

TALK: Nonsensitive:

Title:

"Servicing Mission 4 and the Extraordinary Science of the Hubble Space Telescope"

Abstract:

Just two years ago, NASA astronauts performed a challenging and flawless final Space Shuttle servicing mission to the orbiting Hubble Space Telescope. With science instruments repaired on board and two new ones installed, the observatory is more powerful now than ever before. I will show the dramatic highlights of the servicing mission and present some of the early scientific results from the refurbished telescope. Its high sensitivity and multi-wavelength capabilities are revealing the highest redshift galaxies ever seen, as well as details of the cosmic web of intergalactic medium, large scale structure formation, solar system bodies, and stellar evolution. Enlightening studies of dark matter, dark energy, and exoplanet atmospheres add to the profound contributions to astrophysics that are being made with Hubble, setting a critical stage for future observatories such as the James Webb Space Telescope.