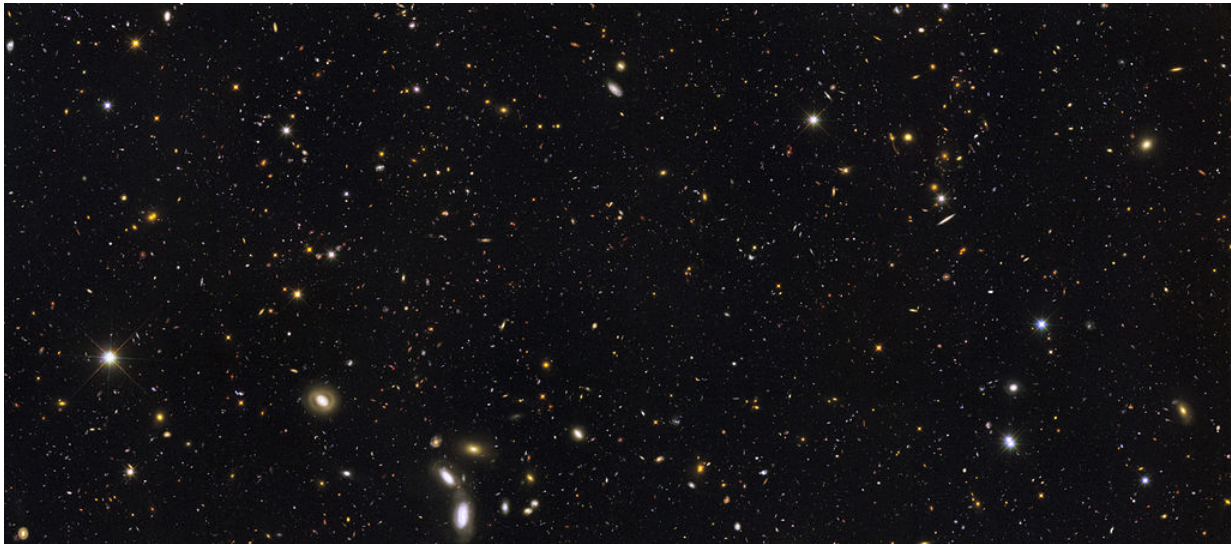


1.2: Basic Objects in the Universe

This module starts with the question, “What is Astronomy?” Simply stated, Astronomy is the study of the Universe. Astronomers classify objects into various groups based on characteristics and locations in our Universe. Some of these classifications, such as stars, are easy to understand scientifically. Other objects are more difficult to classify, and in some instances, to entirely understand. This module identifies basic objects in our Solar System and those beyond, the overall scale of the Universe, and patterns in the night sky.

Stars

Stars are glowing balls of gas that undergo nuclear fusion; the Sun is a star.

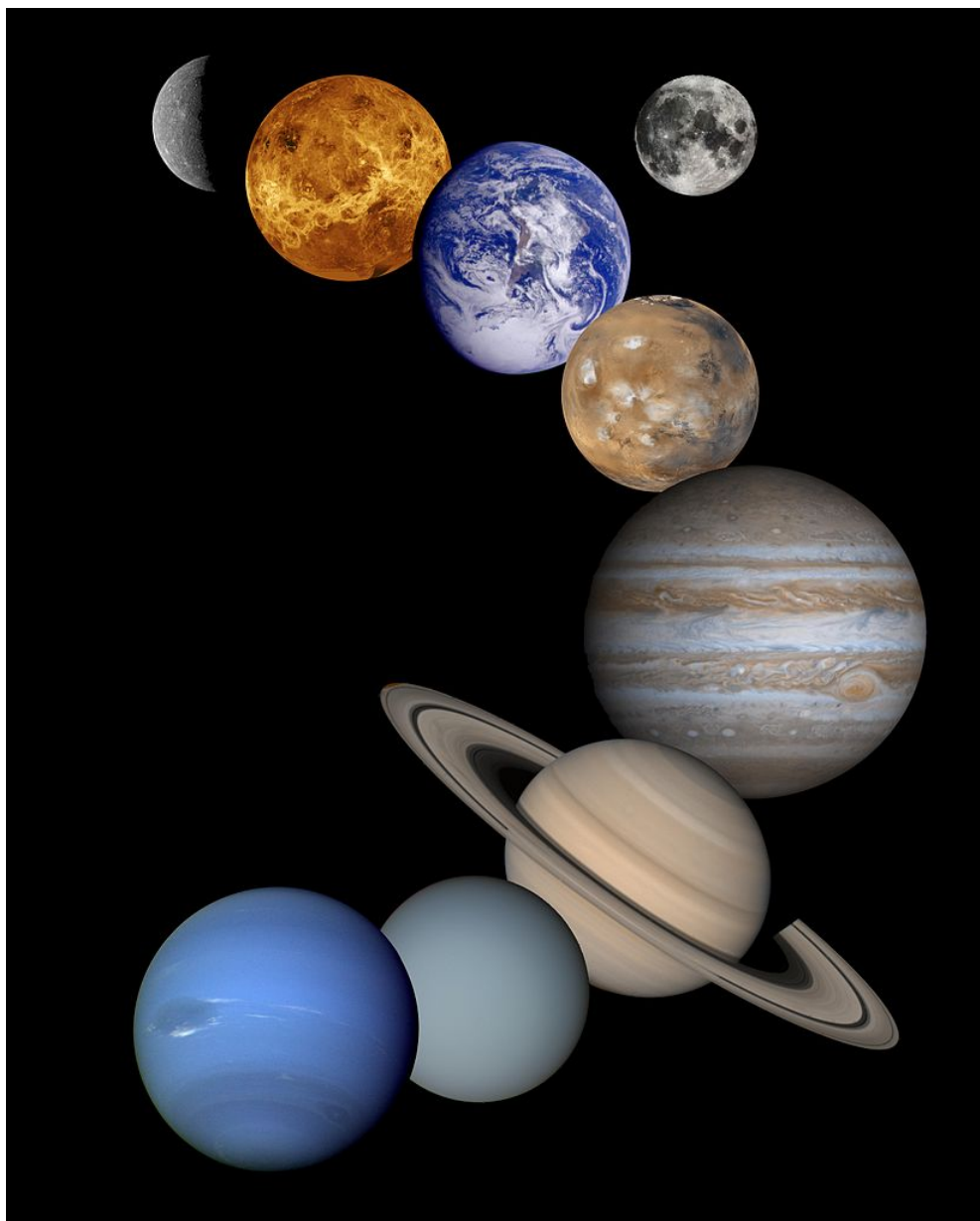


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Planets

Planets are moderately large objects orbiting a star. We see planets because they reflect the light of their central star, or in some cases, stars. Planets are generally rocky or gaseous in nature and spherical-shaped.

A new group of objects has been recently defined: the Dwarf Planets or Plutoids. These are objects that orbit the Sun, but have not cleared their orbits. Pluto is an example of a Dwarf Planet.



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Satellite

A **satellite** orbits a planet; these objects are also called moons. For example, the Earth's satellite is the Moon – a proper name.



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Asteroid

An **asteroid** is a relatively small, rocky/metallic object *usually* orbiting a star.



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Comet

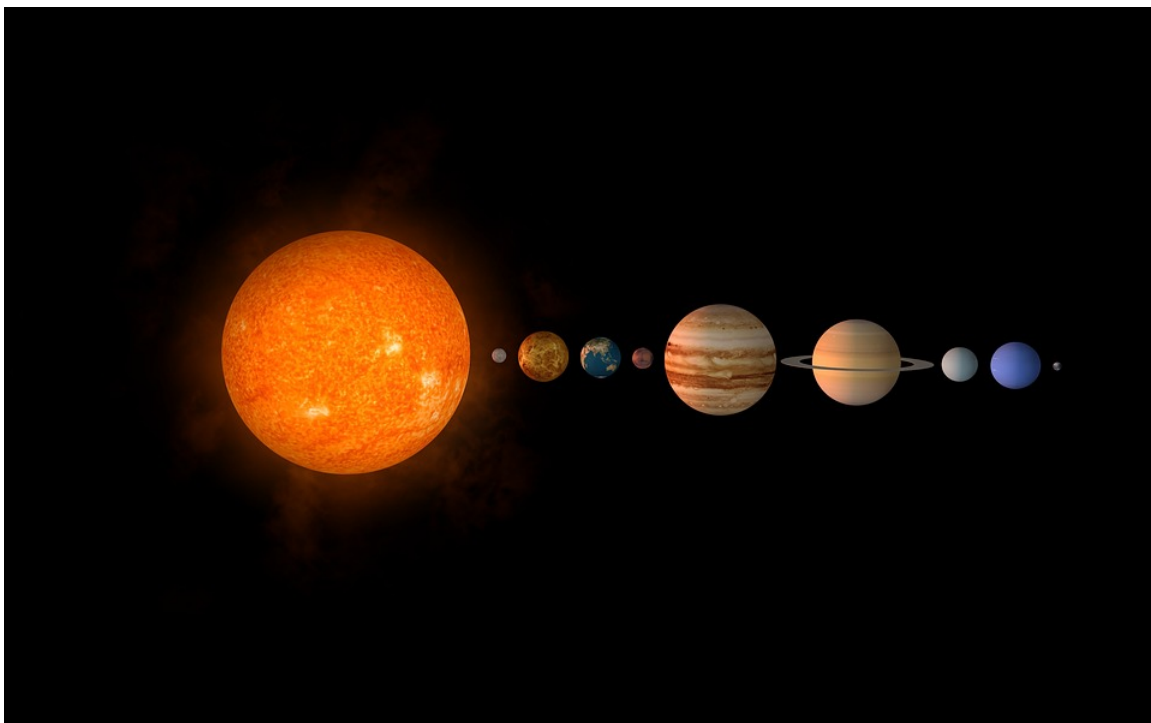
A **comet** is a relatively small, icy object usually orbiting a star. Asteroids, comets, and miscellaneous small/irregular objects and “dust” are often categorized as Minor Bodies.



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Solar System

The **Solar System** is the Sun and all the objects that orbit the Sun, including the planets and their moons.



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Stellar System

A **Stellar System** is a star and other objects such as planets and/or other stars and other materials that orbit it.

Galaxy

A **galaxy** is a large island of stars, a few hundred million to over a trillion stars.



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Galactic Cluster

A **Galactic Cluster** is a collection of galaxies gravitationally bound.

Supercluster

A **Supercluster** is a region where galaxies and galactic clusters are tightly packed.

Universe

The **Universe** is all matter and energy, and is also called the Cosmos.



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