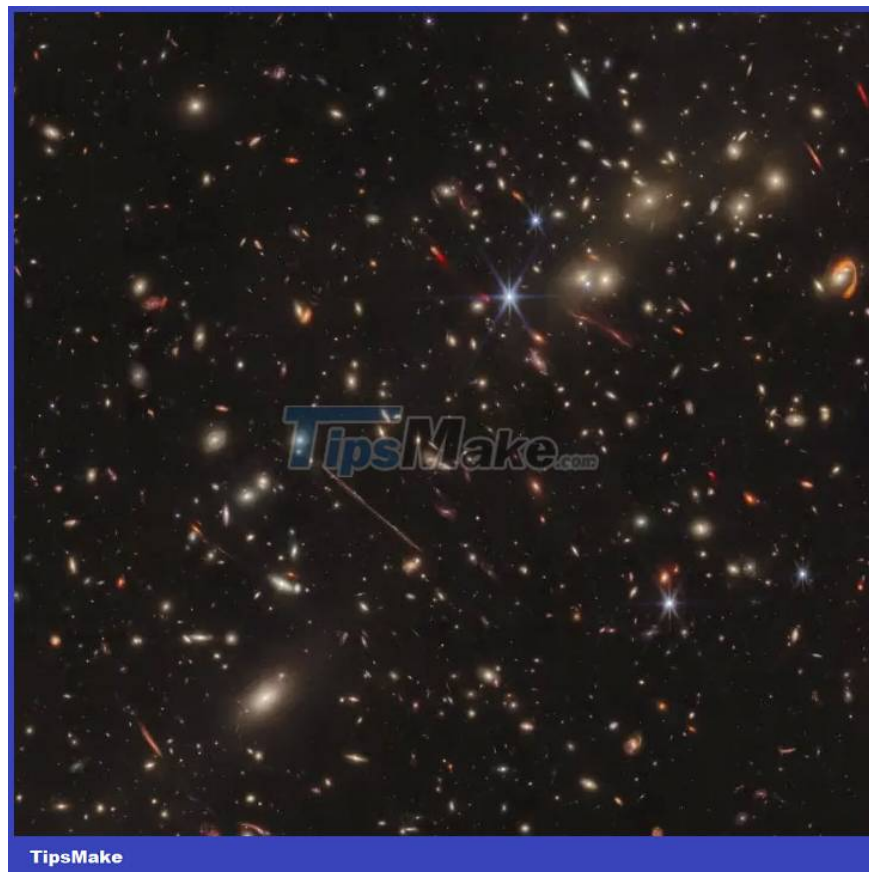


The majesty of the largest galaxy cluster ever known under the eyes of the \$10 billion telescope

Nicknamed El Gordo, or fat galaxy cluster, this galaxy cluster is thought to be more than 2 million billion times the mass of the sun.

The world's most expensive 'Space Super Telescope' - James Webb - has just continued to prove its absolute importance in the field of astronomical research when sending back to Earth a precious picture, demonstrating the beauty and of the largest galaxy cluster known to date.

Nicknamed El Gordo, or fat galaxy cluster, this galaxy cluster is thought to be more than 2 million billion times the mass of the sun. El Gordo is located 7 billion light-years away and contains hundreds of galaxies bound together by gravity. The image below, taken by James Webb's NIRCam system, shows a relatively detailed view of this massive star cluster as well as the numerous galaxies within it.



Because El Gordo is so massive, its image shows a phenomenon called gravitational lensing, in which massive objects in the foreground warp space-time and magnify the light coming from the stars. galaxy far behind. This allowed the researchers to observe some extremely distant objects, such as a galaxy called Thin One (near the center of the image in the lower left) and Fishhook (hook shape) red sentence top right).

Among the objects observed in the image, there is a very young galaxy cluster in the early stages of formation, located so far away from Earth that it is normally difficult to see - more than 12 billion light years. bright.

The researchers recorded this data as part of a project called PEARLS (Prime Extragalactic Areas for Reionization and Lensing Science), which primarily uses James Webb's observations to look for objects located at a distance. very far.

Since the late 1990s, NASA has worked with the European Space Agency to develop James Webb, at a cost of about 10 billion USD. James Webb is the most powerful and modern telescope ever created by man, and is expected to provide unprecedentedly detailed images of the universe, helping scientists explore, find understand the universe as well as life beyond Earth.

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