

KIC 007629287

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})
007629287-01	OBS	No	3.148702	131.744130	44.6	8.198	11.4	9.9	1.94	6263	1.52	2557.32

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007629287-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV

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

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

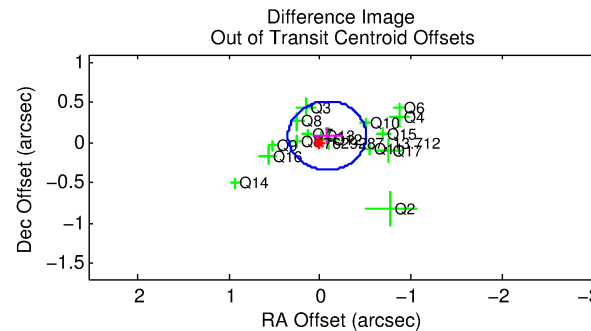
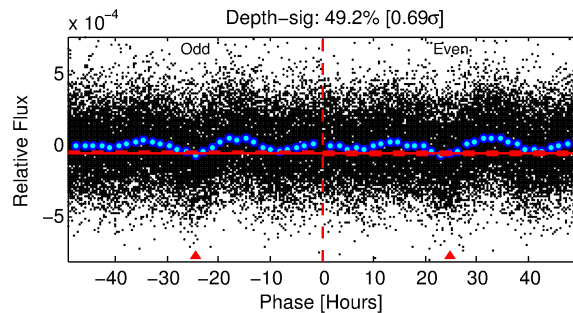
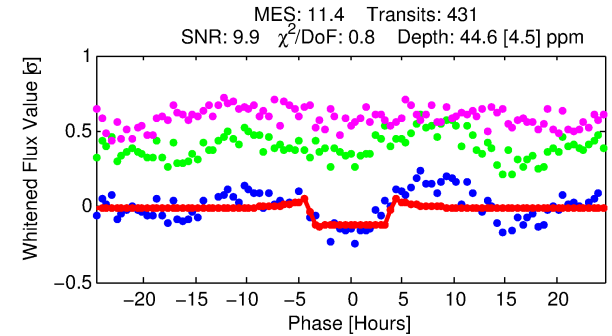
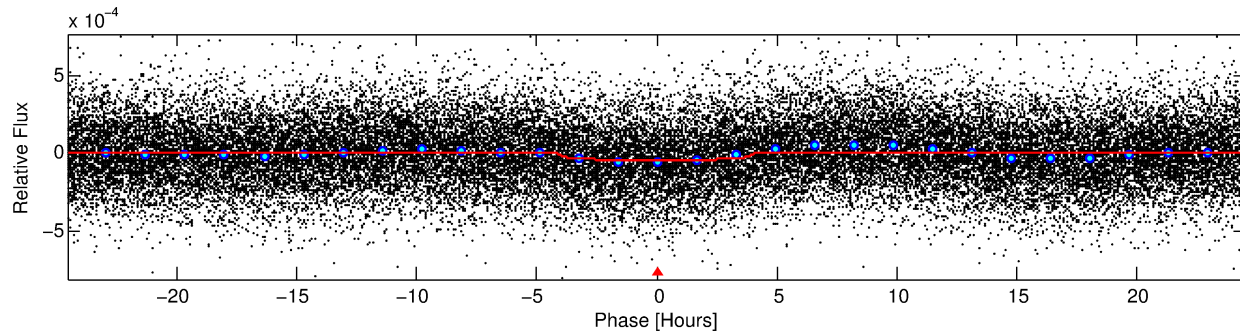
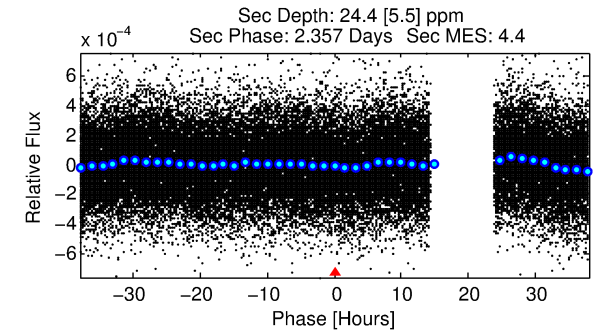
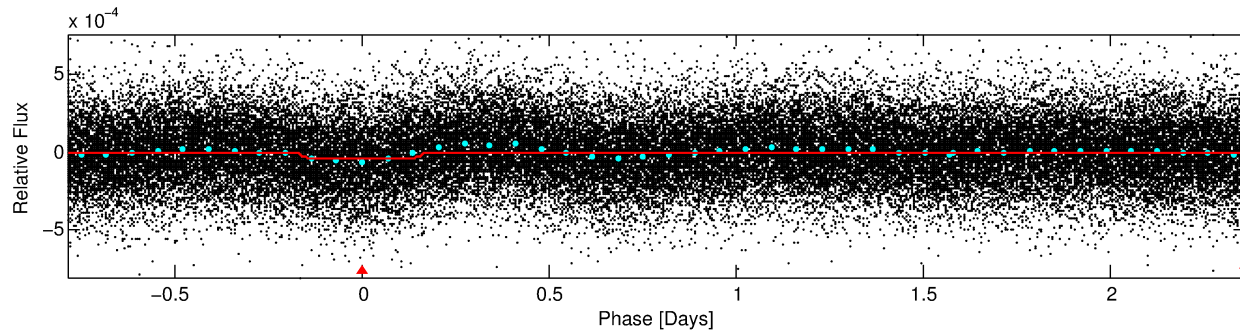
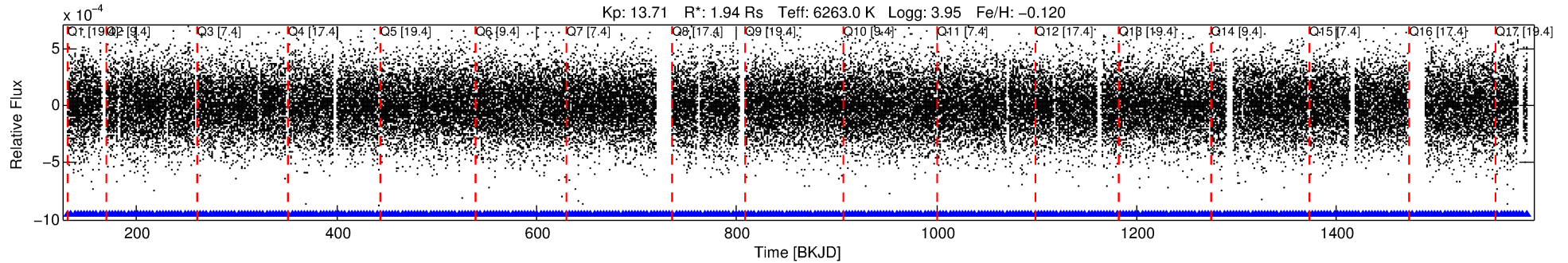
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007629287-01

No Significant Match Found

DV One-Page Summary

KIC: 7629287 Candidate: 1 of 1 Period: 3.149 d



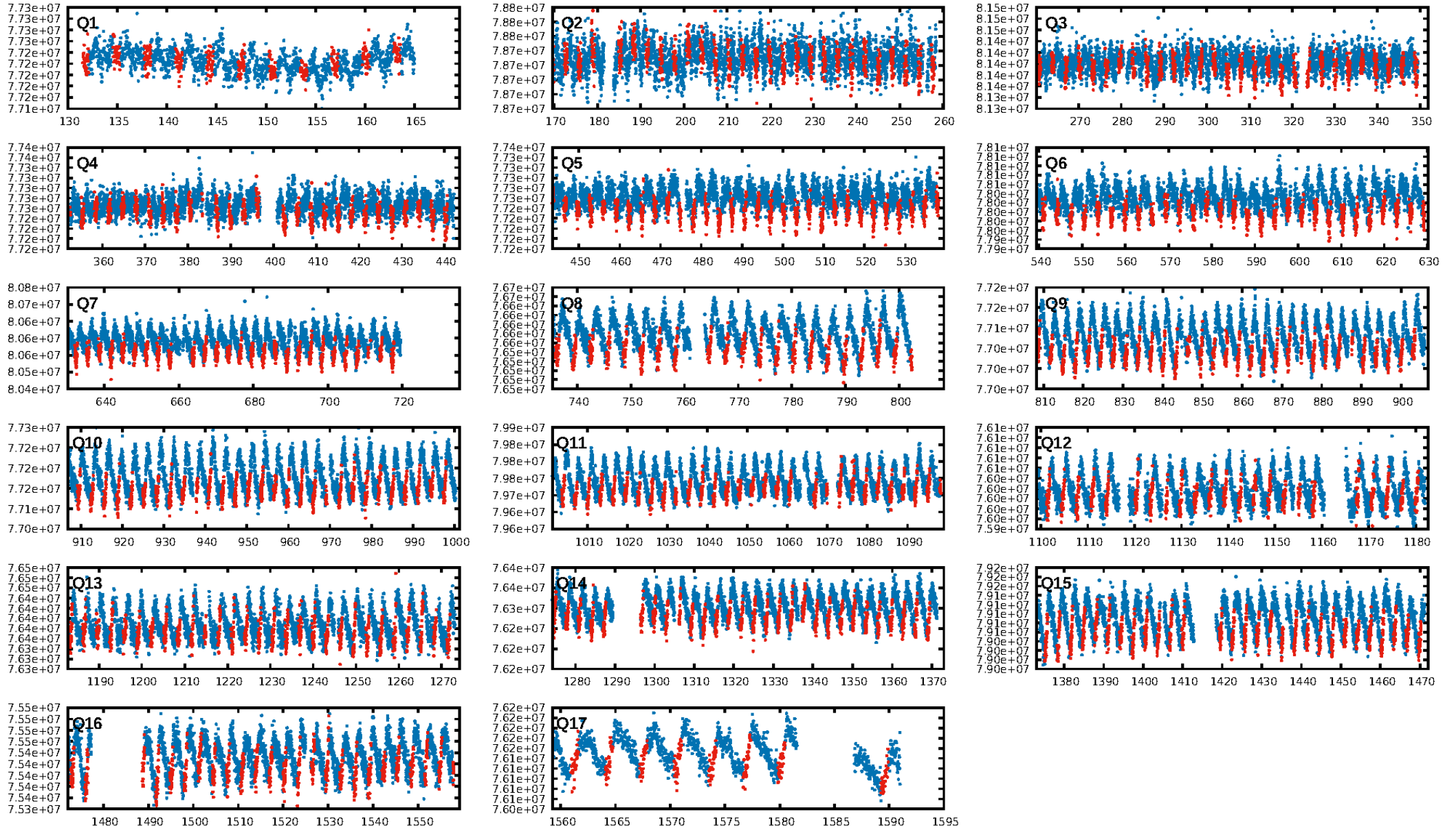
DV Fit Results:

Period = 3.14870 [0.00003] d
Epoch = 131.7441 [0.0055] BKJD
Rp/R* = 0.0072 [0.0013]
a/R* = 1.59 [0.90]
b = 0.91 [0.18]
Seff = 2557.32 [1618.30]
Teq = 1813 [287] K
Rp = 1.53 [0.66] Re
a = 0.0449 [0.0172] AU
Ag = 11.64 [8.66] [1.23σ]
Teffp = 5178 [569] K [5.28σ]

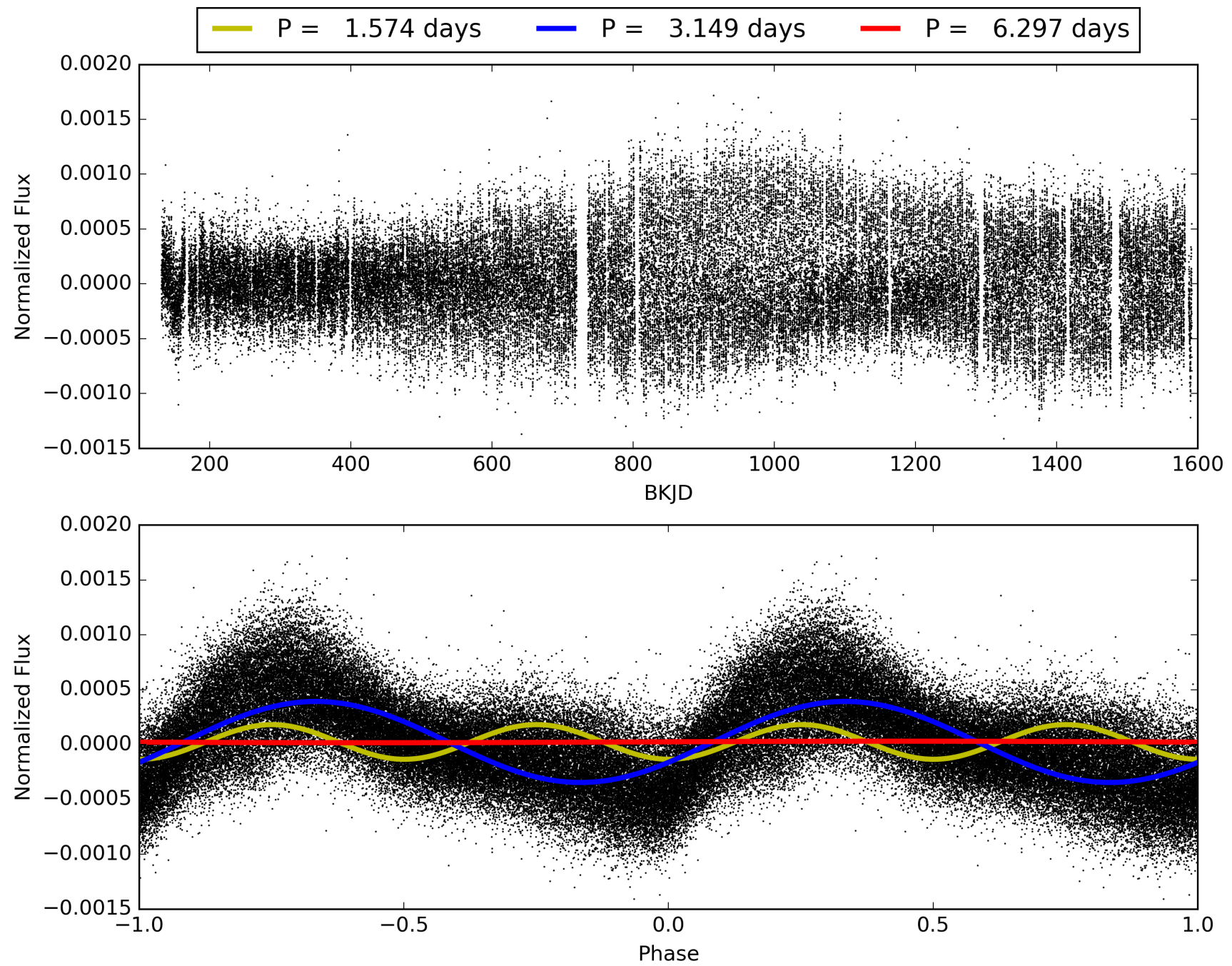
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.09e-22
RollingBand-fgt: 1.00 [412/412]
GhostDiagnostic-chr: 2.184
Centroid-sig: 0.1%
Centroid-so: 1.661 arcsec [2.63σ]
OotOffset-rm: 0.117 arcsec [0.82σ]
KicOffset-rm: 0.070 arcsec [0.50σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 1.00 [16/16]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 007629287-01, PDC Light Curves

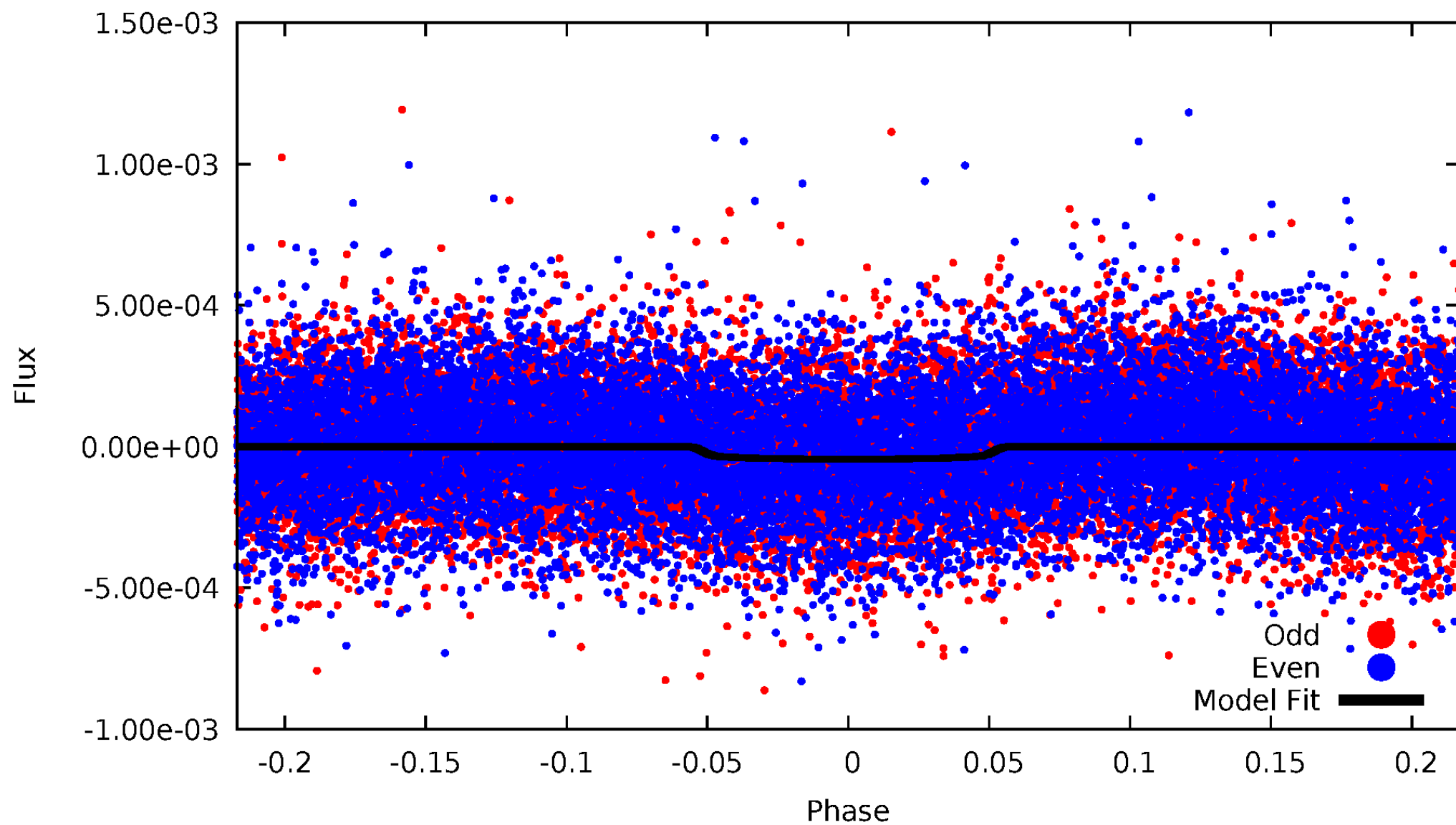


TCE 007629287-01



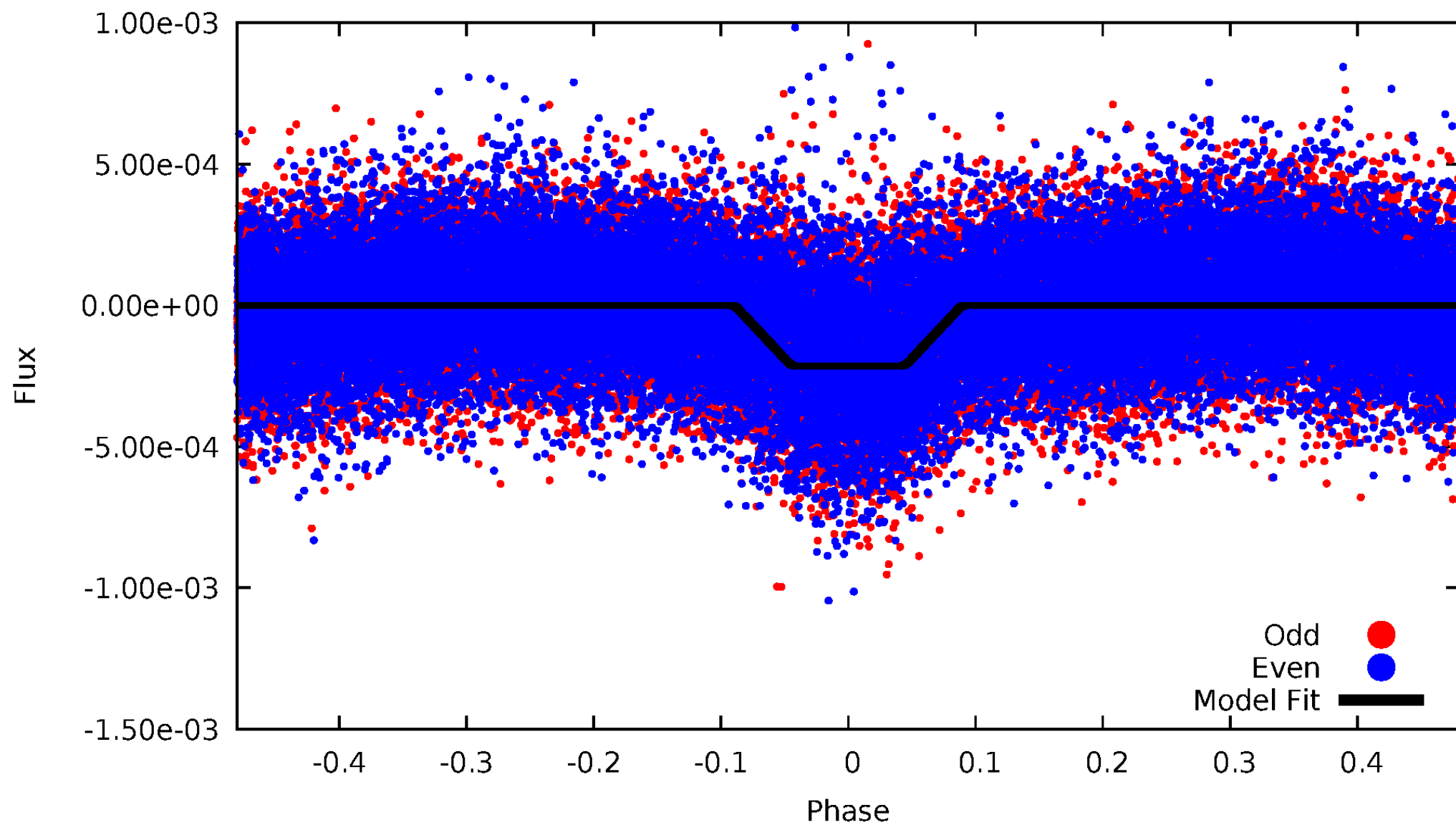
DV Odd/Even

TCE 007629287-01

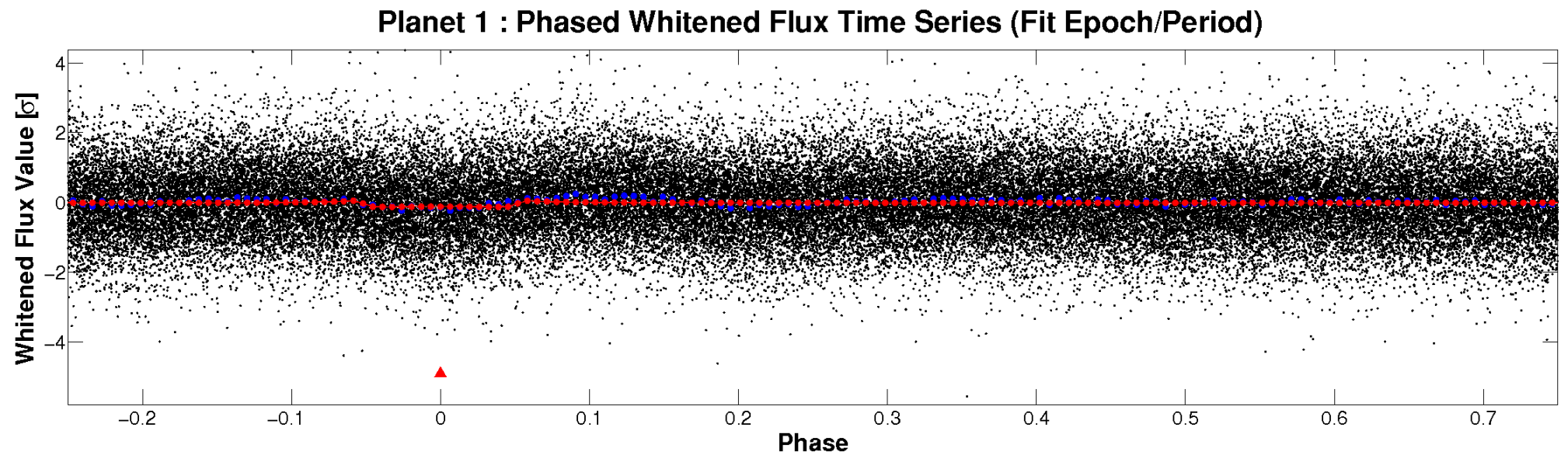
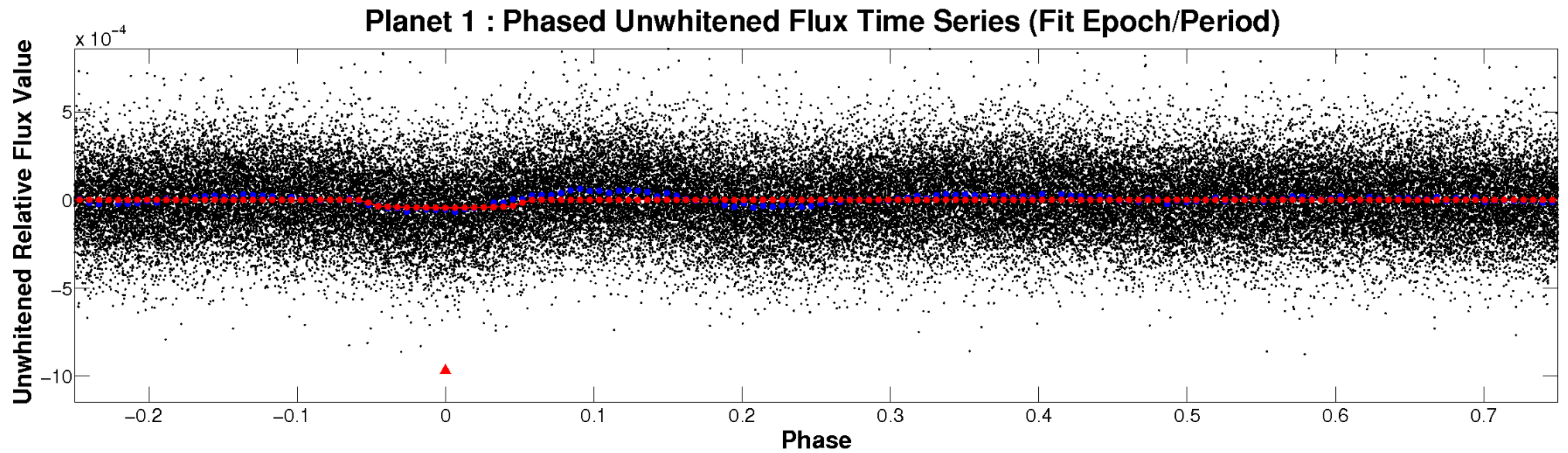


ALT Odd/Even

TCE 007629287-01

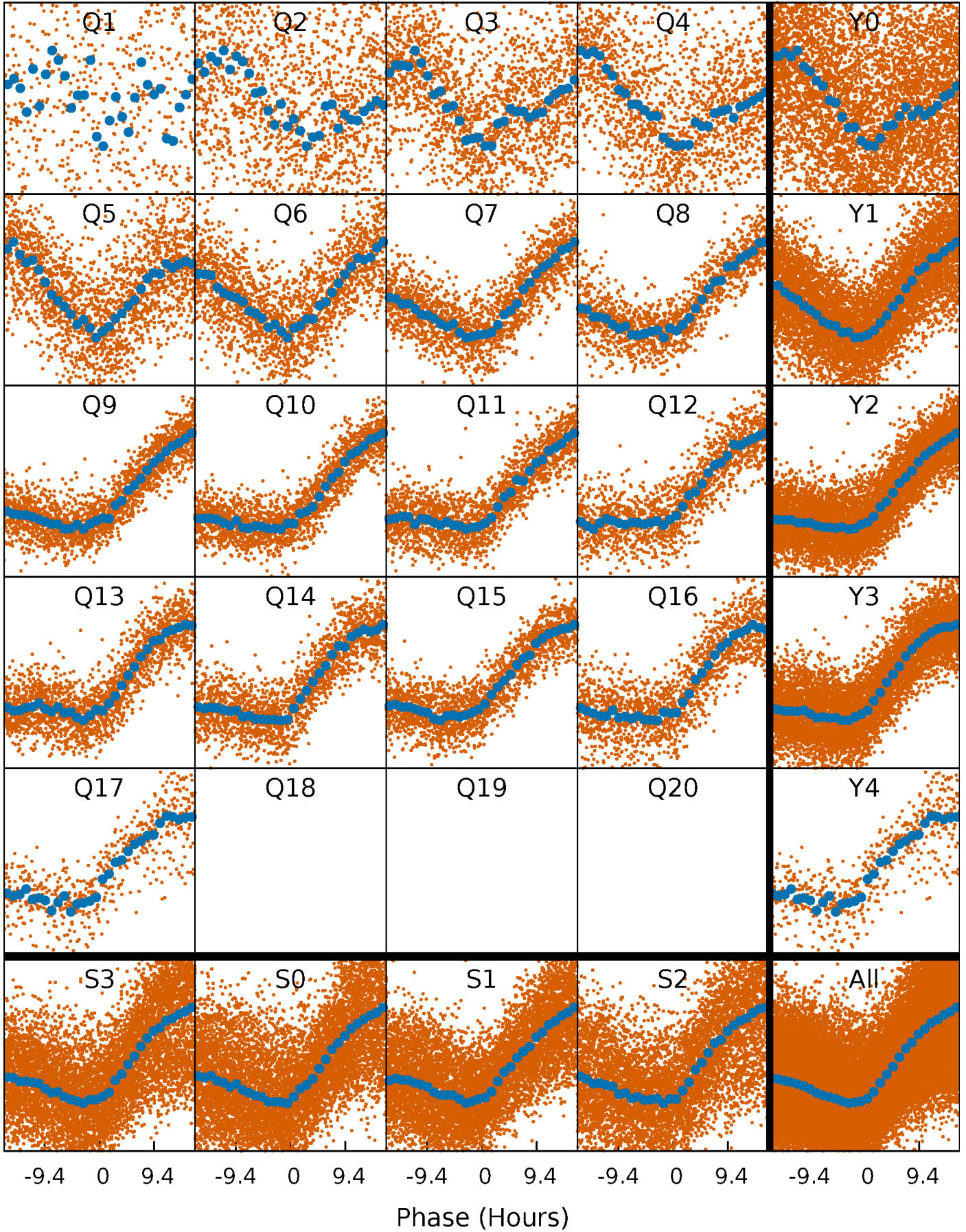


Non-Whitened Vs. Whitened Light Curve



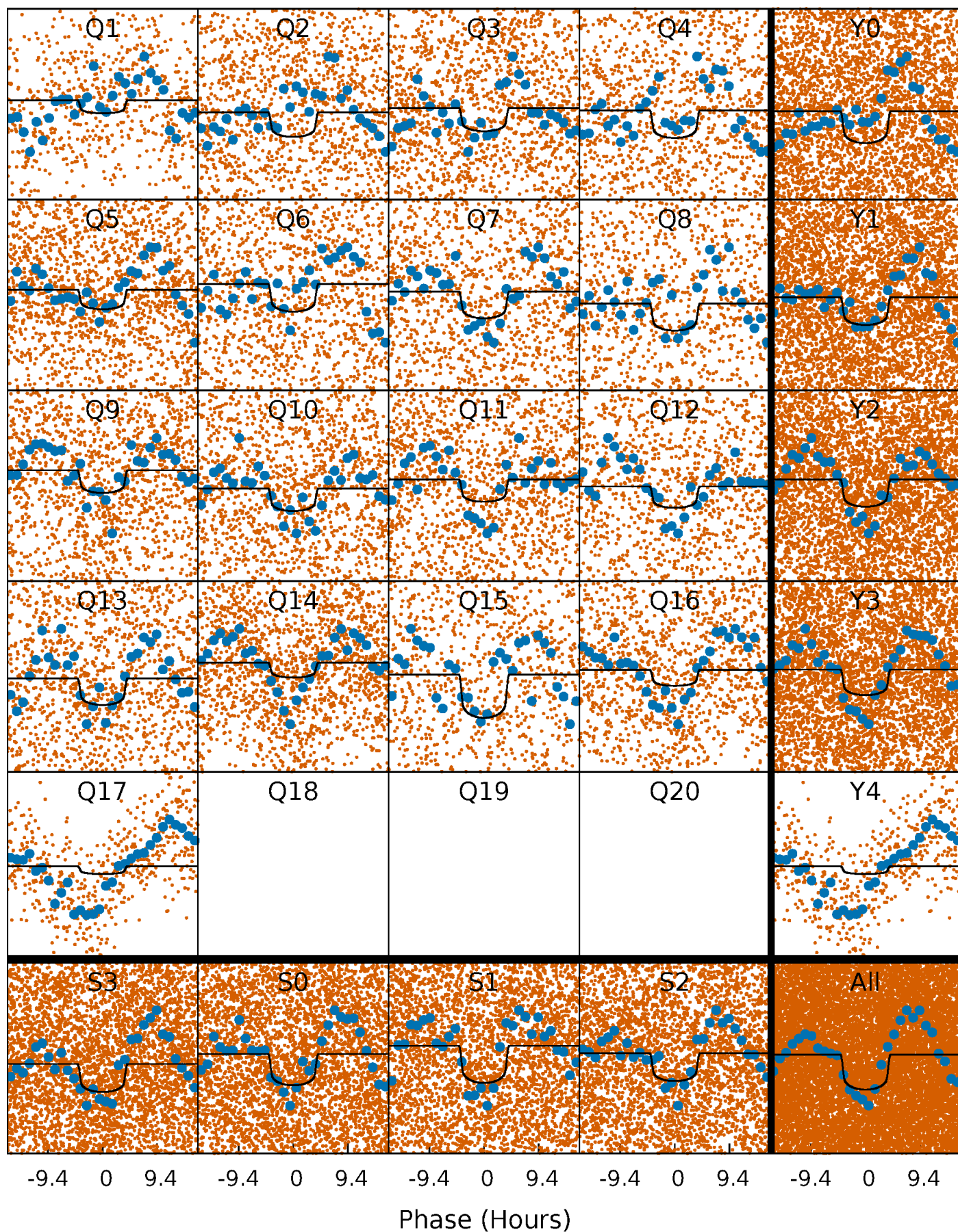
PDC Quarter-Phased Transit Curves

TCE 007629287-01 P= 3.148702 Days $T_0=131.744130$ (BKJD)



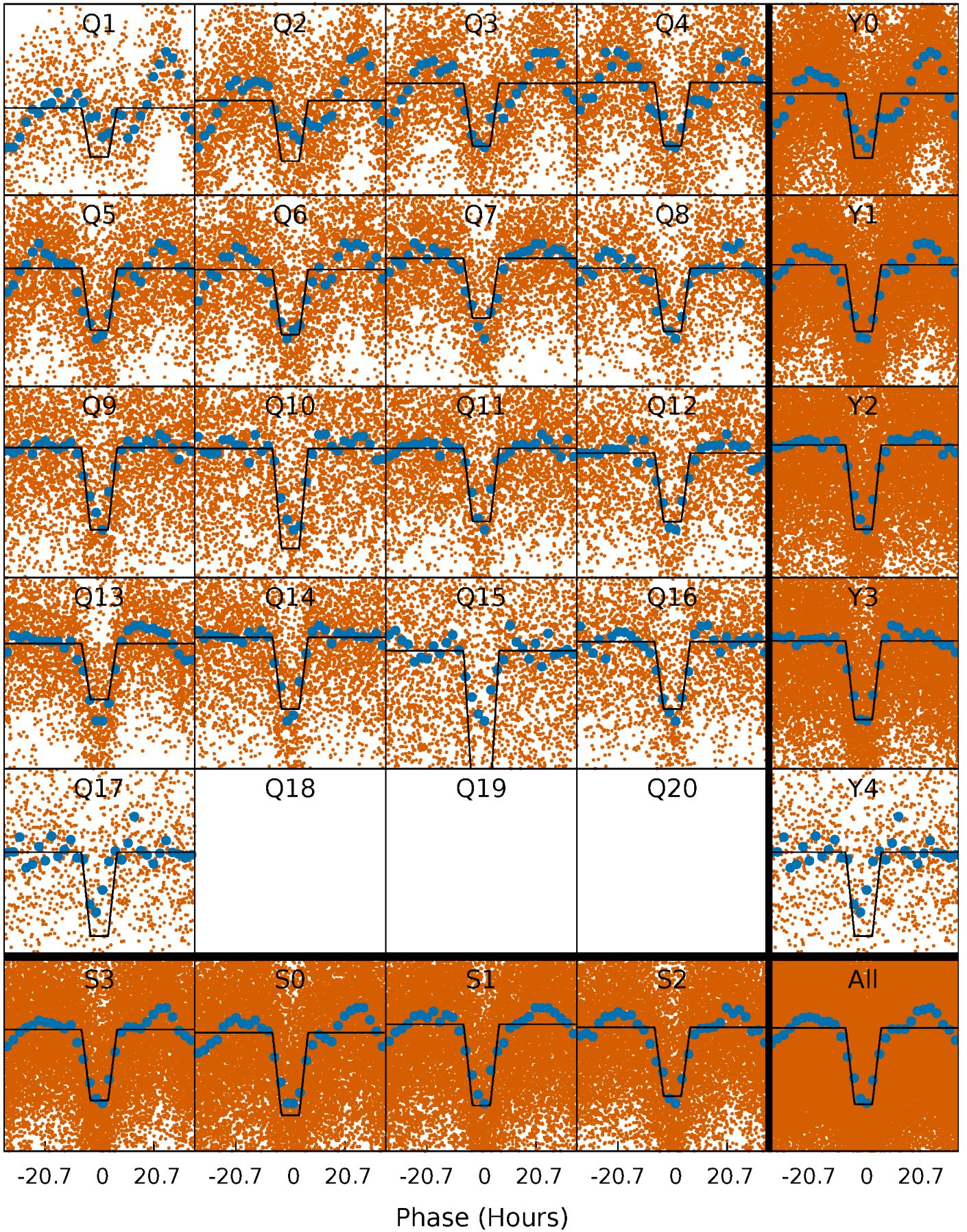
DV Quarter-Phased Transit Curves

TCE 007629287-01 P= 3.148702 Days $T_0=131.744130$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

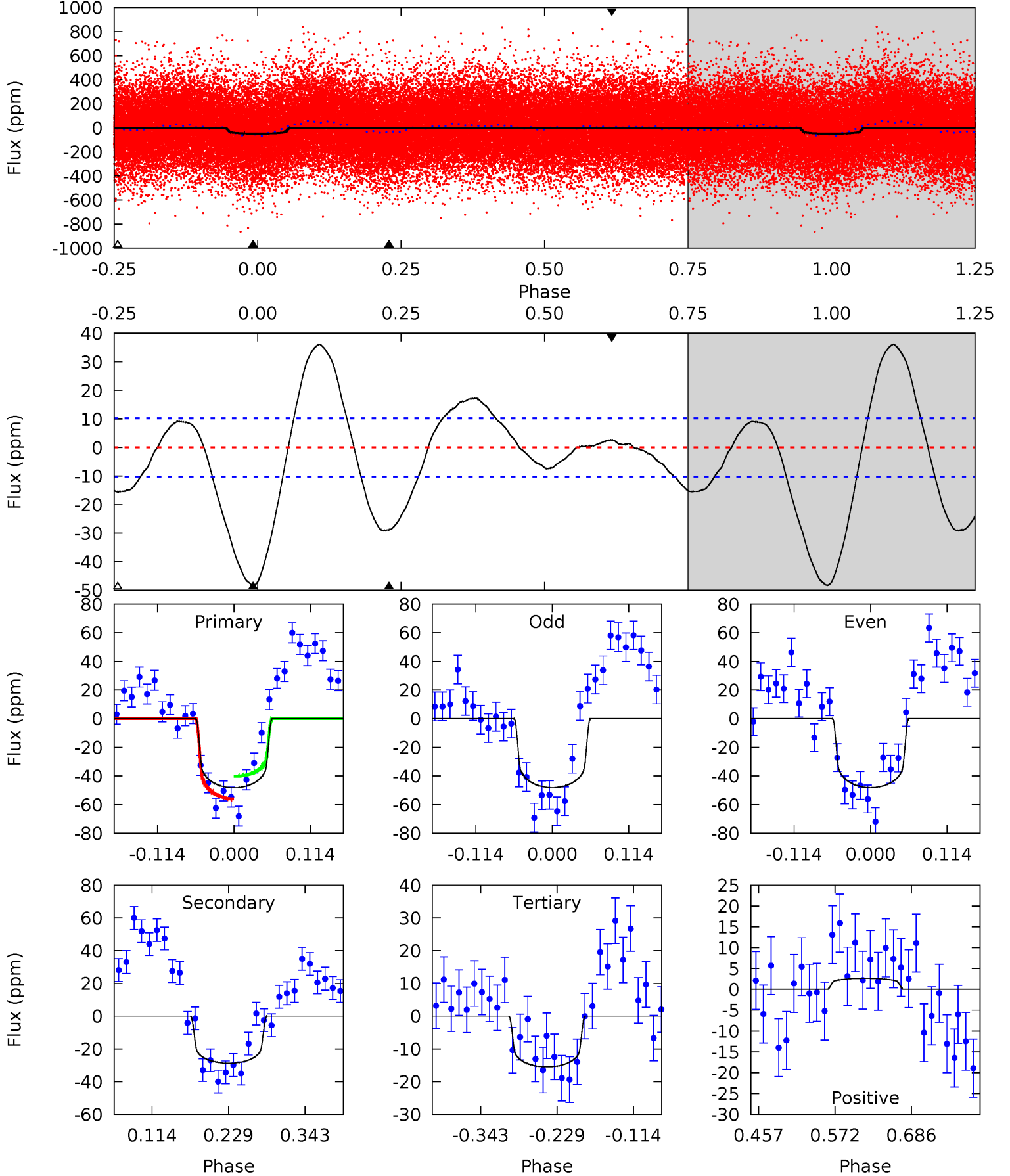
TCE 007629287-01 P= 3.148590 Days $T_0=131.758561$ (BKJD)



DV Model-Shift Uniqueness Test

007629287-01, P = 3.148702 Days, E = 128.595428 Days

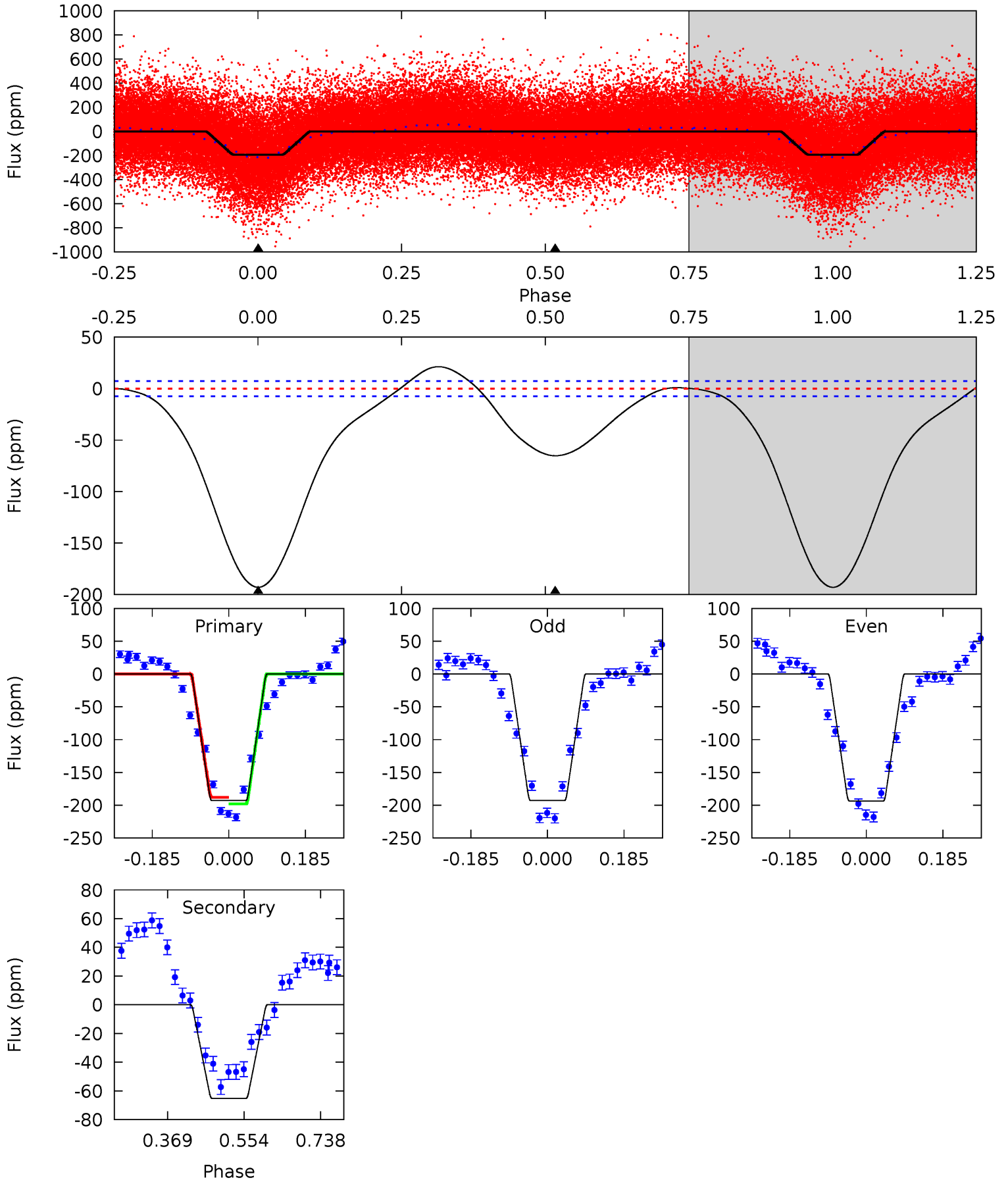
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.4	12.8	6.88	1.17	4.54	1.58	4.27	14.5	20.3	5.90	11.6	0.01	0.89	0.43	3.44



Alt Model-Shift Uniqueness Test

007629287-01, P = 3.148590 Days, E = 128.609971 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
115.6	39.1	0	0	4.43	1.33	6.99	115.6	115.6	39.1	39.1	0.22	0.96	0.10	3.03



Stellar Parameters For KIC 007629287

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6263^{+176}_{-220}	$3.951^{+0.364}_{-0.130}$	$-0.120^{+0.250}_{-0.300}$	$1.936^{+0.506}_{-0.760}$	$1.221^{+0.199}_{-0.219}$	$0.237^{+0.766}_{-0.103}$
	+3%/-4%	+9%/-3%	+208%/-250%	+26%/-39%	+16%/-18%	+323%/-44%
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 007629287-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-29 ± 2	$1.44^{+0.41}_{-0.36}$	2469^{+199}_{-279}	5377^{+538}_{-410}	15^{+12}_{-6}
Alt.	-65 ± 2	$2.97^{+0.55}_{-0.65}$	2479^{+185}_{-287}	4737^{+204}_{-204}	$8.192^{+5.087}_{-2.126}$

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

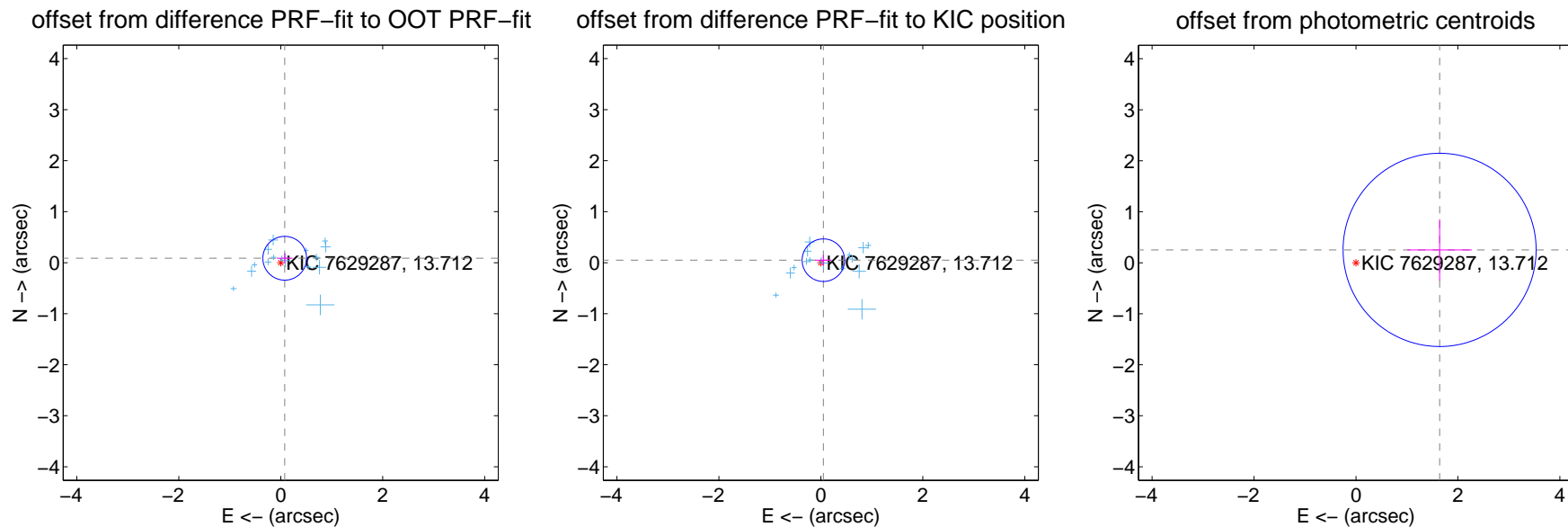
DV Centroid Data

Supplemental centroid analysis for 007629287-01. Kepler magnitude: 13.71. Transit SNR 9.89

There are 16 quarters with good PRF difference image offsets

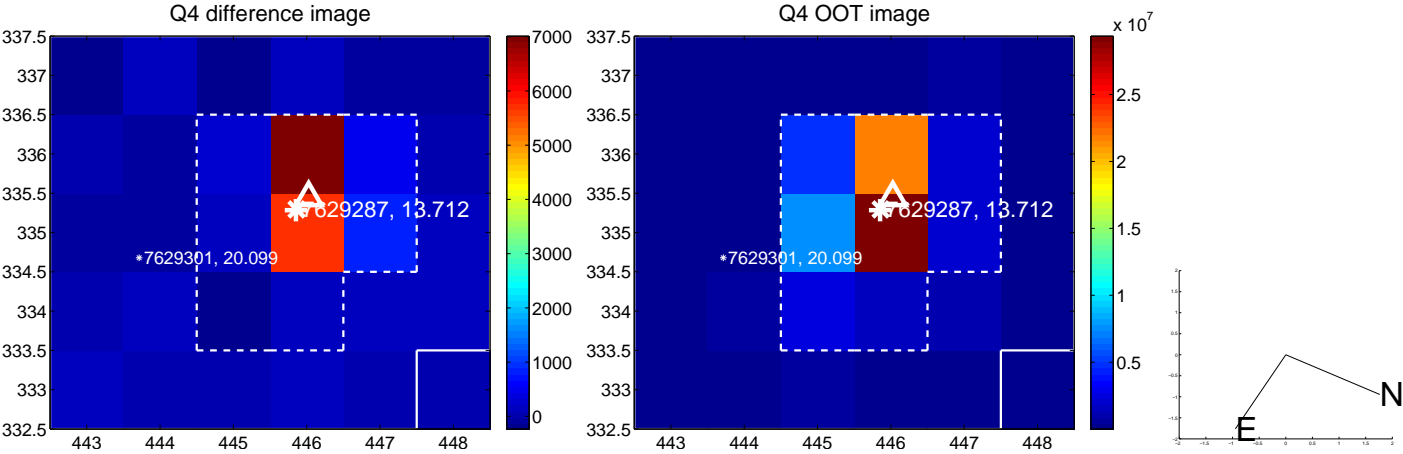
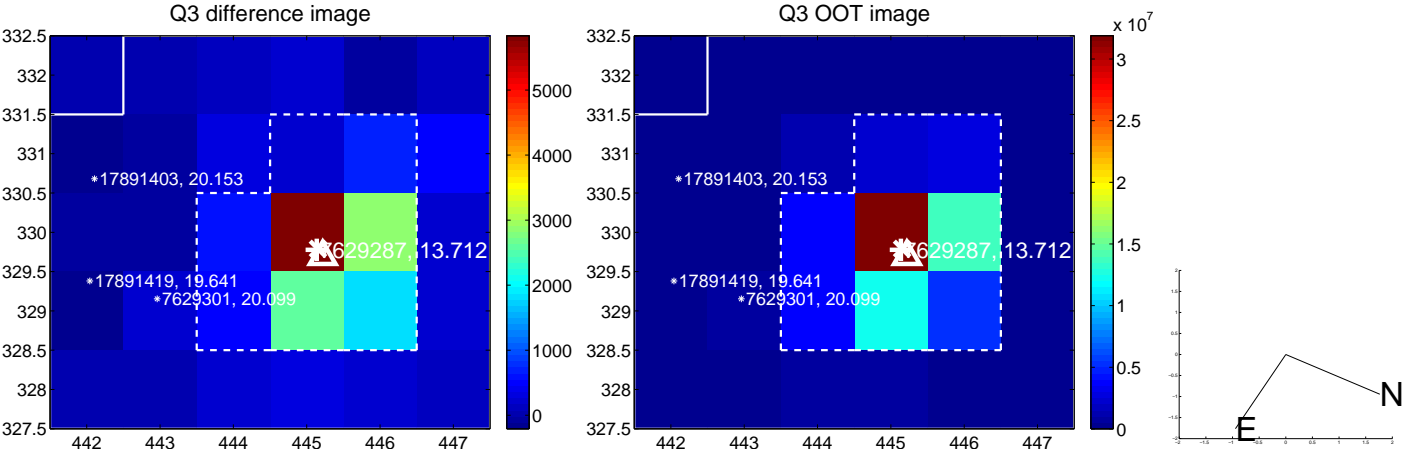
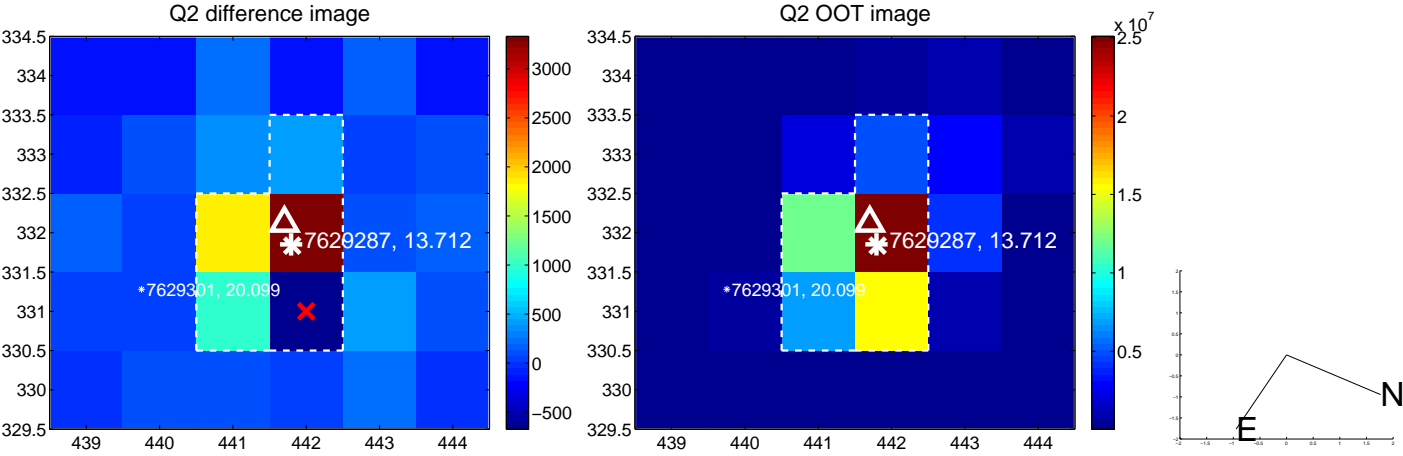
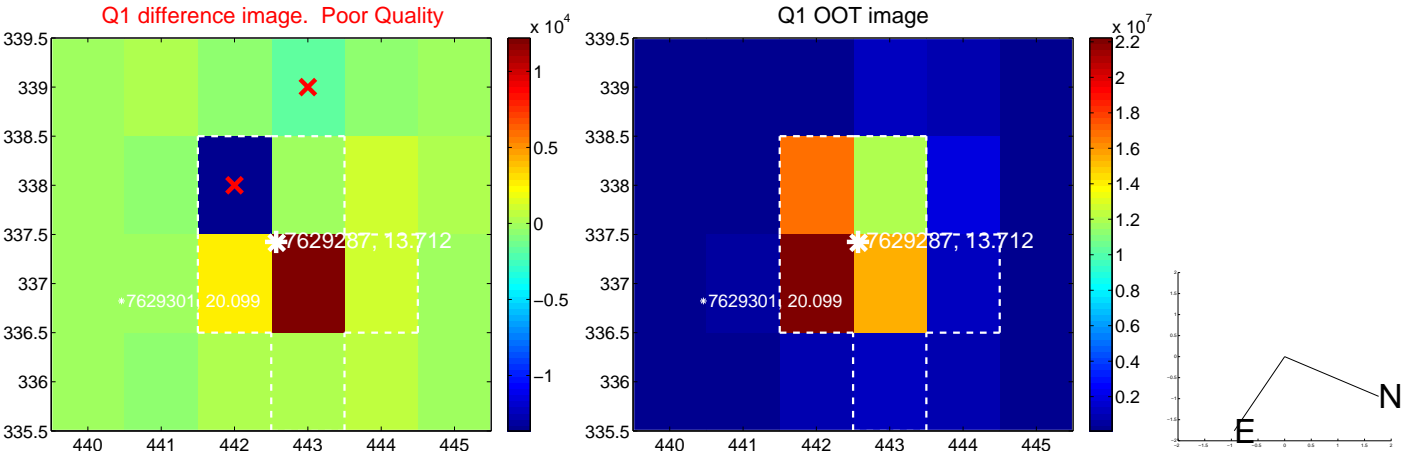
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.117 ± 0.143	0.82	-0.078 ± 0.156	0.087 ± 0.102
PRF-fit source offset from KIC position	0.070 ± 0.139	0.50	-0.050 ± 0.159	0.049 ± 0.106
photometric centroid source offset	1.66 ± 0.63	2.63	-1.64 ± 0.63	0.25 ± 0.60

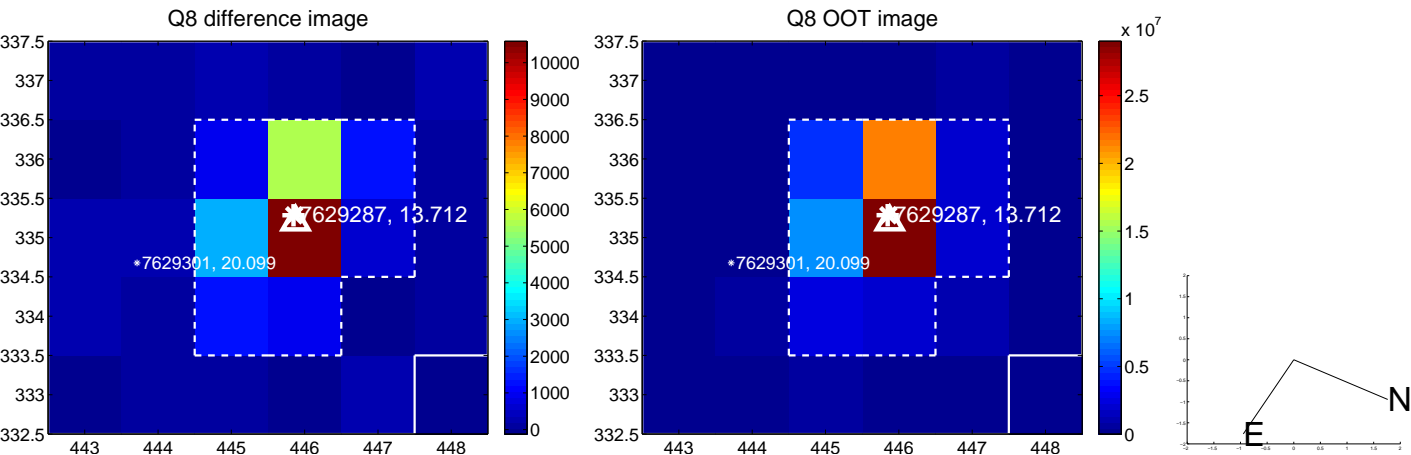
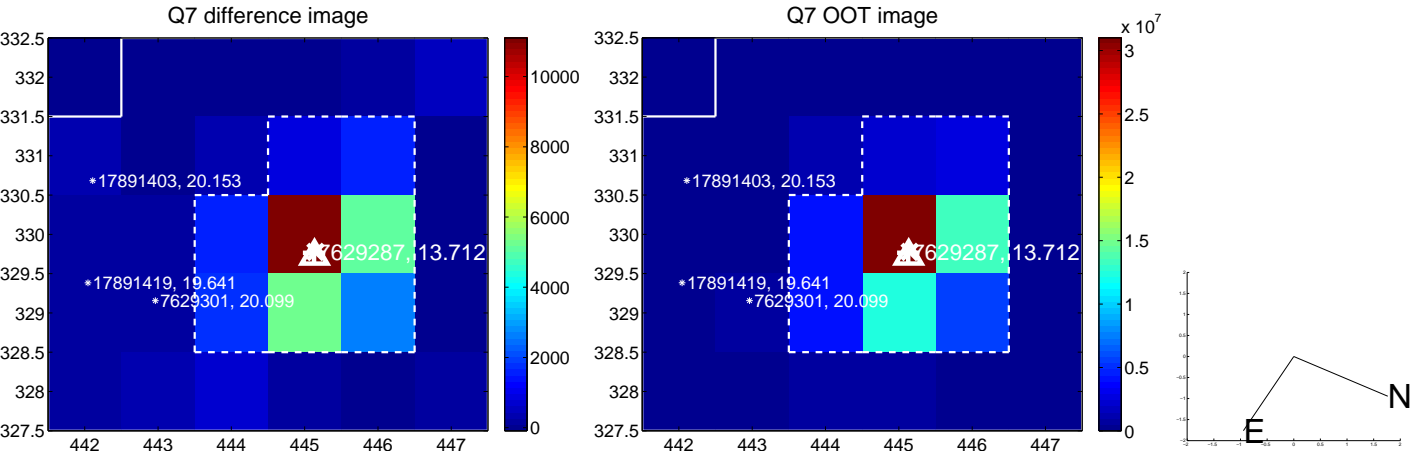
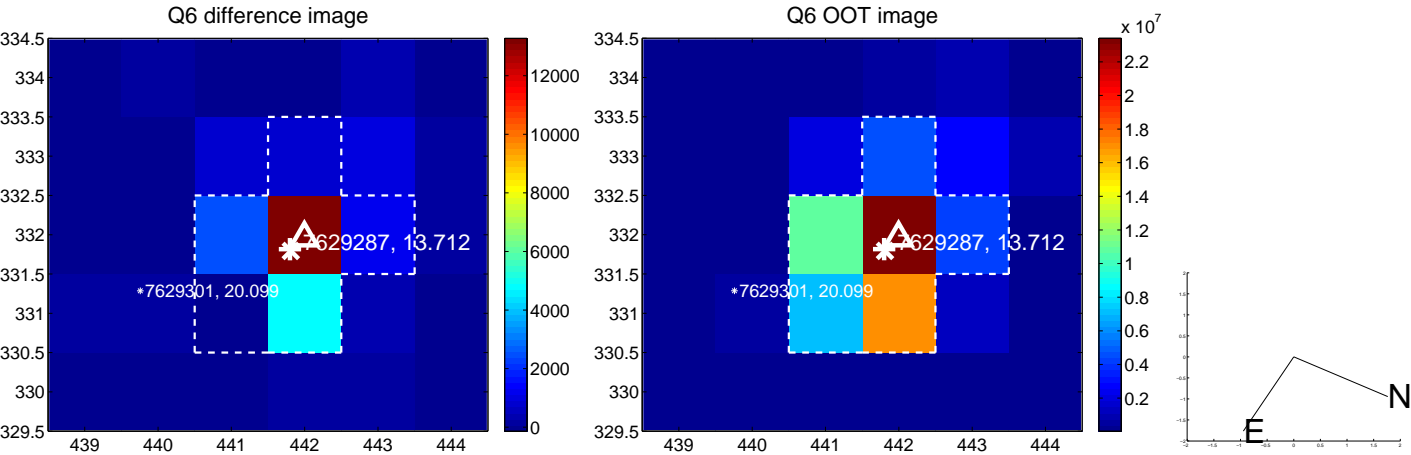
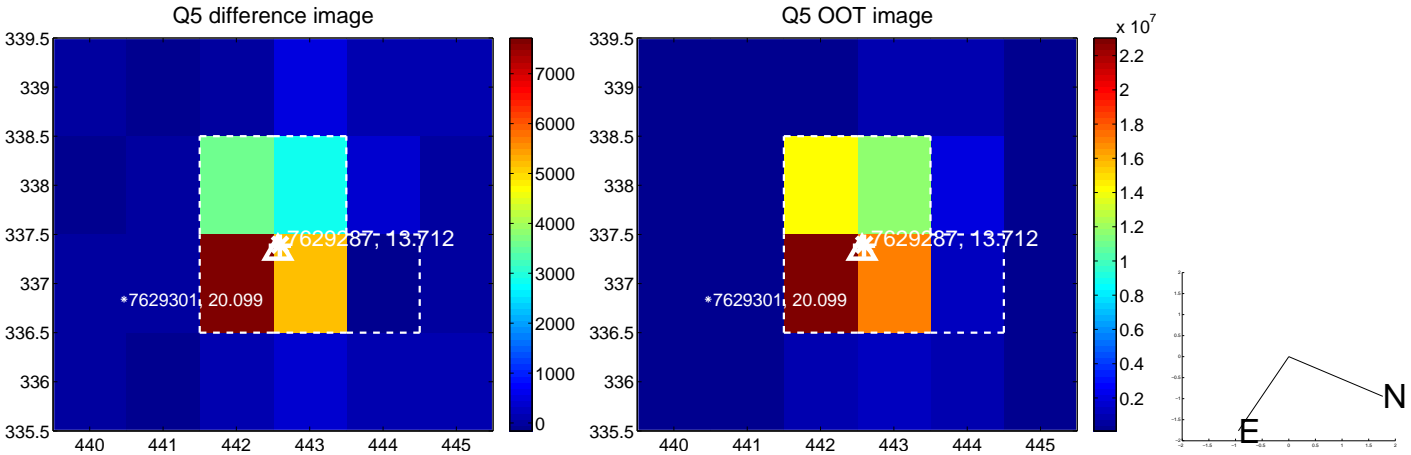


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

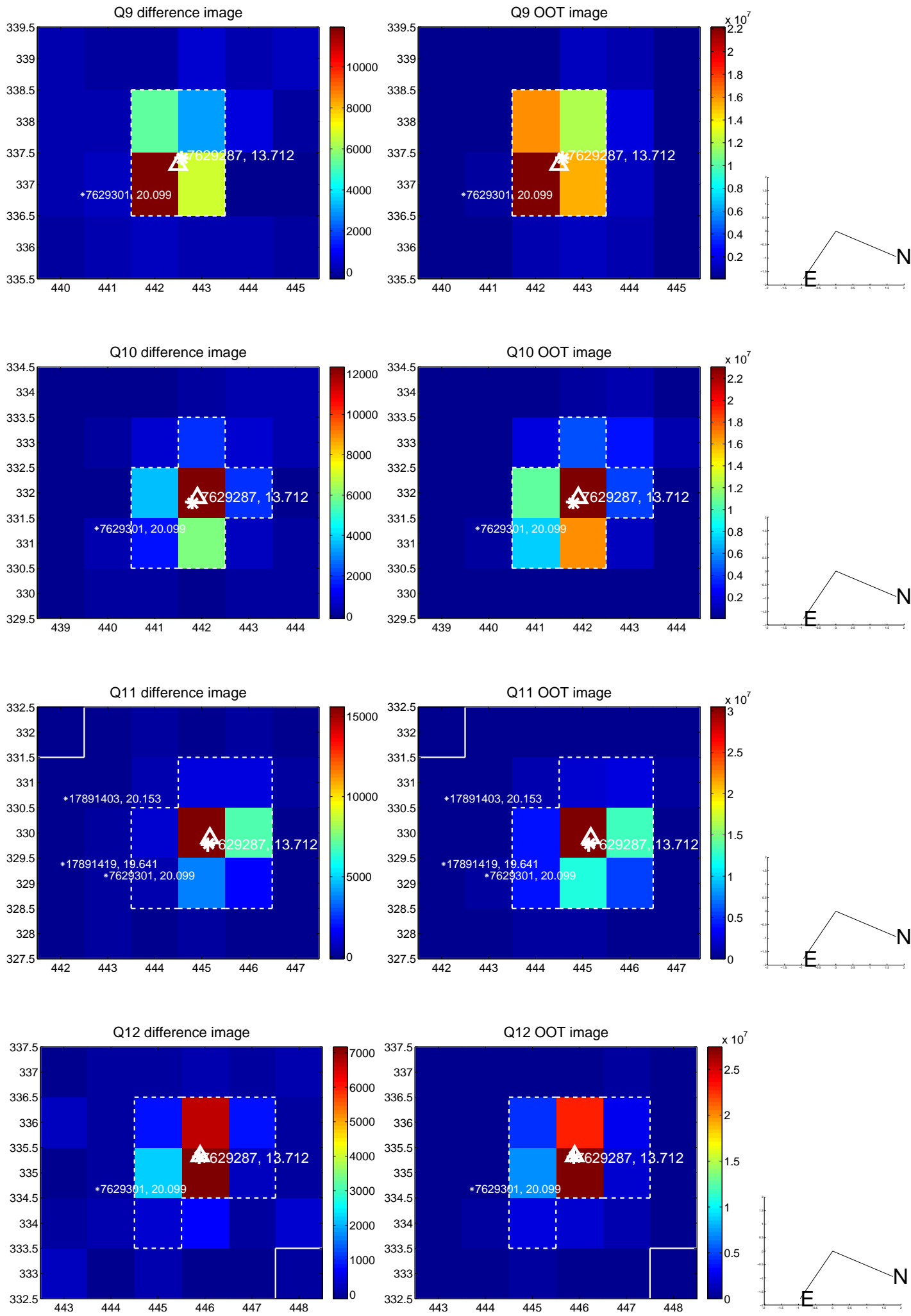
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



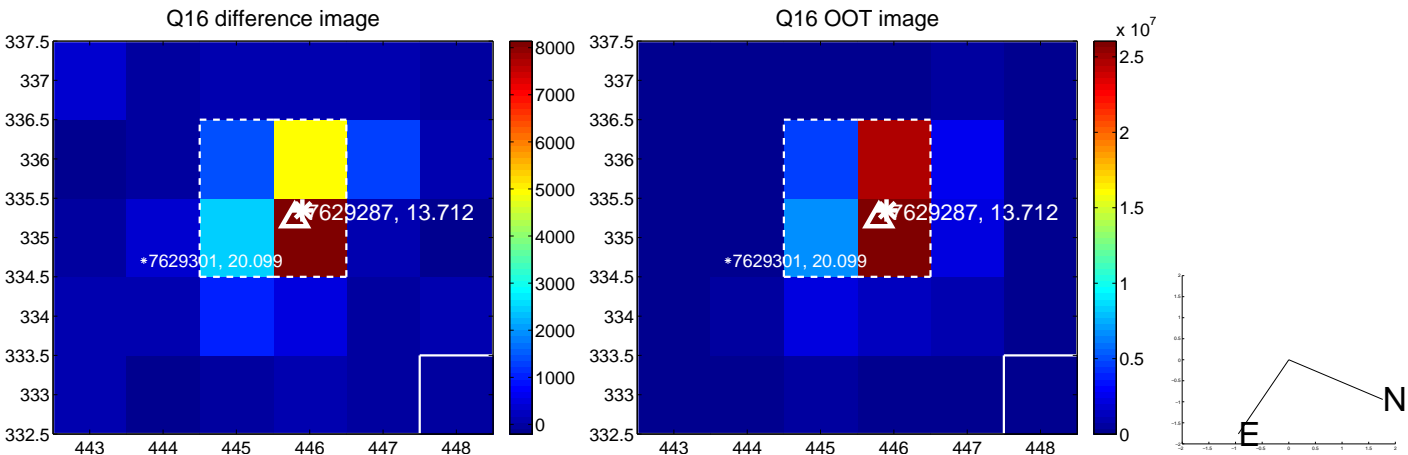
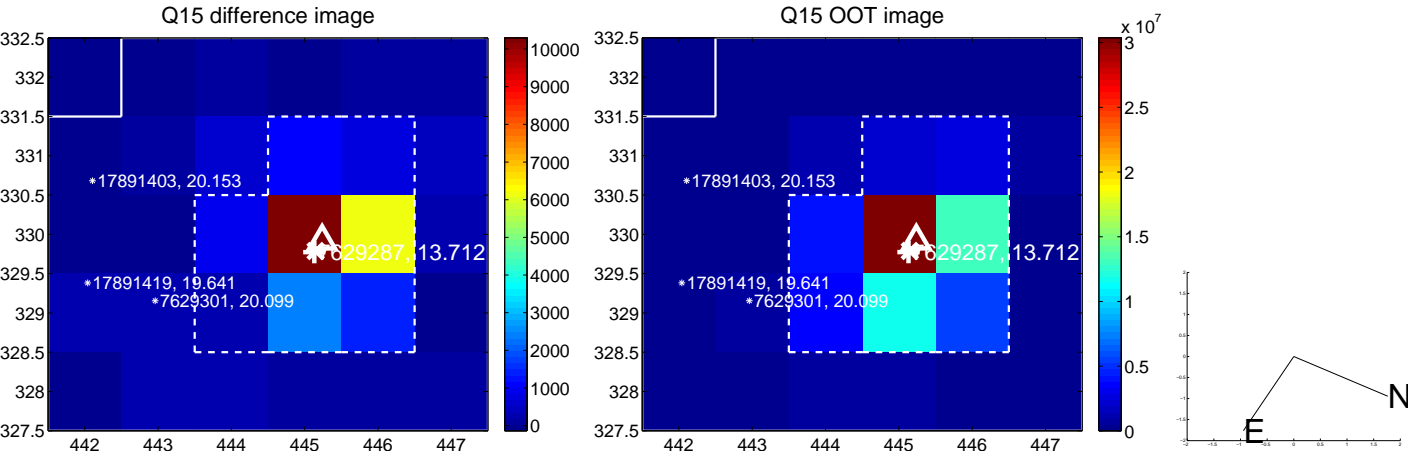
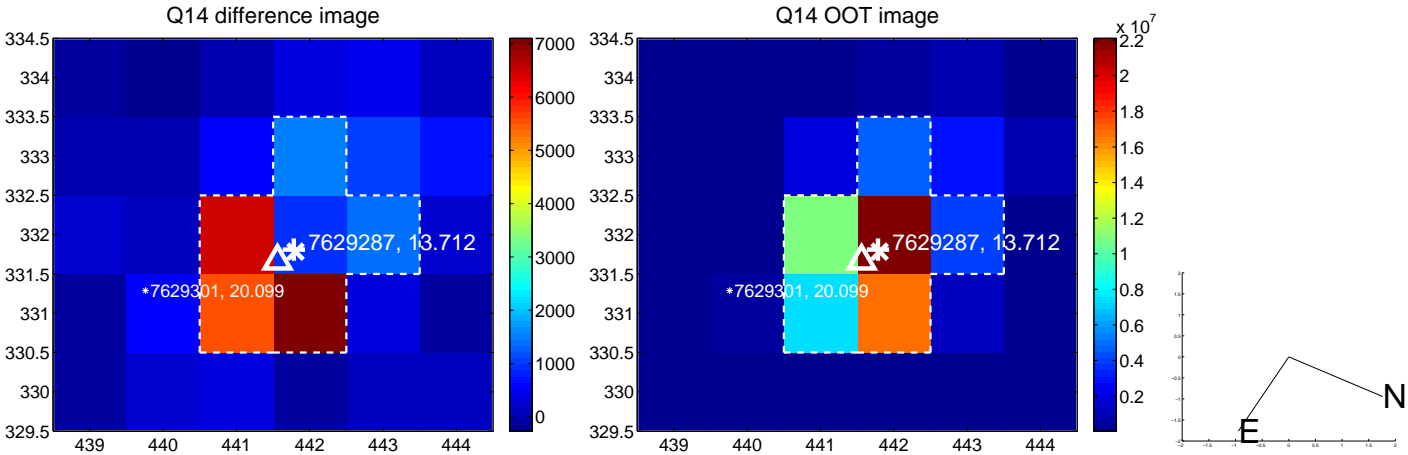
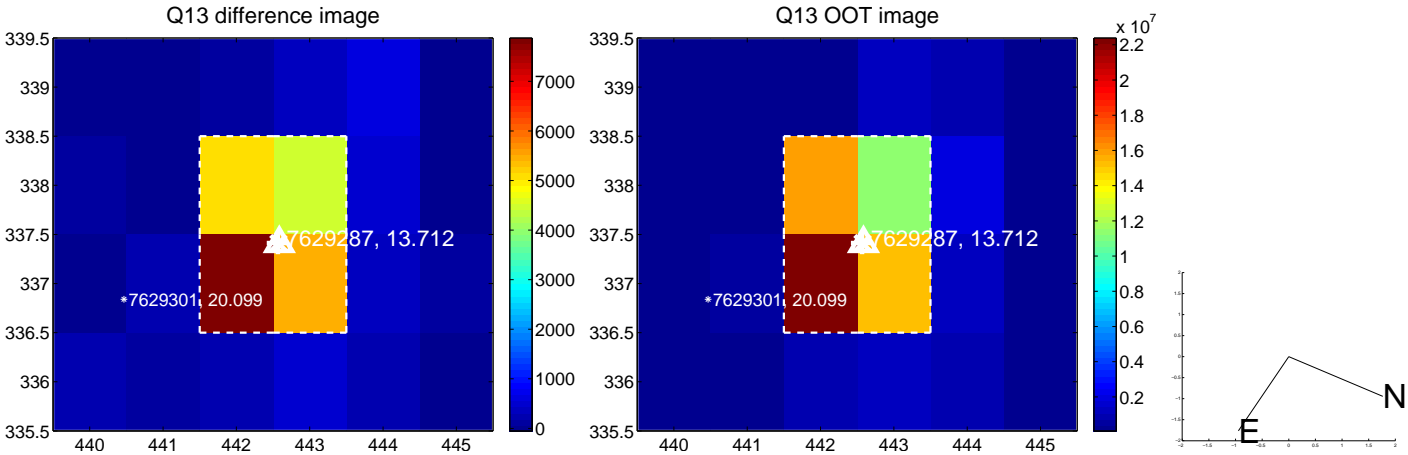
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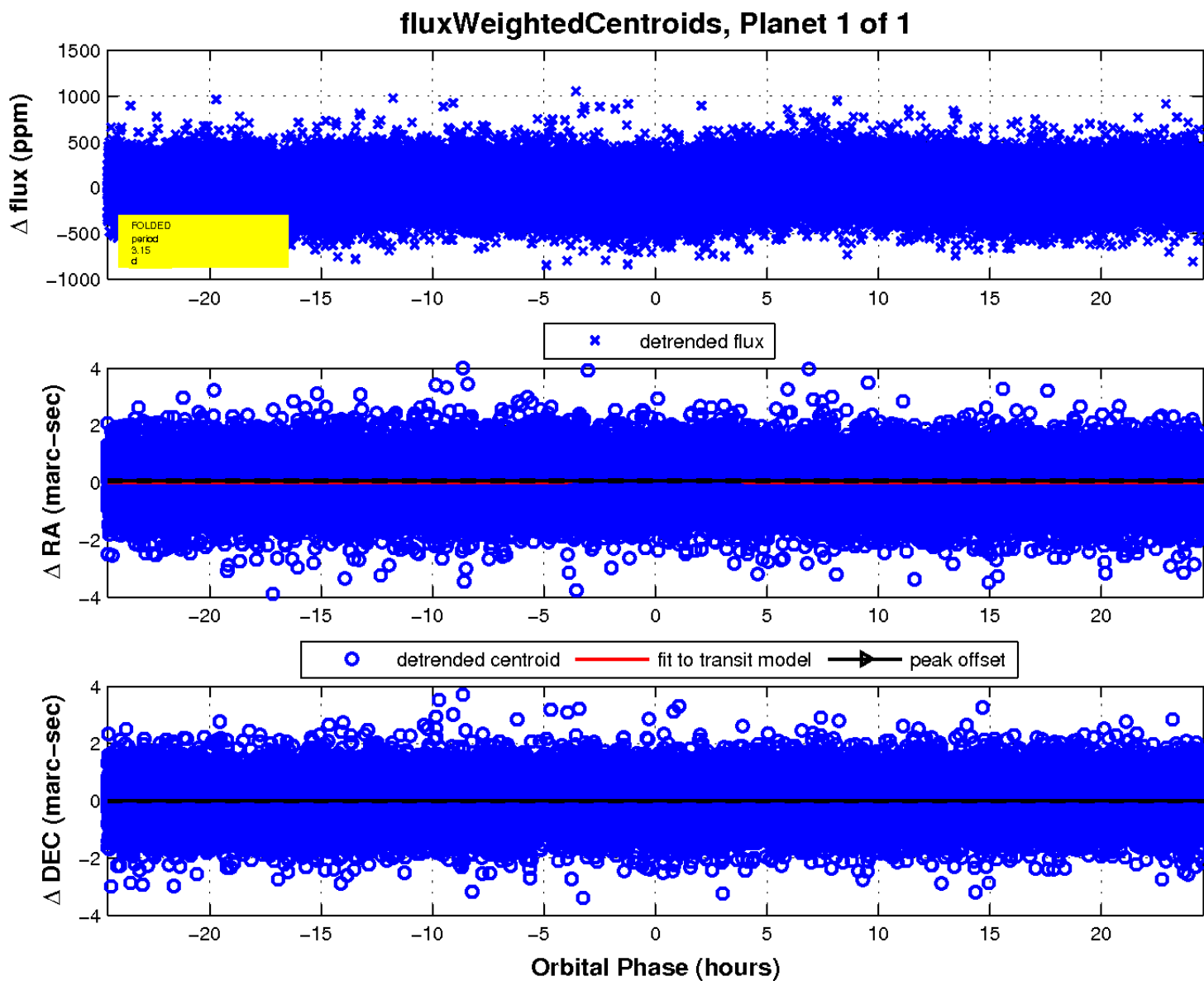
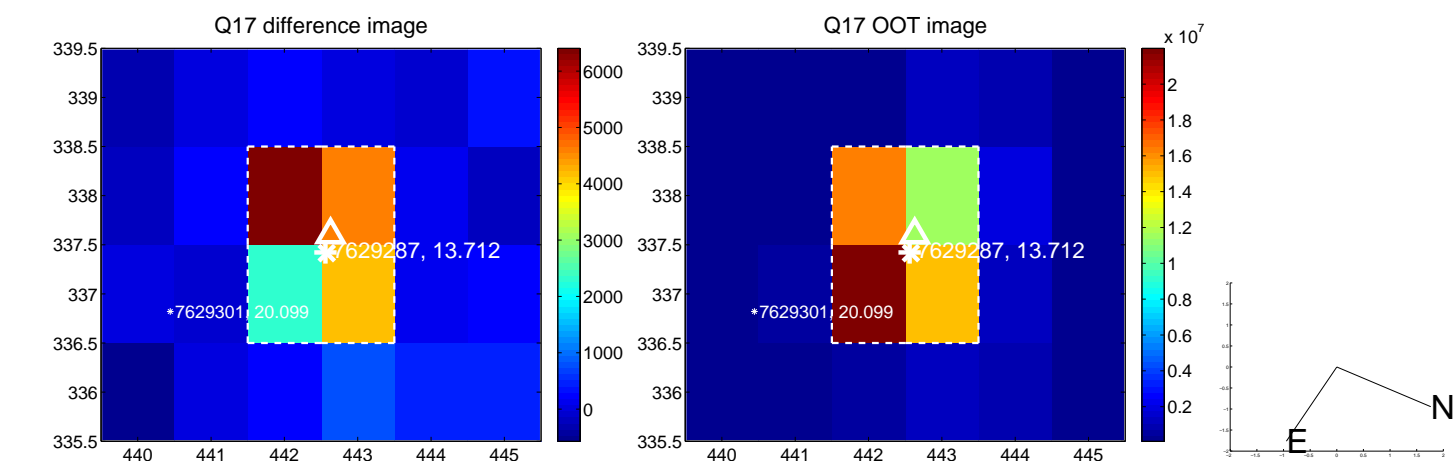
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UKIRT Image

Declination

