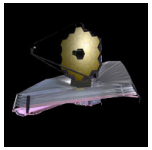

4125 - Galaxies Under Construction: Resolved Scaling Relations and Stellar Mass Assembly as Revealed by Lensed Star-Forming Clumps at Cosmic Noon

Cycle: 2, Proposal Category: GO

INVESTIGATORS

Name	*Institution*
Dr. Michael Florian (PI)	**University of Arizona**
Dr. Gourav Khullar (CoI) (CoPI)	University of Washington
Dr. Jane R. Rigby (CoI)	NASA Goddard Space Flight Center
Prof. Keren Sharon (CoI)	University of Michigan
Prof. Michael D. Gladders (CoI)	University of Chicago
Dr. Matthew Bayliss (CoI)	University of Cincinnati Main Campus
Dr. Haakon Dahle (CoI) (ESA Member)	University of Oslo
Dr. Keunho J. Kim (CoI)	California Institute of Technology
Dr. Taylor Alexandra Hutchison (CoI)	NASA Goddard Space Flight Center
Prof. John Chisholm (CoI)	University of Texas at Austin
Dr. Brian Welch (CoI)	University of Maryland
Dr. Guillaume Mahler (CoI) (ESA Member)	Universite de Liege
Dr. Katherine E. Whitaker (CoI)	University of Massachusetts - Amherst
Dr. Irene Shivaei (CoI) (ESA Member)	Centro de Astrobiologia (CSIC/INTA) Inst. Nac. de Tec. Aero.
Dr. Rachel Bezanson (CoI)	University of Pittsburgh
Dr. T. Emil Rivera-Thorsen (CoI) (ESA Member)	Stockholm University
Mr. Alexander Edwin Navarre (CoI)	University of Cincinnati Main Campus
Mr. Joshua Aaron Roberson (CoI)	University of Cincinnati Main Campus
M. Riley Owens (CoI)	University of Cincinnati Main Campus
Dr. Jessica Kay Werk (CoI)	University of Washington

OBSERVATIONS

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
Observation Folder				
	9	SDSSJ1110-NIRCAM	NIRCam Imaging	(22) SGAS1110
	19	SDSSJ1110-NIRSPEC-PRISM	NIRSpec IFU Spectroscopy	(55) Group SDSSJ1110.NIRSPEC.GROUP-NONOD
	10	SDSSJ1110.NIRSPEC	NIRSpec IFU Spectroscopy	(55) Group SDSSJ1110.NIRSPEC.GROUP-NONOD
	11	SDSSJ1527-NIRCAM	NIRCam Imaging	(26) SGAS1527
	20	SDSSJ1527-NIRSPEC-PRISM	NIRSpec IFU Spectroscopy	(56) Group SDSSJ1527.NIRSPEC.GROUP-NONOD
	12	SDSSJ1527.NIRSPEC	NIRSpec IFU Spectroscopy	(56) Group SDSSJ1527.NIRSPEC.GROUP-NONOD
	13	SDSSJ1429-NIRCAM	NIRCam Imaging	(29) SGAS1429
	21	SDSSJ1429-NIRSPEC-PRISM	NIRSpec IFU Spectroscopy	(57) Group SDSSJ1429.NIRSPEC.GROUP-NONOD
	14	SDSSJ1429.NIRSPEC	NIRSpec IFU Spectroscopy	(57) Group SDSSJ1429.NIRSPEC.GROUP-NONOD
	15	SDSSJ2111-NIRCAM	NIRCam Imaging	(32) SGAS2111
	22	SDSSJ2111-NIRSPEC-PRISM	NIRSpec IFU Spectroscopy	(58) Group SDSSJ2111.NIRSPEC.GROUP-NONOD
	16	SDSSJ2111.NIRSPEC	NIRSpec IFU Spectroscopy	(58) Group SDSSJ2111.NIRSPEC.GROUP-NONOD
	17	CosmicEye-NIRCAM	NIRCam Imaging	(39) COSMIC.EYE
	23	CosmicEye-NIRSPEC-PRISM	NIRSpec IFU Spectroscopy	(59) Group COSMIC.EYE.NIRSPEC.GROUP-NONOD
	27	CosmicEye-NIRSPEC-PRISM	NIRSpec IFU Spectroscopy	(59) Group COSMIC.EYE.NIRSPEC.GROUP-NONOD
	18	CosmicEye.NIRSPEC	NIRSpec IFU Spectroscopy	(59) Group COSMIC.EYE.NIRSPEC.GROUP-NONOD
	24	SDSSJ1050-NIRCAM	NIRCam Imaging	(60) SGAS1050
	25	SDSSJ1050-NIRSPEC-PRISM	NIRSpec IFU Spectroscopy	(65) Group SDSSJ1050.NIRSPEC.GROUP-NONOD
	26	SDSSJ1050.NIRSPEC	NIRSpec IFU Spectroscopy	(65) Group SDSSJ1050.NIRSPEC.GROUP-NONOD

ABSTRACT

The fundamental building blocks of galaxies, star-forming clumps, have long been observable at the tens of pc scale at cosmic noon, the epoch of most vigorous star formation, thanks to HST and the magnification of gravitational lensing. Before JWST, however, it was impossible to precisely constrain the basic properties of these tiny clumps: their ages, sizes, star formation rates (SFRs), dust content, metallicities (Z), and ionization parameters (logU). Now, spatially-resolved spectroscopy with the NIRSpec IFU is revolutionizing the study of clumps in distant galaxies. Its ability to detect continuum in single clumps provides unprecedented constraints on clump ages and masses when combined with NIRCam and archival HST imaging. Its medium resolution gratings detect important diagnostic emission lines on a clump-by-clump level, revealing SFRs, reddening, Z, and logU. Together, these pieces of information will unlock nearly the full story of clumps from formation to (possible) destruction, and in turn, reveal secrets of galaxy formation. How are galaxies assembled? How do clumpy structures form? How do bulges form? How do galaxy-wide scaling relations like the fundamental metallicity relation come to be? Did clumps ionize the universe? We have designed a survey of clump demographics in 8 lensed galaxies (6 new targets and 2 archival), covering nearly over 100 clumps down to at least the 50pc scale, to directly address these questions. Early release observations like those of SMACS0723 have provided tantalizing hints of the answers and demonstrated feasibility, but ultimately were not designed for that purpose. It is time for a survey that is.

OBSERVING DESCRIPTION

We propose NIRCam Imaging, NIRSpec IFU Prism and medium-resolution grating spectroscopy for six bright gravitationally lensed galaxies and their constituent star forming clumps at z=2.4-3.6. Our sample to study populations of lensed star forming clumps includes these six systems + 2 archival lensed galaxies.

We request NIRCam imaging in 6 filters custom to each target, with SHALLOW4 readout, and a group-integration-exposure strategy based on SNR>10 in the bluest filters with a 4-point dither strategy (4-1-4). The dither patterns and readouts are standard, to cover the arcs, avoid the chip gaps, and cover the galaxy clusters that lens the arcs.

We request NIRSpec prism spectroscopy to achieve SNR>5 in the continuum (assuming a star forming galaxy SED) with a dedicated nod exposure for background subtraction (15-1-4 strategy of group-integration-exposures). We request NIRSpec G235M spectra to get SNR>5 in emission lines for all targets. We use a NRSIRS2 readout and a 4 point dither. The number of IFU pointings per target ranges from 1-2.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(22)	SGAS1110	RA: 11 10 18.0000 (167.5750000d) Dec: +64 59 47.02 (64.99639d) Equinox: J2000	Epoch of Position: 2000	
Comments: z=2.48 *Category=Galaxy* *Description=[Einstein rings, Emission line galaxies, High-redshift galaxies]* *Extended=YES*				
(23)	SGAS1110-IFU-1	RA: 11 10 19.9376 (167.5830733d) Dec: +64 59 52.07 (64.99780d) Equinox: J2000	Epoch of Position: 2000	
Comments: z=2.48 *Category=Galaxy* *Description=[Einstein rings, Emission line galaxies, High-redshift galaxies]* *Extended=YES*				
(24)	SGAS1110-IFU-2	RA: 11 10 19.9952 (167.5833133d) Dec: +64 59 49.74 (64.99715d) Equinox: J2000	Epoch of Position: 2000	
Comments: z=2.48 *Category=Galaxy* *Description=[Einstein rings, Emission line galaxies, High-redshift galaxies]* *Extended=YES*				
(25)	SGAS1110-IFU-NOD	RA: 11 10 21.8169 (167.5909037d) Dec: +64 59 51.38 (64.99761d) Equinox: J2000	Epoch of Position: 2000	
Comments: z=2.48 *Category=Galaxy* *Description=[Einstein rings, Emission line galaxies, High-redshift galaxies]* *Extended=NO*				
(26)	SGAS1527	RA: 15 27 45.2184 (231.9384100d) Dec: +06 52 29.91 (6.87498d) Equinox: J2000	Epoch of Position: 2000	
Comments: z=2.762 *Category=Galaxy* *Description=[Einstein rings, Emission line galaxies, High-redshift galaxies]* *Extended=YES*				
(27)	SGAS1527.NIRSPEC	RA: 15 27 45.3282 (231.9388675d) Dec: +06 52 19.16 (6.87199d) Equinox: J2000	Epoch of Position: 2000	
Comments: z=2.762 *Category=Galaxy* *Description=[Einstein rings, Emission line galaxies, High-redshift galaxies]* *Extended=YES*				
(28)	SGAS1527.NIRSPEC.NOD	RA: 15 27 44.9000 (231.9370833d) Dec: +06 52 10.00 (6.86944d) Equinox: J2000	Epoch of Position: 2000	
Comments: z=2.762 *Category=Galaxy* *Description=[Einstein rings, Emission line galaxies, High-redshift galaxies]* *Extended=NO*				

(29)	SGAS1429	RA: 14 29 55.0000 (217.4791667d) Dec: +12 02 38.68 (12.04408d) Equinox: J2000	Epoch of Position: 2000

Comments: z=2.82
Category=Galaxy
Description=[Einstein rings, Emission line galaxies, High-redshift galaxies]
Extended=YES

(30)	SGAS1429.NIRSPEC	RA: 14 29 54.9057 (217.4787737d) Dec: +12 02 38.17 (12.04394d) Equinox: J2000	Epoch of Position: 2000

Comments: z=2.82
Category=Galaxy
Description=[Einstein rings, Emission line galaxies, High-redshift galaxies]
Extended=YES

(31)	SGAS1429.NIRSPEC.NOD	RA: 14 29 55.0000 (217.4791667d) Dec: +12 02 48.68 (12.04686d) Equinox: J2000	Epoch of Position: 2000

Comments: z=2.82
Category=Galaxy
Description=[Einstein rings, Emission line galaxies, High-redshift galaxies]
Extended=NO

(32)	SGAS2111	RA: 21 11 19.3198 (317.8304992d) Dec: -01 14 21.41 (-1.23928d) Equinox: J2000	Epoch of Position: 2000

Comments: z=2.86
Category=Galaxy
Description=[Einstein rings, Emission line galaxies, High-redshift galaxies]
Extended=YES

(33)	SGAS2111-IFU-1	RA: 21 11 18.7130 (317.8279708d) Dec: -01 14 29.42 (-1.24151d) Equinox: J2000	Epoch of Position: 2000

Comments: z=2.86
Category=Galaxy
Description=[Einstein rings, Emission line galaxies, High-redshift galaxies]
Extended=YES

(34)	SGAS2111-IFU-2	RA: 21 11 18.5380 (317.8272417d) Dec: -01 14 27.55 (-1.24099d) Equinox: J2000	Epoch of Position: 2000

Comments: z=2.86
Category=Galaxy
Description=[Einstein rings, Emission line galaxies, High-redshift galaxies]
Extended=YES

(35)	SGAS2111-IFU-NOD	RA: 21 11 18.3936 (317.8266400d) Dec: -01 14 22.99 (-1.23972d) Equinox: J2000	Epoch of Position: 2000

Comments: z=2.86
Category=Galaxy
Description=[Einstein rings, Emission line galaxies, High-redshift galaxies]
Extended=NO

(39)	COSMIC.EYE	RA: 21 35 12.6829 (323.8028454d) Dec: -01 01 43.21 (-1.02867d) Equinox: J2000	Epoch of Position: 2000

Comments: z=3.07
Category=Galaxy
Description=[Einstein rings, Emission line galaxies, High-redshift galaxies]
Extended=YES

(40)	COSMIC.EYE.NOD	RA: 21 35 13.0000 (323.8041667d) Dec: -01 01 38.00 (-1.02722d) Equinox: J2000	Epoch of Position: 2000

Comments: z=3.07
Category=Galaxy
Description=[Einstein rings, Emission line galaxies, High-redshift galaxies]
Extended=NO

(45) Group
COSMIC.EYE.NIRSPEC.GROUP

Comments:
Target Selection=[40 COSMIC.EYE.NOD, 66 COSMIC.EYE.NIRSPEC]

(50) Group
SDSSJ1527.NIRSPEC.GROUP

Comments:
Target Selection=[27 SGAS1527.NIRSPEC, 28 SGAS1527.NIRSPEC.NOD]

(51) Group
SDSSJ1429.NIRSPEC.GROUP

Comments:
Target Selection=[30 SGAS1429.NIRSPEC, 31 SGAS1429.NIRSPEC.NOD]

(53) Group
SDSSJ1110.NIRSPEC.GROUP

Comments:
Target Selection=[23 SGAS1110-IFU-1, 24 SGAS1110-IFU-2, 25 SGAS1110-IFU-NOD]

(54) Group
SDSSJ2111.NIRSPEC.GROUP

Comments:
Target Selection=[33 SGAS2111-IFU-1, 34 SGAS2111-IFU-2, 35 SGAS2111-IFU-NOD]

(55) Group
SDSSJ1110.NIRSPEC.GROUP
P-NONOD

Comments:
Target Selection=[23 SGAS1110-IFU-1, 24 SGAS1110-IFU-2]

(56) Group
SDSSJ1527.NIRSPEC.GROUP
P-NONOD

Comments:
Target Selection=[27 SGAS1527.NIRSPEC]

(57) Group
SDSSJ1429.NIRSPEC.GROUP
P-NONOD

Comments:
Target Selection=[30 SGAS1429.NIRSPEC]

(58) Group
SDSSJ2111.NIRSPEC.GROU
P-NONOD

Comments:
Target Selection=[33 SGAS2111-IFU-1, 34 SGAS2111-IFU-2]

(59) Group
COSMIC.EYE.NIRSPEC.GR
OUP-NONOD

Comments:
Target Selection=[39 COSMIC.EYE]

(60) SGAS1050 RA: 10 50 39.6312 (162.6651300d) Epoch of Position: 2000
Dec: +00 17 15.07 (.28752d)
Equinox: J2000

Comments: z=3.62
Category=Galaxy
Description=[Einstein rings, Emission line galaxies, High-redshift galaxies]
Extended=YES

(61) SGAS1050-IFU-1 RA: 10 50 39.3904 (162.6641267d) Epoch of Position: 2000
Dec: +00 17 29.25 (.29146d)
Equinox: J2000

Comments: z=3.62
Category=Galaxy
Description=[Einstein rings, Emission line galaxies, High-redshift galaxies]
Extended=YES

(62) SGAS1050-IFU-2 RA: 10 50 39.0343 (162.6626429d) Epoch of Position: 2000
Dec: +00 17 26.53 (.29070d)
Equinox: J2000

Comments: z=3.62
Category=Galaxy
Description=[Einstein rings, Emission line galaxies, High-redshift galaxies]
Extended=YES

(63) SGAS1050-IFU-NOD RA: 10 50 38.8300 (162.6617917d) Epoch of Position: 2000
Dec: +00 17 29.80 (.29161d)
Equinox: J2000

Comments: z=3.62
Category=Galaxy
Description=[Einstein rings, Emission line galaxies, High-redshift galaxies]
Extended=NO

(64) Group
SDSSJ1050.NIRSPEC.GROU
P

Comments:
Target Selection=[61 SGAS1050-IFU-1, 62 SGAS1050-IFU-2, 63 SGAS1050-IFU-NOD]

(65) Group
SDSSJ1050.NIRSPEC.GROU
P-NONOD

Comments:
Target Selection=[61 SGAS1050-IFU-1, 62 SGAS1050-IFU-2]

	(66)	COSMIC.EYE.NIRSPEC	RA: 21 35 12.6900 (323.8028750d) Dec: -01 01 43.00 (-1.02861d) Equinox: J2000
	Comments: *Category=Galaxy* *Description=[Einstein rings, High-redshift galaxies]*		

Observation

Proposal 4125, Observation 9: SDSSJ1110-NIRCAM

Wed Jul 03 19:00:24 GMT 2024

Diagnostic Status: Warning

Observing Template: NIRCam Imaging

Diagnostics

(Visit 9:1) Warning (Form): Data Excess over lower threshold

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(22)	SGAS1110	RA: 11 10 18.0000 (167.5750000d) Dec: +64 59 47.02 (64.99639d) Equinox: J2000	Epoch of Position: 2000	

Comments: z=2.48
Category=Galaxy
Description=[Einstein rings, Emission line galaxies, High-redshift galaxies]
Extended=YES

Template

Module	Subarray	Target Placement
ALL	FULL	Module Gap

Dithers

#	Primary Dither Type	Primary Dithers	Subpixel Dither Type	Dither Size	Subpixel Positions
1	INTRAMODULEBOX	4	STANDARD		1

Spectral Elements

#	Short Filter	Long Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
1	F182M	F480M	BRIGHT2	10	1	4	4	858.942	
2	F150W	F480M	BRIGHT2	10	1	4	4	858.942	
3	F200W	F480M	BRIGHT2	10	1	4	4	858.942	

Special Requirements

Aperture PA Range 145 to 205 Degrees (V3 145.07457694 to 205.07457694)
Aperture PA Range 325 to 25 Degrees (V3 325.07457694 to 25.07457694)
Offset -54.0 arcsec, 33.0 arcsec
Background Limited. Background no more than 40th percentile above minimum

Observation

Proposal 4125, Observation 19: SDSSJ1110-NIRSPEC-PRISM Wed Jul 03 19:00:24 GMT 2024

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

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
(55)	Group SDSSJ1110.NIRSPEC.GROU P-NONOD			

Comments:
Target Selection=[23 SGAS1110-IFU-1, 24 SGAS1110-IFU-2]

Template

TA Method
NONE

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	CYCLING	SMALL	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	PRISM/CLEAR	NRSIRS2	10	1	false	true	NONE	8	8	5952.267	

Observation

Proposal 4125, Observation 10: SDSSJ1110.NIRSPEC Wed Jul 03 19:00:24 GMT 2024

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

Comments: Any legal roll angle will do.

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
(55)	Group SDSSJ1110.NIRSPEC.GROU P-NONOD			

Comments:
Target Selection=[23 SGAS1110-IFU-1, 24 SGAS1110-IFU-2]

Template

TA Method
NONE

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	CYCLING	SMALL	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	G235M/F170LP	NRSIRS2	15	1	false	true	NONE	8	8	8870.045	

Observation

Proposal 4125, Observation 11: SDSSJ1527-NIRCAM

Wed Jul 03 19:00:24 GMT 2024

Diagnostic Status: Warning

Observing Template: NIRCam Imaging

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
(26)	SGAS1527	RA: 15 27 45.2184 (231.9384100d) Dec: +06 52 29.91 (6.87498d) Equinox: J2000	Epoch of Position: 2000	

Comments: z=2.762
Category=Galaxy
Description=[Einstein rings, Emission line galaxies, High-redshift galaxies]
Extended=YES

Template

Module	Subarray	Target Placement
ALL	FULL	Module Gap

Dithers

#	Primary Dither Type	Primary Dithers	Subpixel Dither Type	Dither Size	Subpixel Positions
1	INTRAMODULEBOX	4	STANDARD		1

Spectral Elements

#	Short Filter	Long Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
1	F090W	F300M	BRIGHT2	10	1	4	4	858.942	
2	F162M+F150W2	F444W	BRIGHT2	10	1	4	4	858.942	
3	F210M	F277W	BRIGHT2	10	1	4	4	858.942	

Special Requirements

Aperture PA Range 79 to 139 Degrees (V3 79.07457694 to 139.07457694)
Aperture PA Range 259 to 319 Degrees (V3 259.07457694 to 319.07457694)
Offset -54.0 arcsec, 33.0 arcsec
Background Limited. Background no more than 40th percentile above minimum

Observation

Proposal 4125, Observation 20: SDSSJ1527-NIRSPEC-PRISM Wed Jul 03 19:00:24 GMT 2024

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

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
(56)	Group SDSSJ1527.NIRSPEC.GROUP-NONOD			

Comments:
Target Selection=[27 SGAS1527.NIRSPEC]

Template

TA Method
NONE

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	CYCLING	SMALL	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	PRISM/CLEAR	NRSIRS2	10	1	false	true	NONE	8	8	5952.267	

Observation

Proposal 4125, Observation 12: SDSSJ1527.NIRSPEC Wed Jul 03 19:00:24 GMT 2024

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

Comments: Any legal roll angle will do.

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
(56)	Group SDSSJ1527.NIRSPEC.GROUP-NONOD			

Comments:
Target Selection=[27 SGAS1527.NIRSPEC]

Template

TA Method
NONE

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	CYCLING	SMALL	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	G235M/F170LP	NRSIRS2	15	1	false	true	NONE	8	8	8870.045	

Observation

Proposal 4125, Observation 13: SDSSJ1429-NIRCAM

Wed Jul 03 19:00:24 GMT 2024

Diagnostic Status: Warning

Observing Template: NIRCam Imaging

Diagnostics

(Visit 13:1) Warning (Form): Data Excess over lower threshold

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(29)	SGAS1429	RA: 14 29 55.0000 (217.4791667d) Dec: +12 02 38.68 (12.04408d) Equinox: J2000	Epoch of Position: 2000	

Comments: z=2.82
Category=Galaxy
Description=[Einstein rings, Emission line galaxies, High-redshift galaxies]
Extended=YES

Template

Module	Subarray	Target Placement
ALL	FULL	Module Gap

Dithers

#	Primary Dither Type	Primary Dithers	Subpixel Dither Type	Dither Size	Subpixel Positions
1	INTRAMODULEBOX	4	STANDARD		1

Spectral Elements

#	Short Filter	Long Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
1	F115W	F277W	BRIGHT2	10	1	4	4	858.942	
2	F150W	F444W	BRIGHT2	10	1	4	4	858.942	
3	F210M	F300M	BRIGHT2	10	1	4	4	858.942	

Special Requirements

Aperture PA Range 58 to 147 Degrees (V3 58.07457694 to 147.07457694)
Aperture PA Range 238 to 327 Degrees (V3 238.07457694 to 327.07457694)
Offset -54.0 arcsec, 33.0 arcsec
Background Limited. Background no more than 40th percentile above minimum

Observation

Proposal 4125, Observation 21: SDSSJ1429-NIRSPEC-PRISM Wed Jul 03 19:00:24 GMT 2024

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

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
(57)	Group SDSSJ1429.NIRSPEC.GROUP-NONOD			

Comments:
Target Selection=[30 SGAS1429.NIRSPEC]

Template

TA Method
NONE

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	CYCLING	SMALL	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	PRISM/CLEAR	NRSIRS2	10	1	false	true	NONE	8	8	5952.267	

Observation

Proposal 4125, Observation 14: SDSSJ1429.NIRSPEC Wed Jul 03 19:00:24 GMT 2024

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

Comments: Any legal roll angle will do.

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
(57)	Group SDSSJ1429.NIRSPEC.GROUP-NONOD			

Comments:
Target Selection=[30 SGAS1429.NIRSPEC]

Template

TA Method
NONE

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	CYCLING	SMALL	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	G235M/F170LP	NRSIRS2	15	1	false	true	NONE	8	8	8870.045	

Observation

Proposal 4125, Observation 15: SDSSJ2111-NIRCAM Wed Jul 03 19:00:24 GMT 2024

Diagnostic Status: Warning

Observing Template: NIRCam Imaging

Diagnostics

(Visit 15:1) Warning (Form): Data Excess over lower threshold

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(32)	SGAS2111	RA: 21 11 19.3198 (317.8304992d) Dec: -01 14 21.41 (-1.23928d) Equinox: J2000	Epoch of Position: 2000	

Comments: z=2.86
Category=Galaxy
Description=[Einstein rings, Emission line galaxies, High-redshift galaxies]
Extended=YES

Template

Module	Subarray	Target Placement
ALL	FULL	Module Gap

Dithers

#	Primary Dither Type	Primary Dithers	Subpixel Dither Type	Dither Size	Subpixel Positions
1	INTRAMODULEBOX	4	STANDARD		1

Spectral Elements

#	Short Filter	Long Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
1	F115W	F277W	BRIGHT2	10	1	4	4	858.942	
2	F150W	F444W	BRIGHT2	10	1	4	4	858.942	
3	F210M	F300M	BRIGHT2	10	1	4	4	858.942	

Special Requirements

Aperture PA Range 87 to 167 Degrees (V3 87.07457694 to 167.07457694)
Aperture PA Range 267 to 347 Degrees (V3 267.07457694 to 347.07457694)
Offset -54.0 arcsec, 33.0 arcsec
Background Limited. Background no more than 40th percentile above minimum

Observation

Proposal 4125, Observation 22: SDSSJ2111-NIRSPEC-PRISM Wed Jul 03 19:00:24 GMT 2024

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

Diagnostics

(Visit 22:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(58)	Group SDSSJ2111.NIRSPEC.GROUP-NONOD			

Comments:
Target Selection=[33 SGAS2111-IFU-1, 34 SGAS2111-IFU-2]

Template

TA Method
NONE

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	CYCLING	SMALL	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	PRISM/CLEAR	NRSIRS2	10	1	false	true	NONE	8	8	5952.267	

Observation

Proposal 4125, Observation 16: SDSSJ2111.NIRSPEC Wed Jul 03 19:00:24 GMT 2024

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

Comments: Any legal roll angle will do.

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
(58)	Group SDSSJ2111.NIRSPEC.GROUP-NONOD			

Comments:
Target Selection=[33 SGAS2111-IFU-1, 34 SGAS2111-IFU-2]

Template

TA Method
NONE

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	CYCLING	SMALL	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	G235M/F170LP	NRSIRS2	15	1	false	true	NONE	8	8	8870.045	

Observation

Proposal 4125, Observation 17: CosmicEye-NIRCAM

Wed Jul 03 19:00:24 GMT 2024

Diagnostic Status: Warning

Observing Template: NIRCam Imaging

Diagnostics

(Visit 17:1) Warning (Form): Data Excess over lower threshold

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(39)	COSMIC.EYE	RA: 21 35 12.6829 (323.8028454d) Dec: -01 01 43.21 (-1.02867d) Equinox: J2000	Epoch of Position: 2000	

Comments: z=3.07
Category=Galaxy
Description=[Einstein rings, Emission line galaxies, High-redshift galaxies]
Extended=YES

Template

Module	Subarray	Target Placement
ALL	FULL	Module Gap

Dithers

#	Primary Dither Type	Primary Dithers	Subpixel Dither Type	Dither Size	Subpixel Positions
1	INTRAMODULEBOX	4	STANDARD		1

Spectral Elements

#	Short Filter	Long Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
1	F115W	F444W	BRIGHT2	10	1	4	4	858.942	
2	F150W	F356W	BRIGHT2	10	1	4	4	858.942	
3	F182M	F277W	BRIGHT2	10	1	4	4	858.942	

Special Requirements

Offset -54.0 arcsec, 33.0 arcsec
Background Limited. Background no more than 40th percentile above minimum

Observation

Proposal 4125, Observation 23: CosmicEye-NIRSPEC-PRISM Wed Jul 03 19:00:24 GMT 2024

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

Diagnostics

(Visit 23:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(59)	Group COSMIC.EYE.NIRSPEC.GROUP-NONOD			

Comments:
Target Selection=[39 COSMIC.EYE]

Template

TA Method
NONE

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	CYCLING	SMALL	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	PRISM/CLEAR	NRSIRS2	10	1	false	true	NONE	8	8	5952.267	

Observation

Proposal 4125, Observation 27: CosmicEye-NIRSPEC-PRISM Wed Jul 03 19:00:24 GMT 2024

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

Comments: WOPR duplicated of visit 23

Diagnostics

(Visit 27:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(59)	Group COSMIC.EYE.NIRSPEC.GROUP-NONOD			

Comments:
Target Selection=[39 COSMIC.EYE]

Template

TA Method
NONE

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	CYCLING	SMALL	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	PRISM/CLEAR	NRSIRS2	10	1	false	true	NONE	8	8	5952.267	

Observation

Proposal 4125, Observation 18: CosmicEye.NIRSPEC Wed Jul 03 19:00:24 GMT 2024

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

Comments: Any legal roll angle will do.

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
(59)	Group COSMIC.EYE.NIRSPEC.GROUP-NONOD			

Comments:
Target Selection=[39 COSMIC.EYE]

Template

TA Method
NONE

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	CYCLING	SMALL	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	G235M/F170LP	NRSIRS2	15	1	false	true	NONE	8	8	8870.045	

Observation

Proposal 4125, Observation 24: SDSSJ1050-NIRCAM Wed Jul 03 19:00:24 GMT 2024

Diagnostic Status: Warning

Observing Template: NIRCam Imaging

Diagnostics

(Visit 24:1) Warning (Form): Data Excess over lower threshold

(Visit 24:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(60)	SGAS1050	RA: 10 50 39.6312 (162.6651300d) Dec: +00 17 15.07 (.28752d) Equinox: J2000	Epoch of Position: 2000	

Comments: z=3.62
Category=Galaxy
Description=[Einstein rings, Emission line galaxies, High-redshift galaxies]
Extended=YES

Template

Module	Subarray	Target Placement
ALL	FULL	Module Gap

Dithers

#	Primary Dither Type	Primary Dithers	Subpixel Dither Type	Dither Size	Subpixel Positions
1	INTRAMODULEBOX	4	STANDARD		1

Spectral Elements

#	Short Filter	Long Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
1	F115W	F277W	BRIGHT2	10	1	4	4	858.942	
2	F150W	F444W	BRIGHT2	10	1	4	4	858.942	
3	F182M	F356W	BRIGHT2	10	1	4	4	858.942	

Special Requirements

Aperture PA Range 26 to 106 Degrees (V3 26.07457694 to 106.07457694)
Aperture PA Range 206 to 286 Degrees (V3 206.07457694 to 286.07457694)
Offset -54.0 arcsec, 33.0 arcsec
Background Limited. Background no more than 40th percentile above minimum

Observation

Proposal 4125, Observation 25: SDSSJ1050-NIRSPEC-PRISM Wed Jul 03 19:00:24 GMT 2024

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

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
(65)	Group SDSSJ1050.NIRSPEC.GROU P-NONOD			

Comments:
Target Selection=[61 SGAS1050-IFU-1, 62 SGAS1050-IFU-2]

Template

TA Method
NONE

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	CYCLING	SMALL	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	PRISM/CLEAR	NRSIRS2	10	1	false	true	NONE	8	8	5952.267	

Observation

Proposal 4125, Observation 26: SDSSJ1050.NIRSPEC Wed Jul 03 19:00:24 GMT 2024

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

Comments: Any legal roll angle will do.

Diagnostics

(Visit 26:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(65)	Group SDSSJ1050.NIRSPEC.GROUP-NONOD			

Comments:
Target Selection=[61 SGAS1050-IFU-1, 62 SGAS1050-IFU-2]

Template

TA Method
NONE

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	CYCLING	SMALL	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	G235M/F170LP	NRSIRS2	15	1	false	true	NONE	8	8	8870.045	