

SYMPOSIUM ON TECHNOLOGICAL REQUIREMENTS FOR FUTURE SPACE ASTRONOMY AND
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Scientific Motivation and Requirements for Future Space Astronomy and Solar System Science Missions (1)

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THE JWST FINE GUIDANCE SENSOR (FGS) OVERVIEW AND CURRENT STATUS

Abstract

The Fine Guidance Sensor (FGS) is one of the four science instruments on the James Webb Space Telescope (JWST). FGS features two modules: an infrared camera dedicated to fine guiding of the observatory and a science camera module, the Near-Infrared Imager and Slitless Spectrograph (NIRISS), covering the wavelength range between 0.7 and 5.0 μm with a field of view of $2.2' \times 2.2'$. The FGS was the first instrument installed on the JWST Integrated Science Instrument Module (ISIM) and has successfully completed the first ISIM cryogenic test campaign at the NASA Goddard Space Flight Center. Activities are currently under way to prepare for the second of three cryogenic tests and for activities related to instrument modifications, including the replacement of the flight infrared detectors. This paper presents an overview of the FGS design with a focus on the recent activities associated with the integration and test of the instrument with the ISIM.