

Galaxies

Producer: YASER AMIRI

Systems are characterized by large size and boundary galaxies of stars, remnants Starhnmaha (like stars), dark matter, gas and dust of the interstellar gas by gravitational forces to come together, have formed. The smallest galaxies have a width equal to a few hundred light years, including nearly 10 million stars. The largest galaxies to 3 million light-years wide and contains over 100,000 billion stars. In astronomy and cosmology, dark matter, a hypothetical substance is because of light (electromagnetic radiation) emitted or reflected does not see it directly, but from gravitational effects on visible matter such as stars and galaxies, it can be realized. It is not easy to visualize and understand dark matter, but the knowledge of astronomy is important .

Magnitude, characteristics, morphology, classification:

Galaxy name in English: Galaxy derived from Greek roots meaning Milky Galaxias and the Milky Way to English: Milky Way galaxy is called the root. Great view of the stars and galaxies are wide, nearly 10 million stars in dwarf galaxies [6] and up to 100 trillion galaxies giant stars [7], the [8] All the stars in a galaxy in its own orbit, around the central are galaxy density. May be several star systems, galaxies, star clusters and interstellar clouds are composed of variety. The Sun is one of the stars of our galaxy, our solar system or Solar System includes the Earth and all its parts, all of which are driven in its orbit Grdkhvrshyd. All manner of shapes of galaxies are classified into categories based on the way the American astronomer Edwin Hubble (1889-1953), was formed. About anabolism (evolution) of galaxies is little firm data. The only certainty is that the galaxies billions of years ago as a mass of dust and gas clouds came. From a historical perspective and background galaxies have been categorized according to their physical appearance and morphology of most of the work we have done. Conventional form elliptical galaxies [9] as they cut an oval cross-section width are illuminated. Spiral galaxies with a circular cross section are similar to those pages together arms were full of dust. Another group of diverse galaxies and unusual shapes are known as irregular galaxies. Knowledge of a discipline that is more due to the gravitational pull of neighboring galaxies has their place. Face star also galaxies that are devoid of a coherent structure, as well as irregular galaxies, among others. [10] More than 170 billion galaxies in the Universe by human Mshahdhast there. [11] Most galaxies in

diameter, between 1000 and There are 100,000 parsecs [12] (each parsecs is about 31 trillion kilometers). Most galaxies millions of parsecs away and even Mgaparsk fallen apart. [13] The space between the galaxies is filled with a gas with a density less than one atom per cubic meter! A high percentage of galaxies of stars are related to the hierarchical organization of the cluster were apparent and eventually form a giant star cluster. The structures of giant screens and fields are more prevalent around them Pvshandhast infinite void. [14], understanding that dark matter constitutes 90% of the mass of most galaxies, is not easy. Astronomers believe at least one hole in the center of the Milky Way has Jakhvsh. [15 []Edit] See morphological types of galaxies

- irregular galaxies

Heterogeneous or rule of any shape or structure of galaxies are organized, they have more mass than stars in other galaxies and most of them are brilliant little life. Although many regions of galaxies containing hot gas are heterogeneous in that they are made of stars, galaxies and interstellar gas must be compressed further to make new stars. Nearly five percent of the thousands of bright galaxies forming galaxies Nhmgn. While it is known that a quarter of the galaxies galaxies are heterogeneous .

- Snake Galaxy screw

Spiral galaxies have spiral arms that form around Myanhay or nuclear bulge, a pill that nuclear spins associated with the rotation of the arm. The youngest stars in the arms of spiral galaxies are found in low-mass stars are older than the compressed core. Oldest stars in the galaxy halos round tables scattered around the place and learned. The arm also has a lot of dust and gas are leading to new stars are being created .

- spiral bar

A spiral galaxy has a nuclear bar and a bar-shaped bulge is drawn Myanhay. It seems that the nuclear spins in the core as well as a revolving arm. Some astronomers believe that the Milky Way is a spiral galaxy bar. Bar-shaped spiral galaxies and spiral galaxies of galaxies with large bumps arms Myanhay Khkshahay not contiguous to the central ridges, and small arms ranges free. Although spiral galaxies and spiral galaxy bar before the two were separated by categories, but today, as astronomers call them .

- elliptical galaxies

Elliptical galaxies formed from the perspective of the Byzygvn (like a rugby ball) to form spherical shapes are variable and are found between the two. To reverse the blue stars in other galaxies that are bright and reflect a little longer, elliptical galaxies appear yellow.[16 []Edit] The origin of the word galaxy (Galaxy (

The word galaxy is derived from galaktikos or kyklos or galaxias and means "curved milky way" is. This transformation has seen the appearance of the Milky Way in the sky. Today we call the Milky Way. [17] In the literature, the term Milky Way Galaxy with the letter G is interpreted as large as our galaxy of billions of other galaxies to separate. The Milky Way (Milky Way), first recognized in 1380 in the home of a famous poem by the English poet Chaucer was used to. [18] William Herschel when attempting to catalog the heavenly bodies, he takes advantage of the cloud spiral galaxies -31 th. Later these objects as "boundless countries Hertz stars" were interpreted as astronomical distances and incredibly brilliant Oscar dubbed these objects "Islands Universe" was given to them. However, because the universe of all universe (the universe) and all the objects that are known and not known all this universe, so the term "islet Universe" was renamed to the Galaxy. [19]

Milky Way

The Milky Way is the galaxy in which we live that we Earthlings. This galaxy is the bright strip of the sky, the celestial equator and 63 degree angle, making it rounder. On a dark night with no moon can be seen with the naked eye .

Andromeda spiral galaxy triangular cluster galaxies have nearly thirty dwarf galaxy. Tuesday dwarf galaxies around the Milky Way and the Large series of satellites orbiting the galaxies are considered. Together with its solar system at a distance of about 24,000 to 28,000 light years from the galactic center and the center spins around once every 250 million years. The survey revealed that 28 stars near the galaxy's central black hole with a mass of nearly 4 million times the mass of the Sun is located there. According to Kepler's third law, which is expressed both physically spin around a larger body mass (here is the Milky Way) can be divided by the mass of the Sun is equal to the size of the circuit body of the third smaller (hereabout 90 billion solar masses is derived. The number of galaxies within a centralized mass of all substances has a place in the sun orbits the galactic center obtained. It is natural that some of the mass of the universe is outside the orbit of the sun. That's no crime, it does not matter. With this method, scientists have been able to chart a different distance from the galaxy center of mass are substances that are found. Pivot Chart This chart is known by name. With the help of this diagram reveals that the mass of the galaxy is about 15,000 parsecs from the galactic center is about 20 billion solar masses. This range also includes globular clusters and galactic arms. You may think that the object distance is greater than the distance to the galaxy center Samsanh what happens Solar is accelerating their decline. Now, the mass of a dark halo (Dark halo) has been assigned .

Most of the mass of the galaxy's dark halo is indeed the dark halo is composed of what

substance? Keep in mind that words do not mean dark eyes wide range of materials, but not observed in the spectral range (from gamma rays to radio) are not detectable. Only due to the gravitational effects that they seek to Brdhaym. It's not dark matter consists of molecules of hydrogen and not of an ordinary star. Stellar-mass black holes, objects Maku (MACHO) which consists of a brown dwarf (low-mass stars that have failed due to begin nuclear reactions), a low-mass white dwarf and a red dwarf is weak candidates are preferred. Subatomic particles as well as the option to list the ingredients of dark matter have been added. These particles have mass but very little interaction with ordinary matter to have. A bunch of these substances are known to weaken the interaction of particles with mass. Our ancestors thousands of years ago there was this silver bar found in the sky. Many ancient peoples believed that the tape is the way the ancients left over from the other world. Another family believe that this tape is something that God himself Mhafzanh night casts on human society. [21] The Milky Way is a vast collection of over 200 billion stars, planets, clusters and dust. Our sun and solar system are also part of the galaxy. The Milky Way is a spiral galaxy, Hubble's view of the S - B or S - Thirty-one members of the local group, that the group Drbrgryrndh own Milky Way, Magellanic Clouds, Andromeda and many other small galaxies. Recent observations show that the Milky Way is a spiral galaxy with a mass volume of more than 750 billion times the mass of the solar system, the solar system and the diameter is about 100,000 light years. Australian astronomers an extra cosmic arm in the Milky Way discovered that a gas line has been drawn thicker around the larger galaxy. The astronomers hope that these findings paint a better picture of the planet Earth in the Milky Way, it is rather useful. The gas line that spans about 6,500 light-years showed that the structure of galaxies like the Milky Way. These galaxies have gaseous spiral arms that are extended beyond Myanhay stellar spiral arms. Astronomers believe the Milky Way has 4 arm consisting of hydrogen, dust and stars have been driven out of the center. It's recently been discovered that the gas line from the middle of the Milky Way, 60,000 light years away. There is gas in the surrounding galaxy, but there is a point where the gas. The gas line is in the Galaxy Dvrdsttryn the last thing seen before the disappearance of the universe. The researchers doing research on the plate or disk of hydrogen gas in the Milky Way, who were faced with the extra arm. Researchers believe the newly discovered arm of one of the arms of the galaxy stellar Myanhay link. [22] The Greek philosopher Democritus (lived 370 to 450 BC) believed that the bright band of the Milky Way known that appear in the night sky is probably far more numerous than the stars made. interactions with celestial cosmos has occurred. [24] for the first time an Arab astronomer Ibn al-Haytham (965 to 1037 live births) parallax (see

back) measurements and observed the Milky Way. [25 [

Andromeda Galaxy

The largest galaxy in the Local Group galaxies galaxy Andromeda-M31 and the M31 menu was named after Charles Messier. This galaxy is located at a distance of 2,555,000 light years. Local Group galaxies, including M31, M32, M33, M110, and the Milky Way. The mass of the sky can be seen with the naked eye. Alsvfy Rahman for the first time the name of a small cloud (Little Cloud) was known, while Charles Messier's catalog in 1764 it went to register on August 13. Andromeda galaxy, our nearest large time supposed, even William Herschel did this slip. The mass of the galaxy is closer to 300 to 400 billion solar masses. Theories about the Andromeda changed when Edwin Hubble, astronomer, famous, 100-inch telescope was built in 1917 near Los Angeles won for the first time in the arms of the galaxy to find specific stars. The stars are like the stars of the Milky Way can be found, but they were very faint. Edwin Hubble discovered that one of the three stars of the variable component of the Cepheus variables, variables that change their brightness was predictable .

Active galaxies and unusual

All galaxies will be emitted from the obvious Baztabalktrvmghnatysy. Some galaxies, so unusual, they have plenty of light. These galaxies are called active galaxies. High-mass energy source but they also pressed into place in the middle of an active galaxy is funded. More energy as X-rays, radio waves and light, and the amount of energy released is large enough that it can be conceived stars are created. So why do some galaxies, including our own galaxy the energy released is almost a black hole in the middle are small Myanhay. [26 [

Quasars (star Views (

It seems that quasars (star Views) distant galaxies have active nuclei. They are the brightest, and the most distant objects known in the universe are Shtabantryn. Quasars as stars from the ground like a tiny bright spot can be seen. Although only the size of quasars Khvrdshyd System (Solar System) are some distance light would pass nearly 10 billion light years to reach us. In order to identify these objects, we need to avoid excessive exposure to light we have. Some energy radiation from quasars is about 100 times the radiation of large galaxies. With the expansion of the universe are quasars, the outside edge rather quickly fall away. About 12 billion light year's distant quasars visible at the end of the visible world. For a long time it takes light to reach Earth quasars, these galaxies enable astronomers to the world in the early stages of formation, are studied. Quasars, extremely bright and compact at the same time are very important. In assessing the extent of the Milky Way is 100,000 light-years, with diameters of a few days or week's optical quasars form. [27 [

Radio galaxies

All galaxies, radio waves, visible light and produce their own types of radiation. RF energy to power a radio galaxy is much more dense than normal galaxies. The energy of the two blocks is too large or giant clouds of dust moving away from bright galaxies are Tshtsh. The huge clouds of gas that bursts from the galactic center at a rate equal to one-fifth the speed of light are formed in the sky. Of a radio galaxy is only one of a million galaxies. [28 [

Colliding galaxies

Most of our neighboring galaxies, the galaxies are a hundred thousand light-years away. are connected. Galaxies may be too closely associated with the occurrence of collisions they have been looking for a radical transformation in their appearance occurs. [29 [

Galaxy clusters

Most galaxies, including galaxy clusters or groups that remain together by gravity. Part of a small cluster of the Milky Way and the Local Group, which is called heterogeneous. Variety of heterogeneous clusters containing several thousand galaxies or galaxies of different types. Organized clusters of galaxies, which include nearly 1,000 gathered for an intensive form Kmabyshkrvy, have made, elliptical galaxies are more. Even in the intensive group together, galaxies thousands of light years away from each other. Clusters instead of side by side, they form structures larger Supercluster. The most distant object visible to the naked eye in the constellation Andromeda. The distance to this galaxy is 2.2 million light years from the Earth. The closest galaxy to the Milky Way and Large Magellanic Clouds, which are small at a distance of approximately 170,000 and 190,000 light years from Earth, are in place. [30 [

Local Group

We are a small cluster of galaxies consists of 30 galaxies called the Local Group. The central member is free, but the largest galaxies are more massive Milky Way and Andromeda galaxy are two groups of centers. After the galaxies in the group's largest galaxy, spiral galaxy M33 and the Large Magellanic Cloud are. Members of other groups, irregular galaxies are small galaxies or faint elliptical. Other members of this group may be due to the low light they had not seen. [31 [

Cloud Clusters

Cloud clusters refers to the number of galaxy clusters are the largest structures in the world. Every cloud cluster may consist of 10 full galaxy clusters, which took the form of a bright spiral or tape. This structure may be up to one hundred million light-years across, that they are clustered. The local group is part of a local cluster of clouds. This is a cloud cluster contains several hundred galaxy clusters. Vacuum boundaries between cloud clusters cloud

bands form clusters. Astronomers have discovered the structure of cloud clusters are even larger, it was called the Great Wall. Great wall of large distributed cloud clusters and clusters are drawn. The structure of a volume of about 260 730 light years it takes in 30 million. Astronomers believe that the universe contains many of the lateral walls of the vacuum is equal to 400 million light years scattered .

Khkshankhvary

Mostly in the central part of the galaxy cluster that contains a host, is a giant elliptical galaxy. Such clusters are found in the centers of galaxies known Hymtryn. These observations suggest that galaxies, clusters of galaxies, the massive central Hymtryn join. This process, called Khkshankhvary. Khkshankhvar may have more than one core .

Virgo cluster (spike (

This cluster was composed of irregular galaxies, at least from 1000, six million light years across and 60 million light-years across. [32 [

The number of stars and nebulae that we have more. The Milky Way is a spiral galaxy with arms. Even with a small telescope that can see millions of stars, but the stars all belong to the Orion Arm (or the local arm) are. Nahmgvnyhayy clouds of dust and gas in the galaxies we see in the dark (dark Sahabi) are.

Reference

<http://www.globalchange.umich.edu/>