



4487 - CAL-MIRI-212 Imaging External Flat field

Cycle: 2, Proposal Category: CAL/MIRI

INVESTIGATORS

<i>Name</i>	<i>Institution</i>
Dr. Mattia Libralato (PI) (ESA Member)	Space Telescope Science Institute - ESA - JWST
Dr. Alberto Noriega-Crespo (CoI)	Space Telescope Science Institute
Greg Sloan (CoI) (Contact)	Space Telescope Science Institute

OBSERVATIONS

<i>Folder</i>	<i>Observation</i>	<i>Label</i>	<i>Observing Template</i>	<i>Science Target</i>
Dense field Obs 1				
	1	Dense field measurements	MIRI Imaging	(1) LMC-MIRI-A-IMG
	2	Dense field measurements	MIRI Imaging	(2) LMC-MIRI-B-IMG

ABSTRACT

This program will obtain external flat fields for the MIRI imager in a field in the Large Magellanic Cloud (LMC). This task will be achieved using a classical “stacking” approach (i.e., the median of multiple well-dithered observations) and, when enough sources are available, with the “thousand-points-of-light” technique. This technique will allow us to measure the low spatial frequencies (L-flat) with a dither pattern designed to sample the same stars in multiple positions on the detector. This program will (1) compute the flat field and monitor its temporal stability over short and long temporal baselines, (2) study if, and by how much, the core of the MIRI point-spread function (PSF) changes over time, (3) monitor the stability of the geometric distortion of the MIRI imager (mainly at short wavelengths), and (4) monitor the long-term temporal variations of the background.

This calibration program may change in response to system developments and the final Cycle 2 science program.

OBSERVING DESCRIPTION

REQUIREMENTS: No parallel observations should be executed for this proposal. Visits are requested to be obtained within 25 days.

TIMING CONSTRAINTS: This program should be run once in September 2023, but the schedule has some flexibility (+/-1 month). Missed or failed observations should be repeated as close to September 2023 as possible.

Proposal 4487 - Targets - CAL-MIRI-212 Imaging External Flat field

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
	(1)	LMC-MIRI-A-IMG	RA: 05 22 27.3787 (80.6140779d) Dec: -69 27 38.49 (-69.46069d) Equinox: J2000	Epoch of Position: 2000	
	<p><i>Comments: The field was chosen, because it contains no star brighter than 3.2 mJy at 5.6 um and 7.7 um. This limit avoids saturation with the minimum of 5 groups/integration. The coordinates are not for a stellar object but instead are for the center of a field.</i></p> <p><i>Category=Calibration</i></p> <p><i>Description=[Aperture location, Astrometric, External flat field, Telescope/sky background]</i></p> <p><i>Extended=NO</i></p>				
(2)	LMC-MIRI-B-IMG	RA: 05 22 11.1999 (80.5466663d) Dec: -69 27 11.58 (-69.45322d) Equinox: J2000	Proper Motion RA: 1.9525 mas/yr Proper Motion Dec: 0.3842 mas/yr Epoch of Position: 2000.0		
	<p><i>Comments: This target is only for the longest-wavelength filters. The field is centered on 2MASS J05221119-6927115. Coordinates and proper motion are from the Gaia EDR3 catalog.</i></p> <p><i>Category=Calibration</i></p> <p><i>Description=[Aperture location, Astrometric, External flat field, Telescope/sky background]</i></p> <p><i>Extended=NO</i></p>				

Proposal 4487 - Observation 1 - CAL-MIRI-212 Imaging External Flat field

Wed May 03 22:05:09 GMT 2023

Observation	Proposal 4487, Observation 1: Dense field measurements Diagnostic Status: Warning Observing Template: MIRI Imaging																																																					
Diagnostics	(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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Special Requirements

Between Dates 01-SEP-2023:00:00:00 and 30-SEP-2023:00:00:00
Group Visits within 25 Days
Visits Same PA
No Parallel Attachments

Proposal 4487 - Observation 2 - CAL-MIRI-212 Imaging External Flat field

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