



6557 - Imaging dust knots in a planetary nebula

Cycle: 2, Proposal Category: DD

INVESTIGATORS

<i>Name</i>	<i>Institution</i>
Macarena Garcia Marin (PI) (ESA Member)	Space Telescope Science Institute - ESA - JWST
Dr. Christopher Britt (CoI)	Space Telescope Science Institute
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>
PN_Edge				
	1	PN_Edge NIRCcam	NIRCcam Imaging	(1) PN_edge

ABSTRACT

This Planetary Nebula is shedding its outer layers. Being a very close planetary nebulae, it offers the opportunity to view out expanding material at the highest possible spatial resolution. Existing Hubble images have revealed that the shell consists of a multitude of cometary knots. This proposal will create a landscape "vista" of the edge of the shell, revealing the transition from ionized gas, to cometary knots and molecular gas in an entirely new light.

OBSERVING DESCRIPTION

This proposal will use the NIRCcam imaging mode to obtain multi-band imaging of a planetary nebula. 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, and high-quality subsampling of the point spread function (PSF). 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 6557 - Targets - Imaging dust knots in a planetary nebula

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
	(1)	PN_edge	RA: 22 29 24.3865 (337.3516104d) Dec: -20 52 18.90 (-20.87192d) Equinox: J2000	Proper Motion RA: 0.0027669735443745735 sec of time/yr Proper Motion Dec: -0.0033469999380031368 arcsec/yr Epoch of Position: 2015.5	
<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=Star Description=[Planetary nebulae nuclei]					

Proposal 6557 - Observation 1 - Imaging dust knots in a planetary nebula

Wed Feb 21 23:01:20 GMT 2024

Observation	Proposal 6557, Observation 1: PN_Edge NIRCam Diagnostic Status: Warning Observing Template: NIRCam Imaging									
	(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. (Visit 1:5) Warning (Form): Overheads are provisional until the Visit Planner has been run. (Visit 1:6) Warning (Form): Overheads are provisional until the Visit Planner has been run. (Visit 1:7) Warning (Form): Overheads are provisional until the Visit Planner has been run. (Visit 1:8) Warning (Form): Overheads are provisional until the Visit Planner has been run. (Visit 1:9) Warning (Form): Overheads are provisional until the Visit Planner has been run. (Visit 1:10) Warning (Form): Overheads are provisional until the Visit Planner has been run. (Visit 1:11) Warning (Form): Overheads are provisional until the Visit Planner has been run. (Visit 1:12) Warning (Form): Overheads are provisional until the Visit Planner has been run.									
Diagnosics										
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections			Miscellaneous			
	(1)	PN_edge	RA: 22 29 24.3865 (337.3516104d) Dec: -20 52 18.90 (-20.87192d) Equinox: J2000	Proper Motion RA: 0.0027669735443745735 sec of time/yr Proper Motion Dec: -0.0033469999380031368 arcsec/yr Epoch of Position: 2015.5						
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. Category=Star Description=[Planetary nebulae nuclei]										
Template	Module		Subarray		Target Placement					
	ALL		FULL		Module Gap					
Mosaic	Rows	Columns	Row Overlap %	Column Overlap %	Row shift (deg)	Column shift (deg)	Tile Order			
	2	1	10.0	71.5	0.0	0.0	DEFAULT			
Dithers	#	Primary Dither Type	Primary Dithers	Subpixel Dither Type	Dither Size	Subpixel Positions				
	1	FULLBOX	5TIGHT	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	F187N	F470N+F444W	SHALLOW2	8	1	5	5	1986.302	
	2	F212N	F356W	SHALLOW2	8	1	5	5	1986.302	
	3	F115W	F444W	BRIGHT1	8	1	5	5	805.258	

Proposal 6557 - Observation 1 - Imaging dust knots in a planetary nebula

Special Requirements

Between Dates 01-OCT-2024:00:00:00 and 30-NOV-2024:00:00:00
Group Visits within 53.0 Days
Aperture PA Range 48.9286469 to 69.9286469 Degrees (V3 49.0 to 70.0)
Visits Same PA