



Abell 370

Several hundred galaxies bespeckle this visible and near-infrared light image. This galaxy cluster, named Abell 370, contains a diverse collection of galaxy shapes located around 4 billion light-years away. The yellowy-white galaxies are elliptical galaxies, which are the brightest and most massive galaxies shown, each containing hundreds of billions of stars. The bluish galaxies are spiral galaxies like our Milky Way, which have smaller and younger populations of stars.

The faint arcs of light throughout the picture are distorted images of faraway galaxies located behind the galaxy cluster. While these galaxies are too distant and faint for Hubble to image directly, scientists can make use of a phenomenon known as gravitational lensing. The galaxy cluster's enormous mass acts as a zoom lens that warps space and distorts, magnifies, and brightens the light traveling through it toward Earth. Abell 370's strong gravitational lens magnifies objects more than three times as far away as the cluster itself!

Hubble Space Telescope – Advanced Camera for Surveys, Wide Field Camera 3
NASA, ESA, J. Lotz, and the Hubble Frontier Fields Team