



## 6619 - CAL-MIRI-322 MRS External Flatfield

Cycle: 3, Proposal Category: CAL/MIRI

### INVESTIGATORS

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### OBSERVATIONS

<i>Folder</i>	<i>Observation</i>	<i>Label</i>	<i>Observing Template</i>	<i>Science Target</i>
Observation Folder				
	1	IC-418	MIRI Medium Resolution Spectroscopy	(1) IC-418
	2	IC-418-BKG	MIRI Medium Resolution Spectroscopy	(2) IC-418-BKG

### ABSTRACT

This activity observes a bright, extended planetary nebula to provide illumination throughout the MIRI MRS FOV in order to derive flatfields. This target is new compared to NGC 7027 observed during Cycle 1 (PID 1523) and Cycle 2 (PID 4489). This planetary nebula is fainter and larger than NGC 7027 in order to obtain longer ramps and to have less spatial variations in the MRS FOV. Observations are obtained using a dithered mosaic in order to sample the same locations on the sky with many different detector pixels (required for self-calibration).

This calibration program may change in response to system developments and the final Cycle 3 science program.

### OBSERVING DESCRIPTION

This program observes the planetary nebula IC 418 in a 3x3 mosaic to measure the MRS flatfields in a single non-interruptible sequence of target and background.

We do not obtain simultaneous imaging as the absolute pointing of the observations is not important, and the observing setup can otherwise pose data volume challenges.

The timing of this program within Cycle 3 is unconstrained.

Proposal 6619 - Targets - CAL-MIRI-322 MRS External Flatfield

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
	(1)	IC-418	RA: 05 27 28.2060 (81.8675250d) Dec: -12 41 50.28 (-12.69730d) Equinox: J2000	Proper Motion RA: 2.078 mas/yr Proper Motion Dec: 1.45 mas/yr Parallax: 7.341E-4" Epoch of Position: 2000	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=Calibration Description=[Planetary nebulae] Extended=YES
(2)	IC-418-BKG	RA: 05 27 22.8601 (81.8452504d) Dec: -12 40 20.87 (-12.67246d) Equinox: J2000	Proper Motion RA: 2.078 mas/yr Proper Motion Dec: 1.45 mas/yr Parallax: 7.341E-4" Epoch of Position: 2000	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=Calibration Description=[Telescope/sky background] Extended=YES	

Proposal 6619 - Observation 1 - CAL-MIRI-322 MRS External Flatfield

Tue May 21 22:00:46 GMT 2024

Observation	<b>Proposal 6619, Observation 1: IC-418</b> <b>Diagnostic Status: Warning</b> Observing Template: MIRI Medium Resolution Spectroscopy Background Observations:[IC-418-BKG (Obs 2)]												
	(Visit 1:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.												
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections			Miscellaneous				
	(1)	IC-418	RA: 05 27 28.2060 (81.8675250d) Dec: -12 41 50.28 (-12.69730d) Equinox: J2000			Proper Motion RA: 2.078 mas/yr Proper Motion Dec: 1.45 mas/yr Parallax: 7.341E-4" Epoch of Position: 2000							
<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=Calibration Description=[Planetary nebulae] Extended=YES													
Acquisition	#	Target											
	1	NONE											
Template	AcqFilter	Primary Channel			Simultaneous Imaging		Imager Subarray		Grating Wheel Direction				
		All MRS			NO		FULL		NEUTRAL				
Mosaic	Rows	Columns	Row Overlap %		Column Overlap %		Row shift (deg)		Column shift (deg)		Tile Order		
	3	3	67.0		67.0		0.0		0.0		DEFAULT		
Dithers	#	Dither Type			Optimized For			Direction					
	1	2-Point			EXTENDED SOURCE			NEGATIVE					
Spectral Elements	#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/E xp	Exposures/Dit h	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	SHORT(A)	MRSLONG		FASTR1	40	2	1	Dither 1	2	4	449.556	191265
	1	SHORT(A)	MRSSHORT		FASTR1	40	2	1	Dither 1	2	4	449.556	191265
	2	MEDIUM(B)	MRSLONG		FASTR1	40	2	1	Dither 1	2	4	449.556	191265
	2	MEDIUM(B)	MRSSHORT		FASTR1	40	2	1	Dither 1	2	4	449.556	191265
	3	LONG(C)	MRSLONG		FASTR1	40	2	1	Dither 1	2	4	449.556	191265
	3	LONG(C)	MRSSHORT		FASTR1	40	2	1	Dither 1	2	4	449.556	191265

Proposal 6619 - Observation 1 - CAL-MIRI-322 MRS External Flatfield

Special Requirements

Sequence Observations 1, 2, Non-interruptible

Proposal 6619 - Observation 2 - CAL-MIRI-322 MRS External Flatfield

Tue May 21 22:00:46 GMT 2024

Observation	<b>Proposal 6619, Observation 2: IC-418-BKG</b> <b>Diagnostic Status: Warning</b> Observing Template: MIRI Medium Resolution Spectroscopy Background Observation For: [IC-418 (Obs 1)]												
	(Visit 2:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.												
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections			Miscellaneous				
	(2)	IC-418-BKG	RA: 05 27 22.8601 (81.8452504d) Dec: -12 40 20.87 (-12.67246d) Equinox: J2000			Proper Motion RA: 2.078 mas/yr Proper Motion Dec: 1.45 mas/yr Parallax: 7.341E-4" Epoch of Position: 2000							
<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=Calibration Description=[Telescope/sky background] Extended=YES													
Acquisition	#	Target											
	1	NONE											
Template	AcqFilter	Primary Channel			Simultaneous Imaging		Imager Subarray		Grating Wheel Direction				
		All MRS			NO		FULL		NEUTRAL				
Dithers	#	Dither Type			Optimized For			Direction					
	1	2-Point			EXTENDED SOURCE			NEGATIVE					
Spectral Elements	#	Wavelength Range	Detector	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Exposures/Dith	Dither	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
	1	SHORT(A)	MRSLONG		FASTR1	40	2	1	Dither 1	2	4	449.556	
	1	SHORT(A)	MRSSHORT		FASTR1	40	2	1	Dither 1	2	4	449.556	
	2	MEDIUM(B)	MRSLONG		FASTR1	40	2	1	Dither 1	2	4	449.556	
	2	MEDIUM(B)	MRSSHORT		FASTR1	40	2	1	Dither 1	2	4	449.556	
	3	LONG(C)	MRSLONG		FASTR1	40	2	1	Dither 1	2	4	449.556	
	3	LONG(C)	MRSSHORT		FASTR1	40	2	1	Dither 1	2	4	449.556	

Proposal 6619 - Observation 2 - CAL-MIRI-322 MRS External Flatfield

Special Requirements

Sequence Observations 1, 2, Non-interruptible