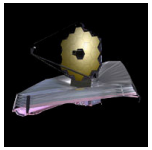

# 1292 - ROSS 458 ABc

Cycle: 1, Proposal Category: GTO

**INVESTIGATORS**



| *Name* | *Institution* | *E-Mail* |
|---|---|---|
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**OBSERVATIONS**

| *Folder* | *Observation* | *Label* | *Observing Template* | *Science Target* |
|---|---|---|---|---|
| ROSS458c | | | | |
| | 1 | S200 A1 & A2, 0.7-3.2 um Hi-res grating | NIRSpec Fixed Slit Spectroscopy | (1) ROSS458C |


**ABSTRACT**

ROSS 458 ABc is a roughly 9 Jupiter mass object that, on the basis of its estimated mass, may be transitional between Jovian planets and brown dwarfs. It is well separated from its parent stars. As such, detailed spectral observations with JWST provide the opportunity to compare the spectral appearance of such a transitional, isolated object with lower-mass Jovian planets of conparable effective temperature but heated by being close to their parent stars. The purpose of this program is to collect such data, and compare it with the transit data from close-in Jupiters being collected under other JWST GTO programs.


**OBSERVING DESCRIPTION**

This program will study the atmospheric property of the T dwarf ROSS 458 ABc by taking fixed slit spectroscopy. 3 Hi-resolution gratings F070LP/G140H, F100LP/G140H,F170LP/G235H with both subarrays S200 A1 & A2 are used to cover the spectral range of 0.7-3.17 micron, which will be coordinated with mid-IR spectra from MIRI observation. SNR >~ 100 is aimed for the observation in each grating.

# Proposal 1292 - Targets - ROSS 458 ABc

**Fixed Targets**

| # | Name | Target Coordinates | Targ. Coord. Corrections | Miscellaneous |
|---|---|---|---|---|
| (1) | ROSS458C | RA: 13 00 41.9360 (195.1747333d)<br>Dec: +12 21 14.72 (12.35409d)<br>Equinox: J2000 | Proper Motion RA: -616.31 mas/yr<br>Proper Motion Dec: -13.59 mas/yr<br>Parallax: 0.08554"<br>Epoch of Position: 2000 | |

*Comments:*
*Category=Star*
*Description=[B dwarfs, Exoplanet Systems]*
*Extended=NO*

## Observation

**Proposal 1292, Observation 1: S200 A1 & A2, 0.7-3.2um Hi-res grating** Mon Jun 03 22:11:18 GMT 2019

**Diagnostic Status: Warning**

Observing Template: NIRSpec Fixed Slit Spectroscopy

## Diagnostics

(Visit 1:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

## Fixed Targets

| # | Name | Target Coordinates | Targ. Coord. Corrections | Miscellaneous |
|---|---|---|---|---|
| (1) | ROSS458C | RA: 13 00 41.9360 (195.1747333d)<br>Dec: +12 21 14.72 (12.35409d)<br>Equinox: J2000 | Proper Motion RA: -616.31 mas/yr<br>Proper Motion Dec: -13.59 mas/yr<br>Parallax: 0.08554"<br>Epoch of Position: 2000 | |

*Comments:*
*Category=Star*
*Description=[B dwarfs, Exoplanet Systems]*
*Extended=NO*

## Acquisition

| # | Target | TA Method | Subarray | Filter | Readout Pattern | Groups/Int | Integrations/Exp | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 ROSS458C | WATA | SUB2048 | F110W | NRSRAPID | 3 | 1 | 1 | 3.628 | 12753 |

## Template

| Slit | Subarray |
|---|---|
| S200A1 and S200A2 | ALLSLITS |

## Dithers

| # | Primary Dither Positions | Sub-Pixel Pattern |
|---|---|---|
| 1 | 2 | NONE |

## Spectral Elements

| # | Grating/Filter | Slit | Readout Pattern | Groups/Int | Integrations/Exp | # | Autocal | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | G140H/F070LP | S200A1 | NRSRAPID | 154 | 1 | 1 | NONE | 2 | 2 | 1703.181 | |
| 2 | G140H/F070LP | S200A2 | NRSRAPID | 154 | 1 | 2 | NONE | 2 | 2 | 1703.181 | |
| 3 | G140H/F100LP | S200A2 | NRSRAPID | 220 | 2 | 3 | NONE | 2 | 4 | 4856.778 | |
| 4 | G140H/F100LP | S200A1 | NRSRAPID | 220 | 2 | 4 | NONE | 2 | 4 | 4856.778 | |
| 5 | G235H/F170LP | S200A1 | NRSRAPID | 164 | 2 | 5 | NONE | 2 | 4 | 3626.122 | |
| 6 | G235H/F170LP | S200A2 | NRSRAPID | 164 | 2 | 6 | NONE | 2 | 4 | 3626.122 | |