

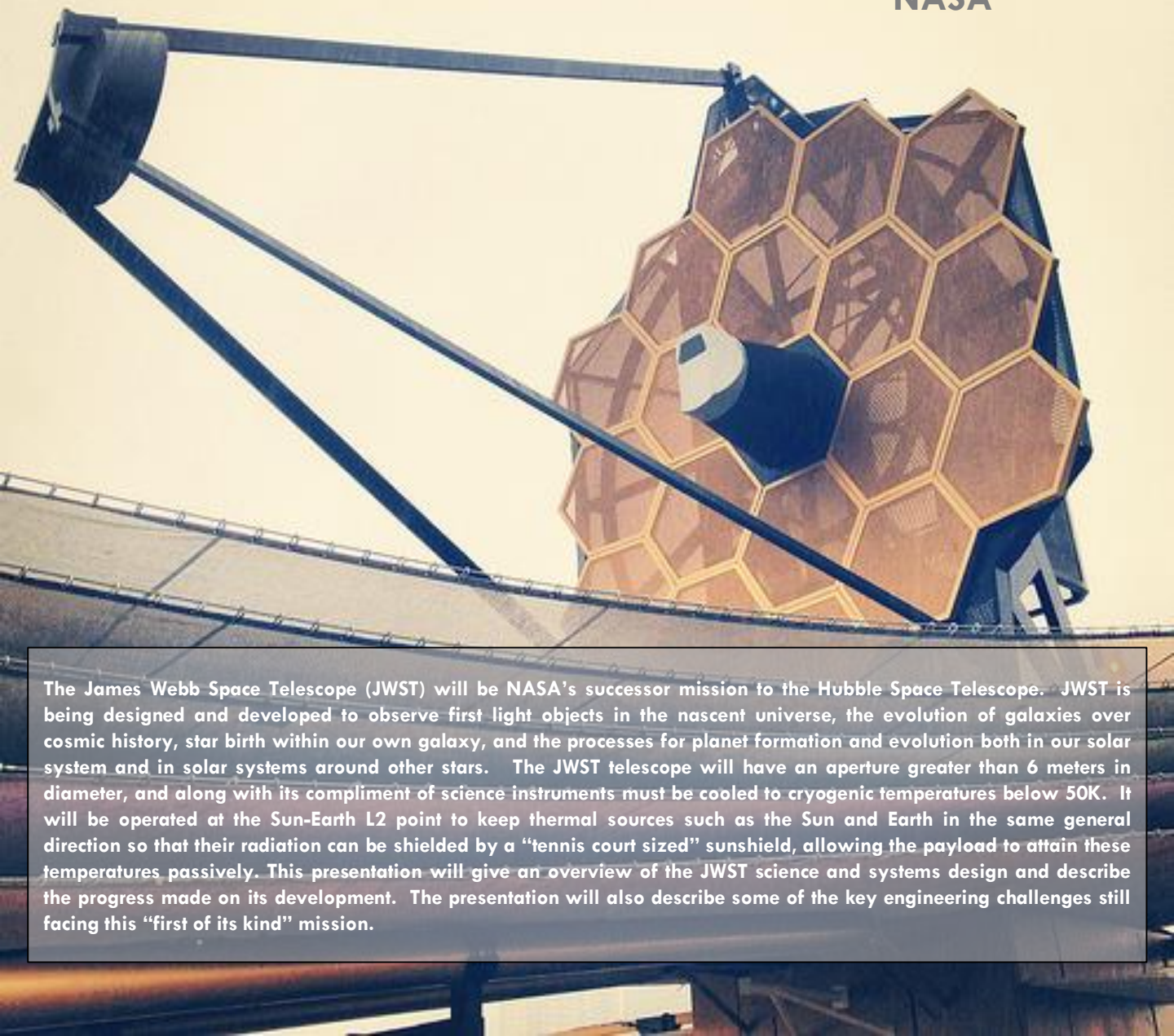
Lecture open to the Public

MONDAY – APRIL 30

7:30 PM – Computer Science Building Room 105

The James Webb Space Telescope

by Michael T. Menzel, JWST Mission Systems Engineer
NASA



The James Webb Space Telescope (JWST) will be NASA's successor mission to the Hubble Space Telescope. JWST is being designed and developed to observe first light objects in the nascent universe, the evolution of galaxies over cosmic history, star birth within our own galaxy, and the processes for planet formation and evolution both in our solar system and in solar systems around other stars. The JWST telescope will have an aperture greater than 6 meters in diameter, and along with its complement of science instruments must be cooled to cryogenic temperatures below 50K. It will be operated at the Sun-Earth L2 point to keep thermal sources such as the Sun and Earth in the same general direction so that their radiation can be shielded by a "tennis court sized" sunshield, allowing the payload to attain these temperatures passively. This presentation will give an overview of the JWST science and systems design and describe the progress made on its development. The presentation will also describe some of the key engineering challenges still facing this "first of its kind" mission.