Hunting for Planets

Researchers sometimes detect distant planets by the “wobble” of nearby stars.

Every object in space exerts a gravitational pull on every other object. Gravity pulls the planets in the solar system toward the Sun, and the gravity of the planets pulls back at the Sun. Jupiter, the most massive planet in the solar system, tugs at the Sun so strongly that it actually makes the Sun move in a very small circle. This motion, which is observed as the Sun wobbling, can be measured using precise instruments.

Planets are typically too small and dim to be seen from far away. But stars are bright and more easily seen, so scientists can measure the wobbling of distant stars to infer the presence of planets. This method of finding planets has led to the discovery of hundreds of planets orbiting distant stars.

Gravity influences planets and the stars they orbit. The pull of gravity keeps a planet in orbit around a star. It also pulls on the star, causing it to move in a small orbit.