

NIRSpec Observing Strategies

Guidance is provided for astronomers preparing JWST NIRSpec observations. These recommendations are based on our best current knowledge of NIRSpec performance and operations.

The Near Infrared Spectrograph NIRSpec provides excellent quality observations from about 0.6 to 5.3 μm . NIRSpec offers [four main observing modes](#) (1) fixed slits, (2) an integral field unit, (3) bright object time series spectroscopy with stable, high photometric precision, and (4) multi-object spectroscopy. These capabilities will be used for a broad variety of observing programs that will probe all main JWST science themes: first light and reionization, assembly of galaxies, birth of stars and protoplanetary systems, planets and origin of life. To prepare these programs, observers will have to make a series of choices concerning detector usage, dither options, and background observations among others.

The following articles contain recommendations that are meant to help observers optimize their programs and obtain the best science output. These recommendations are based in our best current knowledge of the instrument performance and operations, and as such some of them may evolve in the future.

In this article we collect guidance and recommendations for astronomers preparing to use any of the NIRSpec observing modes using the [Astronomers' Proposal Tool \(APT\)](#). Here are the NIRSpec Observing Strategy Recommendations:

- [Detector](#)
- [Dithers](#)
- [Background](#)
- [Target Acquisition](#)
- [NIRSpec MOS Recommended Strategies](#)
- [MSA Leakage Subtraction](#)
- [Bright Object Spoilers and the IFU](#)