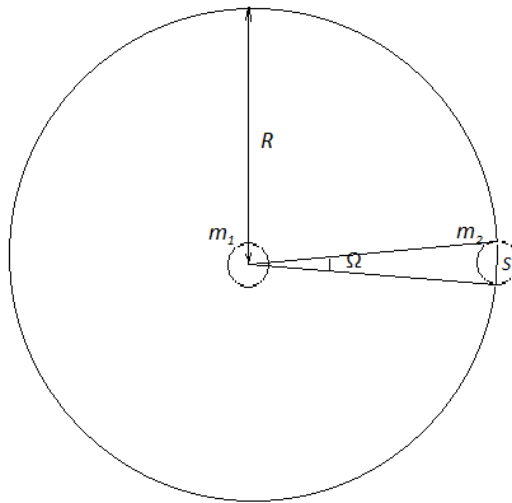


Abstract:

Criticism of the Law of Universal Gravitation is given, the derivation of PTA from actual physical parameters, the local nature of the action of PTA corresponding to planetary interaction is determined. The non-gravitational character of stellar interactions is determined. The magnetic character of stellar interactions is updated.

Law of planetary gravity

As you know, the Law of Gravity is defined from Kepler's Law. Let's try to determine it based on the actual physical parameters.



Suppose there is a body whose mass m_1 is directed toward the center of the gravitational flow D . Moreover, this gravitational flow acts on another body, with mass m_2 . To determine the part of the flow acting on the second body, we define the solid angle directed from the center of the first body and limited by the cross-sectional area S of the second body sphere of radius R , the distance between the centers of the first and second bodies. By definition of a solid angle:

$$\Omega_1 = \frac{S_2}{R^2}.$$

Denote the specific flow per unit mass by the symbol d , but factor of the interaction of the flow with mass by symbol x . Then $D_1 = m_1 d_1$.

The force with which the flow will act on the second body:

$$F_1 = \Omega_1 D_1 x m_2.$$

From the side of the second body, a similar force will act on the first:

$$F_2 = \Omega_2 D_2 x m_1.$$

Total strength: $F = F_1 + F_2$.

Substituting the initial notation:

$$F = \frac{m_1 m_2}{R^2} x (d_1 S_2 + d_2 S_1).$$

Let's try to figure out the reason for the existence of the gravitational flow to the center of the bodies. It is clear that such a body cannot exist for any body, since some internal physical processes are necessary for its existence.



According to the modern, most generally accepted notions, there are processes of synthesis of chemical elements inside stars, and in planets, processes of decomposition of chemical elements inverse to them. In the process of decay of elements in the planets, a shortage of electrons occurs, which generates a gravitational flow. But on the basis of this consideration, the generation of the gravitational flow cannot exist inside the stars, since there is no decay of elements in them. From here follows a logical conclusion about the absence of a gravitational flow from the side of stars. But since the stars rotate around the centers of galaxies, they are likely to be held near them by a galactic magnetic field.

As can be seen from the photograph of the solar prominence, gravitational forces are not obvious on the Sun, but only magnetic forces.

From the above it follows the relevance of the Law of Universal Gravitation only for planetary gravitational interactions.

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