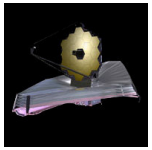

11027 - The last gasps of cosmic titans

Cycle: 5, Proposal Category: GO

INVESTIGATORS

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OBSERVATIONS

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
Observation Folder				
	1	SN2018ibb - MIRI - Imaging	MIRI Imaging	(1) SN2018ibb
	2	SN2018ibb - MIRI - MRS - on-scene	MIRI Medium Resolution Spectroscopy	(1) SN2018ibb
	3	SN2018ibb - MIRI - MRS - off-scene	MIRI Medium Resolution Spectroscopy	(1) SN2018ibb
	4	SN2020abjc- MIRI - Imaging	MIRI Imaging	(2) SN2020abjc
	5	SN2020abjc - MIRI - MRS - on-scence	MIRI Medium Resolution Spectroscopy	(2) SN2020abjc
	6	SN2020abjc - MIRI - MRS - off-scence	MIRI Medium Resolution Spectroscopy	(2) SN2020abjc
	7	SN2021yfj - MIRI - Imaging	MIRI Imaging	(3) SN2021yfj
	8	SN2021yfj - MIRI - MRS - on-scence	MIRI Medium Resolution Spectroscopy	(3) SN2021yfj
	9	SN2021yfj - MIRI - MRS - off-scene	MIRI Medium Resolution Spectroscopy	(3) SN2021yfj
	10	SN2023iop - MIRI - Imaging	MIRI Imaging	(4) SN2023iop
	11	SN2023iop - MIRI - MRS - on-scence	MIRI Medium Resolution Spectroscopy	(4) SN2023iop
	12	SN2023iop - MIRI - MRS - off-scence	MIRI Medium Resolution Spectroscopy	(4) SN2023iop

ABSTRACT

The nature of the Universe's most extreme stellar explosions remains unresolved. Some superluminous supernovae are excellent candidates for pair-instability supernovae (PISNe) and pulsational PISNe (PPISNe) - the predicted deaths of stars with >95 Msun that likely dominated early cosmic evolution. However, no definitive (P)PISN has been confirmed due to observational degeneracies: optical signatures are mimicked by magnetar-powered explosions. We propose to break this degeneracy through a comprehensive MIRI campaign targeting two orthogonal diagnostics. (1) Dust mass: due to their enormous ejecta masses, (P)PISN models predict prolific dust formation (1-30 Msun), orders of magnitude more than core-collapse SNe or magnetar-powered events. (2) [Ne II] 12.8m emission: Magnetar models uniquely predict strong late-time [Ne II] from continued energy

injection, while (P)PISNe predict no such emission. We propose deep imaging in eight MIRI filters plus medium-resolution spectroscopy for four compelling (P)PISN candidates at 2-8 years post-explosion. A detection of >1 Msun dust without [Ne II] would provide the first definitive (P)PISN confirmation. [Ne II] detection would prove magnetar-powered origins, demonstrating that (P)PISN-like transients can arise from alternative mechanisms. A non-detection of both signatures would be equally transformative, challenging theoretical models. This dual approach represents the first decisive test capable of resolving the mechanisms of extreme stellar explosions, with profound implications for stellar evolution, early Universe dust budgets, interpretations of the LIGO black hole mass function, and future high-redshift survey strategies.

OBSERVING DESCRIPTION

- We propose to obtain (1) deep imaging in 8 filters from F560W to F2100W to measure dust masses, and (2) medium-resolution spectroscopy targeting the [Ne II] 12.8 μm line to test for magnetar signatures in four of the most compelling (P)PISN candidates with peak luminosities in the regime of superluminous supernovae.

- Each observation is set up as follows:

1) Imaging

-Sub-array: Full
-Dither pattern: 4-point cycling
-Read-out pattern: FASTR1
-Filters: F560W, F770W, F1000W, F1130W, F1280W, F1500W, F1800W, F2100W

-In each filter, the observation consists of a combination of Groups/Int, Integrations/Exp and Exposures/Dith that will allow us to reach a S/N of 20-40.

2) Spectroscopy

-Each observation is divided into an on-scene and off-scene epic.

-On-scene:

-Dither pattern: 4-point cycling
-Read-out pattern: FASTR1
-Sub-band B for SNe 2018ibb, 2021yfj and 2023iop and Sub-band C for SN 2020abjc (The targets have redshifts between 0.1 and 0.22. Depending on the redshift, the sub-band was chosen to cover [Ne II] 12.8 μm.)
-The target coordinates have an accuracy of <0.3 arcsec. JWST pointing accuracy is 0.1 arcsec. Hence, the science target will be close to the centre of the MRS FoV. No fine-tuning is requested during the target-acquisition.
-Each observation consists of a combination of Groups/Int, Integrations/Exp and Exposures/Dith that will allow us to reach a S/N of 2-3 per resolution element (4xspectral binning for all objects).

-Off-scene:
-Dither pattern: 2-point cycling
-Read-out pattern: FASTR1
-Sub-band B for SNe 2018ibb, 2021yfj and 2023iop and Sub-band C for SN 2020abjc
-This observations are offset by 7" in X and Y (each) from the target coordiantes to point at a blank field.
-Same number of groups like on-scence observation. Requested integration time is about 25% of the on-scene time, ensuring a good background spectrum.

- The observations can be done at any time during Cycle 5.

- The imaging and spectroscopy observation of a given target are linked to each other to minimise slew overheads.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	SN2018ibb	RA: 04 38 56.9500 (69.7372917d) Dec: -20 39 44.00 (-20.66222d) Equinox: J2000	Epoch of Position: 2000	
Comments: *Category=Star* *Description=[Supernovae]* *Extended=NO*				
(2)	SN2020abjc	RA: 09 28 0.2740 (142.0011417d) Dec: +14 07 16.62 (14.12128d) Equinox: J2000	Epoch of Position: 2000	
Comments: *Category=Star* *Description=[Supernovae]* *Extended=NO*				
(3)	SN2021yfj	RA: 01 37 46.1710 (24.4423792d) Dec: -01 15 17.78 (-1.25494d) Equinox: J2000	Epoch of Position: 2000	
Comments: *Category=Star* *Description=[Supernovae]* *Extended=NO*				
(4)	SN2023iop	RA: 00 14 42.6990 (3.6779125d) Dec: +21 51 33.77 (21.85938d) Equinox: J2000	Epoch of Position: 2000	
Comments: *Category=Star* *Description=[Supernovae]* *Extended=NO*				

Observation

Proposal 11027, Observation 1: SN2018ibb - MIRI - Imaging

Thu Apr 09 20:00:30 GMT 2026

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)	SN2018ibb	RA: 04 38 56.9500 (69.7372917d) Dec: -20 39 44.00 (-20.66222d) Equinox: J2000	Epoch of Position: 2000	

Comments:
Category=Star
Description=[Supernovae]
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	CYCLING	1	4						DEFAULT

Spectral Elements

#	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	F560W	FASTR1	20	3	1	Dither 1	4	12	688.21	271397.1
2	F770W	FASTR1	20	3	1	Dither 1	4	12	688.21	271397.2
3	F1000W	FASTR1	14	1	1	Dither 1	4	4	155.402	271397.3
4	F1130W	FASTR1	14	1	1	Dither 1	4	4	155.402	271397.4
5	F1280W	FASTR1	15	3	1	Dither 1	4	12	521.708	271397.5
6	F1500W	FASTR1	9	6	1	Dither 1	4	24	654.909	271397.6
7	F1800W	FASTR1	16	8	1	Dither 1	4	32	1498.522	271397.7
8	F2100W	FASTR1	15	8	1	Dither 1	4	32	1409.72	271397.8

Special Requirements

Group Observations 1, 2, 3, Non-interruptible

Observation

Proposal 11027, Observation 2: SN2018ibb - MIRI - MRS - on-scene Thu Apr 09 20:00:30 GMT 2026

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

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
(1)	SN2018ibb	RA: 04 38 56.9500 (69.7372917d) Dec: -20 39 44.00 (-20.66222d) Equinox: J2000	Epoch of Position: 2000	

Comments:
Category=Star
Description=[Supernovae]
Extended=NO

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
F1500W	Channel 3	NO	FULL	Allow Auto Reorder

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	Optional ETC ID
1	MEDIUM(B)	MRSLONG		FASTR1	30	16	1	Dither 1	4	64	5494.579	271397.39
1	MEDIUM(B)	MRSSHORT		FASTR1	30	16	1	Dither 1	4	64	5494.579	271397.39

Special Requirements	Group Observations 1, 2, 3, Non-interruptible

Observation

Proposal 11027, Observation 3: SN2018ibb - MIRI - MRS - off-scene Thu Apr 09 20:00:30 GMT 2026

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution 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)	SN2018ibb	RA: 04 38 56.9500 (69.7372917d) Dec: -20 39 44.00 (-20.66222d) Equinox: J2000	Epoch of Position: 2000	

Comments:
Category=Star
Description=[Supernovae]
Extended=NO

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
F1500W	Channel 3	NO	FULL	Allow Auto Reorder

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	Optional ETC ID
1	MEDIUM(B)	MRSLONG		FASTR1	30	8	1	Dither 1	2	16	1370.87	271397.39
1	MEDIUM(B)	MRSSHORT		FASTR1	30	8	1	Dither 1	2	16	1370.87	271397.39

Special Requirements	
	Offset 7.0 arcsec, 7.0 arcsec Group Observations 1, 2, 3, Non-interruptible

Observation

Proposal 11027, Observation 4: SN2020abjc- MIRI - Imaging

Thu Apr 09 20:00:30 GMT 2026

Diagnostic Status: Warning

Observing Template: MIRI Imaging

Diagnostics

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(2)	SN2020abjc	RA: 09 28 0.2740 (142.0011417d) Dec: +14 07 16.62 (14.12128d) Equinox: J2000	Epoch of Position: 2000	

Comments:
Category=Star
Description=[Supernovae]
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	CYCLING	1	4						DEFAULT

Spectral Elements

#	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	F560W	FASTR1	20	8	1	Dither 1	4	32	1853.727	271397.9
2	F770W	FASTR1	20	6	1	Dither 1	4	24	1387.52	271397.10
3	F1000W	FASTR1	19	10	1	Dither 1	4	40	2208.932	271397.11
4	F1130W	FASTR1	11	6	1	Dither 1	4	24	788.111	271397.12
5	F1280W	FASTR1	19	10	1	Dither 1	4	40	2208.932	271397.13
6	F1500W	FASTR1	17	10	1	Dither 1	4	40	1986.929	271397.14
7	F1800W	FASTR1	39	18	1	Dither 1	4	72	7981.015	271397.15
8	F2100W	FASTR1	23	26	1	Dither 1	4	104	6915.4	271397.16

Special Requirements

Group Observations 4, 5, 6, Non-interruptible

Observation

Proposal 11027, Observation 5: SN2020abjc - MIRI - MRS - on-scence Thu Apr 09 20:00:30 GMT 2026

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Diagnostics

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(2)	SN2020abjc	RA: 09 28 0.2740 (142.0011417d) Dec: +14 07 16.62 (14.12128d) Equinox: J2000	Epoch of Position: 2000	

Comments:
Category=Star
Description=[Supernovae]
Extended=NO

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
F1500W	Channel 3	NO	FULL	Allow Auto Reorder

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	Optional ETC ID
1	LONG(C)	MRSLONG		FASTR1	30	16	1	Dither 1	4	64	5494.579	271397.36
1	LONG(C)	MRSSHORT		FASTR1	30	16	1	Dither 1	4	64	5494.579	271397.36

Special Requirements	Group Observations 4, 5, 6, Non-interruptible

Observation

Proposal 11027, Observation 6: SN2020abjc - MIRI - MRS - off-scence Thu Apr 09 20:00:30 GMT 2026

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Diagnostics

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(2)	SN2020abjc	RA: 09 28 0.2740 (142.0011417d) Dec: +14 07 16.62 (14.12128d) Equinox: J2000	Epoch of Position: 2000	

Comments:
Category=Star
Description=[Supernovae]
Extended=NO

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
F1500W	Channel 3	NO	FULL	Allow Auto Reorder

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	Optional ETC ID
1	LONG(C)	MRSLONG		FASTR1	30	8	1	Dither 1	2	16	1370.87	271397.36
1	LONG(C)	MRSSHORT		FASTR1	30	8	1	Dither 1	2	16	1370.87	271397.36

Special Requirements	
	Offset 7.0 arcsec, 7.0 arcsec Group Observations 4, 5, 6, Non-interruptible

Observation

Proposal 11027, Observation 7: SN2021yfj - MIRI - Imaging Thu Apr 09 20:00:30 GMT 2026

Diagnostic Status: Warning

Observing Template: MIRI Imaging

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
(3)	SN2021yfj	RA: 01 37 46.1710 (24.4423792d) Dec: -01 15 17.78 (-1.25494d) Equinox: J2000	Epoch of Position: 2000	

Comments:
Category=Star
Description=[Supernovae]
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	CYCLING	1	4						DEFAULT

Spectral Elements

#	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	F560W	FASTR1	13	2	1	Dither 1	4	8	299.704	271397.17
2	F770W	FASTR1	20	3	1	Dither 1	4	12	688.21	271397.18
3	F1000W	FASTR1	14	1	1	Dither 1	4	4	155.402	271397.19
4	F1130W	FASTR1	8	2	1	Dither 1	4	8	188.703	271397.20
5	F1280W	FASTR1	10	2	1	Dither 1	4	8	233.103	271397.21
6	F1500W	FASTR1	8	3	1	Dither 1	4	12	288.604	271397.22
7	F1800W	FASTR1	16	3	1	Dither 1	4	12	555.008	271397.23
8	F2100W	FASTR1	14	4	1	Dither 1	4	16	654.909	271397.24

Special Requirements

Group Observations 7, 8, 9, Non-interruptible

Observation

Proposal 11027, Observation 8: SN2021yfj - MIRI - MRS - on-scence Thu Apr 09 20:00:30 GMT 2026

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Diagnostics

(Visit 8:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(3)	SN2021yfj	RA: 01 37 46.1710 (24.4423792d) Dec: -01 15 17.78 (-1.25494d) Equinox: J2000	Epoch of Position: 2000	

Comments:
Category=Star
Description=[Supernovae]
Extended=NO

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
F1500W	Channel 3	NO	FULL	Allow Auto Reorder

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	Optional ETC ID
1	MEDIUM(B)	MRSLONG		FASTR1	20	10	1	Dither 1	4	40	2319.933	271397.38
1	MEDIUM(B)	MRSSHORT		FASTR1	20	10	1	Dither 1	4	40	2319.933	271397.38

Special Requirements	Group Observations 7, 8, 9, Non-interruptible

Observation

Proposal 11027, Observation 9: SN2021yfj - MIRI - MRS - off-scene Thu Apr 09 20:00:30 GMT 2026

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Diagnostics

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(3)	SN2021yfj	RA: 01 37 46.1710 (24.4423792d) Dec: -01 15 17.78 (-1.25494d) Equinox: J2000	Epoch of Position: 2000	

Comments:
Category=Star
Description=[Supernovae]
Extended=NO

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
F1500W	Channel 3	NO	FULL	Allow Auto Reorder

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	Optional ETC ID
1	MEDIUM(B)	MRSLONG		FASTR1	20	5	1	Dither 1	2	10	577.208	271397.38
1	MEDIUM(B)	MRSSHORT		FASTR1	20	5	1	Dither 1	2	10	577.208	271397.38

Special Requirements	
	Offset 7.0 arcsec, 7.0 arcsec Group Observations 7, 8, 9, Non-interruptible

Observation

Proposal 11027, Observation 10: SN2023iop - MIRI - Imaging

Thu Apr 09 20:00:30 GMT 2026

Diagnostic Status: Warning

Observing Template: MIRI Imaging

Diagnostics

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(4)	SN2023iop	RA: 00 14 42.6990 (3.6779125d) Dec: +21 51 33.77 (21.85938d) Equinox: J2000	Epoch of Position: 2000	

Comments:
Category=Star
Description=[Supernovae]
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	CYCLING	1	4						DEFAULT

Spectral Elements

#	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	Optional ETC ID
1	F560W	FASTR1	8	2	1	Dither 1	4	8	188.703	271397.25
2	F770W	FASTR1	8	2	1	Dither 1	4	8	188.703	271397.26
3	F1000W	FASTR1	8	2	1	Dither 1	4	8	188.703	271397.27
4	F1130W	FASTR1	8	2	1	Dither 1	4	8	188.703	271397.28
5	F1280W	FASTR1	8	2	1	Dither 1	4	8	188.703	271397.29
6	F1500W	FASTR1	8	2	1	Dither 1	4	8	188.703	271397.30
7	F1800W	FASTR1	8	2	1	Dither 1	4	8	188.703	271397.31
8	F2100W	FASTR1	8	2	1	Dither 1	4	8	188.703	271397.32

Special Requirements

Group Observations 10, 11, 12, Non-interruptible

Observation

Proposal 11027, Observation 11: SN2023iop - MIRI - MRS - on-scence Thu Apr 09 20:00:30 GMT 2026

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Diagnostics

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(4)	SN2023iop	RA: 00 14 42.6990 (3.6779125d) Dec: +21 51 33.77 (21.85938d) Equinox: J2000	Epoch of Position: 2000	

Comments:
Category=Star
Description=[Supernovae]
Extended=NO

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
F1500W	Channel 3	NO	FULL	Allow Auto Reorder

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	Optional ETC ID
1	MEDIUM(B)	MRSLONG		FASTR1	20	10	1	Dither 1	4	40	2319.933	271397.39
1	MEDIUM(B)	MRSSHORT		FASTR1	20	10	1	Dither 1	4	40	2319.933	271397.39

Special Requirements	Group Observations 10, 11, 12, Non-interruptible

Observation

Proposal 11027, Observation 12: SN2023iop - MIRI - MRS - off-scence Thu Apr 09 20:00:30 GMT 2026

Diagnostic Status: Warning

Observing Template: MIRI Medium Resolution Spectroscopy

Diagnostics

(Visit 12:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(4)	SN2023iop	RA: 00 14 42.6990 (3.6779125d) Dec: +21 51 33.77 (21.85938d) Equinox: J2000	Epoch of Position: 2000	

Comments:
Category=Star
Description=[Supernovae]
Extended=NO

Acquisition

#	Target
1	NONE

Template

AcqFilter	Primary Channel	Simultaneous Imaging	Imager Subarray	Grating Wheel Direction
F1500W	Channel 3	NO	FULL	Allow Auto Reorder

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	Optional ETC ID
1	MEDIUM(B)	MRSLONG		FASTR1	20	5	1	Dither 1	2	10	577.208	271397.39
1	MEDIUM(B)	MRSSHORT		FASTR1	20	5	1	Dither 1	2	10	577.208	271397.39

Special Requirements	
	Offset 7.0 arcsec, 7.0 arcsec Group Observations 10, 11, 12, Non-interruptible