Solar system in the galaxy

The planetary system we call home is located in an outer spiral arm of the Milky Way galaxy. Our solar system consists of our star, the Sun, and everything bound to it by gravity - the planets Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune; dwarf planets such as Pluto; dozens of moons; and millions of asteroids, comets, and ...

Astronomical units are a useful measure for distances in our solar system, while light years are more practical for distances to the stars. The nearest star system, Alpha Centauri, is seen from Saturn in this image from NASA"s Cassini spacecraft.

A planet is a celestial body that (a) is in orbit around the Sun, (b) has sufficient mass for its self-gravity to overcome rigid body forces so that it assumes a hydrostatic equilibrium (nearly round) shape, and (c) has cleared the neighbourhood around its orbit.

The first known interstellar object to visit our solar system, 1I/2017 U1 "Oumuamua, was discovered Oct. 19, 2017 by the University of Hawaii"s Pan-STARRS1 telescope, funded by NASA"s Near-Earth Object Observations (NEOO) Program, which finds and tracks asteroids and comets in Earth"s neighborhood. While originally classified as a comet ...

In dark corners of the galaxy are worlds fit for creatures of the night. Explore the homes of Frankenstein"s monster, Dracula"s lair, the place where zombies roam, and more. Take a journey to these dark and sinister worlds

The solar wind - a million-mile-per-hour gale of electrically charged particles streaming continuously from the Sun - carries with it the Sun"s magnetic field. When the Sun"s magnetic field interacts with the electrically excited ionosphere of Venus, it creates or induces, a ...

The Sun is the largest object in our solar system. Its diameter is about 865,000 miles (1.4 million kilometers). Its gravity holds the solar system together, keeping everything from the biggest planets to the smallest bits of debris in orbit around it.

In the 400 years since Galileo"s discovery, the rings have become Saturn"s telltale feature and are perhaps the most recognized characteristic of any world in our solar system. Cassini spent more than a decade examining them more closely than any spacecraft has before.

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