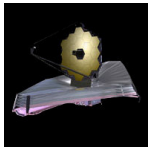

4528 - Galaxy Assembly with NIRSpec Integral Spectoscopy: Complementary Cycle 3 Observations

Cycle: 3, Proposal Category: GTO

INVESTIGATORS

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OBSERVATIONS

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
Observation Folder				
	1	GN-z11	NIRSpec IFU Spectroscopy	(1) GN-z11
	2	LAP1	NIRSpec IFU Spectroscopy	(2) LAP1
	3	QSOJ0224	NIRSpec IFU Spectroscopy	(3) J0224-4711
	4	HSC J0859+0022	NIRSpec IFU Spectroscopy	(4) J0859+0022
	5	LAE2_GS10578	NIRSpec IFU Spectroscopy	(5) LAE2_GS10578
	6	MACS0647-JD1	NIRSpec IFU Spectroscopy	(6) MACS0647-JD1
	7	DLA0817g	NIRSpec IFU Spectroscopy	(7) DLA0817g
	8	LBQS0109	NIRSpec IFU Spectroscopy	(8) LBQS0109
	9	HB8903	NIRSpec IFU Spectroscopy	(9) HB8903
	10	GN-108036	NIRSpec IFU Spectroscopy	(10) GN-108036
	11	CGG-z5	NIRSpec IFU Spectroscopy	(11) CGG-z5
	12	JADES-GS-53.087-27.86	NIRSpec IFU Spectroscopy	(12) JADES-GS-53.087-27.86
	13	Z-001	NIRSpec IFU Spectroscopy	(13) Z-001
	14	Repeat of Obs-2 LAP1	NIRSpec IFU Spectroscopy	(2) LAP1

ABSTRACT

These Cycle 3 observations are part of the Galaxy Assembly NIRSpec IFS survey (GA_NIFS) , a program aimed at characterizing the internal structure of distant galaxies and, therefore, investigate the primary physical processes driving galaxy evolution. The main specific objectives are: to trace the distribution of star formation and map the resolved properties of the stellar populations, to trace the gas kinematics (i.e. velocity fields, velocity dispersion) and, hence, determine dynamical masses and also identify non-virial motions (outflow and inflows), and to map metallicity and dust extinction. These quantities will be mapped for some of the brightest and most extended star forming galaxies and AGN/QSO hosts up to z ~7, and beyond. Here we present the observations of 13 additional targets to the ~45 already included in Cycle 1 .

OBSERVING DESCRIPTION

This proposal includes the observations with the IFU of NIRSpec of 13 targets with redshifts between ~ 2.5 and 11. PA constraints have been defined individually for each target to avoid contamination of spectra due to nearby sources leaking through the MSA, where necessary. Issues related to MSA leakage are also minimized through our dither strategy: we use a medium cycling pattern for most targets, which is a good compromise

between an amplitude large enough to jump failed open microshutters while keeping a large effective FoV with complete exposure time. This dither pattern also provides a good sub-pixel sampling. Therefore we do not require leakcal exposures for the majority of our targets. No TA is included since all galaxies are located in well-studied fields containing stars with good astrometry. Small inaccuracies in acquisition are unproblematic because of the 3x3 arcsec FoV. No background exposures are required since each obseravtions contains a large number of spaxels free of emission from the main target or neighbours. We will use those spaxels within the FoV to perform a background subtraction.

In the following, we provide a short description of our observations and scientific goals.

i) GN-z11 is a famous luminous galaxy at z=10.6. Using G395H/F290LP, we plan to constrain possible rotation, spectrally decompose the narrow and broad emission in the hydrogen lines, constrain the ISM conditions, search for outflow signatures, and to further investigate the putative PopIII detection in its halo.

ii) LAP1 is a highly lensed star cluster at z=6.639, with a lensing-corrected M* 1e4 Msol, absolute luminosity MUV > 11.2 (mUV > 35.6), with a strong evidence for popIII stars or a direct collapse black hole. We target this unique object with G395H/F290LP disperser/filter combination to spectrally and spatially resolve this object. With this new observation we will be able to confirm the low-metallicity nature of this object, measure the line width, hence constraining the mass of this object and potentially identify presence of outflows.

iii) J0224-4711 at z~6.5. We aim at characterizing the powerful AGN-driven outflow of this high-luminosity quasar. This target has been recently observed with JWST/NIRCam WFSS; its spectrum shows an extremely broad [OIII]5007 line, with a FWHM ~4000 km/s and a wing extending out to ~-7000 km/s.

iv) HSC J0859+0022. This is a narrow-line Seyfert 1 at the epoch of reionization (z~6.4). NIRSpec IFS will allow us to infer Hb- and Ha-based Mbh, and map all main optical lines (e.g. Hb, [OIII], Ha). We will characterize the ISM properties in this low-luminosity QSO hosted in a normal, main sequence galaxy, and accreting at Eddington rate. We will also study the environment of this system, and provide new insight on the growth of the less massive SMBHs in the early Universe.

v) LAE2_GS-105872. We propose to study a newly discovered kpc-scale triple AGN at z~3, identified with MUSE rest-frame UV and NIRSpec rest-frame optical spectroscopic data (as part of the GA-NIFS GTO program). The proposed NIRSpec cycle3 observations will cover two Ly-alpha emitters just outside the field-of-view of cycle1 data, allowing us to map rest-frame optical emission lines and hence study the impact of a triple

AGN on their hosts: will will probe the quasar fueling mechanisms, host galaxy merger signatures, and merger induced star formation.

vi) We propose to obtain medium-resolution IFS observations of MACS0647-JD1 (i.e. lensed image 1, with lensing magnification factor of ~8) to characterise the interstellar medium of this unique galaxy merger - at 460 million years after the Big Bang is the most distant merging system known (Hsiao et al. 2022, 2023). We will be able to probe, through various emission-line ratios, spatially resolved measurements of the ionisation state (via [NeIII]/[OII]), dust content (through the Balmer decrement), and metallicity (potentially with [OIII] 4364 Å or indirectly with [NeIII]/[OII]) of this unique system

vii) We will observe the z=4.2603 main sequence galaxy J0817, which is the best case of a rotating galaxy in the first 1.5Gyr of the Universe, based on ALMA [CII] observations. The high spatial resolution of JWST will shine light on the kinematics of this source, while also enabling us to i) Compare Ha and [CII] as SFR and kinematics tracers at high redshift; ii) Determine the metallicity of this source by detecting [NII] and [SII], resulting in a refined molecular gas mass and metallicity
gradients; iii) Search for dim satellite galaxies in the field of this early starburst.

viii) and ix) LBQS0109 (z=2.35) and HB8903 (z=2.44), are two high-luminosity (Lbol > 1047 erg/s) unobscured quasars, hosting extended ionised outflows as traced by [OIII] line emission in SINFONI observations (Carniani et al. 2015). After removing dominant AGN components (broad and narrow line regions, and outflows), Carniani et al. (2016) identified a faint narrow (FWHM < 500 km s1), and spatially extended H component due to SF in the host galaxy. The SF-H emission is spatially anti-correlated with the location of the outflow thus supporting the efficiency of such ionized winds in suppressing SF along their flow. The NIRSpec-IFU observations will be performed at R2700 in the spectral configuration G235H/F170LP. The specific band for the high-resolution observations is aimed at including the most important emission lines (from ~ Hb to [SII]) to map the ISM and trace the star-formation in the host galaxy, confirming or confuting negative feedback scenario.

x) GN-108036, a star-forming galaxy (SFR~30-100 Msun/yr) at z~7.213, exhibits the largest velocity offset to date between Lya and a non-resonant line (specifically [CII]) at z>6, by ~1000 km/s, ascribable to the presence of fast outflows (Ono et al. 2012, Baier-Soto et al. 2022). The NIRSpec-IFU observations will be performed at R1000 in the spectral configuration G395M/F290LP. The specific band for the medium-resolution observations is aimed at including the most important emission lines (from ~ [OII] to [OIII]) to map the warm ionised outflows and study the impact on the host galaxy.

xi) CGG-z5 is a compact group of at least six galaxies at z~5.2 identified in CEERS data by Jin et al., A&A 670, L11 (2023). Stellar masses range

from 108.5 to 109.8 Msun and SFRs from 2 to 52 Msun yr-1. NIRSpec IFS observations in R100 and R2700 (from HeII4686+Hbeta to [SII]+HeI) will allow to: (1) study the star formation histories of the central and satellite galaxies (evaluate burstiness, enhancement/decline of star formation); (2) the kinematics of the system (relative velocities and possible evolution of the system, dynamical status, feedback mechanisms); (3) properties of the inter-stellar medium (regulation of metals, excitation mechanisms).

xii) JADES-GS-53.087-27.86 is an extended z~8 galaxy discovered in the JADES survey, published by Hainline+2023. Through G395H/F290LP observations with NIRSpec-IFS we want to investigate, via kinematics analysis, whether this is one extended rotating system, or is a massive galaxy assembly at z~8 in form of a merger. In addition, we want to constrain the ISM conditions, such as metallicity, electron density, and ionisation parameter.

xiii) Z-001 is the brightest z = 7 LBG known to-date (Muv ~ -23) which has a unique combination of spatially resolved multi-tracer detections from previous HST + ALMA programs. The science goals are to spatially resolve the metallicity, dust and stellar mass and to detect outflows, determine kinematics and search for the signatures of hidden AGN.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	GN-z11	RA: 12 36 25.4501 (189.1060421d) Dec: +62 14 31.35 (62.24204d) Equinox: J2000		
Comments: Coordinates from Tacchella+2023 https://arxiv.org/pdf/2302.07234.pdf *Category=Galaxy* *Description=[Emission line galaxies, High-redshift galaxies, Lyman-break galaxies]*				
(2)	LAP1	RA: 04 16 10.9663 (64.0456929d) Dec: -24 03 36.38 (-24.06011d) Equinox: J2000		
Comments: APT of ID 1908; target name in the APT: popIII *Category=Galaxy* *Description=[Emission line galaxies, High-redshift galaxies]*				
(3)	J0224-4711	RA: 02 24 26.5400 (36.1105833d) Dec: -47 11 29.40 (-47.19150d) Equinox: J2000		
Comments: From SIMBAD, IRCS coord J2000 *Category=Galaxy* *Description=[Quasars]*				
(4)	J0859+0022	RA: 08 59 7.1900 (134.7799583d) Dec: +00 22 55.90 (.38219d) Equinox: J2000		
Comments: From SIMBAD, IRCS coord J2000 *Category=Galaxy* *Description=[Quasars]*				
(5)	LAE2_GS10578	RA: 03 32 39.5700 (53.1648750d) Dec: -27 48 53.70 (-27.81492d) Equinox: J2000		
Comments: Coordinates from the APT of GS10578 (PID1216,obs10), shifted to the position of LAE2 *Category=Galaxy* *Description=[Active galactic nuclei, High-redshift galaxies]*				
(6)	MACS0647-JD1	RA: 06 47 55.7442 (101.9822675d) Dec: +70 14 35.82 (70.24328d) Equinox: J2000		
Comments: Coordinates of the lensed image with highest magnification factor (i.e. JD1) taken from table 6 in Hsiao et al. (2022) *Category=Galaxy* *Description=[Emission line galaxies, High-redshift galaxies]*				
(7)	DLA0817g	RA: 08 17 40.8680 (124.4202833d) Dec: +13 51 38.22 (13.86062d) Equinox: J2000		
Comments: [CII] centroid from Neeleman+20 (https://arxiv.org/pdf/2005.09661.pdf) *Category=Galaxy* *Description=[Emission line galaxies, High-redshift galaxies]*				
(8)	LBQS0109	RA: 01 12 16.9834 (18.0707642d) Dec: +02 29 47.70 (2.49658d) Equinox: J2000		
Comments: Coordinates: Carniani et al. 2017 https://arxiv.org/pdf/1706.08987.pdf *Category=Galaxy* *Description=[Active galactic nuclei, High-redshift galaxies]*				

(9)	HB8903	RA: 03 31 6.3745 (52.7765604d) Dec: -38 24 4.47 (-38.40124d) Equinox: J2000
Comments: Carniani et al. 2017 https://arxiv.org/pdf/1706.08987.pdf *Category=Galaxy* *Description=[Active galactic nuclei]*		
(10)	GN-108036	RA: 12 36 22.7087 (189.0946196d) Dec: +62 08 7.84 (62.13551d) Equinox: J2000
Comments: coordinate from Ono et. al 2012 https://iopscience.iop.org/article/10.1088/0004-637X/744/2/83/pdf *Category=Galaxy* *Description=[High-redshift galaxies]*		
(11)	CGG-z5	RA: 14 19 14.7941 (214.8116421d) Dec: +52 50 12.55 (52.83682d) Equinox: J2000
Comments: Coordinates are chosen using CEERS NIRCam image in the F115W filter to encompass the 6 galaxies of the system within 3”x3” *Category=Galaxy* *Description=[Emission line galaxies, High-redshift galaxies]*		
(12)	JADES-GS-53.087-27.86	RA: 03 32 20.9714 (53.0873808d) Dec: -27 51 37.22 (-27.86034d) Equinox: J2000
Comments: coordinates from JADES *Category=Galaxy* *Description=[High-redshift galaxies]*		
(13)	Z-001	RA: 10 00 43.3900 (150.1807917d) Dec: +02 37 51.89 (2.63108d) Equinox: J2000
Comments: Coordinates of central UV clump, which is between the other bluer UV clump and the dust detection. *Category=Galaxy* *Description=[High-redshift galaxies]*		

Observation

Proposal 4528, Observation 1: GN-z11

Fri Oct 25 21:00:12 GMT 2024

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

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)	GN-z11	RA: 12 36 25.4501 (189.1060421d) Dec: +62 14 31.35 (62.24204d) Equinox: J2000		

Comments: Coordinates from Tacchella+2023 https://arxiv.org/pdf/2302.07234.pdf
Category=Galaxy
Description=[Emission line galaxies, High-redshift galaxies, Lyman-break galaxies]

Template

TA Method
NONE

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	CYCLING	MEDIUM	1	8	

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	G395H/F290LP	NRSIRS2	21	2	false	true	NONE	8	16	24742.757	

Special Requirements

Aperture PA Range 47.97164917 to 57.97164917 Degrees (V3 269.0 to 279.0)
Aperture PA Range 144.07164917 to 158.97164917 Degrees (V3 5.1 to 20.0)
Aperture PA Range 234.97164917 to 282.97164917 Degrees (V3 96.0 to 144.0)
Aperture PA Range 295.97164917 to 305.77164917 Degrees (V3 157.0 to 166.8)

Observation

Proposal 4528, Observation 2: LAP1

Fri Oct 25 21:00:12 GMT 2024

Diagnostic Status: Warning

Observing Template: NIRSpec IFU 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
(2)	LAP1	RA: 04 16 10.9663 (64.0456929d) Dec: -24 03 36.38 (-24.06011d) Equinox: J2000		

Comments: APT of ID 1908; target name in the APT: popIII
Category=Galaxy
Description=[Emission line galaxies, High-redshift galaxies]

Template

TA Method
NONE

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	CYCLING	MEDIUM	1	12	

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	G395H/F290LP	NRSIRS2	20	1	false	true	NONE	12	12	17681.735	

Special Requirements

Aperture PA Range 348.97164917 to 238.97164917 Degrees (V3 210.0 to 100.0)

Observation

Proposal 4528, Observation 3: QSOJ0224

Fri Oct 25 21:00:12 GMT 2024

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
(3)	J0224-4711	RA: 02 24 26.5400 (36.1105833d) Dec: -47 11 29.40 (-47.19150d) Equinox: J2000		

Comments: From SIMBAD, IRCS coord J2000
Category=Galaxy
Description=[Quasars]

Template

TA Method
NONE

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	CYCLING	MEDIUM	1	13	

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	G395H/F290LP	NRSIRS2	9	1	false	true	NONE	13	13	8724.156	

Observation

Proposal 4528, Observation 4: HSC J0859+0022

Fri Oct 25 21:00:12 GMT 2024

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

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)	J0859+0022	RA: 08 59 7.1900 (134.7799583d) Dec: +00 22 55.90 (.38219d) Equinox: J2000		

Comments: From SIMBAD, IRCS coord J2000
Category=Galaxy
Description=[Quasars]

Template

TA Method
NONE

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	CYCLING	MEDIUM	1	10	

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	G395H/F290LP	NRSIRS2	12	1	false	true	NONE	10	10	8899.223	

Observation

Proposal 4528, Observation 5: LAE2_GS10578

Fri Oct 25 21:00:12 GMT 2024

Diagnostic Status: Warning

Observing Template: NIRSpec IFU 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
(5)	LAE2_GS10578	RA: 03 32 39.5700 (53.1648750d) Dec: -27 48 53.70 (-27.81492d) Equinox: J2000		

Comments: Coordinates from the APT of GS10578 (PID1216,obs10), shifted to the position of LAE2
Category=Galaxy
Description=[Active galactic nuclei, High-redshift galaxies]

Template

TA Method
NONE

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	CYCLING	MEDIUM	1	12	

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	G235H/F170LP	NRSIRS2	16	1	false	true	NONE	12	12	14180.401	

Special Requirements

Aperture PA Range 0 to 13 Degrees (V3 221.02835083 to 234.02835083)
Aperture PA Range 30 to 40 Degrees (V3 251.02835083 to 261.02835083)
Aperture PA Range 74 to 330 Degrees (V3 295.02835083 to 191.02835083)

Observation

Proposal 4528, Observation 6: MACS0647-JD1

Fri Oct 25 21:00:12 GMT 2024

Diagnostic Status: Warning

Observing Template: NIRSpec IFU 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
(6)	MACS0647-JD1	RA: 06 47 55.7442 (101.9822675d) Dec: +70 14 35.82 (70.24328d) Equinox: J2000		

Comments: Coordinates of the lensed image with highest magnification factor (i.e. JD1) taken from table 6 in Hsiao et al. (2022)
Category=Galaxy
Description=[Emission line galaxies, High-redshift galaxies]

Template

TA Method
NONE

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	CYCLING	MEDIUM	1	8	

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	NRSIRS2	27	1	false	true	NONE	8	8	15872.712	

Special Requirements

Aperture PA Range 34.97164917 to 80.97164917 Degrees (V3 256.0 to 302.0)
Aperture PA Range 153.97164917 to 165.97164917 Degrees (V3 15.0 to 27.0)
Aperture PA Range 271.97164917 to 274.97164917 Degrees (V3 133.0 to 136.0)
Aperture PA Range 281.97164917 to 295.97164917 Degrees (V3 143.0 to 157.0)

Observation

Proposal 4528, Observation 7: DLA0817g

Fri Oct 25 21:00:12 GMT 2024

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
(7)	DLA0817g	RA: 08 17 40.8680 (124.4202833d) Dec: +13 51 38.22 (13.86062d) Equinox: J2000		

Comments: [CII] centroid from Neeleman+20 (https://arxiv.org/pdf/2005.09661.pdf)
Category=Galaxy
Description=[Emission line galaxies, High-redshift galaxies]

Template

TA Method
NONE

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	CYCLING	MEDIUM	1	6	

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	G395H/F290LP	NRSIRS2RAPID	88	1	false	true	NONE	6	6	7790.467	144853

Observation

Proposal 4528, Observation 8: LBQS0109

Fri Oct 25 21:00:12 GMT 2024

Diagnostic Status: Warning

Observing Template: NIRSpec IFU 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
(8)	LBQS0109	RA: 01 12 16.9834 (18.0707642d) Dec: +02 29 47.70 (2.49658d) Equinox: J2000		

Comments: Coordinates: Carniani et al. 2017 https://arxiv.org/pdf/1706.08987.pdf
Category=Galaxy
Description=[Active galactic nuclei, High-redshift galaxies]

Template

TA Method
NONE

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	CYCLING	SMALL	1	9	

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	G235H/F170LP	NRSIRS2RAPID	49	1	false	true	NONE	9	9	6565.0	

Observation

Proposal 4528, Observation 9: HB8903

Fri Oct 25 21:00:12 GMT 2024

Diagnostic Status: Warning

Observing Template: NIRSpec IFU 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
(9)	HB8903	RA: 03 31 6.3745 (52.7765604d) Dec: -38 24 4.47 (-38.40124d) Equinox: J2000		

Comments: Carniani et al. 2017
https://arxiv.org/pdf/1706.08987.pdf
Category=Galaxy
Description=[Active galactic nuclei]

Template

TA Method
NONE

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	CYCLING	SMALL	1	9	

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	G235H/F170LP	NRSIRS2RAPID	49	1	false	true	NONE	9	9	6565.0	

Observation

Proposal 4528, Observation 10: GN-108036

Fri Oct 25 21:00:12 GMT 2024

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

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)	GN-108036	RA: 12 36 22.7087 (189.0946196d) Dec: +62 08 7.84 (62.13551d) Equinox: J2000		

Comments: coordinate from Ono et. al 2012 https://iopscience.iop.org/article/10.1088/0004-637X/744/2/83/pdf
Category=Galaxy
Description=[High-redshift galaxies]

Template

TA Method
NONE

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	CYCLING	LARGE	1	8	

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	NRSIRS2	20	1	false	true	NONE	8	8	11787.823	

Observation

Proposal 4528, Observation 11: CGG-z5

Fri Oct 25 21:00:12 GMT 2024

Diagnostic Status: Warning

Observing Template: NIRSpec IFU 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
(11)	CGG-z5	RA: 14 19 14.7941 (214.8116421d) Dec: +52 50 12.55 (52.83682d) Equinox: J2000		

Comments: Coordinates are chosen using CEERS NIRCam image in the F115W filter to encompass the 6 galaxies of the system within 3”x3”
Category=Galaxy
Description=[Emission line galaxies, High-redshift galaxies]

Template

TA Method
NONE

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	CYCLING	MEDIUM	1	8	

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	G395H/F290LP	NRSIRS2	25	1	false	true	NONE	8	8	14705.601	
2	PRISM/CLEAR	NRSIRS2RAPID	33	1	false	true	NONE	8	8	3968.178	

Special Requirements

Aperture PA Range 38.97164917 to 58.97164917 Degrees (V3 260.0 to 280.0)
Aperture PA Range 128.97164917 to 148.97164917 Degrees (V3 350.0 to 10.0)
Aperture PA Range 218.97164917 to 238.97164917 Degrees (V3 80.0 to 100.0)
Aperture PA Range 308.97164917 to 328.97164917 Degrees (V3 170.0 to 190.0)

Observation

Proposal 4528, Observation 12: JADES-GS-53.087-27.86 Fri Oct 25 21:00:12 GMT 2024

Diagnostic Status: Warning

Observing Template: NIRSpec IFU 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
(12)	JADES-GS-53.087-27.86	RA: 03 32 20.9714 (53.0873808d) Dec: -27 51 37.22 (-27.86034d) Equinox: J2000		

Comments: coordinates from JADES
Category=Galaxy
Description=[High-redshift galaxies]

Template

TA Method
NONE

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	CYCLING	MEDIUM	1	10	

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	G395H/F290LP	NRSIRS2	21	1	false	true	NONE	10	10	15464.223	

Special Requirements

Aperture PA Range 33.97164917 to 141.97164917 Degrees (V3 255.0 to 3.0)
Aperture PA Range 178.97164917 to 189.97164917 Degrees (V3 40.0 to 51.0)
Aperture PA Range 245.97164917 to 255.97164917 Degrees (V3 107.0 to 117.0)

Observation

Proposal 4528, Observation 13: Z-001

Fri Oct 25 21:00:12 GMT 2024

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

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
(13)	Z-001	RA: 10 00 43.3900 (150.1807917d) Dec: +02 37 51.89 (2.63108d) Equinox: J2000		

Comments: Coordinates of central UV clump, which is between the other bluer UV clump and the dust detection.
Category=Galaxy
Description=[High-redshift galaxies]

Template

TA Method
NONE

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	CYCLING	MEDIUM	1	8	

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	NRSIRS2	18	1	false	true	NONE	8	8	10620.712	
2	PRISM/CLEAR	NRSIRS2RAPID	30	1	false	true	NONE	8	8	3618.045	
3	PRISM/CLEAR	NRSIRS2RAPID	30	1	true	false	NONE	1	1	452.256	

Observation

Proposal 4528, Observation 14: Repeat of Obs-2 LAP1

Fri Oct 25 21:00:12 GMT 2024

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

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)	LAP1	RA: 04 16 10.9663 (64.0456929d) Dec: -24 03 36.38 (-24.06011d) Equinox: J2000		

Comments: APT of ID 1908; target name in the APT: popIII
Category=Galaxy
Description=[Emission line galaxies, High-redshift galaxies]

Template

TA Method
NONE

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	CYCLING	MEDIUM	1	12	

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	G395H/F290LP	NRSIRS2	20	1	false	true	NONE	12	12	17681.735	

Special Requirements

Aperture PA Range 348.97164917 to 238.97164917 Degrees (V3 210.0 to 100.0)