Japanese astronomers claim to have discovered earliest galaxy

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Japanese astronomers say they have discovered the oldest and most distant galaxy in the universe using a telescope on the Big Island of Hawaii, a finding that challenges other “earliest galaxy” claims.

Using the Subaru and Keck Telescopes at Mauna Kea, the group said their galaxy, called SXDF-NB1006-2, has a distance of 12.91 billion light years from Earth, or more than 77 trillion billion miles away.

Reporting in the Astrophysical Journal, the National Astronomical Observatory of Japan researchers said looking at distant galaxies is akin to looking back in time, as we are seeing what these galaxies looked like long ago.

SXDF-NB1006-2 is slightly further away than GN-108036, which was discovered last year using the Subaru Telescope and at that time was the most distant galaxy known.

This latest work is much more convincing than some other galactic discoveries, said Richard Ellis of the California Institute of Technology (Caltech). The Japanese claim is more “watertight” than others, as it had used methods that are agreeable to other astronomers.

This is “the most distant bullet-proof [discovery] that everybody believes,” Ellis told the Telegraph.

French astronomers using NASA’s Hubble Space Telescope reported in 2010 that they had discovered a galaxy 13.1 billion light years away, and a California team using Hubble said they saw a galaxy 13.2 billion light years ago, but both teams have yet to confirm their findings, said Ellis.