



## 6556 - Dust distribution in a colliding galaxy system

Cycle: 2, Proposal Category: DD

### INVESTIGATORS

<i>Name</i>	<i>Institution</i>
<b>Macarena Garcia Marin (PI) (ESA Member)</b>	<b>Space Telescope Science Institute - ESA - JWST</b>
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Joseph DePasquale (CoI)	Space Telescope Science Institute
Quyên Hart (CoI)	Space Telescope Science Institute
Alyssa Pagan (CoI)	Space Telescope Science Institute
Yesenia Perez (CoI)	Space Telescope Science Institute
Christine Pulliam (CoI)	Space Telescope Science Institute

### OBSERVATIONS

<i>Folder</i>	<i>Observation</i>	<i>Label</i>	<i>Observing Template</i>	<i>Science Target</i>
Colliding-galaxy-CTR				
	1	Colliding-galaxy-CTR NIRCam	NIRCam Imaging	(1) Colliding-galaxy-CTR
	2	Colliding-galaxy-CTR MIRI	MIRI Imaging	(1) Colliding-galaxy-CTR

### ABSTRACT

This target is formed by two galaxies that display tidal tails and triggered star formation associated with a galaxy collision. Spitzer data reveals a bridge of starlight between the system and tidal tails. The NIRCam and MIRI data will provide the highest resolution and sensitive infrared images of the entire system. The NIRCam images will trace the location of the older stellar population in each galaxy, as well as the bridge of stars that connect the galaxies. The MIRI image will reveal star forming regions triggered by the galactic collision in detail for the first time, as well as the galaxy dust content.

**OBSERVING DESCRIPTION**

This proposal will use the NIRCam and MIRI imaging modes to obtain multi-band imaging to be released in 2024. The images must be sufficiently deep to allow for the creation of low-noise color-composite images. The dither patterns are optimized for uniform depth, efficient removal of cosmic rays and other artifacts. These criteria will also produce very high-quality, science-ready data products for use by the community. This proposal does not include spectroscopic observations.

## Proposal 6556 - Targets - Dust distribution in a colliding galaxy system

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
	(1)	Colliding-galaxy-CTR	RA: 10 52 16.5770 (163.0690708d) Dec: +30 03 37.82 (30.06051d) Equinox: J2000	Proper Motion RA: -0.04 mas/yr Proper Motion Dec: -0.2299999550814391 mas/yr Epoch of Position: 2000	
<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=Galaxy Description=[Interacting galaxies, Irregular galaxies]					

Proposal 6556 - Observation 1 - Dust distribution in a colliding galaxy system

Fri Mar 22 00:00:23 GMT 2024

<b>Observation</b>	<p><b>Proposal 6556, Observation 1: Colliding-galaxy-CTR NIRCam</b></p> <p><b>Diagnostic Status: Warning</b></p> <p>Observing Template: NIRCam Imaging</p>									
<b>Diagnostics</b>	<p>(Colliding-galaxy-CTR NIRCam (Obs 1)) Warning (Form): This observation is split across multiple visits using multiple filters. Not selecting the sequence option may result in execution of the visits in a non-numerical order and is not recommended.</p> <p>(Visit 1:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.</p> <p>(Visit 1:2) Warning (Form): Overheads are provisional until the Visit Planner has been run.</p> <p>(Visit 1:3) Warning (Form): Overheads are provisional until the Visit Planner has been run.</p> <p>(Visit 1:4) Warning (Form): Overheads are provisional until the Visit Planner has been run.</p> <p>(Visit 1:5) Warning (Form): Overheads are provisional until the Visit Planner has been run.</p> <p>(Visit 1:6) Warning (Form): Overheads are provisional until the Visit Planner has been run.</p>									
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<b>Template</b>	<b>Module</b>		<b>Subarray</b>			<b>Target Placement</b>				
	ALL		FULL			Module Gap				
<b>Dithers</b>	<b>#</b>	<b>Primary Dither Type</b>		<b>Primary Dithers</b>	<b>Subpixel Dither Type</b>		<b>Dither Size</b>	<b>Subpixel Positions</b>		
	1	FULLBOX		6TIGHT	STANDARD			1		
<b>Spectral Elements</b>	<b>#</b>	<b>Short Filter</b>	<b>Long Filter</b>	<b>Readout Pattern</b>	<b>Groups/Int</b>	<b>Integrations/Exp</b>	<b>Total Integrations</b>	<b>Total Dithers</b>	<b>Total Exposure Time</b>	<b>ETC Wkbk.Calc ID</b>
	1	F090W	F277W	SHALLOW2	7	1	6	6	2061.46	
	2	F150W	F356W	SHALLOW2	7	1	6	6	2061.46	
	3	F200W	F444W	SHALLOW2	7	1	6	6	2061.46	
<b>Special Requirements</b>	<p>Between Dates 24-APR-2024:00:00:00 and 19-MAY-2024:00:00:00</p> <p>Group Visits within 53.0 Days</p> <p>Visits Same PA</p>									

Proposal 6556 - Observation 2 - Dust distribution in a colliding galaxy system

Fri Mar 22 00:00:23 GMT 2024

<b>Observation</b>	<p><b>Proposal 6556, Observation 2: Colliding-galaxy-CTR MIRI</b></p> <p><b>Diagnostic Status: Warning</b></p> <p>Observing Template: MIRI Imaging</p>																																																					
<b>Diagnostics</b>	<p>(Visit 2:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.</p> <p>(Visit 2:2) Warning (Form): Overheads are provisional until the Visit Planner has been run.</p> <p>(Visit 2:3) Warning (Form): Overheads are provisional until the Visit Planner has been run.</p> <p>(Visit 2:4) Warning (Form): Overheads are provisional until the Visit Planner has been run.</p>																																																					
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