



Hubble Ultra Deep Field

This image is one of the deepest views of the visible universe. Called the Hubble Ultra Deep Field, the million-second-long exposure reveals a myriad of galaxies at immense distances from Earth.

In all, nearly 10,000 galaxies are visible in a patch of sky that is just one-tenth the diameter of the full Moon. Many of these galaxies are too faint for ground-based telescopes to see and weren't even visible in Hubble's previous views, which are called the Hubble Deep Fields and were taken in 1995 and 1998. These observations represent a "deep" core sample of the universe, cutting across billions of light-years.

The smallest, reddest galaxies (about 100 of them) may be among the most distant known. In the standard Big Bang cosmology, these came into existence when the universe was just 800 million years old (almost 13 billion years ago). The nearest galaxies - the larger, brighter, well-defined spirals and ellipticals - thrived about 1 billion years ago. Also unveiled is a zoo of oddball galaxies that may represent a period when the universe was younger and more chaotic.

Hubble Space Telescope – Advanced Camera for Surveys
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