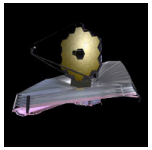

1275 - Spectroscopic characterization of PSO J318

Cycle: 1, Proposal Category: GTO

INVESTIGATORS

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OBSERVATIONS

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
PSOJ318				
	1	PSOJ318 Imaging	MIRI Imaging	(1) PSOJ318.5338-22.8603
	3	PSOJ318 NIRSPEC	NIRSpec IFU Spectroscopy	(1) PSOJ318.5338-22.8603
	4	PSOJ318 MRS	MIRI Medium Resolution Spectroscopy	(1) PSOJ318.5338-22.8603

ABSTRACT

We will characterize spectroscopically the atmosphere of PSO J318.533822.8603, a free-floating planetary mass object analog to young gas giant exoplanets detected by direct imaging around HR8799 or 2MASS J1207 - 39, twhich are also part of the MIRI GTO observations.

OBSERVING DESCRIPTION

We will use the MRS mode of MIRI to get a spectrum with a good S/N over the 5 - 13 microns wavelength range; these observations will be complemented at longer wavelengths by MIRI imaging observations. The images will also allow searching for other low mass cold objects in the field. The emission over the 0.6 - 5.2 microns range will be obtained with NIRSPEC observations in the prism/clear mode. Observations at higher spectral resolution will be obtained with NIRSPEC observations in the G395H/F290 mode.

Proposal 1275 - Targets - Spectroscopic characterization of PSO J318

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	PSOJ318.5338-22.8603	RA: 21 14 8.2776 (318.5344900d)	Proper Motion RA: 136.3 mas/yr	
		Dec: -22 51 39.24 (-22.86090d)	Proper Motion Dec: -144.3 mas/yr	
		Equinox: J2000	Epoch of Position: 2023.3	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Star
Description=[B dwarfs, Exoplanets]
Extended=NO

Observation

Proposal 1275, Observation 1: PSOJ318 Imaging Fri Apr 21 23:00:28 GMT 2023

Diagnostic Status: Warning

Observing Template: MIRI Imaging

Diagnostics

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	PSOJ318.5338-22.8603	RA: 21 14 8.2776 (318.5344900d)	Proper Motion RA: 136.3 mas/yr	
		Dec: -22 51 39.24 (-22.86090d)	Proper Motion Dec: -144.3 mas/yr	
		Equinox: J2000	Epoch of Position: 2023.3	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Star
Description=[B dwarfs, Exoplanets]
Extended=NO

Template

Subarray
FULL

Dithers

#	Dither Type	Starting Point	Number of Points	Points	Starting Set	Number of Sets	Optimized For	Direction	Pattern Size
1	2-Point								DEFAULT

Spectral Elements

#	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	F1800W	FASTR1	45	1	1	Dither 1	2	2	249.754	25184.5
2	F2100W	FASTR1	25	2	1	Dither 1	2	4	283.054	25184.6
3	F1500W	FASTR1	30	1	1	Dither 1	2	2	166.502	25184.4
4	F1280W	FASTR1	20	1	1	Dither 1	2	2	111.002	25184.3

Special Requirements

Group Observations 1, 3, 4, Non-interruptible

Observation

Proposal 1275, Observation 3: PSOJ318 NIRSPEC Fri Apr 21 23:00:28 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

Comments: At the moment, the observations are performed in the IFU mode. Slit mode (S200A1) could be an alternative. Trades off have still to be made; a better knowledge of target acquisition is needed...

Diagnostics

(Visit 3:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	PSOJ318.5338-22.8603	RA: 21 14 8.2776 (318.5344900d)	Proper Motion RA: 136.3 mas/yr	
		Dec: -22 51 39.24 (-22.86090d)	Proper Motion Dec: -144.3 mas/yr	
		Equinox: J2000	Epoch of Position: 2023.3	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Star
Description=[B dwarfs, Exoplanets]
Extended=NO

Acquisition

#	Target	TA Method	Subarray	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	1 PSOJ318.5338-22.8603	WATA	SUB2048	F110W	NRSRAPID	3	1	1	3.628	38886.7

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	4-POINT-NOD				

Spectral Elements

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Leakcal	Dither	Autocal	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	PRISM/CLEAR	NRSIRS2RAPID	2	2	false	true	NONE	4	8	350.133	38886.8
2	G395H/F290LP	NRSIRS2RAPID	6	1	false	true	NONE	4	4	408.489	38886.9

Special Requirements

Group Observations 1, 3, 4, Non-interruptible

Observation

Proposal 1275, Observation 4: PSOJ318 MRS Fri Apr 21 23:00:28 GMT 2023

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Diagnostics

(PSOJ318 MRS (Obs 4)) Warning (Form): Imager Filter overlap.

(PSOJ318 MRS (Obs 4)) Warning (Form): Imager Filter overlap.

(PSOJ318 MRS (Obs 4)) Warning (Form): Imager Filter overlap.

(Visit 4:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	PSOJ318.5338-22.8603	RA: 21 14 8.2776 (318.5344900d)	Proper Motion RA: 136.3 mas/yr	
		Dec: -22 51 39.24 (-22.86090d)	Proper Motion Dec: -144.3 mas/yr	
		Equinox: J2000	Epoch of Position: 2023.3	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Star
Description=[B dwarfs, Exoplanets]
Extended=NO

Acquisition

#	Target	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	SAME	F1000W	FAST	8	1	1	22.2	38886.1

Template

Primary Channel	Simultaneous Imaging	Imager Subarray
ALL	YES	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		IMAGER	F1280W	FASTR1	11	7	1	Dither 1	2	14	460.657	
1	LONG(C)	MRSLONG		FASTR1	86	1	1	Dither 1	2	2	477.307	38886.18
1	LONG(C)	MRSSHORT		FASTR1	86	1	1	Dither 1	2	2	477.307	38886.20
2		IMAGER	F1280W	FASTR1	11	7	1	Dither 1	2	14	460.657	
2	MEDIUM(B)	MRSLONG		FASTR1	86	1	1	Dither 1	2	2	477.307	38886.14
2	MEDIUM(B)	MRSSHORT		FASTR1	86	1	1	Dither 1	2	2	477.307	38886.16
3		IMAGER	F1280W	FASTR1	11	7	1	Dither 1	2	14	460.657	
3	SHORT(A)	MRSLONG		FASTR1	86	1	1	Dither 1	2	2	477.307	38886.10
3	SHORT(A)	MRSSHORT		FASTR1	86	1	1	Dither 1	2	2	477.307	38886.12

Special Requirements	Group Observations 1, 3, 4, Non-interruptible