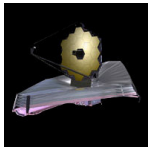

1527 - MRS Dynamic Range Characterization

Cycle: 1, Proposal Category: CAL/MIRI

INVESTIGATORS

Name	*Institution*
Dr. Benjamin Sargent (PI)	**Space Telescope Science Institute**
Greg Sloan (CoI)	Space Telescope Science Institute
Dr. David R. Law (CoI)	Space Telescope Science Institute

OBSERVATIONS

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
Observation Folder				
	1	P330-E	MIRI Medium Resolution Spectroscopy	(2) P330-E
	2	P330-E-BG	MIRI Medium Resolution Spectroscopy	(3) P330-E-BACKGROUND

ABSTRACT

This activity will monitor the MIRI MRS response to a standard star from the list of absolute flux calibration stars and characterize the MRS responsivity at very low flux densities. The objective is to investigate the noise properties of the MRS while observing faint targets and ensure that the spectral response remains valid. The target is the star GSPC P330-E (G0 V, K=11.379), which will be observed once in Cycle 1 and once per year in the following years. The apparent noise in the spectrum and flux density of the star will be measured as a function of wavelength and compared to the predicted values.

This calibration program is provisional and may change in response to system developments and the final science program.

OBSERVING DESCRIPTION

Observe a faint standard star with the MRS to verify flux calibration accuracy in the noise-limited regime.

TIMING CONSTRAINTS:

This program should be executed before June 15, 2023.

Missed or failed observations should be made up as soon as possible.

TARGETS:

This APT file includes a backup target in the event that rescheduling outside the visibility of P330-E is necessary.

Proposal 1527 - Targets - MRS Dynamic Range Characterization

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	J1757132	RA: 17 57 13.2329 (269.3051371d) Dec: +67 03 40.76 (67.06132d) Equinox: J2000	Proper Motion RA: 0.561 mas/yr Proper Motion Dec: -12.993 mas/yr Parallax: 0.00099" Epoch of Position: 2000.0	
Comments: GAIA DR1 coordinates *Category=Star* *Description=[A dwarfs]* *Extended=NO*				
(2)	P330-E	RA: 16 31 33.8014 (247.8908392d) Dec: +30 08 45.78 (30.14605d) Equinox: J2000	Proper Motion RA: -8.882 mas/yr Proper Motion Dec: -38.705 mas/yr Parallax: 0.0022149" Epoch of Position: 2000.0	
Comments: GAIA DR3 coordinates for source id 1312054926303736704 *Category=Star* *Description=[G dwarfs]* *Extended=NO*				
(3)	P330-E-BACKGROUND	RA: 16 31 33.8014 (247.8908392d) Dec: +30 09 15.78 (30.15438d) Equinox: J2000	Epoch of Position: 2000.0	
Comments: *Category=Unidentified* *Description=[Blank field]*				

Observation

Proposal 1527, Observation 1: P330-E Tue Feb 28 00:01:40 GMT 2023

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Background Observations:[P330-E-BG (Obs 2)]

Comments: (B. Sargent, 23 Feb 2023) I changed the Before special requirement to 00:00:00 Jun 15, 2023.

Diagnostics

(Visit 1:1) Warning (Form): Data Excess over lower threshold

(Visit 1:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(2)	P330-E	RA: 16 31 33.8014 (247.8908392d) Dec: +30 08 45.78 (30.14605d) Equinox: J2000	Proper Motion RA: -8.882 mas/yr Proper Motion Dec: -38.705 mas/yr Parallax: 0.0022149" Epoch of Position: 2000.0	

Comments: GAIA DR3 coordinates for source id 1312054926303736704
Category=Star
Description=[G dwarfs]
Extended=NO

Acquisition

#	Target	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	SAME	F1500W	FAST	6	1	1	16.65	149473.30

Template

Primary Channel	Simultaneous Imaging	Imager Subarray
ALL	NO	FULL

Dithers

#	Dither Type	Optimized For	Direction
1	4-Point	POINT SOURCE	NEGATIVE

Spectral Elements

#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	MEDIUM(B)	MRSLONG		FASTR1	151	6	1	Dither 1	4	24	10112.246	149473.28
1	MEDIUM(B)	MRSSHORT		FASTR1	151	6	1	Dither 1	4	24	10112.246	149473.26

Special Requirements	
	Before Date 15-JUN-2023:00:00:00 Sequence Observations 1, 2, Non-interruptible

Observation

Proposal 1527, Observation 2: P330-E-BG Tue Feb 28 00:01:40 GMT 2023

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Background Observation For: [P330-E (Obs 1)]

Comments: (B. Sargent, 23 Feb 2023) I changed the Before special requirement to 00:00:00 Jun 15, 2023.

Diagnostics

(Visit 2:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(3)	P330-E-BACKGROUND	RA: 16 31 33.8014 (247.8908392d) Dec: +30 09 15.78 (30.15438d) Equinox: J2000	Epoch of Position: 2000.0	

Comments:
Category=Unidentified
Description=[Blank field]

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray
F1500W	ALL	NO	FULL

Dithers

#	Dither Type	Optimized For	Direction
1	2-Point	POINT SOURCE	NEGATIVE

Spectral Elements

#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	MEDIUM(B)	MRSLONG		FASTR1	151	1	1	Dither 1	2	2	838.062	
1	MEDIUM(B)	MRSSHORT		FASTR1	151	1	1	Dither 1	2	2	838.062	

Special Requirements	
	Before Date 15-JUN-2023:00:00:00 Sequence Observations 1, 2, Non-interruptible