

El archivo público del James Webb

Un tesoro de la astronomía abierto al mundo entero



Ricardo Hueso Alonso

E-mail: ricardo.hueso@ehu.eus

UPV/EHU

eman ta zabal zazu



Universidad
del País Vasco

Euskal Herriko
Unibertsitatea

Sesión PROAM - 23 de febrero - 20:00 h

Hubble (1990)

400 km
de la Tierra



Tamaño de un autobús

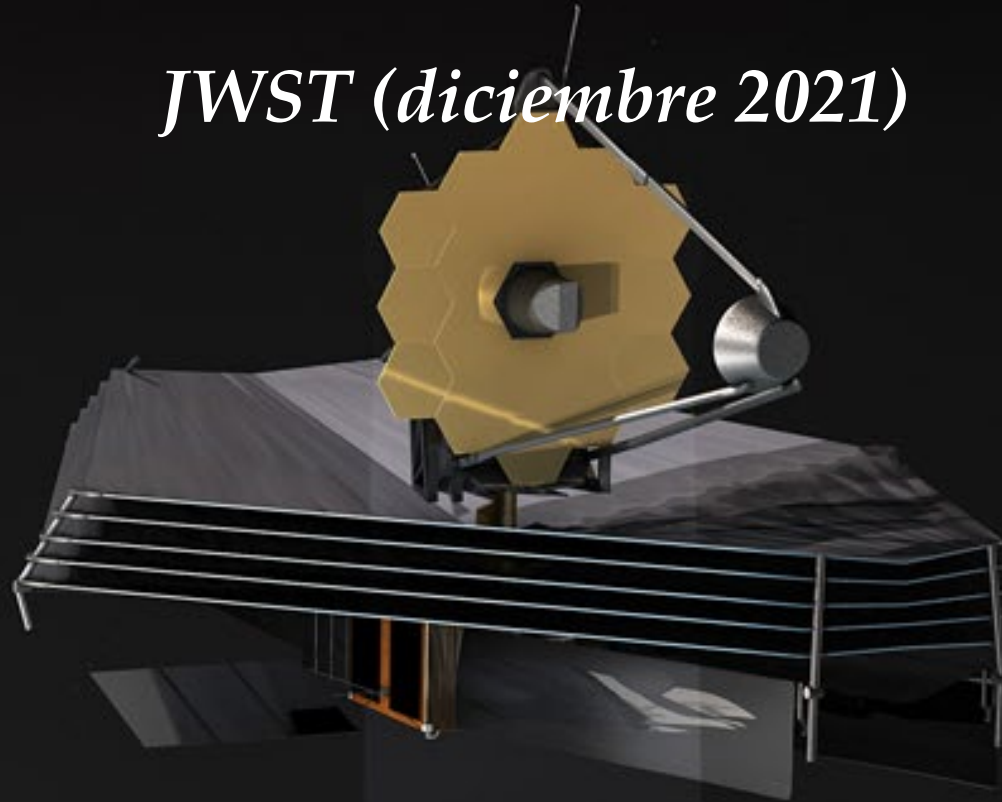
Luz UV, Visible, IR medio



2.4 m de espejo

JWST (diciembre 2021)

1.5 MKm
de la Tierra



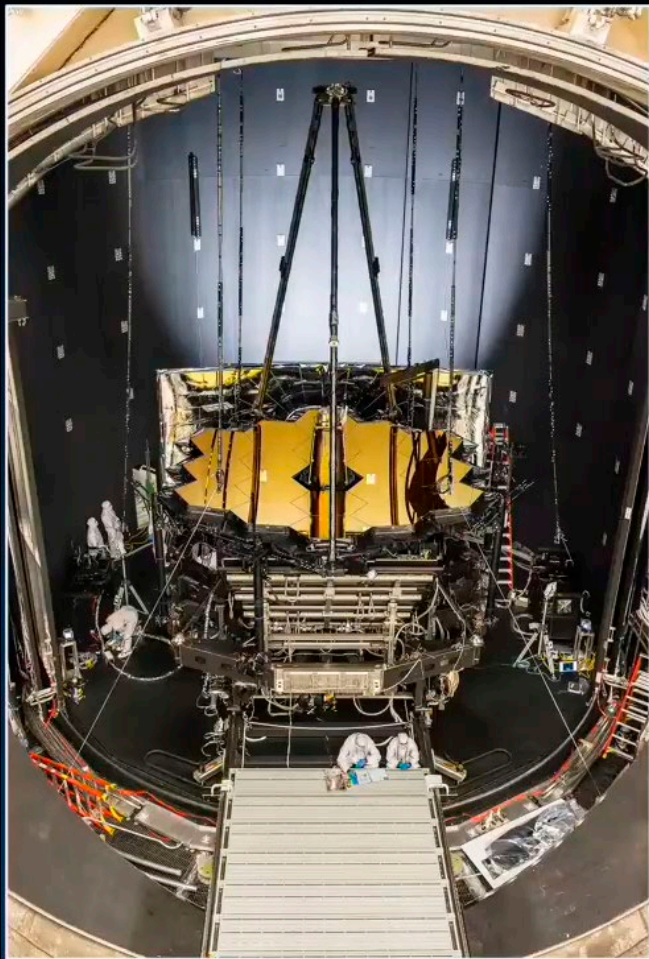
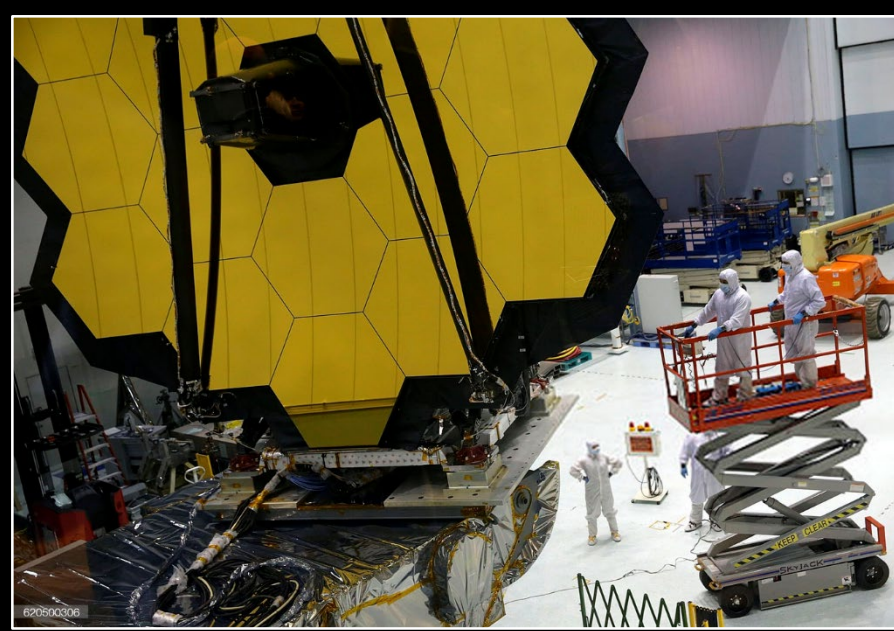
MUY FRIO: -230°C
MIRI: -267°C

Tamaño de una cancha de tenis

Luz IR medio y lejano



*6.5 m de espejo
multisegmentado*



El Telescopio óptico más complejo del mundo!



CENTRO DE ASTROBIOLOGÍA · CAB
ASOCIADO AL NASA ASTROBIOLOGY PROGRAM

Participación Española en el JWST

Investigadores Principales CAB:

Instrumento MIRI, **Luis Colina Robledo**

Instrumento NIRSpec, **Santiago Arribas Mocoroa**

➤ Más de 20 años preparando estos instrumentos y la participación española

Participantes

Dra. Almudena Alonso Herrero

Dr. Javier Álvarez Márquez

Prof. David Barrado Navascués

Dr. Álvaro Labiano Ortega

Dr. Michele Perna

Dr. Pablo Pérez Gonzalez

Dr. Bruno Rodríguez del Pino

Dr. Héctor Vives Arias

+ Gran número de observadores españoles
que han conseguido tiempo en el
telescopio

Artículo de David Barrado Navascués

<https://theconversation.com/asi-hicimos-posible-desde-espana-el-lanzamiento-del-nuevo-telescopio-espacial-james-webb-174129>

Un Telescopio para viajar en el tiempo y el espacio

(1) La luz de las primeras galaxias y estrellas

(2) La formación de planetas y estrellas

(3) Las atmósferas de otros mundos

(4) Nuestro propio entorno en los límites del Sistema Solar



Hacia los límites del Universo observable
SMACS 0723



NIRCAM

M16: Programa de outreach #2739



MIRI



LDN1527

Parte del programa de outreach #2739

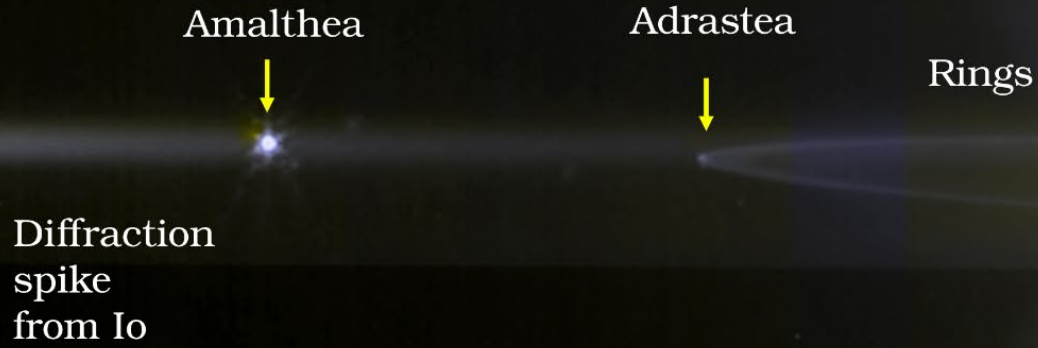
Sesión PROAM - 23 de febrero - 20:00 h



ERS 1373

Aurora's diffraction

Northern aurora



Aurora's diffraction

Southern Aurora

ERS 1373

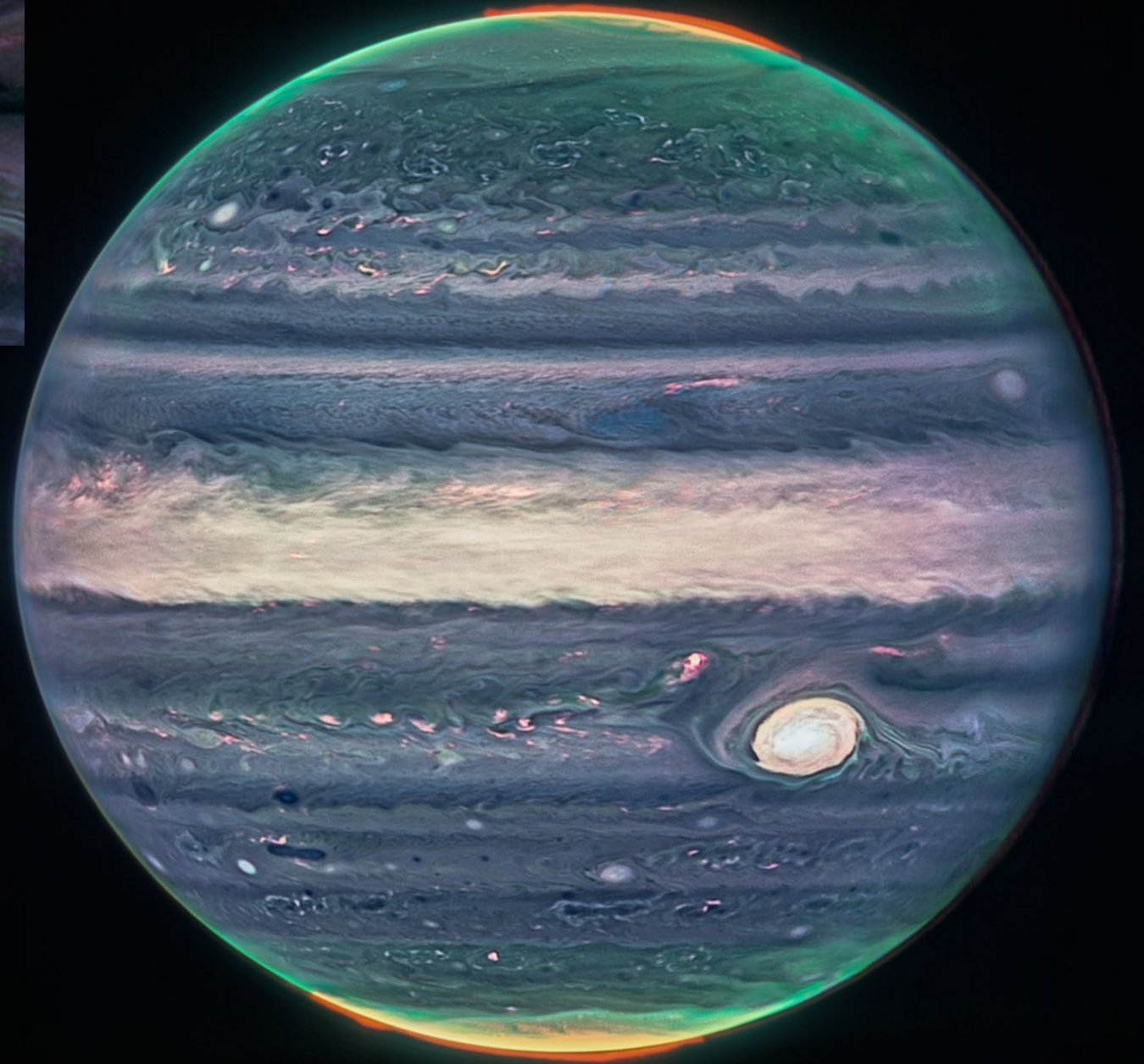
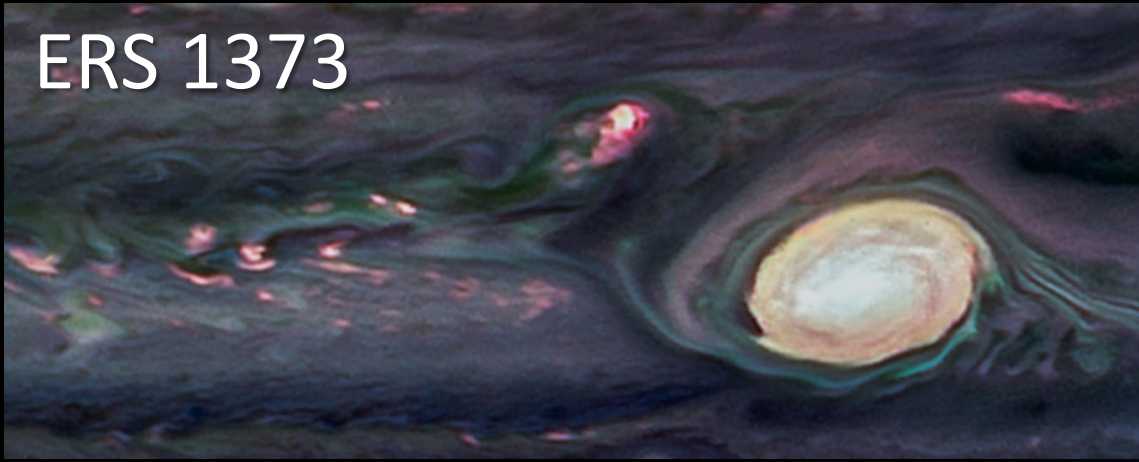
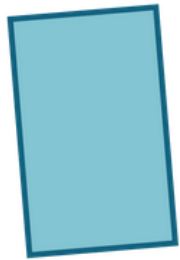


Image processing: Judy Schmitt

<https://www.planetary.org/profiles/judy-schmidt>

Instruments



MIRI

Mid-InfraRed Instrument
4.9 to 28.8 μm



NIRCams

Near-InfraRed Camera
0.6 to 5 μm



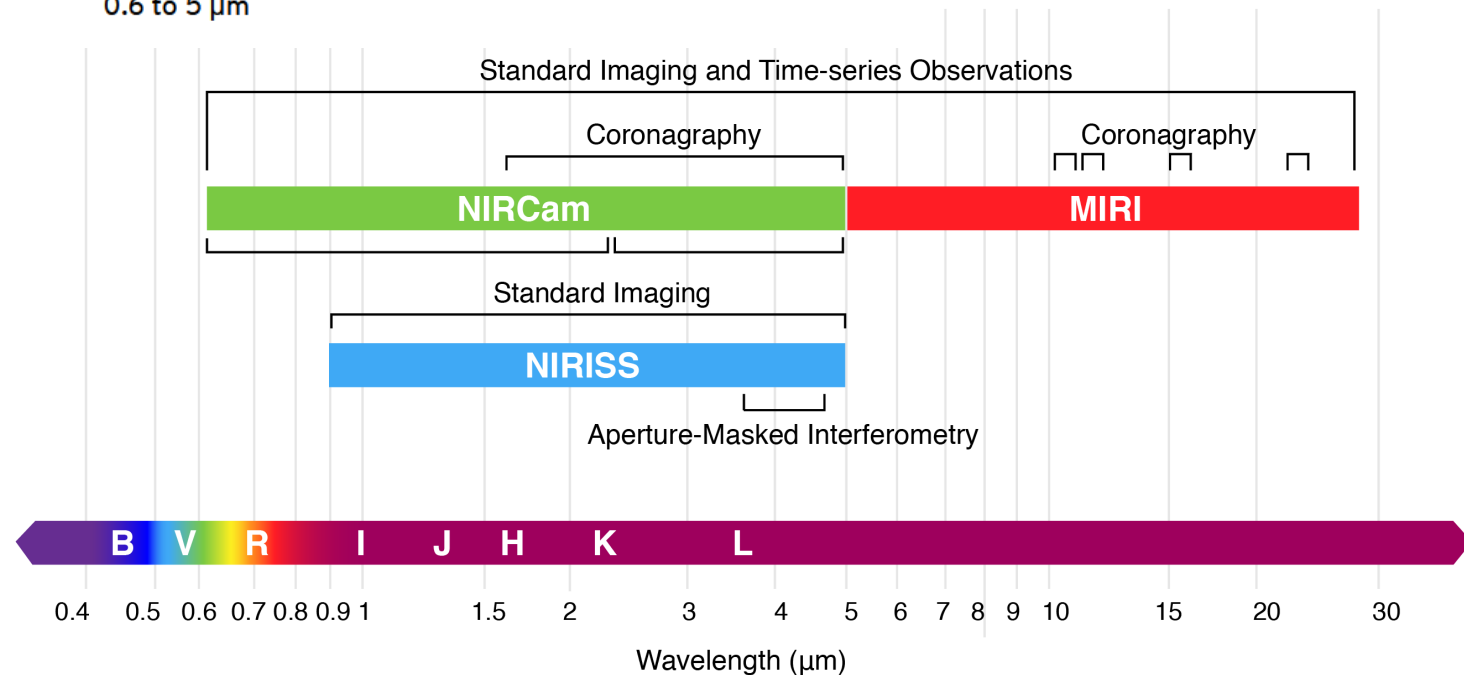
NIRISS

Near-InfraRed Imager and
Slitless Spectrograph
0.6 to 5 μm

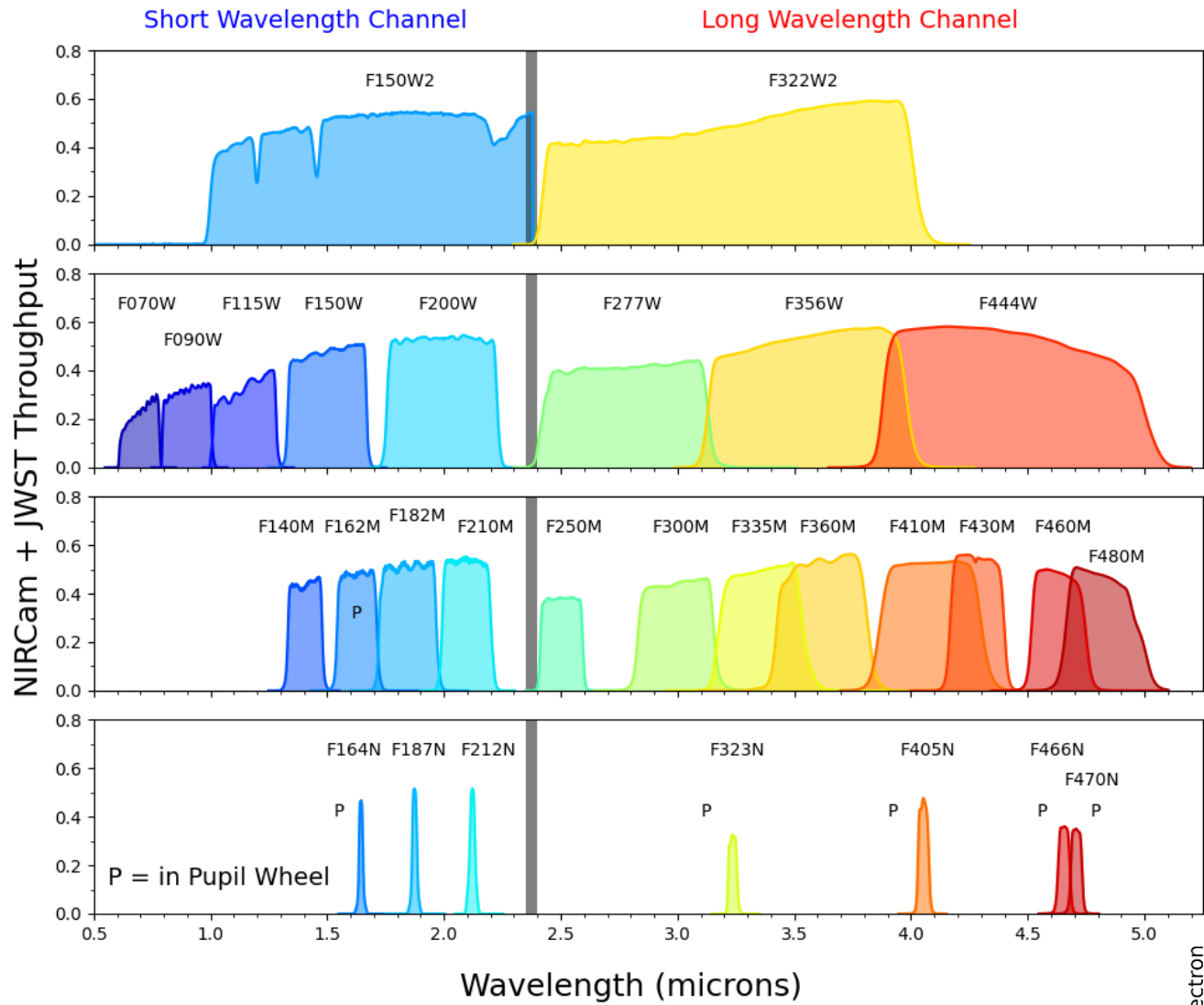


NIRSpec

Near-InfraRed Spectrograph
0.6 to 5.3 μm



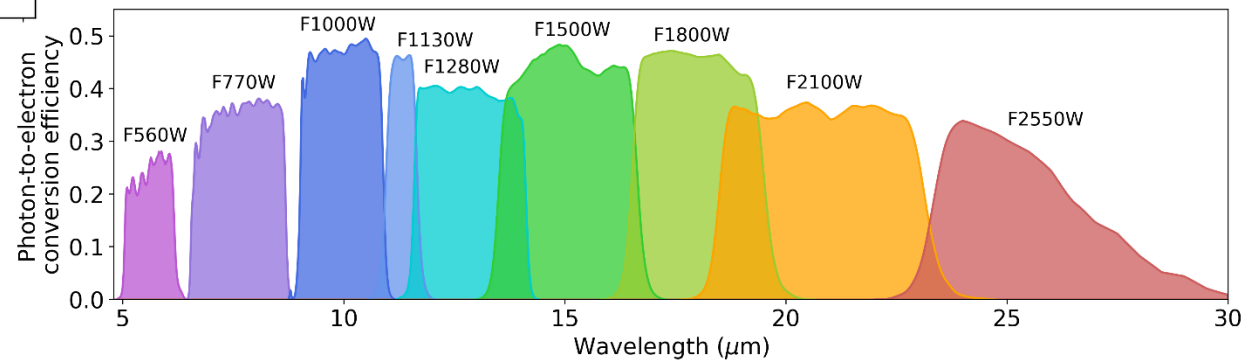
NIRCam Filters



<https://jwst-docs.stsci.edu/jwst-near-infrared-camera/nircam-observing-modes/nircam-imaging>

<https://jwst-docs.stsci.edu/jwst-mid-infrared-instrument/miri-observing-modes/miri-imaging>

MIRI Filters (Modo imagen)

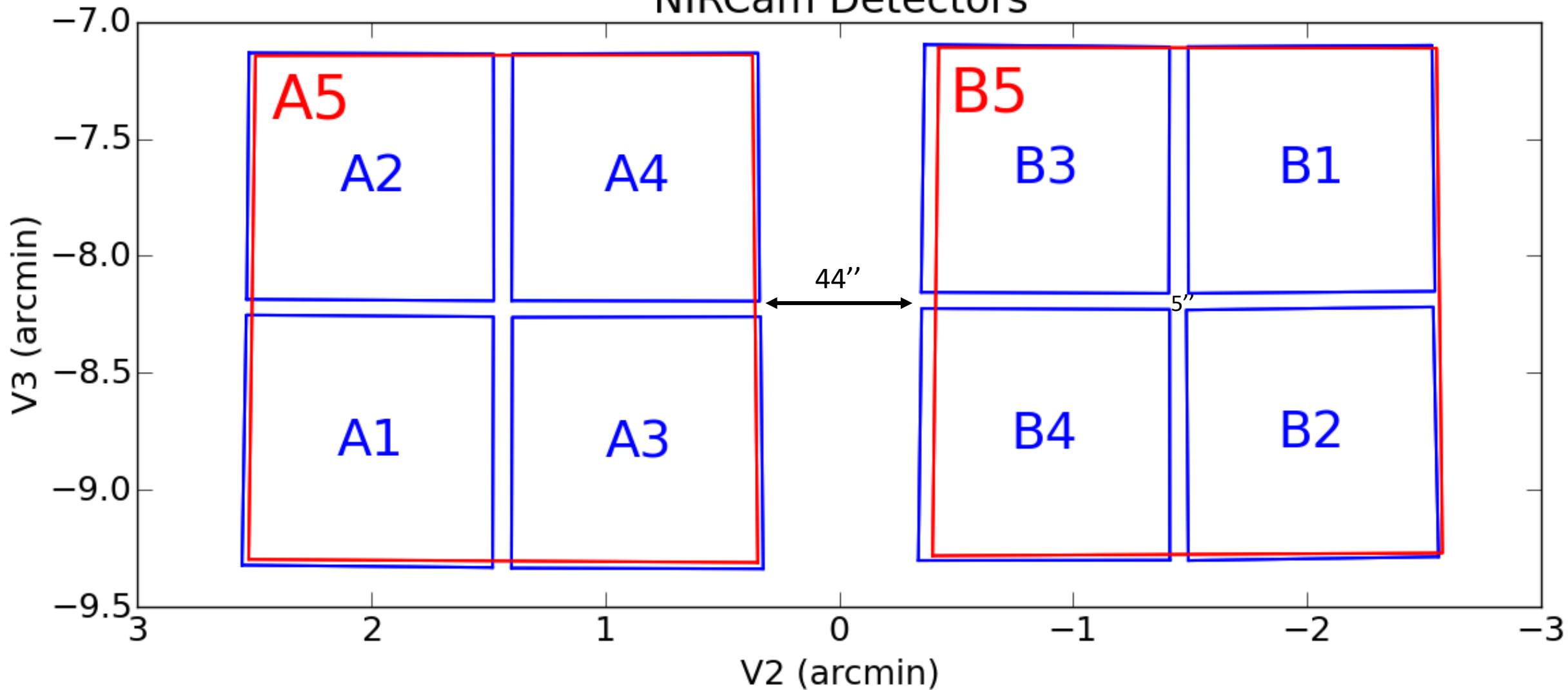


Short Wavelengths: 0.6-2.2 μm

Long-wavelengths: 2.3-5.0 μm

2 sets de 5 detectores (4 SW y 1 LW)

NIRCam Detectors

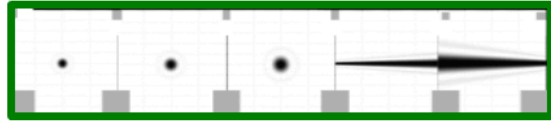


Module A

Module B

coronagraph masks

20"



5.1'

when projected on detectors

44"
48"

2.2'

GRISMC



dispersion directions

GRISMR



4-5"

GRISMC



GRISMR



64"

64"

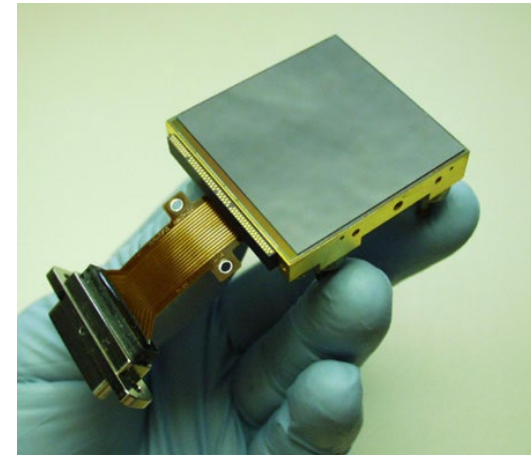
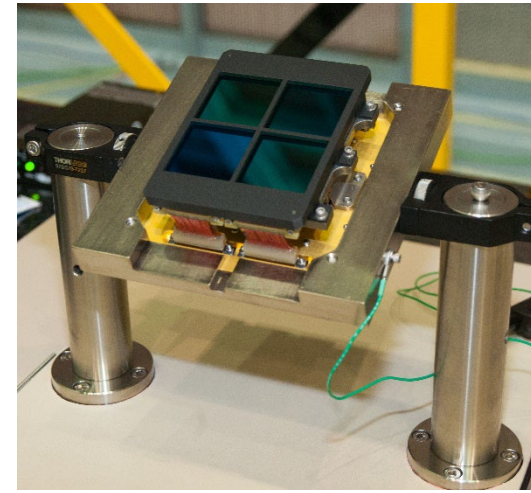
129"

129"

overlapping FOVs
obtained simultaneously

2.2'

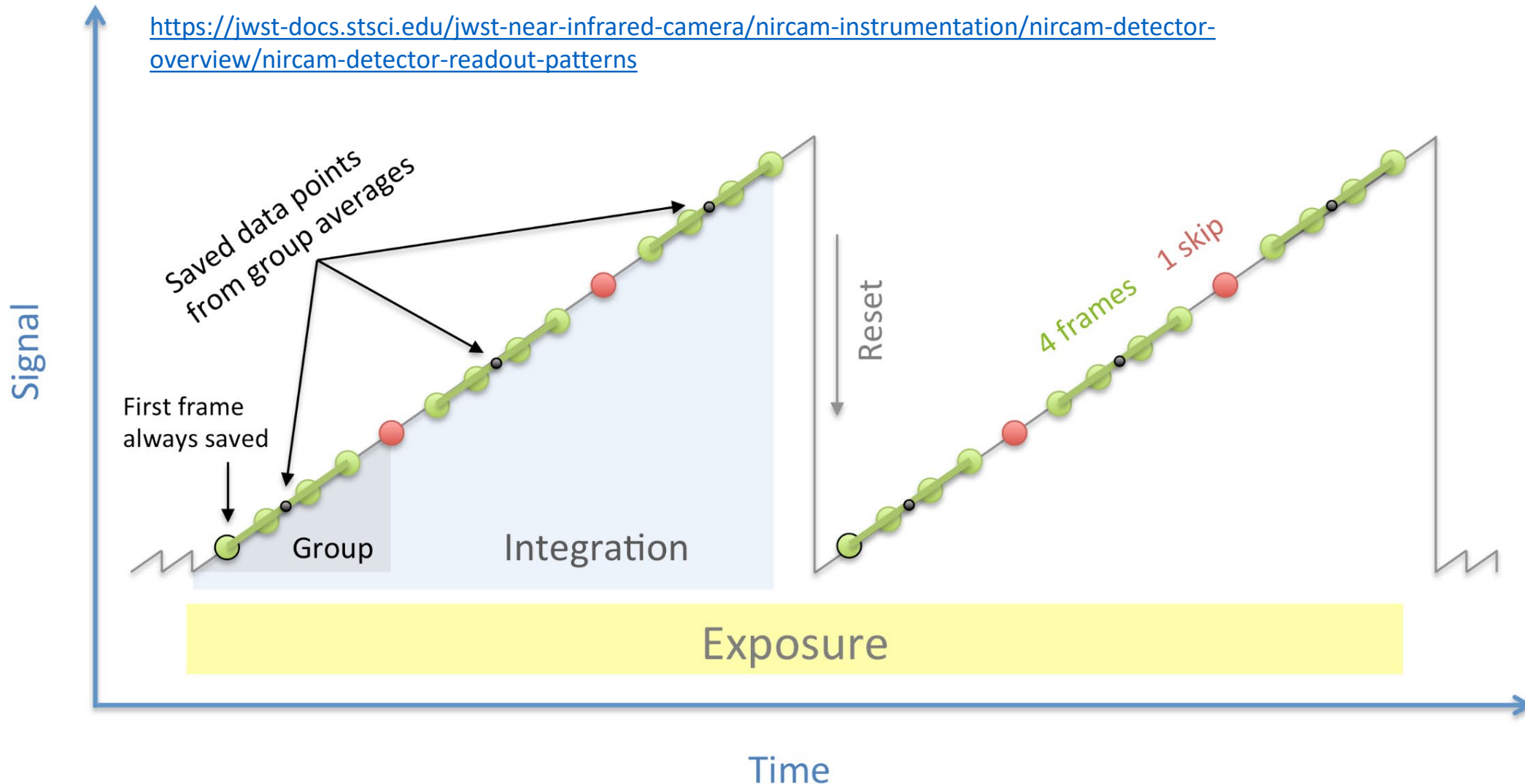
short wavelength detectors
long wavelength detectors



Cada detector:
2040x2040 Active pixels
Resolución: **0.031"/pix**
0.063"/pix

Varios niveles de exposición diferentes pueden encontrarse en los datos (lectura sucesiva del detector sin borrar su carga)

<https://jwst-docs.stsci.edu/jwst-near-infrared-camera/nircam-instrumentation/nircam-detector-overview/nircam-detector-readout-patterns>



Muchas regiones “saturadas” de las imágenes pueden recuperarse acudiendo a los datos originales en imágenes uncal.fits
(Level 1 data conteniendo las lecturas sucesivas del detector)



Un observatorio espacial único producto de la colaboración internacional

2 archivos diferentes con diferente personalidad pero mismos datos

<https://archive.stsci.edu>

<https://jwst.esa.int/archive/>

MAST Home

https://archive.stsci.edu

Barbara A. MIKULSKI ARCHIVE FOR SPACE TELESCOPES

SEARCH MENU

Survey Request

Please share your feedback on [Data Access Policies for Hubble and JWST](#) about topics like exclusive access periods.

Barbara A. MIKULSKI ARCHIVE FOR SPACE TELESCOPES

Maximizing the scientific accessibility & productivity of astronomical data.

The Mikulski Archive for Space Telescopes is an astronomical data archive focused on the optical, ultraviolet, and near-infrared. MAST hosts data from over a dozen missions like Webb, Hubble, TESS, Kepler, and in the future Roman.

On This Page

ESA JWST Science Archive

https://jwst.esa.int/archive/

EUROPEAN SPACE AGENCY ABOUT ESAC SIGN IN

jwst science archive esa

HOME SEARCH RESULTS ESASKY SEARCH ADQL SEARCH GUIDE

WELCOME TO THE ESA JWST SCIENCE ARCHIVE

The James Webb Space Telescope (JWST) is the largest optical or infrared observatory ever launched to space. Developed in a collaboration between NASA, ESA, and CSA, Webb observes the Universe in infrared light from its orbit at the Lagrangian point L2, 1.5 million km away from Earth.

The ESA JWST archive user interface allows users to perform simple and advanced searches based on multiple observation parameters such as coordinates, target name, proposal id, etc., quick explorations of the data products and metadata including use of ESASky, and searches based on ADQL and the astroquery language.

Quick search by target name or coordinates [J2000] Search by Proposal Id

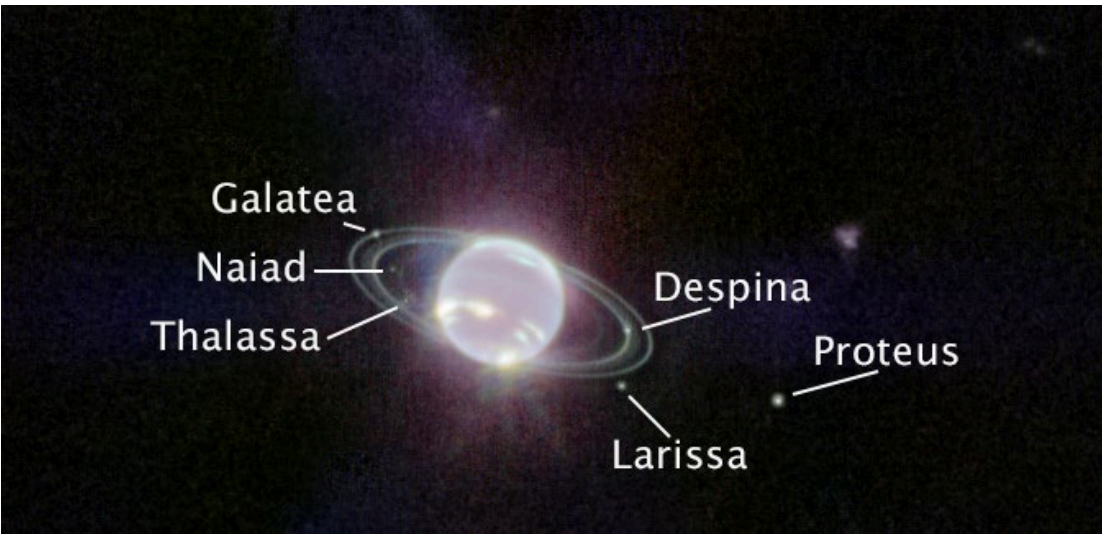
M31, 5 34 31.45 +22 01 02.40, 83.63104 +22.01733, ...

SEARCH ESASky SEARCH ADQL SEARCH

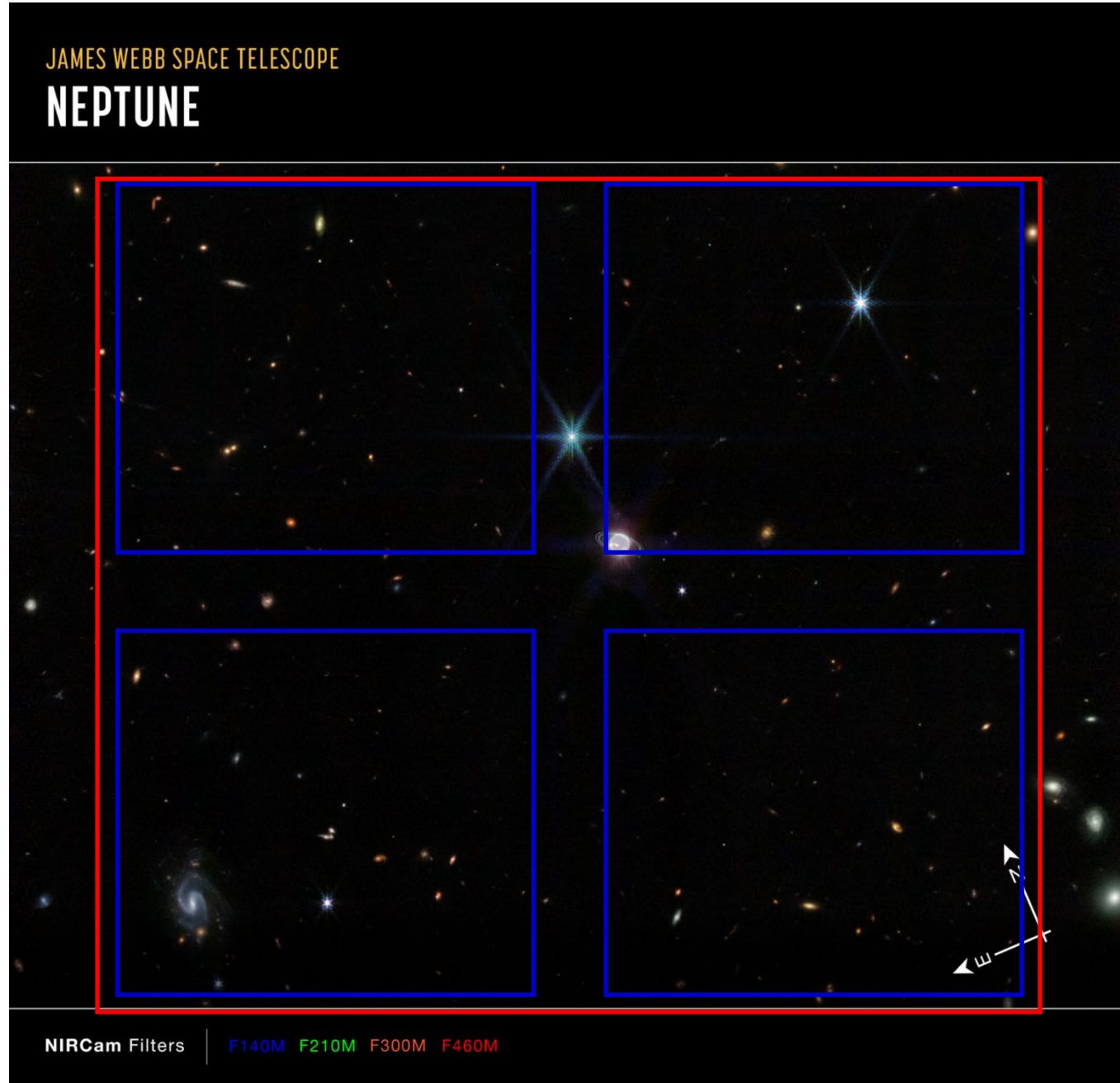
Ejemplo “difícil”:

Objeto del sistema solar con campo amplio a su alrededor y diferentes objetos moviéndose a diferente velocidad entre cada imagen

Target: Neptune



*5 dither positions (posiciones de apuntado) en esta imagen
Combinadas para rellenar los huecos*



Ejemplo “sencillo”:

LDN 1527

También obtenida tras diferentes apuntados o dithers pero más fáciles de trabajar.

En total: 120 imágenes originales:
6 filtros, 5 detectores, 4 apuntados



JWST

STScI | Mikulski Archive for Space Telescopes

https://mast.stsci.edu/portal/Mashup/Clients/Mast/Portal.html

Select a collection...
MAST Observations by Object Name or RA/Dec

and enter target:
Enter object name or RA and Dec to cone search

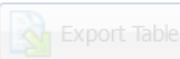
Search

[About Collections...](#) [Show Examples...](#) [Random Search](#) [Advanced Search](#)

[Upload Target List](#) [My Download Basket: 0 files](#)

[Portal User Guide](#) | [Leave Feedback](#) | [About This Site](#)

**Después haremos este ejemplo con el archive de ESAC
(más fácil y directo)**



Records Found:

Applied Filters

Clear All

Columns

Defaults Hide All

Filter Columns:

- Object Name or Position
- Observation Type
- Mission
- Provenance Name
- Instrument
- Project
- Filters
- Waveband
- Target Name
- Target Classification
- Sequence Number
- Observation ID
- RA
- Dec

Filters

Object Name or Position

[Show Examples...](#)

No positional search performed.

Provenance Name

Name	Quantity
<input type="checkbox"/> QLP	(44.117.998 Total)
<input type="checkbox"/> TASOC	(11.080.238 Total)
<input type="checkbox"/> GSFC-ELEANOR-LITE	(8.651.061 Total)
<input type="checkbox"/> TESS-SPOC	(7.543.996 Total)
<input type="checkbox"/> TGLC	(4.455.037 Total)

Observation Type

Name	Quantity
<input type="checkbox"/> science	(87.505.107 Total)
<input type="checkbox"/> calibration	(953.259 Total)

Instrument

Name	Quantity
<input type="checkbox"/> Photometer	(73.790.818 Total)
<input type="checkbox"/> Kepler	(2.849.856 Total)
<input type="checkbox"/> IRAC	(2.470.295 Total)
<input type="checkbox"/> GPC1	(998.018 Total)
<input type="checkbox"/> IRS	(480.821 Total)

JWST



Mission

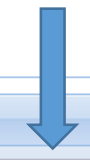
Name	Quantity
<input type="checkbox"/> HLSP	(79.587.134 Total)
<input type="checkbox"/> SPITZER_SHA	(3.073.080 Total)
<input type="checkbox"/> HST	(1.269.006 Total)
<input type="checkbox"/> TESS	(1.248.881 Total)
<input type="checkbox"/> PS1	(998.018 Total)

Show 16 More

Project

Name	Quantity
<input type="checkbox"/> TESS	(78.955.388 Total)
<input type="checkbox"/> K2	(1.767.519 Total)
<input type="checkbox"/> PS1	(998.018 Total)
<input type="checkbox"/> HST	(980.807 Total)
<input type="checkbox"/> Kepler	(941.711 Total)

NIRCAM



 Search
  Export Table

Records Found: 65.151
(Load Limit: 50.000)

Applied Filters

Columns

Defaults Hide All

Filter Columns:

- Object Name or Position
- Observation Type
- Mission
- Provenance Name
- Instrument
- Project
- Filters
- Waveband
- Target Name
- Target Classification
- Sequence Number
- Observation ID
- RA
- Dec

Filters

Object Name or Position

[Show Examples...](#)

No positional search performed.

Provenance Name

Name	Quantity
<input type="checkbox"/> QLP	(44.117.998 Total)
<input type="checkbox"/> TASOC	(11.080.238 Total)
<input type="checkbox"/> GSFC-ELEANOR-LITE	(8.651.061 Total)
<input type="checkbox"/> TESS-SPOC	(7.543.996 Total)
<input type="checkbox"/> TGLC	(4.455.037 Total)

Observation Type

Name	Quantity
<input type="checkbox"/> science	(87.505.107 Total)
<input checked="" type="checkbox"/> NIRCAM	
NIRCAM/IMAGE	
NIRCAM/GRISM	
NIRCAM/CORON	
NIRCam MIRI	
MIRI NIRCam	
NIRCAM NICRAM	
NIRCAM WFC3/UVIS	
ACS/WFC NIRCam	

Instrument

Name	Quantity
<input type="checkbox"/> Photometer	(73.790.818 Total)
<input type="checkbox"/> Kepler	(2.849.856 Total)
<input type="checkbox"/> IRAC	(2.470.295 Total)
<input type="checkbox"/> GPC1	(998.018 Total)
<input type="checkbox"/> IRS	(480.821 Total)

Mission

Name	Quantity
<input type="checkbox"/> Kepler	(212.993 Total)
<input checked="" type="checkbox"/> JWST	(137.615 Total)
<input type="checkbox"/> IUE	(101.971 Total)
<input type="checkbox"/> FUSE	(5729 Total)
<input type="checkbox"/> KeplerFFI	(4136 Total)
<input type="checkbox"/> EUVE	(1367 Total)

Project

Name	Quantity
<input type="checkbox"/> TESS	(78.955.388 Total)
<input type="checkbox"/> K2	(1.767.519 Total)
<input type="checkbox"/> PS1	(998.018 Total)
<input type="checkbox"/> HST	(980.807 Total)
<input type="checkbox"/> Kepler	(941.711 Total)

MAST Advanced Search

Search Records Found: 65.151
(Load Limit: 50.000)

Applied Filters

Clear All

Columns

Defaults Hide All

Filter Columns:

- Object Name or Position
- Observation Type
- Mission
- Provenance Name
- Instrument
- Project
- Filters
- Waveband
- Target Name
- Target Classification
- Sequence Number
- Observation ID
- RA
- Dec

Filters

Object Name or Position

[Show Examples...](#)

No positional search performed.

Provenance Name

Name	Count
<input type="checkbox"/> QLP	(44.117.9)
<input type="checkbox"/> TASOC	(11.080.2)
<input type="checkbox"/> GSFC-ELEANOR-LITE	(8.651.0)
<input type="checkbox"/> TESS-SPOC	(7.543.9)
<input type="checkbox"/> TGLC	(4.455.0)

Search Examples

Object Names

[M101 r=1m, NGC45 r=30s](#) Objects from standard catalogs such as Messier and NGC will be resolved

[Antennae, Eta Carinae](#) Common names often work

[T Tau](#) Variable star names often work

[BD+19 706](#) Star catalogs with coordinate symbols

[png 000.8-07.6](#) Other catalogs with coordinate and decimal symbols

[2MASS J04215943+1932063](#) All-sky catalogs with coordinate symbols

[TYC 1272-470-1](#) All-sky satellite catalogs with restricted symbols

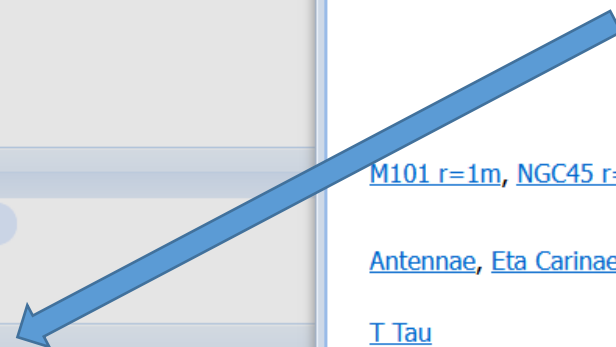
Coordinates

[14 03 12.6 54 20 56.7](#) Sexagesimal coordinates delimited with spaces

[14:03.210 54:20.945](#) Sexagesimal coordinates delimited with colons; decimal minutes/arcminutes

[14h03m12.6s +54d20m56.7s](#) Sexagesimal coordinates with explicit hms/dms

[g102.0373+59.7711](#) Galactic coordinates of the form g[lon] [+/-lat] with no spaces



Records Found: 4



Quando tenemos nuestro objeto seleccionado damos a "Search"

Applied Filters

Columns

Defaults Hide All

Filter Columns:

- Object Name or Position
- Observation Type
- Mission
- Provenance Name
- Instrument
- Project
- Filters
- Waveband
- Target Name
- Target Classification
- Sequence Number
- Observation ID
- RA
- Dec

Filters

Provenance Name

Name	Quantity
<input type="checkbox"/> QLP	(44.117.998 Total)
<input type="checkbox"/> TASOC	(11.080.238 Total)
<input type="checkbox"/> GSFC-ELEANOR-LITE	(8.651.061 Total)
<input type="checkbox"/> TESS-SPOC	(7.543.996 Total)
<input type="checkbox"/> TGLC	(4.455.037 Total)

Instrument

Name	Quantity
<input type="checkbox"/> Photometer	(73.790.818 Total)
<input type="checkbox"/> Kepler	(2.849.856 Total)
<input type="checkbox"/> IRAC	(2.470.295 Total)
<input type="checkbox"/> GPC1	(998.018 Total)
<input type="checkbox"/> IRS	(480.821 Total)

Project

Name	Quantity
<input type="checkbox"/> TESS	(78.955.388 Total)
<input type="checkbox"/> K2	(1.767.519 Total)
<input type="checkbox"/> PS1	(998.018 Total)
<input type="checkbox"/> HST	(980.807 Total)
<input type="checkbox"/> Kepler	(941.711 Total)

Filters

Name	Quantity
<input type="checkbox"/> TESS	(78.955.441 Total)
<input type="checkbox"/> kepler	(2.849.857 Total)
<input type="checkbox"/> IRAC2	(1.322.495 Total)
<input type="checkbox"/> IRAC1	(840.861 Total)
<input type="checkbox"/> IRS-SL	(207.199 Total)

Target Name

This column must be searched via the text box at the top of this panel

RA



Select a collection...

MAST Observations by Object Name or RA/Dec

[About Collections...](#)

and enter target:

Enter object name or RA and Dec to cone search

[Show Examples...](#) [Random Search](#) [Advanced Search](#)

anonymous

[Login...](#)

[Account Info...](#)

[Upload Target List](#)

My Download Basket: 0 files

[Portal User Guide](#) | [Leave Feedback](#) | [About This Site](#)

Esta parte se puede mostrar o quitar

Home Page **MAST: Advanced Search 1**

4 Total Rows

Filters

Clear Filters Edit Filters... Help...

Keyword/Text Filter

Filter All Columns

Filters

Name	Quantity
<input type="checkbox"/> F460M	(1 of 1)
<input type="checkbox"/> F300M	(1 of 1)
<input type="checkbox"/> F210M	(1 of 1)
<input type="checkbox"/> F140M	(1 of 1)

Data URL

Name	Quantity
<input type="checkbox"/> mast:JWST/product/jw02739-o004_t003_nircam_clear-f460m_i2d.fits	(1 of 1)
<input type="checkbox"/> mast:JWST/product/jw02739-o004_t003_nircam_clear-f300m_i2d.fits	(1 of 1)
<input type="checkbox"/> mast:JWST/product/jw02739-o004_t003_nircam_clear-f210m_i2d.fits	(1 of 1)

List View **Album View**

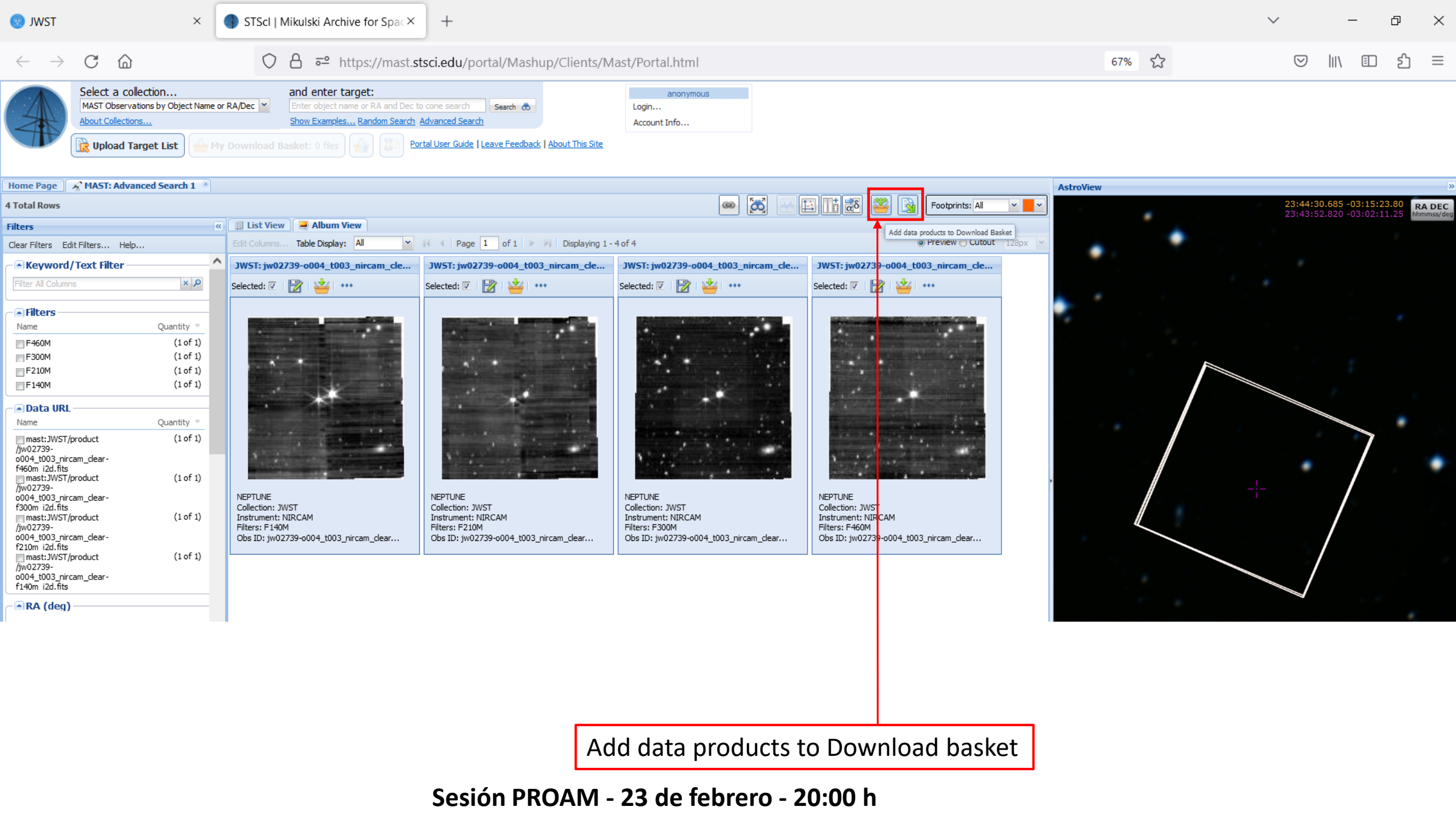
	Actions	Observation T...	Mission	Provenance Name	Instrument	Project	Filters	Wa
<input type="checkbox"/>	1	science	JWST	CALJWST	NIRCAM	JWST	F140M	In
<input type="checkbox"/>	2	science	JWST	CALJWST	NIRCAM	JWST	F210M	In
<input type="checkbox"/>	3	science	JWST	CALJWST	NIRCAM	JWST	F300M	In
<input type="checkbox"/>	4	science	JWST	CALJWST	NIRCAM	JWST	F460M	In

Más información (como fechas, coordenadas, etc.. disponibles a la derecha)

AstroView

23:43:52.820 -03:02:11.25
23:43:52.820 -03:02:11.25

RA DEC
hhmmss/deg



anonymous
Login...
Account Info...

Select a collection...
MAST Observations by Object Name or RA/Dec
and enter target:
Enter object name or RA and Dec to cone search
About Collections...
Show Examples... Random Search Advanced Search

Upload Target List My Download Basket: 0 files Portal User Guide | Leave Feedback | About This Site

Home Page MAST: Advanced Search 1

4 Total Rows

Filters
Clear Filters Edit Filters... Help...

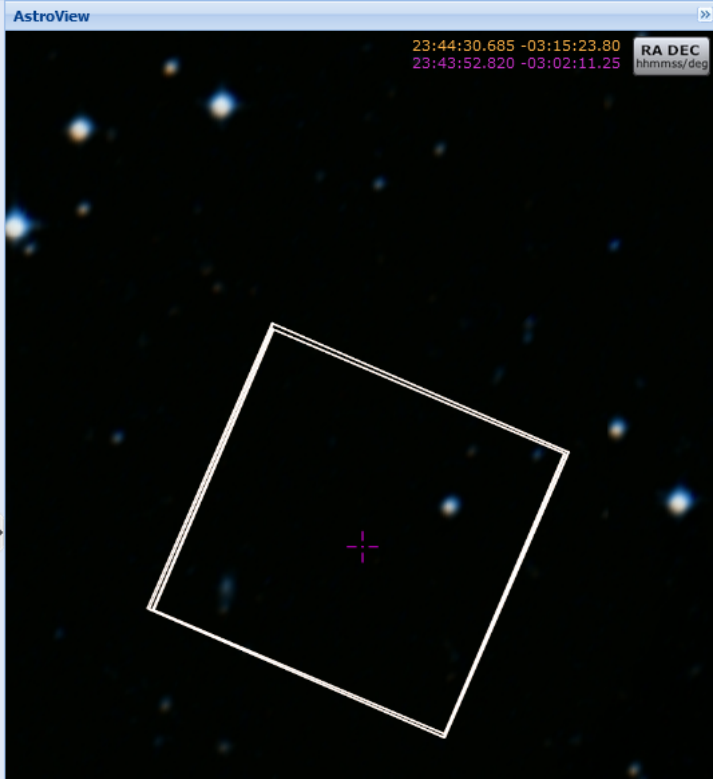
Keyword/Text Filter
Filter All Columns

Filters
Name Quantity
F460M (1 of 1)
F300M (1 of 1)
F210M (1 of 1)
F140M (1 of 1)

Data URL
Name Quantity
mast:JWST/product/jw02739-o004_t003_nircam_clear-f460m_i2d.fits (1 of 1)
mast:JWST/product/jw02739-o004_t003_nircam_clear-f300m_i2d.fits (1 of 1)
mast:JWST/product/jw02739-o004_t003_nircam_clear-f210m_i2d.fits (1 of 1)
mast:JWST/product/jw02739-o004_t003_nircam_clear-f140m_i2d.fits (1 of 1)

RA (deg)

JWST: jw02739-o004_t003_nircam_clear-f460m_i2d.fits	JWST: jw02739-o004_t003_nircam_clear-f300m_i2d.fits	JWST: jw02739-o004_t003_nircam_clear-f210m_i2d.fits	JWST: jw02739-o004_t003_nircam_clear-f140m_i2d.fits
NEPTUNE Collection: JWST Instrument: NIRCAM Filters: F140M Obs ID: jw02739-o004_t003_nircam_clear...	NEPTUNE Collection: JWST Instrument: NIRCAM Filters: F210M Obs ID: jw02739-o004_t003_nircam_clear...	NEPTUNE Collection: JWST Instrument: NIRCAM Filters: F300M Obs ID: jw02739-o004_t003_nircam_clear...	NEPTUNE Collection: JWST Instrument: NIRCAM Filters: F460M Obs ID: jw02739-o004_t003_nircam_clear...



Add data products to Download basket

Sesión PROAM - 23 de febrero - 20:00 h

Select a collection...
MAST Observations by Object Name or RA/Dec

and enter target:
Enter object name or RA and Dec to cone search

anonymous
Login...
Account Info...

Upload Target List

My Download Basket: 0 files

Portal User Guide | Leave Feedback | About This Site

Home Page

MAST: Advanced Search 1

4 Total Rows

Filters

Clear Filters Edit Filters... Help...

Keyword/Text Filter

Filter All Columns

Filters

Name	Quantity
F460M	(1 of 1)
F300M	(1 of 1)
F210M	(1 of 1)
F140M	(1 of 1)

Data URL

Name	Quantity
mast:JWST/product/jw02739-o004_t003_nircam_clear-f460m_i2d.fits	(1 of 1)
mast:JWST/product/jw02739-o004_t003_nircam_clear-f300m_i2d.fits	(1 of 1)
mast:JWST/product/jw02739-o004_t003_nircam_clear-f210m_i2d.fits	(1 of 1)
mast:JWST/product/jw02739-o004_t003_nircam_clear-f140m_i2d.fits	(1 of 1)

RA (deg)

23:43:52.820 23:43:52.891

Dec (deg)

Download Manager

Download Basket Download History

Remove Selected Remove All

0 Recent Downloaded Files

0.00 MB Selected / 51200 MB Max

Download Batch Retrieval

Preparing files...
0%

Details

Summary

Select a product file to view details

NEPTUNE
Collection:
Instrument:
Filters: F1-
Obs ID: jw

RA DEC
hhmmss/deg

23:44:30.685 -03:15:23.80
23:43:52.820 -03:02:11.25

+

-

+

Esto puede tardar unos pocos segundo o algún minuto

Download Manager

Download Basket | Download History

Remove Selected | Remove All

Displaying 20 of 20624 Total Files | 1.70 GB Selected / 50 GB Max

Retrieve References | Download | Batch Retrieval

Filters

Clear Filters

Recommended Products

Uncheck Minimum Recommended Products to see all files. [Learn more.](#)

Minimum Recommended Products (20 of 20)

Product Category

- AUXILIARY (4 of 19204)
- SCIENCE (8 of 608)
- PREVIEW (0 of 604)
- INFO (8 of 208)

Extension

- fits (8 of 19808)
- jpg (0 of 604)
- csv (4 of 104)
- json (4 of 104)
- ecsv (4 of 4)

Group

- GS-ACQ2 (0 of 6300)
- GS-ACQ1 (0 of 6300)
- GS-TRACK (0 of 6000)
- GS-ID (0 of 500)

Files

Mission > Observation > File	Files	Actions	File Size	Product Type	Batch	Description	Project
└─ JWST	20						
└─ jw02739-o004_t003_nircam_clear-f140m	5						
└─ jw02739-o004_t003_nircam_clear-f140m_segm.fits			81.255 MB	image	Yes	target (L3) : segmentation map	CALJWST
└─ jw02739-o004_20230125t161104_image3_00001...			0.011 MB	image	Yes	source/target (L3) : association genera...	CALJWST
└─ jw02739_20230125t161104_pool.csv			0.405 MB	image	Yes	source/target (L3) : association pool	CALJWST
└─ jw02739-o004_t003_nircam_clear-f140m_cat.ecsv			0.358 MB	image	Yes	target (L3) : source catalog	CALJWST
└─ jw02739-o004_t003_nircam_clear-f140m_i2d.fits			649.926 MB	image	Yes	exposure/target (L2b/L3): rectified 2D i...	CALJWST
└─ jw02739-o004_t003_nircam_clear-f210m	5						
└─ jw02739-o004_t003_nircam_clear-f300m	5						
└─ jw02739-o004_t003_nircam_clear-f460m	5						

Details

Summary

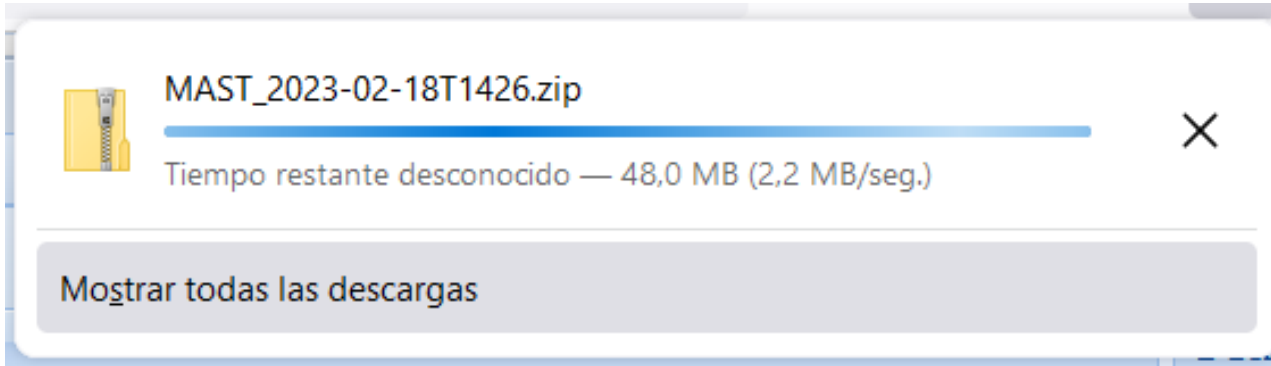
Product Group ID (obsID):
Mission (obs_collection):
Product Type (dataprodct_type):
Observation ID (obs_id):
Description (description):
Type (type):
URI (dataURI):

Product Category (productType):
Product Group (productGroupDescription):
Product Subgroup (productSubGroupDescription):
Product Documentation (productDocumentationURL):
Project (project):
Calibration Version (prvversion):
Proposal ID (proposal_id):
Filename (productFilename):

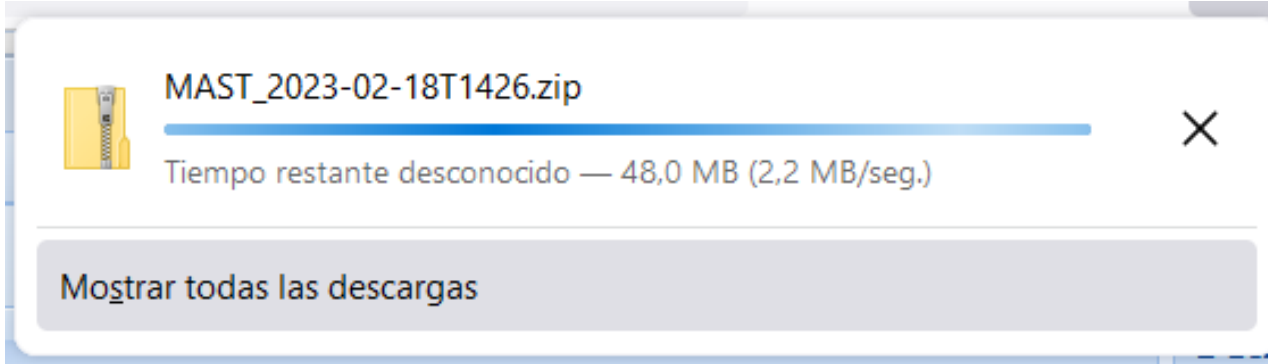
File Size (size):
Parent Product Group ID (parent_obsid):
dataRights:
calib_level:

Imágenes i2d
Calibradas (tras darks y flats)
y corregidas de distorsiones geométricas.
Sin deconvolución






Neptuno (datos de nivel 3) son unos 10 Gb



Neptuno (datos de nivel 3) son unos 10 Gb



Resultado tras descomprimir los datos

 jw02739-o004_t003_nircam_clear-f140m	18/02/2023 20:40	Carpeta de archivos
 jw02739-o004_t003_nircam_clear-f210m	18/02/2023 20:40	Carpeta de archivos
 jw02739-o004_t003_nircam_clear-f300m	18/02/2023 20:40	Carpeta de archivos
 jw02739-o004_t003_nircam_clear-f460m	18/02/2023 20:40	Carpeta de archivos
 jw02739-o007_t005_nircam_clear-f277w	18/02/2023 20:40	Carpeta de archivos

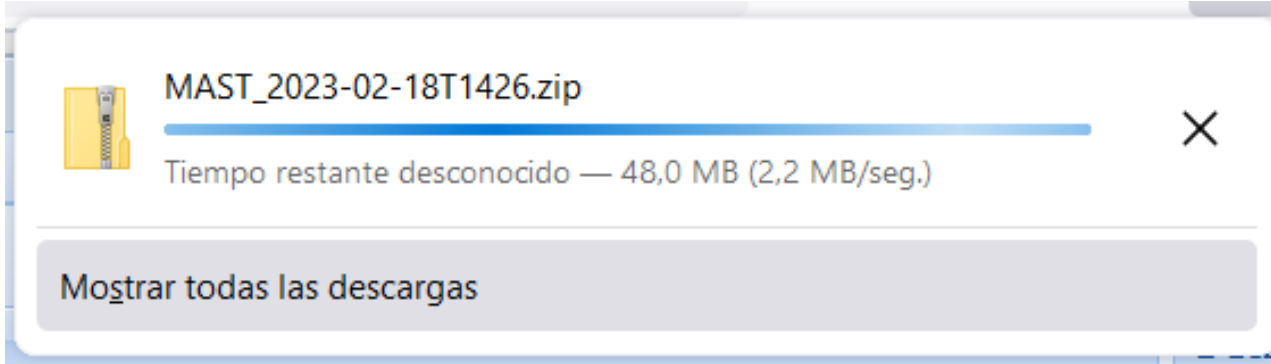
jw02739-o004_t003_nircam_clear_f140m

Número de programa: 2739

Instrumento: Nircam

Filtro: Clear-F140M

Neptuno (datos de nivel 3) son unos 10 Gb



`jw02739-o004_t003_nircam_clear_f140m`

Resultado tras descomprimir los datos

<code>jw02739-o004_t003_nircam_clear-f140m</code>	18/02/2023 20:40	Carpeta de archivos
<code>jw02739-o004_t003_nircam_clear-f210m</code>	18/02/2023 20:40	Carpeta de archivos
<code>jw02739-o004_t003_nircam_clear-f300m</code>	18/02/2023 20:40	Carpeta de archivos
<code>jw02739-o004_t003_nircam_clear-f460m</code>	18/02/2023 20:40	Carpeta de archivos
<code>jw02739-o007_t005_nircam_clear-f277w</code>	18/02/2023 20:40	Carpeta de archivos

Número de programa: 2739

Detector: Nircam

Filtro: Clear-F140M

Log rápido creado por mí para inspeccionar los datos

File_NAME_(with_extension)	DATE-OBS	TIME-OBS	FILTER	EXPTIME	PROGRAM	OBSNUMBER	VISIT	SUBARRAY
<code>jw02739-o004_t003_nircam_clear-f140m_i2d.fits</code>	2022-07-12	06:28:25.913	F140M	1825.250	02739	004	001	FULL
<code>jw02739-o004_t003_nircam_clear-f210m_i2d.fits</code>	2022-07-12	06:52:35.384	F210M	1825.250	02739	004	001	FULL
<code>jw02739-o004_t003_nircam_clear-f300m_i2d.fits</code>	2022-07-12	06:28:25.913	F300M	1825.250	02739	004	001	FULL
<code>jw02739-o004_t003_nircam_clear-f460m_i2d.fits</code>	2022-07-12	06:52:35.448	F460M	1825.250	02739	004	001	FULL



En los datos de nivel 3 el tiempo puede ser el tiempo necesario para cubrir el mosaico.

Nuestra imagen tiene 5 dither positions (5 apuntados) y por eso aparecen tiempos tan elevados en los datos de nivel 3.



JWST User Documentation

- Home
- About
- Acronyms
- Helpdesk

Proposing Opportunities

- Opportunities and Policies
- > Call for Proposals for Cycle 2
- > Cycle 2 GTO Call for Proposals
- Director's Discretionary (DD) Time Proposals
- > General Science Policies
- > Peer Review Information - Cycle 2
- > Past Proposal Opportunities

Observatory

Home / Understanding JWST Data Files / JWST Data File Naming Conventions

JWST Data File Naming Conventions

JWST data files have unique names that map to the original proposal, observation, visit, instrument, and detector used.

On this page

- [Science data file names](#)
- [Association file names](#)

See also: [Getting Started with JWST Data, File Header Contents](#)
 Software documentation outside JDox: [File Naming Conventions](#), [Data Product Types](#)

Science data file names

Software documentation outside JDox: [Science Product Structures and Extensions](#)

Sesión PROAM - 23 de febrero - 20:00 h

Resampled 2-D data **i2d** and **s2d**

Images and spectra that have been resampled by the [resample](#) step use a different set of data arrays than other science products. Resampled 2-D images are stored in **i2d** products and resampled 2-D spectra are stored in **s2d** products. The FITS file structure for **i2d** and **s2d** products is as follows:

HDU	EXTNAME	HDU Type	Data Type	Dimensions
0	N/A	primary	N/A	N/A
1	SCI	IMAGE	float32	ncols x nrows
2	ERR	IMAGE	float32	ncols x nrows
3	CON	IMAGE	int32	ncols x nrows x nplanes
4	WHT	IMAGE	float32	ncols x nrows
5	VAR_POISSON	IMAGE	float32	ncols x nrows
6	VAR_RNOISE	IMAGE	float32	ncols x nrows
7	VAR_FLAT	IMAGE	float32	ncols x nrows
	HDRTAB*	BINTABLE	N/A	variable
	ASDF	BINTABLE	N/A	variable

SCI: 2-D data array containing the pixel values, in units of surface brightness

ERR: 2-D data array containing resampled uncertainty estimates, given as standard deviation

CON: 3-D context image, which encodes information about which input images contribute to a specific output pixel

WHT: 2-D weight image giving the relative weight of the output pixels

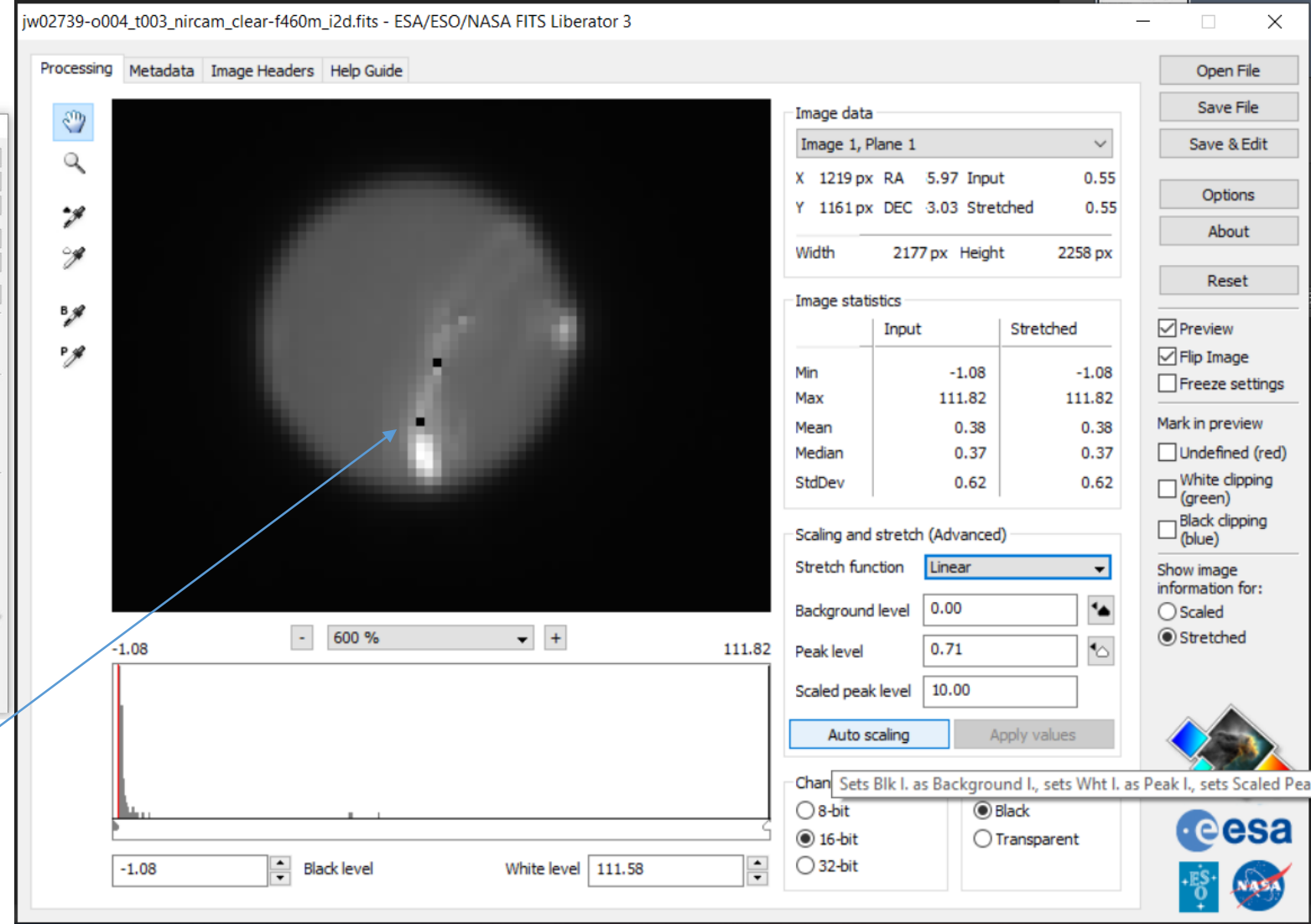
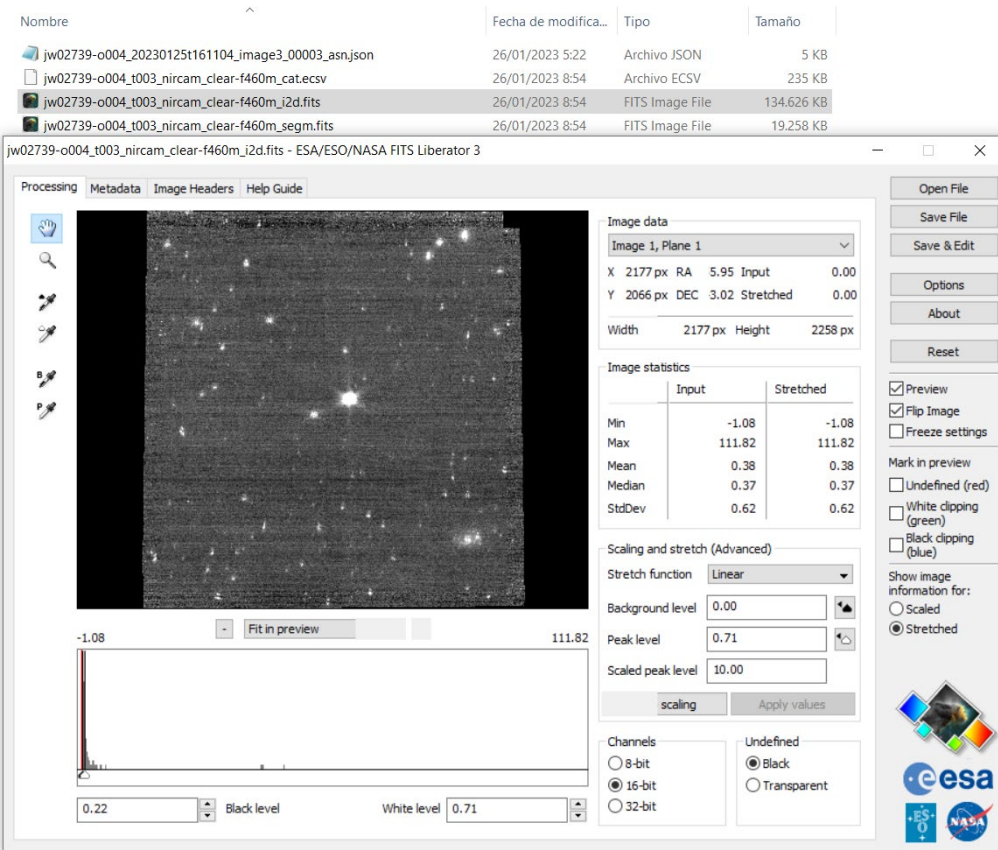
En general queremos los archivos i2d.fits

Archivos que contienen las imágenes calibradas y corregidas de distorsiones ópticas

La primera extensión contiene la imagen

La tercera extensión nos indica los pixeles que no se han considerado (aparecen a 0.0 en la imagen)

El nplanes depende del "número de grupos" de la observación



Píxeles identificados como “erróneos” por la pipeline del JWST: Típicamente píxeles en los que el brillo cambia entre cada lectura del detector (en grupos contiguos, en objetos móviles como asteroides, o un planeta rotante son píxeles falsos erróneos)

Si quereis buscar “asteroides” paseándose por las imágenes del Webb tendréis que buscarlos en datos de Level 2

Image #1

```

XTENSION= 'IMAGE'           / Image extension
BITPIX   =                  -32 / array data type
NAXIS    =                    2 / number of array dimensions
NAXIS1   =                   2177
NAXIS2   =                   2258
PCOUNT   =                    0 / number of parameters
GCOUNT   =                    1 / number of groups
EXTNAME  = 'SCI'            / extension name
MJD-BEG  =   59772.2865213897 / [d] exposure start time in MJD
MJD-AVG  =   59772.31866332844 / [d] exposure mid-point in MJD
MJD-END  =   59772.35673306713 / [d] exposure end time in MJD
TDB-BEG  =                    0.0 / [d] TDB time of exposure start in MJD
TDB-MID  =                    0.0 / [d] TDB time of exposure mid-point in MJD
TDB-END  =                    0.0 / [d] TDB time of exposure end in MJD
XPOSURE  =                   1825.25 / [s] Effective exposure time
TELAPSE  =                   1878.935 / [s] Total elapsed exposure time

```

JWST ephemeris information

```

REFRAME= 'EME2000'          / Ephemeris reference frame
EPH_TYPE= 'Definitive'      / Definitive or Predicted
EPH_TIME=   59772.29861111111 / [d] MJD time of position and velocity vectors
JWST_X   =   50206732.79941614 / [km] barycentric JWST X coordinate at MJD_AVG
JWST_Y   =  -132498056.9556976 / [km] barycentric JWST Y coordinate at MJD_AVG
JWST_Z   =  -57923555.31592071 / [km] barycentric JWST Z coordinate at MJD_AVG
OBSGEO-X=   444158937.583765 / [m] geocentric JWST X coordinate at MJD_AVG
OBSGEO-Y= -1302184313.77029 / [m] geocentric JWST Y coordinate at MJD_AVG
OBSGEO-Z= -1083122142.37145 / [m] geocentric JWST Z coordinate at MJD_AVG
JWST_DX  =  27.61308592062327 / [km/s] barycentric JWST X velocity at MJD_AVG
JWST_DY  =   9.075220423241916 / [km/s] barycentric JWST Y velocity at MJD_AVG
JWST_DZ  =   3.949346008148955 / [km/s] barycentric JWST Z velocity at MJD_AVG
OBSGEODX=   57.3746451089153 / [m/s] geocentric JWST X velocity at MJD_AVG
OBSGEODY=    7.214691365279 / [m/s] geocentric JWST Y velocity at MJD_AVG

```

Open File

Save File

Save & Edit

Options

About

Reset

 Preview Flip Image Freeze settings

Mark in preview

 Undefined (red) White clipping
(green) Black clipping
(blue)Show image
information for: Scaled Stretched

Imagen astrométrica resuelta.

Datos astrométricos utilizando

WCS: World Coordinate System

Processing Metadata Image Headers Help Guide

```

RAESYS = 'ICRS' / Name of the coordinate reference frame

Spacecraft pointing information

RA_V1 = 355.8331938919451 / [deg] RA of telescope V1 axis
DEC_V1 = -3.065199727828038 / [deg] Dec of telescope V1 axis
PA_V3 = 246.8662420868149 / [deg] Position angle of telescope V3 axis

WCS parameters

WCSAXES = 2 / number of World Coordinate System axes
CRPIX1 = 1062.294603517945 / axis 1 coordinate of the reference pixel
CRPIX2 = 1119.962032381795 / axis 2 coordinate of the reference pixel
CRVAL1 = 355.9704330387738 / first axis value at the reference pixel
CRVAL2 = -3.034104860828999 / second axis value at the reference pixel
CTYPE1 = 'RA---TAN' / Axis 1 type
CTYPE2 = 'DEC--TAN' / Axis 2 type
CUNIT1 = 'deg' / Axis 1 units
CUNIT2 = 'deg' / Axis 2 units
CDELTA1 = 1.75047144120139E-05 / Axis 1 coordinate increment at reference point
CDELTA2 = 1.75047144120139E-05 / Axis 2 coordinate increment at reference point
PC1_1 = 0.3925218597199142 / linear transformation matrix element
PC1_2 = -0.9197426757751431 / linear transformation matrix element
PC2_1 = -0.9197426757751431 / linear transformation matrix element
PC2_2 = -0.3925218597199142 / linear transformation matrix element
S_REGION= 'POLYGON ICRS 355.981170810 -3.009329775 355.944766823 &'
CONTINUE '-3.024844203 355.959745474 -3.059893787 355.996150426 -3.044378856&'
CONTINUE '' / spatial extent of the observation
VELOSYS = -27612.94 / [m/s] Barycentric correction to radial velocity
MT_RA = 355.9702655750029 / [deg] Moving target RA at exposure mid-point
MT_DEC = -3.036356926997833 / [deg] Moving target Dec at exposure mid-point
MT_AVRA = 355.9701351009818 / [deg] Moving target average RA over exposures
MT_AVDEC= -3.036429696090237 / [deg] Moving target average Dec over exposures
EXTVER = 1 / extension value

```

Open File

Save File

Save & Edit

Options

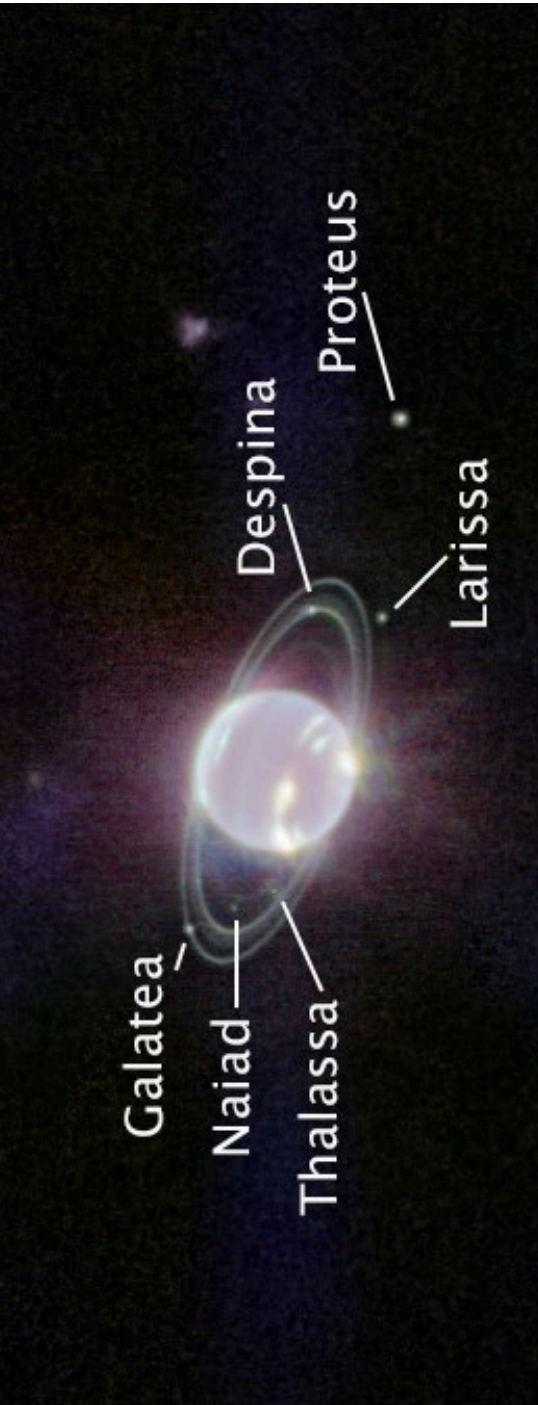
About

Reset

 Preview Flip Image Freeze settings

Mark in preview

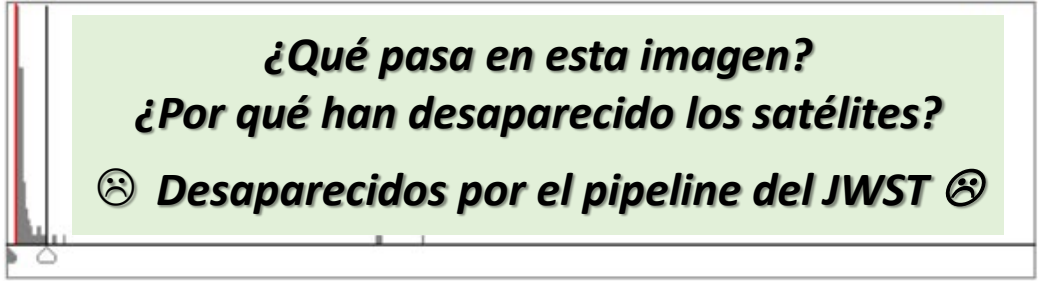
 Undefined (red) White clipping
(green) Black clipping
(blue)Show image
information for: Scaled Stretched



Processing Metadata Image Headers Help Guide



-1.08 [- 200 % +] 111.82



-1.08 [] Black level White level [3.27]

Image data

Image 1, Plane 1

X	1294 px	RA	5.97	Input	0.31
Y	1138 px	DEC	3.03	Stretched	0.31
Width	2177 px	Height	2258 px		

Image statistics

	Input	Stretched
Min	-1.08	-1.08
Max	111.82	111.82
Mean	0.38	0.38
Median	0.37	0.37
StdDev	0.62	0.62

Scaling and stretch (Advanced)

Stretch function: Linear

Background level: 0.00

Peak level: 0.71

Scaled peak level: 10.00

Auto scaling Apply values

Channels: 8-bit, 16-bit, 32-bit

Undefined: Black, Transparent

- Open File
- Save File
- Save & Edit
- Options
- About
- Reset

- Preview
- Flip Image
- Freeze settings

- Mark in preview
- Undefined (red)
 - White clipping (green)
 - Black clipping (blue)

- Show image information for:
- Scaled
 - Stretched

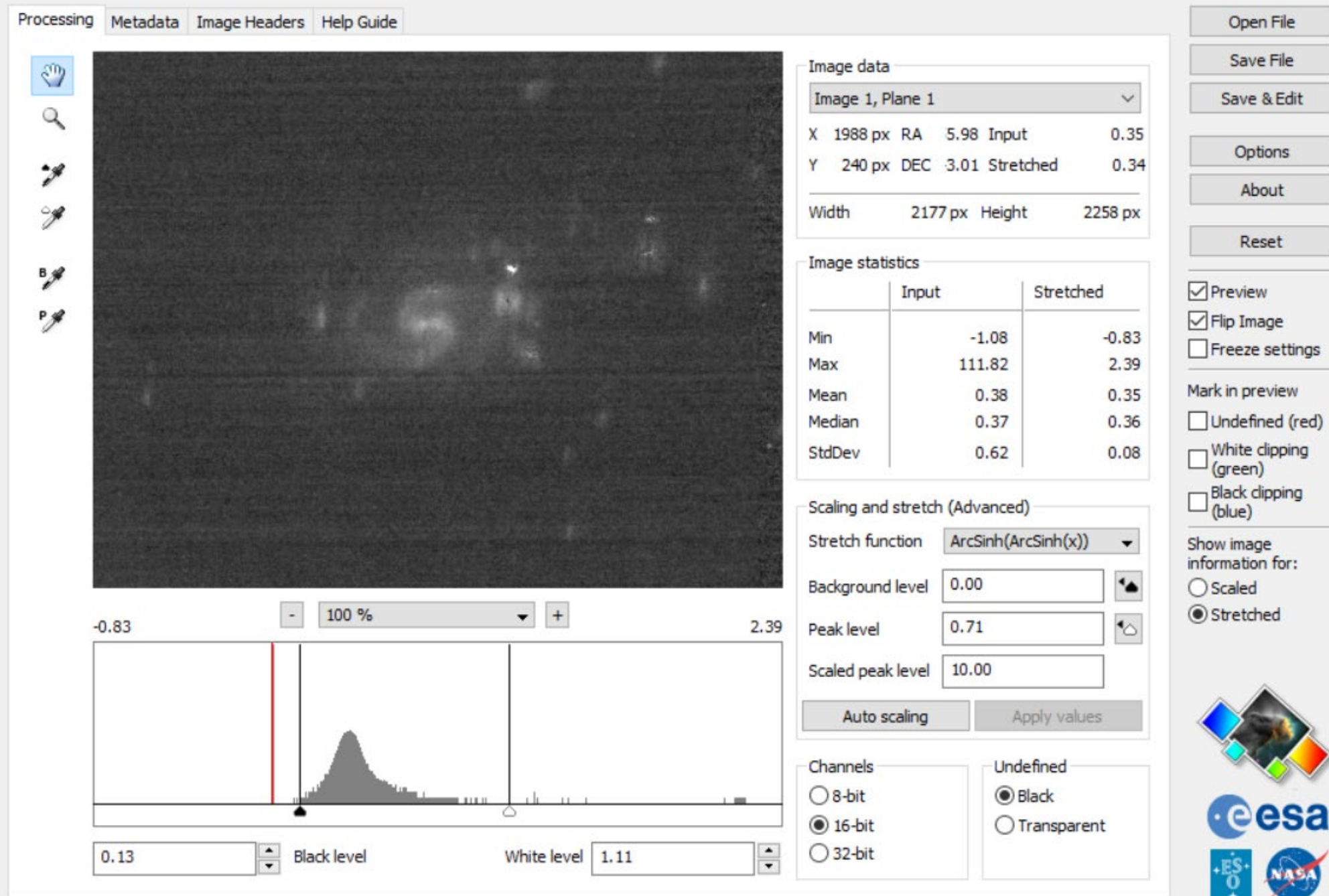


Esta imagen es una imagen de “**Level 3**” apuntando sobre un objeto móvil: Neptuno.

Las galaxias salen movidas y los satélites pequeños desaparecen porque no están en las mismas posiciones en diferentes exposiciones tomadas en tiempos diferentes.

Necesitamos las exposiciones originales en los detectores B1, B2, B3, B4 y BLONG

Processing Metadata Image Headers Help Guide



The screenshot shows the FITS Liberator software interface. The main window displays a dark astronomical image with a central bright object (Neptune) and surrounding galaxies. The interface includes a toolbar on the left with icons for pan, zoom, and various processing tools. The right sidebar contains buttons for file operations (Open File, Save File, Save & Edit, Options, About, Reset) and checkboxes for Preview, Flip Image, and Freeze settings. Below these are options for marking in preview (Undefined, White clipping, Black clipping) and a section for showing image information (Scaled, Stretched).

Image data

Image 1, Plane 1			
X	1988 px	RA	5.98 Input 0.35
Y	240 px	DEC	3.01 Stretched 0.34
Width	2177 px	Height	2258 px

Image statistics

	Input	Stretched
Min	-1.08	-0.83
Max	111.82	2.39
Mean	0.38	0.35
Median	0.37	0.36
StdDev	0.62	0.08

Scaling and stretch (Advanced)

Stretch function: ArcSinh(ArcSinh(x))

Background level: 0.00

Peak level: 0.71

Scaled peak level: 10.00

Buttons: Auto scaling, Apply values

Channels

- 8-bit
- 16-bit
- 32-bit

Undefined

- Black
- Transparent

Histogram

Scale: 100 %

Min: -0.83, Max: 2.39

Black level: 0.13, White level: 1.11



Esto no pasa con la imagen de LDN 1527 que está “perfecta” en su versión Level 3

- jw02739-o005_t004_nircam_clear-f115w
- jw02739-o005_t004_nircam_clear-f187n
- jw02739-o005_t004_nircam_clear-f200w
- jw02739-o005_t004_nircam_clear-f335m
- jw02739-o005_t004_nircam_clear-f444w
- jw02739-o005_t004_nircam_f444w-f470n

El pipeline del JWST es “casi” perfecto para su objetivo fundamental y solo da problemas con objetos móviles del sistema solar

jw02739-o005_t004_nircam_f444w-f470n_i2d.fits - ESA/ESO/NASA FITS Liberator 3

Processing Metadata Image Headers Help Guide

Image data

Image 1, Plane 1

X	1240 px	RA	9.98	Input	2.62
Y	659 px	DEC	6.06	Stretched	2.62

Width	2269 px	Height	2265 px
-------	---------	--------	---------

Image statistics

	Input	Stretched
Min	-1.71	-1.71
Max	1005.35	1005.35
Mean	1.27	1.27
Median	0.89	0.89
StdDev	1.94	1.94

Scaling and stretch (Advanced)

Stretch function: Linear

Background level: 0.00

Peak level: 8.52

Scaled peak level: 10.00

scaling Apply values

Channels

8-bit
16-bit
32-bit

Undefined

Black
Transparent

Open File
Save File
Save & Edit
Options
About
Reset

Preview
 Flip Image
 Freeze settings

Mark in preview

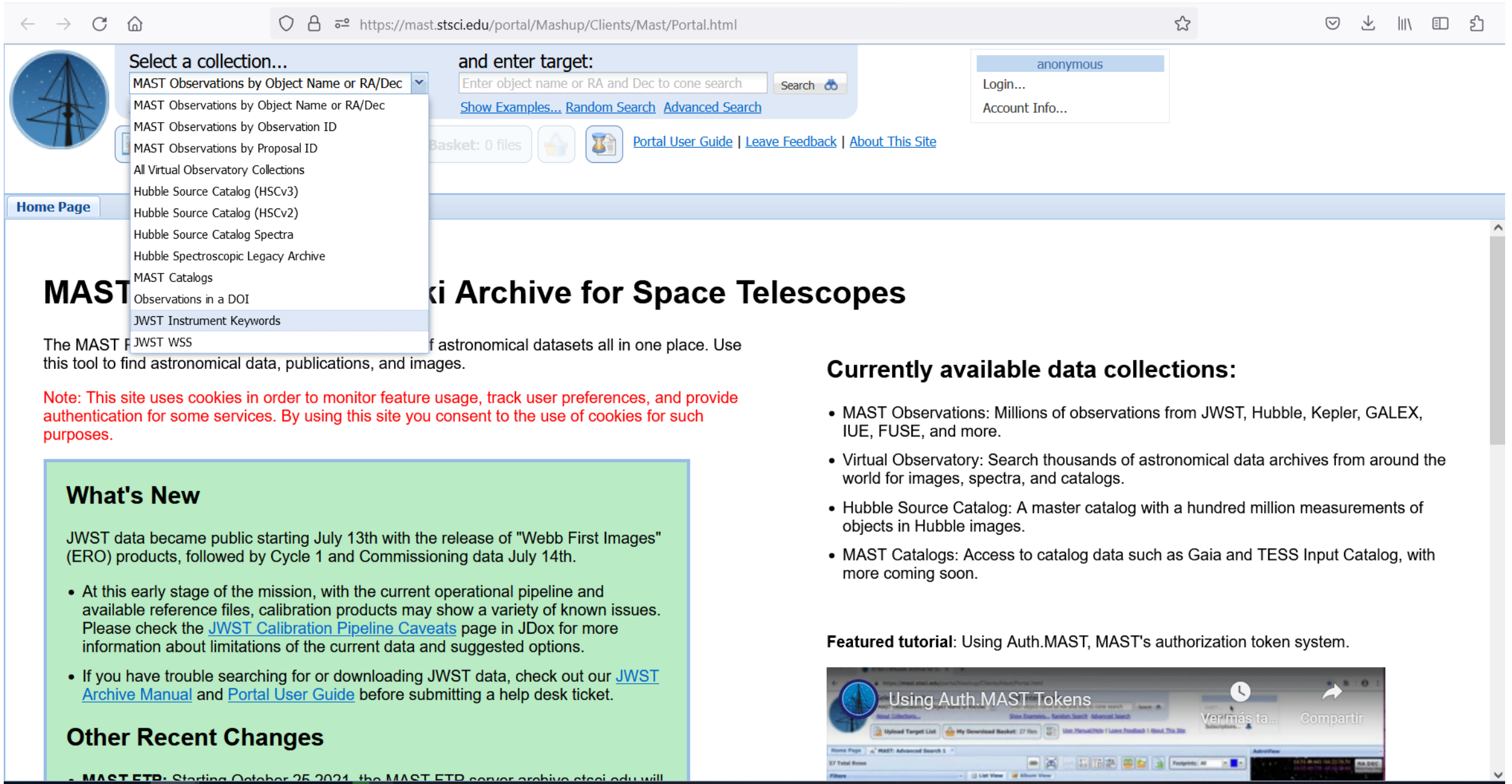
Undefined (red)
 White clipping (green)
 Black clipping (blue)

Show image information for:

Scaled
 Stretched

esa
ESO
NASA

Bajando datos de Nivel 2



The screenshot shows the MAST Portal website. The browser address bar displays <https://mast.stsci.edu/portal/Mashup/Clients/Mast/Portal.html>. The page features a search bar with the text "and enter target:" and a search button. Below the search bar, there are links for "Show Examples...", "Random Search", and "Advanced Search". A dropdown menu is open, showing a list of data collections under the heading "Select a collection...". The collections listed are: "MAST Observations by Object Name or RA/Dec", "MAST Observations by Object Name or RA/Dec", "MAST Observations by Observation ID", "MAST Observations by Proposal ID", "All Virtual Observatory Collections", "Hubble Source Catalog (HSCv3)", "Hubble Source Catalog (HSCv2)", "Hubble Source Catalog Spectra", "Hubble Spectroscopic Legacy Archive", "MAST Catalogs", "Observations in a DOI", and "JWST Instrument Keywords". The "JWST Instrument Keywords" option is highlighted. The page also includes a "Home Page" link, a "Basket: 0 files" indicator, and a "Portal User Guide" link. The main heading of the page is "MAST Archive for Space Telescopes". Below the heading, there is a paragraph: "The MAST JWST WSS of astronomical datasets all in one place. Use this tool to find astronomical data, publications, and images." A red note states: "Note: This site uses cookies in order to monitor feature usage, track user preferences, and provide authentication for some services. By using this site you consent to the use of cookies for such purposes." The page also features a "What's New" section with a green background, containing text about JWST data becoming public and a list of links for "JWST Calibration Pipeline Caveats", "JWST Archive Manual", and "Portal User Guide". The "Other Recent Changes" section is partially visible at the bottom. On the right side of the page, there is a "Currently available data collections:" section with a list of data collections: "MAST Observations: Millions of observations from JWST, Hubble, Kepler, GALEX, IUE, FUSE, and more.", "Virtual Observatory: Search thousands of astronomical data archives from around the world for images, spectra, and catalogs.", "Hubble Source Catalog: A master catalog with a hundred million measurements of objects in Hubble images.", and "MAST Catalogs: Access to catalog data such as Gaia and TESS Input Catalog, with more coming soon." Below this list, there is a "Featured tutorial: Using Auth.MAST, MAST's authorization token system." At the bottom right, there is a thumbnail for a tutorial titled "Using Auth.MAST Tokens".

Home Page

MAST Archive for Space Telescopes

The MAST JWST WSS of astronomical datasets all in one place. Use this tool to find astronomical data, publications, and images.

Note: This site uses cookies in order to monitor feature usage, track user preferences, and provide authentication for some services. By using this site you consent to the use of cookies for such purposes.

What's New

JWST data became public starting July 13th with the release of "Webb First Images" (ERO) products, followed by Cycle 1 and Commissioning data July 14th.

- At this early stage of the mission, with the current operational pipeline and available reference files, calibration products may show a variety of known issues. Please check the [JWST Calibration Pipeline Caveats](#) page in JDoc for more information about limitations of the current data and suggested options.
- If you have trouble searching for or downloading JWST data, check out our [JWST Archive Manual](#) and [Portal User Guide](#) before submitting a help desk ticket.

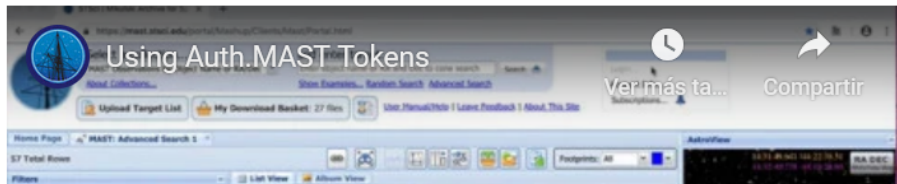
Other Recent Changes

MAST FTP: Starting October 25 2024, the MAST FTP server archive.stsci.edu will

Currently available data collections:

- MAST Observations: Millions of observations from JWST, Hubble, Kepler, GALEX, IUE, FUSE, and more.
- Virtual Observatory: Search thousands of astronomical data archives from around the world for images, spectra, and catalogs.
- Hubble Source Catalog: A master catalog with a hundred million measurements of objects in Hubble images.
- MAST Catalogs: Access to catalog data such as Gaia and TESS Input Catalog, with more coming soon.

Featured tutorial: Using Auth.MAST, MAST's authorization token system.



JWST Advanced Search

Search Export Table Records Found: 208

Tras seleccionar neptune como antes

Applied Filters

Clear All targname: neptune

Columns

- Filter Columns: Column name
- expstart
- filter
- observtn
- program
- targ_dec
- targ_ra
- targname
- visit
- act_id
- apername

Filters

expstart

2022-02-02 05:07:15 2023-02-19 00:44:11

filter

Enter text here or choose from below

Name	Quantity
<input type="checkbox"/> F322W2	(54.526 Total)
<input type="checkbox"/> F444W	(47.518 Total)
<input type="checkbox"/> F356W	(43.155 Total)
<input type="checkbox"/> F200W	(36.139 Total)
<input type="checkbox"/> F115W	(31.648 Total)

Show 20 More

observtn

Enter text here

This column must be searched via the text box at the top of this panel

program

Enter text here

targ_dec

targ_ra

Accesso a datos de nivel 2 (detector a detector; NECESARIO para objetos móviles) y 3 (compuestas por el pipeline del JWST, ok en general para objetos estelares y "cielo profundo")

https://mast.stsci.edu/portal/Mashup/Clients/Mast/Portal.html

Select a collection... JWST Instrument Keywords Advanced Search

About Collections... Instrument: Nircam

Upload Target List My Download Basket: 0 files

Home Page JWST: Advanced Search 1

Displaying 200 of 208 Total Rows

Filters

Keyword/Text Filter

fileSetName

productLevel

act_id

Details: JWST: Advanced Search 1

Details

Radius: 0.2 Degrees

filename (filename):	jw02739004001_02107_00005_nrcb4_i2d.fits
fileSetName (fileSetName):	jw02739004001_02107_00005
productLevel (productLevel):	2b
act_id (act_id):	07
apername (apername):	NRCB4_FULL
asnpool (asnpool):	jw02739_20230125t161104_pool.csv
ashtable (ashtable):	jw02739-o004_20230125t161104_image2_00029_asn
bartdelt (bartdelt):	237.096784659661
bendtime (bendtime):	59772.3594775633
bkqdtarg (bkqdtarg):	f
bkqllevel (bkqllevel):	NaN
bkqsub (bkqsub):	
bmvertime (bmvertime):	59772.3577376487
bstrtime (bstrtime):	59772.3559977341
category (category):	DD
cont_id (cont_id):	0
datamode (datamode):	32
dataprob (dataprob):	f
date (date_mjd):	59970.2237809722 (2023-01-26 05:22:14)
date_end (date_end_mjd):	59772.3567330556 (2022-07-12 08:33:41)
date_obs (date_obs_mjd):	59772.3532535417 (2022-07-12 08:28:41)
detector (detector):	NRCB4
drpfrms1 (drpfrms1):	0
drpfrms3 (drpfrms3):	0
duration (duration):	289.893
effexptm (effexptm):	279.156
effinttm (effinttm):	139.57801

AstroView

23:44:32.963 -03:00:54.84
23:43:52.869 -03:02:10.84

RA DEC
hhmmss/deg

Download Manager

Download Basket | Download History

Remove Selected | Remove All

200 Total Files | 567.47 MB Selected / 51200 MB Max | Download | Batch Retrieval

Filters | Clear Filters

Recommended Products
 Uncheck Minimum Recommended Products to see all files. [Learn more.](#)
 Minimum Recommended Products (200 of 200)

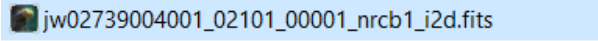
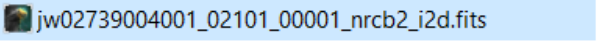
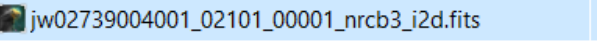
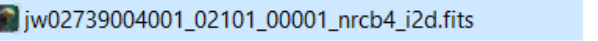
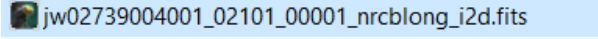
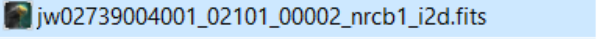
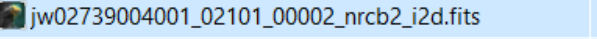
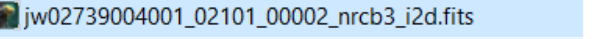
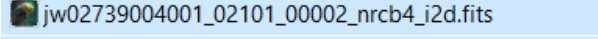
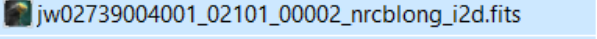
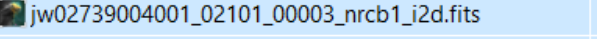
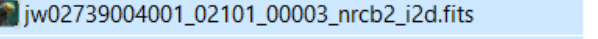
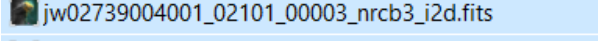
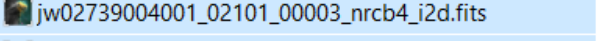
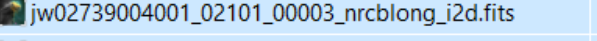
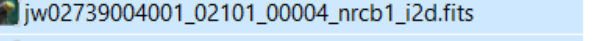
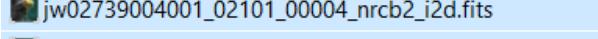
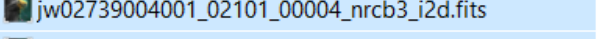
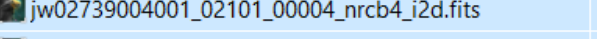
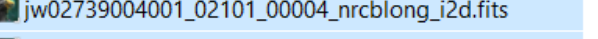
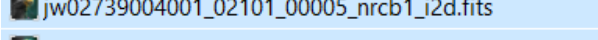
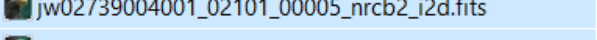
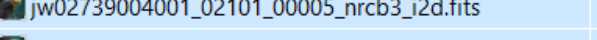
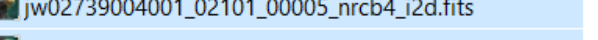
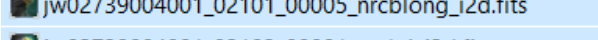
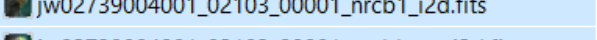
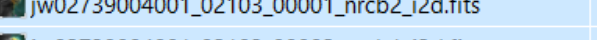
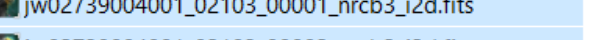
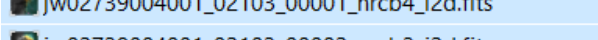
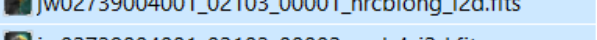
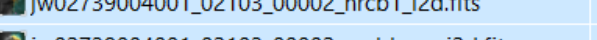
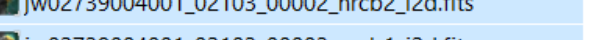
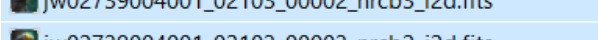
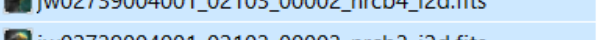
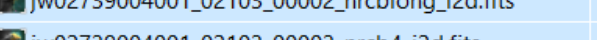
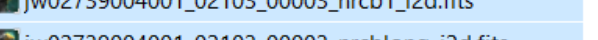
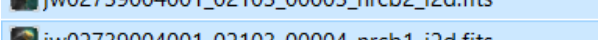
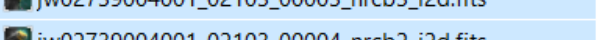
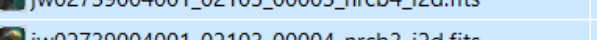
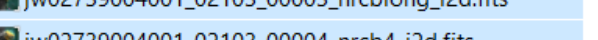
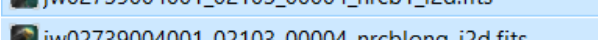
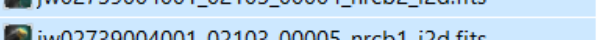
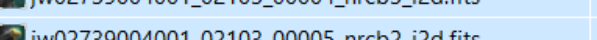
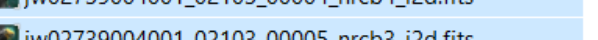
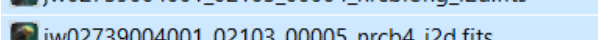
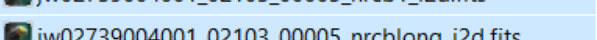
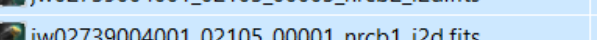
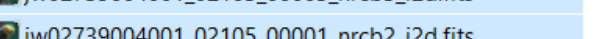
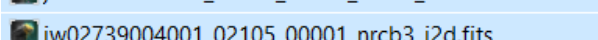
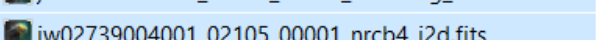
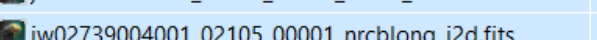
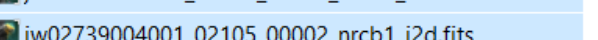
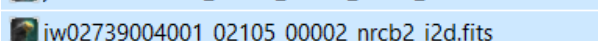
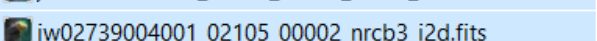
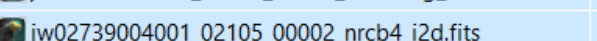
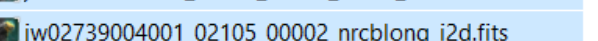
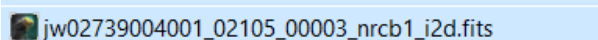
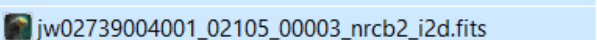
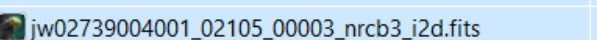
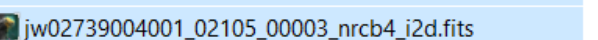
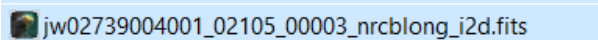
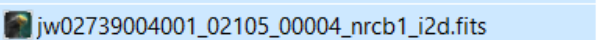
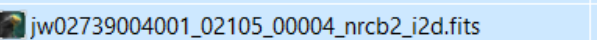
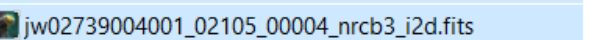
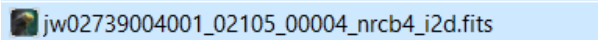
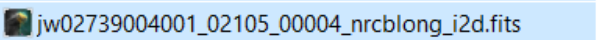
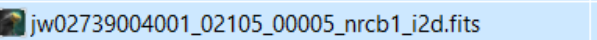
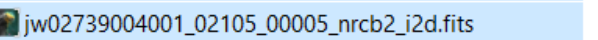
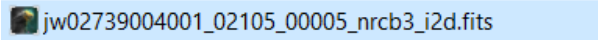
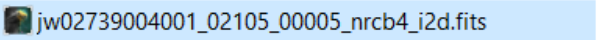
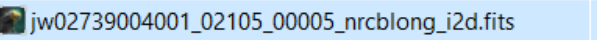
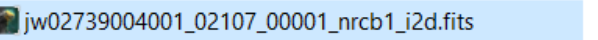
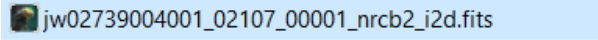
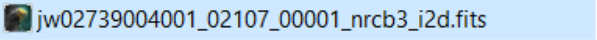
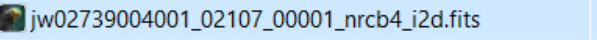
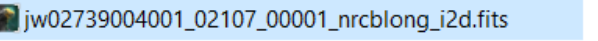
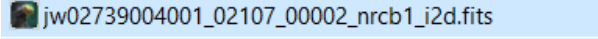
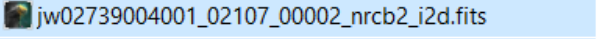
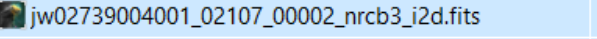
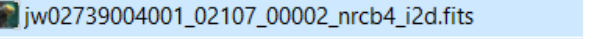
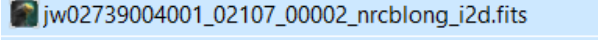
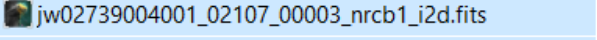
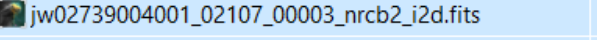
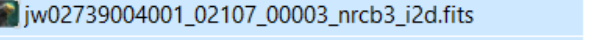
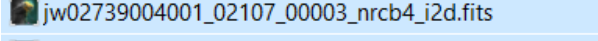
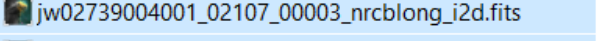
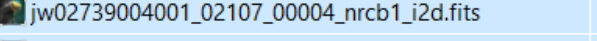
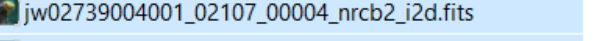
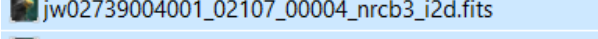
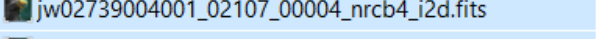
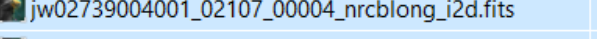
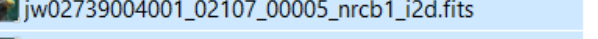
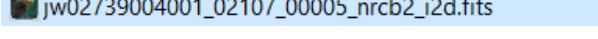
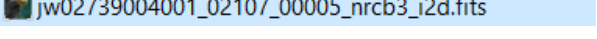
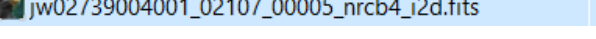
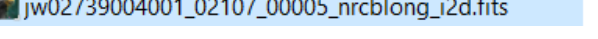




Files
 Mission > Observation > File

Files	Actions	File Size	Product Type	Batch	Desc
200					
10					
<input checked="" type="checkbox"/> jw02739004001_02107_00003_nrcb3_i2d.fits		113.176 MB	file	Yes	
<input type="checkbox"/> jw02739004001_02107_00003_nrcb2_cal.fits		112.094 MB	file	Yes	
<input checked="" type="checkbox"/> jw02739004001_02107_00003_nrcb2_i2d.fits		113.176 MB	file	Yes	
<input type="checkbox"/> jw02739004001_02107_00003_nrcblong_cal.fits		112.094 MB	file	Yes	
<input checked="" type="checkbox"/> jw02739004001_02107_00003_nrcblong_i2d.fits		114.656 MB	file	Yes	
<input type="checkbox"/> jw02739004001_02107_00003_nrcb1_cal.fits		112.094 MB	file	Yes	
<input checked="" type="checkbox"/> jw02739004001_02107_00003_nrcb1_i2d.fits		112.964 MB	file	Yes	
<input type="checkbox"/> jw02739004001_02107_00003_nrcb4_cal.fits		112.094 MB	file	Yes	
<input checked="" type="checkbox"/> jw02739004001_02107_00003_nrcb4_i2d.fits		113.503 MB	file	Yes	
<input type="checkbox"/> jw02739004001_02107_00003_nrcb3_cal.fits		112.094 MB	file	Yes	
10					
10					
10					
10					
10					
10					
10					
10					
10					
10					
10					
10					
10					
10					
10					

Details
 Summary

Observation ID (obs_id): jw02739004001_02107_00003
 Mission (obs_collection): JWST
 Product Type (dataprodut_type): file
 Product Group (productGroupDescription): Minimum Recommended Products
 URI (dataURI): mast:JWST/product /jw02739004001_02107_00003
 Project (project): JWST
 Filename (productFilename): jw02739004001_02107_00003_
 referenceAvailable: false
 File Size (size): 119016000
 dataRights: PUBLIC

La imagen de Neptuno que antes hemos bajado en 4 filtros está hecha en realidad de múltiples imágenes: 5 dither positions, 5 detectores, 4 filtros: La imagen de Neptuno son 100 fits para jugar

 jw02739004001_02101_00001_nrcb1_i2d.fits	 jw02739004001_02101_00001_nrcb2_i2d.fits	 jw02739004001_02101_00001_nrcb3_i2d.fits	 jw02739004001_02101_00001_nrcb4_i2d.fits
 jw02739004001_02101_00001_nrcblong_i2d.fits	 jw02739004001_02101_00002_nrcb1_i2d.fits	 jw02739004001_02101_00002_nrcb2_i2d.fits	 jw02739004001_02101_00002_nrcb3_i2d.fits
 jw02739004001_02101_00002_nrcb4_i2d.fits	 jw02739004001_02101_00002_nrcblong_i2d.fits	 jw02739004001_02101_00003_nrcb1_i2d.fits	 jw02739004001_02101_00003_nrcb2_i2d.fits
 jw02739004001_02101_00003_nrcb3_i2d.fits	 jw02739004001_02101_00003_nrcb4_i2d.fits	 jw02739004001_02101_00003_nrcblong_i2d.fits	 jw02739004001_02101_00004_nrcb1_i2d.fits
 jw02739004001_02101_00004_nrcb2_i2d.fits	 jw02739004001_02101_00004_nrcb3_i2d.fits	 jw02739004001_02101_00004_nrcb4_i2d.fits	 jw02739004001_02101_00004_nrcblong_i2d.fits
 jw02739004001_02101_00005_nrcb1_i2d.fits	 jw02739004001_02101_00005_nrcb2_i2d.fits	 jw02739004001_02101_00005_nrcb3_i2d.fits	 jw02739004001_02101_00005_nrcb4_i2d.fits
 jw02739004001_02101_00005_nrcblong_i2d.fits	 jw02739004001_02103_00001_nrcb1_i2d.fits	 jw02739004001_02103_00001_nrcb2_i2d.fits	 jw02739004001_02103_00001_nrcb3_i2d.fits
 jw02739004001_02103_00001_nrcb4_i2d.fits	 jw02739004001_02103_00001_nrcblong_i2d.fits	 jw02739004001_02103_00002_nrcb1_i2d.fits	 jw02739004001_02103_00002_nrcb2_i2d.fits
 jw02739004001_02103_00002_nrcb3_i2d.fits	 jw02739004001_02103_00002_nrcb4_i2d.fits	 jw02739004001_02103_00002_nrcblong_i2d.fits	 jw02739004001_02103_00003_nrcb1_i2d.fits
 jw02739004001_02103_00003_nrcb2_i2d.fits	 jw02739004001_02103_00003_nrcb3_i2d.fits	 jw02739004001_02103_00003_nrcb4_i2d.fits	 jw02739004001_02103_00003_nrcblong_i2d.fits
 jw02739004001_02103_00004_nrcb1_i2d.fits	 jw02739004001_02103_00004_nrcb2_i2d.fits	 jw02739004001_02103_00004_nrcb3_i2d.fits	 jw02739004001_02103_00004_nrcb4_i2d.fits
 jw02739004001_02103_00004_nrcblong_i2d.fits	 jw02739004001_02103_00005_nrcb1_i2d.fits	 jw02739004001_02103_00005_nrcb2_i2d.fits	 jw02739004001_02103_00005_nrcb3_i2d.fits
 jw02739004001_02103_00005_nrcb4_i2d.fits	 jw02739004001_02103_00005_nrcblong_i2d.fits	 jw02739004001_02105_00001_nrcb1_i2d.fits	 jw02739004001_02105_00001_nrcb2_i2d.fits
 jw02739004001_02105_00001_nrcb3_i2d.fits	 jw02739004001_02105_00001_nrcb4_i2d.fits	 jw02739004001_02105_00001_nrcblong_i2d.fits	 jw02739004001_02105_00002_nrcb1_i2d.fits
 jw02739004001_02105_00002_nrcb2_i2d.fits	 jw02739004001_02105_00002_nrcb3_i2d.fits	 jw02739004001_02105_00002_nrcb4_i2d.fits	 jw02739004001_02105_00002_nrcblong_i2d.fits
 jw02739004001_02105_00003_nrcb1_i2d.fits	 jw02739004001_02105_00003_nrcb2_i2d.fits	 jw02739004001_02105_00003_nrcb3_i2d.fits	 jw02739004001_02105_00003_nrcb4_i2d.fits
 jw02739004001_02105_00003_nrcblong_i2d.fits	 jw02739004001_02105_00004_nrcb1_i2d.fits	 jw02739004001_02105_00004_nrcb2_i2d.fits	 jw02739004001_02105_00004_nrcb3_i2d.fits
 jw02739004001_02105_00004_nrcb4_i2d.fits	 jw02739004001_02105_00004_nrcblong_i2d.fits	 jw02739004001_02105_00005_nrcb1_i2d.fits	 jw02739004001_02105_00005_nrcb2_i2d.fits
 jw02739004001_02105_00005_nrcb3_i2d.fits	 jw02739004001_02105_00005_nrcb4_i2d.fits	 jw02739004001_02105_00005_nrcblong_i2d.fits	 jw02739004001_02107_00001_nrcb1_i2d.fits
 jw02739004001_02107_00001_nrcb2_i2d.fits	 jw02739004001_02107_00001_nrcb3_i2d.fits	 jw02739004001_02107_00001_nrcb4_i2d.fits	 jw02739004001_02107_00001_nrcblong_i2d.fits
 jw02739004001_02107_00002_nrcb1_i2d.fits	 jw02739004001_02107_00002_nrcb2_i2d.fits	 jw02739004001_02107_00002_nrcb3_i2d.fits	 jw02739004001_02107_00002_nrcb4_i2d.fits
 jw02739004001_02107_00002_nrcblong_i2d.fits	 jw02739004001_02107_00003_nrcb1_i2d.fits	 jw02739004001_02107_00003_nrcb2_i2d.fits	 jw02739004001_02107_00003_nrcb3_i2d.fits
 jw02739004001_02107_00003_nrcb4_i2d.fits	 jw02739004001_02107_00003_nrcblong_i2d.fits	 jw02739004001_02107_00004_nrcb1_i2d.fits	 jw02739004001_02107_00004_nrcb2_i2d.fits
 jw02739004001_02107_00004_nrcb3_i2d.fits	 jw02739004001_02107_00004_nrcb4_i2d.fits	 jw02739004001_02107_00004_nrcblong_i2d.fits	 jw02739004001_02107_00005_nrcb1_i2d.fits
 jw02739004001_02107_00005_nrcb2_i2d.fits	 jw02739004001_02107_00005_nrcb3_i2d.fits	 jw02739004001_02107_00005_nrcb4_i2d.fits	 jw02739004001_02107_00005_nrcblong_i2d.fits

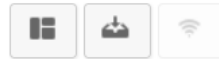
jwst science archive



[HOME](#)
[SEARCH](#)
[RESULTS](#)
[ESASKY SEARCH](#)
[ADQL SEARCH](#)
[GUIDE](#)

RESULTS #1 ✕

JWST Observations (315)



<input checked="" type="checkbox"/>	Observation ID				ID	Target name	Target Desc.	RA	Dec	Instrument	Obs. Mode	Proposal
<input checked="" type="checkbox"/>	jw02739-o004_t003_nircam_clear-f300m	📄	📶			NEPTUNE		23h 43m 52.89s	-03d 02' 10.66"	NIRCAM	NRC_IMAGE	2739 🌐
<input checked="" type="checkbox"/>	jw02739-o004_t003_nircam_clear-f140m	📄	📶			NEPTUNE		23h 43m 52.82s	-03d 02' 11.25"	NIRCAM	NRC_IMAGE	2739 🌐
<input checked="" type="checkbox"/>	jw02739-o004_t003_nircam_clear-f460m	📄	📶			NEPTUNE		23h 43m 52.86s	-03d 02' 10.88"	NIRCAM	NRC_IMAGE	2739 🌐
<input checked="" type="checkbox"/>	jw02739-o004_t003_nircam_clear-f210m	📄	📶			NEPTUNE		23h 43m 52.86s	-03d 02' 10.88"	NIRCAM	NRC_IMAGE	2739 🌐
<input checked="" type="checkbox"/>	jw02739004001_02105_00001_nrcblong	📄	📶			NEPTUNE		23h 43m 52.85s	-03d 02' 10.96"	NIRCAM	NRC_IMAGE	2739 🌐
<input checked="" type="checkbox"/>	jw02739004001_02107_00004_nrcb4	📄	📶			NEPTUNE		23h 43m 52.78s	-03d 02' 11.56"	NIRCAM	NRC_IMAGE	2739 🌐
<input checked="" type="checkbox"/>	jw02739004001_02101_00001_nrcb2	📄	📶			NEPTUNE		23h 43m 52.90s	-03d 02' 10.49"	NIRCAM	NRC_IMAGE	2739 🌐
<input checked="" type="checkbox"/>	jw02739004001_02105_00002_nrcb2	📄	📶			NEPTUNE		23h 43m 52.84s	-03d 02' 11.03"	NIRCAM	NRC_IMAGE	2739 🌐
<input checked="" type="checkbox"/>	jw02739004001_02107_00001_nrcb1	📄	📶			NEPTUNE		23h 43m 52.80s	-03d 02' 11.24"	NIRCAM	NRC_IMAGE	2739 🌐

jwst science archive



- HOME
- SEARCH
- RESULTS
- ESASKY SEARCH
- ADQL SEARCH
- GUIDE

RESULTS #1 ✕

JWST Observations (315)



<input checked="" type="checkbox"/>	Observation ID				Target name	Target Desc.	RA
<input checked="" type="checkbox"/>	jw02739-o004_t003_nircam_clear-f300m				NEPTUNE		23h 43m 52.89s
<input checked="" type="checkbox"/>	jw02739-o004_t003_nircam_clear-f140m				NEPTUNE		23h 43m 52.82s
<input checked="" type="checkbox"/>	jw02739-o004_t003_nircam_clear-f460m				NEPTUNE		23h 43m 52.86s
<input checked="" type="checkbox"/>	jw02739-o004_t003_nircam_clear-f210m				NEPTUNE		23h 43m 52.86s
<input checked="" type="checkbox"/>	jw02739004001_02105_00001_nrcblong				NEPTUNE		23h 43m 52.85s
<input checked="" type="checkbox"/>	jw02739004001_02107_00004_nrcb4				NEPTUNE		23h 43m 52.78s
<input checked="" type="checkbox"/>	jw02739004001_02101_00001_nrcb2				NEPTUNE		23h 43m 52.90s
<input checked="" type="checkbox"/>	jw02739004001_02105_00002_nrcb2				NEPTUNE		23h 43m 52.84s

Save table results as

CSV
VOTable

All rows
Selected rows

Download Products

All processing levels
Selected level only
Level 1 only

Product preview:

- jw02739**
 - level_3
 - level_2
 - level_1

Product info:

Total number of products: 2216 items.

Save table results as

CSV

VOTable

All rows
Selected rows

Download Products

All processing levels
Selected level only
Level 1 only

Product preview:

[-] jw02739

[+] level_3

[+] level_2

[+] level_1

Product info:

```
a0fe-1b58251f3332%2C0f884bff-a5da-4cfb-9913-8231dff5e336%2C2b00ed8d-1b2d-4d0b-87cf-c0fdb93b6869%2C10034f18-64ff-45e5-b8f6-d3a35566a39c%2C323eb23f-cef2-4af7-aa36-3083a5859c38%2C56dfa509-8337-4df0-af62-3187d4c2620d%2C6ac5bfc2-1cd8-4a65-ab49-a604bc532d3b&compress=TRUE&RETRIEVAL_TYPE=OBSERVATION&DATA_RETRIEVAL_ORIGIN=UI&RETRIEVAL_ACCESS=DEFERRED
```

Download

Close



anonymous1676748824592.zip

Tiempo restante desconocido — 68,0 MB (1,1 MB/seg.)



Normalmente nos interesarán solo los datos de nivel 3.

A veces, por ejemplo en objetos móviles, nos interesarán los datos de nivel 2.

Excepcionalmente nos interesarán los datos de nivel 1 que incluyen las imágenes “uncal” con todos los niveles de exposición y pueden incluir información adicional (por ejemplo sobre las estrellas de guía FGS)

Catálogo de estos datos (generado apartir de las cabeceras fits)

File_NAME	DATE-OBS	TIME-OBS	FILTER	EXPTIME	PROGRAM	OBSNUMBER	VISIT	SUBARRAY
jw02739004001_02101_00001_nrcb1_i2d.fits	7/12/2022	06:28:25.913	F140M	85,894	2739	4	1	FULL
jw02739004001_02101_00001_nrcb2_i2d.fits	7/12/2022	06:28:25.913	F140M	85,894	2739	4	1	FULL
jw02739004001_02101_00001_nrcb3_i2d.fits	7/12/2022	06:28:25.913	F140M	85,894	2739	4	1	FULL
jw02739004001_02101_00001_nrcb4_i2d.fits	7/12/2022	06:28:25.913	F140M	85,894	2739	4	1	FULL
jw02739004001_02101_00002_nrcb1_i2d.fits	7/12/2022	06:32:54.329	F140M	85,894	2739	4	1	FULL
jw02739004001_02101_00002_nrcb2_i2d.fits	7/12/2022	06:32:54.329	F140M	85,894	2739	4	1	FULL
jw02739004001_02101_00002_nrcb3_i2d.fits	7/12/2022	06:32:54.329	F140M	85,894	2739	4	1	FULL
jw02739004001_02101_00002_nrcb4_i2d.fits	7/12/2022	06:32:54.393	F140M	85,894	2739	4	1	FULL
jw02739004001_02101_00003_nrcb1_i2d.fits	7/12/2022	06:37:12.057	F140M	85,894	2739	4	1	FULL
jw02739004001_02101_00003_nrcb2_i2d.fits	7/12/2022	06:37:12.057	F140M	85,894	2739	4	1	FULL
jw02739004001_02101_00003_nrcb3_i2d.fits	7/12/2022	06:37:12.057	F140M	85,894	2739	4	1	FULL
jw02739004001_02101_00003_nrcb4_i2d.fits	7/12/2022	06:37:12.057	F140M	85,894	2739	4	1	FULL
jw02739004001_02101_00004_nrcb1_i2d.fits	7/12/2022	06:41:29.721	F140M	85,894	2739	4	1	FULL
jw02739004001_02101_00004_nrcb2_i2d.fits	7/12/2022	06:41:29.721	F140M	85,894	2739	4	1	FULL
jw02739004001_02101_00004_nrcb3_i2d.fits	7/12/2022	06:41:29.721	F140M	85,894	2739	4	1	FULL
jw02739004001_02101_00004_nrcb4_i2d.fits	7/12/2022	06:41:29.721	F140M	85,894	2739	4	1	FULL
jw02739004001_02101_00005_nrcb1_i2d.fits	7/12/2022	06:45:47.384	F140M	85,894	2739	4	1	FULL
jw02739004001_02101_00005_nrcb2_i2d.fits	7/12/2022	06:45:47.384	F140M	85,894	2739	4	1	FULL
jw02739004001_02101_00005_nrcb3_i2d.fits	7/12/2022	06:45:47.384	F140M	85,894	2739	4	1	FULL
jw02739004001_02101_00005_nrcb4_i2d.fits	7/12/2022	06:45:47.448	F140M	85,894	2739	4	1	FULL
jw02739004001_02101_00001_nrcblong_i2d.fits	7/12/2022	06:28:25.913	F300M	85,894	2739	4	1	FULL
jw02739004001_02101_00002_nrcblong_i2d.fits	7/12/2022	06:32:54.393	F300M	85,894	2739	4	1	FULL
jw02739004001_02101_00003_nrcblong_i2d.fits	7/12/2022	06:37:12.057	F300M	85,894	2739	4	1	FULL
jw02739004001_02101_00004_nrcblong_i2d.fits	7/12/2022	06:41:29.721	F300M	85,894	2739	4	1	FULL
jw02739004001_02101_00005_nrcblong_i2d.fits	7/12/2022	06:45:47.448	F300M	85,894	2739	4	1	FULL

5 dither positions

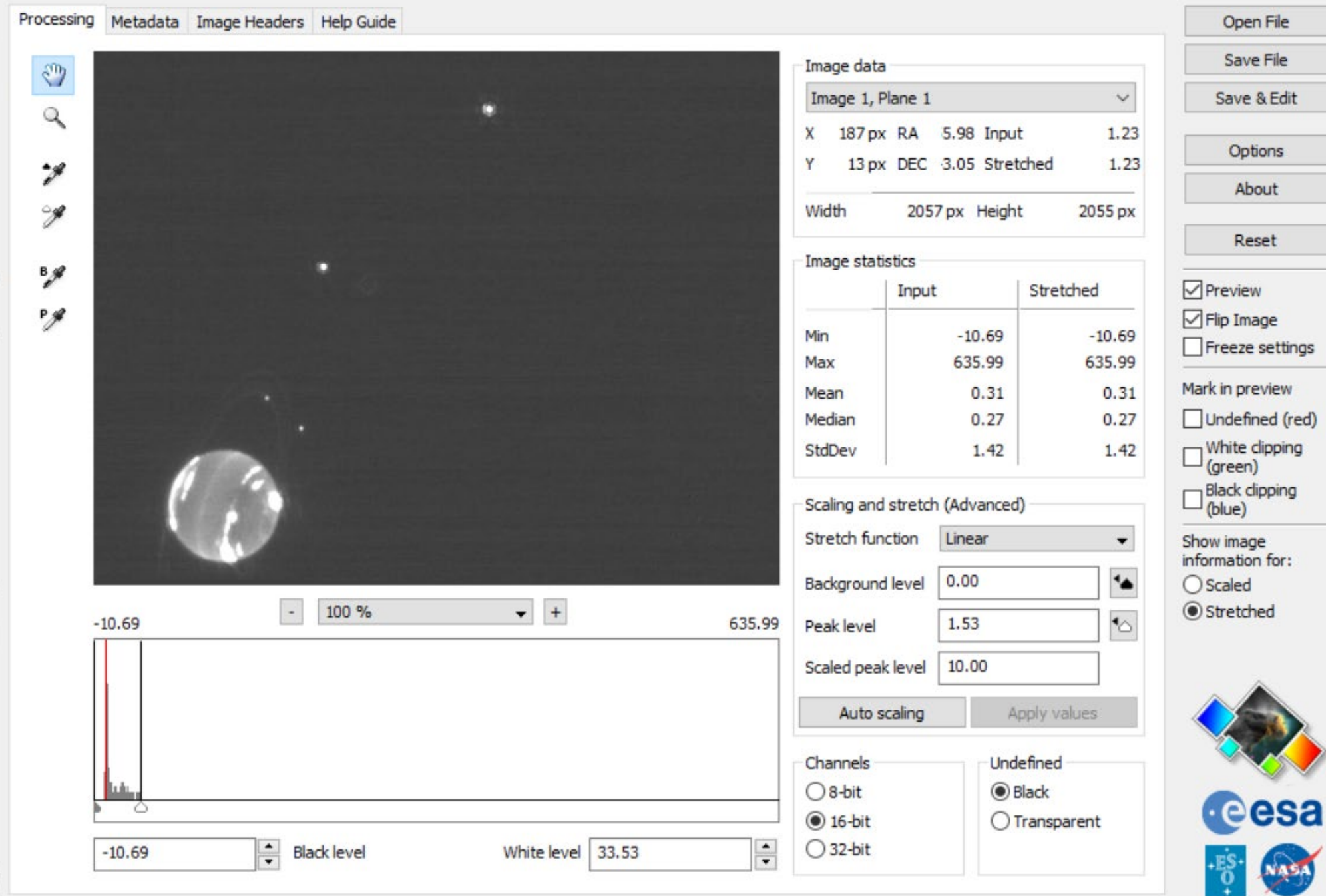
5 dither positions

Cada posición de apuntado tiene una imagen en cada detector nrcb1, ..., nrcb4 y una imagen simultanea en el nrcblong

Una imagen individual.

Ahora sí con anillos, lunas y atmósfera (y galaxias en otros sectores)

Processing Metadata Image Headers Help Guide



The screenshot shows the FITS Liberator software interface. The main window displays a dark image with a bright circular object in the lower-left corner. The interface includes a toolbar on the left with icons for pan, zoom, and various processing tools. The right panel contains several sections: 'Image data' showing 'Image 1, Plane 1' with coordinates (X: 187 px, Y: 13 px) and dimensions (Width: 2057 px, Height: 2055 px); 'Image statistics' table; 'Scaling and stretch (Advanced)' section with a 'Linear' stretch function and input levels (Background: 0.00, Peak: 1.53, Scaled peak: 10.00); and 'Channels' and 'Undefined' options. The bottom of the main window shows a histogram with a white level at 33.53 and a black level at -10.69. The bottom right corner features logos for ESA, ESO, and NASA.

Open File
Save File
Save & Edit
Options
About
Reset

Preview
 Flip Image
 Freeze settings

Mark in preview
 Undefined (red)
 White clipping (green)
 Black clipping (blue)

Show image information for:
 Scaled
 Stretched

Image data
Image 1, Plane 1

X	187 px	RA	5.98	Input	1.23
Y	13 px	DEC	-3.05	Stretched	1.23
Width	2057 px	Height	2055 px		

Image statistics

	Input	Stretched
Min	-10.69	-10.69
Max	635.99	635.99
Mean	0.31	0.31
Median	0.27	0.27
StdDev	1.42	1.42

Scaling and stretch (Advanced)

Stretch function: Linear

Background level: 0.00

Peak level: 1.53

Scaled peak level: 10.00

Auto scaling Apply values

Channels
 8-bit
 16-bit
 32-bit

Undefined
 Black
 Transparent

-10.69 100 % 635.99

-10.69 Black level White level 33.53

esa
ESO
NASA

Galaxias enfocadas

(aunque defectos en el detector que serán corregidos al sumar imágenes de los diferentes apuntados o dither positions)

Processing Metadata Image Headers Help Guide



Image data

Image 1, Plane 1

X	1260 px	RA	5.99	Input	0.26
Y	464 px	DEC	3.04	Stretched	0.26
Width	2058 px	Height	2058 px		

Image statistics

	Input	Stretched
Min	-0.71	-0.71
Max	226.08	226.08
Mean	0.30	0.30
Median	0.29	0.29
StdDev	0.34	0.34

Scaling and stretch (Advanced)

Stretch function: Linear

Background level: 0.00

Peak level: 0.84

Scaled peak level: 10.00

scaling Apply values

Channels

8-bit

16-bit

32-bit

Undefined

Black

Transparent

Open File

Save File

Save & Edit

Options

About

Reset

Preview

Flip Image

Freeze settings

Mark in preview

Undefined (red)

White clipping (green)

Black clipping (blue)

Show image information for:

Scaled

Stretched

0.71 100 % 226.08

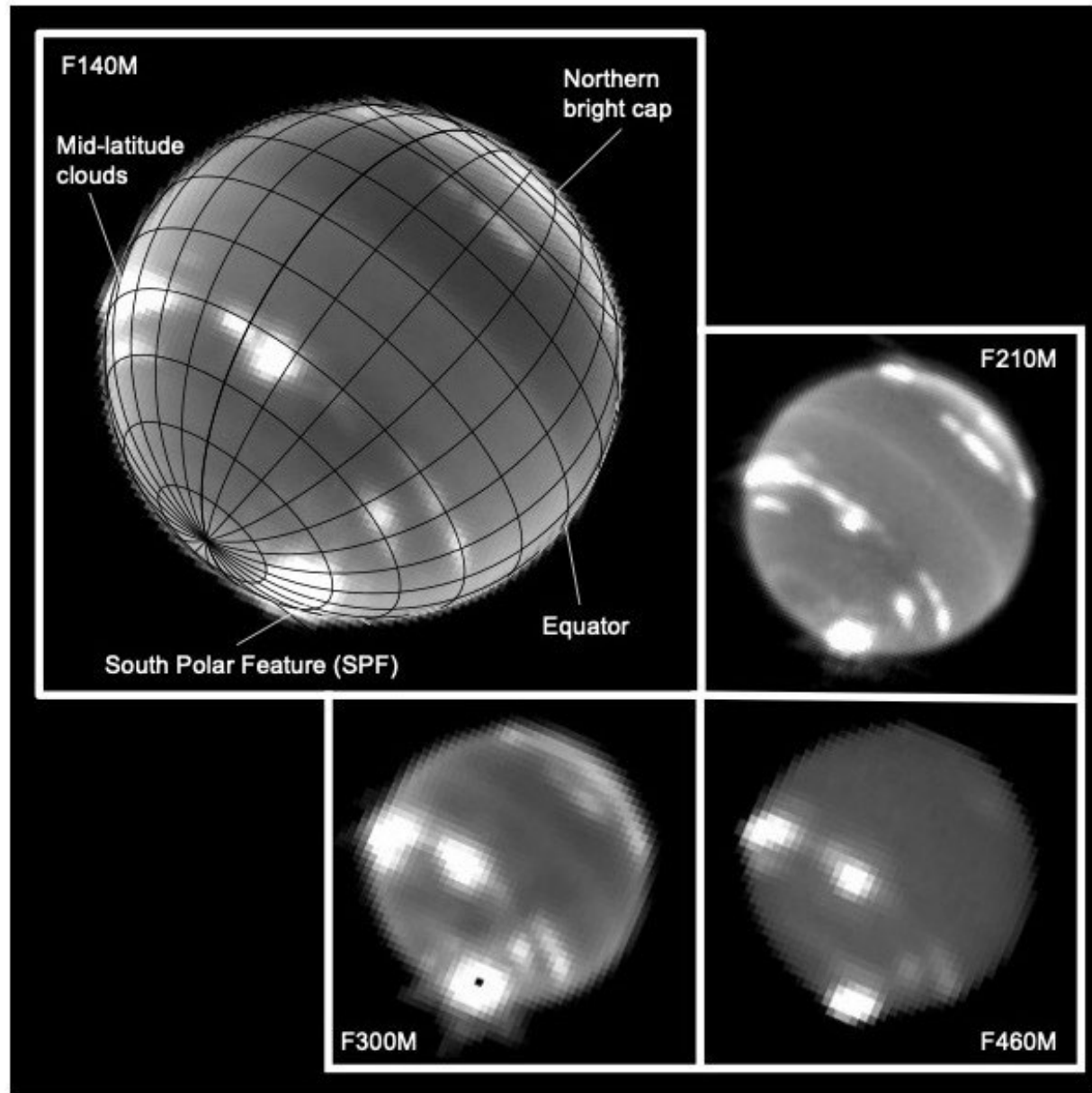
-0.11 Black level White level 3.17



F300M+F460M

Tres stacking diferentes: Uno para Neptuno, uno para Tritón y otro para el fondo del cielo, multiplicados por cada longitud de onda y tiempo de exposición (4 filtros y dos tiempos de exposición)

24 stacking corregidos son necesarios para formar la imagen final.

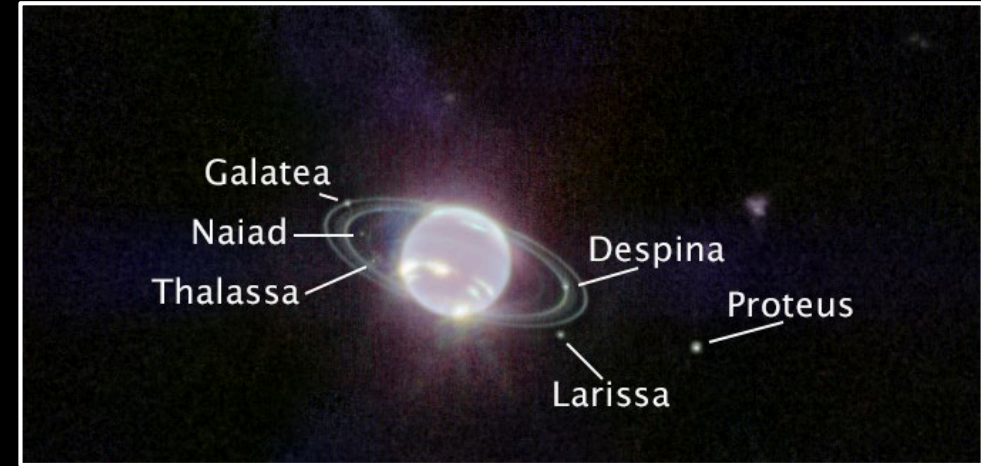


JAMES WEBB SPACE TELESCOPE

NEPTUNE

IMAGE: NASA, ESA, CSA, STScI

IMAGE PROCESSING: Joseph DePasquale (STScI), Naomi Rowe-Gurney (NASA-GSFC)



SCIENCE: NASA, ESA, CSA, STScI

IMAGE PROCESSING: Joseph DePasquale (STScI), Alyssa Pagan (STScI), Anton M. Koekemoer (STScI)



jwst science archive



Click on parameter names for help.

BASIC SEARCH

Name

Equatorial

Galactic

Ecliptic

Target Name SIMBAD and NED

Radius arcmin

Targets File No se ha...rchivo.

Proposal target name **1**

Moving target

Access Status

Processing Level **3**

6 imágenes, una por cada filtro y tiempo de exposición

Observation ID	Target name
⊞ jw02739-o005_1004_nircam_clear-444w	LDN 1527
⊞ jw02739-o005_1004_nircam_clear-115w	LDN 1527
⊞ jw02739-o005_1004_nircam_clear-0200w	LDN 1527
⊞ jw02739-o005_1004_nircam_144w-4470n	LDN 1527
⊞ jw02739-o005_1004_nircam_clear-035m	LDN 1527
⊞ jw02739-o005_1004_nircam_clear-1187n	LDN 1527

OBSERVATION CONSTRAINTS

Observation Instrument Proposal Date

INSTRUMENT BASIC CONSTRAINTS

Instrument **2**

Observing Mode

4

120 imágenes, una por cada filtro y tiempo de exposición y apuntado (4 apuntados x 6 filtros x 5 detectores)

120 imágenes pero uncal

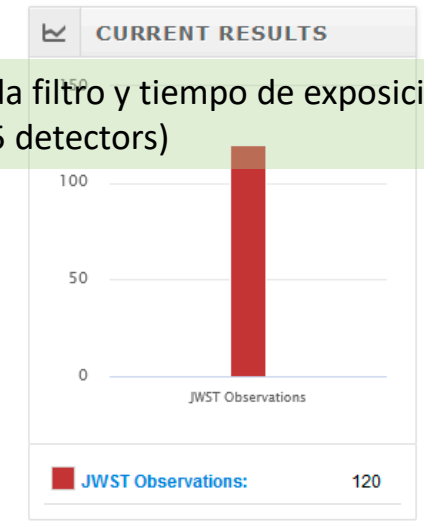
CURRENT SEARCH

Parameters ADQL

Instrument name is [NIRCAM]

Proc. level is [2]

Proposal target name contains 'LDN 1527'



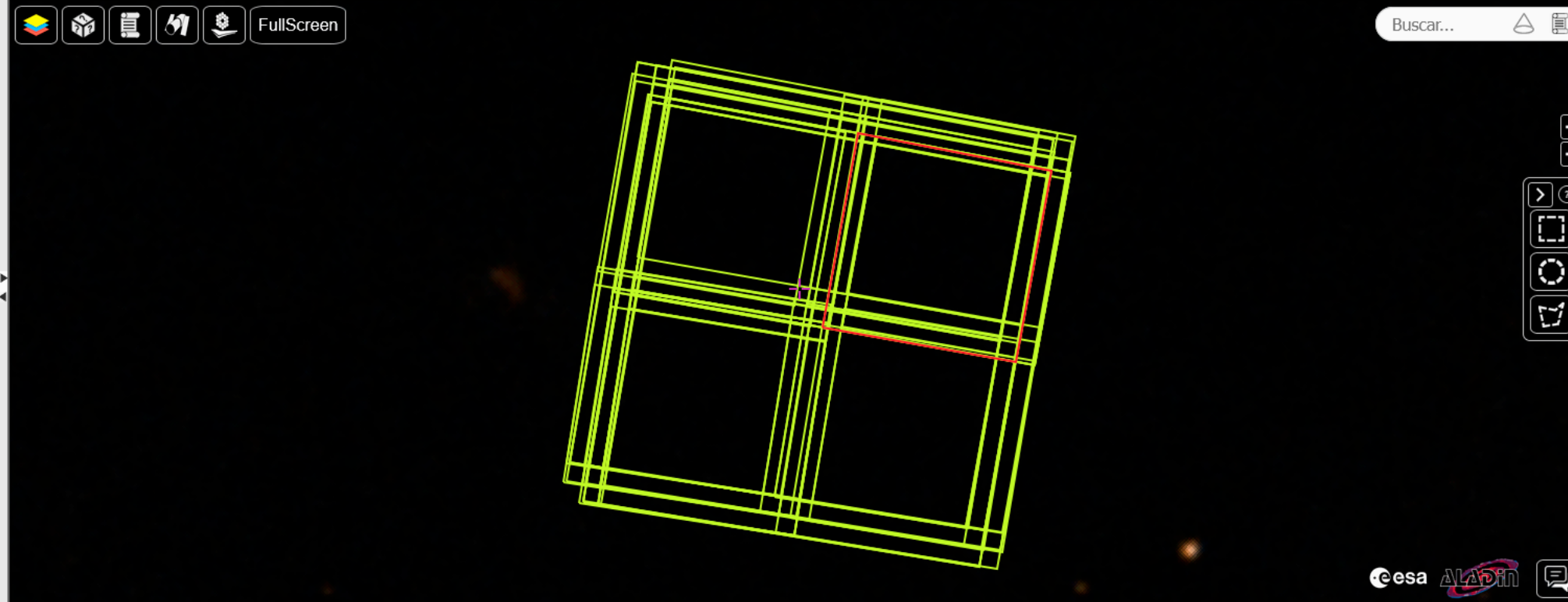
jwst science archive



JW02739005001_03101_00008_NRCB3

J2000 04 40 06.662 +26 02 55.73 FoV: 8.5' X 3.4' DSS2 color

Summary **Image Preview**



Observation ID	jw02739005001_03101_00008_nrcb3
Instrument name	NIRCAM
Detector	NRCB3
Calibration level	1
Target name	LDN 1527
Target RA	04h 39m 54.19s
Target DEC	+26d 03' 17.65"
Exposure start time	2022-09-08 02:19:00.555
Exposure start time (MJD)	59830.09653420648
Total exposure time (s)	289.893
Proposal ID	2739

Details

Plane ID	fc703805-a6e5-4800-8664-423aeb524af7
Product ID	jw02739005001_03101_00008_nrcb3-RAW_STANDARD
Data release date	2022-11-17T10:40:48.0

RESULTS #7 x RESULTS #8 x

<input checked="" type="checkbox"/>	Observation ID			Target name	Target Desc.	RA	Dec	Instrument	Obs. Mode	Proposal	Proc. Level	Start Time	Duratio
<input checked="" type="checkbox"/>	Q jw02739005001_07101_00008_nrcb4			LDN 1527		04h 39m 54.19s	+26d 03' 17.65"	NIRCAM	NRC_IMAGE	2739	1	2022-09-08 03:37:55.567	182.4
<input checked="" type="checkbox"/>	» jw02739005001_03101_00008_nrcb3			LDN 1527		04h 39m 54.19s	+26d 03' 17.65"	NIRCAM	NRC_IMAGE	2739	1	2022-09-08 02:19:00.555	289.8
<input checked="" type="checkbox"/>	Q jw02739005001_07101_00004_nrcb2			LDN 1527		04h 39m 54.19s	+26d 03' 17.65"	NIRCAM	NRC_IMAGE	2739	1	2022-09-08 03:20:12.592	182.4
<input checked="" type="checkbox"/>	Q jw02739005001_03101_00001_nrcblong			LDN 1527		04h 39m 54.19s	+26d 03' 17.65"	NIRCAM	NRC_IMAGE	2739	1	2022-09-08 01:35:10.030	289.8

jwst science archive



🔗 Click on parameter names for help.

BASIC SEARCH

Name

Equatorial
Galactic
Ecliptic

Target Name SIMBAD and NED

Radius arcmin

Targets File No se ha...rchivo.

Proposal target name

Moving target

Access Status Any

Processing Level 2

- 3
- 2
- 1
- 1

OBSERVATION CONSTRAINTS

Observation	Instrument	Proposal	Date

INSTRUMENT BASIC CONSTRAINTS

Instrument

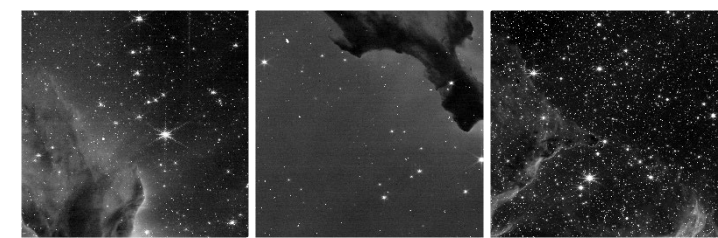
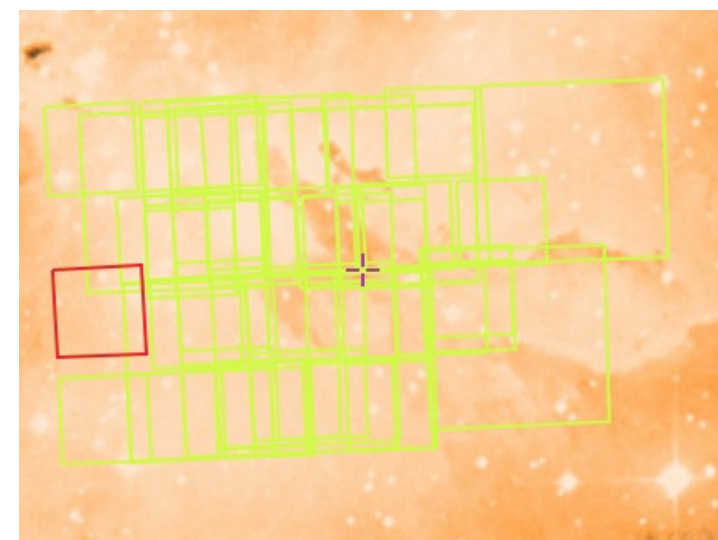
Observing Mode

🔍 Search 🔄 Clear

📄 Script Queries

Dependiendo el objeto lo encontrareis en Target Name o en Proposal Target Name
Por ejemplo para encontrar **los pilares de la creación** hay que poner **M16** en Target Name.

Otras 6 imágenes en level 3 que forman un gran mosaico compuesto de muchas más imágenes (**474 en Level 2**) y también disponible en **MIRI**



Solo 2 botones para guardar los datos en vuestro ordenador y poder procesarlos

RESULTS #1 x RESULTS #2 x RESULTS #3 x RESULTS #4 x RESULTS #5 x RESULTS #0 x

JWST Observations (6)

Output del archive para datos de Level 3



<input checked="" type="checkbox"/>	Observation ID				Target name	Target Desc.	RA	Dec	Distance	Instrument	Obs. Mode	Proposal	Proc. Level	Start Time
<input checked="" type="checkbox"/>	Q jw02739-o001_t001_nircam_clear-f335m				M 16		18h 18m 55.17s	-13d 51' 06.18"	260.149	NIRCAM	NRC_IMAGE	2739	3	2022-08-14 09:12:45.925
<input checked="" type="checkbox"/>	Q jw02739-o001_t001_nircam_f444w-f470n				M 16		18h 18m 55.17s	-13d 51' 06.18"	260.149	NIRCAM	NRC_IMAGE	2739	3	2022-08-14 08:33:34.623
<input checked="" type="checkbox"/>	Q jw02739-o001_t001_nircam_clear-f187n				M 16		18h 18m 55.17s	-13d 51' 06.18"	260.149	NIRCAM	NRC_IMAGE	2739	3	2022-08-14 08:33:34.559
<input checked="" type="checkbox"/>	Q jw02739-o001_t001_nircam_clear-f444w				M 16		18h 18m 55.17s	-13d 51' 06.18"	260.149	NIRCAM	NRC_IMAGE	2739	3	2022-08-14 09:40:40.932
<input checked="" type="checkbox"/>	Q jw02739-o001_t001_nircam_clear-f200w				M 16		18h 18m 55.17s	-13d 51' 06.18"	260.149	NIRCAM	NRC_IMAGE	2739	3	2022-08-14 09:40:40.868
<input checked="" type="checkbox"/>	Q jw02739-o001_t001_nircam_clear-f090w				M 16		18h 18m 55.17s	-13d 51' 06.18"	260.149	NIRCAM	NRC_IMAGE	2739	3	2022-08-14 09:12:45.925

Otro output interesante si buskais: SMACS 0723

JWST Observations (6)

<input type="checkbox"/>	Observation ID				Target name	Target Desc.
<input type="checkbox"/>	Q jw02736-o001_t001_nircam_clear-f444w				SMACS J0723.3-7327	
<input type="checkbox"/>	Q jw02736-o001_t001_nircam_clear-f200w					
<input type="checkbox"/>	Q jw02736-o001_t001_nircam_clear-f090w					
<input type="checkbox"/>	Q jw02736-o001_t001_nircam_clear-f150w					
<input type="checkbox"/>	Q jw02736-o001_t001_nircam_clear-f277w					
<input type="checkbox"/>	Q jw02736-o001_t001_nircam_clear-f356w				SMACS J0723.3-7327	

Detector A



Detector B

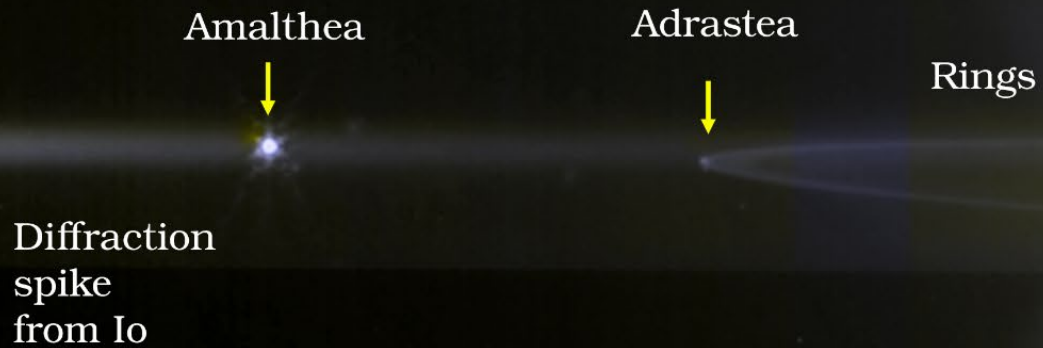


ERS 1373: Jupiter

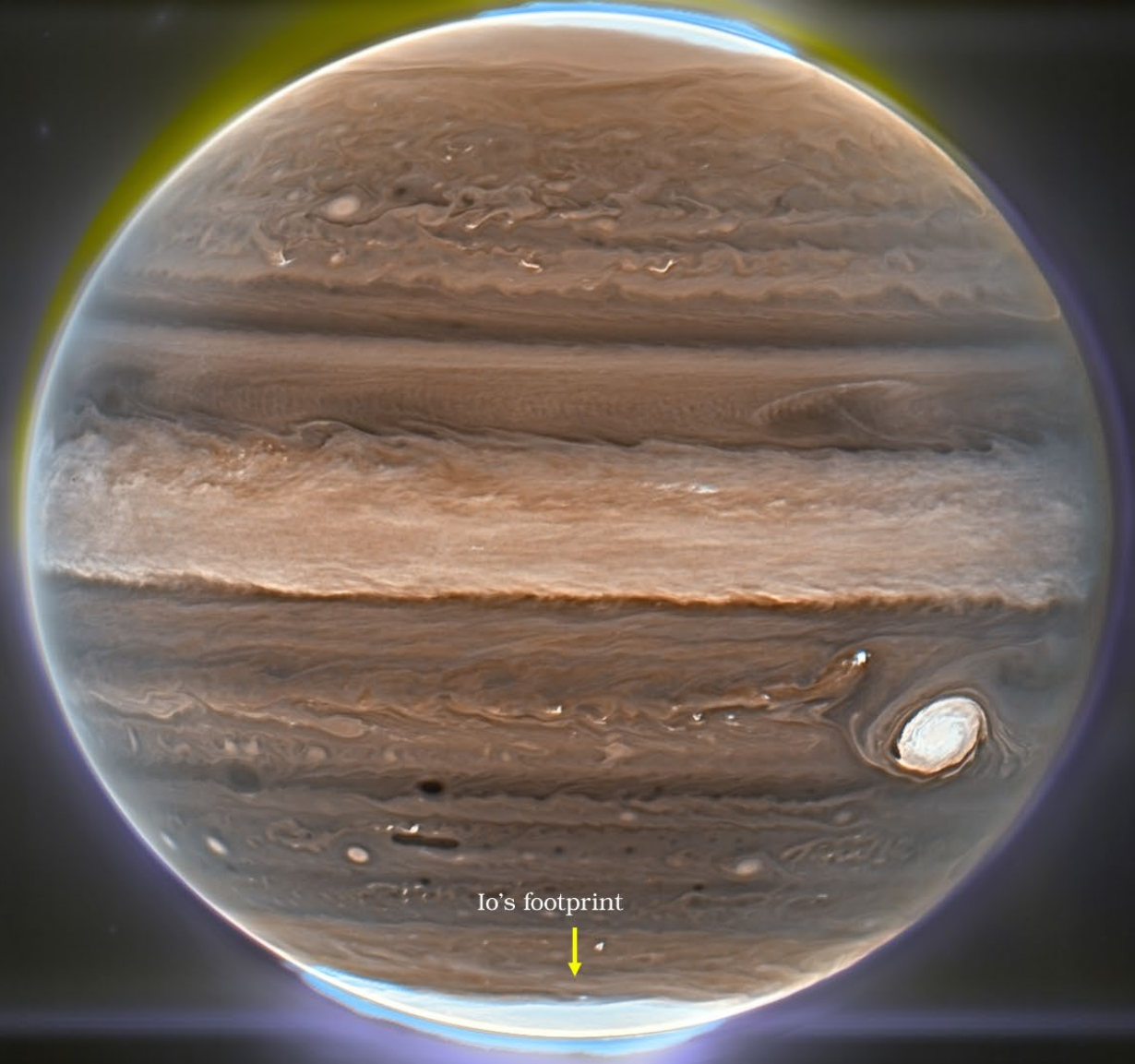
(EJEMPLO DE DATOS DIFÍCILES)

Aurora's diffraction

Northern aurora



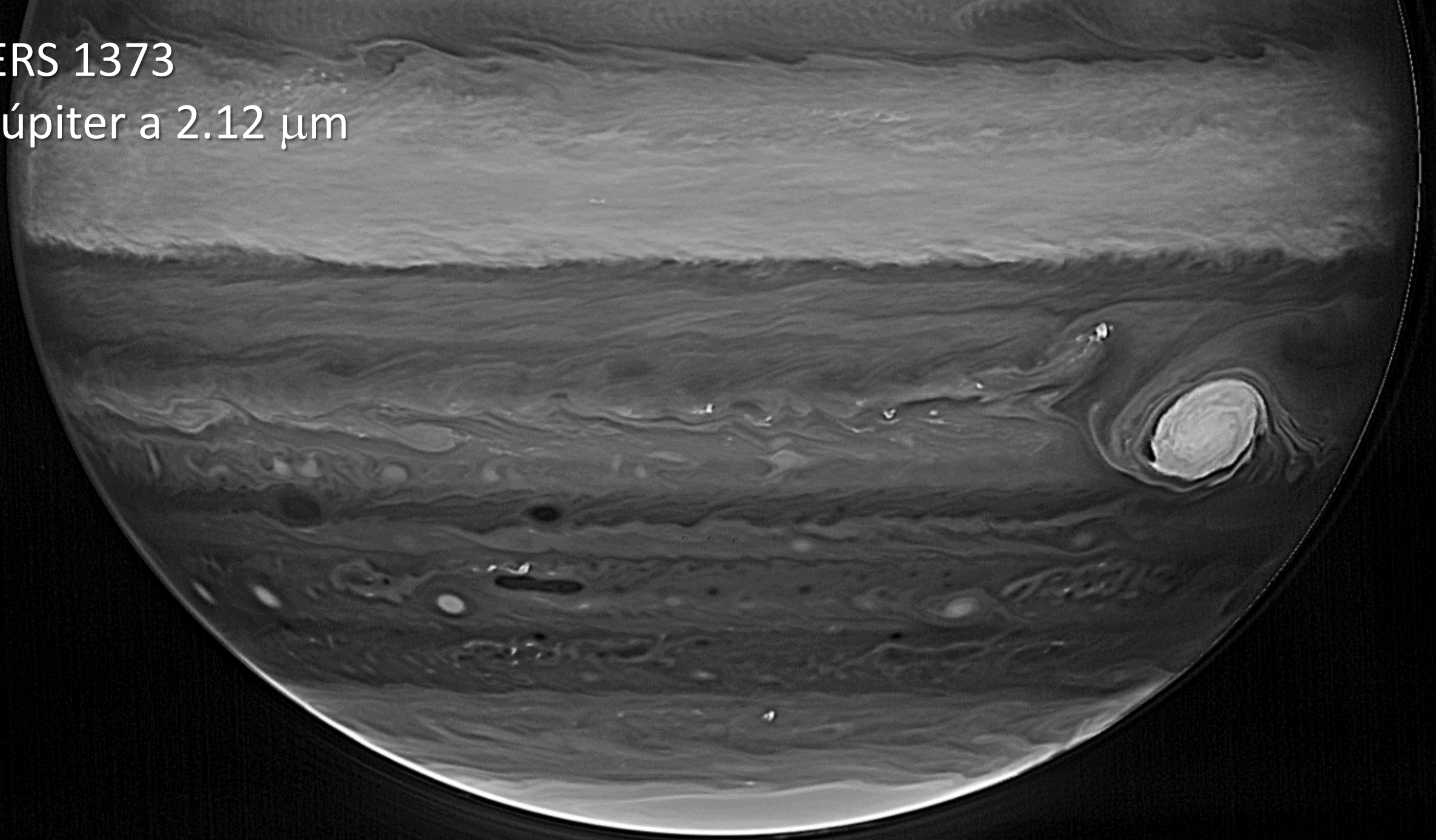
Aurora's diffraction



Southern Aurora

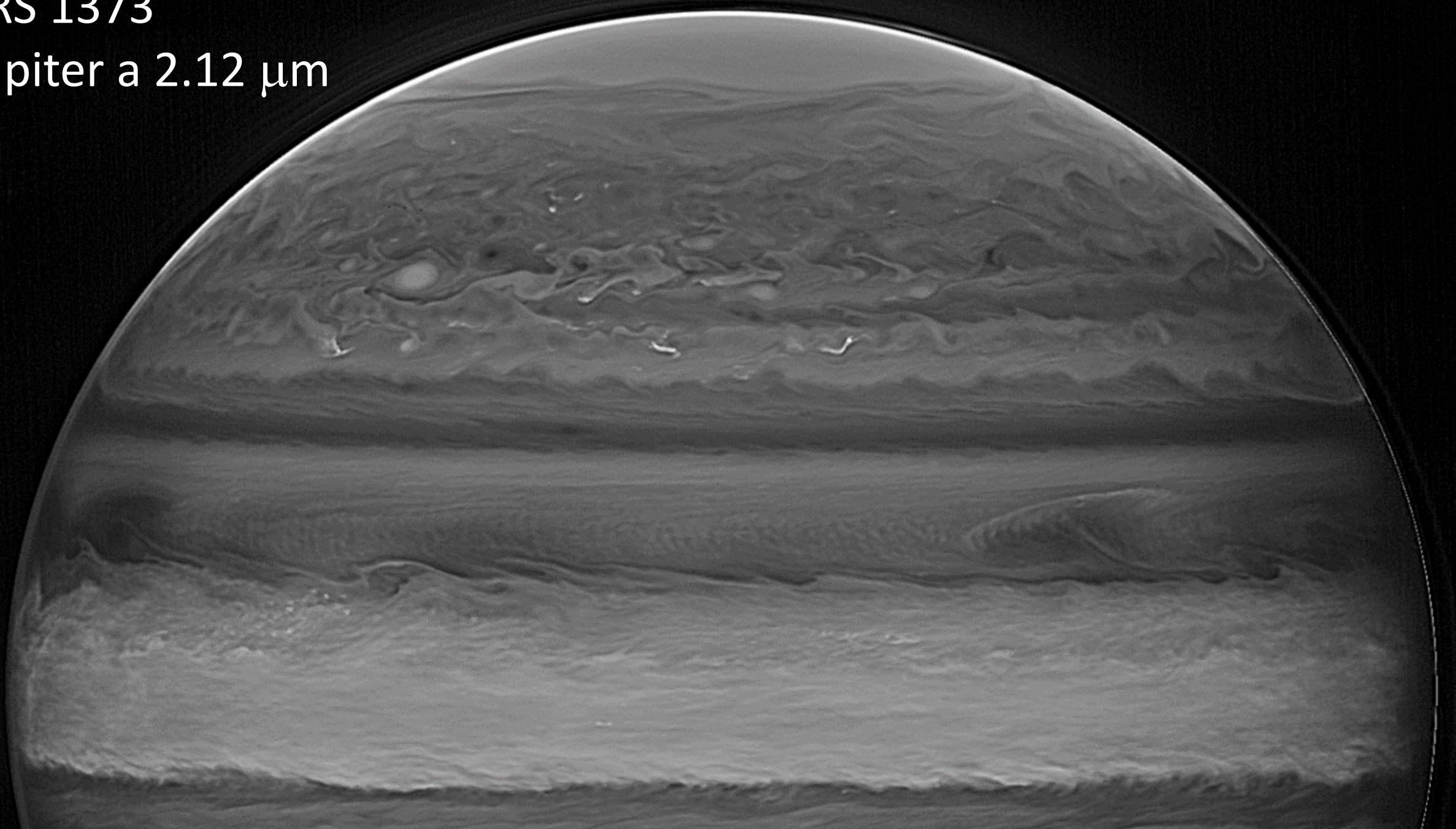
ERS 1373

Júpiter a 2.12 μm

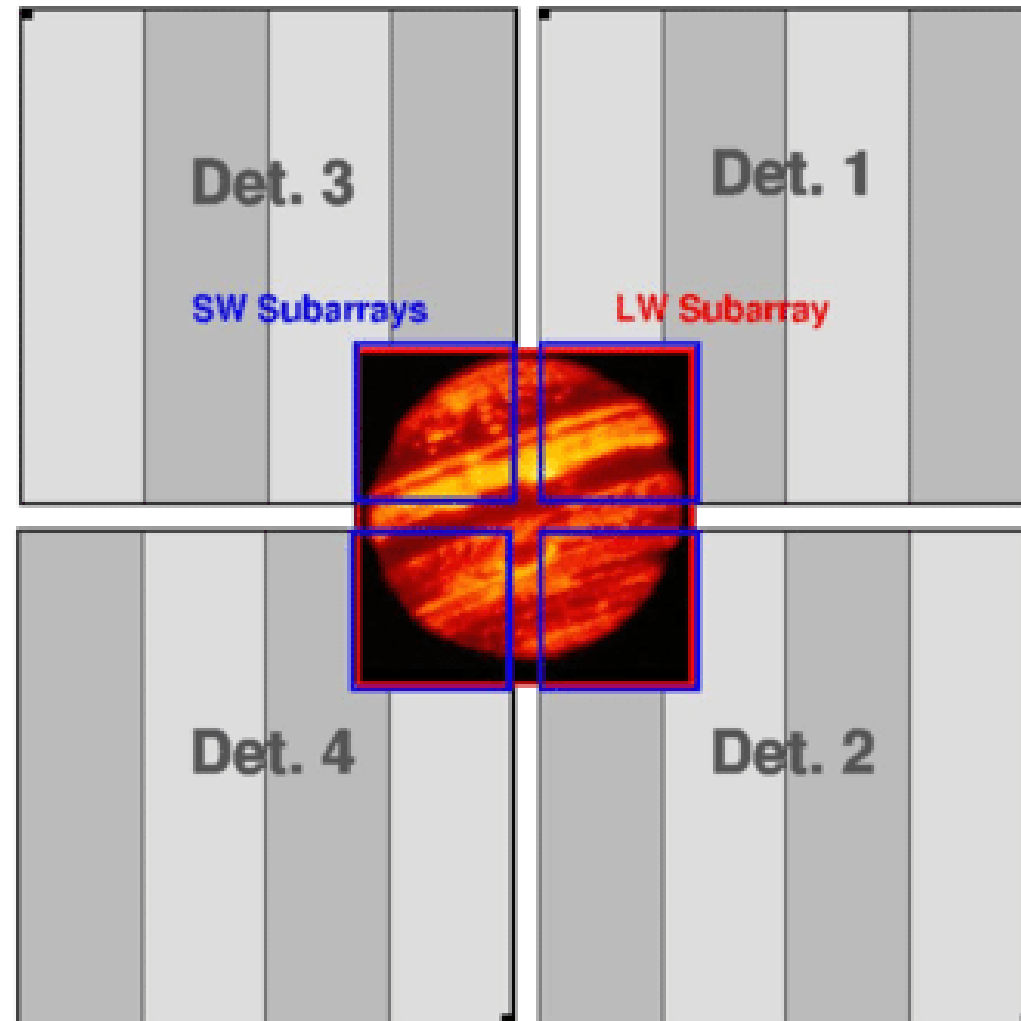


ERS 1373

Júpiter a 2.12 μm



Cuando el telescopio es demasiado grande para un objeto demasiado brillante



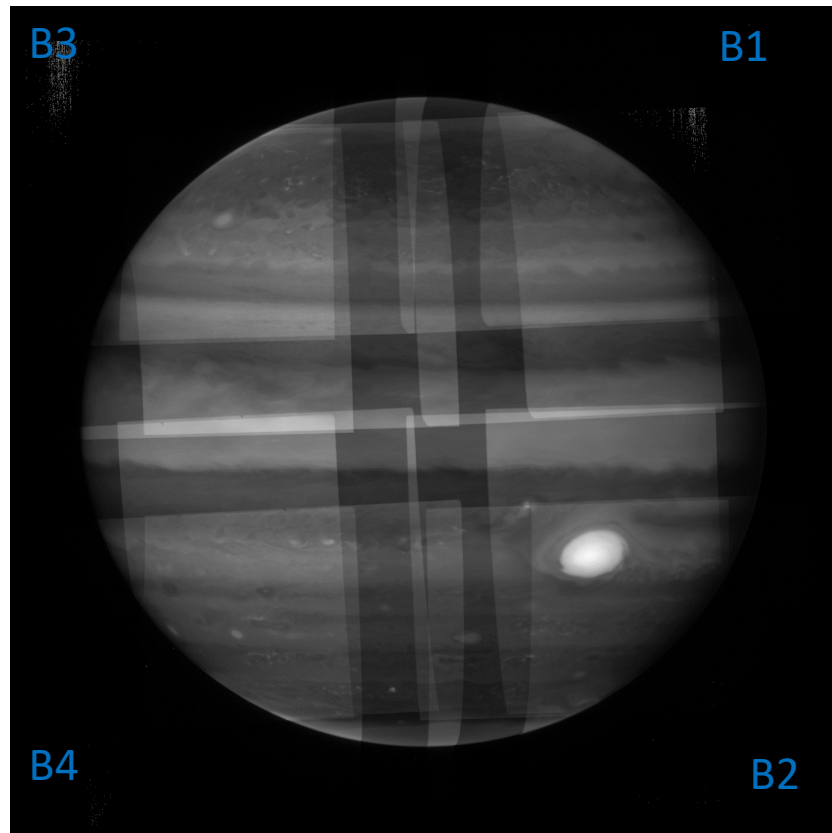
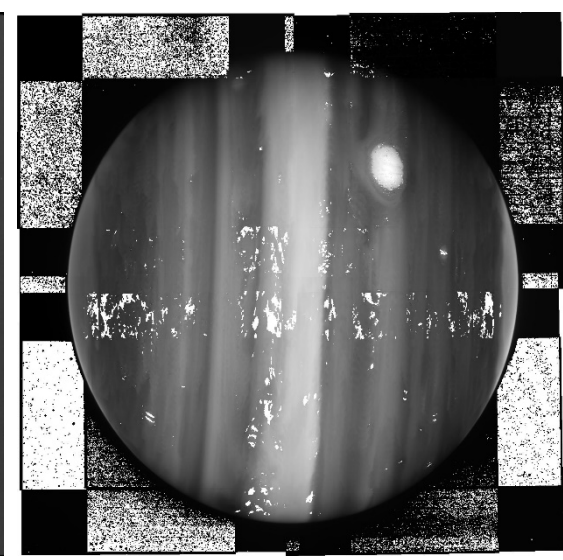
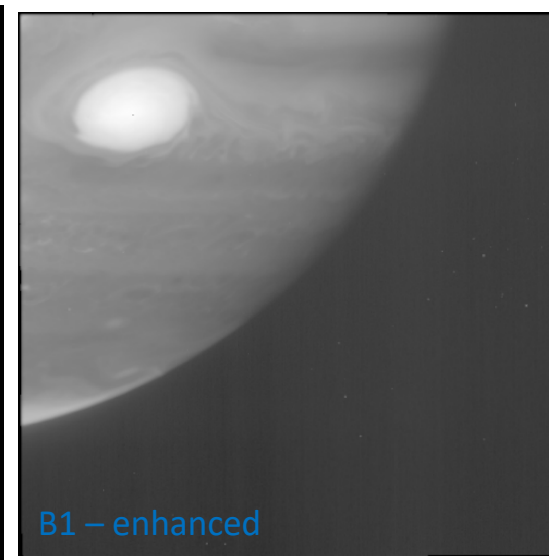
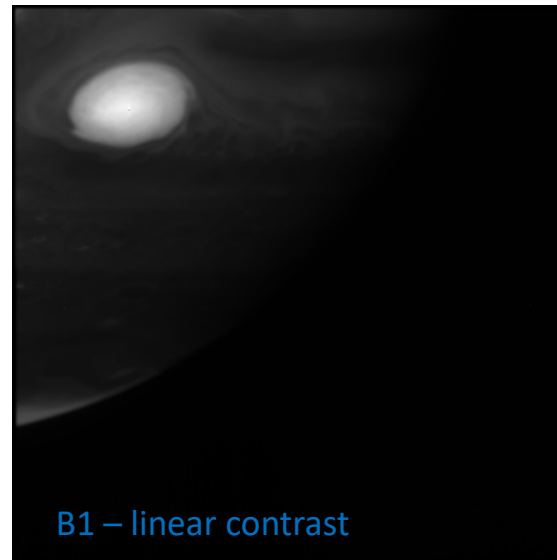
Lectura en Sub Arrays para minimizar el tiempo de exposición (Júpiter, Saturno, Marte, algunas estrellas brillantes)

En vez de leer 2040x2040 pixels leemos solo 640x640

SUB640 images

SUB640 images

Leyendo solo una pequeña porción del detector para evitar saturar con el brillo de Júpiter. Observaciones a $1.64 \mu\text{m}$

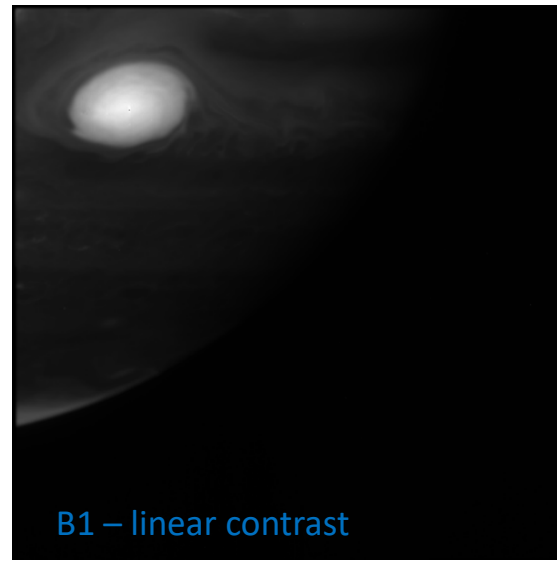


12 imágenes combinadas tras navegarlas individualmente y corregir la derotación utilizando WinJupos

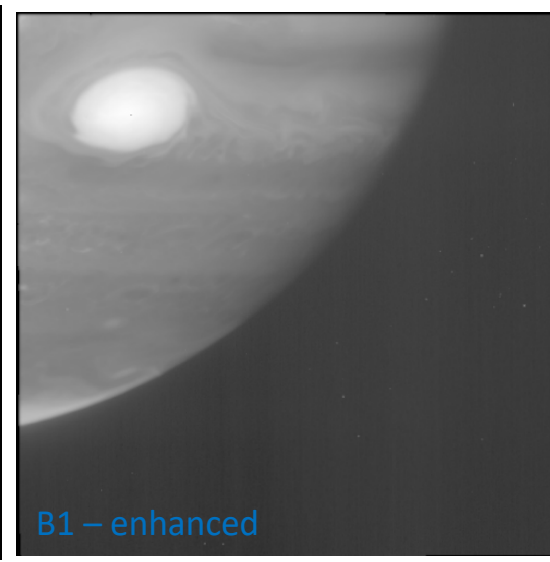
Datos Level 3 de esta misma observación en el archivo

SUB640 images

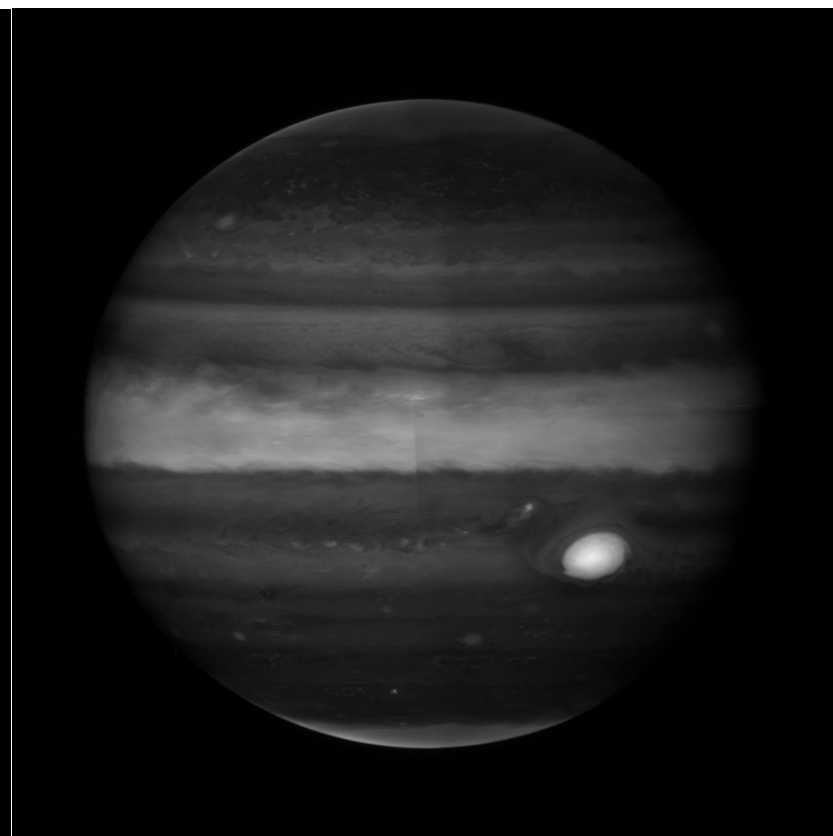
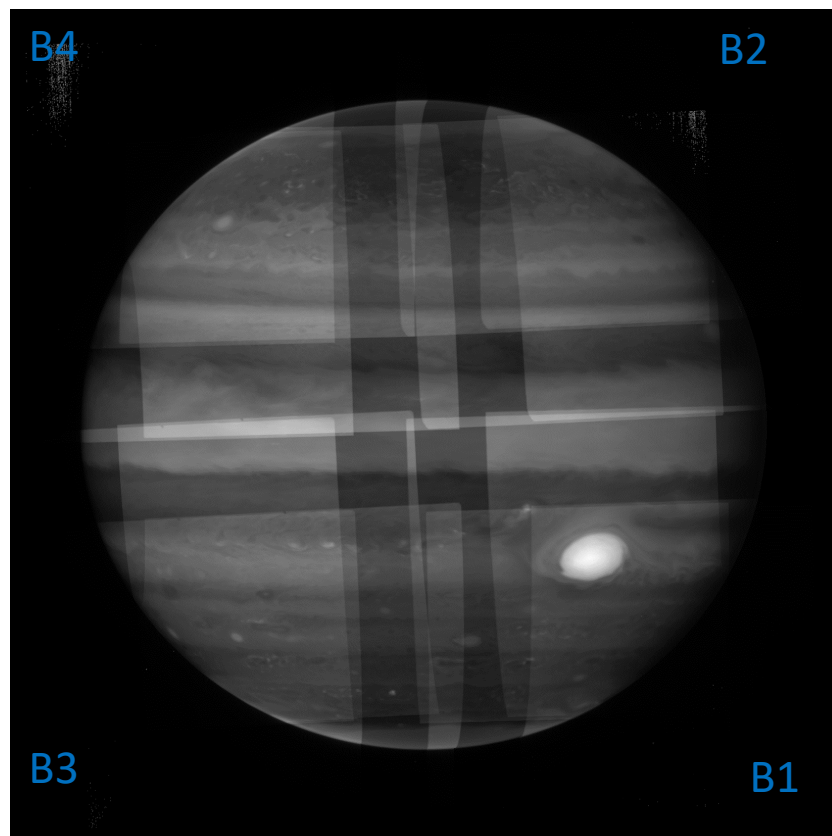
Leyendo solo una pequeña porción del detector para evitar saturar con el brillo de Júpiter. Observaciones a $1.64 \mu\text{m}$



B1 – linear contrast



B1 – enhanced



ERS 1373

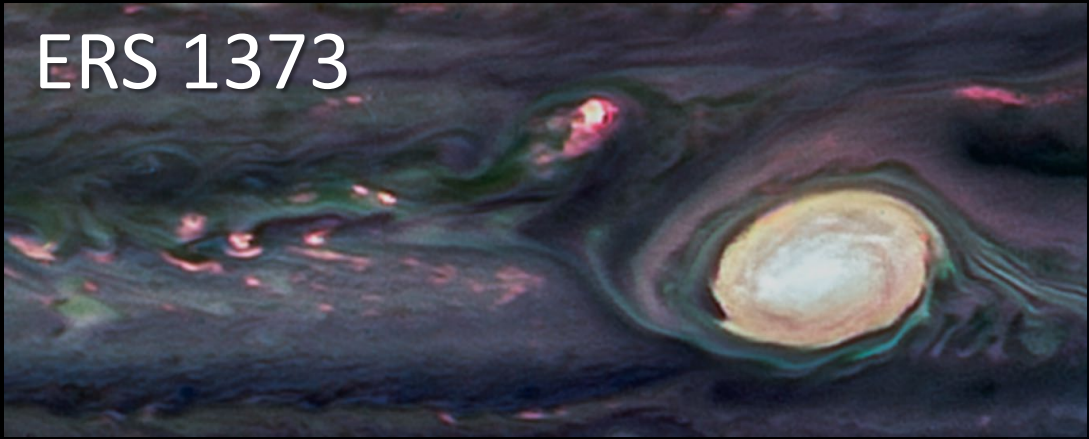


Image processing: Judy Schidtt

<https://www.planetary.org/profiles/judy-schmidt>