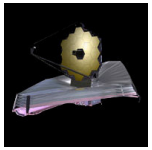

1220 - NIRSpec IFS of BR1202

Cycle: 1, Proposal Category: GTO

INVESTIGATORS

Name	*Institution*	*E-Mail*
Dr. Pierre Ferruit (PI) (ESA Member)	**European Space Agency - ESTEC**	**pierre.ferruit@esa.int**
Dr. Stefano Carniani (CoI) (ESA Member) (Contact)	University of Cambridge	sc888@mrao.cam.ac.uk
Dr. Roberto Maiolino (CoI) (ESA Member) (Contact)	University of Cambridge	r.maiolino@mrao.cam.ac.uk
Dr. Santiago Arribas (CoI) (ESA Member) (Contact)	Consejo Superior de Investigaciones Cientificas	arribas@cab.inta-csic.es

OBSERVATIONS

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
Observation Folder				
	2		NIRSpec IFU Spectroscopy	(1) BR1202-F4.69

ABSTRACT

This program (FERRUIT_3042 - 3043) is part of the “Physics of Galaxy Assembly IFU survey”
BR1202-0725 is a galaxy group at z~4.7 composed of a QSO and two SMGs. The primary goal of these observations is to investigate the physics of AGN-driven outflows of the QSO and the impact on its host galaxy. In addition, we exploit the JWST NIRSpec IFU capability and sensitivity to study the physical properties of the two dust obscured companions and the origin of two Lya sources in the same field of view.

OBSERVING DESCRIPTION

BR1202-0725 is a system at z 4.7 composed of a SMG galaxy and a QSO, with a projected separation of 24 kpc. Recent observations have also revealed the presence of a dust obscured galaxy at South-West of the QSO and a Lyalpha-emitter between the QSO and SMG.

The selected gratings and filters (G235H/G170LP and G395/F290LP) allow us to observe and spectroscopically resolve the rest-frame optical strong lines ([O III], H, H,[NII]) at z=4.7.

Because the main sources are spatially separated by a projected distance larger than 3 arcsec, we have made a mosaic of two tails with a overlap of 10%.

July 2017
Each tail is composed of four exposures with a CYCLING dither pattern. We have selected a pattern size of 0.25 arcsec (SMALL) to have high sensitivity in a FOV of ~3"x3".
Each exposure has only 1 integration that includes 8 groups.
The total science time is 2.60h (total time is 4.85h).
Note that we had to scale down the science exposure times from 2.92h to 2.60h due to the larger overheads.

November 2017 APT version 25.4.0.1
Each tail is composed of four exposures with a CYCLING dither pattern. We have selected a pattern size of 0.5 arcsec (MEDIUM) to have a better coverage of the FOV
We increase the total time allocated to this program:
Each exposure has only 1 integration that includes 12 groups.
The total science time is 3.89h (total time is 6.83h).

January 2018 APT version 25.4.2
WATA has been removed after checking that the guide stars have coordinate errors << 0.1” (i.e GAIA stars)
The detector readout has been changed from irs2 to irs2rapid to improve temporal resolution for CR detection/rejection.
Each exposure has only 1 integration that includes 60 irs2rapid groups.
The total science time is 3.89h (total time is 6.18h).

The coordinates of the target are sliglthy different from that used in the APT file submitted in April. We have modified the cooridnates to have a better sky coverege of the system.

Observation

Proposal 1220, Observation 2

Tue Feb 20 23:19:19 GMT 2018

Diagnostic Status: Warning

Observing Template: NIRSpec IFU Spectroscopy

Diagnostics

(Visit 2:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

(Visit 2:2) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	BR1202-F4.69	RA: 12 05 23.0471 (181.3460296d) Dec: -07 42 31.65 (-7.70879d) Equinox: J2000		

Comments:
Category=Galaxy
Description=[High-redshift galaxies, Quasars]
Extended=YES

Template

TA Method

NONE

Mosaic

Rows	*Columns*	*Row Overlap %*	*Column Overlap %*	*Row shift*	*Column shift*	*Tile Order*
1	2	10.0	10.0	-10.0	10.0	DEFAULT

Dithers

#	Dither Type	Size	Starting Point	Number of Points	Points
1	CYCLING	MEDIUM	1	4	

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	60	1	false	true	NONE	4	4	3559.689	
2	G395H/F290LP	NRSIRS2RAPID	60	1	false	true	NONE	4	4	3559.689	

Special Requirements	
	Sequence Visits , Non-interruptible Aperture PA Range 247.893 to 253.893 Degrees (V3 109.000025 to 115.000025) Visits Same PA