

Planetary Perihelion Precession

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About the Study

According to the revised gravity formula, the gravity on the planets of the solar system is mainly provided by the sun, and the gravity on the planets will match only if the planet is far enough away from the sun and treats the sun as particles. It goes well with the gravity type. The closer the planet is to the Sun, the greater the deviation of the planet's gravity from the (larger) value calculated by Newton's universal gravity formula. The precession of the perihelion of the planet is due to this gravitational nature. Astronomical observations have revealed that Mercury's orbit rotates around the Sun against the clock, and the orbit is not closed. This is Mercury's precession. The precession of Mercury's perihelion calculated according to Newton's law of universal gravitation does not match the observed value. In 1859, French astronomer Urbain Le Verrier discovered that Mercury's apsidal precession observations were 38 inches faster per century than theoretical values calculated using Newton's law. I speculated that it was caused by the attraction of the planet. The Sun is better than Mercury, but after years of hard searching for an estimated planet, there were no signs of it.

Therefore, Newcom believes that there is a problem with the law of square inversion in the law of gravity. At the same time, to explain the actual movement of some inferior planets, Newcom thought that gravity should be inversely proportional to the power of 2.1574 of the distance. In the late 19th century, Weber, Lehman, and others tried to use electromagnetic theory to explain the precession of the perihelion of Mercury in the early stages of electromagnetic theory development, but with unsatisfactory results. The purpose of this paper is to give a physical reason for the phenomenon of planetary apsidal precession and to explore the nature of universal gravitation.

Conclusion

Newton's universal gravitational formula can only be set appropriately if the two interacting objects are far apart and can be viewed as particles. If two objects are too close to each other to be considered particles, then these two objects are still considered particles, and Newton's universal gravitational formula was used to calculate the universal gravitational force between these two objects. Universal gravitational force gives way to gravity. From a ratio that is inversely proportional to the square of the distance. In this case, the planet's gravity deviates from Newton's gravitational formula, the planet's motion deviates from Newton's equation of motion, and the closer the planet is to the Sun, the greater the deviation. Therefore, a planet with an elliptical orbit at the perihelion has a greater precession than the precession calculated by Newton's universal gravitational formula. The closer the perihelion is to the sun and the farther the perihelion is from the sun, the greater the anomaly. The actual precession at Mercury's perihelion was calculated by Newton's universal gravitational formula, because Mercury's perihelion is closest to the Sun and its elliptical orbit shows the highest eccentricity of any planet in the solar system. Shows the maximum deviation from precession.

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