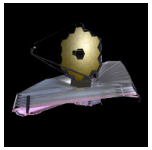

6123 - MIRI IMAGING OF A CANDIDATE DIRECT COLLAPSE BLACK HOLE AT z=10

Cycle: 3, Proposal Category: GO

INVESTIGATORS

Name	*Institution*
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OBSERVATIONS

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
MIRI imaging				
	5		MIRI Imaging	(1) UHZ1

ABSTRACT

The recent discovery of UHZ-1, a candidate X-ray bright AGN at z=10.1, has been hailed as the smoking gun for the direct collapse black hole model. UHZ1 is thought to host a highly obscured, accreting black hole whose mass is between 5 and 100% that of its host galaxy. This program aims to acquire deep mid-IR imaging of UHZ1 (rest-frame 0.4-2.2 micron), with the goal (1) to confirm (or disprove) the presence of an AGN; (2) if the AGN is confirmed, provide an independent lower limit (or estimate) to the black hole mass, so as to test the viability of the direct collapse scenario.

OBSERVING DESCRIPTION

MIRI imaging in 9 bands, achieving signal to noise ratios between 10-20.

Proposal 6123 - Targets - MIRI IMAGING OF A CANDIDATE DIRECT COLLAPSE BLACK HOLE AT z=10

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	UHZ1	RA: 00 14 16.0970 (3.5670708d) Dec: -30 22 40.30 (-30.37786d) Equinox: J2000		

Comments:
Category=Galaxy
Description=[Active galactic nuclei, High-redshift galaxies, X-ray quasars]
Extended=YES

Observation

Proposal 6123, Observation 5

Fri Sep 13 18:00:16 GMT 2024

Diagnostic Status: Warning

Observing Template: MIRI Imaging

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
(1)	UHZ1	RA: 00 14 16.0970 (3.5670708d) Dec: -30 22 40.30 (-30.37786d) Equinox: J2000		

Comments:
Category=Galaxy
Description=[Active galactic nuclei, High-redshift galaxies, X-ray quasars]
Extended=YES

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	4	5	1			DEFAULT

Spectral Elements

#	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	F560W	FASTR1	49	12	1	Dither 1	4	48	6648.996	
2	F770W	FASTR1	52	6	1	Dither 1	4	24	3518.751	
3	F1000W	FASTR1	44	4	1	Dither 1	4	16	1986.929	
4	F1130W	FASTR1	46	8	1	Dither 1	4	32	4162.56	
5	F1280W	FASTR1	100	2	1	Dither 1	4	8	2231.132	
6	F1500W	FASTR1	45	2	1	Dither 1	4	8	1010.115	
7	F1800W	FASTR1	55	2	1	Dither 1	4	8	1232.118	
8	F2100W	FASTR1	30	7	1	Dither 1	4	28	2397.635	
9	F2550W	FASTR1	10	45	1	Dither 1	4	180	5483.479	