

## Equivalence of gravitational and electric fields. The law of electrostatic attraction.

Since, according to the [Law of Planetary Gravitation](#), the only possible way to create a gravitational field is the decay of chemical elements in the bowels of the planet with the formation of ionized atoms, and each ionized atom is a source of an electrostatic field, a superposition of these fields forms a common electrostatic field, which is called gravitational.

Due to the fact that the gravitational field is electrostatic, we define the electrostatic law of planetary gravitation based on the Coulomb Law. So in the existing idea of electrostatic representations, not all concepts are convenient for describing electrostatic interactions; we introduce some additional concepts. So, we assume that there is a direct electrostatic interaction between a charged and an uncharged body. Obviously, such an interaction should be determined by the ratio:

$$F_1 = \frac{q_1 m_2 S_2}{R^2} x,$$

where:

$q$  - charge of the body,

$m$  - is the body weight

$S$  - is the cross-sectional area of the body,

$R$  - distance between bodies

$x$  - is the coefficient of interaction between electrostatic flow and mass.

Then the sum of forces in the interaction of two bodies will be determined by the expression:

$$F = \frac{q_1 q_2}{R^2} k - \frac{q_1 m_2 S_2}{R^2} x - \frac{q_2 m_1 S_1}{R^2} x,$$

where the first term is Coulomb's law for the interaction of electric charges.

If the charges are relatively small and the masses are large, the sum of the last two terms will far exceed the value of the first term, which will determine the attraction.

### Source

1. Vladimir Kirov, «Law of Planetary Gravity», <http://vixra.org/abs/1912.086>