DEPARTMENT OF
PHYSICS &
ASTRONOMY

TEXAS TECH
College of Arts & Sciences

THE BUCY LECTURE SERIES

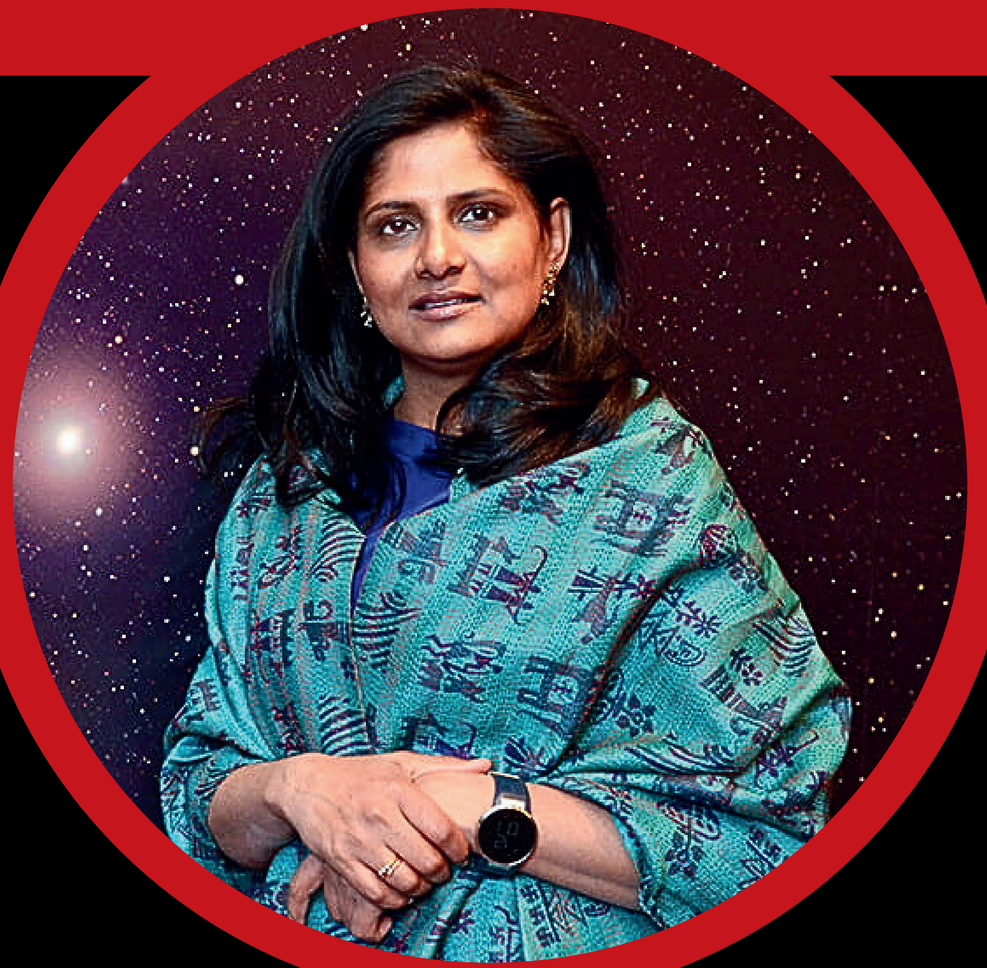
PRIYAMVADA NATARAJAN

YALE UNIVERSITY

TIME
7:30 PM

TUESDAY
OCTOBER 7

LOCATION
SCIENCE BUILDING LECTURE ROOM 7



UNVEILING THE INVISIBLE UNIVERSE WITH THE JAMES WEBB TELESCOPE

The James Webb Space Telescope (JWST) is transforming our understanding of the early universe, offering an unprecedented glimpse into the birth of the first galaxies and black holes. These discoveries are overturning long-standing ideas about how quickly structure emerged after the Big Bang and are revealing cosmic surprises — from unexpectedly mature galaxies at extreme distances to massive black holes forming far earlier than anticipated. In this talk, I will highlight some of JWST's most exciting recent findings and connect them to earlier theoretical ideas. I will explain how these observations challenge existing models of cosmic evolution and raise new questions about the interplay between black holes, galaxies, and the invisible universe of dark matter and dark energy. I will close with a preview of where the field is headed next in terms of new instruments and facilities.