

AOTA Checklist

(Steps provided by Eric Frappa on 22.02.2021)

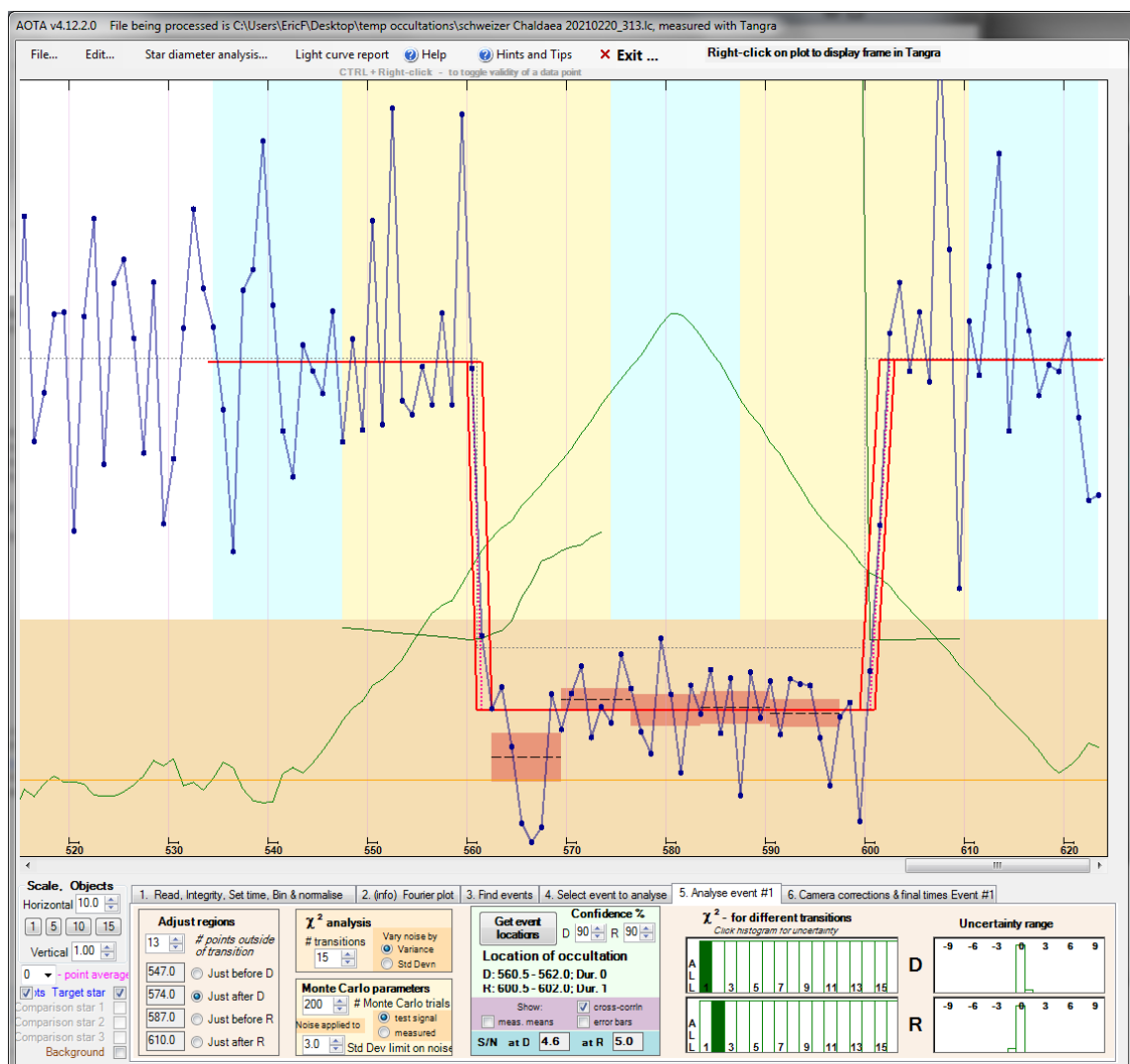
1) In AOTA, you have to manually set the zones of transition (in yellow) in tab 5, "adjust regions", with **enough points on each side of the actual transitions**, allowing AOTA to calculate the uncertainties based on the noise of the curve. The rule, most of the time, is that the **uncertainties (red lines) should not touch a yellow border**.

2) When setting the zones of transition, even when the event is short, **try to shift the 2nd and 3rd points (just after D, just before R) by at least one point**, this to prevent AOTA making the bottom of the fit on the background instead of on the occultation level.

3) The blue zone is controlled by the "# points outside of transition" in "Adjust regions" and is used to measure the mean full and occultation levels.

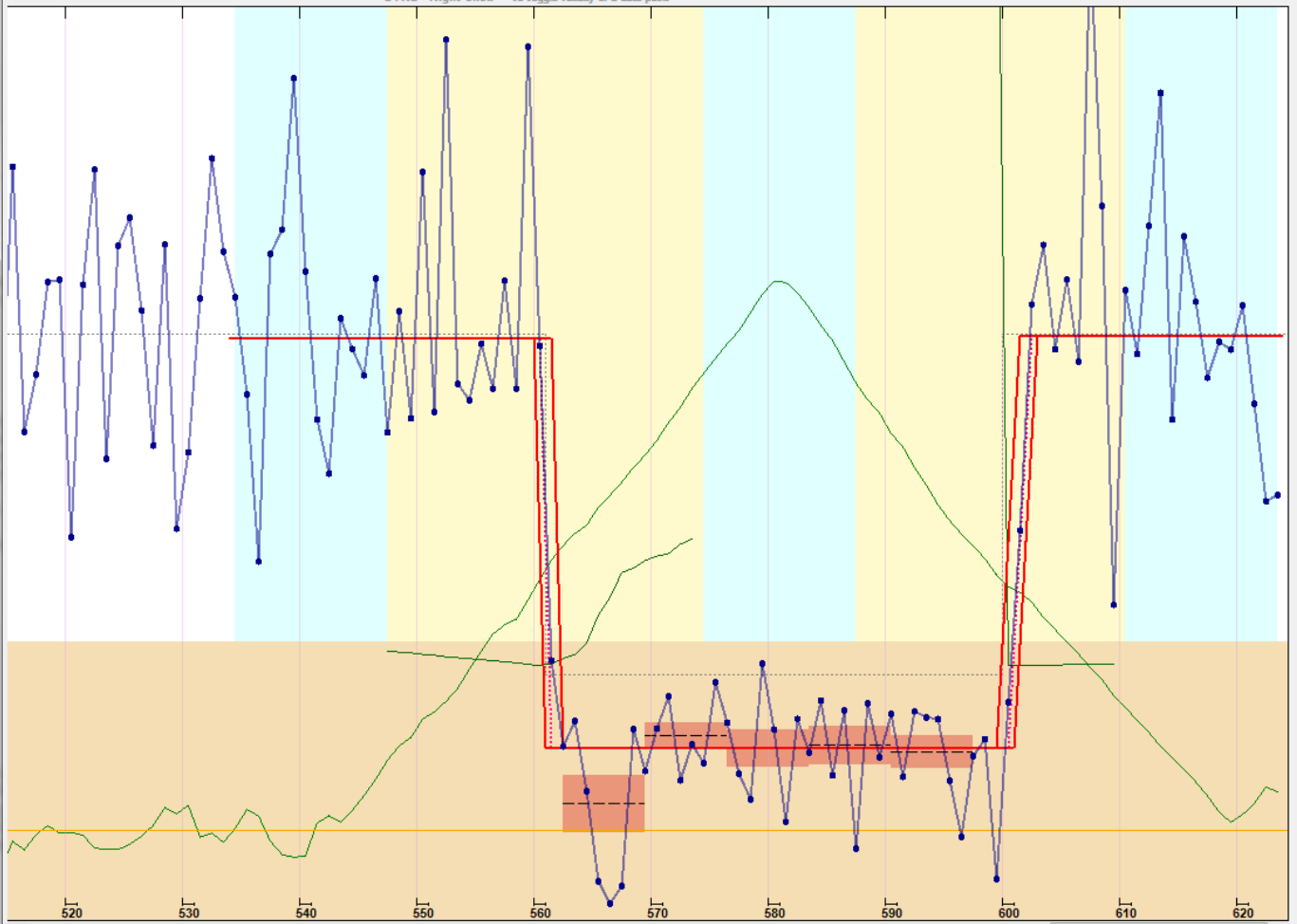
4) When you click on "get event locations", if the fit does not match the occultation (ingress, egress and occultation level) and the yellow zones are different than the ones you choose (assuming that you have set them correctly), just move back and forth the "# points outside of transition" value and everything should be back to normal.

5) Always in tab 5, the histogram "chi2 - for different transitions" gives you the best transition for D and R (looking at the height of each rectangle). Most of the time, use only transitions of type 1 or 2, not more, unless you have a good reason to think that the transition is really gradual.



6) Each click on the selected green rectangle in the chi2 histogram runs a Monte Carlo analysis, which allows you to test different solutions independently for D and R. When possible, prefer the most symmetrical solution around the apparent transition.

CTRL + Right-click - to toggle validity of a data point



Scale, Objects
 Horizontal 10.0
 Vertical 1.00
 0 - point average
 Target star
 Comparison star 1
 Comparison star 2
 Comparison star 3
 Background

1. Read, Integrity, Set time, Bin & normalise 2. (info) Fourier plot 3. Find events 4. Select event to analyse 5. Analyse event #1 6. Camera corrections & final times Event #1

Camera corrections

Video camera
 ADVS - corrected
 Camera delay: 0.0 frames

Video system
 NTSC PAL Other Unknown
 (ADVS, AAV, SER)

Null Camera corrections applied within Tangra
 frames integrated: _____
 Exposure delay: 0 frames

Final results ** Event #1

Time Source: Tangra

D at frame 561.0 +1.0/-0.5
 UTC of D 22 40 32.61 ± 0.04
 Transition 0 frames

R at frame 601.5 +0.5/-1.0
 UTC of R 22 40 34.61 ± 0.04
 Transition 1 frames

Save AOTA images

1 events to analyse