

Series 4

Webb Telescope: NASA's Infrared 'Eyes' on the Universe

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Hashima Hasan is the NASA Program Scientist for NuSTAR, the Keck Observatory and ADCAR, and is Deputy Program Scientist for the James Webb Space Telescope. She serves as the Education and Communication Lead for Astrophysics and as the Executive Secretary of the Astrophysics Advisory Committee. In her role as Program Scientist, she makes sure that each project's mission remains possible and true to NASA strategic objectives. Hasan has been the program scientist for many other NASA missions, such as the Wide-field Infrared Survey Explorer, Gravity and Extreme Magnetism SMEX (GEMS), Stratospheric Observatory for Infrared Astronomy, Hubble Space Telescope, Explorer Program.

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Webb Telescope: NASA's Infrared 'Eyes' on the Universe

This James Webb Space Telescope (JWST), a partnership of the National Aeronautics and Space Administration (NASA), European Space Agency (ESA), and the Canadian Space Agency (CSA), is a technological wonder that will enable humankind to unlock some of the mysteries of the formation of the early Universe. Its 6.4 m mirror is made of 18 hexagonal pieces which fold up like a Transformer to fit into the rocket. A sun shield designed to protect the telescope and its science instruments from the heat of the Earth and the sun unfurls in space. The science instruments have cutting edge technology. This amazing observatory was successfully launched on December 25, 2021, now at its parking orbit 1.5 million km from Earth. Operating in the infrared, its scientific goal is show us the formation of the first stars and galaxies, tell us about exoplanets, the formation of elements that make up life, and much more. This talk will give a brief overview of the science and technology of JWST, and of plans for conducting science.



Dr. Hashima Hasan

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