

A Galactic Fact Sheet

Classification of Galaxies

Galaxies come in pairs, triples, groups, and clusters. Clusters of galactic clusters also exist.

The three broad categories of galactic shapes are:



elliptical (E)



spiral (S)



irregular (Irr)

- Spirals are subdivided into two types: normal (S) and barred (SB).



Barred spiral (SB)

- About one-quarter of all spirals are barred spirals, in which the spiral arms terminate at the ends of a central bar, which rotates as a unit.
- More than two-thirds of the brightest, most conspicuous galaxies are spirals
- About 3% are irregulars, and the rest are ellipticals.
- In the universe as a whole, elliptical galaxies are far more numerous.

The Milky Way

- a giant spiral galaxy of billions of stars, including our Sun.
- an immense disk-shaped object, far larger than most of the galaxies in its immediate neighborhood
- Its true shape, size, and nature have only been discovered by astronomers in the 20th century.
- Its visible disk has a diameter of approximately 100,000 light-years and a height above its principal plane of about 1,000 light-years, although some kinds of objects, such as globular clusters, extend much farther above the galactic plane.
- The Galaxy's mass is possibly 1,000 to 2,000 billion times the mass of the Sun. As the Sun's mass is about average for a star in the Galaxy, the total number of stars must also be of this order.
- The Sun lies a little more than 30,000 light-years from the center of the Galaxy.

Local Group Of Galaxies

The area around our Galaxy is populated by other galaxies that make up a small cluster called the **local group**.

The LOCAL GROUP OF GALAXIES contains 22 known members and is spread out over a region about 3 million light-years in diameter.

Most of these neighbors, such as the MAGELLANIC CLOUDS, are far smaller and less luminous than the Galaxy.

The only other large galaxy is the ANDROMEDA GALAXY, which is more than 2 million light-years away, is somewhat larger and more luminous than our own galaxy and is visible to the naked eye.

The Local Group is near the edge of a supercluster of galaxies, revolving about its center at about 400 km/sec (240 mi-sec).

The supercluster, which has a diameter of about 130 million light-years, also contains the great Virgo cluster of about 2,500 galaxies.

Evidence exists that the supercluster itself may in turn be part of a much larger supercluster of tens of thousands of galaxies called the "Great Attractor."