

Connection of Ether with Gravibodies. Motion of Matter through a System of Gravibodies

Anatoli Bedritsky

Abstract.

The article opens the connection of an ether inside of a body with the body and the connection of an ether around gravibody with the gravibody, and also gives a new correct explanation of experiments of Fizeau and Michelson. The article also opens, that the ether inside of Solar system is attracted to the Sun by action of the gravitational field and together they move in the attracted ether of galaxy the Milky Way; and the planets have their attracted ether and are moving in the attracted ether of the Sun. In article also opens, that at transition of bodies from an ether, which connected around one gravibody, to an ether, which connected around another gravibody, the direction of motion of the body is changed.

1 New Explanation of Experiments of Fizeau and Michelson for Determination of Existence of the Ether

In Fizeau's experiment was motion of water (body) and was necessary to determine: the ether which is in water, moves together with water or no. It was assumed that if the ether is connected to water, then the photons of light move in the direction of the moving water with the ether at a higher velocity than in the opposite direction of motion of the same water with the ether. This assumption implies that the difference between the velocity of light passing through water moving in the direction of light and the velocity of light passing through the water in the opposite direction is the velocity of ether.

As is known, the experiment has given positive result, but herewith the difference of the velocity of light in two opposite directions was less than the velocity of motion of water. It means that not all ether which is in a body (water), moves together with the body. In a body constantly is only the body ether, which have a small mobility, but the outer ether have a big mobility and can enter and leave the body.

In Michelson's experiment, by definition of existence of an ether was presumed, that at the rotation of the Earth, the ether around of the Earth is not rotated together with the Earth, and therefore must be an ethereal wind in direction opposite to rotation of the Earth. Herewith was also expected, that the light have a more deceleration in case the light is moving in direction opposite to the ethereal wind (in direction of the rotation of the Earth), than in opposite or perpendicular direction. The velocity of motion of light was defined with the help of the interferometer, established on the surface of the Earth.

Because the experiment not gives a difference of velocity of motion of light, then its results were interpreted as the proof that ether is not exist. But in fact this experiment only shows that the outer ether near the surface of the Earth moves together with the Earth. If a similar experiment had performed in the outer ether at a long distance from the Earth, where the strength of the gravitational field of the Earth will be equal the strength of the gravitational field of the Sun, then the ether wind will be found.

The ether which being inside of a gravibody or a separate body, has small mobility and does not leave the gravibody and moves together with the gravibody. The ether which is being around of a gravibody has big mobility and consequently this ether can to pass through bodies and gravibodies. The ether inside of a gravibody has a greater density than an outer ether.

The external ether around of a gravibody consists from mats having different mobility. The faster mats have a greater momenta and form a gravitational field which pushes the less fast mats to the gravibody. (See article "Principle of formation of a gravitational field"). Since the less fast mats of the external ether around of the gravibody (where acts the gravitational field of the gravibody) are pushed to the gravibody, then these mats, which in structure of the ether, move together with the gravibody, and this part of the external ether is called *attracted ether* of the gravibody. Afar from the gravibody, where the strength of gravitational field is small, the ether only partially attracted to the gravibody. The ether far from given gravibody, where there is no gravitational field of this gravibody, is the attracted ether of larger gravibody, around which has orbital motion given

gravibody. The attracted ether of given gravibody gradually in distance is an attracted ether of another gravibody, connected by orbital motion with given gravibody. Thus, the attracted ether around gravibody consists of less mobile mats of the ether, and the gravitational field around gravibody is formed of more mobile mats of the ether.

The ether of Solar system, where the strength of gravitational field of the Sun is more than the strength of a gravitational field of planets, is the attracted ether of the Sun. Around of planets is also formed an attracted ether, but the ether attracted to planets, is only insignificant part of the ether attracted to the Sun. If to consider, that the Solar system is in structure of a galaxy the Milky Way, then the attracted ether of the Sun is a part of the attracted ether of the Milky Way, around which there is a general ether of the Universe. The general ether of the Universe is between Galaxies, there where is not an gravitational field.

2 Change of Direction of Motion of a Body and Deceleration of Motion of this Body at Transition from One Attracted Ether in Other Attracted Ether

The density of ether defines the velocity of free motion of elementary particles and bodies. The action of gravitational field on the elementary particles and bodies give them a additional acceleration (positive or negative) and change the direction of their motion in a direction of action of the gravitational field. The direction and the velocity of motion of elementary particles and bodies defines by total vector of velocity of rectilinear free motion and velocity from action of gravitational field.

If the body has enough big velocity in a direction from a gravibody, then this body can overcome the strength of gravitational field and leave the attracted ether of the gravibody and enter into the attracted ether of the central gravibody, around of which the gravibody has a orbital motion. During transition of a body from the attracted ether of the gravibody in the attracted ether of central gravibody, this body changes the direction and the velocity of motion because of decrease of strength of gravitational field of the gravibody and increase of strength of gravitational field of the central gravibody.

But, except for it, in this case the body changes the direction of motion

and decreases the velocity of motion because of action on him the attracted ether of central gravibody, which move in relation to the attracted ether of orbital gravibody. This action occurs due to that, what the orbital gravibody with the attracted ether have their motion in the attracted ether of the central gravibody. Due to that at exit of the body from the attracted ether of the orbital gravibody, this body gradually passes in the attracted ether of the central gravibody, which have another direction of motion. Due to that the body decreases the velocity of motion and changes the direction of motion. After that, the velocity of motion of the body in the attracted ether of the central gravibody increases and becomes equal limit velocity and changes only from action of the gravitational field the central gravibody.

Similarly, at motion of a body from the attracted ether of the central gravibody in the attracted ether of the orbital gravibody, the body changes the velocity and the direction of motion under action of the attracted ether of the orbital gravibody.

Thus, the gravitational field constantly acts on a body, changing the direction and the velocity of its motion in the attracted ether; but the attracted ether is acting on the body only at entrance of this body in the attracted ether.

Fig. ?? shows a changing of a direction of motion of a body at motion through the Solar system. On fig. the attraction of the body to the Sun is not considered.

Motion of a body from the Earth in direction further of the limits of Solar system occurs originally in the attracted ether of the Earth, then in the attracted ether of the Sun, then in the attracted ether of the Milky Way, and then in the ether of the Universe, where is not an gravitational field.

Apparently, the space vehicles "Pioneers 10" and "Pioneers 11" have changed their direction of motion at exit from Solar system not only because of change of the direction of action of general gravitational field, but also because of transition from the attracted ether of the Sun in the attracted ether of the galaxy the Milky Way. The radio signals from the "Pioneers", coming to the Earth, also change the direction of motion at transition from the attracted ether of the galaxy in the attracted ether of Solar system.

Radio waves ultrashort and light do not change the velocity and a direction of their motion at motion from one attracted ether in other attracted ether, because such radio waves and photons of light consist from mats, which have mobility equal to the average mobility of mats of far space ether, where the ether is insignificant attracted to the gravibody. Nucleuses of atoms of a body consist of neutrons and protons, the mats of which

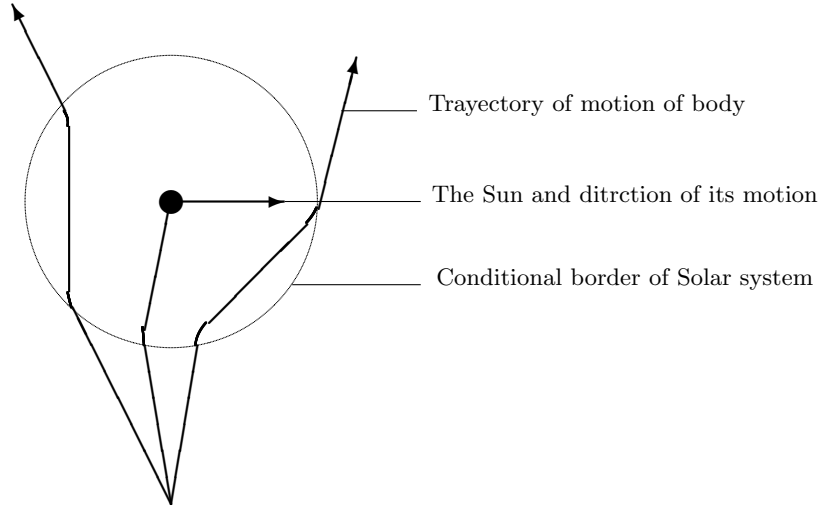


Figure 1: Change of Direction of Motion of Bodies at Entering and Exiting of Solar System

have considerably smaller mobility than the mats of the far space ether, due to that the this ether pushes the bodies and the separate protons, which was leaving the attracted ether.

3 Velocity of Body and of Light Relatively of Different Gravibodies

In Einsteins special relativity theory are formulated two postulates:

1. In all inertial systems physical laws are the same.
2. The velocity of light in vacuum does not depend on the velocity of motion of the light source or the observer and is equal in all inertial systems.

In the second postulate, a word the vacuum has a notion of emptiness, as Einstein has rejected the existence of the ether in the Universe. But taking into consideration, that the vacuum around of gravibodies or around of nucleuses of separate atoms always becomes a gravitational or nuclear field, then the vacuum it is the ether, which is a most rarefied matter. In view of it is necessary to reconsider Einstein's postulates.

If a body is moving in attracted ether of a orbital gravibody, then the velocity of the body relatively of the central gravibody is defined by the vector sum:

$$V = V_m + V_{gu}$$

where V_m is the vector velocity of motion of body in attracted ether of orbital gravibody, V_{gu} is the vector velocity of motion of gravibody in attracted ether of central gravibody.

If a body is moving in attracted ether of central gravibody, then the velocity of the body relatively of the orbital gravibody is defined by the vector sum:

$$V = V_{mu} + V_{gu}$$

where V_{mu} is the vector velocity of motion of a body in attracted ether of central gravibody.

If light is emitted from the attracted ether of central gravibody, then the velocity of this light in this ether relatively to orbital gravibody is defined by the vector sum:

$$V = C + V_{mu} + V_{gu}$$

As the attracted ether of the Earth, as well as other planets, is a small part of the attracted ether of the Sun, then the average mobility of mats of the attracted ether of the Earth and the density of the attracted ether of the Earth differs slightly on different distance from the Earth. Due to that the light and radio waves in the attracted ether of the Earth has identical velocity in all directions and is equal nearby 300000km/sec. Accordingly, if the light source moves in a attracted ether of a gravibody, then the velocity of this light does not change, i.e. it is identical in any direction.

The velocity of light does not change from action of gravitational field on the light in any direction. But, photons of light deviate, i.e. change the direction of motion at action of the gravitational field across to the direction of motion of photons, that is observed at a decline and sunrise. The gravitational field does not act on light at passage in a direction of motion of light and in an opposite direction, as the mats of photons of light have such mobility, at which the inertial acceleration of photons increases the velocity of motion of photons up to limit. Explanation of that, that the frequency of collisions of photons with mats of gravitational field is insignificant in comparison with frequency of collisions of photons with the counter mats of the ether, which form the deceleration of photons. In case of radio signals from space vehicles "Pioneer 11" and "Pioneer12", it is necessary to consider, that the frequency of accepted radio signals decreases because of removal of "Pioneers" from the Earth, but the frequency of accepted radio signals is decreasing in a smaller measure during braking of the "Pioneers" at transition from the attracted ether of the Sun in the ether of the Milky Way.

Conclusion

1. The ether around a gravibody, where the gravitational field has a sufficient strength, is connected with it gravibody, as the mats of the gravitational field have greater mobility and velocity than average mobility and velocity of mats of the ethe, due to that the gravitational field pushes the less mobile part of the ether to the gravibody.

2. At transition of a body or an elementary particles (protons or electrons) from an attracted ether of a orbital gravibody in attracted ether of central gravibody or in the opposite direction, this body or an elementary particle change the direction of motion.