

KIC 005476299

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})
005476299-01	OBS	No	0.817971	131.959943	36.4	3.522	9.0	7.2	1.34	7242	0.94	12475.62

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005476299-01	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.

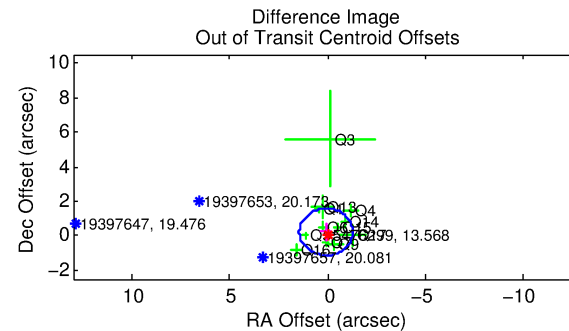
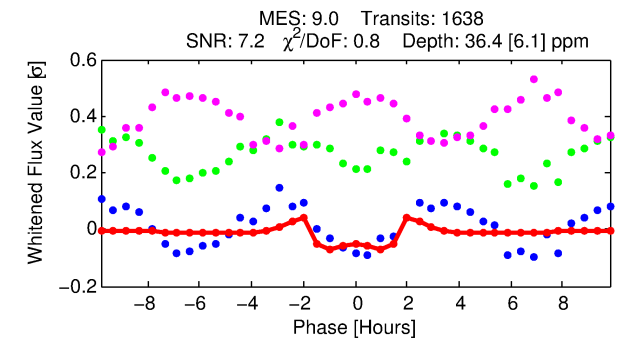
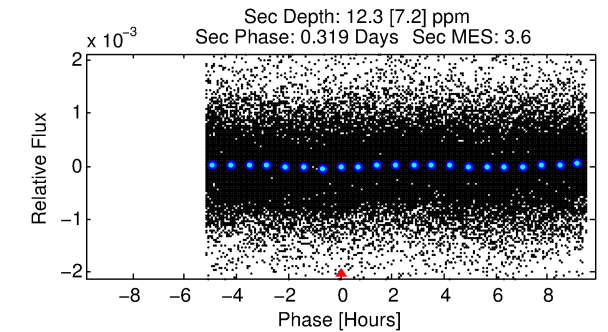
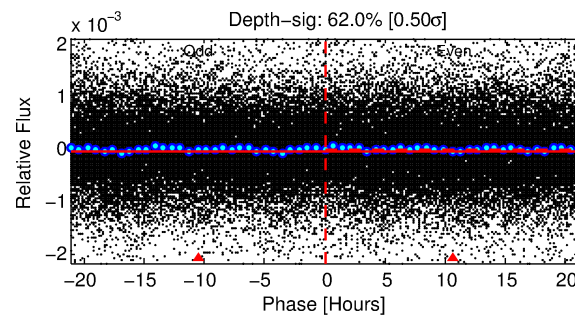
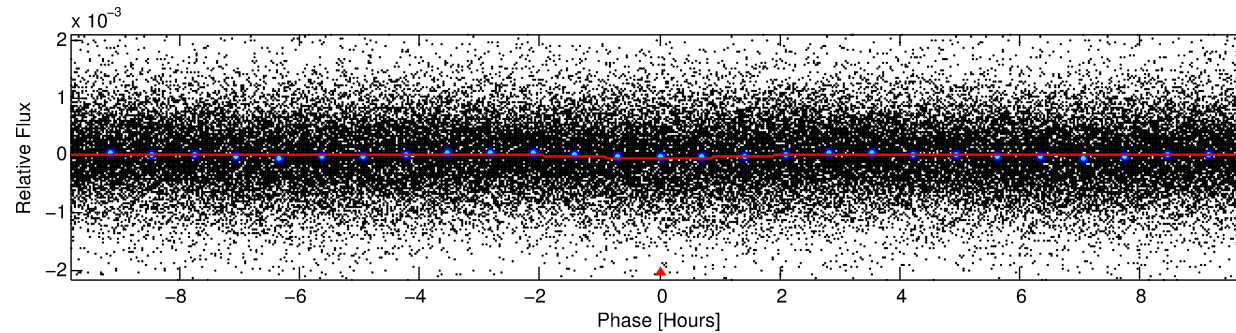
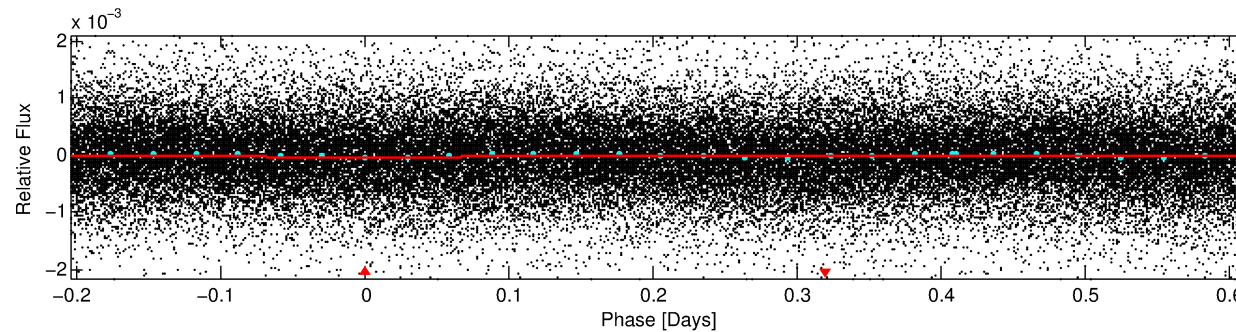
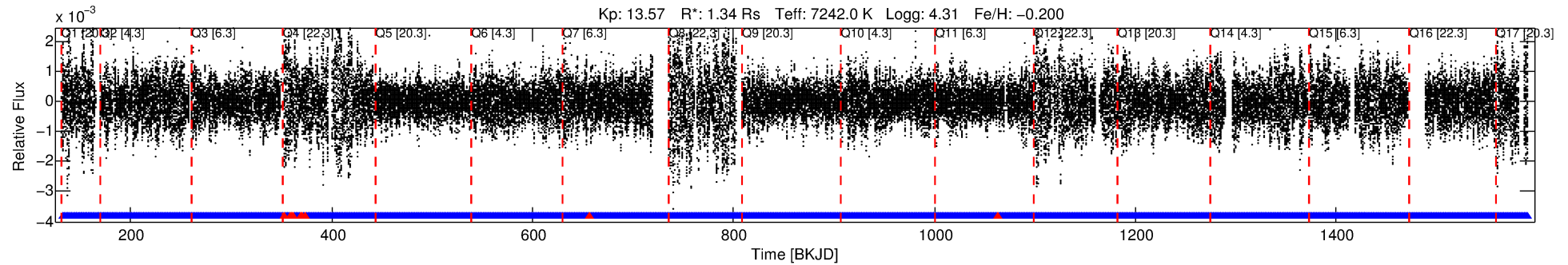
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005476299-01

No Significant Match Found

DV One-Page Summary

KIC: 5476299 Candidate: 1 of 1 Period: 0.818 d



DV Fit Results:

Period = 0.81797 [0.00001] d
Epoch = 131.9599 [0.0026] BKJD
Rp/R* = 0.0064 [0.0019]
a/R* = 1.24 [0.81]
b = 0.90 [0.42]
Seff = 12475.62 [5983.84]
Teq = 2695 [323] K
Rp = 0.94 [0.47] Re
a = 0.0189 [0.0060] AU
Ag = 2.75 [2.62] [0.67 σ]
Teffp = 5363 [1158] K [2.22 σ]

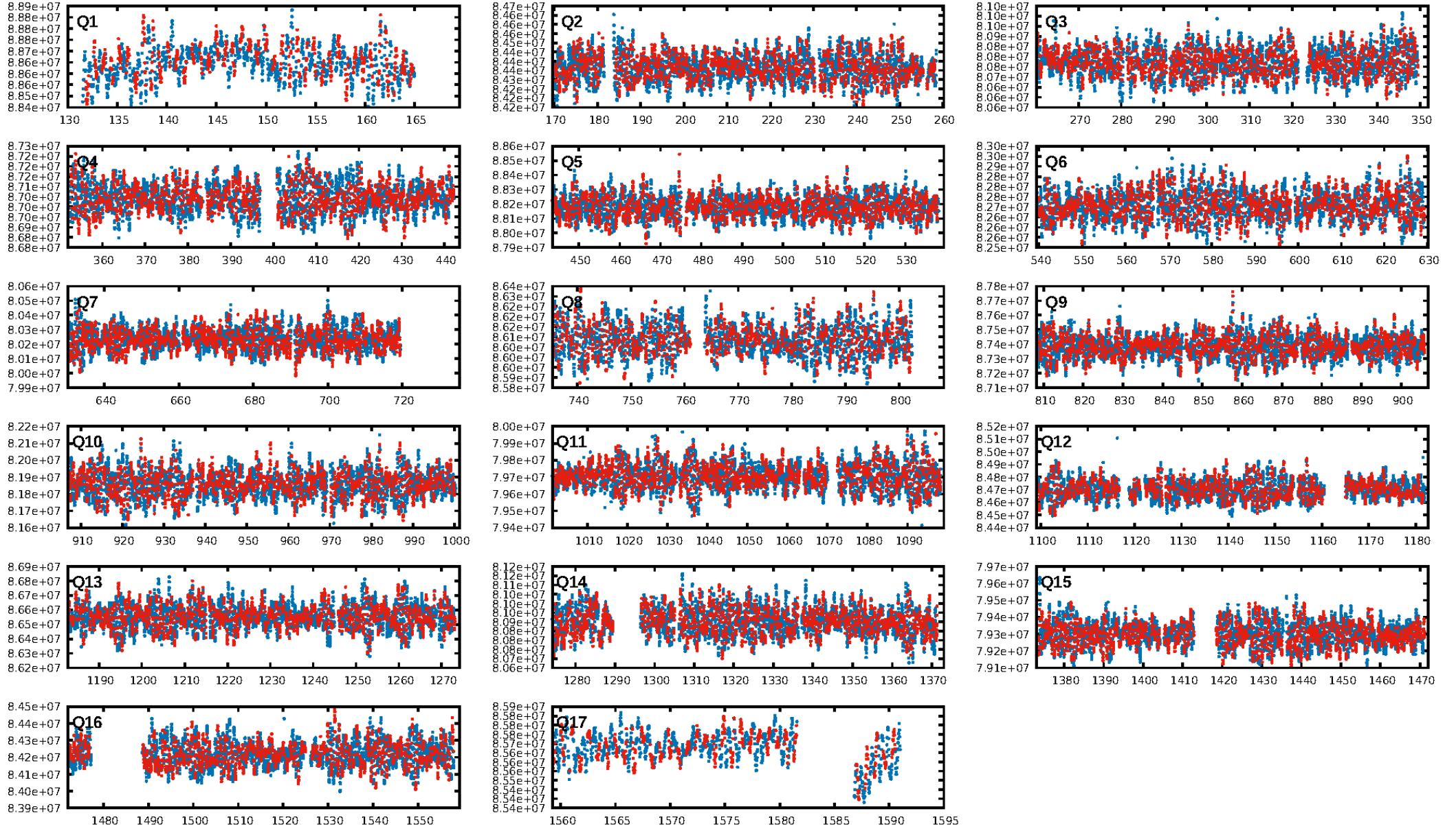
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.18e-15
RollingBand-fgt: 0.99 [1554/1564]
GhostDiagnostic-chr: 2.687
Centroid-sig: 2.0 σ
Centroid-so: 1.058 arcsec [1.34 σ]
OotOffset-rm: 0.243 arcsec [0.54 σ]
KicOffset-rm: 0.184 arcsec [0.43 σ]
OotOffset-st: 2/3/2/5 [12]
KicOffset-st: 2/3/2/5 [12]
DiffImageQuality-fgm: 0.75 [9/12]
DiffImageOverlap-fno: 1.00 [17/17]

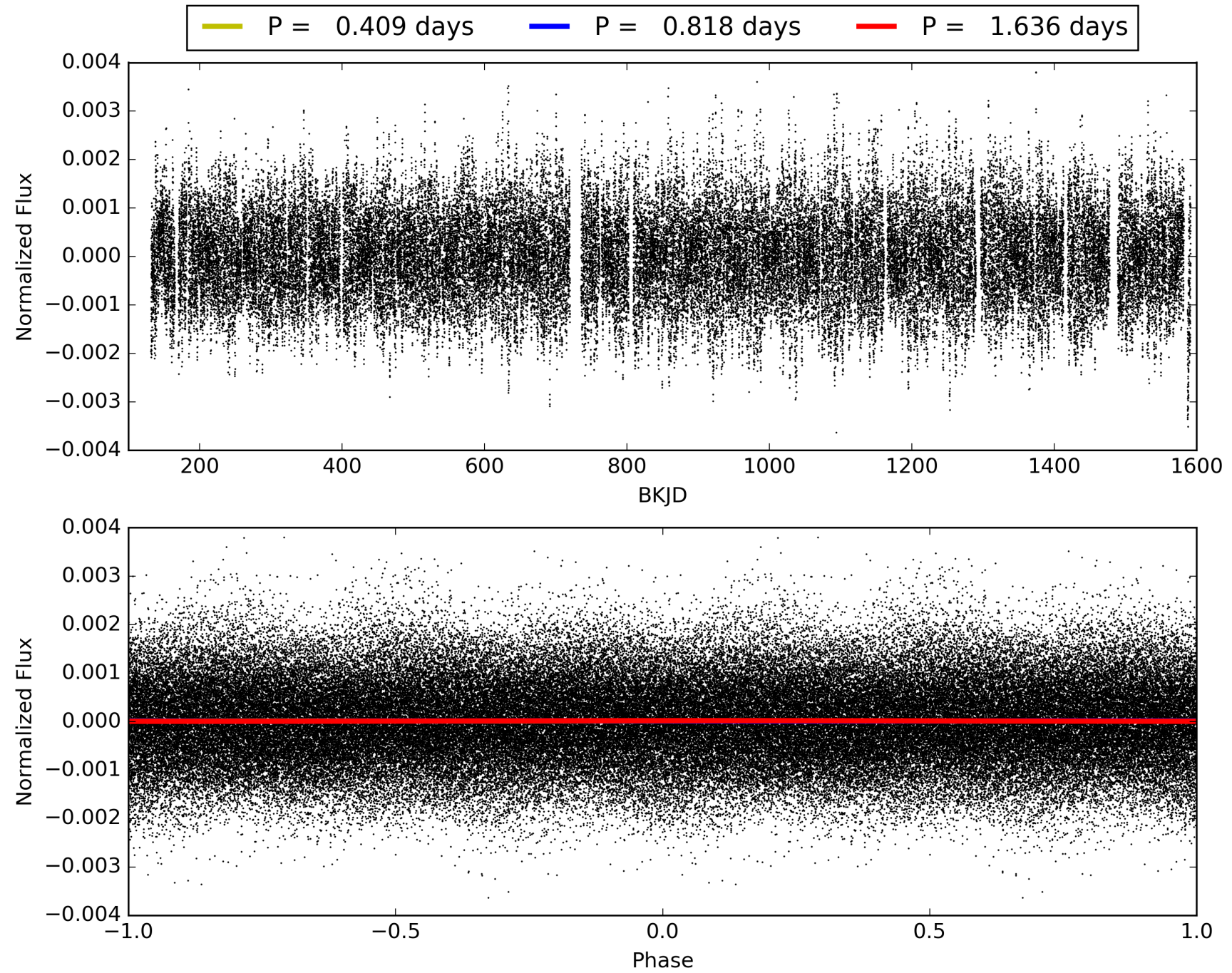
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 12:43:36 Z

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

TCE 005476299-01, PDC Light Curves

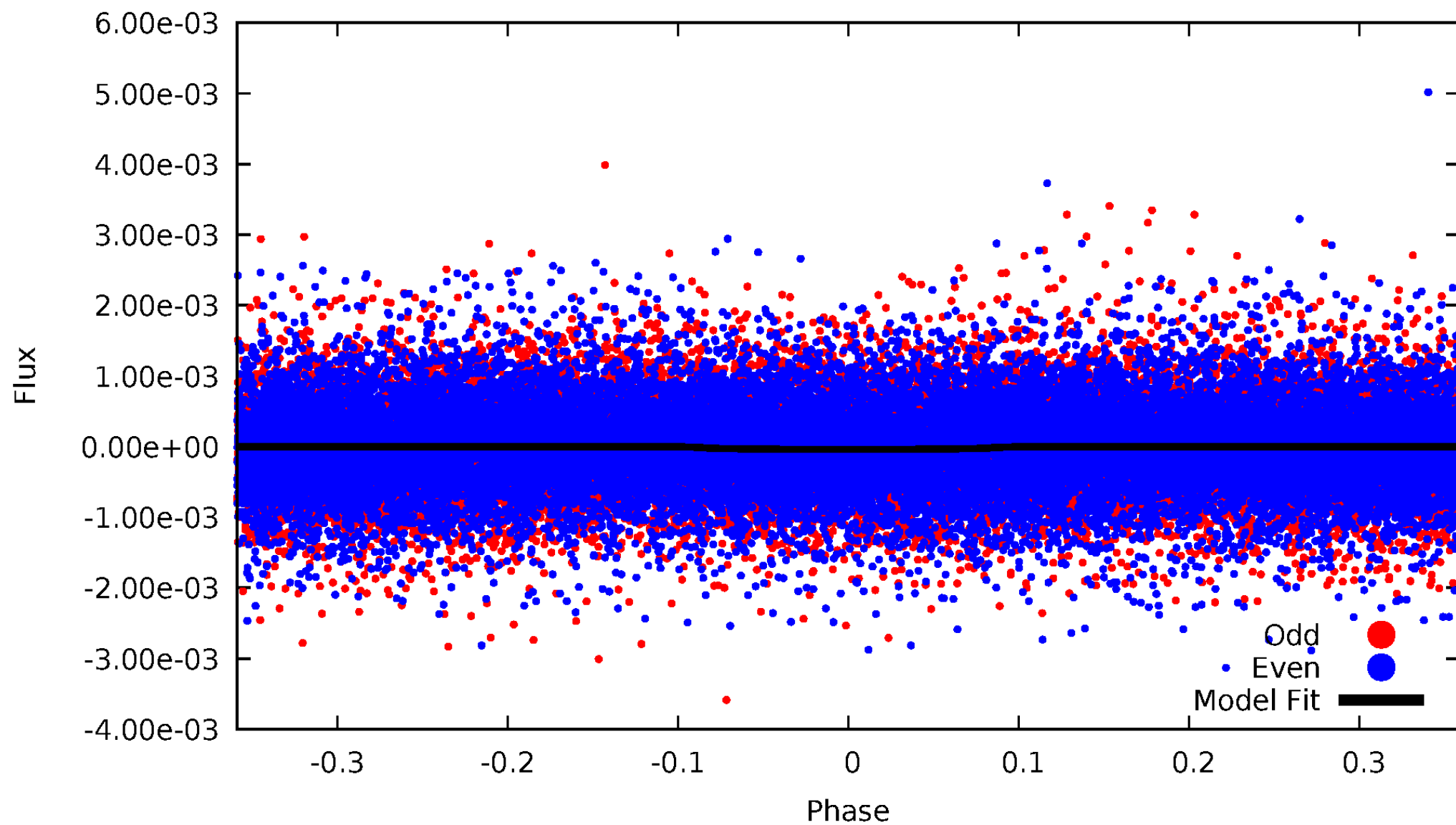


TCE 005476299-01



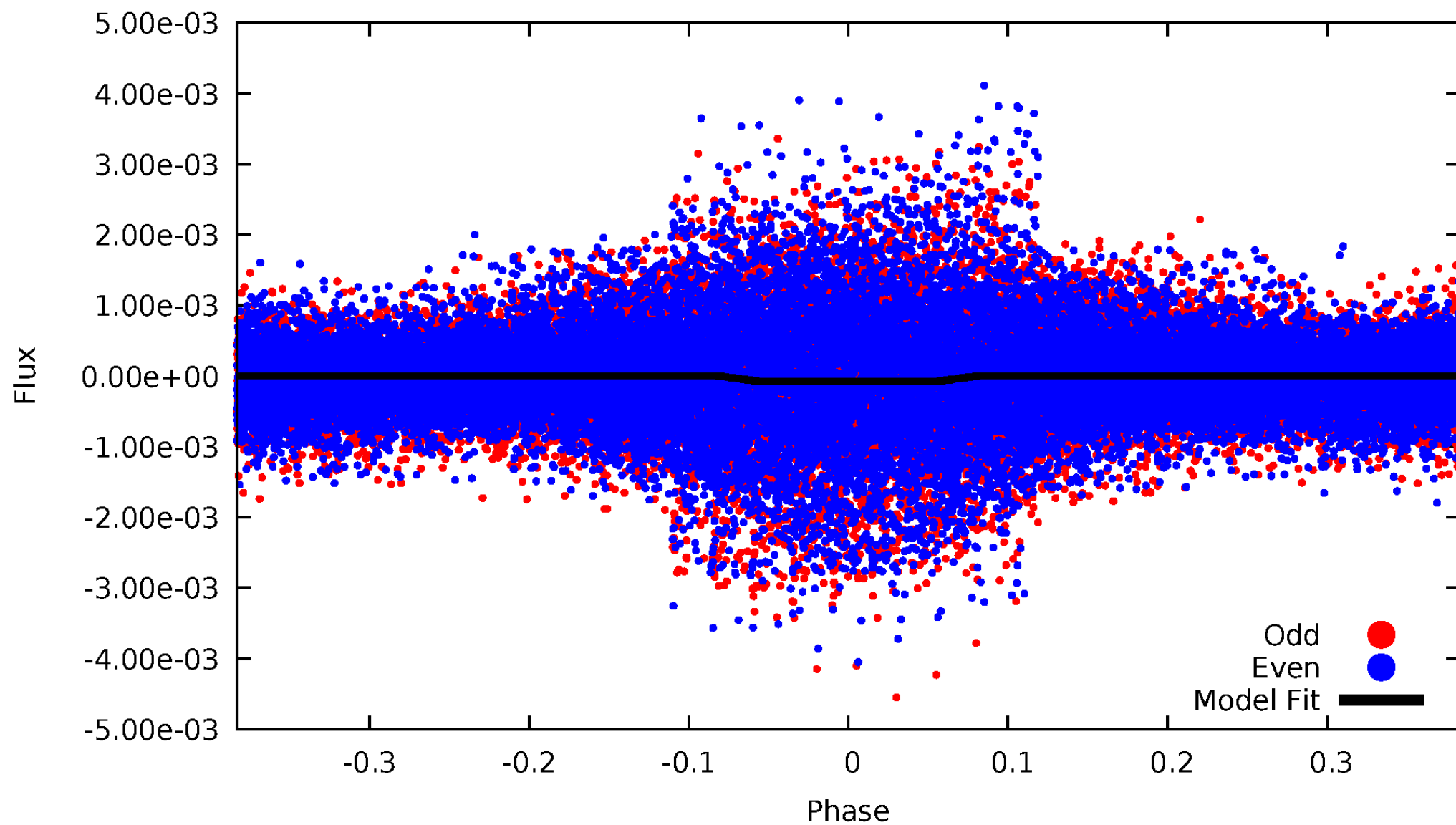
DV Odd/Even

TCE 005476299-01

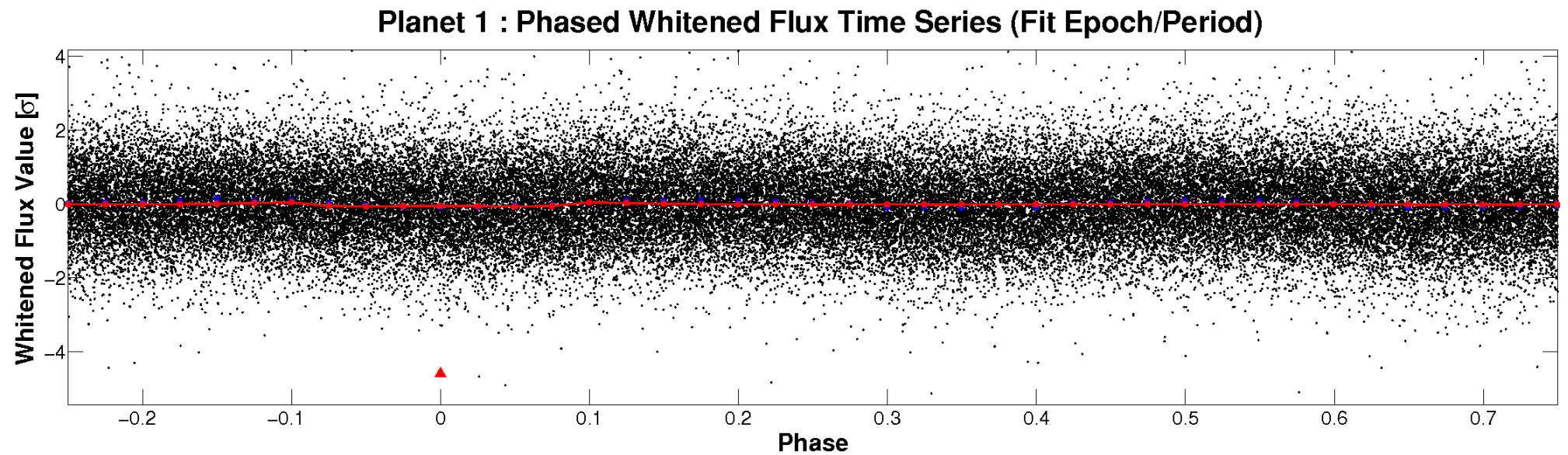
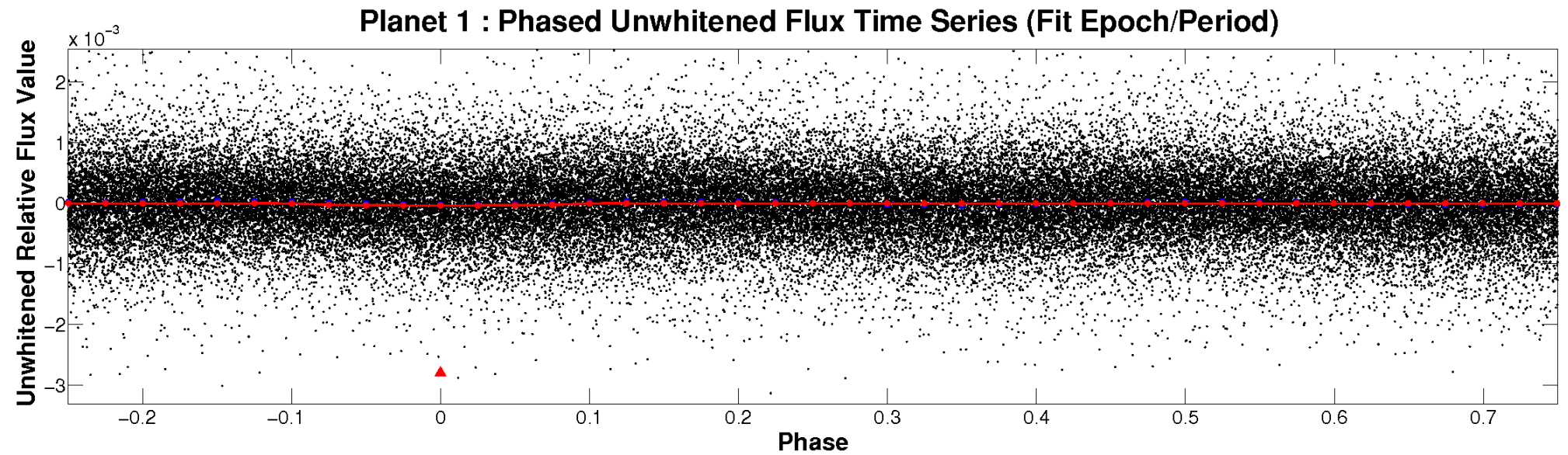


ALT Odd/Even

TCE 005476299-01

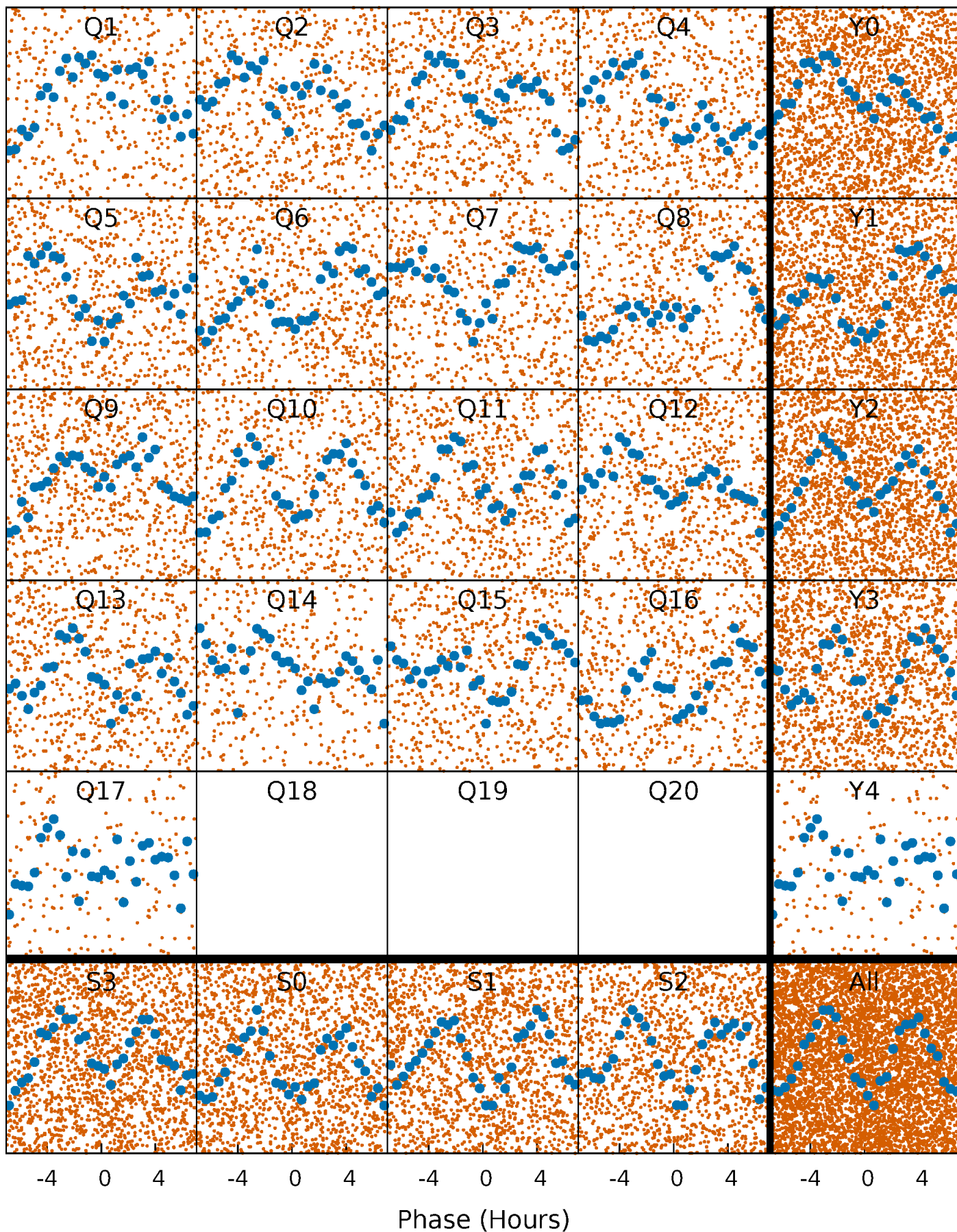


Non-Whitened Vs. Whitened Light Curve



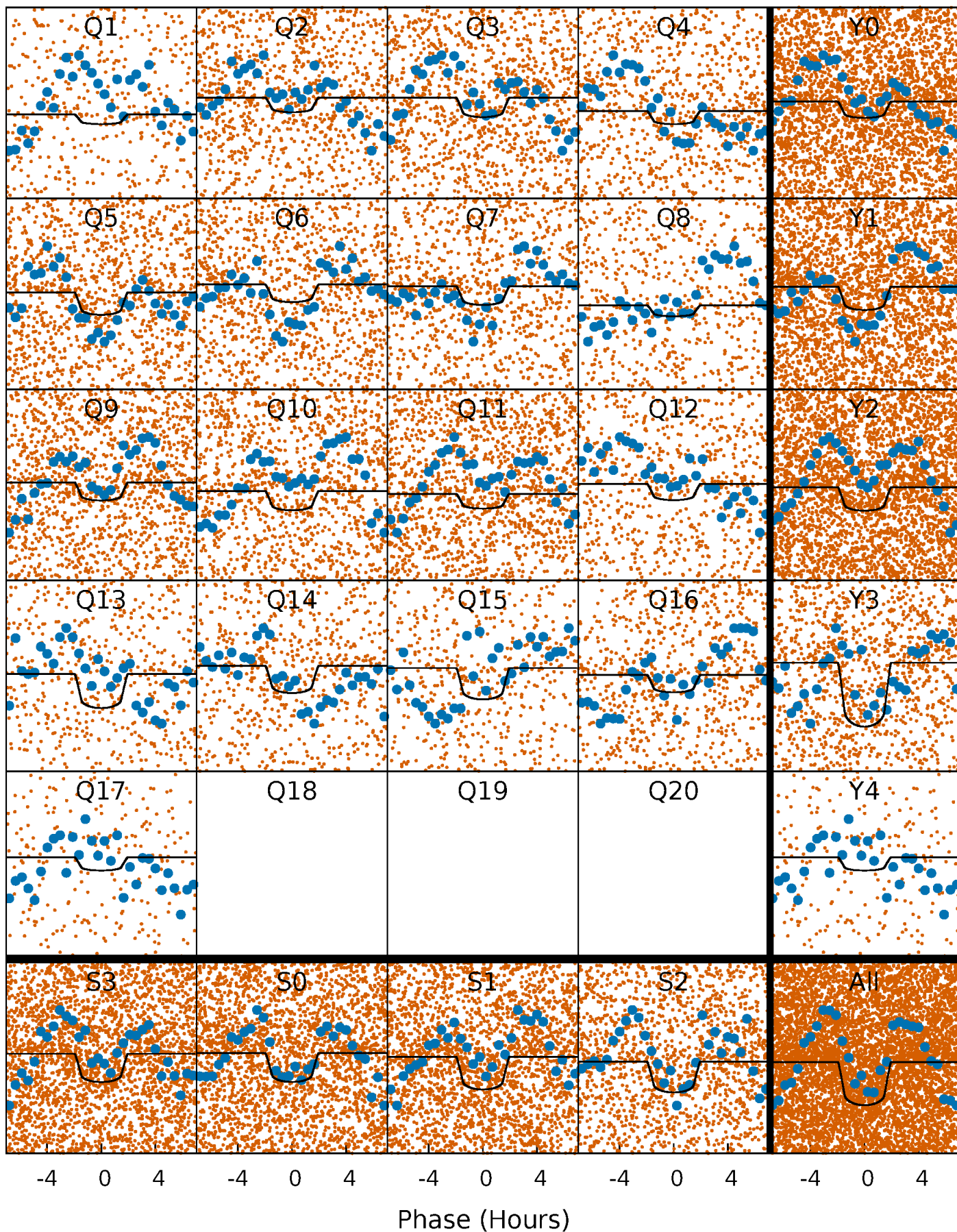
PDC Quarter-Phased Transit Curves

TCE 005476299-01 P= 0.817971 Days $T_0=131.959943$ (BKJD)



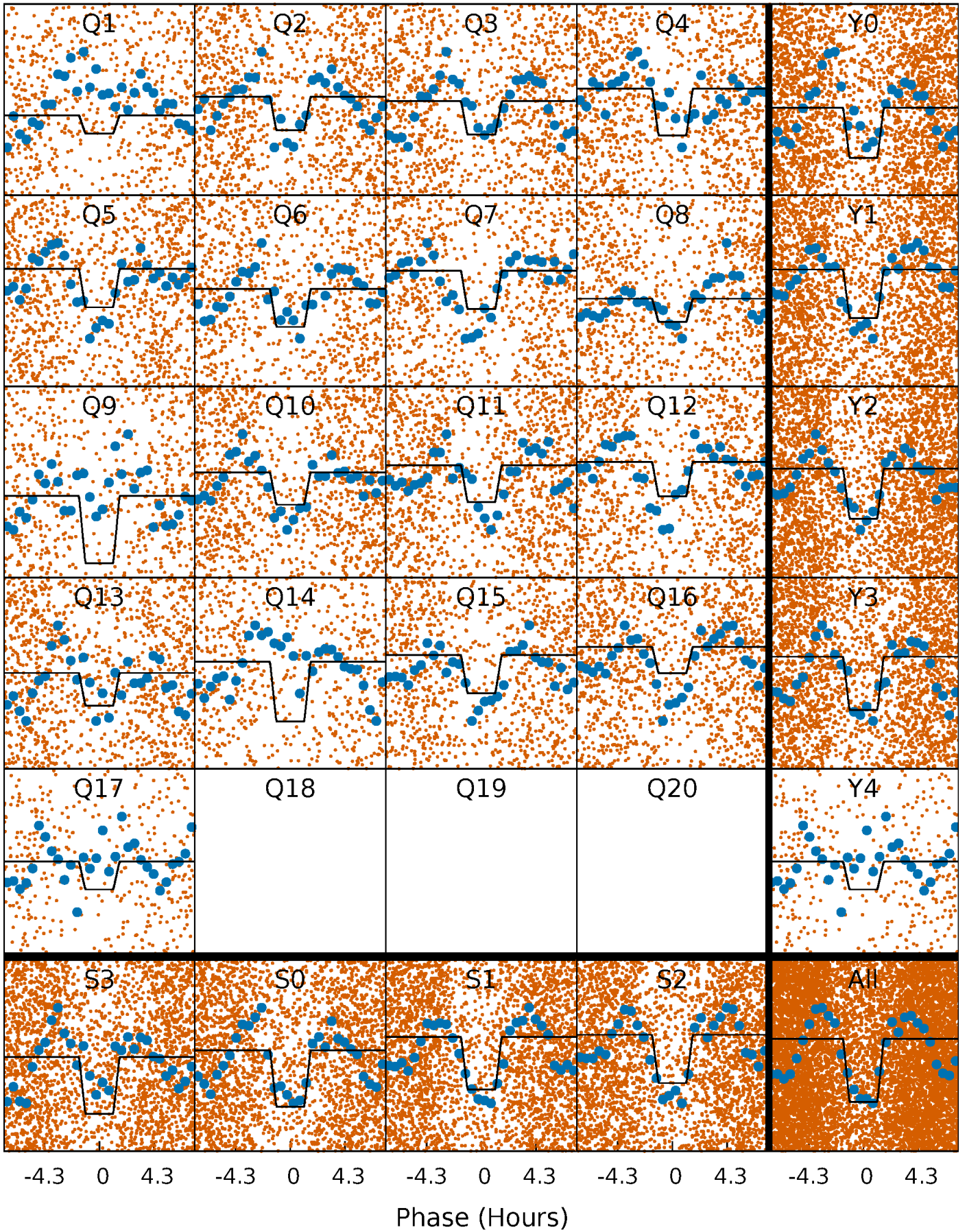
DV Quarter-Phased Transit Curves

TCE 005476299-01 P= 0.817971 Days $T_0=131.959943$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

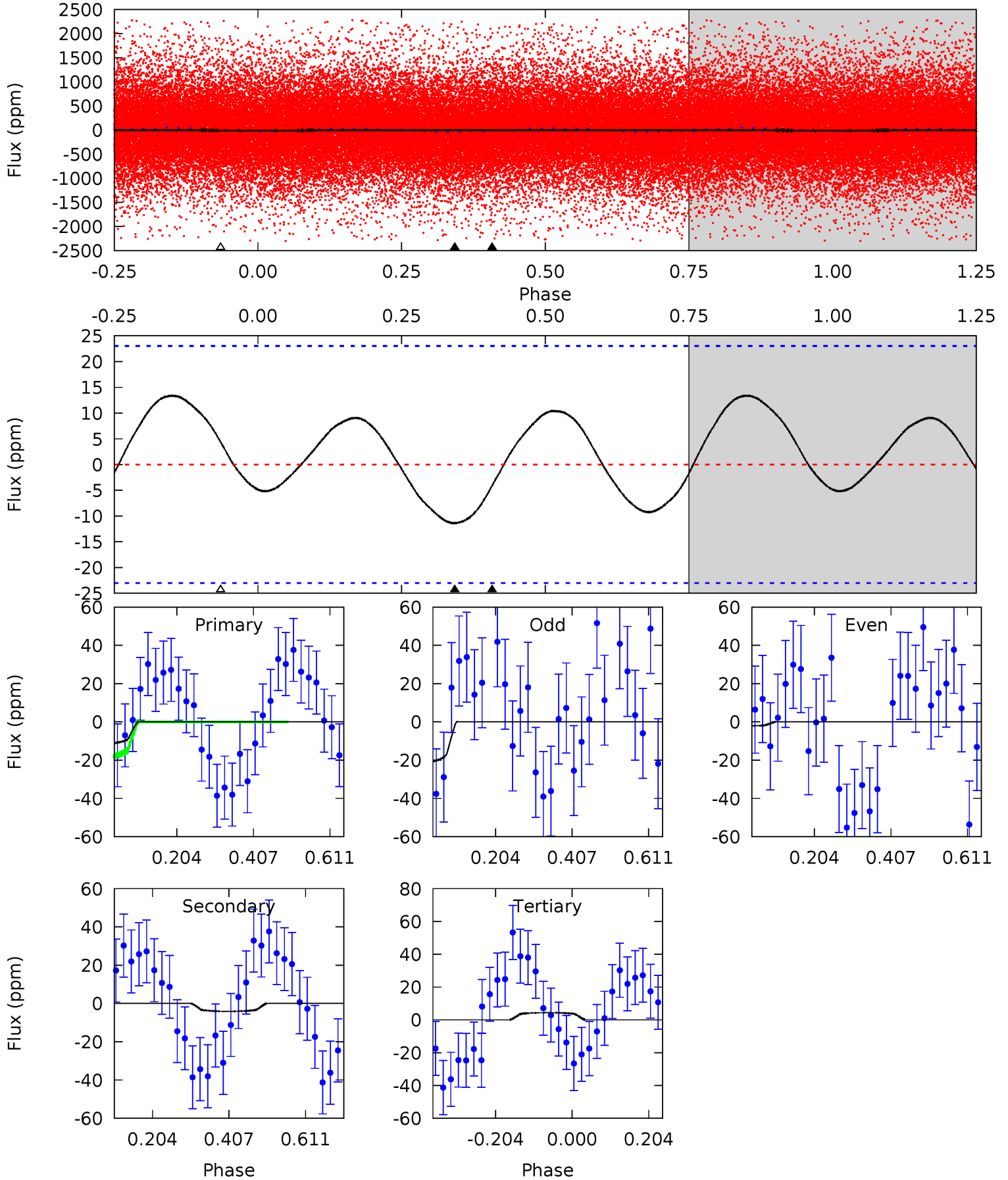
TCE 005476299-01 P= 0.818009 Days $T_0=131.937410$ (BKJD)



DV Model-Shift Uniqueness Test

005476299-01, P = 0.817971 Days, E = 131.141972 Days

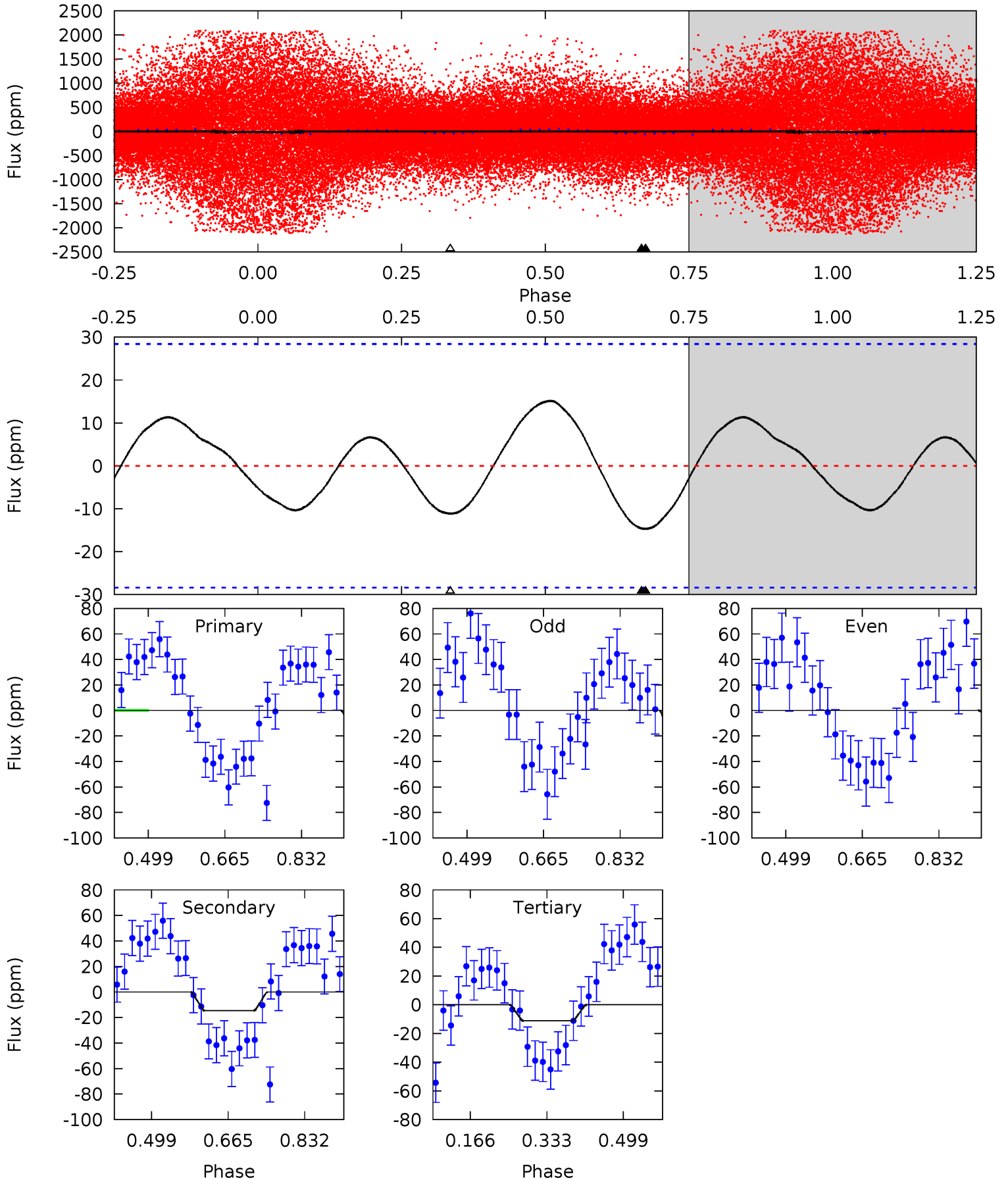
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.19	0.79	-0.84	0	4.41	1.27	1.36	3.03	2.19	1.63	0.79	1.83	0.66	0.54	1.29



Alt Model-Shift Uniqueness Test

005476299-01, P = 0.818009 Days, E = 131.119401 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.31	2.29	1.75	0	4.46	1.38	1.18	0.56	2.31	0.54	2.29	1.66	2.60	0.51	2.33



Stellar Parameters For KIC 005476299

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7242^{+228}_{-330}	$4.309^{+0.058}_{-0.232}$	$-0.200^{+0.250}_{-0.350}$	$1.343^{+0.533}_{-0.178}$	$1.355^{+0.219}_{-0.197}$	$0.787^{+0.267}_{-0.464}$
	+3%/-5%	+1%/-5%	+125%/-175%	+40%/-13%	+16%/-15%	+34%/-59%
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 005476299-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-4 ± 5	$0.98^{+0.37}_{-0.30}$	3845^{+314}_{-231}	3781^{+1378}_{-7646}	$0.735^{+1.616}_{-0.926}$
Alt.	-15 ± 6	$1.35^{+0.42}_{-0.32}$	3857^{+339}_{-221}	4586^{+841}_{-817}	$1.477^{+1.479}_{-0.814}$

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 $A_{\text{obs}} \gg 1.0$

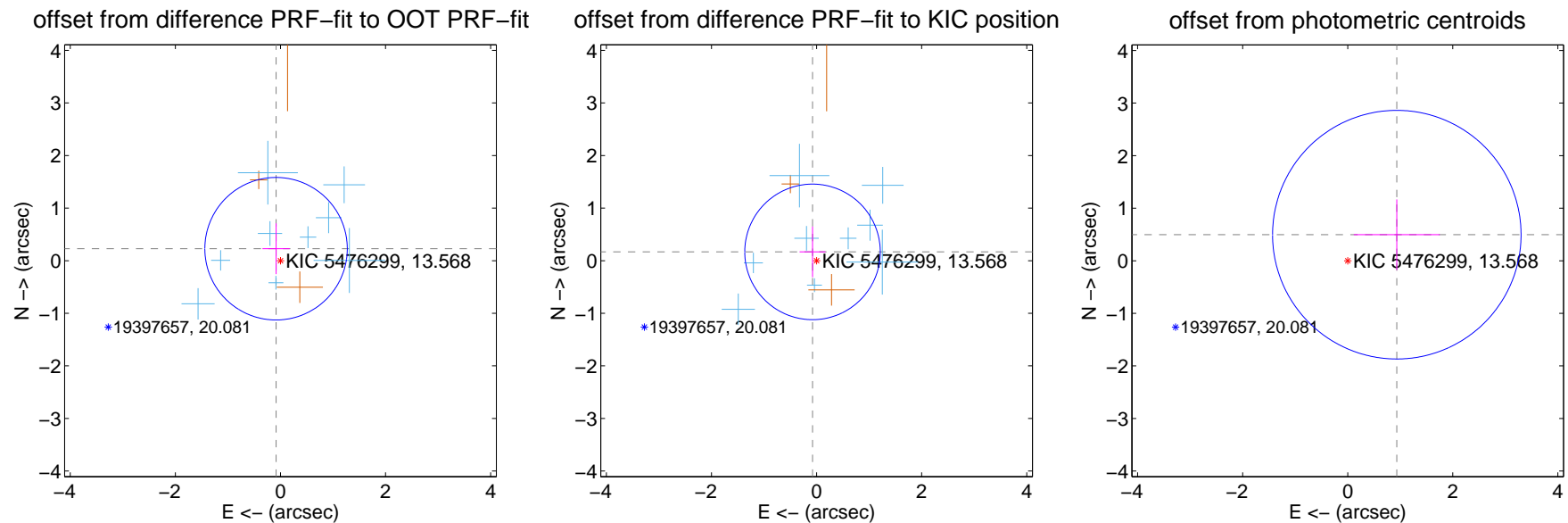
DV Centroid Data

Supplemental centroid analysis for 005476299-01. Kepler magnitude: 13.57. Transit SNR 7.19

There are 9 quarters with good PRF difference image offsets

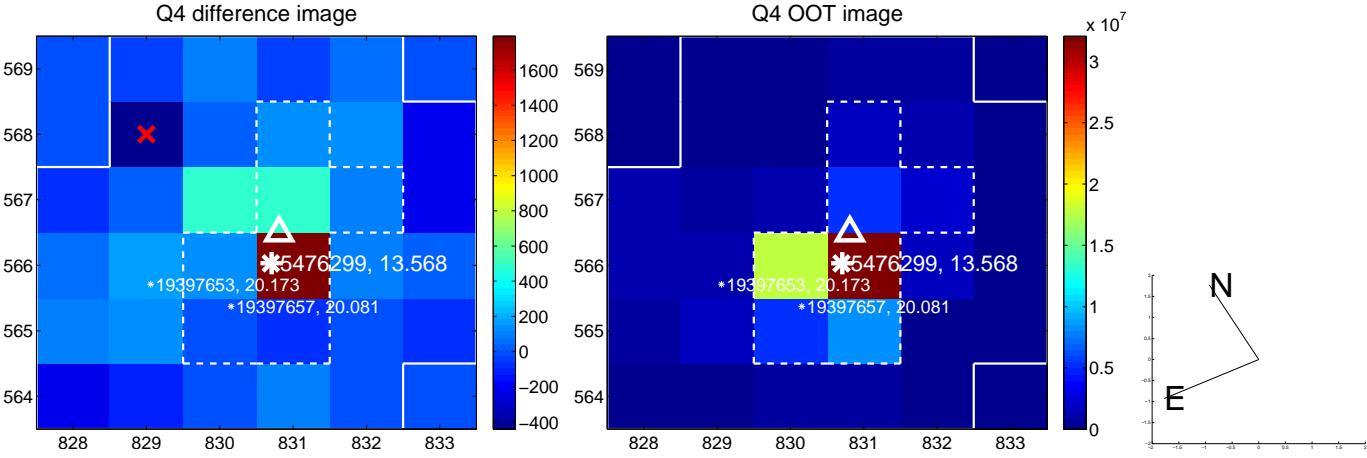
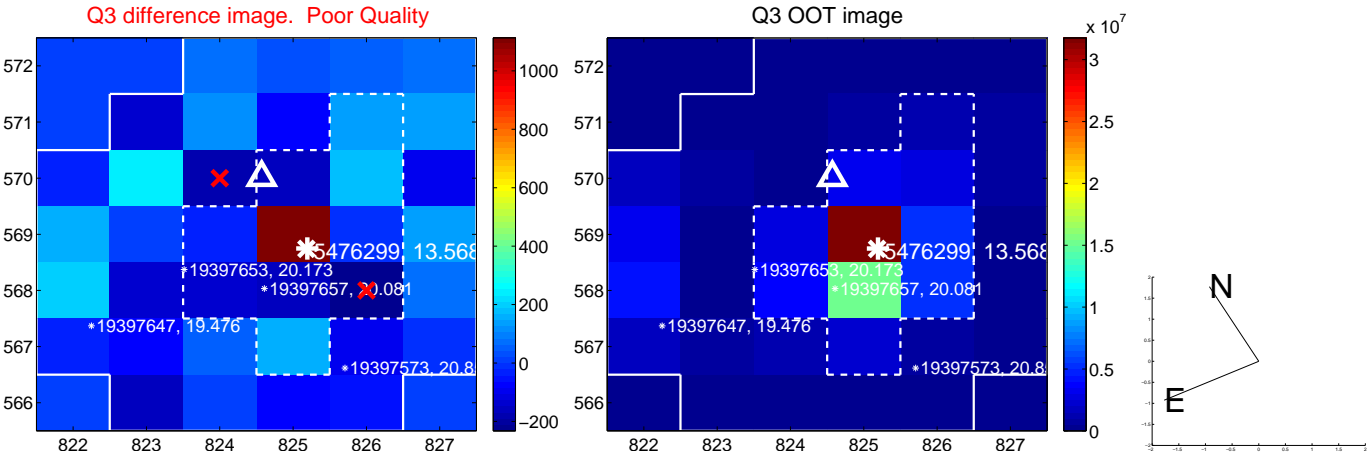
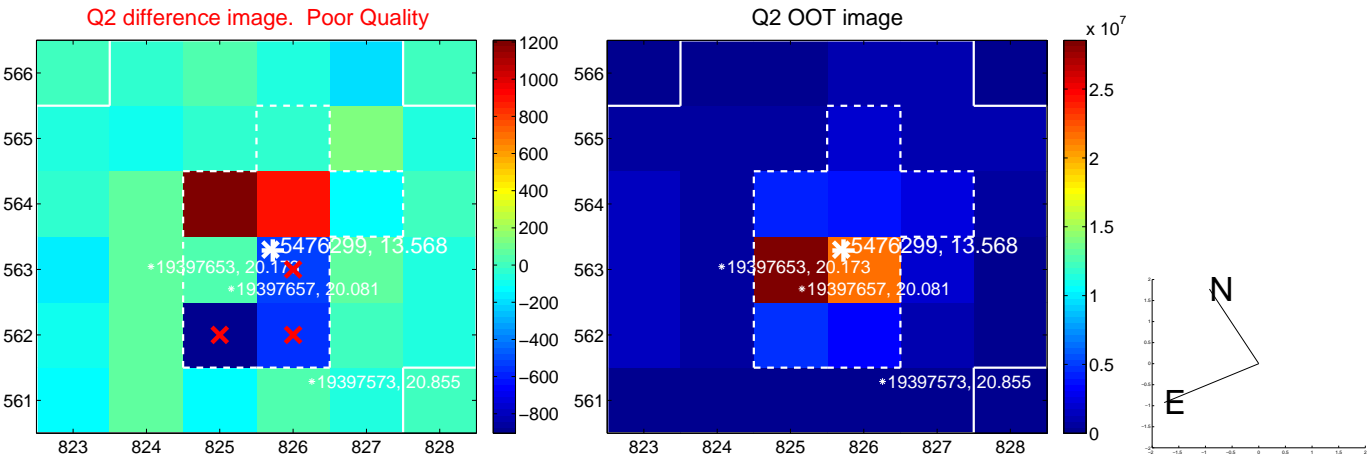
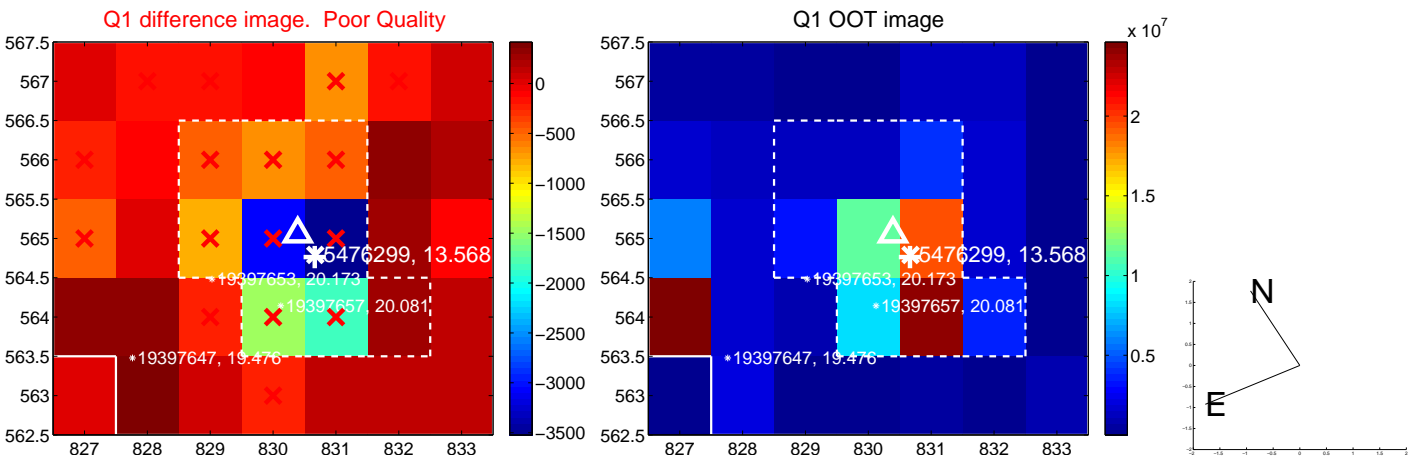
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.243 ± 0.452	0.54	0.084 ± 0.259	0.228 ± 0.483
PRF-fit source offset from KIC position	0.184 ± 0.430	0.43	0.077 ± 0.247	0.168 ± 0.482
photometric centroid source offset	1.06 ± 0.79	1.34	-0.93 ± 0.82	0.50 ± 0.67

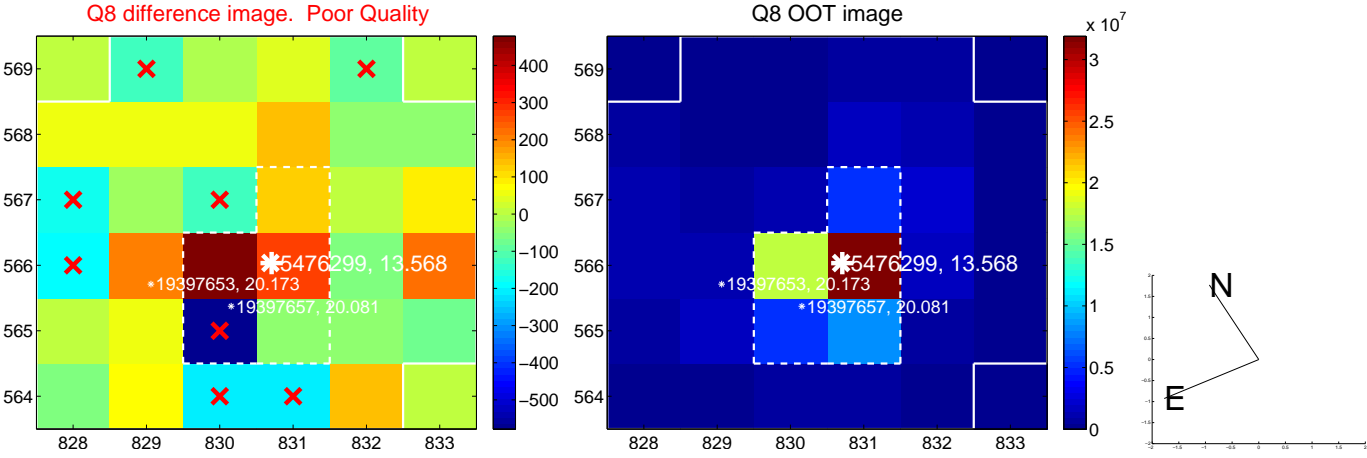
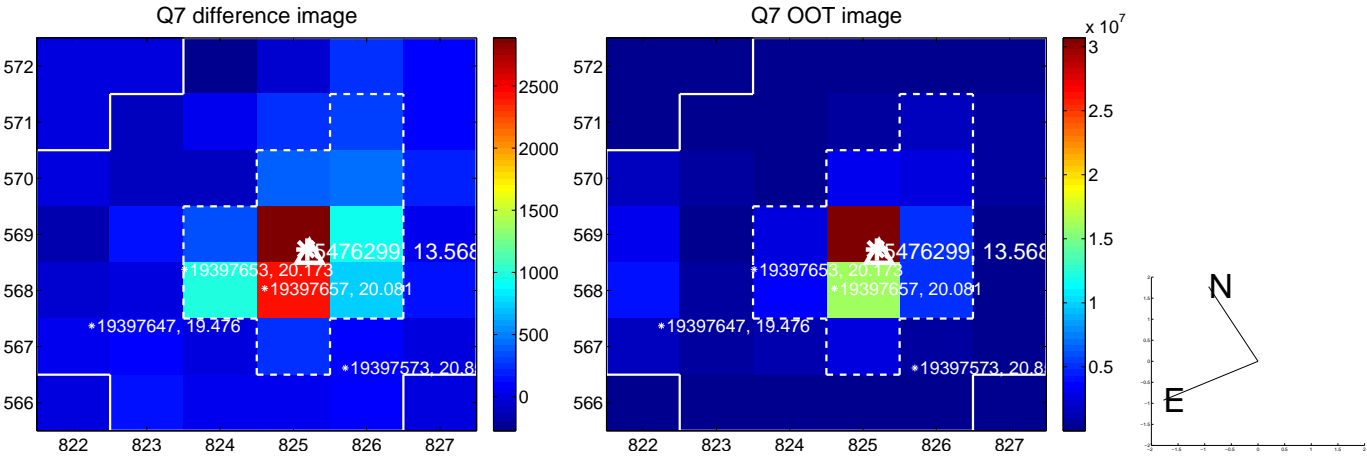
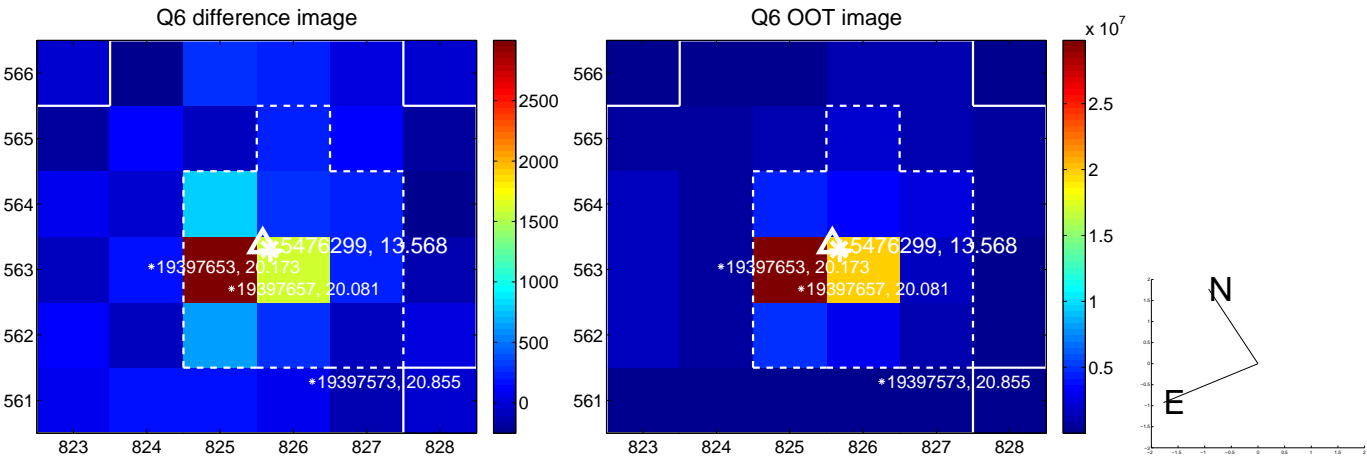
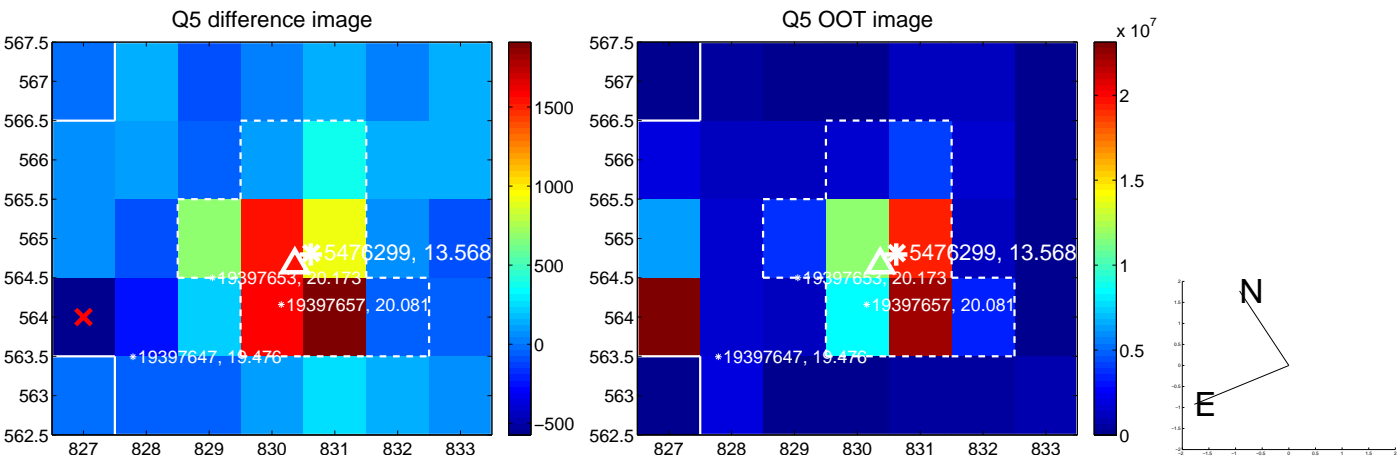


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

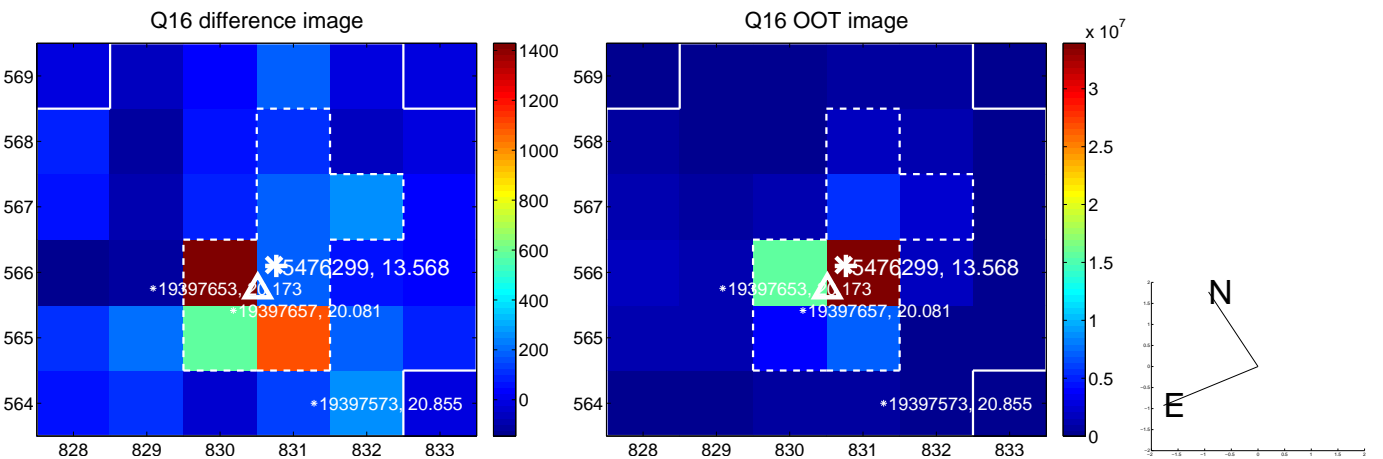
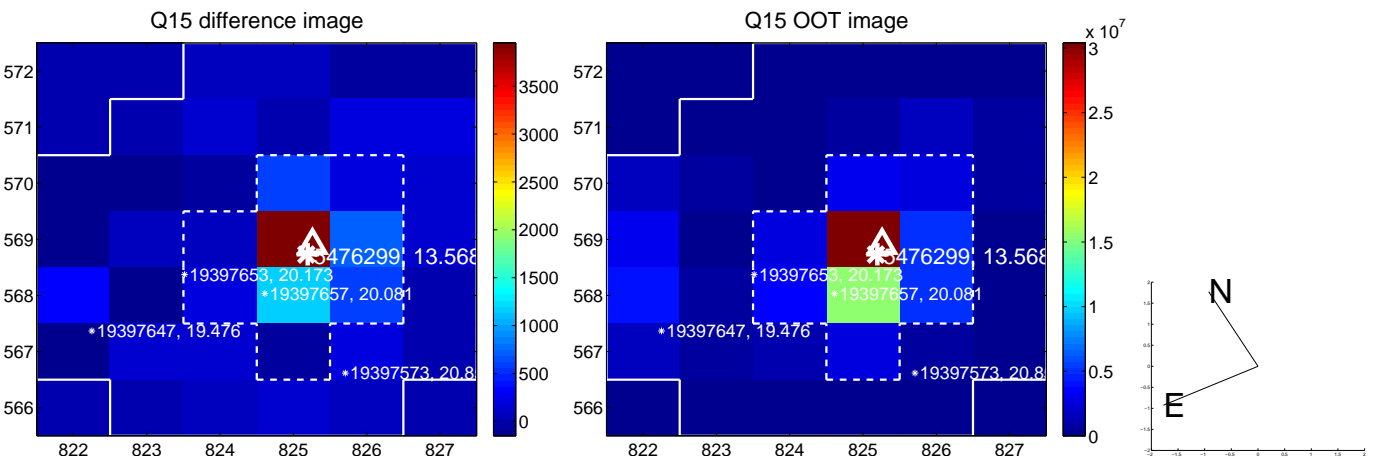
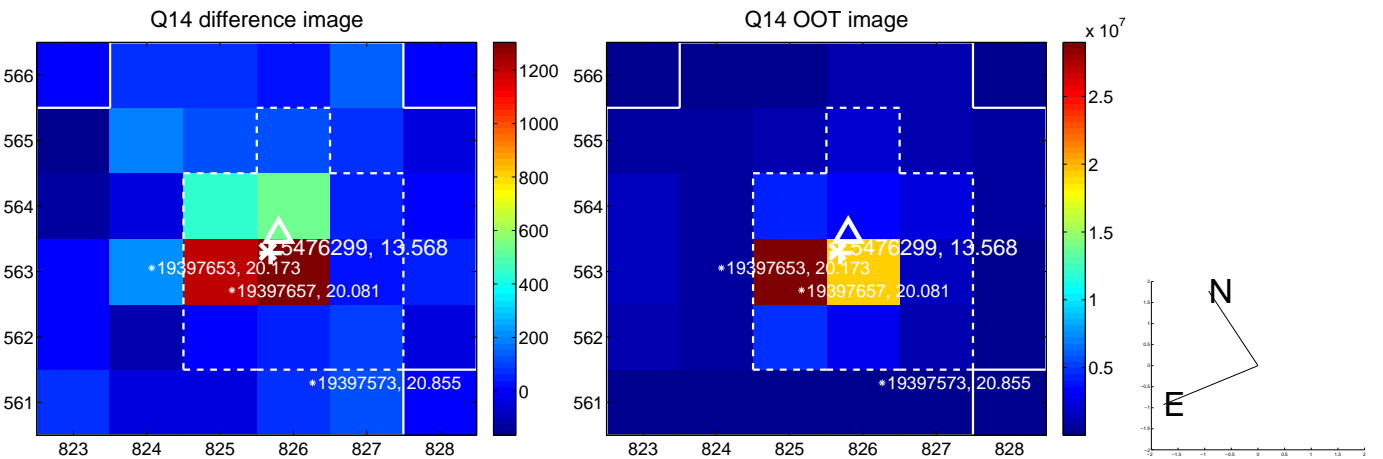
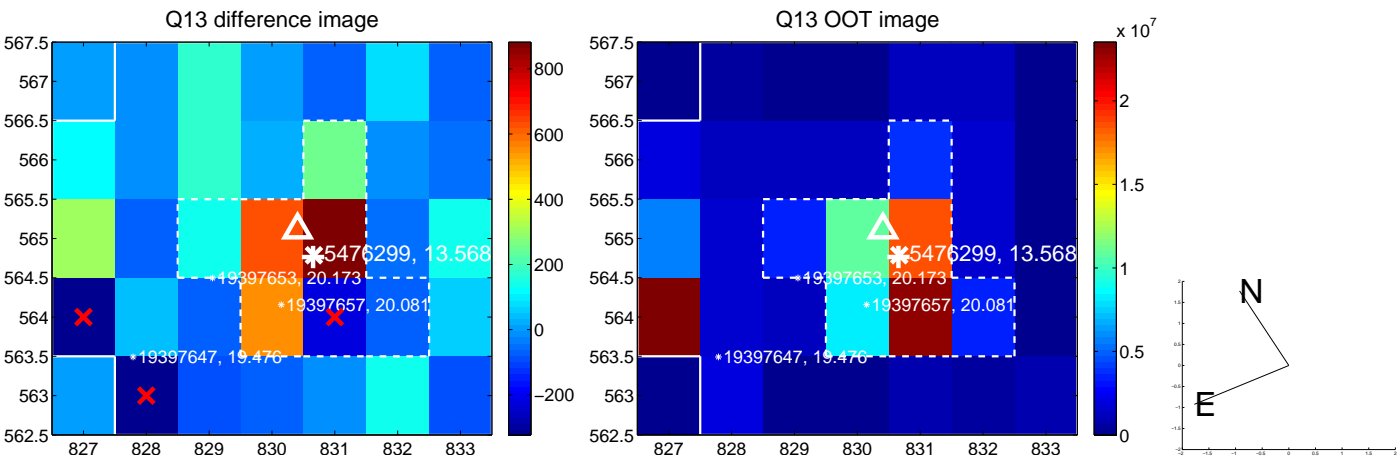
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



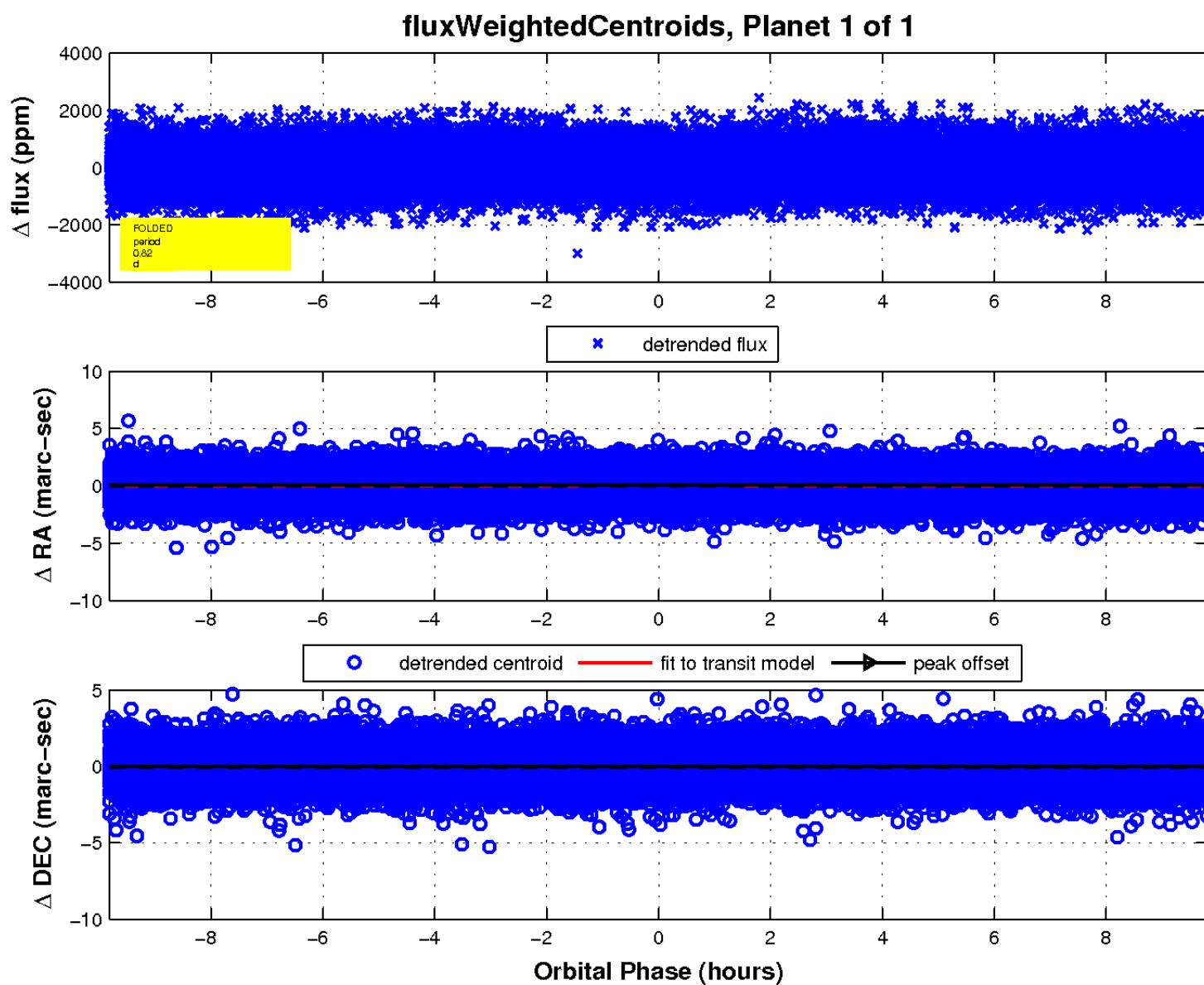
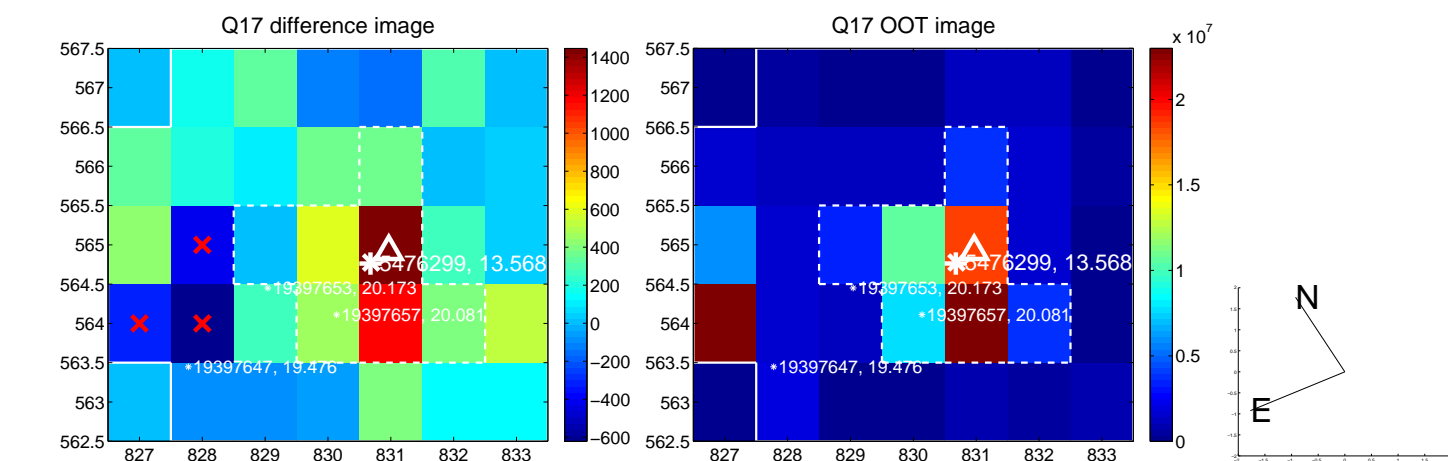
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

