



San Mateo County Astronomical Society



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Presentation on Friday October 6, 2023, 8:00pm PST in the CSM Planetarium

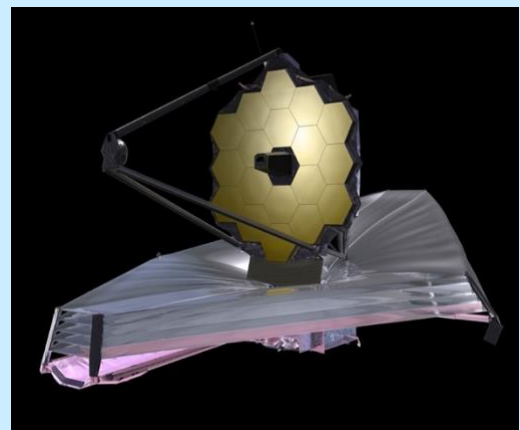
Dr. Thomas Greene

Astrophysicist, Space Science and Astrobiology Division, NASA Ames Research Center

Studying Exoplanets with The James Webb Space Telescope

Free and open to the public.

The James Webb Space Telescope is the most powerful and complex astronomical space observatory ever built. It launched in December 2021 into orbit in the Sun – Earth system. The large 6.5-m diameter JWST primary mirror and its infrared instruments allow it to see some of the very first luminous objects that formed in the Universe shortly after the Big Bang. Other major science themes of JWST encompass studying the assembly of galaxies, the birth of stars and planetary systems, and the origins of life. JWST is the premier astrophysics space observatory for NASA and the European Space Agency (ESA), with an expected 20+ year mission lifetime. It will augment the Hubble Space Telescope, which primarily works at visible and ultraviolet light wavelengths. Many scientists will use JWST to make discoveries that we have not yet imagined!



In this talk Dr Greene will illustrate how the JWST is being used to discover and characterize exoplanets in our galaxy, and present some of the exciting findings to date.

Biography:

Thomas Greene is an astrophysicist in the Space Science and Astrobiology Division at NASA's Ames Research Center. He conducts observational studies of exoplanets and young stars and develops astronomical technologies and instrumentation. He is currently leading projects studying exoplanets and protostars with JWST.



Dr. Greene is also a co-investigator on the NIRC2 and MIRI science instruments of the James Webb Space Telescope and serves on the JWST Users Committee. While at NASA Ames he has served as the Director of the Ames Center for Exoplanet Studies, Project Scientist of the SOFIA mission, and Chief of the Astrophysics Branch. Before joining NASA, he worked at the Lockheed Martin Advanced Technology Center on NASA astrophysics missions. Prior to that, Dr. Greene was on the faculty of the University of Hawaii where he was a support astronomer and later Director of the NASA Infrared Telescope Facility (IRTF).

He received his Ph.D. in astronomy from the University of Arizona. He is also a co-investigator on the Pandora Smallsat Astrophysics Pioneers mission and is on the Technical Assessment Group for NASA's Habitable Worlds Observatory.