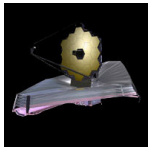

1802 - Investigating Protostellar Accretion Across the Mass Spectrum

Cycle: 1, Proposal Category: GO

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OBSERVATIONS

Folder	***Observation***	***Label***	***Observing Template***	***Science Target***
Observation Folder				
	1	B335 MIRI IFU	MIRI Medium Resolution Spectroscopy	(2) B335-SPECTROSCOPY
	2	B335 MIRI IFU background	MIRI Medium Resolution Spectroscopy	(3) B335-BACKGROUND
	3	B335 NIRSspec	NIRSpec IFU Spectroscopy	(1) B335
	5	HOPS370 MIRI IFU	MIRI Medium Resolution Spectroscopy	(5) HOPS370-SPECTROSCOPY
	6	HOPS370 MIRI IFU background	MIRI Medium Resolution Spectroscopy	(6) HOPS370-BACKGROUND
	7	HOPS370 NIRSspec	NIRSpec IFU Spectroscopy	(4) HOPS370
	9	IRAS 20126 MIRI IFU	MIRI Medium Resolution Spectroscopy	(8) IRAS20126-SPECTROSCOPY
	10	IRAS 20126 MIRI IFU background	MIRI Medium Resolution Spectroscopy	(10) IRAS20126-BACKGROUND
	11	IRAS 20126 NIRSspec	NIRSpec IFU Spectroscopy	(7) IRAS20126
	13	IRAS 16253 MIRI IFU	MIRI Medium Resolution Spectroscopy	(13) IRAS16253-SPECTROSCOPY
	14	IRAS 16253 MIRI IFU background	MIRI Medium Resolution Spectroscopy	(14) IRAS16253-BACKGROUND
	15	IRAS 16253 NIRSspec	NIRSpec IFU Spectroscopy	(12) IRAS16253
	17	HOPS 153 MIRI IFU	MIRI Medium Resolution Spectroscopy	(17) HOPS153-SPECTROSCOPY

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
	18	HOPS 153 MIRI IFU background	MIRI Medium Resolution Spectroscopy	(16) HOPS153-BACKGROUND
	19	HOPS 153 NIRSspec	NIRSpec IFU Spectroscopy	(15) HOPS153

ABSTRACT

We propose an Investigation of Protostellar Accretion (IPA) and accretion driven feedback using the NIRSPec and MIRI MRS IFUs. IPA will target 5 protostars with luminosities of 0.2 to 10,000 Lsun, stellar masses of 0.1 to 12 Msun, and distances of 150 pc to 1.6 kpc. Each shows a disk + outflow cavity morphology, is in its primary accretion phase, is deeply embedded, and requires observations at > 3 micron. Using JWSTs combination of sensitivity, angular resolution, and spectral resolution, IPA will observe each protostar in the 2.9-28 micron range and map ionic, atomic, molecular and continuum emission at spatial resolutions of 30 AU (for the lowest mass sources) to 300 AU (for the highest mass source). IPA will use spectroscopic signatures of disk accretion to measure the rate and mode of mass accretion, and measure how accretion scales with stellar mass. It will also observe shocks due to wide angle winds carving cavities into the protostellar envelopes, using the angular resolution of JWST to meassure mass flow and velocity along the cavities. The combination of accretion and wind data will show how the wind properties depend on accretion. Finally, IPA will look for the effect of radiative feedback from the most massive protostar, testing models of high mass star formation that require the release of radiation along outflow cavities. In total, IPA will observe in unprecedented detail the coupled accretion and feedback that plays a central role in determining the masses of stars, providing essential inputs for cloud scale simulations of star formation and the initial mass function, and setting the stage for future surveys with JWST to enlarge the sample.

OBSERVING DESCRIPTION

We will obtain observations of five protostars with the IFUs of NIRSpec and MIRI MRS.

MIRI MRS: IPA will observe in all three sub-bands of the four channels of the MRS. We will use a 2 x 2 mosaic with 10% overlap for four targets, and a 1 x 3 mosaic, with position angle constraint for the fifth. At each position, we will acquire 4 dithers to recover fully sampled data and to obtain redundancy in the data. To maximize dynamic range of the observations we use the FAST mode. We adopt 100 groups and 1 integration for three sources, 50 groups and 2 integrations for a fourth, and 10 groups with 4 integrations for the brightest source. We will obtain MIRI imaging simultaneously with integration times reduced to 25 groups in the F770W, F1280W, and F1500W. These will be used to register the IFU fields. Background observations with identical configurations and integration times will be taken at a nearby position chosen to avoid nebulosity and minimize stellar contamination.

NIRSpec: IPA will use the IFU in the G395M setting in a 2 x 2 mosaic with 10% overlap and the 4 point dither mode. To maximize dynami range and sensitivity, we will use the NRSIRS2RAPID mode with 30 groups and 1 integration, 15 groups and 1 integration, or 15 groups with 2 integrations. We will also obtain leakage measurements for all the dithers for three of our soures with complex environments. We will use the fixed slits for backgrounds as well as the IFU images themselves to subtract out complex, spatially varying astrophysical backgrounds.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	B335	RA: 19 37 0.8940 (294.2537250d) Dec: +07 34 9.59 (7.56933d) Equinox: J2000		
Comments: *Category=Star* *Description=[Protostars, Young stellar objects]* *Extended=YES*				
(2)	B335-SPECTROSCOPY	RA: 19 37 0.8940 (294.2537250d) Dec: +07 34 9.59 (7.56933d) Equinox: J2000		
Comments: *Category=Star* *Description=[Protostars, Young stellar objects]* *Extended=YES*				
(3)	B335-BACKGROUND	RA: 19 37 0.2680 (294.2511167d) Dec: +07 36 21.92 (7.60609d) Equinox: J2000		
Comments: *Category=Calibration* *Description=[Telescope/sky background]* *Extended=YES*				
(4)	HOPS370	RA: 05 35 27.6340 (83.8651417d) Dec: -05 09 34.42 (-5.15956d) Equinox: J2000		
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Category=Star* *Description=[Protostars, Young stellar objects]* *Extended=YES*				
(5)	HOPS370-SPECTROSCOPY	RA: 05 35 27.6340 (83.8651417d) Dec: -05 09 34.42 (-5.15956d) Equinox: J2000		
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Category=Star* *Description=[Protostars, Young stellar objects]* *Extended=YES*				
(6)	HOPS370-BACKGROUND	RA: 05 35 7.8140 (83.7825583d) Dec: -05 08 44.29 (-5.14564d) Equinox: J2000		
Comments: *Category=Calibration* *Description=[Telescope/sky background]* *Extended=YES*				
(7)	IRAS20126	RA: 20 14 26.0300 (303.6084583d) Dec: +41 13 32.57 (41.22571d) Equinox: J2000		
Comments: *Category=Star* *Description=[Protostars, Young stellar objects]* *Extended=YES*				

(8)	IRAS20126-SPECTROSCOPY	RA: 20 14 26.0300 (303.6084583d) Dec: +41 13 32.57 (41.22571d) Equinox: J2000
Comments: *Category=Star* *Description=[Protostars, Young stellar objects]* *Extended=YES*		
(10)	IRAS20126-BACKGROUND	RA: 20 14 12.0640 (303.5502667d) Dec: +41 13 34.82 (41.22634d) Equinox: J2000
Comments: *Category=Calibration* *Description=[Telescope/sky background]* *Extended=YES*		
(12)	IRAS16253	RA: 16 28 21.6200 (247.0900833d) Dec: -24 36 24.16 (-24.60671d) Equinox: J2000
Comments: *Category=Star* *Description=[Protostars, Young stellar objects]* *Extended=YES*		
(13)	IRAS16253-SPECTROSCOPY	RA: 16 28 21.6200 (247.0900833d) Dec: -24 36 24.16 (-24.60671d) Equinox: J2000
Comments: *Category=Star* *Description=[Protostars, Young stellar objects]* *Extended=YES*		
(14)	IRAS16253-BACKGROUND	RA: 16 28 27.7560 (247.1156500d) Dec: -24 37 46.95 (-24.62971d) Equinox: J2000
Comments: *Category=Calibration* *Description=[Telescope/sky background]* *Extended=YES*		
(15)	HOPS153	RA: 05 37 57.0230 (84.4875958d) Dec: -07 06 56.27 (-7.11563d) Equinox: J2000
Comments: *Category=Star* *Description=[Protostars, Young stellar objects]* *Extended=YES*		
(16)	HOPS153-BACKGROUND	RA: 05 37 55.6220 (84.4817583d) Dec: -07 05 47.06 (-7.09641d) Equinox: J2000
Comments: *Category=Calibration* *Description=[Telescope/sky background]* *Extended=YES*		

	(17)	HOPS153-SPECTROSCOPY	RA: 05 37 57.0230 (84.4875958d) Dec: -07 06 56.27 (-7.11563d) Equinox: J2000
	Comments: *Category=Star* *Description=[Protostars, Young stellar objects]* *Extended=YES*		

Observation

Proposal 1802, Observation 1: B335 MIRI IFU Fri Jun 09 23:01:54 GMT 2023

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Background Observations:[B335 MIRI IFU background (Obs 2)]

Diagnostics

(B335 MIRI IFU (Obs 1)) Warning (Form): Imager Filter overlap.

(B335 MIRI IFU (Obs 1)) Warning (Form): Imager Filter overlap.

(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)	B335-SPECTROSCOPY	RA: 19 37 0.8940 (294.2537250d) Dec: +07 34 9.59 (7.56933d) Equinox: J2000		

Comments:
Category=Star
Description=[Protostars, Young stellar objects]
Extended=YES

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
F1500W	ALL	YES	FULL	NEUTRAL

Mosaic

Rows	Columns	Row Overlap %	Column Overlap %	Row shift (deg)	Column shift (deg)	Tile Order
2	2	10.0	10.0	0.0	0.0	DEFAULT

Dithers

#	Dither Type	Optimized For	Direction
1	4-Point	EXTENDED 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	F1500W	FASTR1	25	4	1	Dither 1	4	16	1143.316	
1	LONG(C)	MRSLONG		SLOWR1	12	1	1	Dither 1	4	4	1146.716	
1	LONG(C)	MRSSHORT		SLOWR1	12	1	1	Dither 1	4	4	1146.716	
2		IMAGER	F1280W	FASTR1	25	4	1	Dither 1	4	16	1143.316	
2	MEDIUM(B)	MRSLONG		SLOWR1	12	1	1	Dither 1	4	4	1146.716	
2	MEDIUM(B)	MRSSHORT		SLOWR1	12	1	1	Dither 1	4	4	1146.716	
3		IMAGER	F770W	FASTR1	25	4	1	Dither 1	4	16	1143.316	
3	SHORT(A)	MRSLONG		SLOWR1	12	1	1	Dither 1	4	4	1146.716	
3	SHORT(A)	MRSSHORT		SLOWR1	12	1	1	Dither 1	4	4	1146.716	

Special Requirements	Sequence Observations 1, 2, Non-interruptible

Observation

Proposal 1802, Observation 2: B335 MIRI IFU background Fri Jun 09 23:01:54 GMT 2023

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Background Observation For: [B335 MIRI IFU (Obs 1)]

Diagnostics

(B335 MIRI IFU background (Obs 2)) Warning (Form): Imager Filter overlap.

(B335 MIRI IFU background (Obs 2)) Warning (Form): Imager Filter overlap.

(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)	B335-BACKGROUND	RA: 19 37 0.2680 (294.2511167d) Dec: +07 36 21.92 (7.60609d) Equinox: J2000		

Comments:
Category=Calibration
Description=[Telescope/sky background]
Extended=YES

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
F1500W	ALL	YES	FULL	NEUTRAL

Dithers

#	Dither Type	Optimized For	Direction
1	4-Point	EXTENDED 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	F1500W	FASTR1	25	4	1	Dither 1	4	16	1143.316	
1	LONG(C)	MRSLONG		SLOWR1	12	1	1	Dither 1	4	4	1146.716	
1	LONG(C)	MRSSHORT		SLOWR1	12	1	1	Dither 1	4	4	1146.716	
2		IMAGER	F1280W	FASTR1	25	4	1	Dither 1	4	16	1143.316	
2	MEDIUM(B)	MRSLONG		SLOWR1	12	1	1	Dither 1	4	4	1146.716	
2	MEDIUM(B)	MRSSHORT		SLOWR1	12	1	1	Dither 1	4	4	1146.716	
3		IMAGER	F770W	FASTR1	25	4	1	Dither 1	4	16	1143.316	
3	SHORT(A)	MRSLONG		SLOWR1	12	1	1	Dither 1	4	4	1146.716	
3	SHORT(A)	MRSSHORT		SLOWR1	12	1	1	Dither 1	4	4	1146.716	

Special Requirements	Sequence Observations 1, 2, Non-interruptible

Observation

Proposal 1802, Observation 3: B335 NIRSspec

Fri Jun 09 23:01:54 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

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)	B335	RA: 19 37 0.8940 (294.2537250d) Dec: +07 34 9.59 (7.56933d) Equinox: J2000		

Comments:
Category=Star
Description=[Protostars, Young stellar objects]
Extended=YES

Template

TA Method
NONE

Mosaic

Rows	Columns	Row Overlap %	Column Overlap %	Row shift (deg)	Column shift (deg)	Tile Order
2	2	10.0	10.0	0.0	0.0	DEFAULT

Dithers

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

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	G395M/F290LP	NRSIRS2RAPID	30	1	false	true	NONE	4	4	1809.022	

Special Requirements	Aperture PA Range 208.89297485 to 238.89297485 Degrees (V3 69.92044067 to 99.92044067)

Observation

Proposal 1802, Observation 5: HOPS370 MIRI IFU Fri Jun 09 23:01:54 GMT 2023

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Background Observations:[HOPS370 MIRI IFU background (Obs 6)]

Diagnostics

(HOPS370 MIRI IFU (Obs 5)) Warning (Form): Imager Filter overlap.

(HOPS370 MIRI IFU (Obs 5)) Warning (Form): Imager Filter overlap.

(Visit 5:1) Warning (Form): Data Excess over lower threshold

(Visit 5:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(5)	HOPS370-SPECTROSCOPY	RA: 05 35 27.6340 (83.8651417d) Dec: -05 09 34.42 (-5.15956d) Equinox: J2000		

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Star
Description=[Protostars, Young stellar objects]
Extended=YES

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
F1500W	ALL	YES	FULL	NEUTRAL

Mosaic

Rows	Columns	Row Overlap %	Column Overlap %	Row shift (deg)	Column shift (deg)	Tile Order
2	2	10.0	10.0	0.0	0.0	DEFAULT

Dithers

#	Dither Type	Optimized For	Direction
1	4-Point	EXTENDED 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	F1500W	FASTR1	25	1	1	Dither 1	4	4	277.504	
1	LONG(C)	MRSLONG		FASTR1	50	2	1	Dither 1	4	8	1121.116	
1	LONG(C)	MRSSHORT		FASTR1	50	2	1	Dither 1	4	8	1121.116	
2		IMAGER	F1280W	FASTR1	25	1	1	Dither 1	4	4	277.504	
2	MEDIUM(B)	MRSLONG		FASTR1	50	2	1	Dither 1	4	8	1121.116	
2	MEDIUM(B)	MRSSHORT		FASTR1	50	2	1	Dither 1	4	8	1121.116	
3		IMAGER	F770W	FASTR1	25	1	1	Dither 1	4	4	277.504	
3	SHORT(A)	MRSLONG		FASTR1	50	2	1	Dither 1	4	8	1121.116	
3	SHORT(A)	MRSSHORT		FASTR1	50	2	1	Dither 1	4	8	1121.116	

Special Requirements	Sequence Observations 5, 6, Non-interruptible

Observation

Proposal 1802, Observation 6: HOPS370 MIRI IFU background Fri Jun 09 23:01:54 GMT 2023

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Background Observation For: [HOPS370 MIRI IFU (Obs 5)]

Diagnostics

(HOPS370 MIRI IFU background (Obs 6)) Warning (Form): Imager Filter overlap.

(HOPS370 MIRI IFU background (Obs 6)) Warning (Form): Imager Filter overlap.

(Visit 6:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(6)	HOPS370-BACKGROUND	RA: 05 35 7.8140 (83.7825583d) Dec: -05 08 44.29 (-5.14564d) Equinox: J2000		

Comments:
Category=Calibration
Description=[Telescope/sky background]
Extended=YES

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
F1500W	ALL	YES	FULL	NEUTRAL

Dithers

#	Dither Type	Optimized For	Direction
1	4-Point	EXTENDED 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	F1500W	FASTR1	25	1	1	Dither 1	4	4	277.504	
1	LONG(C)	MRSLONG		FASTR1	50	2	1	Dither 1	4	8	1121.116	
1	LONG(C)	MRSSHORT		FASTR1	50	2	1	Dither 1	4	8	1121.116	
2		IMAGER	F1280W	FASTR1	25	1	1	Dither 1	4	4	277.504	
2	MEDIUM(B)	MRSLONG		FASTR1	50	2	1	Dither 1	4	8	1121.116	
2	MEDIUM(B)	MRSSHORT		FASTR1	50	2	1	Dither 1	4	8	1121.116	
3		IMAGER	F770W	FASTR1	25	1	1	Dither 1	4	4	277.504	
3	SHORT(A)	MRSLONG		FASTR1	50	2	1	Dither 1	4	8	1121.116	
3	SHORT(A)	MRSSHORT		FASTR1	50	2	1	Dither 1	4	8	1121.116	

Special Requirements	Sequence Observations 5, 6, Non-interruptible

Observation

Proposal 1802, Observation 7: HOPS370 NIRSspec Fri Jun 09 23:01:54 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

Diagnostics

(Visit 7:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(4)	HOPS370	RA: 05 35 27.6340 (83.8651417d) Dec: -05 09 34.42 (-5.15956d) Equinox: J2000		

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Star
Description=[Protostars, Young stellar objects]
Extended=YES

Template

TA Method
NONE

Mosaic

Rows	Columns	Row Overlap %	Column Overlap %	Row shift (deg)	Column shift (deg)	Tile Order
2	2	10.0	10.0	0.0	0.0	DEFAULT

Dithers

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

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	G395M/F290LP	NRSIRS2RAPID	15	1	false	true	NONE	4	4	933.689	
2	G395M/F290LP	NRSIRS2RAPID	15	1	true	true	NONE	4	4	933.689	

Observation

Proposal 1802, Observation 9: IRAS 20126 MIRI IFU Fri Jun 09 23:01:54 GMT 2023

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Background Observations:[IRAS 20126 MIRI IFU background (Obs 10)]

Diagnostics

(IRAS 20126 MIRI IFU (Obs 9)) Warning (Form): Imager Filter overlap.

(IRAS 20126 MIRI IFU (Obs 9)) Warning (Form): Imager Filter overlap.

(Visit 9:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

(Visit 9:1) Informational (Form): Visit schedulable, but most scheduling windows are when JWST is pointed in direction of greatest micrometeoroid impact risk. This is likely due to scheduling special requirements.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(8)	IRAS20126-SPECTROSCOPY	RA: 20 14 26.0300 (303.6084583d) Dec: +41 13 32.57 (41.22571d) Equinox: J2000		

Comments:
Category=Star
Description=[Protostars, Young stellar objects]
Extended=YES

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
F1500W	ALL	YES	FULL	NEUTRAL

Mosaic

Rows	Columns	Row Overlap %	Column Overlap %	Row shift (deg)	Column shift (deg)	Tile Order
1	3	10.0	8.0	0.0	0.0	DEFAULT

Dithers

#	Dither Type	Optimized For	Direction
1	4-Point	EXTENDED 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	F770W	FASTR1	25	1	1	Dither 1	4	4	277.504	
1	SHORT(A)	MRSLONG		FASTR1	10	4	1	Dither 1	4	16	477.307	
1	SHORT(A)	MRSSHORT		FASTR1	10	4	1	Dither 1	4	16	477.307	
2		IMAGER	F1280W	FASTR1	25	1	1	Dither 1	4	4	277.504	
2	MEDIUM(B)	MRSLONG		FASTR1	10	4	1	Dither 1	4	16	477.307	
2	MEDIUM(B)	MRSSHORT		FASTR1	10	4	1	Dither 1	4	16	477.307	
3		IMAGER	F1500W	FASTR1	25	1	1	Dither 1	4	4	277.504	
3	LONG(C)	MRSLONG		FASTR1	10	4	1	Dither 1	4	16	477.307	
3	LONG(C)	MRSSHORT		FASTR1	10	4	1	Dither 1	4	16	477.307	

Special Requirements	
	Aperture PA Range 196 to 220 Degrees (V3 196.0 to 220.0) Sequence Observations 9, 10, Non-interruptible

Observation

Proposal 1802, Observation 10: IRAS 20126 MIRI IFU background Fri Jun 09 23:01:54 GMT 2023

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Background Observation For: [IRAS 20126 MIRI IFU (Obs 9)]

Diagnostics

(IRAS 20126 MIRI IFU background (Obs 10)) Warning (Form): Imager Filter overlap.

(IRAS 20126 MIRI IFU background (Obs 10)) Warning (Form): Imager Filter overlap.

(Visit 10:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(10)	IRAS20126-BACKGROUND	RA: 20 14 12.0640 (303.5502667d) Dec: +41 13 34.82 (41.22634d) Equinox: J2000		

Comments:
Category=Calibration
Description=[Telescope/sky background]
Extended=YES

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
F1500W	ALL	YES	FULL	NEUTRAL

Dithers

#	Dither Type	Optimized For	Direction
1	4-Point	EXTENDED 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	F770W	FASTR1	25	1	1	Dither 1	4	4	277.504	
1	SHORT(A)	MRSLONG		FASTR1	10	4	1	Dither 1	4	16	477.307	
1	SHORT(A)	MRSSHORT		FASTR1	10	4	1	Dither 1	4	16	477.307	
2		IMAGER	F1280W	FASTR1	25	1	1	Dither 1	4	4	277.504	
2	MEDIUM(B)	MRSLONG		FASTR1	10	4	1	Dither 1	4	16	477.307	
2	MEDIUM(B)	MRSSHORT		FASTR1	10	4	1	Dither 1	4	16	477.307	
3		IMAGER	F1500W	FASTR1	25	1	1	Dither 1	4	4	277.504	
3	LONG(C)	MRSLONG		FASTR1	10	4	1	Dither 1	4	16	477.307	
3	LONG(C)	MRSSHORT		FASTR1	10	4	1	Dither 1	4	16	477.307	

Special Requirements	Sequence Observations 9, 10, Non-interruptible

Observation

Proposal 1802, Observation 11: IRAS 20126 NIRSspec

Fri Jun 09 23:01:54 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

Diagnostics

(Visit 11:1) Warning (Form): Data Excess over lower threshold

(Visit 11:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(7)	IRAS20126	RA: 20 14 26.0300 (303.6084583d) Dec: +41 13 32.57 (41.22571d) Equinox: J2000		

Comments:
Category=Star
Description=[Protostars, Young stellar objects]
Extended=YES

Template

TA Method
NONE

Mosaic

Rows	Columns	Row Overlap %	Column Overlap %	Row shift (deg)	Column shift (deg)	Tile Order
2	2	10.0	10.0	0.0	0.0	DEFAULT

Dithers

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

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	G395M/F290LP	NRSIRS2RAPID	6	5	false	true	NONE	4	20	2042.445	
2	G395M/F290LP	NRSIRS2RAPID	6	5	true	true	NONE	4	20	2042.445	

Observation

Proposal 1802, Observation 13: IRAS 16253 MIRI IFU Fri Jun 09 23:01:54 GMT 2023

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Background Observations:[IRAS 16253 MIRI IFU background (Obs 14)]

Diagnostics

(IRAS 16253 MIRI IFU (Obs 13)) Warning (Form): Imager Filter overlap.

(IRAS 16253 MIRI IFU (Obs 13)) Warning (Form): Imager Filter overlap.

(Visit 13:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(13)	IRAS16253-SPECTROSCOPY	RA: 16 28 21.6200 (247.0900833d) Dec: -24 36 24.16 (-24.60671d) Equinox: J2000		

Comments:
Category=Star
Description=[Protostars, Young stellar objects]
Extended=YES

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
F1500W	ALL	YES	FULL	NEUTRAL

Mosaic

Rows	Columns	Row Overlap %	Column Overlap %	Row shift (deg)	Column shift (deg)	Tile Order
2	2	10.0	10.0	0.0	0.0	DEFAULT

Dithers

#	Dither Type	Optimized For	Direction
1	4-Point	EXTENDED 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	F770W	FASTR1	25	4	1	Dither 1	4	16	1143.316	
1	SHORT(A)	MRSLONG		SLOWR1	12	1	1	Dither 1	4	4	1146.716	
1	SHORT(A)	MRSSHORT		SLOWR1	12	1	1	Dither 1	4	4	1146.716	
2		IMAGER	F1280W	FASTR1	25	4	1	Dither 1	4	16	1143.316	
2	MEDIUM(B)	MRSLONG		SLOWR1	12	1	1	Dither 1	4	4	1146.716	
2	MEDIUM(B)	MRSSHORT		SLOWR1	12	1	1	Dither 1	4	4	1146.716	
3		IMAGER	F1500W	FASTR1	25	4	1	Dither 1	4	16	1143.316	
3	LONG(C)	MRSLONG		SLOWR1	12	1	1	Dither 1	4	4	1146.716	
3	LONG(C)	MRSSHORT		SLOWR1	12	1	1	Dither 1	4	4	1146.716	

Special Requirements	Sequence Observations 13, 14, Non-interruptible

Observation

Proposal 1802, Observation 14: IRAS 16253 MIRI IFU background Fri Jun 09 23:01:54 GMT 2023

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Background Observation For: [IRAS 16253 MIRI IFU (Obs 13)]

Diagnostics

(IRAS 16253 MIRI IFU background (Obs 14)) Warning (Form): Imager Filter overlap.

(IRAS 16253 MIRI IFU background (Obs 14)) Warning (Form): Imager Filter overlap.

(Visit 14:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(14)	IRAS16253-BACKGROUND	RA: 16 28 27.7560 (247.1156500d) Dec: -24 37 46.95 (-24.62971d) Equinox: J2000		

Comments:
Category=Calibration
Description=[Telescope/sky background]
Extended=YES

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
F1500W	ALL	YES	FULL	NEUTRAL

Dithers

#	Dither Type	Optimized For	Direction
1	4-Point	EXTENDED 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	F770W	FASTR1	25	4	1	Dither 1	4	16	1143.316	
1	SHORT(A)	MRSLONG		SLOWR1	12	1	1	Dither 1	4	4	1146.716	
1	SHORT(A)	MRSSHORT		SLOWR1	12	1	1	Dither 1	4	4	1146.716	
2		IMAGER	F1280W	FASTR1	25	4	1	Dither 1	4	16	1143.316	
2	MEDIUM(B)	MRSLONG		SLOWR1	12	1	1	Dither 1	4	4	1146.716	
2	MEDIUM(B)	MRSSHORT		SLOWR1	12	1	1	Dither 1	4	4	1146.716	
3		IMAGER	F1500W	FASTR1	25	4	1	Dither 1	4	16	1143.316	
3	LONG(C)	MRSLONG		SLOWR1	12	1	1	Dither 1	4	4	1146.716	
3	LONG(C)	MRSSHORT		SLOWR1	12	1	1	Dither 1	4	4	1146.716	

Special Requirements	Sequence Observations 13, 14, Non-interruptible

Observation

Proposal 1802, Observation 15: IRAS 16253 NIRSspec

Fri Jun 09 23:01:54 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

Diagnostics

(Visit 15:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(12)	IRAS16253	RA: 16 28 21.6200 (247.0900833d) Dec: -24 36 24.16 (-24.60671d) Equinox: J2000		

Comments:
Category=Star
Description=[Protostars, Young stellar objects]
Extended=YES

Template

TA Method
NONE

Mosaic

Rows	Columns	Row Overlap %	Column Overlap %	Row shift (deg)	Column shift (deg)	Tile Order
2	2	10.0	10.0	0.0	0.0	DEFAULT

Dithers

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

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	G395M/F290LP	NRSIRS2RAPID	30	1	false	true	NONE	4	4	1809.022	

Observation

Proposal 1802, Observation 17: HOPS 153 MIRI IFU Fri Jun 09 23:01:54 GMT 2023

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Background Observations:[HOPS 153 MIRI IFU background (Obs 18)]

Diagnostics

(HOPS 153 MIRI IFU (Obs 17)) Warning (Form): Imager Filter overlap.

(HOPS 153 MIRI IFU (Obs 17)) Warning (Form): Imager Filter overlap.

(Visit 17:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(17)	HOPS153-SPECTROSCOPY	RA: 05 37 57.0230 (84.4875958d) Dec: -07 06 56.27 (-7.11563d) Equinox: J2000		

Comments:
Category=Star
Description=[Protostars, Young stellar objects]
Extended=YES

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
F1500W	ALL	YES	FULL	NEUTRAL

Mosaic

Rows	Columns	Row Overlap %	Column Overlap %	Row shift (deg)	Column shift (deg)	Tile Order
2	2	10.0	10.0	0.0	0.0	DEFAULT

Dithers

#	Dither Type	Optimized For	Direction
1	4-Point	EXTENDED 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	F770W	FASTR1	25	4	1	Dither 1	4	16	1143.316	
1	SHORT(A)	MRSLONG		SLOWR1	12	1	1	Dither 1	4	4	1146.716	
1	SHORT(A)	MRSSHORT		SLOWR1	12	1	1	Dither 1	4	4	1146.716	
2		IMAGER	F1280W	FASTR1	25	4	1	Dither 1	4	16	1143.316	
2	MEDIUM(B)	MRSLONG		SLOWR1	12	1	1	Dither 1	4	4	1146.716	
2	MEDIUM(B)	MRSSHORT		SLOWR1	12	1	1	Dither 1	4	4	1146.716	
3		IMAGER	F1500W	FASTR1	25	4	1	Dither 1	4	16	1143.316	
3	LONG(C)	MRSLONG		SLOWR1	12	1	1	Dither 1	4	4	1146.716	
3	LONG(C)	MRSSHORT		SLOWR1	12	1	1	Dither 1	4	4	1146.716	

Special Requirements	Sequence Observations 17, 18, Non-interruptible

Observation

Proposal 1802, Observation 18: HOPS 153 MIRI IFU background Fri Jun 09 23:01:54 GMT 2023

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Background Observation For: [HOPS 153 MIRI IFU (Obs 17)]

Diagnostics

(HOPS 153 MIRI IFU background (Obs 18)) Warning (Form): Imager Filter overlap.

(HOPS 153 MIRI IFU background (Obs 18)) Warning (Form): Imager Filter overlap.

(Visit 18:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(16)	HOPS153-BACKGROUND	RA: 05 37 55.6220 (84.4817583d) Dec: -07 05 47.06 (-7.09641d) Equinox: J2000		

Comments:
Category=Calibration
Description=[Telescope/sky background]
Extended=YES

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
F1500W	ALL	YES	FULL	NEUTRAL

Dithers

#	Dither Type	Optimized For	Direction
1	4-Point	EXTENDED 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	F770W	FASTR1	25	4	1	Dither 1	4	16	1143.316	
1	SHORT(A)	MRSLONG		SLOWR1	12	1	1	Dither 1	4	4	1146.716	
1	SHORT(A)	MRSSHORT		SLOWR1	12	1	1	Dither 1	4	4	1146.716	
2		IMAGER	F1280W	FASTR1	25	4	1	Dither 1	4	16	1143.316	
2	MEDIUM(B)	MRSLONG		SLOWR1	12	1	1	Dither 1	4	4	1146.716	
2	MEDIUM(B)	MRSSHORT		SLOWR1	12	1	1	Dither 1	4	4	1146.716	
3		IMAGER	F1500W	FASTR1	25	4	1	Dither 1	4	16	1143.316	
3	LONG(C)	MRSLONG		SLOWR1	12	1	1	Dither 1	4	4	1146.716	
3	LONG(C)	MRSSHORT		SLOWR1	12	1	1	Dither 1	4	4	1146.716	

Special Requirements	Sequence Observations 17, 18, Non-interruptible

Observation

Proposal 1802, Observation 19: HOPS 153 NIRSspec Fri Jun 09 23:01:54 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

Diagnostics

(Visit 19:1) Warning (Form): Data Excess over lower threshold

(Visit 19:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(15)	HOPS153	RA: 05 37 57.0230 (84.4875958d) Dec: -07 06 56.27 (-7.11563d) Equinox: J2000		

Comments:
Category=Star
Description=[Protostars, Young stellar objects]
Extended=YES

Template

TA Method
NONE

Mosaic

Rows	Columns	Row Overlap %	Column Overlap %	Row shift (deg)	Column shift (deg)	Tile Order
2	2	10.0	10.0	0.0	0.0	DEFAULT

Dithers

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

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	G395M/F290LP	NRSIRS2RAPID	30	1	false	true	NONE	4	4	1809.022	
2	G395M/F290LP	NRSIRS2RAPID	30	1	true	true	NONE	4	4	1809.022	