

# CHESTER PETERSON LECTURE SERIES



## WENDY FREEDMAN UNIVERSITY OF CHICAGO

In 1929 astronomer Edwin Hubble discovered a universe filled with galaxies, and even more incredibly, a universe in which the galaxies are participating in an overall expansion of space. The current rate of expansion, called the Hubble constant, is a measure of the age and size of the universe. It has remained an exceedingly difficult quantity to measure accurately, and decades of effort have led to intense debates about its value. Recently, a new debate has emerged about the Hubble constant, potentially calling into question the standard model of cosmology. For the past 20 years, astronomers have observed the entire universe to be expanding at an increasing rate, pulled apart by a cosmic force, unexplained by any of our current physical theories. Could there be more exotic physics yet to be uncovered? Professor Freedman will describe the current state of cosmology and her work with the Hubble Space Telescope that has led to some of the most precise measurements of the Hubble constant made to date, as well as describe upcoming observations with the James Webb Space Telescope.

# HOW FAST IS THE UNIVERSE EXPANDING?

**September 27 at 4:30 pm**

**103 Cardwell Hall**

**Mediasite Stream or Zoom**

*email office@phys.ksu.edu for link*

*Refreshments at 4 pm in 119 Cardwell*

