

JOHN MATHER

NASA GODDARD SPACE
FLIGHT CENTER



2006 NOBEL LAUREATE

KANSAS STATE
UNIVERSITY

College of Arts & Sciences
Department of Physics

2023 CHESTER PETERSON LECTURE

LIVESTREAM



tinyurl.com/mr3yx8d8

OPENING THE INFRARED TREASURE CHEST WITH THE JAMES WEBB SPACE TELESCOPE

OCTOBER 3, 2023 AT 4:30 PM IN 101 CARDWELL HALL

Refreshments at 4 pm in CW 119

The James Webb Space Telescope was launched on Dec. 25, 2021, and commissioning was completed in early July 2022. With its 6.5 m golden eye, and cameras and spectrometers covering 0.6 to 28 μm , Webb is already producing magnificent images of galaxies, active galactic nuclei, star-forming regions, and planets. Scientists are hunting for some of the first objects that formed after the Big Bang, the first black holes (primordial or formed in galaxies), and beginning to observe the growth of galaxies, the formation of stars and planetary systems, individual exoplanets through coronagraphy and transit spectroscopy, and all objects in the Solar System from Mars on out. It could observe a 1 cm^2 bumblebee at the Earth-Moon distance, in reflected sunlight and thermal emission. I will show how we built the Webb and what we hope to find. Webb is a joint project of NASA with the European and Canadian space agencies.