



3954 - Luminous and dark matter in massive galaxies at $z=4-5$

Cycle: 2, Proposal Category: GO

INVESTIGATORS

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OBSERVATIONS

<i>Folder</i>	<i>Observation</i>	<i>Label</i>	<i>Observing Template</i>	<i>Science Target</i>
NIRcam				
	1	ALESS-73.1_NIRCAM	NIRCam Imaging	(1) ALESS-73.1
	4	BR1202-0725_NIRCAM	NIRCam Imaging	(4) BR1202-0725
	5	BRI1335_NIRCAM	NIRCam Imaging	(5) BRI1335
	6	J0331-0741_NIRCAM	NIRCam Imaging	(6) J0331-0741
	7	J0817+1351_NIRCAM	NIRCam Imaging	(7) J0817+1351
	8	J0923+0247_NIRCAM	NIRCam Imaging	(8) J0923+0247
	25	J0923+0247_NIRCAM	NIRCam Imaging	(8) J0923+0247
	10	J1341+0141_NIRCAM	NIRCam Imaging	(10) J1341+0141
	11	J1511+0408_NIRCAM	NIRCam Imaging	(11) J1511+0408
	12	SGP38326_NIRCAM	NIRCam Imaging	(12) SGP38326
MIRI				
	13	ALESS-73.1_MIRI	MIRI Imaging	(1) ALESS-73.1
	14	AZTEC-1_MIRI	MIRI Imaging	(2) AZTEC-1
	15	AZTEC-159_MIRI	MIRI Imaging	(3) AZTEC-159
	16	BR1202-0725_MIRI	MIRI Imaging	(4) BR1202-0725
	17	BRI1335_MIRI	MIRI Imaging	(5) BRI1335
	18	J0331-0741_MIRI	MIRI Imaging	(6) J0331-0741
	19	J0817+1351_MIRI	MIRI Imaging	(7) J0817+1351
	20	J0923+0247_MIRI	MIRI Imaging	(8) J0923+0247
	21	J1000+0234_MIRI	MIRI Imaging	(9) J1000+0234
	22	J1341+0141_MIRI	MIRI Imaging	(10) J1341+0141
	23	J1511+0408_MIRI	MIRI Imaging	(11) J1511+0408
	24	SGP38326_MIRI	MIRI Imaging	(12) SGP38326

ABSTRACT

We request JWST imaging for a golden sample of 16 massive galaxies at $z=4-5$ with existing ALMA [CII] data of the highest quality. The [CII] data reveals regularly rotating disks, allowing for the derivation of rotation curves that trace the total mass distribution. To infer the properties of dark matter (DM) halos, however, we miss a key piece of information: the stellar mass distribution.

JWST Proposal 3954 (Created: Friday, October 25, 2024, 10:00:11AM Eastern Standard Time) - Overview

JWST is the only existing telescope that can spatially resolve the stellar emission in these galaxies. We request MIRI images at rest-frame 1.4 μm to set a robust constraint on the stellar mass, as well as NIRCам images in 4 filters to trace surface brightness and color profiles at the same spatial resolution of the ALMA data (0.05"-0.20" corresponding to 0.5-1.0 kpc). We will (1) determine the stellar mass distribution, subtracting any potential central AGN contribution, (2) fit the [CII] rotation curves with mass models accounting for the contributions of stars, gas, and DM, (3) study the evolution of scaling laws such as the Tully-Fisher relation, the radial acceleration relation, and more, (4) study star formation (SF) laws using maps of the total SF rate from rest-frame NUV images (from NIRCам) plus existing FIR maps (from ALMA) together with gas maps from [CII] data, (5) study the environment of these massive galaxies, which are expected to live in the densest regions of the early Universe, detecting possible low-mass satellites.

This program will exploit the JWST-ALMA synergy to probe the total mass content (stars, gas, and DM) of massive galaxies at $z=4-5$. This will provide key clues on the DM nature by tracing DM halos in a cosmic epoch that has been out of reach until now.

OBSERVING DESCRIPTION

This proposal aims to obtain standard NIRCам and MIRI imaging for a sample of 16 galaxies at $z=4-5$.

The NIRCам imaging will be done with two filter sets (F150W+F444W and F200W+F277W). We request a SHALLOW4 readout pattern, 5 groups per integration, and 4 sub-pixel dithers.

The MIRI imaging requests the F770W filter, FASTR1 readout pattern, 42 groups with 2 integrations, and cycling dither types with 4 pointings.

Proposal 3954 - Targets - Luminous and dark matter in massive galaxies at z=4-5

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	ALESS-73.1	RA: 03 32 29.2953 (53.1220637d) Dec: -27 56 19.59 (-27.93878d) Equinox: J2000		
	<i>Comments:</i> <i>Category=Galaxy</i> <i>Description=[High-redshift galaxies]</i>			
(2)	AZTEC-1	RA: 09 59 42.8554 (149.9285642d) Dec: +02 29 38.21 (2.49395d) Equinox: J2000		
	<i>Comments:</i> <i>Category=Galaxy</i> <i>Description=[High-redshift galaxies]</i>			
(3)	AZTEC-159	RA: 09 59 30.4070 (149.8766958d) Dec: +01 55 27.55 (1.92432d) Equinox: J2000		
	<i>Comments:</i> <i>Category=Galaxy</i> <i>Description=[High-redshift galaxies]</i>			
(4)	BR1202-0725	RA: 12 05 23.0587 (181.3460779d) Dec: -07 42 31.30 (-7.70869d) Equinox: J2000		
	<i>Comments: This is the midway position between two objects which have a small separation</i> <i>BR*N 12 05 22.9814, -07 42 29.76</i> <i>BR*S 12 05 23.1360, -07 42 32.84</i> <i>Category=Galaxy</i> <i>Description=[High-redshift galaxies]</i>			
(5)	BRI1335	RA: 13 38 3.4187 (204.5142446d) Dec: -04 32 35.02 (-4.54306d) Equinox: J2000		
	<i>Comments:</i> <i>Category=Galaxy</i> <i>Description=[High-redshift galaxies]</i>			
(6)	J0331-0741	RA: 03 31 19.6630 (52.8319292d) Dec: -07 41 43.17 (-7.69533d) Equinox: J2000		
	<i>Comments:</i> <i>Category=Galaxy</i> <i>Description=[High-redshift galaxies]</i>			
(7)	J0817+1351	RA: 08 17 40.8686 (124.4202858d) Dec: +13 51 38.21 (13.86061d) Equinox: J2000		
	<i>Comments:</i> <i>Category=Galaxy</i> <i>Description=[High-redshift galaxies]</i>			

Fixed Targets

Proposal 3954 - Targets - Luminous and dark matter in massive galaxies at z=4-5

(8)	J0923+0247	RA: 09 23 3.4089 (140.7642038d) Dec: +02 47 37.53 (2.79376d) Equinox: J2000
<i>Comments: Halfway point between these two objects</i>		
<i>J023*N 09 23 3.5343, +02 47 39.58</i> <i>J023*S 09 23 3.2836, +02 47 35.48</i> <i>Category=Galaxy</i> <i>Description=[High-redshift galaxies]</i>		
(9)	J1000+0234	RA: 10 00 54.4932 (150.2270550d) Dec: +02 34 36.07 (2.57669d) Equinox: J2000
<i>Comments:</i> <i>Category=Galaxy</i> <i>Description=[High-redshift galaxies]</i>		
(10)	J1341+0141	RA: 13 41 34.1991 (205.3924962d) Dec: +01 41 57.59 (1.69933d) Equinox: J2000
<i>Comments:</i> <i>Category=Galaxy</i> <i>Description=[High-redshift galaxies]</i>		
(11)	J1511+0408	RA: 15 11 55.9763 (227.9832346d) Dec: +04 08 3.00 (4.13417d) Equinox: J2000
<i>Comments:</i> <i>Category=Galaxy</i> <i>Description=[High-redshift galaxies]</i>		
(12)	SGP38326	RA: 00 03 7.2232 (.7800967d) Dec: -33 02 51.45 (-33.04762d) Equinox: J2000
<i>Comments: SGP38326_1 00 03 7.3116 -33 02 52.57</i> <i>SGP_2: 00 03 7.2294; -33 02 50.63</i> <i>SGP_3: 00 03 7.1285; -33 02 51.16</i> <i>Category=Galaxy</i> <i>Description=[High-redshift galaxies]</i>		

Proposal 3954 - Observation 1 - Luminous and dark matter in massive galaxies at z=4-5

Fri Oct 25 15:00:11 GMT 2024

Observation	<p>Proposal 3954, Observation 1: ALESS-73.1_NIRCAM</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: NIRCam Imaging</p>									
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)	ALESS-73.1	RA: 03 32 29.2953 (53.1220637d) Dec: -27 56 19.59 (-27.93878d) Equinox: J2000							
	<p><i>Comments:</i> <i>Category=Galaxy</i> <i>Description=[High-redshift galaxies]</i></p>									
Template	Module		Subarray			Target Placement				
	ALL		FULL			Module Gap				
Dithers	#	Primary Dither Type		Primary Dithers	Subpixel Dither Type		Dither Size	Subpixel Positions		
	1	INTRAMODULEBOX		2	STANDARD			2		
Spectral Elements	#	Short Filter	Long Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
	1	F150W	F444W	SHALLOW4	5	1	4	4	1030.73	
	2	F200W	F277W	SHALLOW4	5	1	4	4	1030.73	
Special Requirements	<p>Offset 55.0 arcsec, 35.0 arcsec Background Limited. Background no more than 40th percentile above minimum</p>									

Proposal 3954 - Observation 4 - Luminous and dark matter in massive galaxies at z=4-5

Fri Oct 25 15:00:11 GMT 2024

Observation	<p>Proposal 3954, Observation 4: BR1202-0725_NIRCAM</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: NIRCAM Imaging</p>									
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		
	(4)	BR1202-0725	RA: 12 05 23.0587 (181.3460779d) Dec: -07 42 31.30 (-7.70869d) Equinox: J2000							
	<p><i>Comments: This is the midway position between two objects which have a small separation</i></p> <p>BR*N 12 05 22.9814, -07 42 29.76 BR*S 12 05 23.1360, -07 42 32.84 Category=Galaxy Description=[High-redshift galaxies]</p>									
Template	Module		Subarray			Target Placement				
	ALL		FULL			Module Gap				
Dithers	#	Primary Dither Type		Primary Dithers	Subpixel Dither Type		Dither Size	Subpixel Positions		
	1	INTRAMODULEBOX		2	STANDARD			2		
Spectral Elements	#	Short Filter	Long Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
	1	F150W	F444W	SHALLOW4	5	1	4	4	1030.73	
	2	F200W	F277W	SHALLOW4	5	1	4	4	1030.73	
Special Requirements	<p>Offset 55.0 arcsec, 35.0 arcsec Background Limited. Background no more than 40th percentile above minimum</p>									

Proposal 3954 - Observation 5 - Luminous and dark matter in massive galaxies at z=4-5

Fri Oct 25 15:00:11 GMT 2024

Observation	<p>Proposal 3954, Observation 5: BRI1335_NIRCAM</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: NIRCcam Imaging</p>									
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		
	(5)	BRI1335	RA: 13 38 3.4187 (204.5142446d) Dec: -04 32 35.02 (-4.54306d) Equinox: J2000							
	<p><i>Comments:</i> <i>Category=Galaxy</i> <i>Description=[High-redshift galaxies]</i></p>									
Template	Module		Subarray			Target Placement				
	ALL		FULL			Module Gap				
Dithers	#	Primary Dither Type		Primary Dithers	Subpixel Dither Type		Dither Size	Subpixel Positions		
	1	INTRAMODULEBOX		2	STANDARD			2		
Spectral Elements	#	Short Filter	Long Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
	1	F150W	F444W	SHALLOW4	5	1	4	4	1030.73	
	2	F200W	F277W	SHALLOW4	5	1	4	4	1030.73	
Special Requirements	<p>Offset 55.0 arcsec, 35.0 arcsec Background Limited. Background no more than 40th percentile above minimum</p>									

Proposal 3954 - Observation 6 - Luminous and dark matter in massive galaxies at z=4-5

Fri Oct 25 15:00:11 GMT 2024

Observation	<p>Proposal 3954, Observation 6: J0331-0741_NIRCAM</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: NIRCam Imaging</p>									
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		
	(6)	J0331-0741	RA: 03 31 19.6630 (52.8319292d) Dec: -07 41 43.17 (-7.69533d) Equinox: J2000							
	<p><i>Comments:</i> <i>Category=Galaxy</i> <i>Description=[High-redshift galaxies]</i></p>									
Template	Module		Subarray			Target Placement				
	ALL		FULL			Module Gap				
Dithers	#	Primary Dither Type		Primary Dithers	Subpixel Dither Type		Dither Size	Subpixel Positions		
	1	INTRAMODULEBOX		2	STANDARD			2		
Spectral Elements	#	Short Filter	Long Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
	1	F150W	F444W	SHALLOW4	5	1	4	4	1030.73	
	2	F200W	F277W	SHALLOW4	5	1	4	4	1030.73	
Special Requirements	<p>Offset 55.0 arcsec, 35.0 arcsec Background Limited. Background no more than 40th percentile above minimum</p>									

Proposal 3954 - Observation 7 - Luminous and dark matter in massive galaxies at z=4-5

Fri Oct 25 15:00:11 GMT 2024

Observation	<p>Proposal 3954, Observation 7: J0817+1351_NIRCAM</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: NIRCam Imaging</p>									
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		
	(7)	J0817+1351	RA: 08 17 40.8686 (124.4202858d) Dec: +13 51 38.21 (13.86061d) Equinox: J2000							
	<p><i>Comments:</i> <i>Category=Galaxy</i> <i>Description=[High-redshift galaxies]</i></p>									
Template	Module		Subarray			Target Placement				
	ALL		FULL			Module Gap				
Dithers	#	Primary Dither Type		Primary Dithers	Subpixel Dither Type		Dither Size	Subpixel Positions		
	1	INTRAMODULEBOX		2	STANDARD			2		
Spectral Elements	#	Short Filter	Long Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
	1	F150W	F444W	SHALLOW4	5	1	4	4	1030.73	
	2	F200W	F277W	SHALLOW4	5	1	4	4	1030.73	
Special Requirements	<p>Offset 55.0 arcsec, 35.0 arcsec Background Limited. Background no more than 40th percentile above minimum</p>									

Proposal 3954 - Observation 8 - Luminous and dark matter in massive galaxies at z=4-5

Fri Oct 25 15:00:11 GMT 2024

Observation	<p>Proposal 3954, Observation 8: J0923+0247_NIRCAM</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: NIRCam Imaging</p>									
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		
	(8)	J0923+0247	RA: 09 23 3.4089 (140.7642038d) Dec: +02 47 37.53 (2.79376d) Equinox: J2000							
	<p><i>Comments: Halfway point between these two objects</i></p> <p><i>J023*N 09 23 3.5343, +02 47 39.58</i></p> <p><i>J023*S 09 23 3.2836, +02 47 35.48</i></p> <p><i>Category=Galaxy</i></p> <p><i>Description=[High-redshift galaxies]</i></p>									
Template	Module		Subarray			Target Placement				
	ALL		FULL			Module Gap				
Dithers	#	Primary Dither Type		Primary Dithers	Subpixel Dither Type		Dither Size	Subpixel Positions		
	1	INTRAMODULEBOX		2	STANDARD			2		
Spectral Elements	#	Short Filter	Long Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
	1	F150W	F444W	SHALLOW4	5	1	4	4	1030.73	
	2	F200W	F277W	SHALLOW4	5	1	4	4	1030.73	
Special Requirements	<p>Offset 55.0 arcsec, 35.0 arcsec</p> <p>Background Limited. Background no more than 40th percentile above minimum</p>									

Proposal 3954 - Observation 25 - Luminous and dark matter in massive galaxies at z=4-5

Fri Oct 25 15:00:11 GMT 2024

Observation	<p>Proposal 3954, Observation 25: J0923+0247_NIRCAM</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: NIRCAM Imaging</p> <p><i>Comments: WOPR duplicate of obs. 8 adding comment to get background limitations recalculated</i></p>									
Diagnostics	(Visit 25:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.									
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections			Miscellaneous		
	(8)	J0923+0247	RA: 09 23 3.4089 (140.7642038d) Dec: +02 47 37.53 (2.79376d) Equinox: J2000							
	<p><i>Comments: Halfway point between these two objects</i></p> <p>J023*N 09 23 3.5343, +02 47 39.58 J023*S 09 23 3.2836, +02 47 35.48 Category=Galaxy Description=[High-redshift galaxies]</p>									
Template	Module		Subarray			Target Placement				
	ALL		FULL			Module Gap				
Dithers	#	Primary Dither Type		Primary Dithers	Subpixel Dither Type		Dither Size	Subpixel Positions		
	1	INTRAMODULEBOX		2	STANDARD			2		
Spectral Elements	#	Short Filter	Long Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
	1	F150W	F444W	SHALLOW4	5	1	4	4	1030.73	
	2	F200W	F277W	SHALLOW4	5	1	4	4	1030.73	
Special Requirements	<p>Offset 55.0 arcsec, 35.0 arcsec Background Limited. Background no more than 40th percentile above minimum</p>									

Proposal 3954 - Observation 10 - Luminous and dark matter in massive galaxies at z=4-5

Fri Oct 25 15:00:11 GMT 2024

Observation	<p>Proposal 3954, Observation 10: J1341+0141_NIRCAM</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: NIRCam Imaging</p>									
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		
	(10)	J1341+0141	RA: 13 41 34.1991 (205.3924962d) Dec: +01 41 57.59 (1.69933d) Equinox: J2000							
	<p><i>Comments:</i> <i>Category=Galaxy</i> <i>Description=[High-redshift galaxies]</i></p>									
Template	Module		Subarray			Target Placement				
	ALL		FULL			Module Gap				
Dithers	#	Primary Dither Type		Primary Dithers	Subpixel Dither Type		Dither Size	Subpixel Positions		
	1	INTRAMODULEBOX		2	STANDARD			2		
Spectral Elements	#	Short Filter	Long Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
	1	F200W	F277W	SHALLOW4	5	1	4	4	1030.73	
	2	F150W	F444W	SHALLOW4	5	1	4	4	1030.73	
Special Requirements	<p>Offset 55.0 arcsec, 35.0 arcsec</p> <p>Background Limited. Background no more than 40th percentile above minimum</p>									

Proposal 3954 - Observation 11 - Luminous and dark matter in massive galaxies at z=4-5

Fri Oct 25 15:00:11 GMT 2024

Observation	<p>Proposal 3954, Observation 11: J1511+0408_NIRCAM</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: NIRCcam Imaging</p>									
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		
	(11)	J1511+0408	RA: 15 11 55.9763 (227.9832346d) Dec: +04 08 3.00 (4.13417d) Equinox: J2000							
	<p><i>Comments:</i> <i>Category=Galaxy</i> <i>Description=[High-redshift galaxies]</i></p>									
Template	Module		Subarray			Target Placement				
	ALL		FULL			Module Gap				
Dithers	#	Primary Dither Type		Primary Dithers	Subpixel Dither Type		Dither Size	Subpixel Positions		
	1	INTRAMODULEBOX		2	STANDARD			2		
Spectral Elements	#	Short Filter	Long Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
	1	F150W	F444W	SHALLOW4	5	1	4	4	1030.73	
	2	F200W	F277W	SHALLOW4	5	1	4	4	1030.73	
Special Requirements	<p>Offset 55.0 arcsec, 35.0 arcsec Background Limited. Background no more than 40th percentile above minimum</p>									

Proposal 3954 - Observation 12 - Luminous and dark matter in massive galaxies at z=4-5

Fri Oct 25 15:00:11 GMT 2024

Observation	<p>Proposal 3954, Observation 12: SGP38326_NIRCAM</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: NIRCam Imaging</p>									
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		
	(12)	SGP38326	RA: 00 03 7.2232 (.7800967d) Dec: -33 02 51.45 (-33.04762d) Equinox: J2000							
	<p><i>Comments: SGP38326_1 00 03 7.3116 -33 02 52.57</i></p> <p><i>SGP_2: 00 03 7.2294; -33 02 50.63</i></p> <p><i>SGP_3: 00 03 7.1285; -33 02 51.16</i></p> <p><i>Category=Galaxy</i></p> <p><i>Description=[High-redshift galaxies]</i></p>									
Template	Module		Subarray			Target Placement				
	ALL		FULL			Module Gap				
Dithers	#	Primary Dither Type		Primary Dithers	Subpixel Dither Type		Dither Size	Subpixel Positions		
	1	INTRAMODULEBOX		2	STANDARD			2		
Spectral Elements	#	Short Filter	Long Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
	1	F150W	F444W	SHALLOW4	5	1	4	4	1030.73	
	2	F200W	F277W	SHALLOW4	5	1	4	4	1030.73	
Special Requirements	<p>Offset 55.0 arcsec, 35.0 arcsec</p> <p>Background Limited. Background no more than 40th percentile above minimum</p>									

Proposal 3954 - Observation 13 - Luminous and dark matter in massive galaxies at z=4-5

Fri Oct 25 15:00:11 GMT 2024

Observation	<p>Proposal 3954, Observation 13: ALESS-73.1_MIRI</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: MIRI Imaging</p>										
Diagnostics	(Visit 13:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.										
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections			Miscellaneous		
	(1)	ALESS-73.1	RA: 03 32 29.2953 (53.1220637d) Dec: -27 56 19.59 (-27.93878d) Equinox: J2000								
	<p><i>Comments:</i> <i>Category=Galaxy</i> <i>Description=[High-redshift galaxies]</i></p>										
Template	<p>Subarray</p> <p>FULL</p>										
Dithers	#	Dither Type	Starting Point	Number of Points	Points	Starting Set	Number of Sets	Optimized For	Direction	Pattern Size	
	1	CYCLING	1	4						LARGE	
Spectral Elements	#	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	F770W	FASTR1	42	2	1	Dither 1	4	8	943.514	

Proposal 3954 - Observation 14 - Luminous and dark matter in massive galaxies at z=4-5

Fri Oct 25 15:00:11 GMT 2024

Observation	<p>Proposal 3954, Observation 14: AZTEC-1_MIRI</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: MIRI Imaging</p>										
Diagnostics	(Visit 14:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.										
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections			Miscellaneous		
	(2)	AZTEC-1	RA: 09 59 42.8554 (149.9285642d) Dec: +02 29 38.21 (2.49395d) Equinox: J2000								
	<p><i>Comments:</i> <i>Category=Galaxy</i> <i>Description=[High-redshift galaxies]</i></p>										
Template	<p>Subarray</p> <p>FULL</p>										
Dithers	#	Dither Type	Starting Point	Number of Points	Points	Starting Set	Number of Sets	Optimized For	Direction	Pattern Size	
	1	CYCLING	1	4						LARGE	
Spectral Elements	#	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	F770W	FASTR1	42	2	1	Dither 1	4	8	943.514	

Proposal 3954 - Observation 15 - Luminous and dark matter in massive galaxies at z=4-5

Fri Oct 25 15:00:11 GMT 2024

Observation	<p>Proposal 3954, Observation 15: AZTEC-159_MIRI</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: MIRI Imaging</p>										
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		
	(3)	AZTEC-159	RA: 09 59 30.4070 (149.8766958d) Dec: +01 55 27.55 (1.92432d) Equinox: J2000								
	<p><i>Comments:</i> <i>Category=Galaxy</i> <i>Description=[High-redshift galaxies]</i></p>										
Template	<p>Subarray</p> <p>FULL</p>										
Dithers	#	Dither Type	Starting Point	Number of Points	Points	Starting Set	Number of Sets	Optimized For	Direction	Pattern Size	
	1	CYCLING	1	4						LARGE	
Spectral Elements	#	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	F770W	FASTR1	42	2	1	Dither 1	4	8	943.514	

Proposal 3954 - Observation 16 - Luminous and dark matter in massive galaxies at z=4-5

Fri Oct 25 15:00:11 GMT 2024

Observation	<p>Proposal 3954, Observation 16: BR1202-0725_MIRI</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: MIRI Imaging</p>										
Diagnostics	(Visit 16:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.										
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections			Miscellaneous		
	(4)	BR1202-0725	RA: 12 05 23.0587 (181.3460779d) Dec: -07 42 31.30 (-7.70869d) Equinox: J2000								
	<i>Comments: This is the midway position between two objects which have a small separation</i>										
	BR*N 12 05 22.9814, -07 42 29.76 BR*S 12 05 23.1360, -07 42 32.84 Category=Galaxy Description=[High-redshift galaxies]										
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						LARGE	
Spectral Elements	#	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	F770W	FASTR1	42	2	1	Dither 1	4	8	943.514	

Proposal 3954 - Observation 17 - Luminous and dark matter in massive galaxies at z=4-5

Fri Oct 25 15:00:11 GMT 2024

Observation	Proposal 3954, Observation 17: BRI1335_MIRI Diagnostic Status: Warning Observing Template: MIRI Imaging										
Diagnostics	(Visit 17:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.										
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections			Miscellaneous		
	(5)	BRI1335	RA: 13 38 3.4187 (204.5142446d) Dec: -04 32 35.02 (-4.54306d) Equinox: J2000								
	<i>Comments:</i> Category=Galaxy Description=[High-redshift galaxies]										
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						LARGE	
Spectral Elements	#	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	F770W	FASTR1	42	2	1	Dither 1	4	8	943.514	

Proposal 3954 - Observation 18 - Luminous and dark matter in massive galaxies at z=4-5

Fri Oct 25 15:00:11 GMT 2024

Observation	<p>Proposal 3954, Observation 18: J0331-0741_MIRI</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: MIRI Imaging</p>										
Diagnostics	(Visit 18:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.										
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections			Miscellaneous		
	(6)	J0331-0741	RA: 03 31 19.6630 (52.8319292d) Dec: -07 41 43.17 (-7.69533d) Equinox: J2000								
	<p><i>Comments:</i> <i>Category=Galaxy</i> <i>Description=[High-redshift galaxies]</i></p>										
Template	<p>Subarray</p> <p>FULL</p>										
Dithers	#	Dither Type	Starting Point	Number of Points	Points	Starting Set	Number of Sets	Optimized For	Direction	Pattern Size	
	1	CYCLING	1	4						LARGE	
Spectral Elements	#	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	F770W	FASTR1	42	2	1	Dither 1	4	8	943.514	

Proposal 3954 - Observation 19 - Luminous and dark matter in massive galaxies at z=4-5

Fri Oct 25 15:00:11 GMT 2024

Observation	<p>Proposal 3954, Observation 19: J0817+1351_MIRI</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: MIRI Imaging</p>										
Diagnostics	(Visit 19:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.										
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections			Miscellaneous		
	(7)	J0817+1351	RA: 08 17 40.8686 (124.4202858d) Dec: +13 51 38.21 (13.86061d) Equinox: J2000								
	<p><i>Comments:</i> <i>Category=Galaxy</i> <i>Description=[High-redshift galaxies]</i></p>										
Template	<p>Subarray</p> <p>FULL</p>										
Dithers	#	Dither Type	Starting Point	Number of Points	Points	Starting Set	Number of Sets	Optimized For	Direction	Pattern Size	
	1	CYCLING	1	4						LARGE	
Spectral Elements	#	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	F770W	FASTR1	42	2	1	Dither 1	4	8	943.514	

Proposal 3954 - Observation 20 - Luminous and dark matter in massive galaxies at z=4-5

Fri Oct 25 15:00:11 GMT 2024

Observation	<p>Proposal 3954, Observation 20: J0923+0247_MIRI</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: MIRI Imaging</p>										
Diagnostics	(Visit 20:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.										
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections			Miscellaneous		
	(8)	J0923+0247	RA: 09 23 3.4089 (140.7642038d) Dec: +02 47 37.53 (2.79376d) Equinox: J2000								
	<i>Comments: Halfway point between these two objects</i>										
	J023*N 09 23 3.5343, +02 47 39.58 J023*S 09 23 3.2836, +02 47 35.48 Category=Galaxy Description=[High-redshift galaxies]										
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						LARGE	
Spectral Elements	#	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	F770W	FASTR1	42	2	1	Dither 1	4	8	943.514	

Proposal 3954 - Observation 21 - Luminous and dark matter in massive galaxies at z=4-5

Fri Oct 25 15:00:11 GMT 2024

Observation	<p>Proposal 3954, Observation 21: J1000+0234_MIRI</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: MIRI Imaging</p>										
Diagnostics	(Visit 21:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.										
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections			Miscellaneous		
	(9)	J1000+0234	RA: 10 00 54.4932 (150.2270550d) Dec: +02 34 36.07 (2.57669d) Equinox: J2000								
	<p><i>Comments:</i> <i>Category=Galaxy</i> <i>Description=[High-redshift galaxies]</i></p>										
Template	<p>Subarray</p> <p>FULL</p>										
Dithers	#	Dither Type	Starting Point	Number of Points	Points	Starting Set	Number of Sets	Optimized For	Direction	Pattern Size	
	1	CYCLING	1	4						LARGE	
Spectral Elements	#	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	F770W	FASTR1	42	2	1	Dither 1	4	8	943.514	

Proposal 3954 - Observation 22 - Luminous and dark matter in massive galaxies at z=4-5

Fri Oct 25 15:00:11 GMT 2024

Observation	<p>Proposal 3954, Observation 22: J1341+0141_MIRI</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: MIRI Imaging</p>										
Diagnostics	<p>(Visit 22:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.</p>										
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections			Miscellaneous		
	(10)	J1341+0141	RA: 13 41 34.1991 (205.3924962d) Dec: +01 41 57.59 (1.69933d) Equinox: J2000								
	<p><i>Comments:</i> <i>Category=Galaxy</i> <i>Description=[High-redshift galaxies]</i></p>										
Template	<p>Subarray</p> <p>FULL</p>										
Dithers	#	Dither Type	Starting Point	Number of Points	Points	Starting Set	Number of Sets	Optimized For	Direction	Pattern Size	
	1	CYCLING	1	4						LARGE	
Spectral Elements	#	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	F770W	FASTR1	42	2	1	Dither 1	4	8	943.514	

Proposal 3954 - Observation 23 - Luminous and dark matter in massive galaxies at z=4-5

Fri Oct 25 15:00:11 GMT 2024

Observation	<p>Proposal 3954, Observation 23: J1511+0408_MIRI</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: MIRI Imaging</p>										
Diagnostics	<p>(Visit 23:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.</p>										
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections			Miscellaneous		
	(11)	J1511+0408	RA: 15 11 55.9763 (227.9832346d) Dec: +04 08 3.00 (4.13417d) Equinox: J2000								
	<p><i>Comments:</i> <i>Category=Galaxy</i> <i>Description=[High-redshift galaxies]</i></p>										
Template	<p>Subarray</p> <p>FULL</p>										
Dithers	#	Dither Type	Starting Point	Number of Points	Points	Starting Set	Number of Sets	Optimized For	Direction	Pattern Size	
	1	CYCLING	1	4						LARGE	
Spectral Elements	#	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	F770W	FASTR1	42	2	1	Dither 1	4	8	943.514	

Proposal 3954 - Observation 24 - Luminous and dark matter in massive galaxies at z=4-5

Fri Oct 25 15:00:11 GMT 2024

Observation	<p>Proposal 3954, Observation 24: SGP38326_MIRI</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: MIRI Imaging</p>										
Diagnostics	(Visit 24:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.										
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections		Miscellaneous			
	(12)	SGP38326	RA: 00 03 7.2232 (.7800967d) Dec: -33 02 51.45 (-33.04762d) Equinox: J2000								
	<p><i>Comments: SGP38326_1 00 03 7.3116 -33 02 52.57</i></p> <p><i>SGP_2: 00 03 7.2294; -33 02 50.63</i></p> <p><i>SGP_3: 00 03 7.1285; -33 02 51.16</i></p> <p><i>Category=Galaxy</i></p> <p><i>Description=[High-redshift galaxies]</i></p>										
Template	<p>Subarray</p> <p>FULL</p>										
Dithers	#	Dither Type	Starting Point	Number of Points	Points	Starting Set	Number of Sets	Optimized For	Direction	Pattern Size	
	1	CYCLING	1	4						LARGE	
Spectral Elements	#	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	F770W	FASTR1	42	2	1	Dither 1	4	8	943.514	