

2020-05-20 TSO WG Meeting notes

Date

20 May 2020

Attendees

- [Nestor Espinoza](#)
- [Brian Brooks](#)
- [Sarah Kendrew](#)
- [Tony Keyes](#)
- [Nikolay Nikolov](#)
- [Unknown User \(birkmann\)](#)
- [Kevin Volk](#)

Meeting agenda:

1. Updates on [TSO WG tasks for FY2020](#).
2. TSO activities on each instrument branch.
3. Exoplanet consulting expert involvement on TSO WG tasks over the summer.
4. Overview of DMS TSO-related tasks.
5. ExoCTK updates.

Discussion items

Time	Item	Who	Notes
	1. News & announcements	Everyone	
25min	2. Updates on TSO WG tasks for Fiscal Year 2020		
	Pipeline readiness & preparation for TSO	Everyone	<ul style="list-style-type: none">• Currently, problem with TSO3 white-light curve for NIRCcam and NIRISS. Brian Hilbert asked Nikolay Nikolov to work on this, in order to have a quick-look at the data from the level 2 or 3 products from the JWST pipeline. He did an independent analysis of the data in order to extract the spectra, and try to obtain the expected signal. <p>When Nikolay looked at the level 3a data, the spectra (and white-light lightcurve) didn't make much sense. Lots of jumps, no clear transit in the recovered data. It is unclear, however, if this happened because of the flux calibration or not. When he started from the level 2 data, the uncalibrated 1D spectra looks really good, as well as the white-light curve. Ideal would be to be able to turn off the flux calibration in order to investigate if that's the issue with the calibration pipeline, but that's not straightforward to do. Tony Keyes suggests that maybe one could trick the flux calibration by passing a unitary configuration file. In general, Sarah Kendrew mentions that changing the defaults in the configuration files might help knowing what is going on.</p> <p>Nikolay will be looking at this in more detail in order to nail down the problem that Brian Hilbert was seeing.</p> <div><input checked="" type="checkbox"/> TO DO Nestor Espinoza and Sarah Kendrew will suggest Nikolay Nikolov presents in the next CalWeb WG meeting so he can update the team on what he did, and how TSO-related data reduction works in practice in order to obtain back the ingested signal in the simulations.</div>
	Instrument & cross-instrument TSO tasks	Everyone	<ul style="list-style-type: none">• Sarah Kendrew mentions current discussions going on in the MIRI team on how to add MIRI TSO resources for pipeline calibration & testing.
30min	3. TSO activities per instrument team		
5min	NIRISS activities/updates	Nestor Espinoza	<ul style="list-style-type: none">▪ Nestor Espinoza to start working on testing and validating new spectral trace extraction developed by Joe F. and Kevin V.
5min	NIRCcam activities /updates	Brian Brooks Nikolay Nikolov	<ul style="list-style-type: none">▪ (See above)

5min	NIRSpec activities /updates	Tony Keyes	<ul style="list-style-type: none"> About to start working on TA for saturated images.
5min	MIRI activities/updates	Sarah Kendrew	<ul style="list-style-type: none"> Working on implementing aperture correction for MIRI LRS. Right now focus on LRS slit, but steps for slitless would definitely be benefited. RIA working together with Sarah on this.
4. Exoplanet consulting expert involvement on TSO WG tasks over the summer			
	TSO simulated data & noise limitations		Deliverable: recommendations on next steps for testing. Memo by August 28, 2020 (priority 1). Task for everyone: think on exactly what instrument/mode would benefit the most from the work of this consulting expert. Provide feedback in the next week to Nestor Espinoza .
	JWST time stamps for TSO		Deliverable: set of recommendations on the needed accuracy of the time stamps for, e.g., atmospheric characterization and eclipse mapping of exoplanets (related to TSO WG task 4.3c; priority 2). Memo by August 28, 2020. Will work together on this with Nikolay Nikolov and Brian Brooks . Nestor Espinoza wants to be in the loop as well.
	JWST TSO QL tool		<p>Contribution to the TSO WG discussion on requirements and specifications for the development of the tool for all JWST instrument modes (related to TSO WG task 4.6a; priority 3). Nikolay Nikolov will lead this discussion. Nestor Espinoza will be included as well.</p> <p><input type="checkbox"/> TO DO Nestor Espinoza will send a meeting invite during next week to start this work with the consultant.</p>
	Synergies with between TSO and Coronagraphic WGs		Contribution to the discussion of synergies between the two WGs. If anyone wants to be included on this discussion, reach out to Nestor Espinoza .
5. Overview of DMS TSO-related tasks			
	TSO DMSWG Dashboard	Sarah Kendrew	<ul style="list-style-type: none"> Sarah Kendrew asked the DMS WG to provide a dashboard of TSO-only DMS WG tickets, which would simplify our work in looking at them. There are some tickets which are unprioritized. It would be desirable for the TSO WG to provide some priorities for them; for the next biweekly, task for us is to look at those and come up with prioritizations. Nestor Espinoza recommends each branch liaison looks at the tickets that touch on their instruments and propose a priority. Nestor Espinoza also proposes that we go over the tickets with the highest priorities in the next biweekly. <p><input type="checkbox"/> TO DO Each TSO WG member will have a look at the unprioritized tickets that touch on their respective instruments and provide prioritization for the next biweekly.</p> <p><input type="checkbox"/> TO DO Each member will also have a look at the different high-priority tickets in order to provide information/status on them on the next biweekly.</p>
	Closing remarks of the meeting		<ul style="list-style-type: none"> Tony Keyes asked if the NIRCcam team could share the target they will be doing TSO on during commissioning. Information on this is here: Calibration Target.