

Launch Services Program presents...

National Aeronautics and
Space Administration



NuSTAR

The Nuclear Spectroscopic Telescope Array (NuSTAR) is an explorer mission that will allow astronomers to study the universe in high energy X-rays. NuSTAR will be the first focusing hard X-ray telescope to orbit Earth and will dramatically improve sensitivity and imaging capability over previous space missions that have observed this region of the electromagnetic spectrum.

By focusing higher energy X-rays, NuSTAR will help to answer fundamental questions about the Universe including:

- How are black holes distributed through the cosmos?
- How were heavy elements forged in the explosions of massive stars?
- What fuels the most extreme active galaxies?

NuSTAR's X-ray telescope will undertake a broad range of scientific investigations. For example, NuSTAR will observe the Milky Way to search for the remnants of exploded stars, such as white dwarfs, neutron stars, and black holes that radiate at high energies. Using the penetrating power of high-energy X-rays NuSTAR will peer deep into dusty galaxies to find the billion solar mass black holes that reside in the galactic centers. Other targets range from galaxy clusters – the largest-known gravitationally bound structures in the Universe – to our own Sun.

LAUNCH VEHICLE: Pegasus XL
LAUNCH LOCATION: Kwajalein Atoll
LAUNCH DATE: 2012

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