



# 6564 - Imaging of Interacting Galaxies

Cycle: 2, Proposal Category: DD

## INVESTIGATORS

<i>Name</i>	<i>Institution</i>
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Christine Pulliam (CoI)	Space Telescope Science Institute
Joseph DePasquale (CoI)	Space Telescope Science Institute

## OBSERVATIONS

<i>Folder</i>	<i>Observation</i>	<i>Label</i>	<i>Observing Template</i>	<i>Science Target</i>
Interacting Galaxy Pair				
	1	Interacting Galaxy Pair MIRI	MIRI Imaging	(1) Interacting_Galaxy_Pair_MIRI
	2	Interacting Galaxy Pair NIRCam	NIRCam Imaging	(2) Interacting_Galaxy_Pair_NIRCam

## ABSTRACT

We will obtain broadband imaging with NIRCam and MIRI of an interacting galaxy pair, capturing the tidal tails and new star formation occurring as result of the tidal forces involved. This distinctive system of galaxies is close enough to resolve some details of star formation regions in the tidal tails with JWST.

## OBSERVING DESCRIPTION

## JWST Proposal 6564 (Created: Wednesday, February 14, 2024 at 12:00:45 PM Eastern Standard Time) - Overview

Because it's a high enough redshift, emission lines are generally redshifted outside of the narrowband filters designed for the local universe, we will use NIRCam broadband filters F090W, F150W, F200W, F277W, F356W, and F444W which will contain stellar continuum, molecular H<sub>2</sub> lines, atomic H recombination lines, and PAH lines to varying degrees. MIRI observations will use F770W, F1000W, and F1500W capturing both PAH lines and thermal dust emission. A 2x2 MIRI mosaic covers each of the 3 galaxies in this system as well as the space around them, in order to capture any faint tidal structures, while a single NIRCam tile is sufficient to accomplish the same task.

## Proposal 6564 - Targets - Imaging of Interacting Galaxies

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
	(1)	Interacting_Galaxy_Pair_MIRI	RA: 09 37 44.1646 (144.4340192d) Dec: +02 45 38.40 (2.76067d) Equinox: J2000  <i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> <i>Category=Galaxy</i> <i>Description=[Interacting galaxies, Irregular galaxies, Tidal tails]</i>	Epoch of Position: 2000	
(2)	Interacting_Galaxy_Pair_NIR Cam	RA: 09 37 43.2274 (144.4301142d) Dec: +02 45 33.72 (2.75937d) Equinox: J2000  <i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> <i>Category=Galaxy</i> <i>Description=[Interacting galaxies, Irregular galaxies, Tidal tails]</i>	Epoch of Position: 2000		

# Proposal 6564 - Observation 1 - Imaging of Interacting Galaxies

Wed Feb 14 17:00:45 GMT 2024

<b>Observation</b>	<b>Proposal 6564, Observation 1: Interacting Galaxy Pair MIRI</b> <b>Diagnostic Status: Warning</b> Observing Template: MIRI Imaging																																																					
<b>Diagnostics</b>	(Visit 1:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. (Visit 1:2) Warning (Form): Overheads are provisional until the Visit Planner has been run. (Visit 1:3) Warning (Form): Overheads are provisional until the Visit Planner has been run. (Visit 1:4) Warning (Form): Overheads are provisional until the Visit Planner has been run.																																																					
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<b>Special Requirements</b>	Before Date 08-MAY-2024:00:00:00 Group Visits within 53.0 Days Aperture PA Range 109.83544897 to 119.83544897 Degrees (V3 105.0 to 115.0) Visits Same PA																																																					

# Proposal 6564 - Observation 2 - Imaging of Interacting Galaxies

Wed Feb 14 17:00:45 GMT 2024

<b>Observation</b>	<b>Proposal 6564, Observation 2: Interacting Galaxy Pair NIRCam</b> <b>Diagnostic Status: Warning</b> Observing Template: NIRCam Imaging									
<b>Diagnostics</b>	(Visit 2:1) Warning (Form): Data Excess over lower threshold (Visit 2:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.									
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>		<b>Targ. Coord. Corrections</b>			<b>Miscellaneous</b>		
	(2)	Interacting_Galaxy_Pair_NIR Cam	RA: 09 37 43.2274 (144.4301142d) Dec: +02 45 33.72 (2.75937d) Equinox: J2000		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, Tidal tails]									
<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		5TIGHT		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	F150W	F277W	SHALLOW2	6	2	10	5	2952.612	
	2	F200W	F356W	SHALLOW2	6	2	10	5	2952.612	
	3	F090W	F444W	SHALLOW2	6	2	10	5	2952.612	
<b>Special Requirements</b>	Before Date 08-MAY-2024:00:00:00 Aperture PA Range 39.9286469 to 109.9286469 Degrees (V3 40.0 to 110.0)									