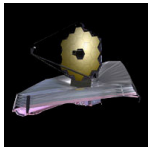

1506 - AMI Full Frame Fractional Throughput

Cycle: 1, Proposal Category: CAL/NIRISS

INVESTIGATORS

Name	*Institution*	*E-Mail*
Dr. Kevin Volk (PI)	**Space Telescope Science Institute**	**volk@stsci.edu**
Deepashri Thatte (CoI)	Space Telescope Science Institute	thatte@stsci.edu
Dr. Anand Sivaramakrishnan (CoI)	Space Telescope Science Institute	anand@stsci.edu

OBSERVATIONS

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
Observation Folder				
	1		NIRISS External Calibration	(1) 2MASS-J17430448+6655015

ABSTRACT

Observations will be made of a standard star in regular full frame imaging and then with the NRM in the beam to calibrate the fractional throughput of the mask for photometric calibration purposes. A similar program is planned for the SUB80 sub-array, but that uses brighter targets than can be observed in full frame imaging.

This calibration program is provisional and may change in response to system developments and the final science program.

OBSERVING DESCRIPTION

This program is for measurement of the fractional throughput of the NIRISS NRM in full frame imaging. This quanitiy is required for the photometric calibration of any full frame NRM science observations from regular imaging photometric observations. The measurement only needs to be made in one filter for this case, since there are no aperture losses with the star positioned at the center of the detector. The F480M filter is

selected as it produces the best PSF sampling available for NIRISS imaging.

The target is a photometric standard star that is continuously visible. This star is used for NIRISS regular imaging calibration in the photometric calibration program.

Proposal 1506 - Targets - AMI Full Frame Fractional Throughput

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	2MASS-J17430448+6655015	RA: 17 43 4.4800 (265.7686667d)	Proper Motion RA: 1.096 mas/yr	
		Dec: +66 55 1.60 (66.91711d)	Proper Motion Dec: -2.785 mas/yr	
		Equinox: J2000	Parallax: 0.0005209"	
			Epoch of Position: 2018.0	

Comments: The star has spectral type A5 V, and magnitudes V = 13.5, 2MASS J = 12.979, H = 12.880, K = 12.772, WISE W1 = 12.82, W2 = 12.86. The magnitudes indicate modest interstellar reddening of order 0.7 magnitudes at V.
Category=Star
Description=[A dwarfs]
Extended=NO

Observation

Proposal 1506, Observation 1

Thu Sep 10 23:00:19 GMT 2020

Diagnostic Status: Warning

Observing Template: NIRISS External Calibration

Diagnostics

(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)	2MASS-J17430448+6655015	RA: 17 43 4.4800 (265.7686667d)	Proper Motion RA: 1.096 mas/yr	
		Dec: +66 55 1.60 (66.91711d)	Proper Motion Dec: -2.785 mas/yr	
		Equinox: J2000	Parallax: 0.0005209"	
			Epoch of Position: 2018.0	

Comments: The star has spectral type A5 V, and magnitudes V = 13.5, 2MASS J = 12.979, H = 12.880, K = 12.772, WISE W1 = 12.82, W2 = 12.86. The magnitudes indicate modest interstellar reddening of order 0.7 magnitudes at V.
Category=Star
Description=[A dwarfs]
Extended=NO

Acquisition

#	Target
1	NONE

Template

Pointing Type
PRIME

Dithers

#	Pattern Type	Image Dithers	Primary Dithers	Subpixel Positions	Pattern Size
1	IMAGING	4			

Spectral Elements

#	Subarray	Aperture	Filter Wheel	Pupil Wheel	Readout Pattern	Groups/Int	Integrations/Exp	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	FULL	NIS_CEN	F480M	CLEARP	NISRAPID	4	2	4	8	429.471	
2	FULL	NIS_CEN	F480M	NRM	NISRAPID	20	2	4	8	1803.777	