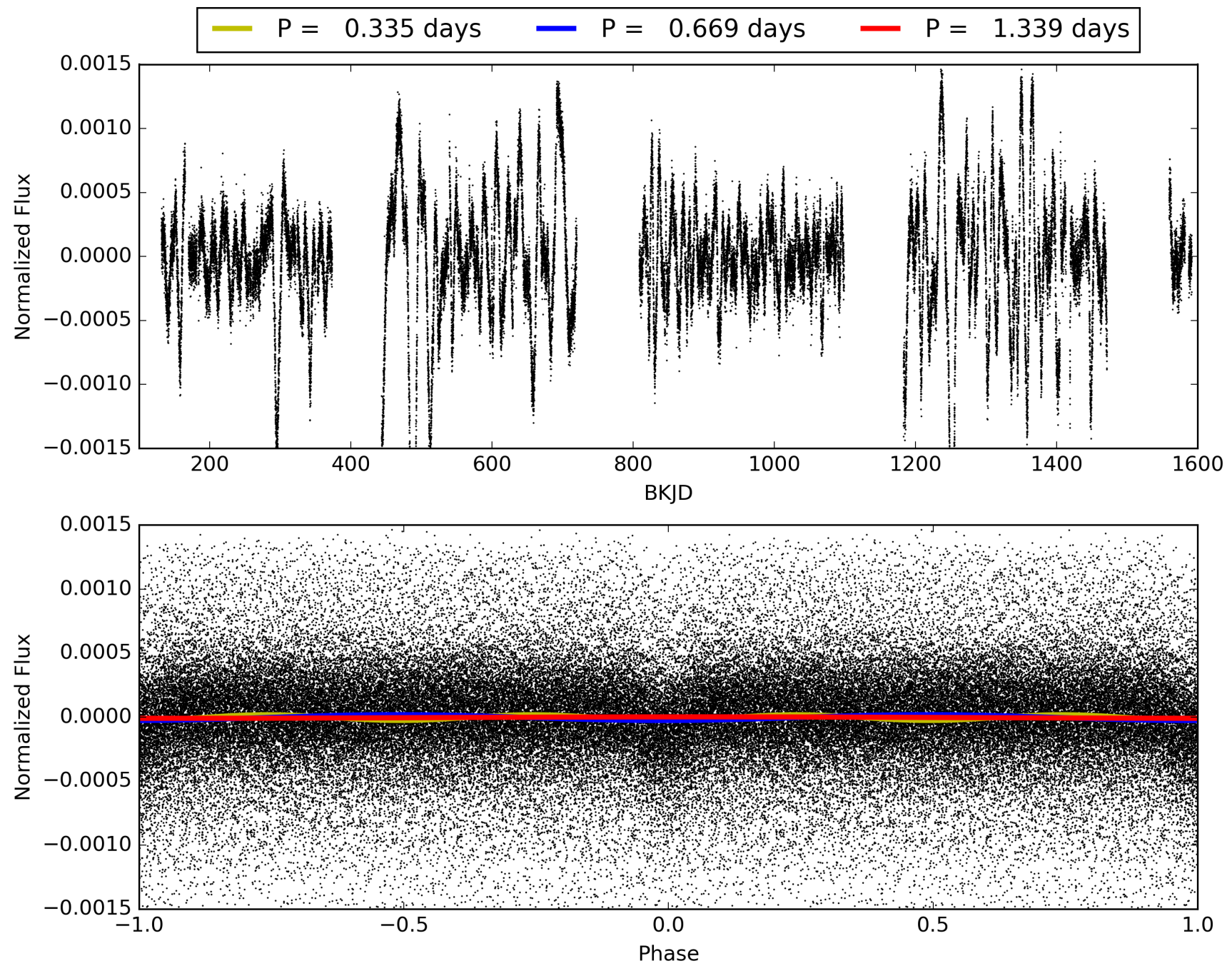
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 04:23:52 Z

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

TCE 011600889-01, PDC Light Curves

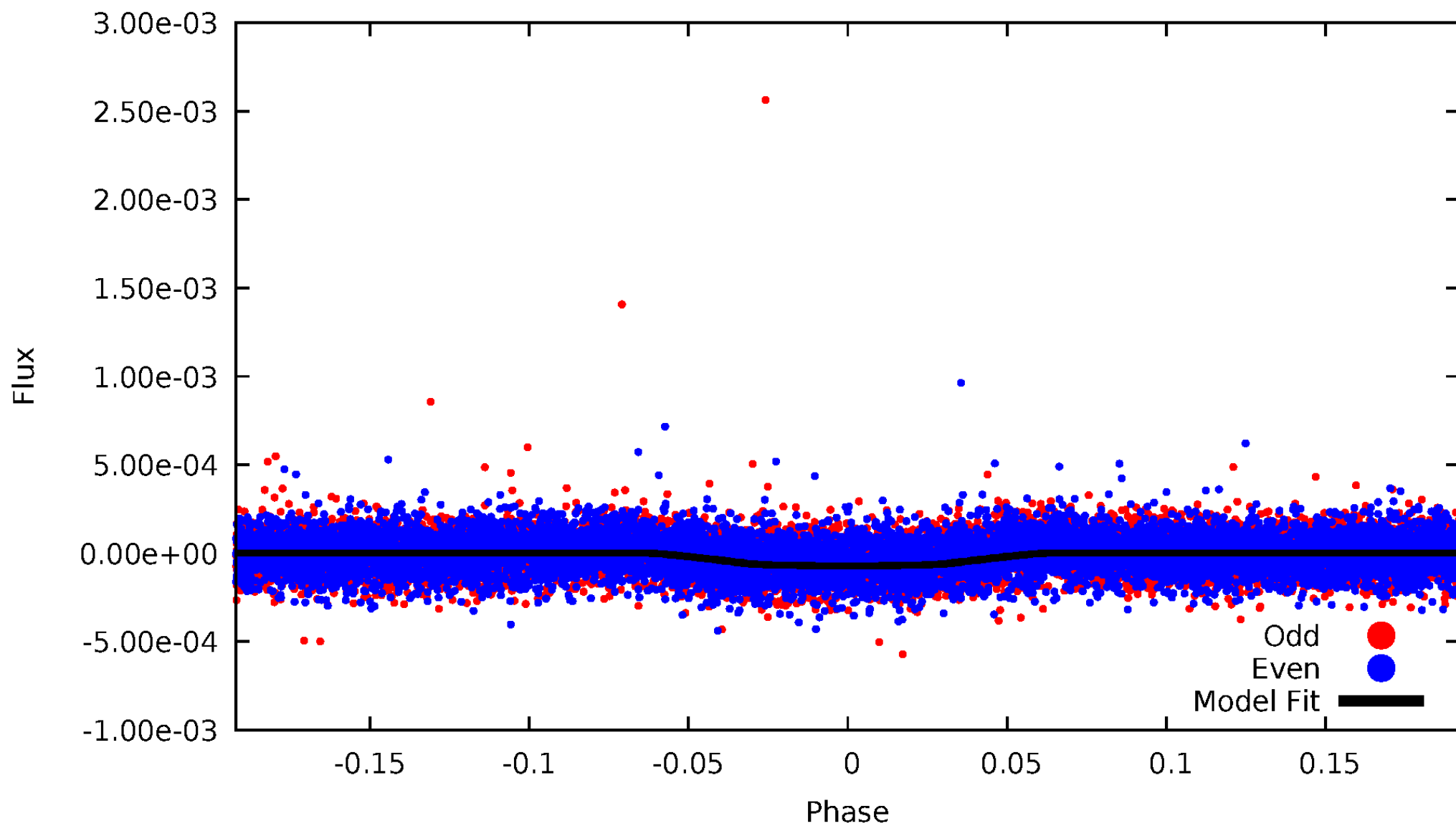


TCE 011600889-01



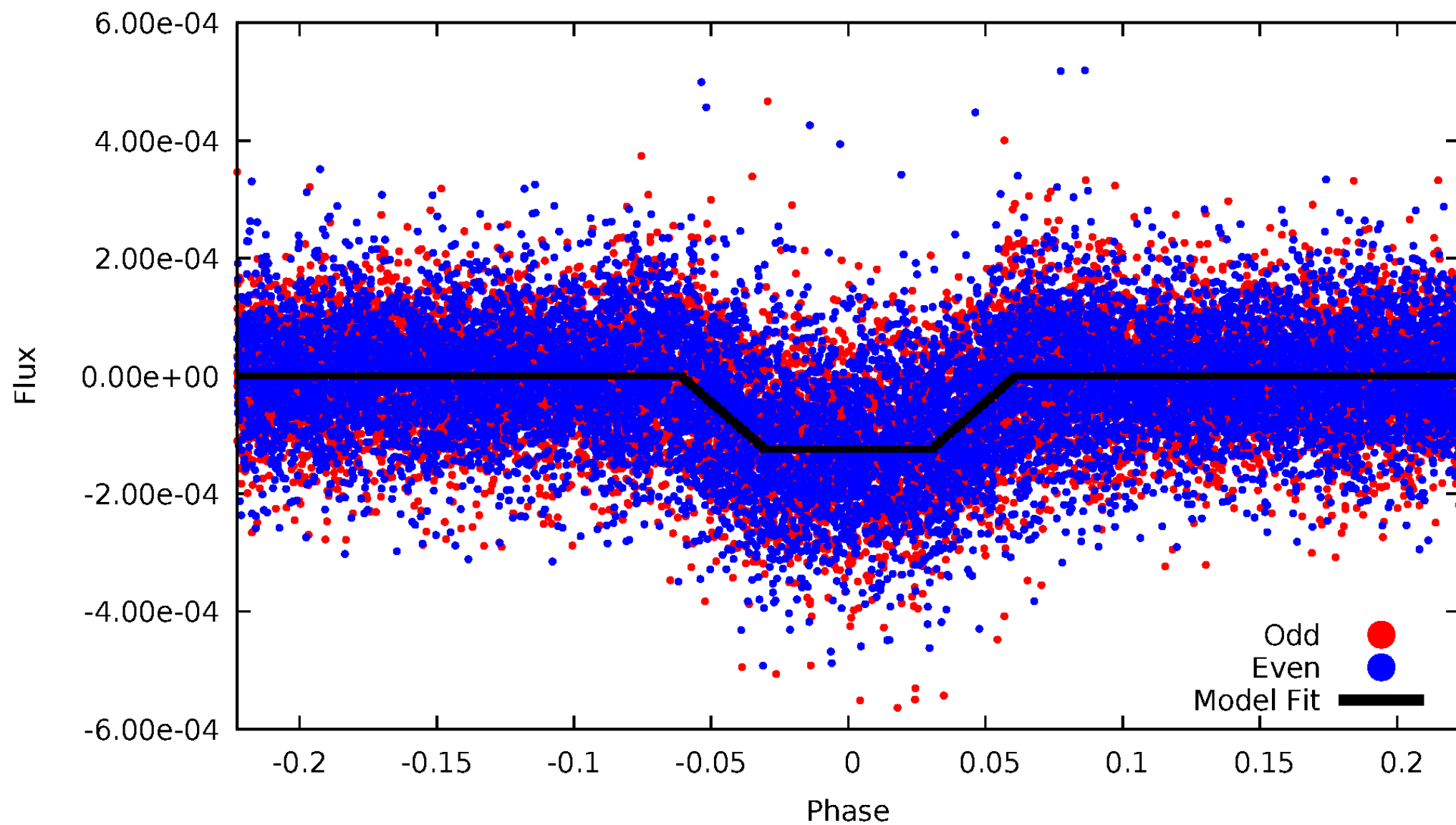
DV Odd/Even

TCE 011600889-01



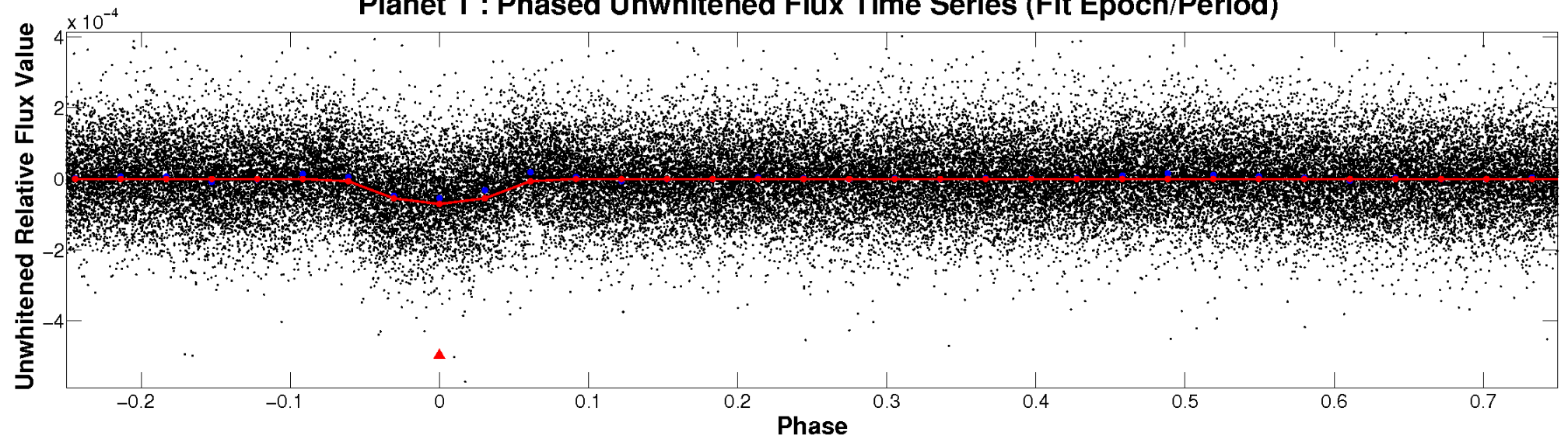
ALT Odd/Even

TCE 011600889-01

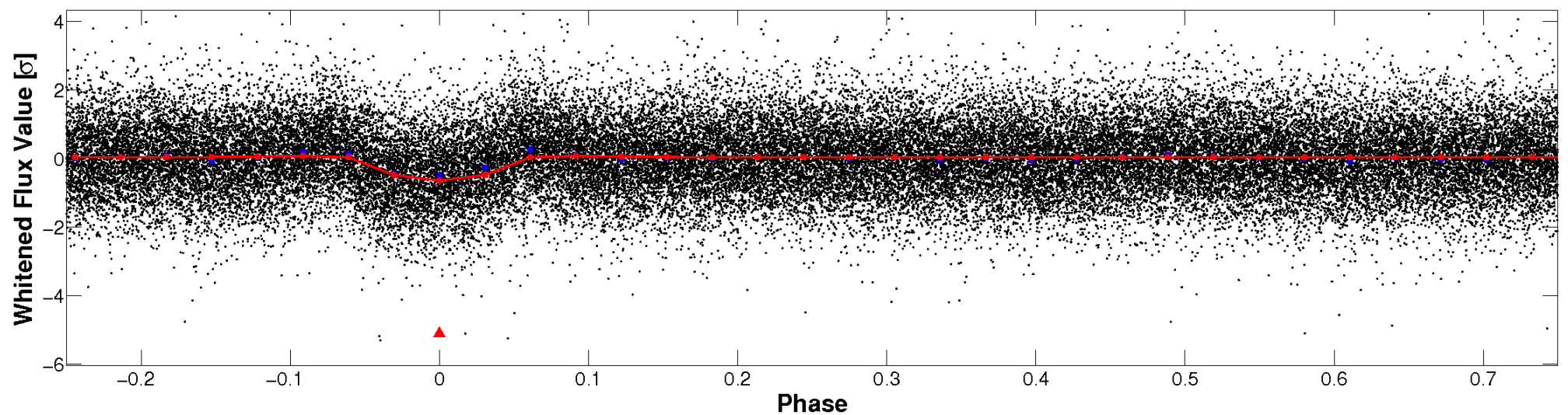


Non-Whitened Vs. Whitened Light Curve

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

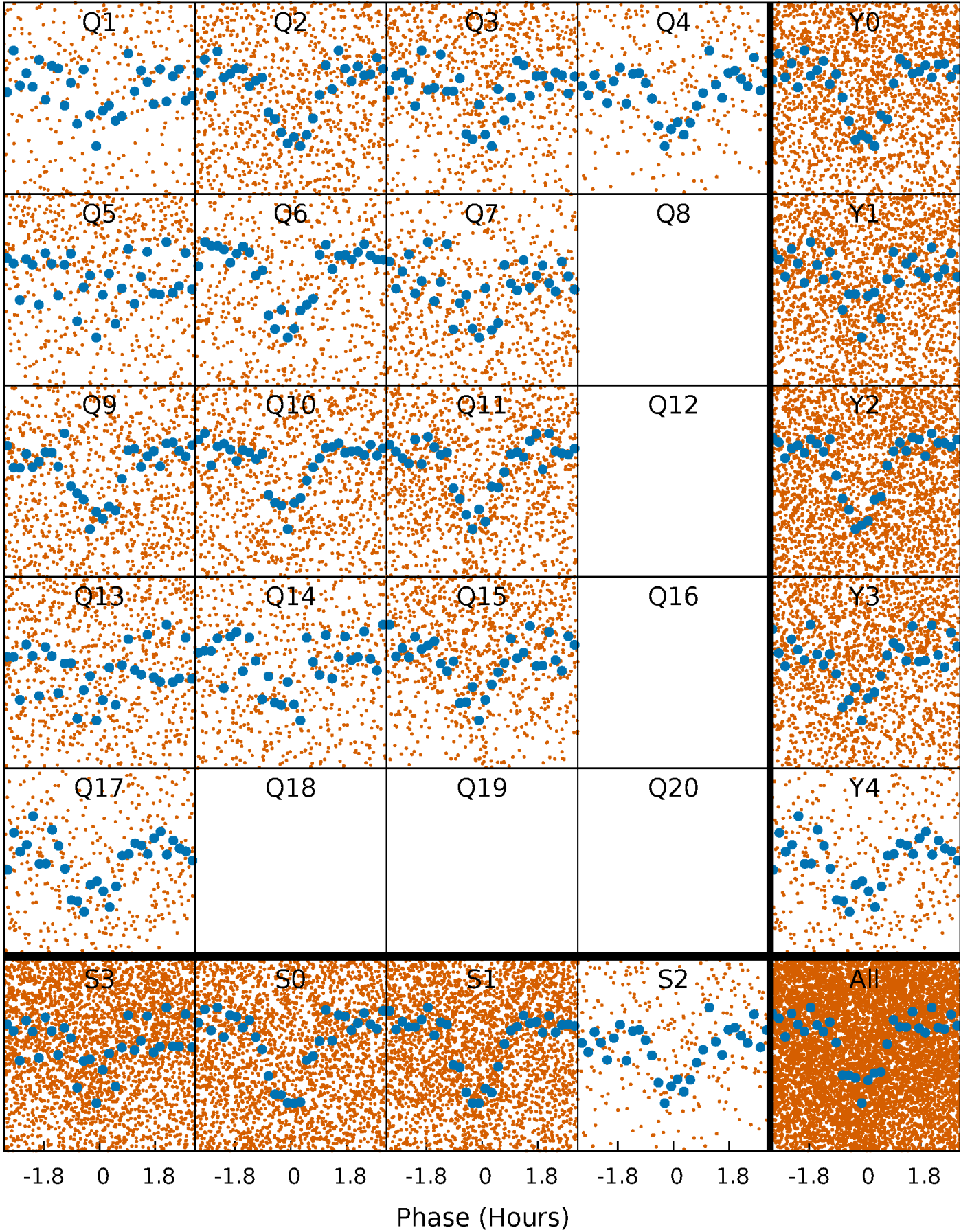


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



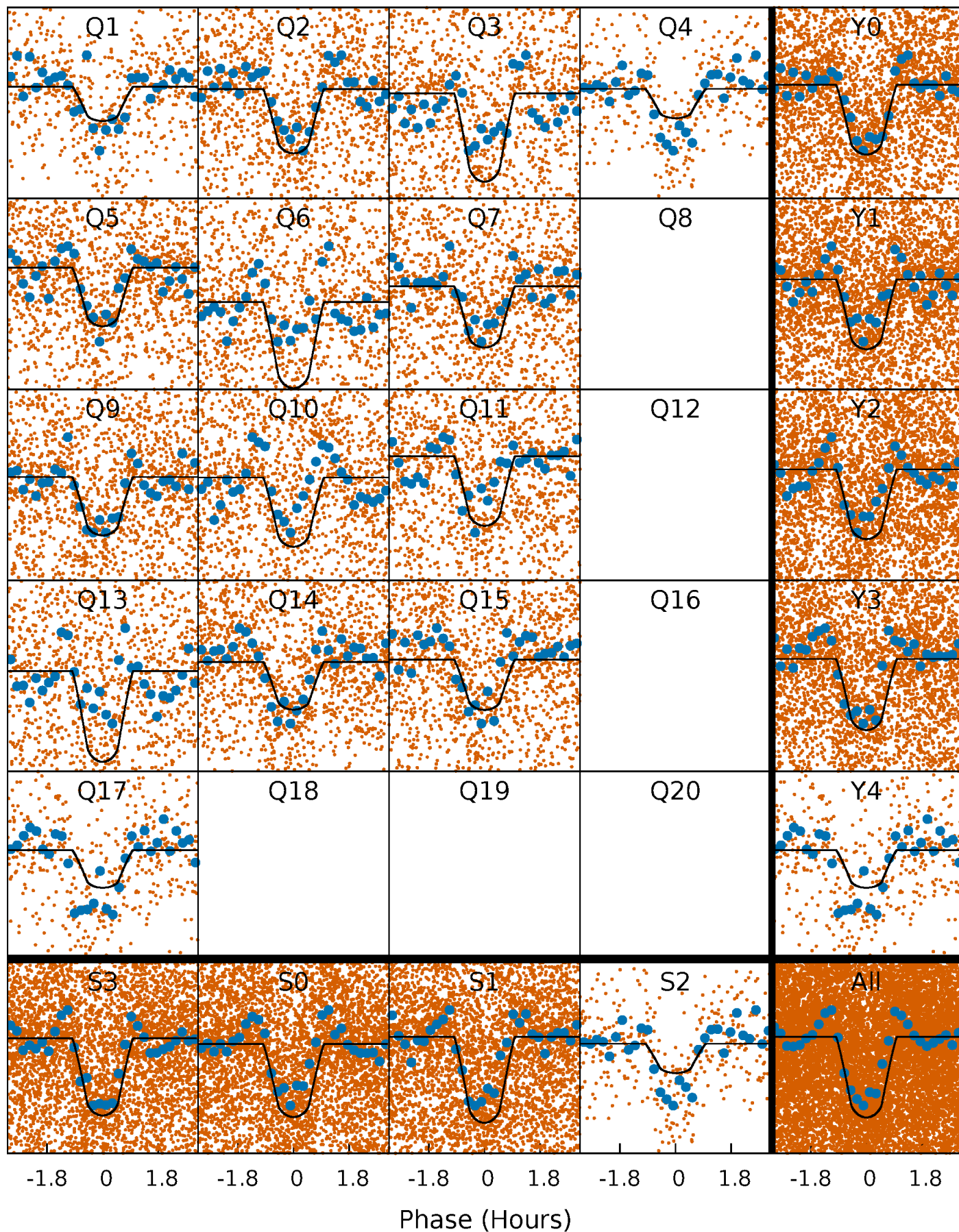
PDC Quarter-Phased Transit Curves

TCE 011600889-01 P= 0.669317 Days $T_0=132.121770$ (BKJD)



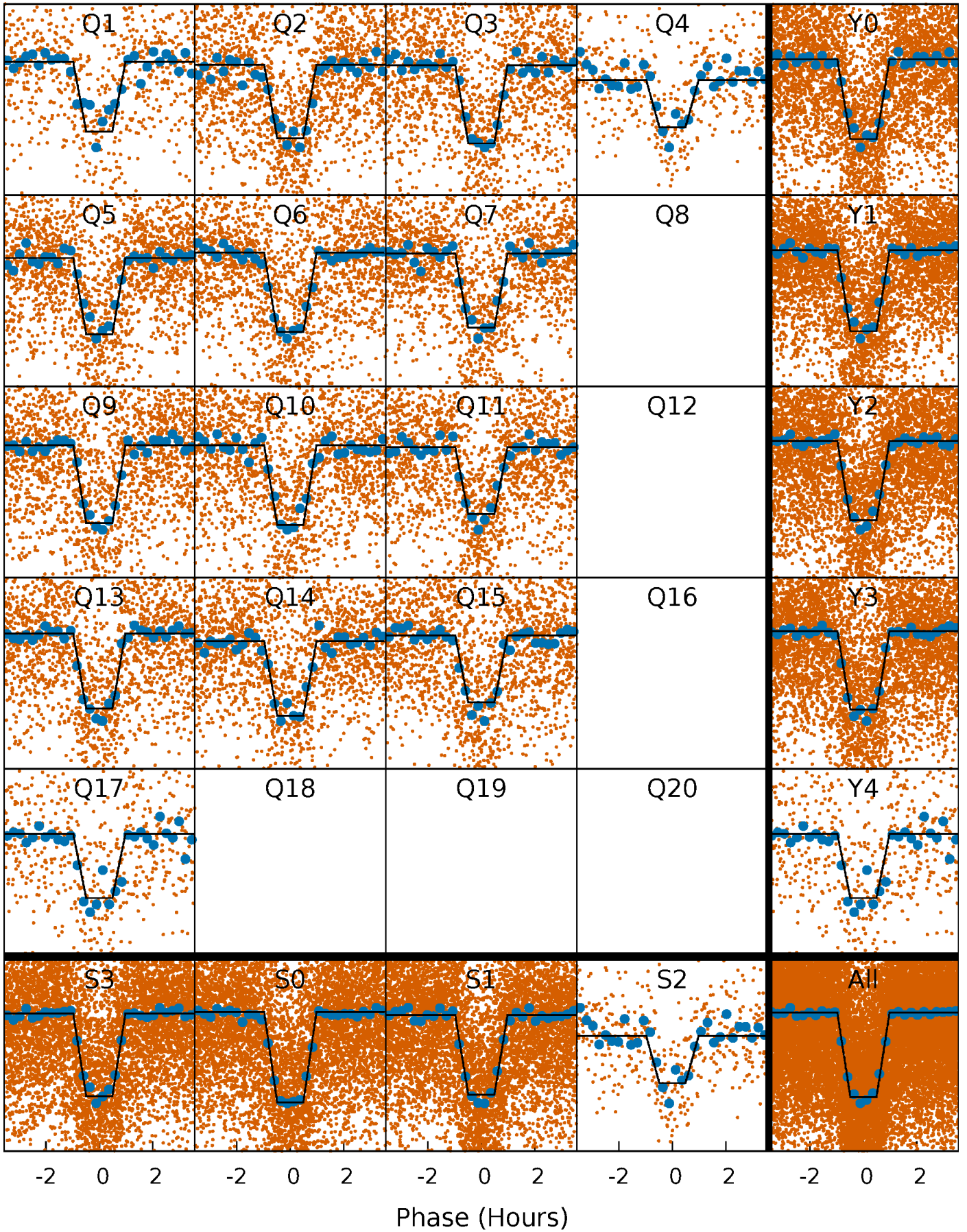
DV Quarter-Phased Transit Curves

TCE 011600889-01 P= 0.669317 Days $T_0=132.121770$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

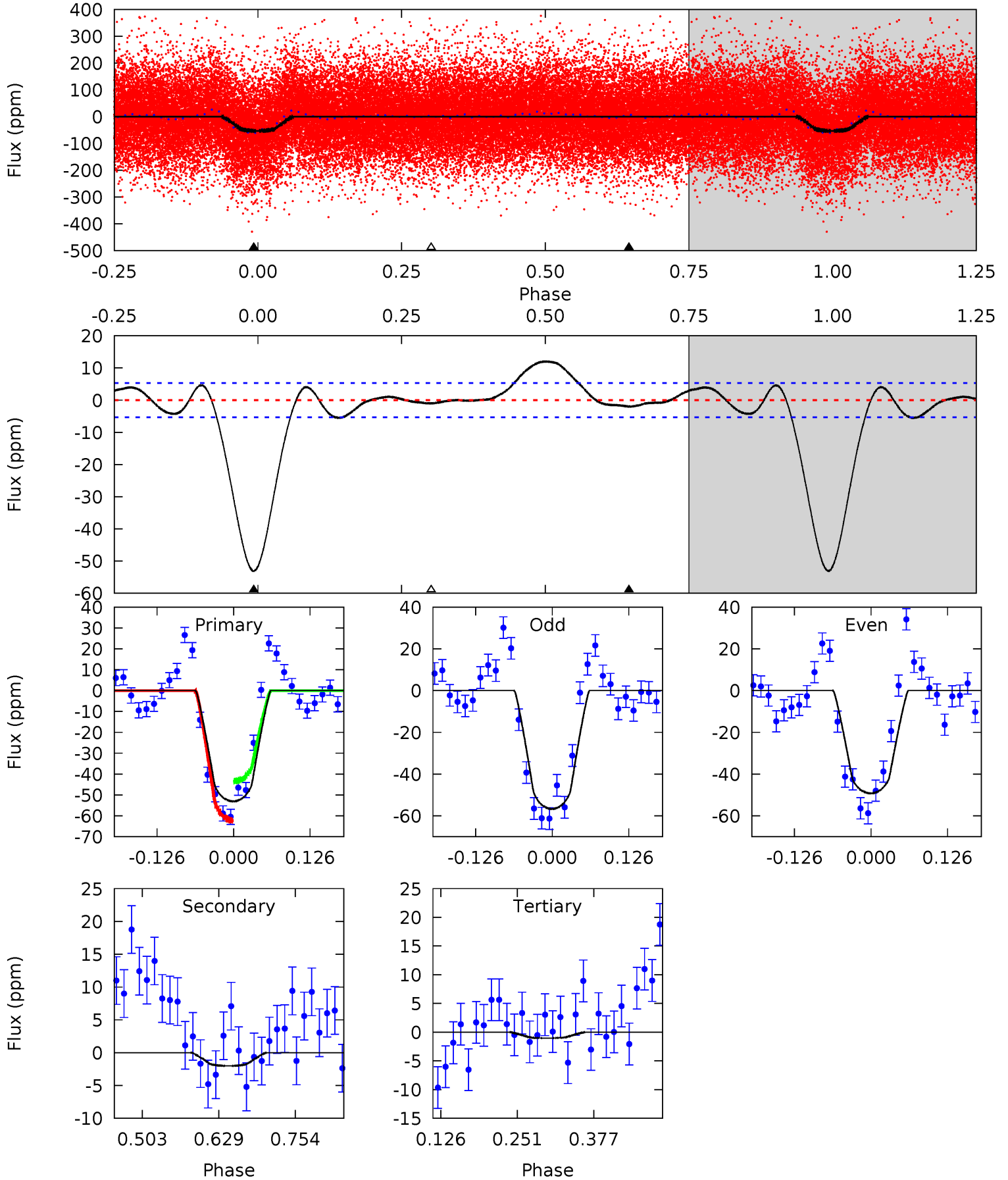
TCE 011600889-01 P= 0.669312 Days $T_0=132.122112$ (BKJD)



DV Model-Shift Uniqueness Test

011600889-01, P = 0.669317 Days, E = 131.452453 Days

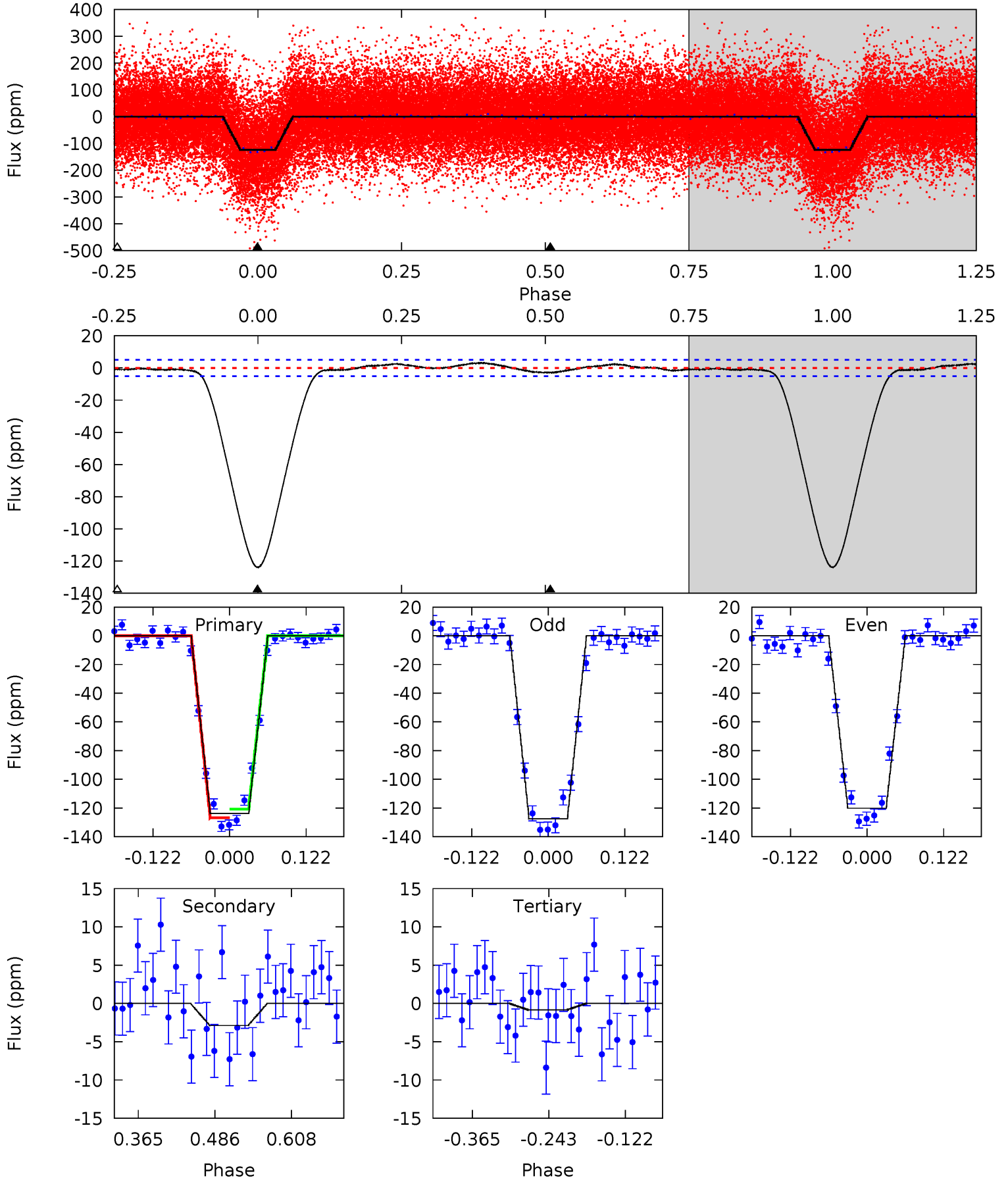
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
44.9	1.71	0.88	0	4.52	1.53	3.78	44.0	44.9	0.83	1.71	3.15	0.99	0.19	7.98



Alt Model-Shift Uniqueness Test

011600889-01, P = 0.669312 Days, E = 131.452800 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
110.7	2.57	0.76	0	4.52	1.55	1.13	109.9	110.7	1.82	2.57	3.30	0.99	0.02	2.71



Stellar Parameters For KIC 011600889

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5475^{+109}_{-109}	$4.426^{+0.076}_{-0.104}$	$0.340^{+0.100}_{-0.150}$	$1.003^{+0.137}_{-0.080}$	$0.977^{+0.046}_{-0.051}$	$1.364^{+0.404}_{-0.441}$
	+2%/-2%	+2%/-2%	+29%/-44%	+14%/-8%	+5%/-5%	+30%/-32%
Source	SPE61	SPE61	SPE61	DSEP		

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

Secondary Eclipse Parameters for KIC 011600889-01 / KOI 1442.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-2 ± 1	$1.03^{+0.22}_{-0.21}$	2785^{+113}_{-100}	-2444^{+5132}_{-398}	$0.231^{+0.214}_{-0.150}$
Alt.	-3 ± 1	$1.23^{+0.22}_{-0.25}$	2779^{+111}_{-93}	-2478^{+4944}_{-300}	$0.221^{+0.156}_{-0.101}$

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 $A_{obs} \gg 1.0$

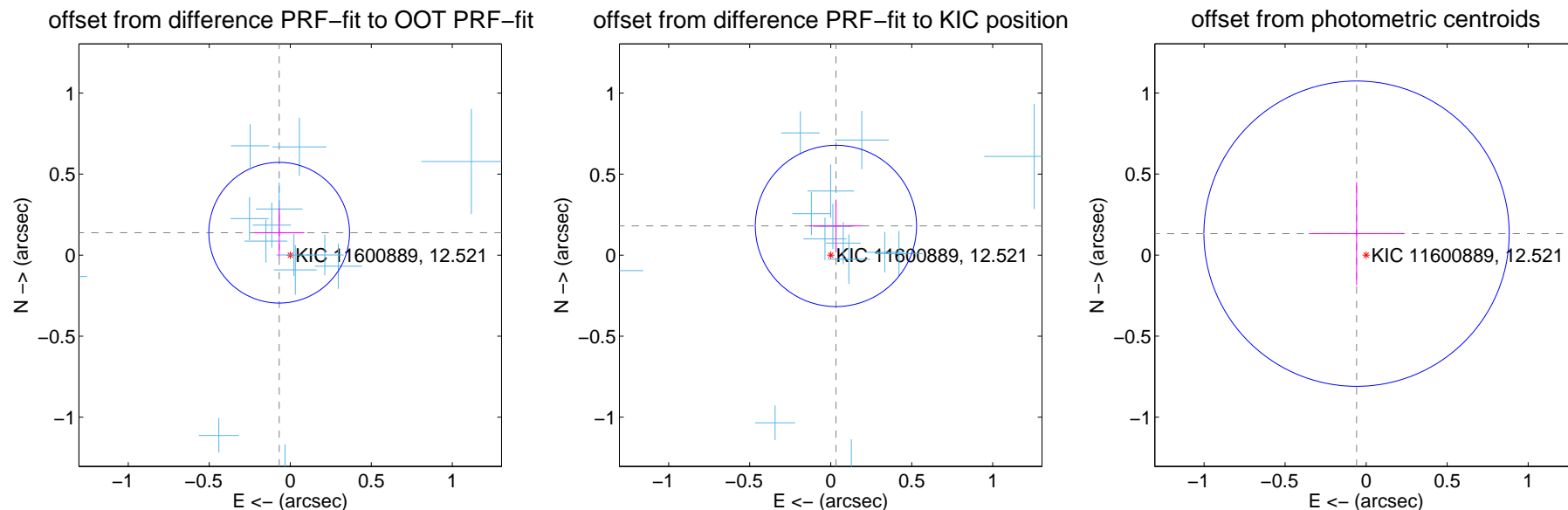
DV Centroid Data

Supplemental centroid analysis for 011600889-01. Kepler magnitude: 12.52. Transit SNR 37.52

There are 14 quarters with good PRF difference image offsets

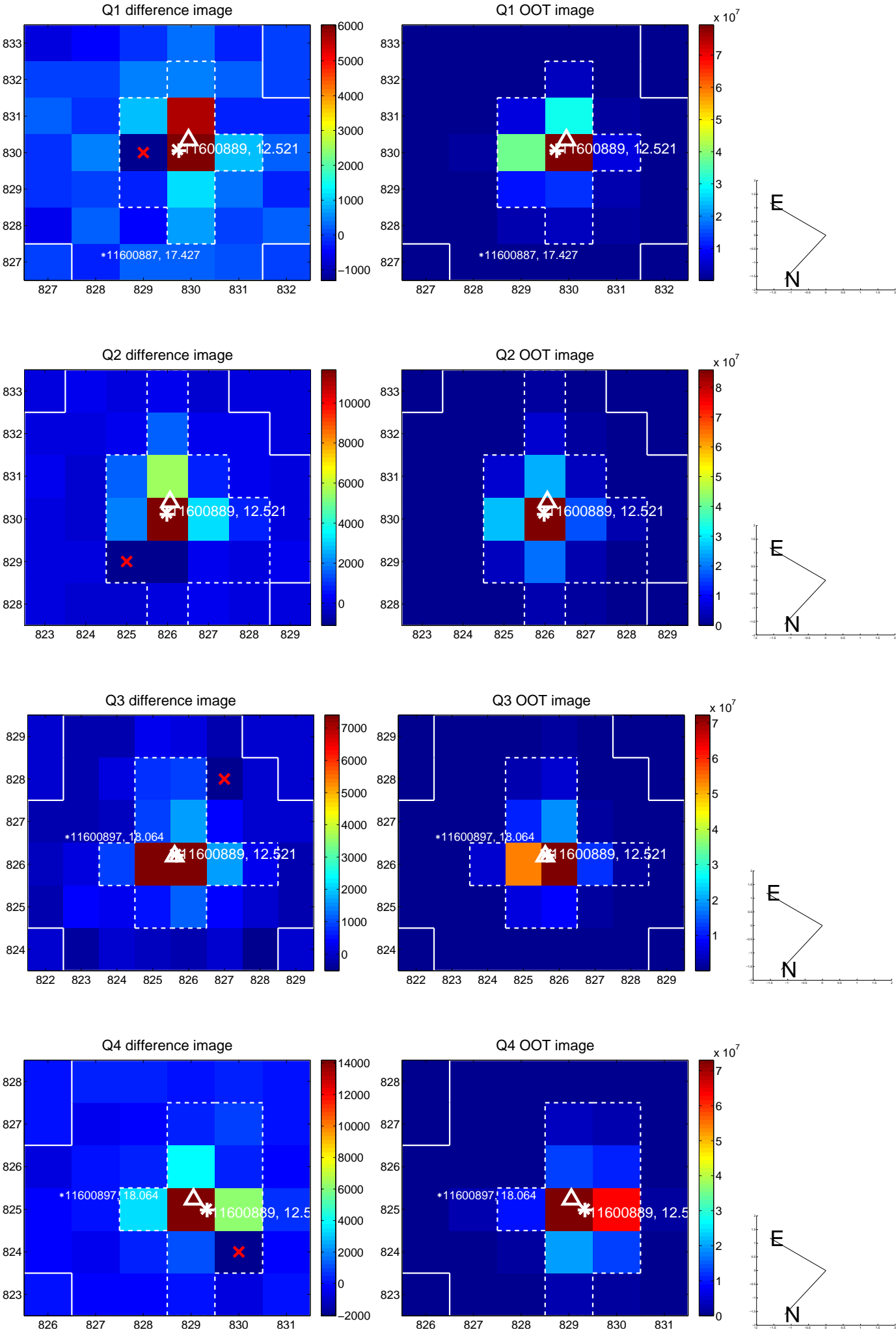
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.154 ± 0.145	1.07	0.068 ± 0.156	0.138 ± 0.155
PRF-fit source offset from KIC position	0.183 ± 0.166	1.10	-0.032 ± 0.163	0.180 ± 0.162
photometric centroid source offset	0.14 ± 0.31	0.46	0.06 ± 0.29	0.13 ± 0.32

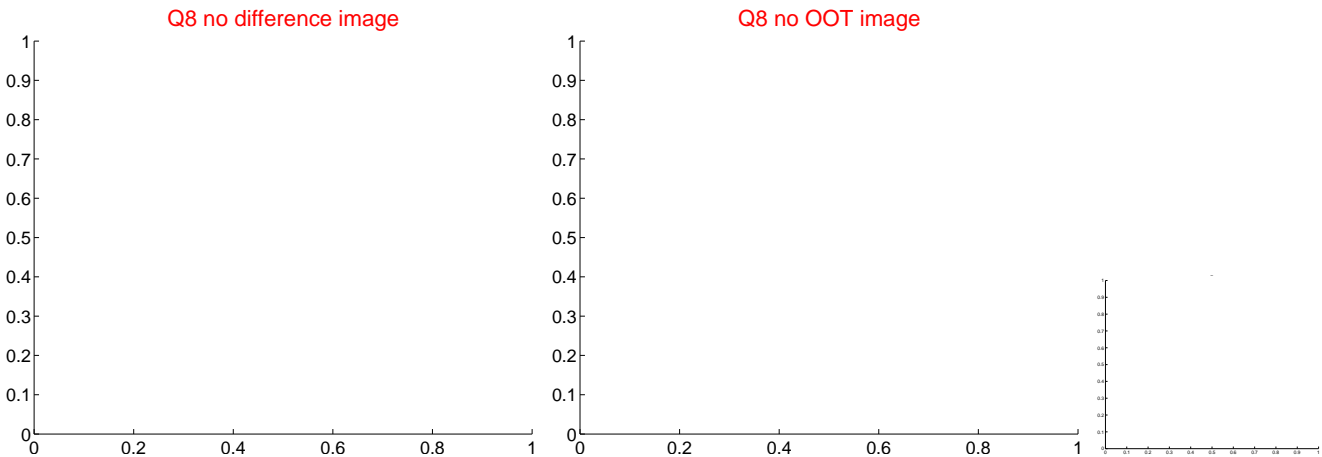
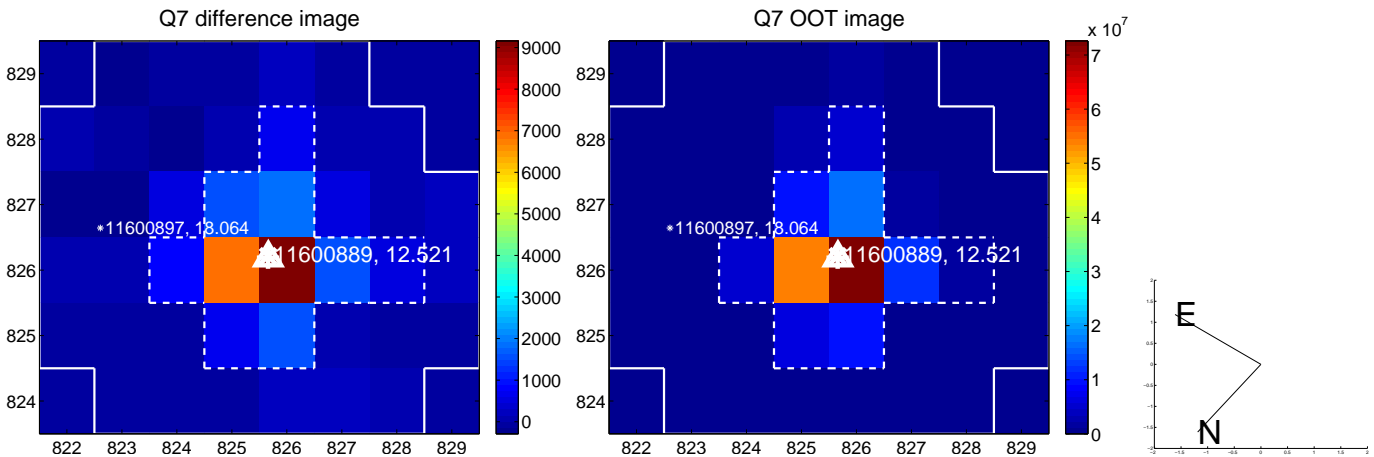
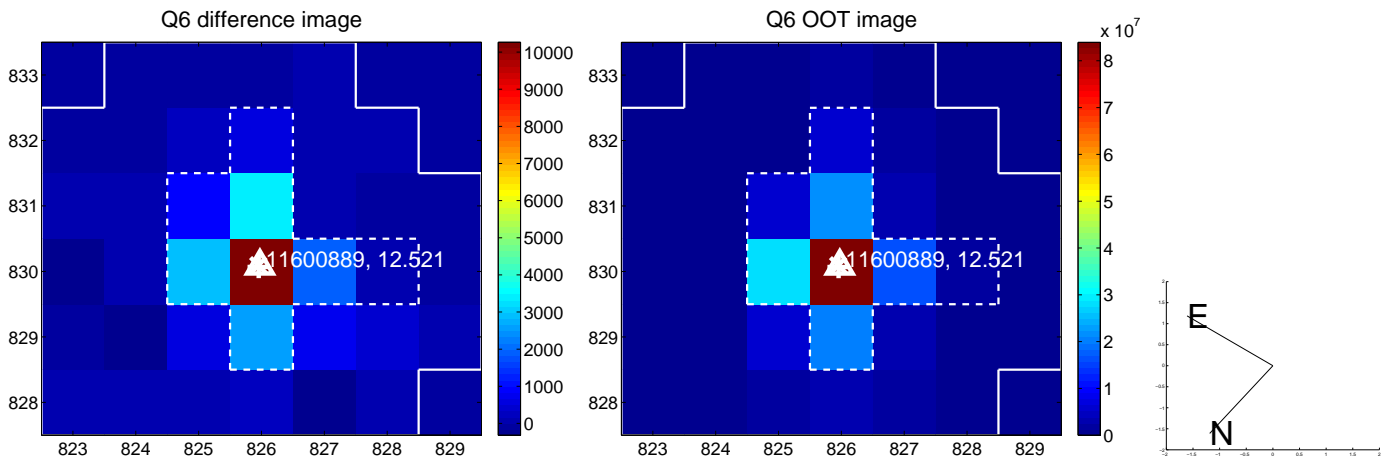
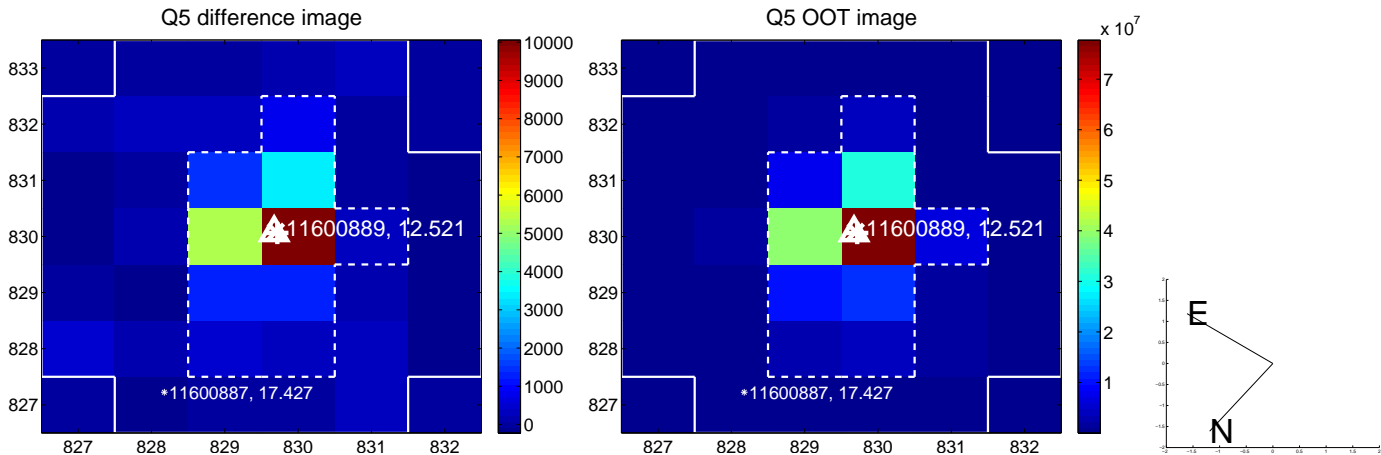


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

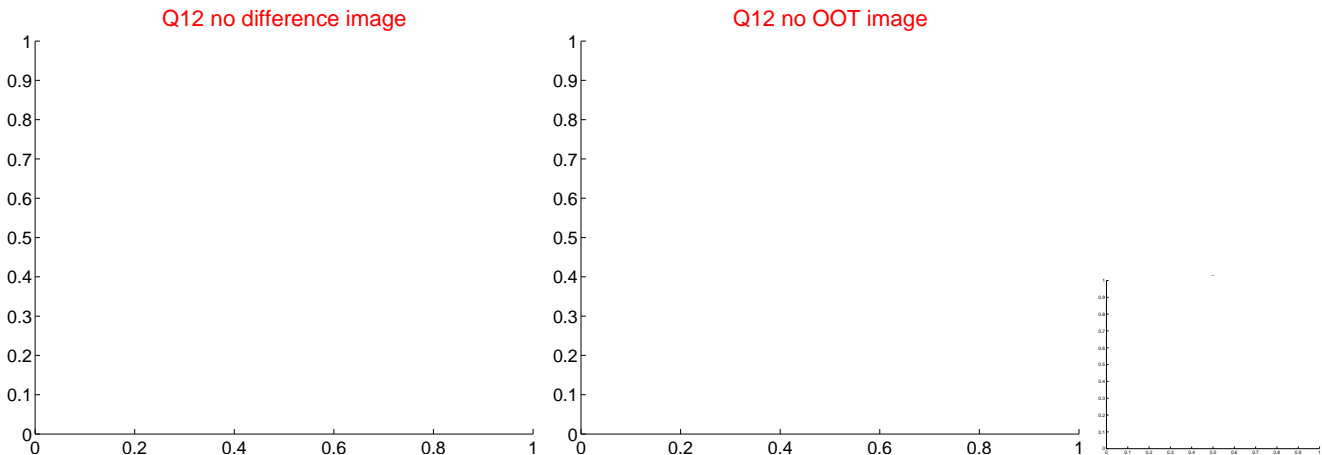
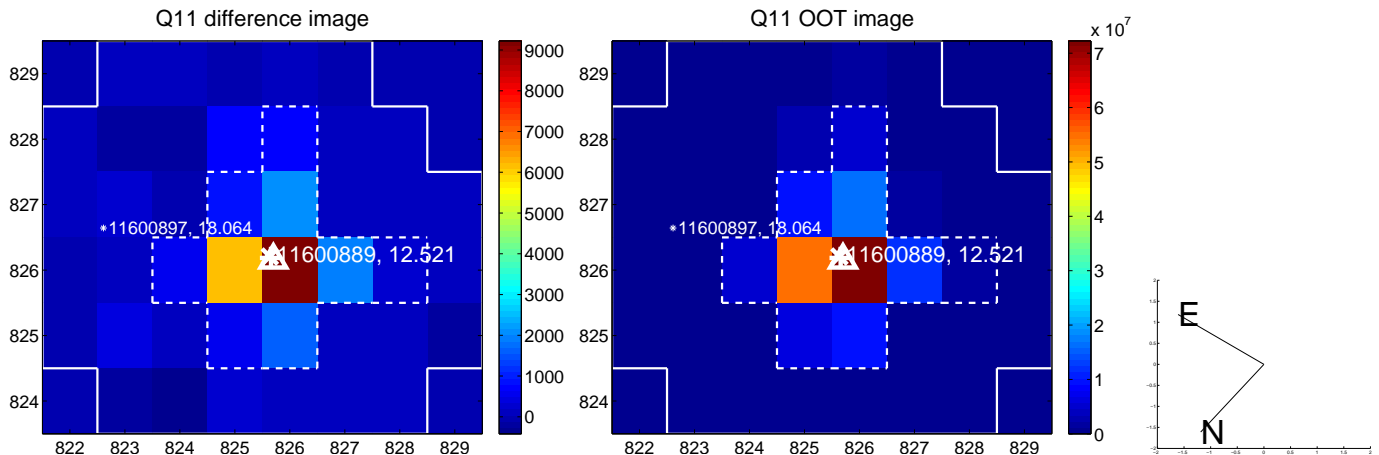
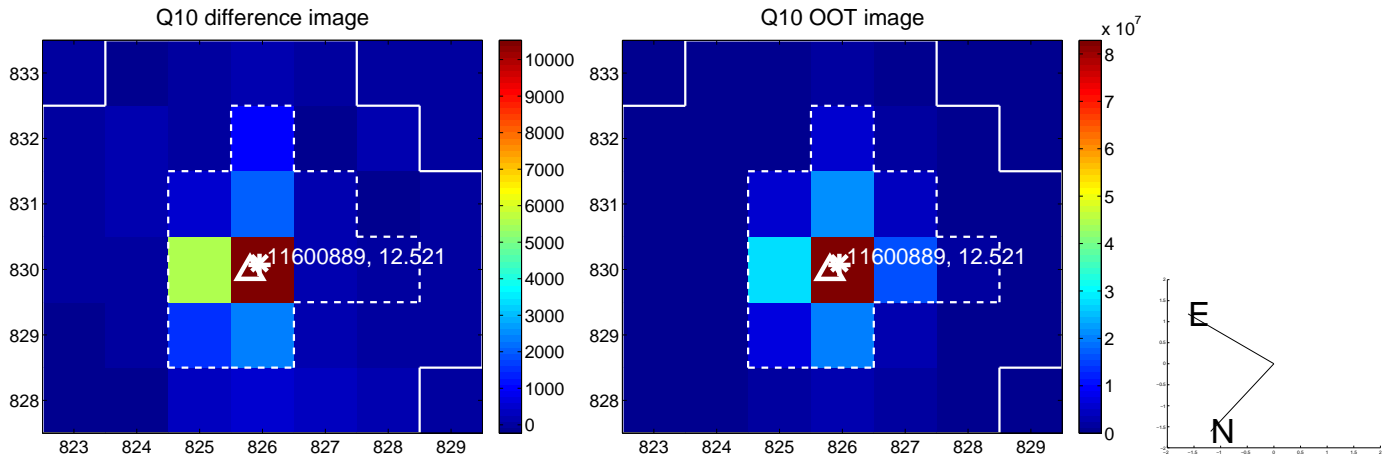
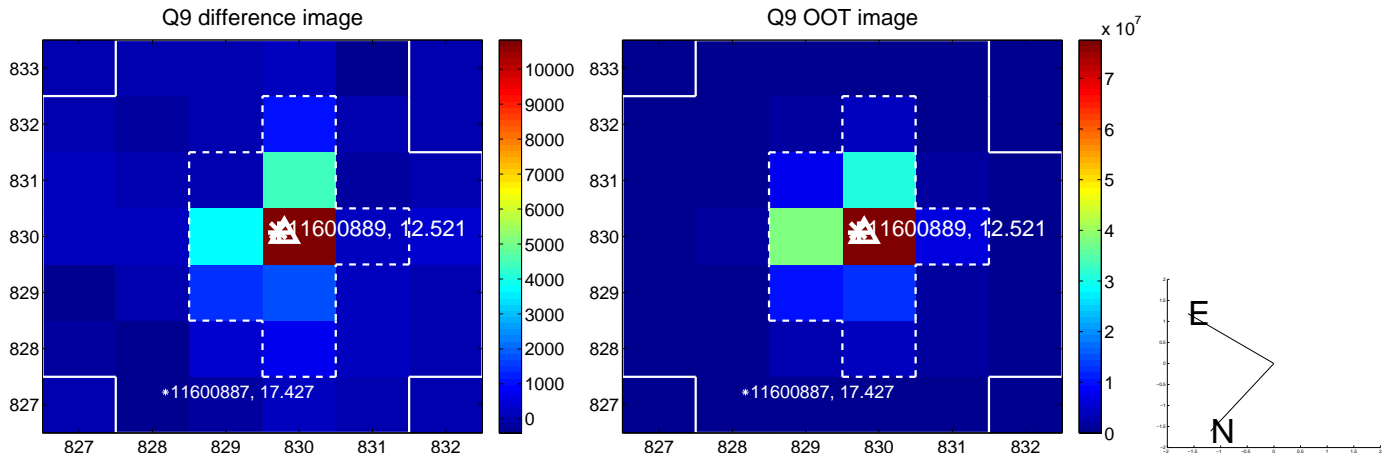
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



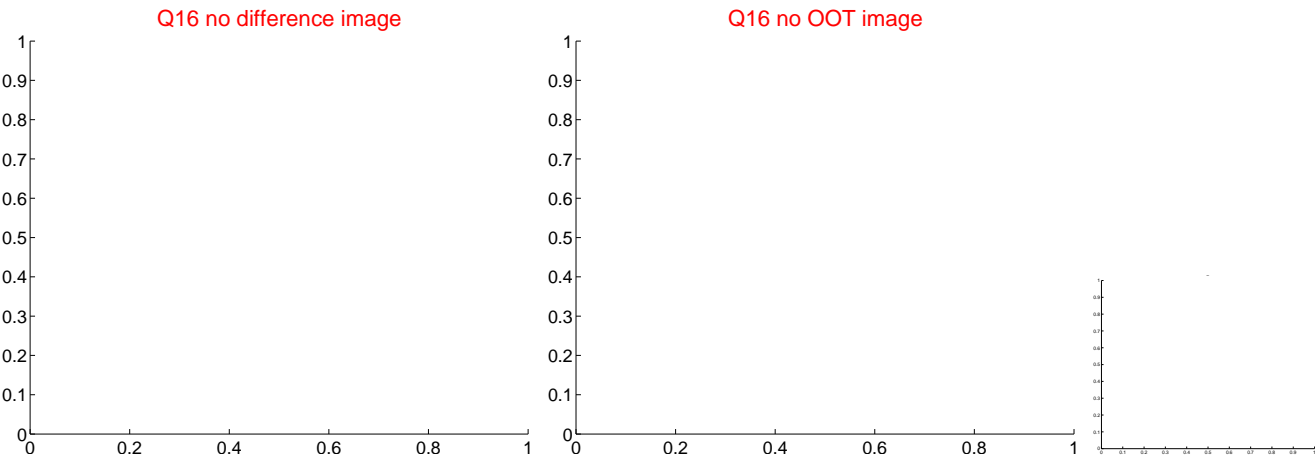
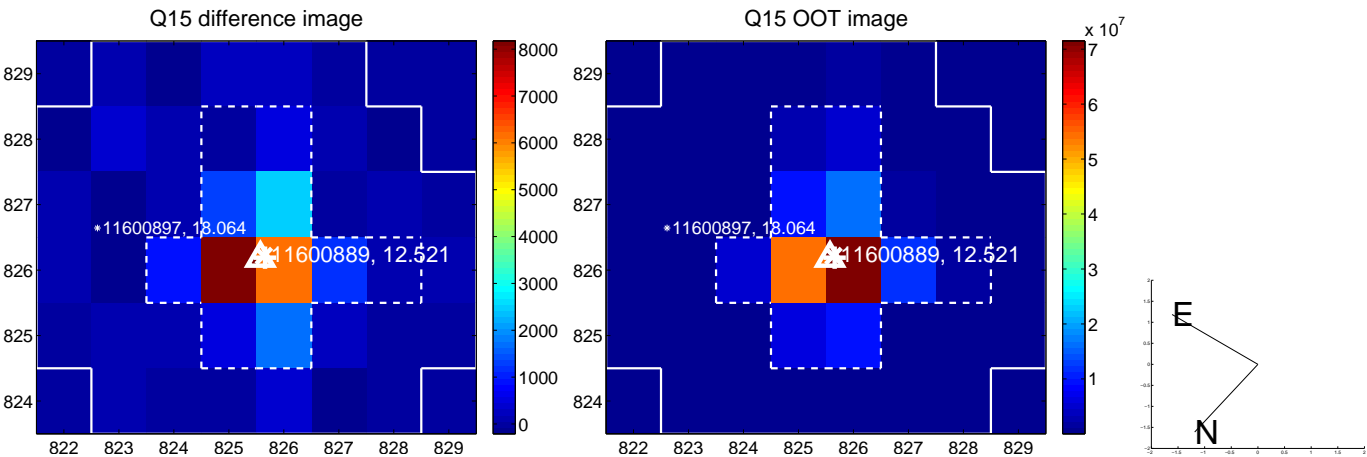
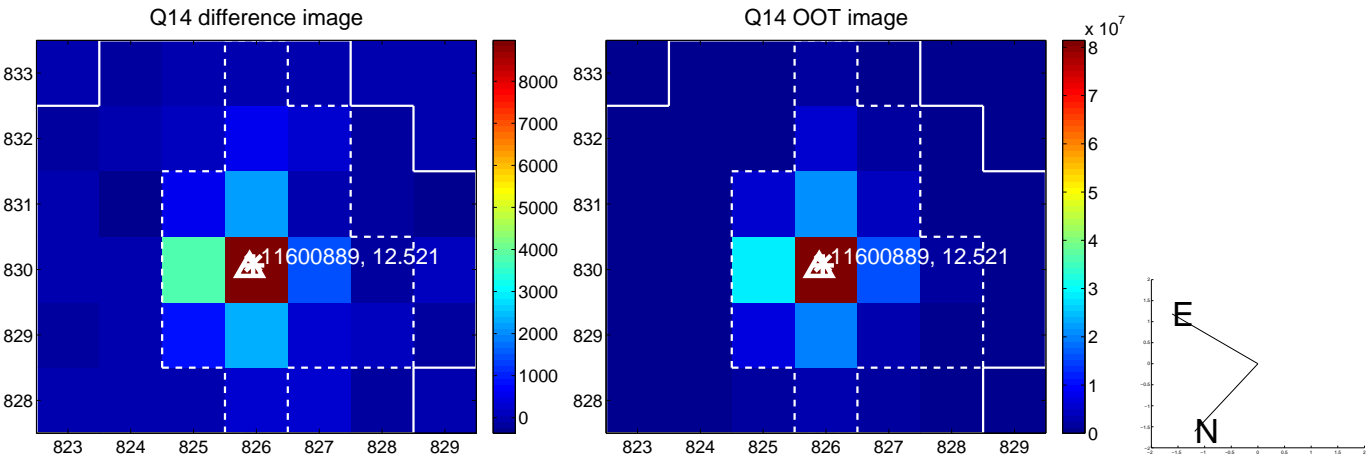
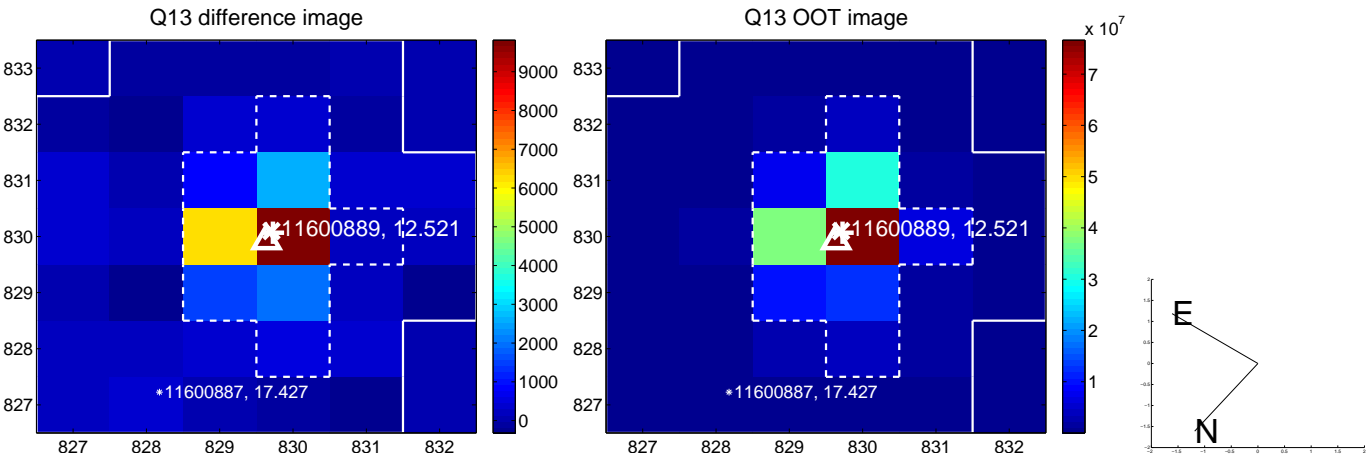
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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



UKIRT Image

Declination

