Tilt events in TSOs tracker

This page keeps track of tilt events observed on TSO datasets. We identify CANDIDATE tilt events from TSOs based on different metrics (flux variations, FWHM, etc.) and change those to CONFIRMED based on WFS analyses/feedback.

Relevant information before reading the table below:

- **What is a "tilt" event?** Read the description for TSO'ers in JDox.
- **Can I report a "tilt" event in public data that is not in the list below?** Yes, please! Reach out to Nestor Espinoza if you find one and he'll tabulate it below.
- **Can I report a "tilt" event of my propietary data?** Yes, that would be fantastic. However, we need direct consent from the PI(s) of the program to tabulate it below. If you have a reference (e.g., a published paper), even better. Please reach out to Nestor Espinoza if you find one and he'll tabulate it below.

2022

Date	Target	PID / Obs	Instrument (s) used for detection	Detection method	Status	Comments
2022-05-02	Transit of HAT-P-14b	1442 / 1	NIRcam SW /LW + FGS	Flux "jump" (in NIRCam and FGS), FWHM "jump", centroid "jump"	CONFIRMED	See Schlawin+2022. Event at about 2459701.94 JD. Event identified to be on C6 and C1 segments.
2022-06-08	Transit of HAT-P-14b	1541 / 1	NIRISS/SOSS	Flux "bumps" (both in Order 1 and 2), FWHM	CANDIDATE	This seems to be a different tilt event flavor, with a trend in the FWHM rather than a jump in it. Various analyses done by Nestor Espinoza. It doesn't appear on FGS telemetry flux count.
2022-06-21	Transit of WASP-96b	2734 / 2	NIRISS /SOSS (+ FGS?)	FWHM "jump", but no apparent impact on white-light photometry.	CANDIDATE	This event didn't produce a measurable flux "bump", but it shows a clear FWHM "jump" signature. FGS shows what appears to be a small (500 ppm) flux jump at 2459751.86 JD — but the BJD TDB time for the event in SOSS is about 2459751.88 — so a 30-min difference.
2022-07-30	Transit of WASP-39b	1366 / 3	NIRSpec /BOTS G395H + FGS	Flux "jump", FWHM "jump", centroid "jump".	CONFIRMED	
2022-08-11	Eclipse of WASP-18b	1366 / 21	NIRISS /SOSS + FGS	Flux "jump", FWHM "jump", centroid "jump".	CONFIRMED	Tilt event seems to be very small, suggesting (again) SOSS is very sensitive to these. FWHM jump is obvious in the data. Event likely on B6 segment.