

KIC 008587729

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})
008587729-01	OBS	No	1.288590	132.626973	151.5	1.061	8.2	8.0	0.70	5236	0.93	735.72

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008587729-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

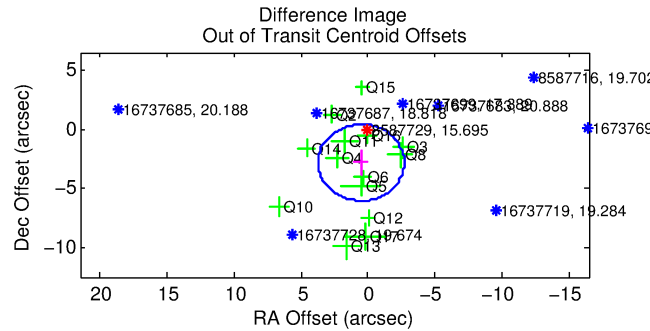
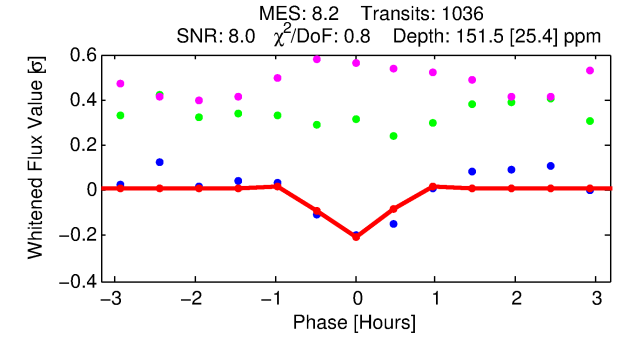
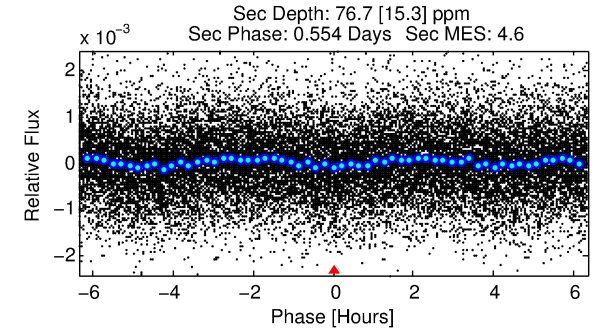
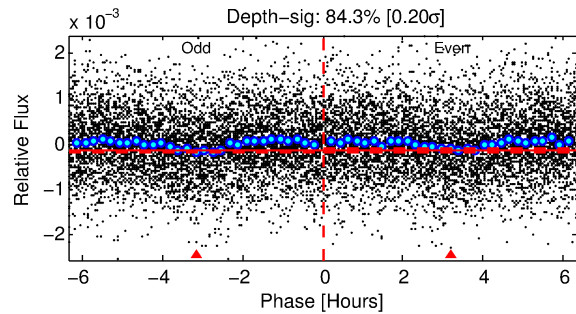
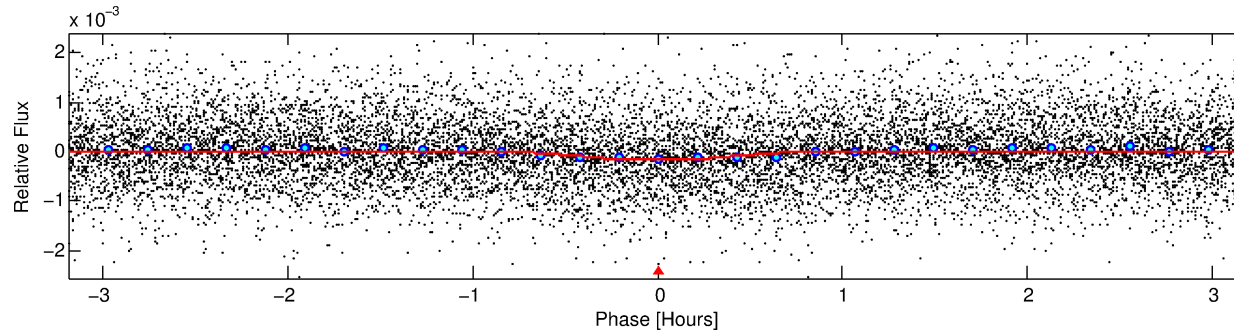
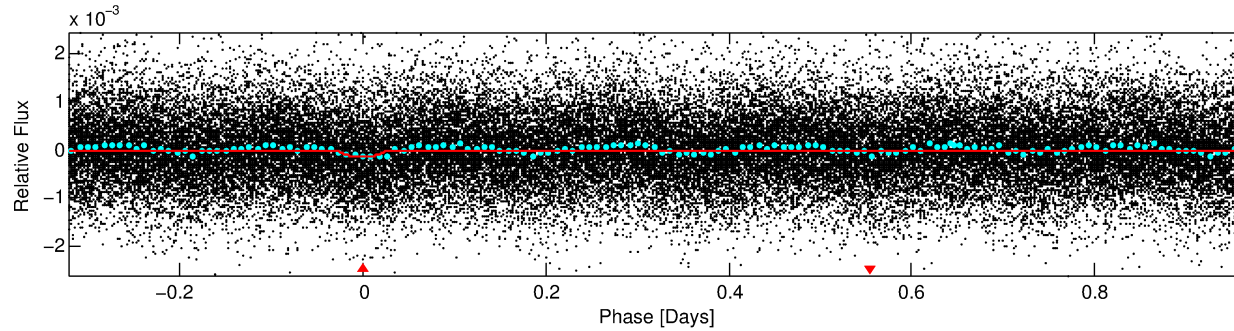
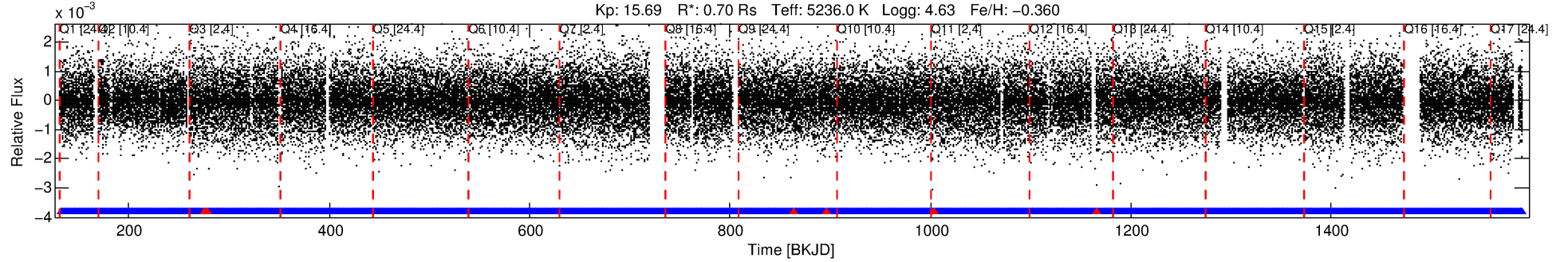
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008587729-01

No Significant Match Found

DV One-Page Summary

KIC: 8587729 Candidate: 1 of 1 Period: 1.289 d



DV Fit Results:

Period = 1.28859 [0.00001] d
Epoch = 132.6270 [0.0021] BKJD
Rp/R* = 0.0121 [0.0097]
b = 0.70 [2.32]
Seff = 735.72 [148.16]
Teq = 1328 [67] K
Rp = 0.93 [0.75] Re
a = 0.0213 [0.0025] AU
Ag = 22.00 [35.49] [0.59 σ]
Teffp = 4447 [1789] K [1.74 σ]

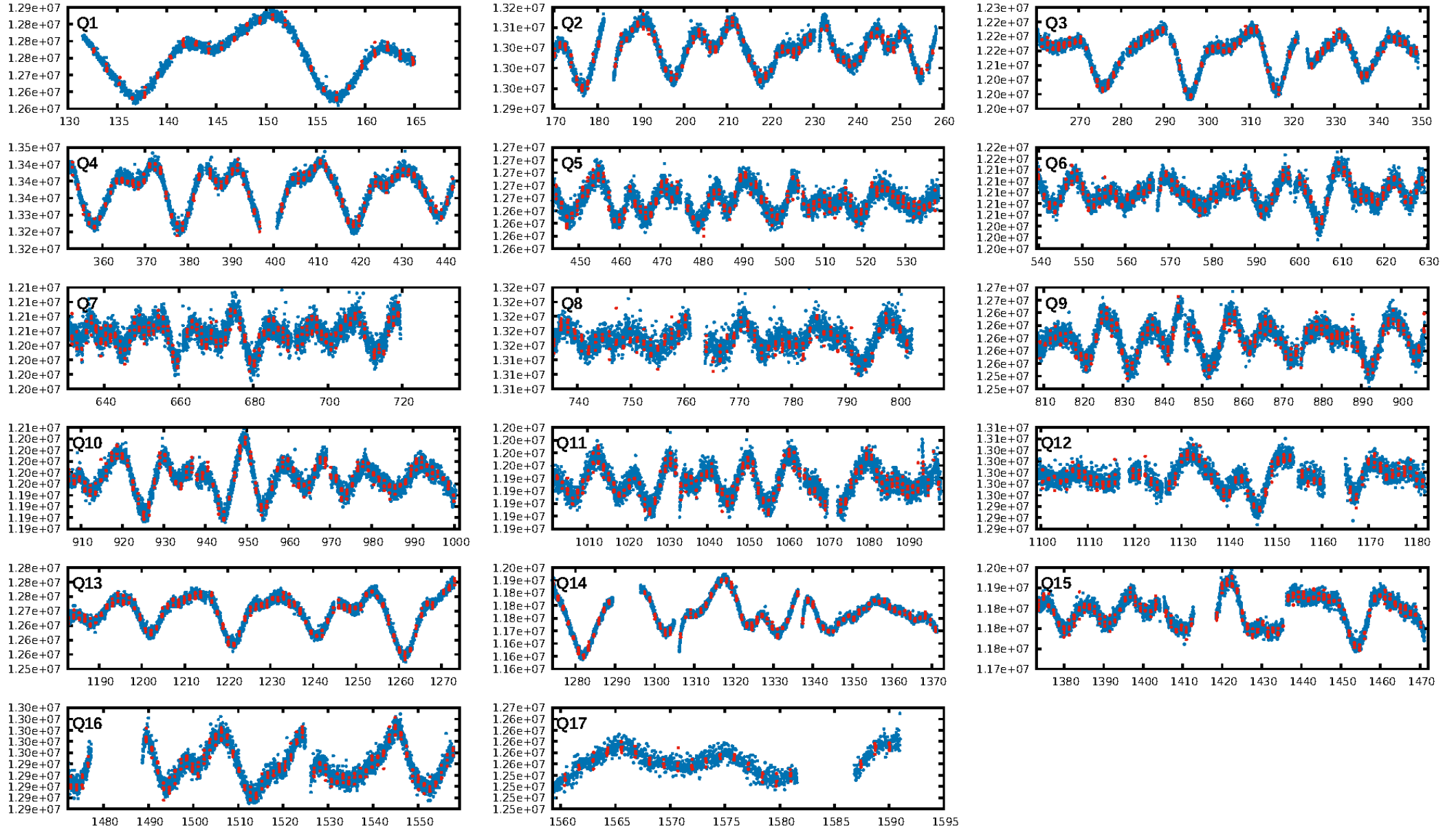
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.15e-15
RollingBand-fgt: 0.99 [984/990]
GhostDiagnostic-chr: 1.154
Centroid-sig: 0.0%
Centroid-so: 3.007 arcsec [1.89 σ]
OotOffset-rm: 2.876 arcsec [2.67 σ]
KicOffset-rm: 2.685 arcsec [2.50 σ]
OotOffset-st: 4/3/4/3 [14]
KicOffset-st: 4/3/4/3 [14]
DiffImageQuality-fgm: 0.07 [1/14]
DiffImageOverlap-fno: 1.00 [17/17]

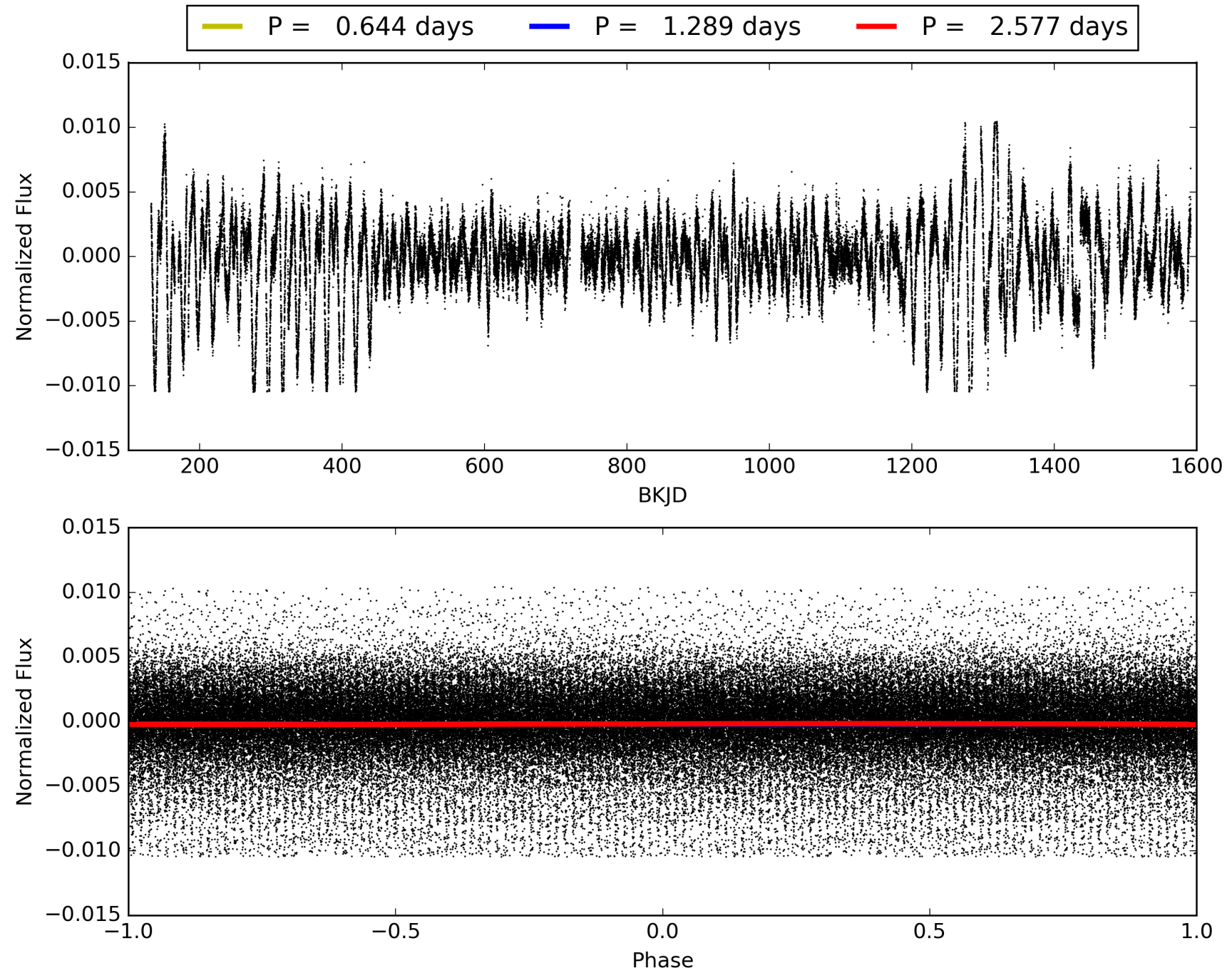
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 23:07:48 Z

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

TCE 008587729-01, PDC Light Curves

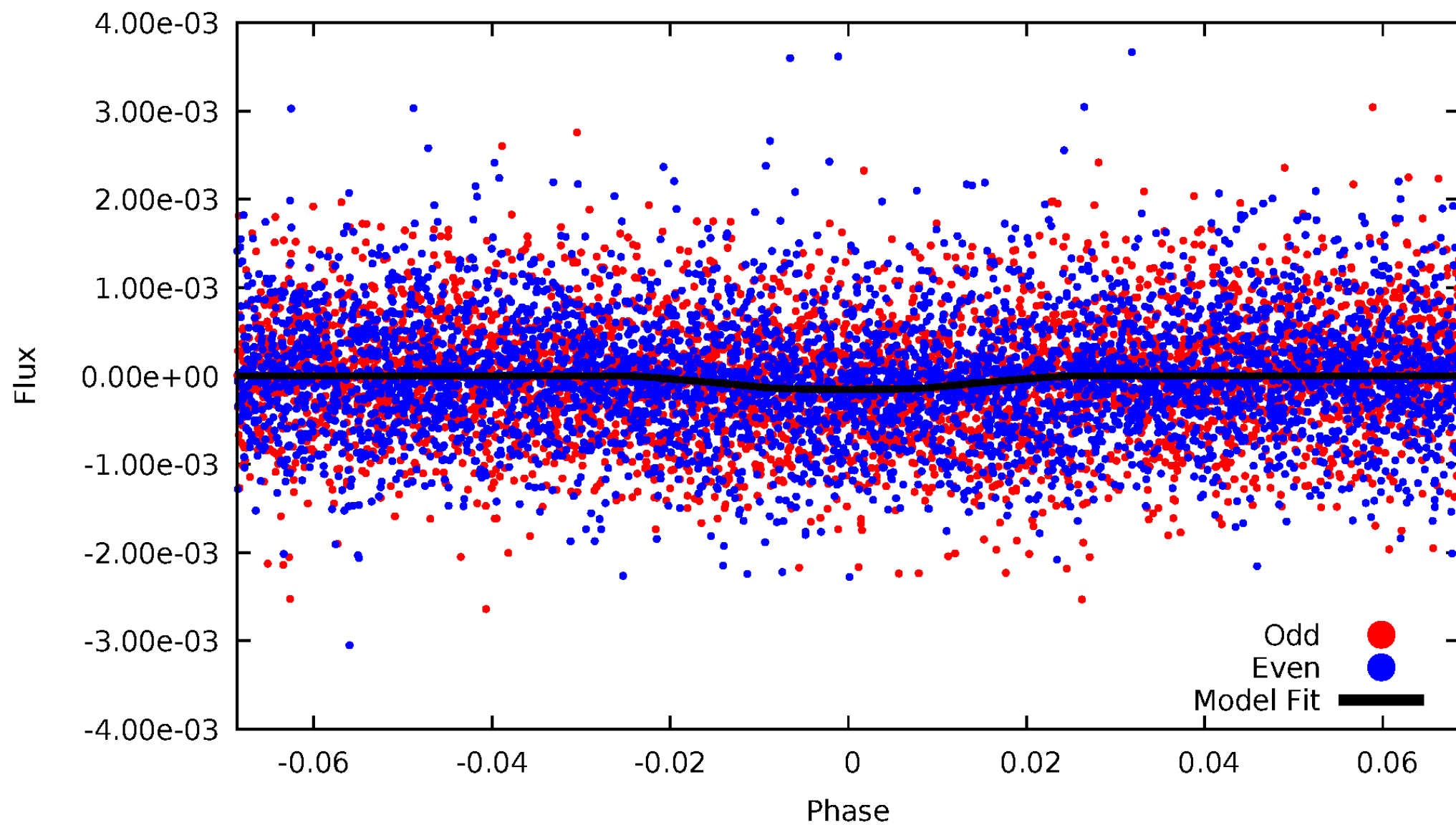


TCE 008587729-01



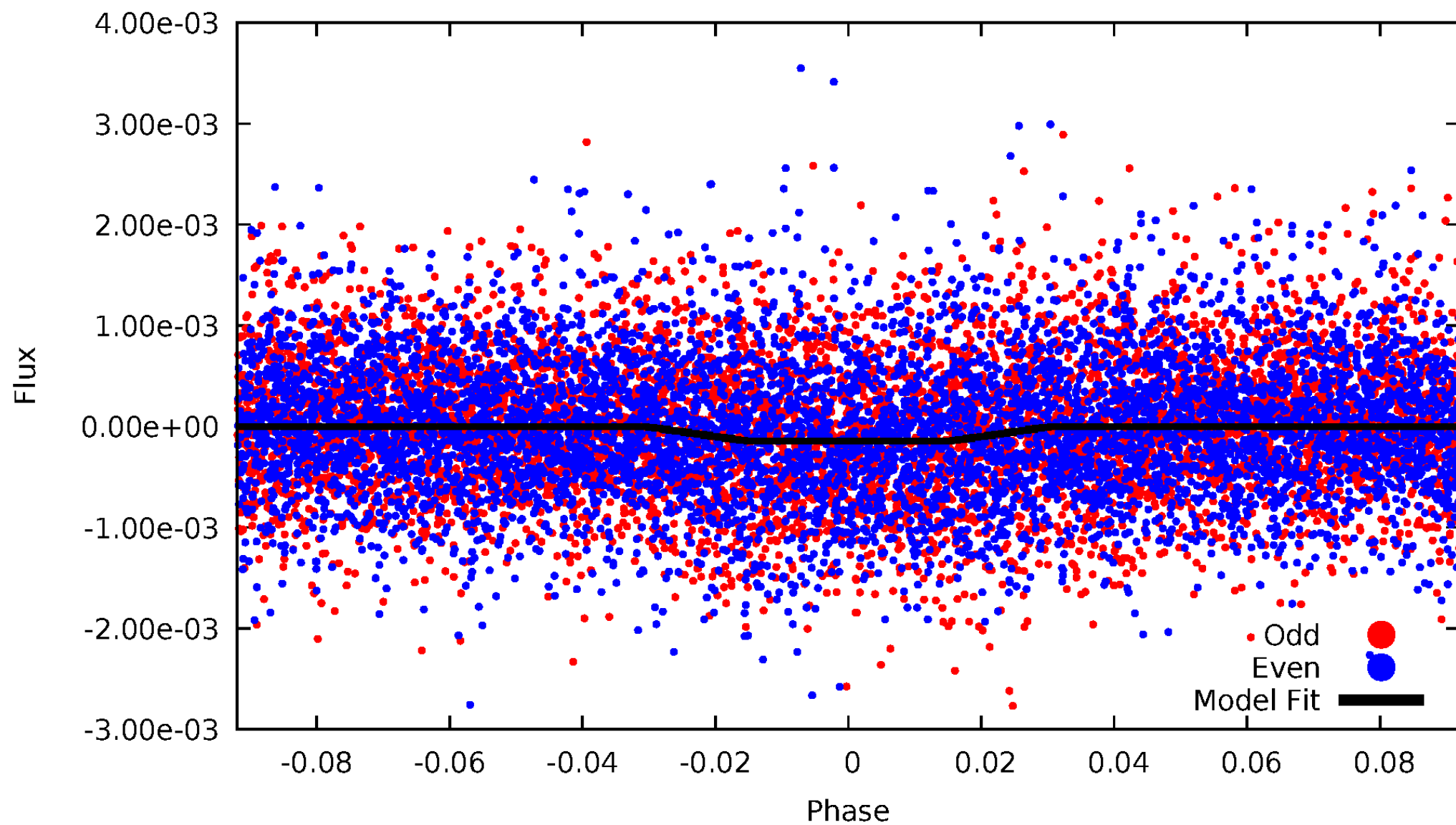
DV Odd/Even

TCE 008587729-01



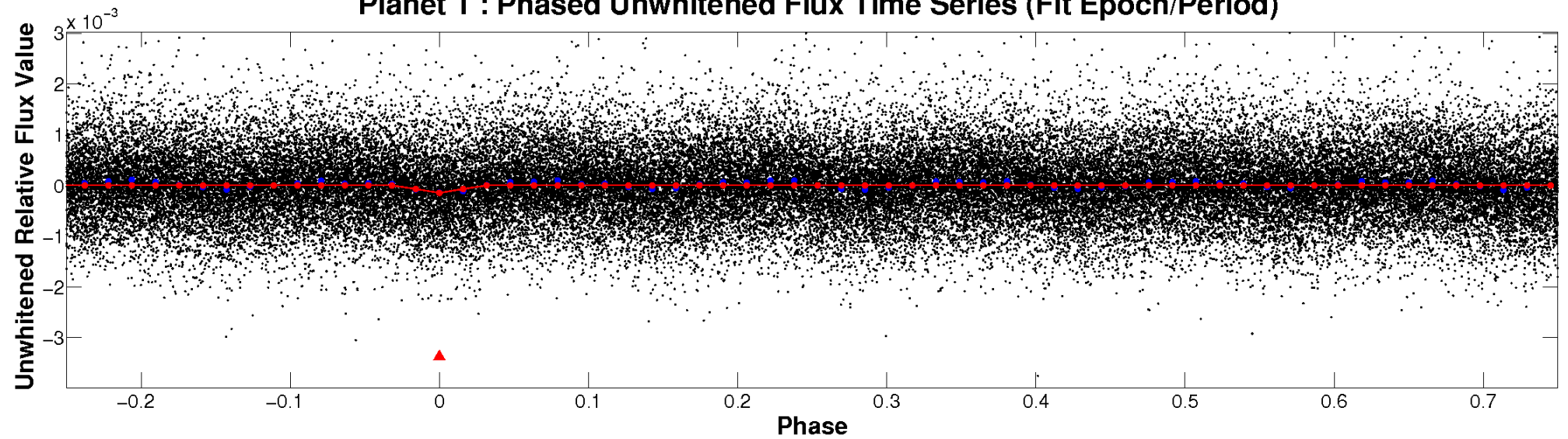
ALT Odd/Even

TCE 008587729-01

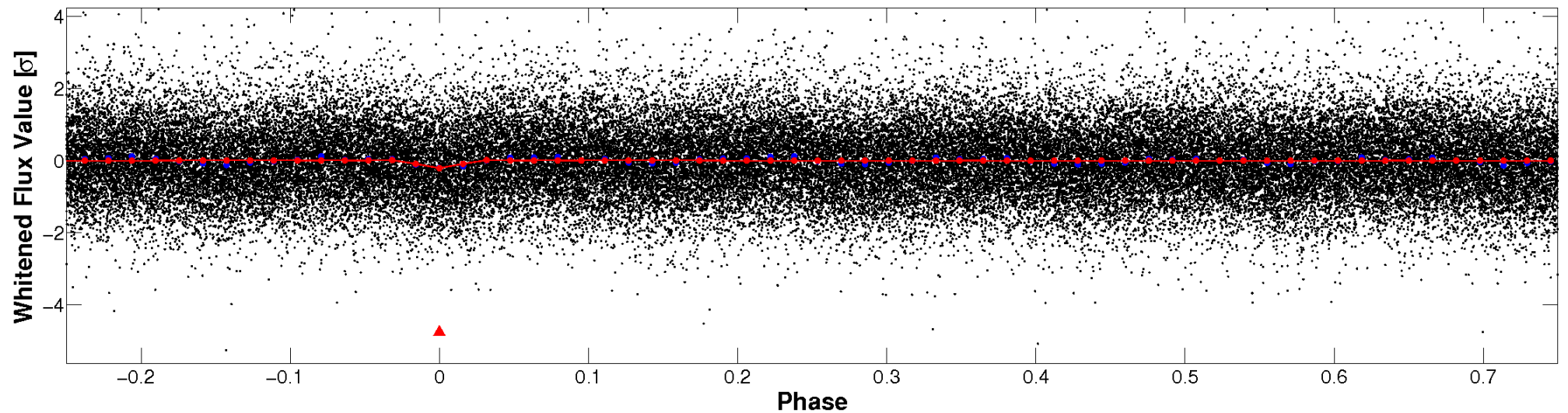


Non-Whitened Vs. Whitened Light Curve

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

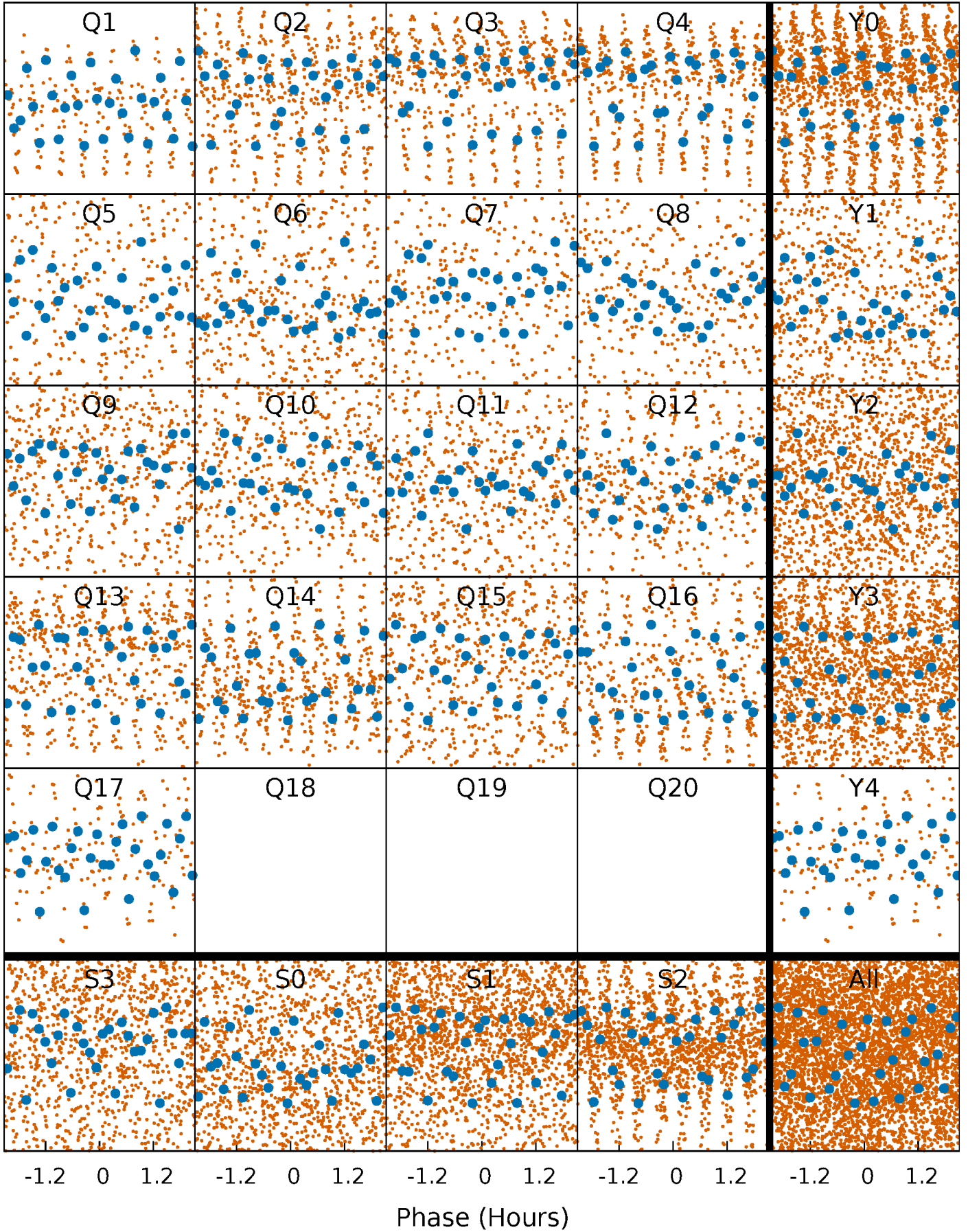


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



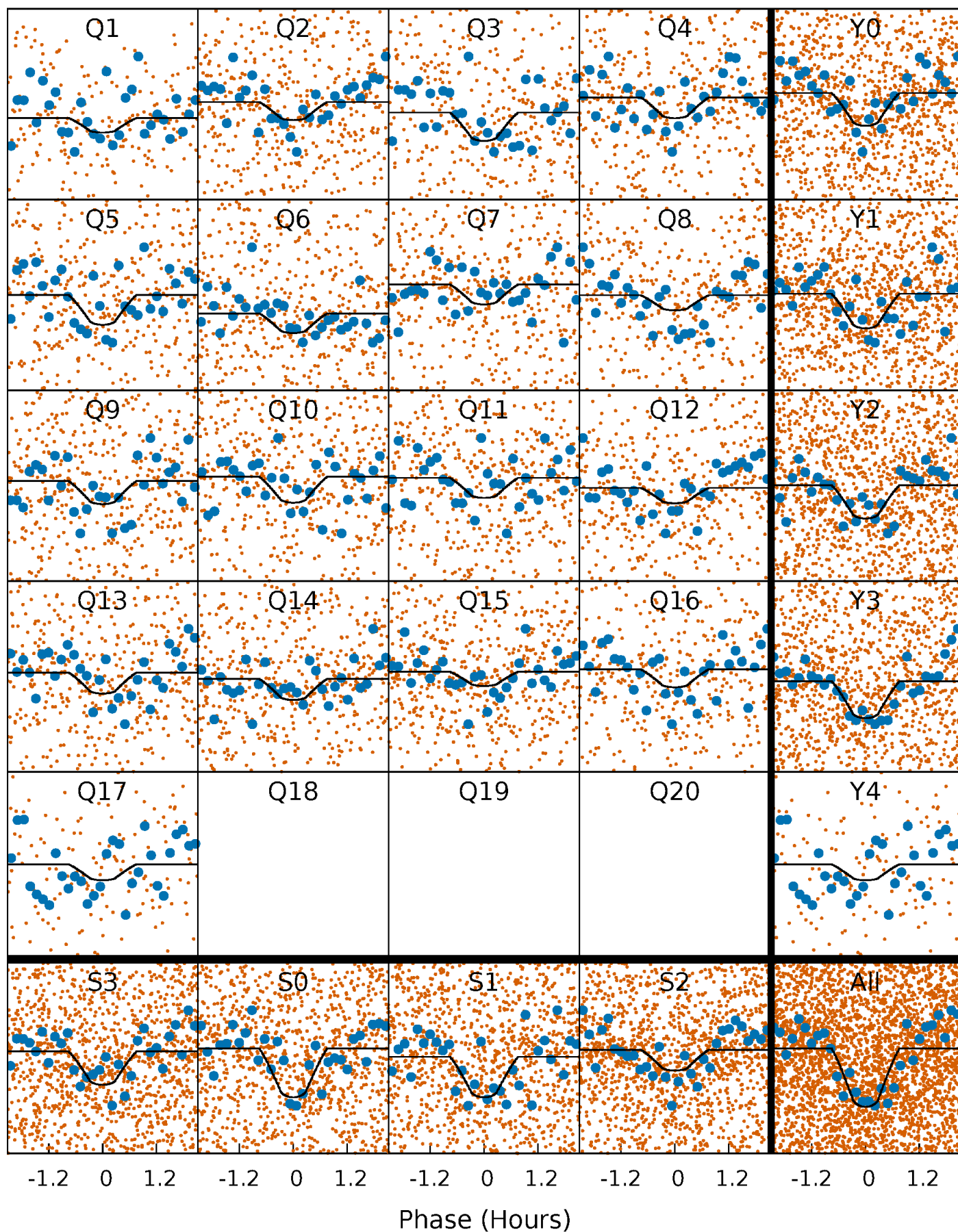
PDC Quarter-Phased Transit Curves

TCE 008587729-01 P= 1.288590 Days $T_0=132.626973$ (BKJD)



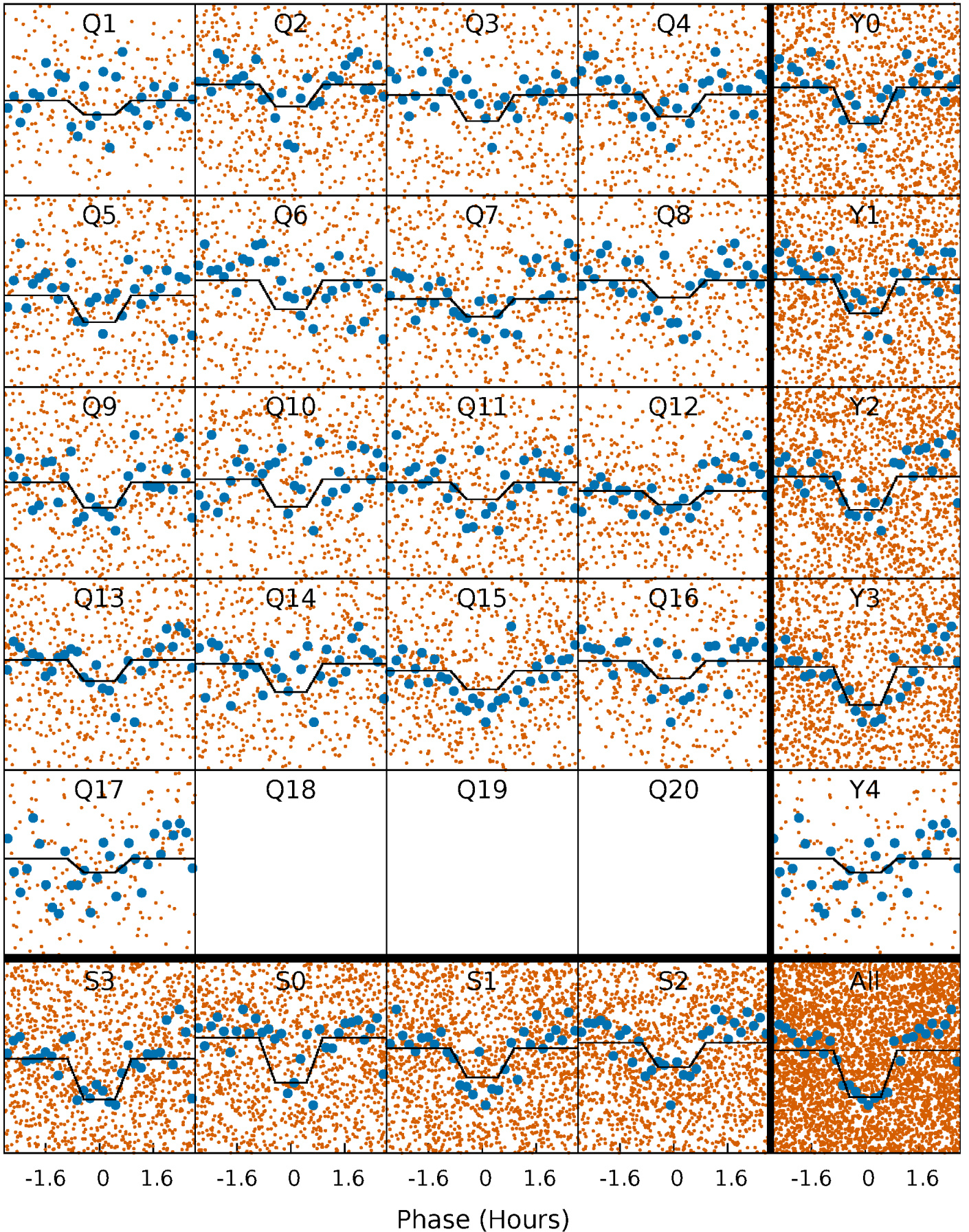
DV Quarter-Phased Transit Curves

TCE 008587729-01 P= 1.288590 Days $T_0=132.626973$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

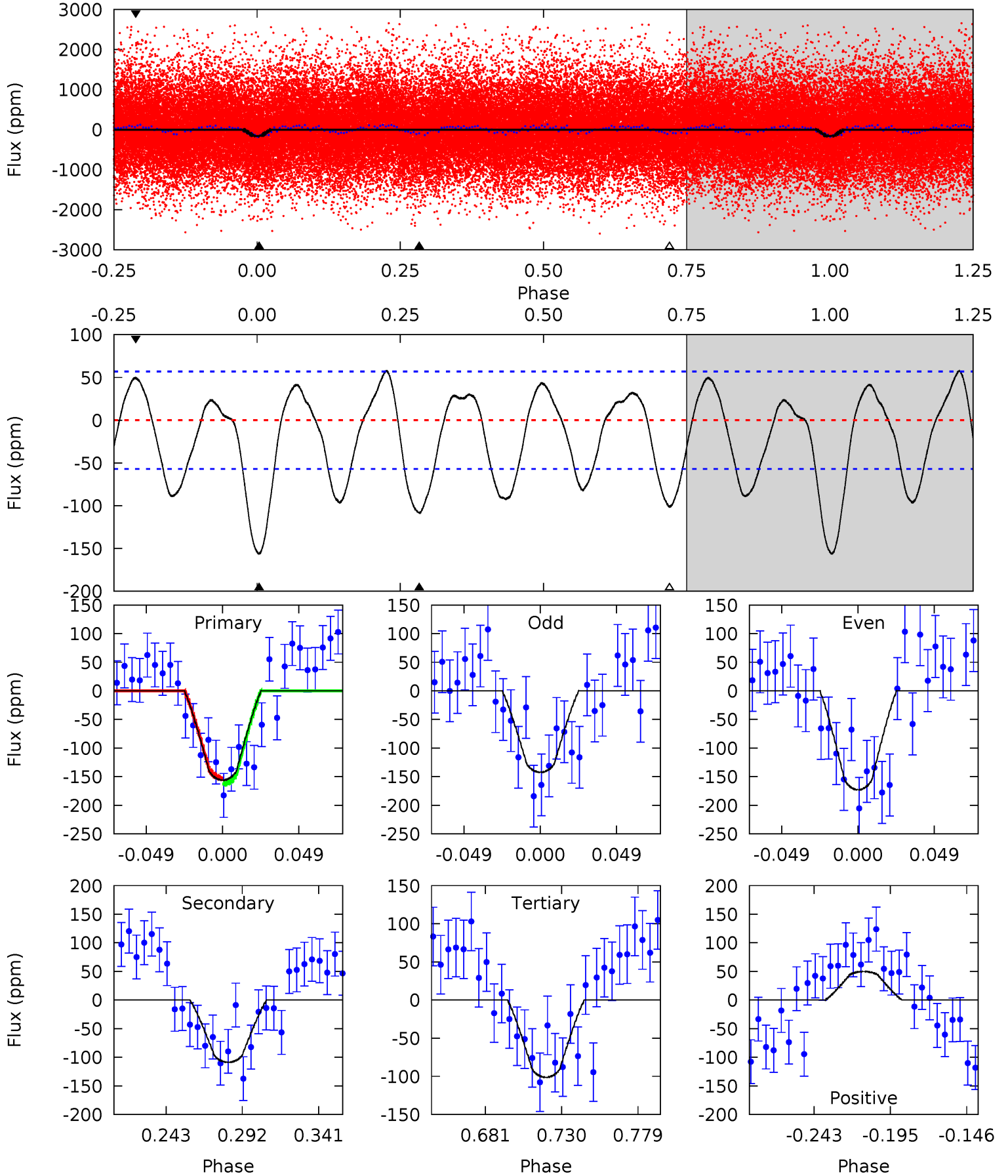
TCE 008587729-01 P= 1.288592 Days $T_0=132.626727$ (BKJD)



DV Model-Shift Uniqueness Test

008587729-01, P = 1.288590 Days, E = 131.338383 Days

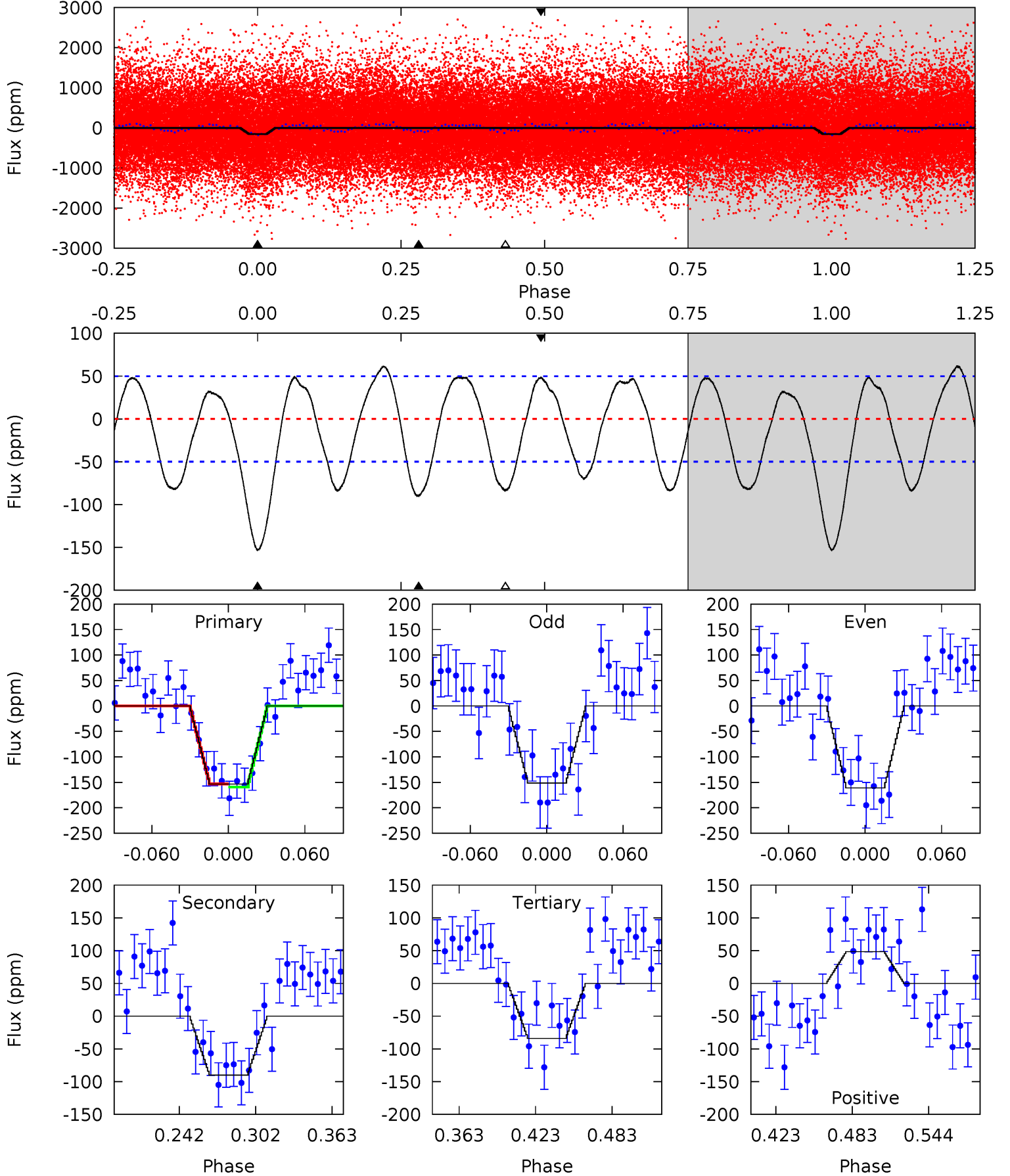
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.9	8.99	8.38	4.11	4.71	1.97	3.78	4.54	8.81	0.61	4.88	1.27	0.96	0.27	0.43



Alt Model-Shift Uniqueness Test

008587729-01, P = 1.288592 Days, E = 131.338135 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.4	8.46	7.88	4.55	4.67	1.88	4.27	6.52	9.85	0.58	3.91	0.46	1.02	0.29	0.29



Stellar Parameters For KIC 008587729

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5236^{+157}_{-157}	$4.632^{+0.036}_{-0.084}$	$-0.360^{+0.300}_{-0.300}$	$0.703^{+0.103}_{-0.055}$	$0.778^{+0.075}_{-0.083}$	$3.156^{+0.495}_{-0.910}$
	+3%/-3%	+1%/-2%	+83%/-83%	+15%/-8%	+10%/-11%	+16%/-29%
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 008587729-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-109±12	$1.03^{+0.75}_{-0.64}$	1871^{+77}_{-71}	4703^{+2853}_{-871}	25^{+150}_{-16}
Alt.	-90±11	$1.05^{+0.75}_{-0.64}$	1879^{+71}_{-75}	4515^{+2432}_{-801}	21^{+110}_{-14}

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

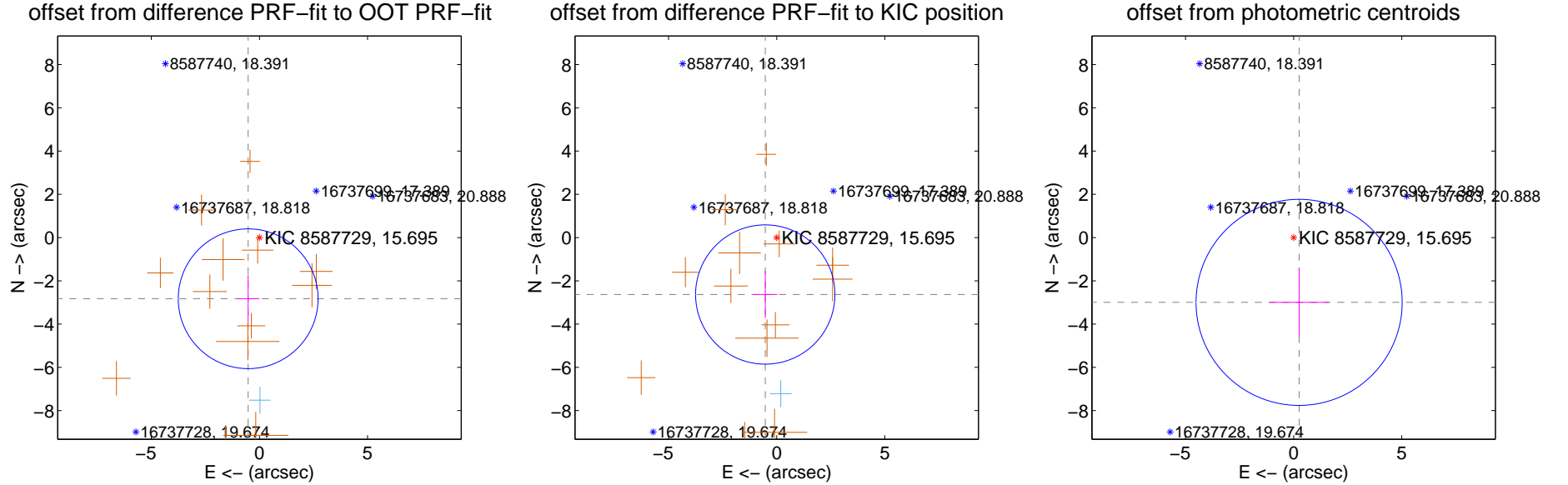
DV Centroid Data

Supplemental centroid analysis for 008587729-01. Kepler magnitude: 15.70. Transit SNR 8.02

There are 1 quarters with good PRF difference image offsets

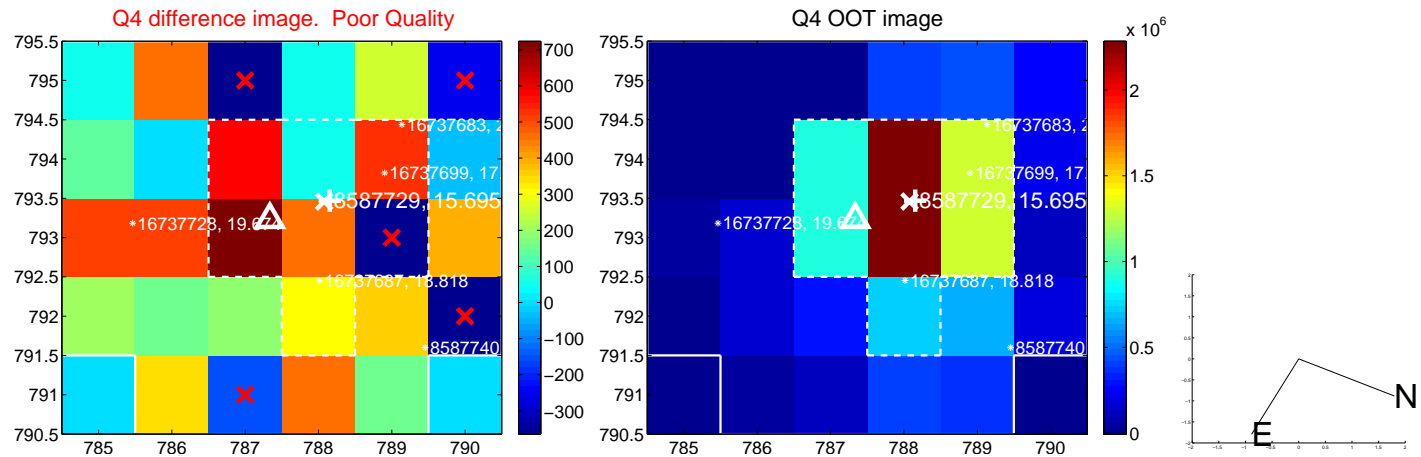
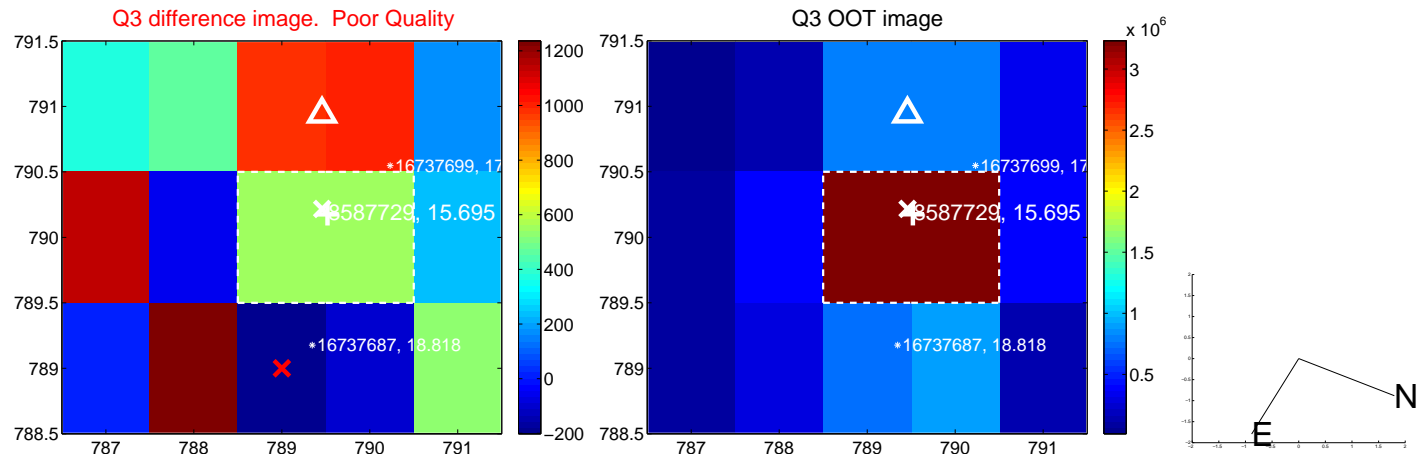
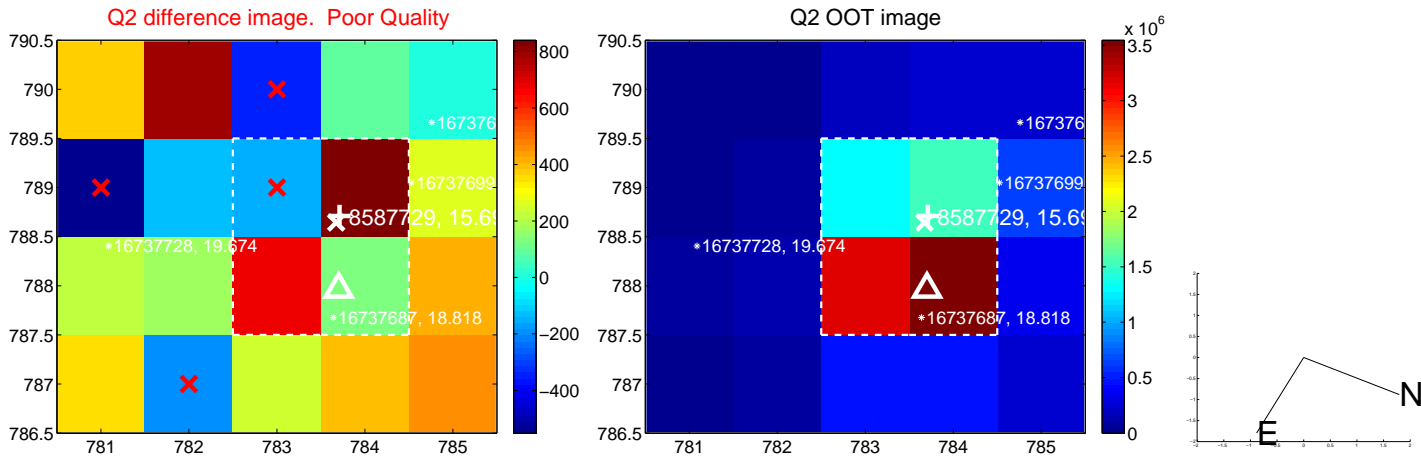
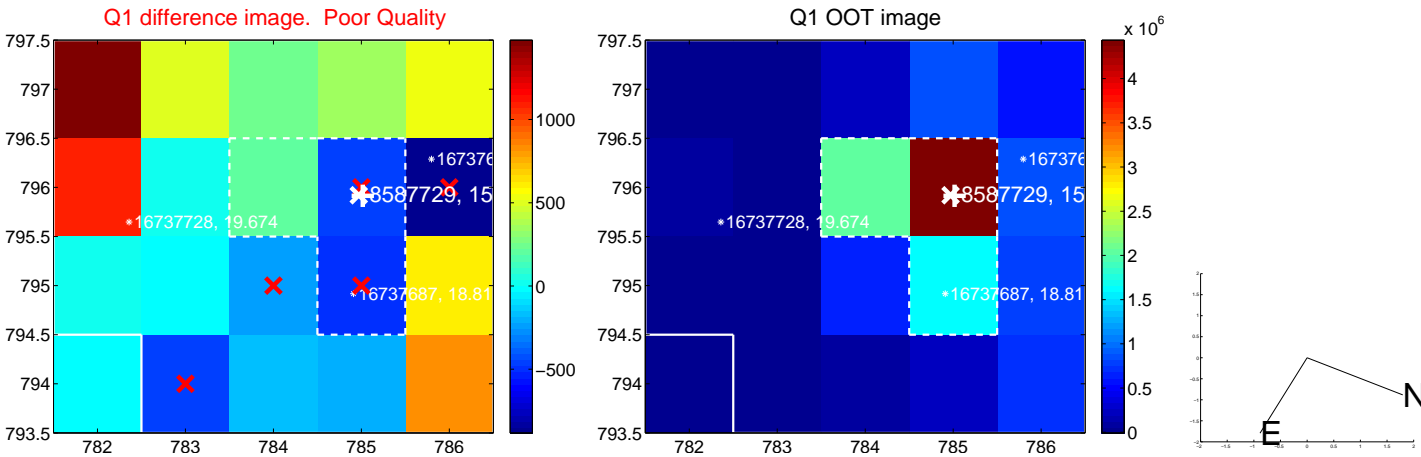
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.876 ± 1.077	2.67	0.521 ± 0.524	-2.828 ± 1.091
PRF-fit source offset from KIC position	2.685 ± 1.073	2.50	0.529 ± 0.553	-2.632 ± 1.089
photometric centroid source offset	3.01 ± 1.59	1.89	-0.25 ± 1.38	-3.00 ± 1.59

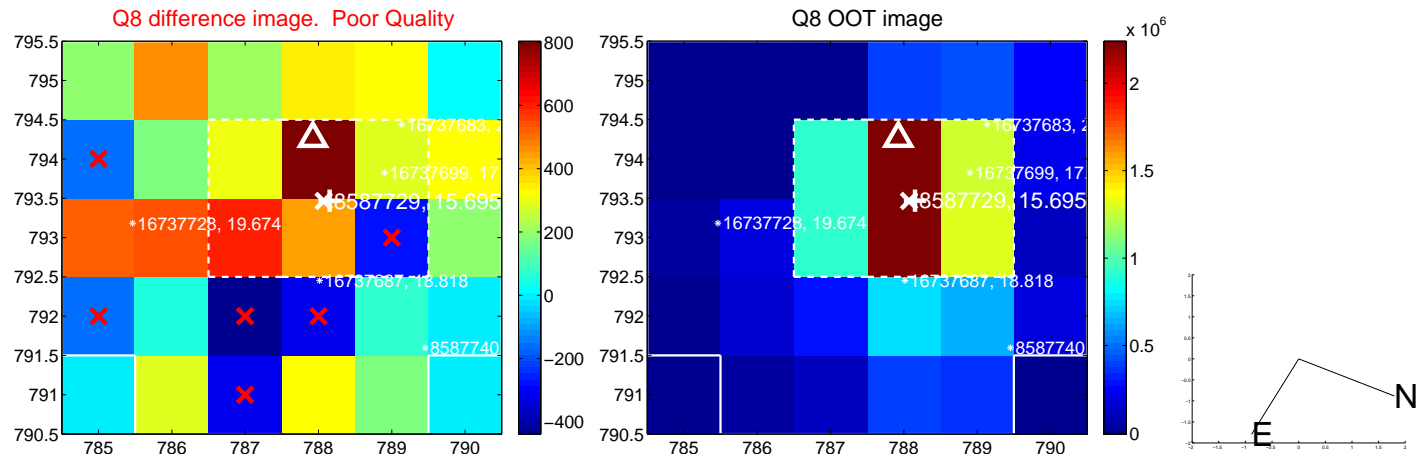
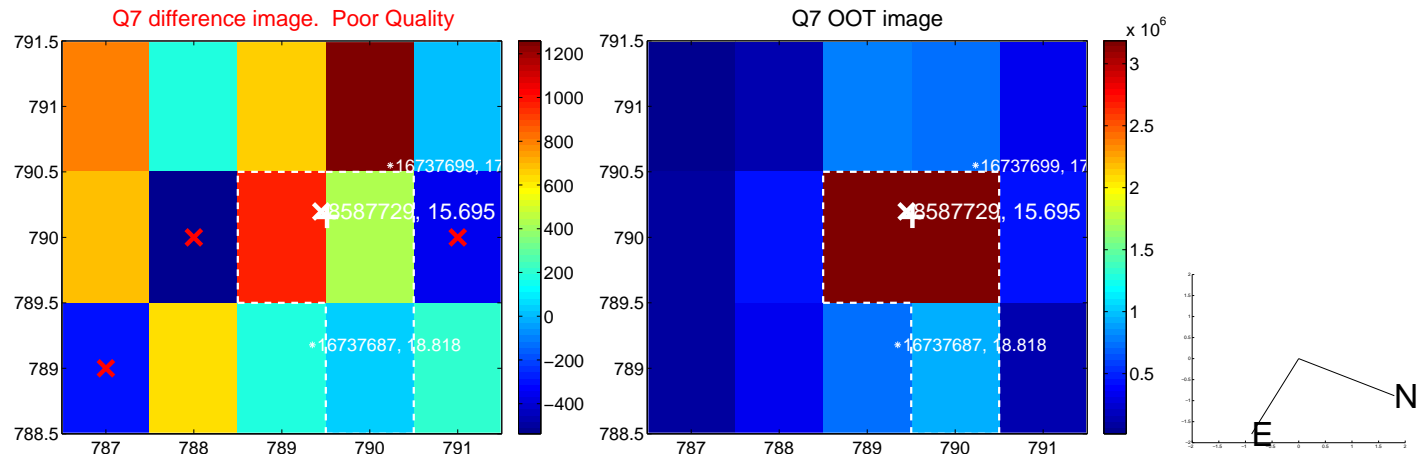
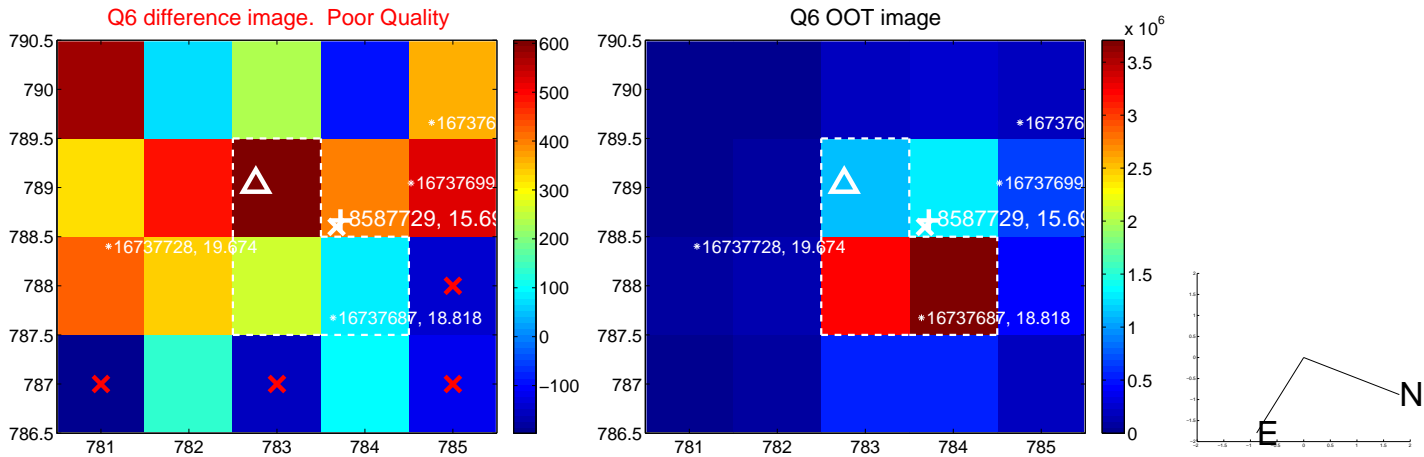
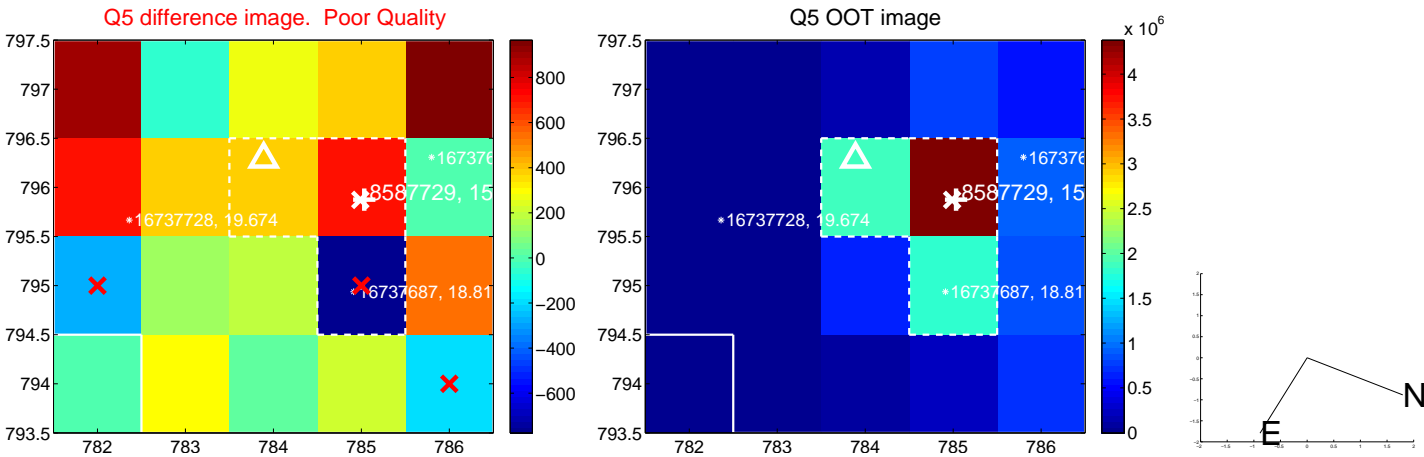


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

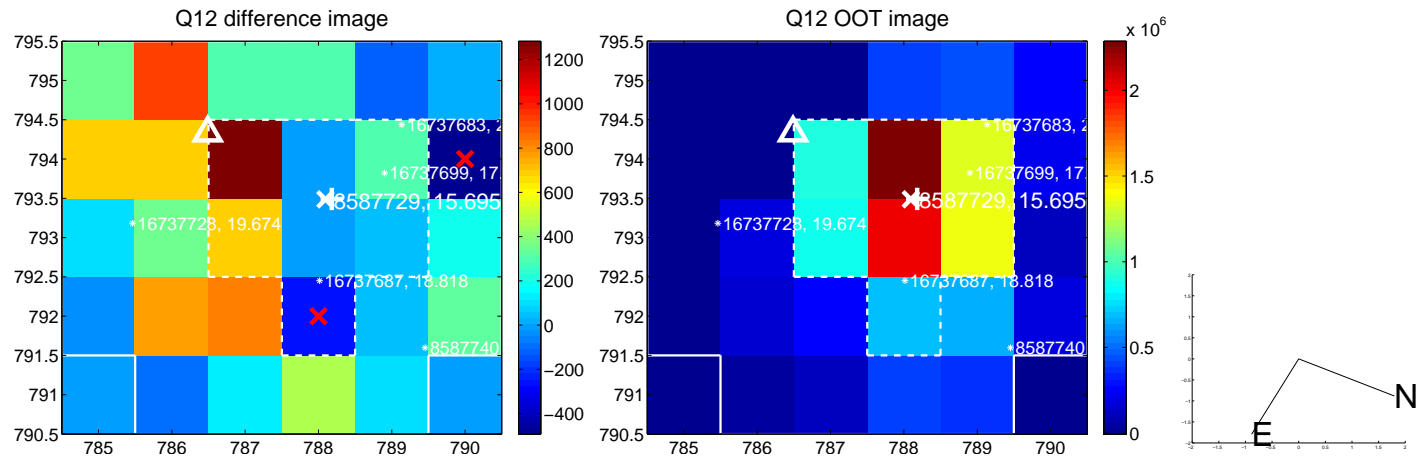
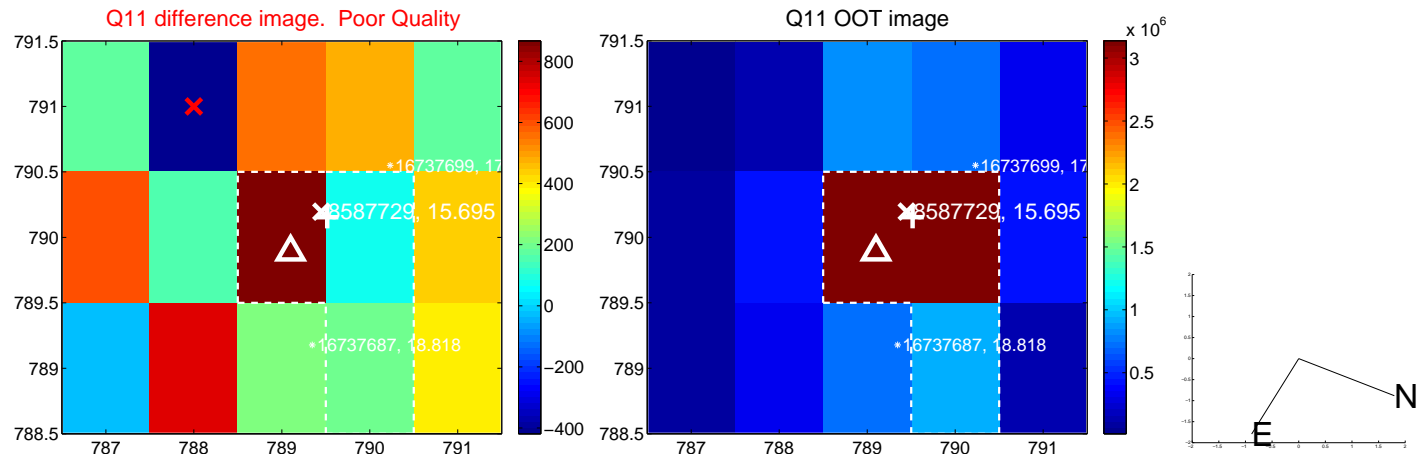
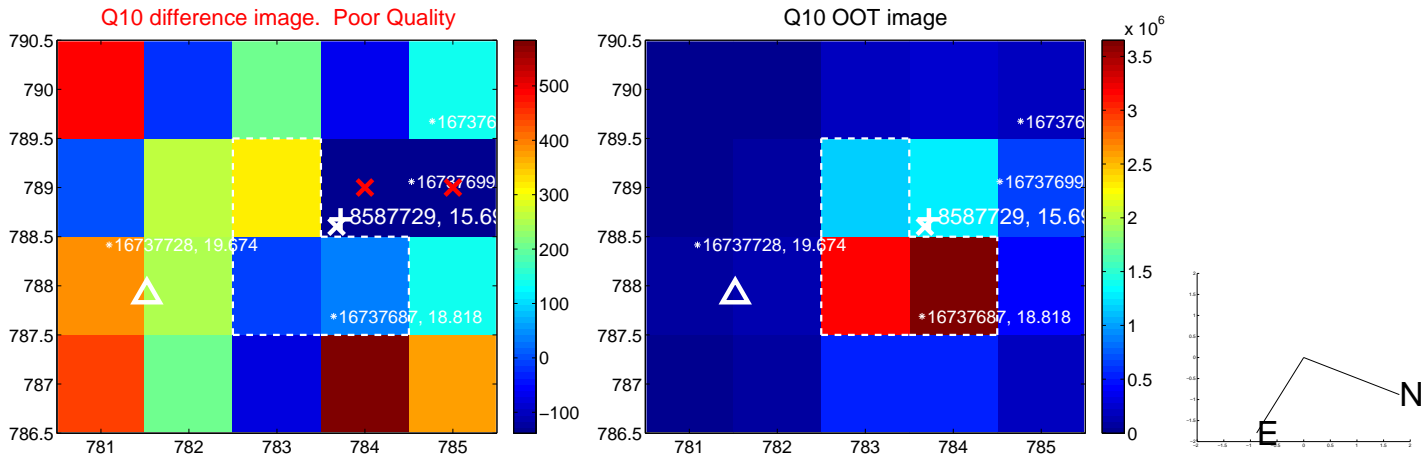
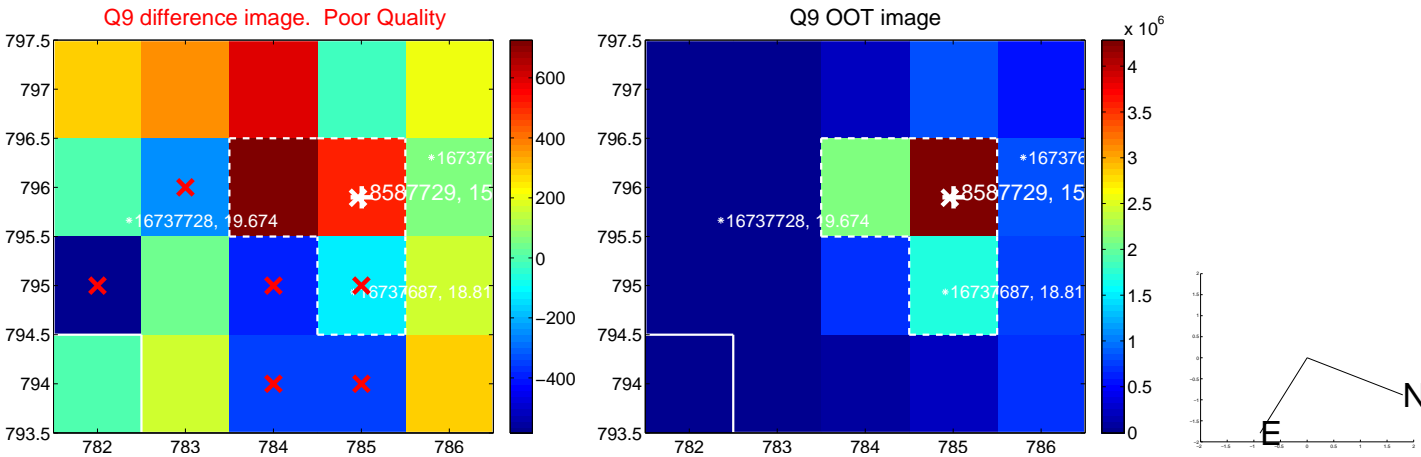
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



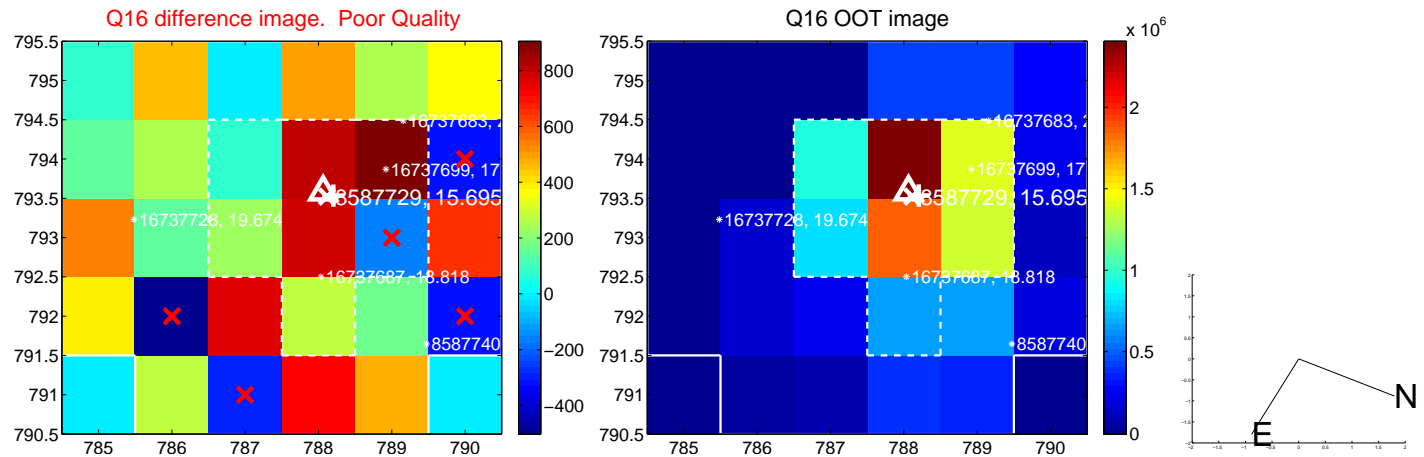
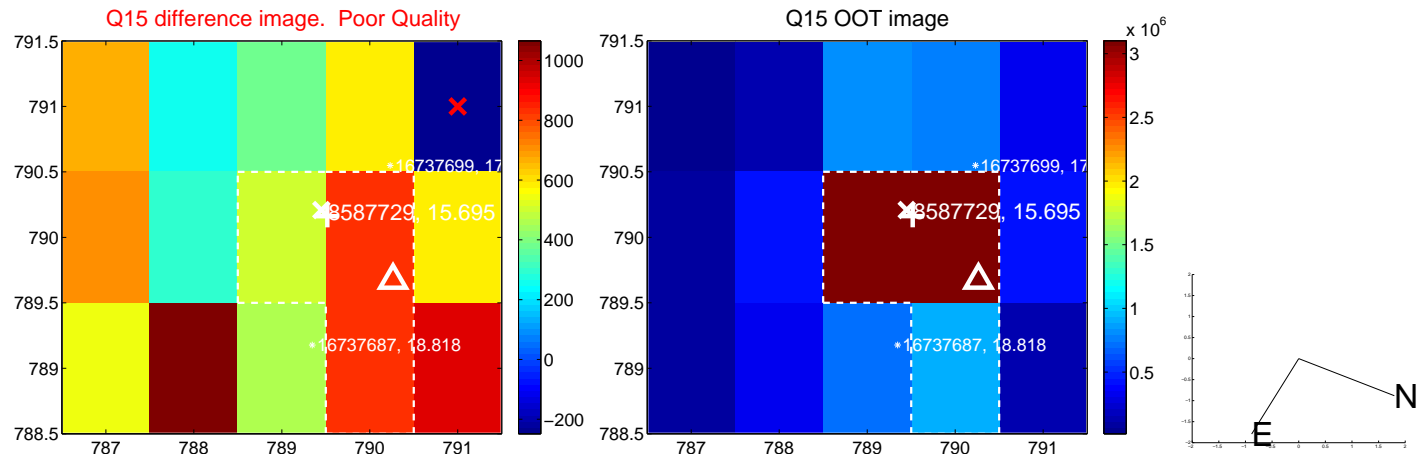
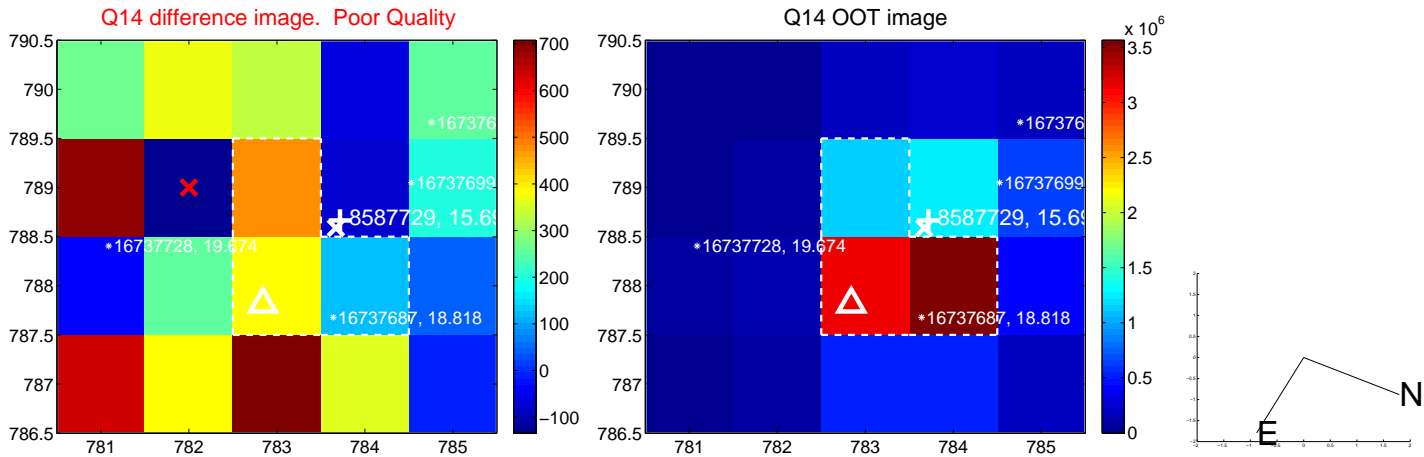
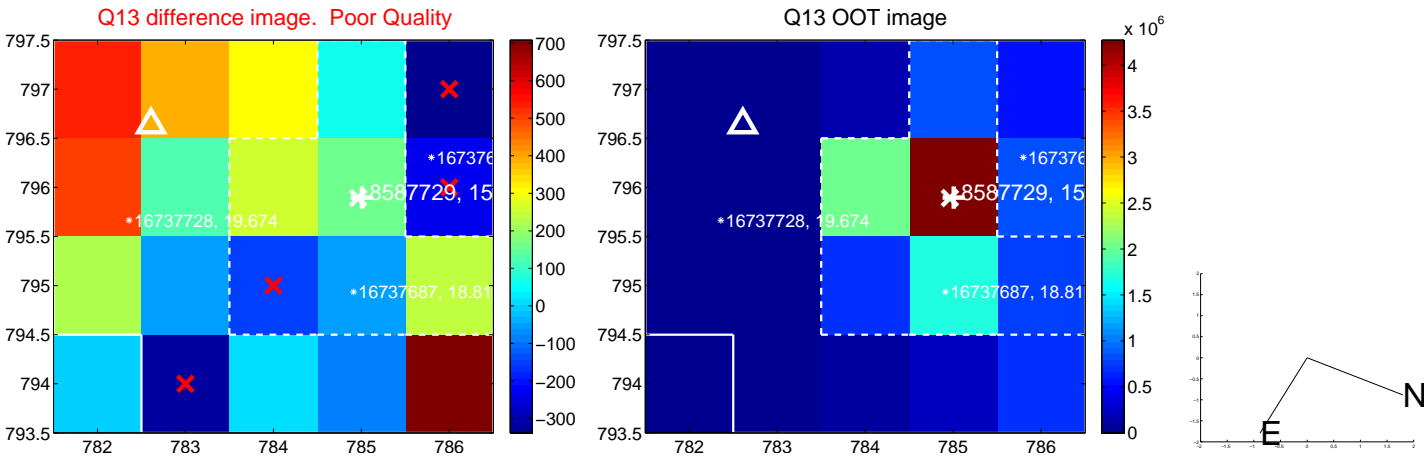
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



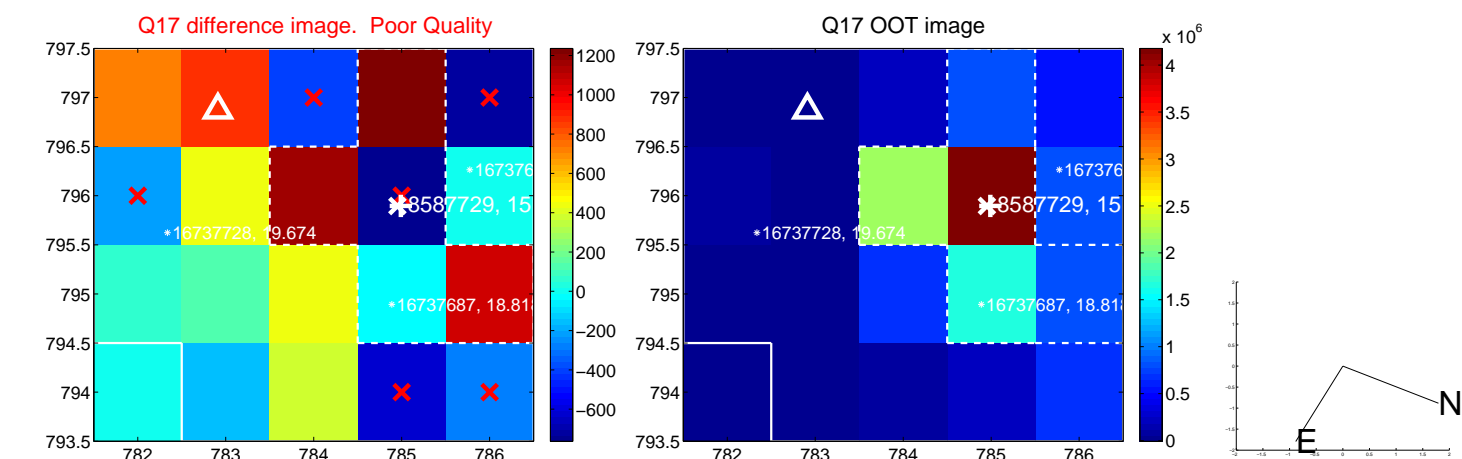
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



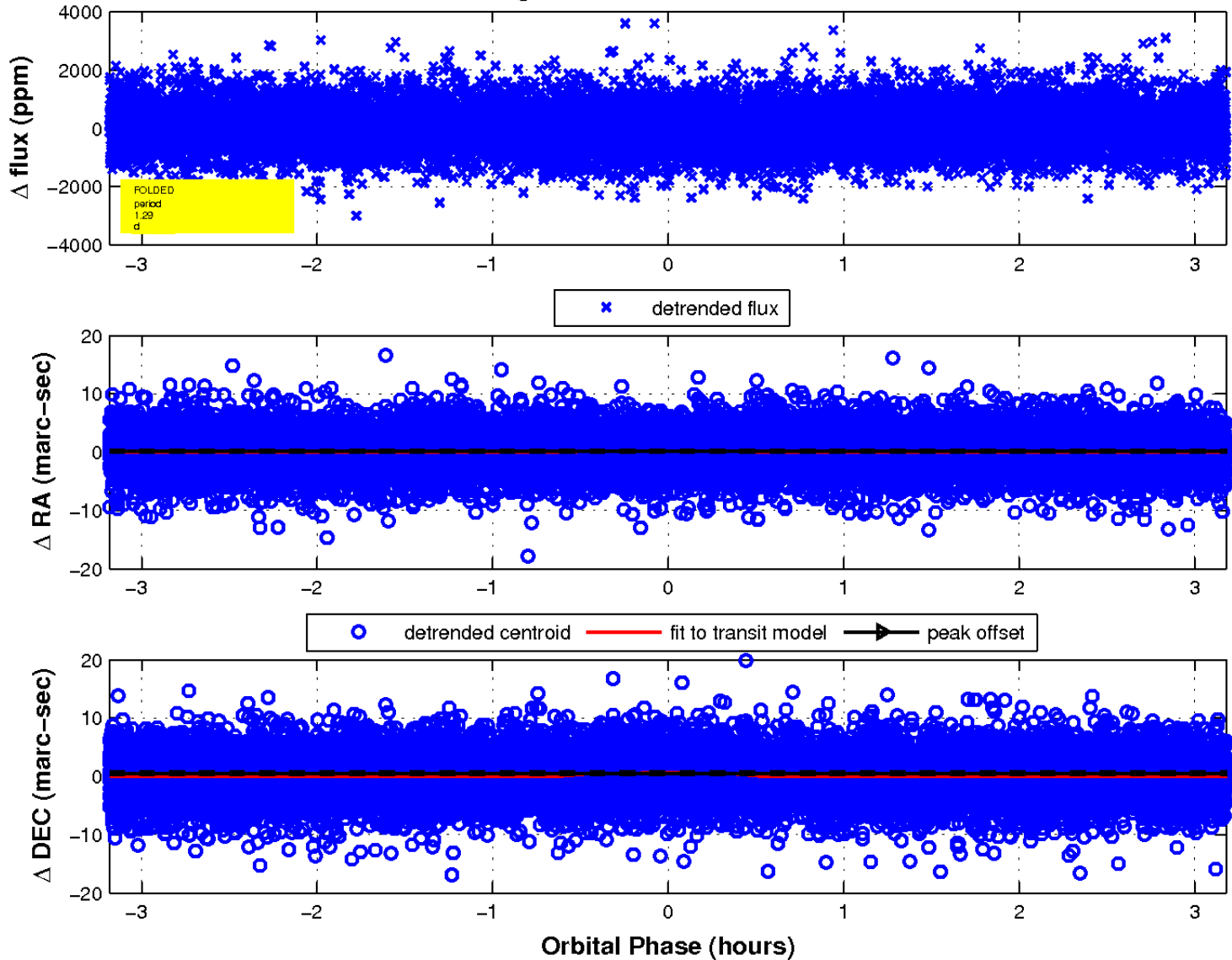
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

