



3663 - Big Impact in Little Galaxies? A JWST Investigation of AGN Outflows in Dwarf Galaxies

Cycle: 2, Proposal Category: GO

INVESTIGATORS

| <i>Name</i> | <i>Institution</i> |
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| Archana Aravindan (CoI) | University of California - Riverside |
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| Dr. Kirsten L. Larson (CoI) | Space Telescope Science Institute |
| Prof. Matthew A. Malkan (CoI) | University of California - Los Angeles |
| Dr. Yiqing Song (CoI) (ESA Member) | European Southern Observatory - Chile |
| Dr. Sabrina Stierwalt (CoI) | Occidental College |
| Dr. Jason A. Surace (CoI) | California Institute of Technology |
| Marina Bianchin (CoI) | University of California - Irvine |
| Dr. Weizhe Liu (CoI) | University of Arizona |

OBSERVATIONS

| <i>Folder</i> | <i>Observation</i> | <i>Label</i> | <i>Observing Template</i> | <i>Science Target</i> |
|--------------------|--------------------|---------------|---------------------------|-----------------------|
| Observation Folder | | | | |
| | 1 | J0842_NIRSpec | NIRSpec IFU Spectroscopy | (1) J0842 |
| | 2 | J0842_Bkg | NIRSpec IFU Spectroscopy | (2) J0842_background |
| | 3 | J0906_NIRSpec | NIRSpec IFU Spectroscopy | (3) J0906 |
| | 4 | J0906_Bkg | NIRSpec IFU Spectroscopy | (4) J0906_background |
| | 5 | J0954_NIRSpec | NIRSpec IFU Spectroscopy | (5) J0954 |
| | 6 | J0954_Bkg | NIRSpec IFU Spectroscopy | (6) J0954_background |
| | 7 | J1009_NIRSpec | NIRSpec IFU Spectroscopy | (7) J1009 |
| | 8 | J1009_Bkg | NIRSpec IFU Spectroscopy | (8) J1009_background |

ABSTRACT

Feedback in dwarf galaxies has been widely regarded as being dominated by stellar processes. However, recent studies are showing a growing number of candidate AGN in dwarf galaxies. Follow-up, deep observations are not only confirming AGN but are also revealing evidence of AGN-driven outflows with sufficient energy to expel gas from their host galaxy. These findings are starting to question whether stellar processes are the dominant source of feedback that regulates star formation in dwarf galaxies. Unfortunately, samples of dwarf galaxies with AGN outflows are extremely rare due to the stringent requirements on resolution and sensitivity.

Due to the difficulty of achieving these requirements with current ground-based facilities, we propose NIRSpec IFU observations of a sample of dwarf galaxies to capitalize on the unparalleled resolution and sensitivity of JWST. This program will observe a sample of four dwarf galaxies that show strong evidence of AGN outflows. Our goals include tracing the structure of the outflows by constructing line intensity and kinematic maps using a variety of coronal lines. We will also assess the impact on the host by using a number of tracers of the stellar population and star formation, such as PAH emission, CN absorption, and CO bands. Our program will provide more stringent constraints on AGN feedback models in dwarf galaxy simulations, which can help alleviate some of the outstanding issues, such as the 'diversity' and 'cusp-core' problems. This pioneering program will provide the first infrared IFU observations of AGN outflows in dwarf galaxies, and may fundamentally alter our view of the role of AGN feedback in the low mass regime.

OBSERVING DESCRIPTION

The aim of this proposal is to investigate AGN-driven outflows in a sample of four dwarf galaxies and assess the impact of AGN feedback in the low mass regime. The predominate method of analyzing AGN outflows is through coronal lines (CLs). While optical CLs are accessible from the ground,

they are two orders of magnitude fainter than infrared CLs. Observations of near-infrared CLs are also faced with their own set of challenges. In order to achieve the required resolution, AO-assistance is mandatory but the scarcity of suitable guide stars has severely limited our observations of AGN outflows in dwarf galaxies.

To fulfill the required resolution and sensitivity to trace these outflows, we propose to obtain NIRSpec IFU observations. By using the G140H (F100LP), G235H, and G395H gratings, we will achieve full wavelength coverage from 0.97 - 5.27 microns. This will allow us to observe a wealth of CLs with a broad range of ionization potentials. Using these CLs, we will create flux and kinematic maps, from which we will trace the inner and outer structures of the outflow. We will also utilize PAH emission, CN absorption, and CO bands as a means of measuring the stellar populations and star formation. We will use these emission and absorption features as a means to assess the outflow feedback (positive or negative) by comparing their intensity maps to the structure and orientation of the outflows. Lastly, other diagnostic lines, such as recombination lines, [Fe II], and molecular hydrogen, will allow us to create extinction maps and examine any molecular outflows.

To achieve a SNR of >5 in CL emission located more than 0.5" from the center, we request exposure times of 3,000 - 3,600 seconds with each grating. We will use the NRSIRS2RAPID readout with 50 - 60 groups and 1 integration. We will adopt the 4-point dither pattern that is optimized for extended sources and will provide us with better sampling of the PSF. We also request a single LeakCal observation for each grating to help facilitate the correction for any leakage from the MSA shutters. Based on the pointing accuracy of JWST, we will not be requiring any target acquisition.

Proposal 3663 - Targets - Big Impact in Little Galaxies? A JWST Investigation of AGN Outflows in Dwarf Galaxies

| # | Name | Target Coordinates | Targ. Coord. Corrections | Miscellaneous |
|---|------------------|---|--------------------------|---------------|
| (1) | J0842 | RA: 08 42 34.5070 (130.6437792d) Dec: +03 19 30.67 (3.32519d) Equinox: J2000 | Epoch of Position: 2000 | |
| <i>Comments:</i> <i>Category=Galaxy</i> <i>Description=[Active galactic nuclei, Dwarf galaxies]</i> | | | | |
| (2) | J0842_background | RA: 08 42 33.0000 (130.6375000d) Dec: +03 19 19.00 (3.32194d) Equinox: J2000 | | |
| <i>Comments:</i> <i>Category=Calibration</i> <i>Description=[Telescope/sky background]</i> | | | | |
| (3) | J0906 | RA: 09 06 13.7838 (136.5574325d) Dec: +56 10 15.07 (56.17085d) Equinox: J2000 | Epoch of Position: 2000 | |
| <i>Comments:</i> <i>Category=Galaxy</i> <i>Description=[Active galactic nuclei, Dwarf galaxies]</i> | | | | |
| (4) | J0906_background | RA: 09 06 16.5000 (136.5687500d) Dec: +56 10 5.00 (56.16806d) Equinox: J2000 | | |
| <i>Comments:</i> <i>Category=Calibration</i> <i>Description=[Telescope/sky background]</i> | | | | |
| (5) | J0954 | RA: 09 54 18.1794 (148.5757475d) Dec: +47 17 25.02 (47.29028d) Equinox: J2000 | Epoch of Position: 2000 | |
| <i>Comments:</i> <i>Category=Galaxy</i> <i>Description=[Active galactic nuclei, Dwarf galaxies]</i> | | | | |
| (6) | J0954_background | RA: 09 54 21.0000 (148.5875000d) Dec: +47 17 32.00 (47.29222d) Equinox: J2000 | | |
| <i>Comments:</i> <i>Category=Calibration</i> <i>Description=[Telescope/sky background]</i> | | | | |
| (7) | J1009 | RA: 10 09 35.6680 (152.3986167d) Dec: +26 56 49.04 (26.94696d) Equinox: J2000 | Epoch of Position: 2000 | |
| <i>Comments:</i> <i>Category=Galaxy</i> <i>Description=[Active galactic nuclei, Dwarf galaxies]</i> | | | | |
| (8) | J1009_background | RA: 10 09 38.0000 (152.4083333d) Dec: +26 56 50.00 (26.94722d) Equinox: J2000 | | |
| <i>Comments:</i> <i>Category=Calibration</i> <i>Description=[Telescope/sky background]</i> | | | | |

Fixed Targets

Proposal 3663 - Observation 1 - Big Impact in Little Galaxies? A JWST Investigation of AGN Outflows in Dwarf Galaxies

Tue Jan 30 14:00:34 GMT 2024

| Observation | <p>Proposal 3663, Observation 1: J0842_NIRSpec</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: NIRSpec IFU Spectroscopy</p> <p>Background Observations:[J0842_Bkg (Obs 2)]</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|--|--|--------------------------|------------------|---------|--------|---------|---------------|--------------------|---------------------|------------------|--|---|----------------|--------------------|--------------------------|------------------|---------|--------|--|-------------------------|--------------------|---------------------|------------------|---|--------------|--------------|----|---|-------|------|------|---|---|----------|--|---|--------------|--------------|----|---|-------|------|------|---|---|----------|--|---|--------------|--------------|----|---|-------|------|------|---|---|----------|--|
| Diagnostics | <p>(Visit 1:1) Warning (Form): Data Excess over lower threshold</p> <p>(Visit 1:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fixed Targets | <table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(1)</td> <td>J0842</td> <td>RA: 08 42 34.5070 (130.6437792d) Dec: +03 19 30.67 (3.32519d) Equinox: J2000</td> <td>Epoch of Position: 2000</td> <td></td> </tr> </tbody> </table> <p><i>Comments:</i> Category=Galaxy Description=[Active galactic nuclei, Dwarf galaxies]</p> | | | | | | | | | | | | # | Name | Target Coordinates | Targ. Coord. Corrections | Miscellaneous | (1) | J0842 | RA: 08 42 34.5070 (130.6437792d) Dec: +03 19 30.67 (3.32519d) Equinox: J2000 | Epoch of Position: 2000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| # | Name | Target Coordinates | Targ. Coord. Corrections | Miscellaneous | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (1) | J0842 | RA: 08 42 34.5070 (130.6437792d) Dec: +03 19 30.67 (3.32519d) Equinox: J2000 | Epoch of Position: 2000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Template | <p>TA Method</p> <p>NONE</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dithers | <table border="1"> <thead> <tr> <th>#</th> <th>Dither Type</th> <th>Size</th> <th>Starting Point</th> <th>Number of Points</th> <th>Points</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>4-POINT-DITHER</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | | | | | | | | | | | # | Dither Type | Size | Starting Point | Number of Points | Points | 1 | 4-POINT-DITHER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| # | Dither Type | Size | Starting Point | Number of Points | Points | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 4-POINT-DITHER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spectral Elements | <table border="1"> <thead> <tr> <th>#</th> <th>Grating/Filter</th> <th>Readout Pattern</th> <th>Groups/Int</th> <th>Integrations/Exp</th> <th>Leakcal</th> <th>Dither</th> <th>Autocal</th> <th>Total Dithers</th> <th>Total Integrations</th> <th>Total Exposure Time</th> <th>ETC Wkbk.Calc ID</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>G140H/F100LP</td> <td>NRSIRS2RAPID</td> <td>60</td> <td>1</td> <td>false</td> <td>true</td> <td>NONE</td> <td>4</td> <td>4</td> <td>3559.689</td> <td></td> </tr> <tr> <td>2</td> <td>G235H/F170LP</td> <td>NRSIRS2RAPID</td> <td>60</td> <td>1</td> <td>false</td> <td>true</td> <td>NONE</td> <td>4</td> <td>4</td> <td>3559.689</td> <td></td> </tr> <tr> <td>3</td> <td>G395H/F290LP</td> <td>NRSIRS2RAPID</td> <td>60</td> <td>1</td> <td>false</td> <td>true</td> <td>NONE</td> <td>4</td> <td>4</td> <td>3559.689</td> <td></td> </tr> </tbody> </table> | | | | | | | | | | | | # | Grating/Filter | Readout Pattern | Groups/Int | Integrations/Exp | Leakcal | Dither | Autocal | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID | 1 | G140H/F100LP | NRSIRS2RAPID | 60 | 1 | false | true | NONE | 4 | 4 | 3559.689 | | 2 | G235H/F170LP | NRSIRS2RAPID | 60 | 1 | false | true | NONE | 4 | 4 | 3559.689 | | 3 | G395H/F290LP | NRSIRS2RAPID | 60 | 1 | false | true | NONE | 4 | 4 | 3559.689 | |
| # | Grating/Filter | Readout Pattern | Groups/Int | Integrations/Exp | Leakcal | Dither | Autocal | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | G140H/F100LP | NRSIRS2RAPID | 60 | 1 | false | true | NONE | 4 | 4 | 3559.689 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | G235H/F170LP | NRSIRS2RAPID | 60 | 1 | false | true | NONE | 4 | 4 | 3559.689 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | G395H/F290LP | NRSIRS2RAPID | 60 | 1 | false | true | NONE | 4 | 4 | 3559.689 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Requirements | <p>Sequence Observations 1, 2, Non-interruptible</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Proposal 3663 - Observation 2 - Big Impact in Little Galaxies? A JWST Investigation of AGN Outflows in Dwarf Galaxies

Tue Jan 30 14:00:34 GMT 2024

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|-----------------------------|---|-----------------------|--|-------------------|-------------------------|---------------------------------|---------------|-------------------------|----------------------|---------------------------|----------------------------|-------------------------|
| Observation | <p>Proposal 3663, Observation 2: J0842_Bkg</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: NIRSpec IFU Spectroscopy</p> <p>Background Observation For: [J0842_NIRSpec (Obs 1)]</p> | | | | | | | | | | | |
| Diagnostics | (Visit 2:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. | | | | | | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | | | Targ. Coord. Corrections | | | Miscellaneous | | | |
| | (2) | J0842_background | RA: 08 42 33.0000 (130.6375000d) Dec: +03 19 19.00 (3.32194d) Equinox: J2000 | | | | | | | | | |
| | <p><i>Comments:</i> <i>Category=Calibration</i> <i>Description=[Telescope/sky background]</i></p> | | | | | | | | | | | |
| Template | TA Method | | | | | | | | | | | |
| | NONE | | | | | | | | | | | |
| Dithers | # | Dither Type | | Size | Starting Point | | | Number of Points | Points | | | |
| | 1 | NONE | | | | | | | | | | |
| Spectral Elements | # | Grating/Filter | Readout Pattern | Groups/Int | Integrations/Exp | Leakcal | Dither | Autocal | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
| | 1 | G140H/F100LP | NRSIRS2RAPI D | 60 | 1 | false | false | NONE | 1 | 1 | 889.922 | |
| | 2 | G235H/F170LP | NRSIRS2RAPI D | 60 | 1 | false | false | NONE | 1 | 1 | 889.922 | |
| | 3 | G395H/F290LP | NRSIRS2RAPI D | 60 | 1 | false | false | NONE | 1 | 1 | 889.922 | |
| Special Requirements | Sequence Observations 1, 2, Non-interruptible | | | | | | | | | | | |

Proposal 3663 - Observation 3 - Big Impact in Little Galaxies? A JWST Investigation of AGN Outflows in Dwarf Galaxies

Tue Jan 30 14:00:34 GMT 2024

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|-----------------------------|---|-----------------------|---|-------------------|-------------------------|---------------------------------|---------------|-------------------------|----------------------|---------------------------|----------------------------|-------------------------|
| Observation | <p>Proposal 3663, Observation 3: J0906_NIRSpec</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: NIRSpec IFU Spectroscopy</p> <p>Background Observations:[J0906_Bkg (Obs 4)]</p> | | | | | | | | | | | |
| Diagnostics | <p>(Visit 3:1) Warning (Form): Data Excess over lower threshold</p> <p>(Visit 3:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.</p> | | | | | | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | | | Targ. Coord. Corrections | | | Miscellaneous | | | |
| | (3) | J0906 | RA: 09 06 13.7838 (136.5574325d) Dec: +56 10 15.07 (56.17085d) Equinox: J2000 | | | Epoch of Position: 2000 | | | | | | |
| | <p><i>Comments:</i> Category=Galaxy Description=[Active galactic nuclei, Dwarf galaxies]</p> | | | | | | | | | | | |
| Template | <p>TA Method</p> <p>NONE</p> | | | | | | | | | | | |
| Dithers | # | Dither Type | | Size | Starting Point | | | Number of Points | Points | | | |
| | 1 | 4-POINT-DITHER | | | | | | | | | | |
| Spectral Elements | # | Grating/Filter | Readout Pattern | Groups/Int | Integrations/Exp | Leakcal | Dither | Autocal | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
| | 1 | G140H/F100LP | NRSIRS2RAPID | 50 | 1 | false | true | NONE | 4 | 4 | 2976.134 | |
| | 2 | G235H/F170LP | NRSIRS2RAPID | 50 | 1 | false | true | NONE | 4 | 4 | 2976.134 | |
| | 3 | G395H/F290LP | NRSIRS2RAPID | 50 | 1 | false | true | NONE | 4 | 4 | 2976.134 | |
| Special Requirements | <p>Sequence Observations 3, 4, Non-interruptible</p> | | | | | | | | | | | |

Proposal 3663 - Observation 4 - Big Impact in Little Galaxies? A JWST Investigation of AGN Outflows in Dwarf Galaxies

Tue Jan 30 14:00:35 GMT 2024

| | | | | | | | | | | | | |
|-----------------------------|---|-----------------------|--|-------------------|-------------------------|---------------------------------|---------------|-------------------------|----------------------|---------------------------|----------------------------|-------------------------|
| Observation | <p>Proposal 3663, Observation 4: J0906_Bkg</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: NIRSpec IFU Spectroscopy</p> <p>Background Observation For: [J0906_NIRSpec (Obs 3)]</p> | | | | | | | | | | | |
| Diagnostics | (Visit 4:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. | | | | | | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | | | Targ. Coord. Corrections | | | Miscellaneous | | | |
| | (4) | J0906_background | RA: 09 06 16.5000 (136.5687500d) Dec: +56 10 5.00 (56.16806d) Equinox: J2000 | | | | | | | | | |
| | <p><i>Comments:</i> <i>Category=Calibration</i> <i>Description=[Telescope/sky background]</i></p> | | | | | | | | | | | |
| Template | TA Method | | | | | | | | | | | |
| | NONE | | | | | | | | | | | |
| Dithers | # | Dither Type | | Size | Starting Point | | | Number of Points | Points | | | |
| | 1 | NONE | | | | | | | | | | |
| Spectral Elements | # | Grating/Filter | Readout Pattern | Groups/Int | Integrations/Exp | Leakcal | Dither | Autocal | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
| | 1 | G140H/F100LP | NRSIRS2RAPID | 50 | 1 | false | false | NONE | 1 | 1 | 744.033 | |
| | 2 | G235H/F170LP | NRSIRS2RAPID | 50 | 1 | false | false | NONE | 1 | 1 | 744.033 | |
| | 3 | G395H/F290LP | NRSIRS2RAPID | 50 | 1 | false | false | NONE | 1 | 1 | 744.033 | |
| Special Requirements | Sequence Observations 3, 4, Non-interruptible | | | | | | | | | | | |

Proposal 3663 - Observation 5 - Big Impact in Little Galaxies? A JWST Investigation of AGN Outflows in Dwarf Galaxies

Tue Jan 30 14:00:35 GMT 2024

| Observation | <p>Proposal 3663, Observation 5: J0954_NIRSpec</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: NIRSpec IFU Spectroscopy</p> <p>Background Observations:[J0954_Bkg (Obs 6)]</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|--|---|--------------------------|------------------|---------|--------|---------|---------------|--------------------|---------------------|------------------|--|---|----------------|--------------------|--------------------------|------------------|---------|--------|---|-------------------------|--------------------|---------------------|------------------|---|--------------|--------------|----|---|-------|------|------|---|---|----------|--|---|--------------|--------------|----|---|-------|------|------|---|---|----------|--|---|--------------|--------------|----|---|-------|------|------|---|---|----------|--|
| Diagnostics | <p>(Visit 5:1) Warning (Form): Data Excess over lower threshold</p> <p>(Visit 5:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fixed Targets | <table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(5)</td> <td>J0954</td> <td>RA: 09 54 18.1794 (148.5757475d) Dec: +47 17 25.02 (47.29028d) Equinox: J2000</td> <td>Epoch of Position: 2000</td> <td></td> </tr> </tbody> </table> <p><i>Comments:</i> <i>Category=Galaxy</i> <i>Description=[Active galactic nuclei, Dwarf galaxies]</i></p> | | | | | | | | | | | | # | Name | Target Coordinates | Targ. Coord. Corrections | Miscellaneous | (5) | J0954 | RA: 09 54 18.1794 (148.5757475d) Dec: +47 17 25.02 (47.29028d) Equinox: J2000 | Epoch of Position: 2000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| # | Name | Target Coordinates | Targ. Coord. Corrections | Miscellaneous | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (5) | J0954 | RA: 09 54 18.1794 (148.5757475d) Dec: +47 17 25.02 (47.29028d) Equinox: J2000 | Epoch of Position: 2000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Template | <p>TA Method</p> <p>NONE</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dithers | <table border="1"> <thead> <tr> <th>#</th> <th>Dither Type</th> <th>Size</th> <th>Starting Point</th> <th>Number of Points</th> <th>Points</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>4-POINT-DITHER</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | | | | | | | | | | | # | Dither Type | Size | Starting Point | Number of Points | Points | 1 | 4-POINT-DITHER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| # | Dither Type | Size | Starting Point | Number of Points | Points | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 4-POINT-DITHER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spectral Elements | <table border="1"> <thead> <tr> <th>#</th> <th>Grating/Filter</th> <th>Readout Pattern</th> <th>Groups/Int</th> <th>Integrations/Exp</th> <th>Leakcal</th> <th>Dither</th> <th>Autocal</th> <th>Total Dithers</th> <th>Total Integrations</th> <th>Total Exposure Time</th> <th>ETC Wkbk.Calc ID</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>G140H/F100LP</td> <td>NRSIRS2RAPID</td> <td>50</td> <td>1</td> <td>false</td> <td>true</td> <td>NONE</td> <td>4</td> <td>4</td> <td>2976.134</td> <td></td> </tr> <tr> <td>2</td> <td>G235H/F170LP</td> <td>NRSIRS2RAPID</td> <td>50</td> <td>1</td> <td>false</td> <td>true</td> <td>NONE</td> <td>4</td> <td>4</td> <td>2976.134</td> <td></td> </tr> <tr> <td>3</td> <td>G395H/F290LP</td> <td>NRSIRS2RAPID</td> <td>50</td> <td>1</td> <td>false</td> <td>true</td> <td>NONE</td> <td>4</td> <td>4</td> <td>2976.134</td> <td></td> </tr> </tbody> </table> | | | | | | | | | | | | # | Grating/Filter | Readout Pattern | Groups/Int | Integrations/Exp | Leakcal | Dither | Autocal | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID | 1 | G140H/F100LP | NRSIRS2RAPID | 50 | 1 | false | true | NONE | 4 | 4 | 2976.134 | | 2 | G235H/F170LP | NRSIRS2RAPID | 50 | 1 | false | true | NONE | 4 | 4 | 2976.134 | | 3 | G395H/F290LP | NRSIRS2RAPID | 50 | 1 | false | true | NONE | 4 | 4 | 2976.134 | |
| # | Grating/Filter | Readout Pattern | Groups/Int | Integrations/Exp | Leakcal | Dither | Autocal | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | G140H/F100LP | NRSIRS2RAPID | 50 | 1 | false | true | NONE | 4 | 4 | 2976.134 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | G235H/F170LP | NRSIRS2RAPID | 50 | 1 | false | true | NONE | 4 | 4 | 2976.134 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | G395H/F290LP | NRSIRS2RAPID | 50 | 1 | false | true | NONE | 4 | 4 | 2976.134 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Requirements | <p>Sequence Observations 5, 6, Non-interruptible</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Proposal 3663 - Observation 6 - Big Impact in Little Galaxies? A JWST Investigation of AGN Outflows in Dwarf Galaxies

Tue Jan 30 14:00:35 GMT 2024

| | | | | | | | | | | | | |
|-----------------------------|---|-----------------------|---|-------------------|-------------------------|---------------------------------|---------------|-------------------------|----------------------|---------------------------|----------------------------|-------------------------|
| Observation | <p>Proposal 3663, Observation 6: J0954_Bkg</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: NIRSpec IFU Spectroscopy</p> <p>Background Observation For: [J0954_NIRSpec (Obs 5)]</p> | | | | | | | | | | | |
| Diagnostics | (Visit 6:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. | | | | | | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | | | Targ. Coord. Corrections | | | Miscellaneous | | | |
| | (6) | J0954_background | RA: 09 54 21.0000 (148.5875000d) Dec: +47 17 32.00 (47.29222d) Equinox: J2000 | | | | | | | | | |
| | <p><i>Comments:</i> <i>Category=Calibration</i> <i>Description=[Telescope/sky background]</i></p> | | | | | | | | | | | |
| Template | TA Method | | | | | | | | | | | |
| | NONE | | | | | | | | | | | |
| Dithers | # | Dither Type | | Size | Starting Point | | | Number of Points | Points | | | |
| | 1 | NONE | | | | | | | | | | |
| Spectral Elements | # | Grating/Filter | Readout Pattern | Groups/Int | Integrations/Exp | Leakcal | Dither | Autocal | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
| | 1 | G140H/F100LP | NRSIRS2RAPID | 50 | 1 | false | false | NONE | 1 | 1 | 744.033 | |
| | 2 | G235H/F170LP | NRSIRS2RAPID | 50 | 1 | false | false | NONE | 1 | 1 | 744.033 | |
| | 3 | G395H/F290LP | NRSIRS2RAPID | 50 | 1 | false | false | NONE | 1 | 1 | 744.033 | |
| Special Requirements | Sequence Observations 5, 6, Non-interruptible | | | | | | | | | | | |

Proposal 3663 - Observation 7 - Big Impact in Little Galaxies? A JWST Investigation of AGN Outflows in Dwarf Galaxies

Tue Jan 30 14:00:35 GMT 2024

| Observation | <p>Proposal 3663, Observation 7: J1009_NIRSpec</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: NIRSpec IFU Spectroscopy</p> <p>Background Observations:[J1009_Bkg (Obs 8)]</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|--|---|--------------------------|------------------|---------|--------|---------|---------------|--------------------|---------------------|------------------|--|---|----------------|--------------------|--------------------------|------------------|---------|--------|---|-------------------------|--------------------|---------------------|------------------|---|--------------|--------------|----|---|-------|------|------|---|---|----------|--|---|--------------|--------------|----|---|-------|------|------|---|---|----------|--|---|--------------|--------------|----|---|-------|------|------|---|---|----------|--|
| Diagnostics | <p>(Visit 7:1) Warning (Form): Data Excess over lower threshold</p> <p>(Visit 7:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fixed Targets | <table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(7)</td> <td>J1009</td> <td>RA: 10 09 35.6680 (152.3986167d) Dec: +26 56 49.04 (26.94696d) Equinox: J2000</td> <td>Epoch of Position: 2000</td> <td></td> </tr> </tbody> </table> <p><i>Comments:</i> Category=Galaxy Description=[Active galactic nuclei, Dwarf galaxies]</p> | | | | | | | | | | | | # | Name | Target Coordinates | Targ. Coord. Corrections | Miscellaneous | (7) | J1009 | RA: 10 09 35.6680 (152.3986167d) Dec: +26 56 49.04 (26.94696d) Equinox: J2000 | Epoch of Position: 2000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| # | Name | Target Coordinates | Targ. Coord. Corrections | Miscellaneous | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (7) | J1009 | RA: 10 09 35.6680 (152.3986167d) Dec: +26 56 49.04 (26.94696d) Equinox: J2000 | Epoch of Position: 2000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Template | <p>TA Method</p> <p>NONE</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dithers | <table border="1"> <thead> <tr> <th>#</th> <th>Dither Type</th> <th>Size</th> <th>Starting Point</th> <th>Number of Points</th> <th>Points</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>4-POINT-DITHER</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | | | | | | | | | | | # | Dither Type | Size | Starting Point | Number of Points | Points | 1 | 4-POINT-DITHER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| # | Dither Type | Size | Starting Point | Number of Points | Points | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 4-POINT-DITHER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spectral Elements | <table border="1"> <thead> <tr> <th>#</th> <th>Grating/Filter</th> <th>Readout Pattern</th> <th>Groups/Int</th> <th>Integrations/Exp</th> <th>Leakcal</th> <th>Dither</th> <th>Autocal</th> <th>Total Dithers</th> <th>Total Integrations</th> <th>Total Exposure Time</th> <th>ETC Wkbk.Calc ID</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>G140H/F100LP</td> <td>NRSIRS2RAPID</td> <td>60</td> <td>1</td> <td>false</td> <td>true</td> <td>NONE</td> <td>4</td> <td>4</td> <td>3559.689</td> <td></td> </tr> <tr> <td>2</td> <td>G235H/F170LP</td> <td>NRSIRS2RAPID</td> <td>60</td> <td>1</td> <td>false</td> <td>true</td> <td>NONE</td> <td>4</td> <td>4</td> <td>3559.689</td> <td></td> </tr> <tr> <td>3</td> <td>G395H/F290LP</td> <td>NRSIRS2RAPID</td> <td>60</td> <td>1</td> <td>false</td> <td>true</td> <td>NONE</td> <td>4</td> <td>4</td> <td>3559.689</td> <td></td> </tr> </tbody> </table> | | | | | | | | | | | | # | Grating/Filter | Readout Pattern | Groups/Int | Integrations/Exp | Leakcal | Dither | Autocal | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID | 1 | G140H/F100LP | NRSIRS2RAPID | 60 | 1 | false | true | NONE | 4 | 4 | 3559.689 | | 2 | G235H/F170LP | NRSIRS2RAPID | 60 | 1 | false | true | NONE | 4 | 4 | 3559.689 | | 3 | G395H/F290LP | NRSIRS2RAPID | 60 | 1 | false | true | NONE | 4 | 4 | 3559.689 | |
| # | Grating/Filter | Readout Pattern | Groups/Int | Integrations/Exp | Leakcal | Dither | Autocal | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | G140H/F100LP | NRSIRS2RAPID | 60 | 1 | false | true | NONE | 4 | 4 | 3559.689 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | G235H/F170LP | NRSIRS2RAPID | 60 | 1 | false | true | NONE | 4 | 4 | 3559.689 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | G395H/F290LP | NRSIRS2RAPID | 60 | 1 | false | true | NONE | 4 | 4 | 3559.689 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Requirements | <p>Sequence Observations 7, 8, Non-interruptible</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Proposal 3663 - Observation 8 - Big Impact in Little Galaxies? A JWST Investigation of AGN Outflows in Dwarf Galaxies

Tue Jan 30 14:00:35 GMT 2024

| | | | | | | | | | | | | |
|-----------------------------|---|-----------------------|---|-------------------|-------------------------|---------------------------------|---------------|-------------------------|----------------------|---------------------------|----------------------------|-------------------------|
| Observation | <p>Proposal 3663, Observation 8: J1009_Bkg</p> <p>Diagnostic Status: Warning</p> <p>Observing Template: NIRSpec IFU Spectroscopy</p> <p>Background Observation For: [J1009_NIRSpec (Obs 7)]</p> | | | | | | | | | | | |
| Diagnostics | (Visit 8:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. | | | | | | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | | | Targ. Coord. Corrections | | | Miscellaneous | | | |
| | (8) | J1009_background | RA: 10 09 38.0000 (152.4083333d) Dec: +26 56 50.00 (26.94722d) Equinox: J2000 | | | | | | | | | |
| | <p><i>Comments:</i> <i>Category=Calibration</i> <i>Description=[Telescope/sky background]</i></p> | | | | | | | | | | | |
| Template | TA Method | | | | | | | | | | | |
| | NONE | | | | | | | | | | | |
| Dithers | # | Dither Type | | Size | Starting Point | | | Number of Points | Points | | | |
| | 1 | NONE | | | | | | | | | | |
| Spectral Elements | # | Grating/Filter | Readout Pattern | Groups/Int | Integrations/Exp | Leakcal | Dither | Autocal | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
| | 1 | G140H/F100LP | NRSIRS2RAPID | 60 | 1 | false | false | NONE | 1 | 1 | 889.922 | |
| | 2 | G235H/F170LP | NRSIRS2RAPID | 60 | 1 | false | false | NONE | 1 | 1 | 889.922 | |
| | 3 | G395H/F290LP | NRSIRS2RAPID | 60 | 1 | false | false | NONE | 1 | 1 | 889.922 | |
| Special Requirements | Sequence Observations 7, 8, Non-interruptible | | | | | | | | | | | |