

Short Reports

**LARGE HADRON
COLLIDER – FUNDAMENTALLY
NEW NOTION**

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The essence of processes in the Collider is shown, on the basis of which the further experiments regarding main objectives are inexpedient.

The main objectives of the Large Hadron Collider are the following:

1. To discover the primary matter of the Universe as a kind of a pre-particle – Higgs boson particle.
2. To reproduce a small-scale model of the «Big Bang».

In accordance with the modern doctrine the basis of the Universe structure is represented by means of an elementary particle the search of which has been performed since 20th century until now. However, in [1, 2] it is shown that the whole Universe is filled by the material medium – ether which density has unusually low values (15 times less than the density of water), and in [2, 3] it is shown that the ether is a primary matter; experimentally it proves to be true by means of a pair electron–positron formation from the ether. The search of any pre-particle is pointless.

Proton movement in the collider occurs in etheric media getting between the particles of the walls' material in the collider. At proton's movement with a great speed it drives the ether in front of it condensing it and increasing its moving mass m in accordance with a known ratio

$$m = m_0(1 - v^2/c^2)^{-1/2}. \quad (1)$$

The proton's moving mass m corresponds to the enclosed energy of accelerator E which will be driven up to $7 \cdot 10^3$ giga-electronvolt. Using the energy equivalent of the proton $E_p = m_p c^2 = 0,94$ giga-electronvolt, it is possible to define the value of mass m in accordance with a proportion:

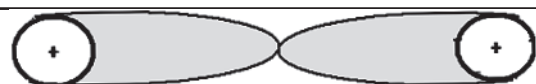
$$m/m_p = E/E_p. \quad (2)$$

Apparently

$$m = 7 \cdot 10^3 / 0,94 = 7447 m_p, \quad (3)$$

from Figure protons at first collide by means of their etheric masses received at dispersal. Part of these masses of ether is condensed that leads to formation of new observable particles from an ether (antihydrogen is already received); this is the experimental proof of that the ether is a primary matter. Protons reduce speed quickly, being released from other part of the ether received at dispersal. But they

are not going to break and it will not be possible to reproduce the «Big Bang».



Collision of moving protons in the collider

We explained everything from the positions of classical physics and only used the formula (1) known from the relativistic physics as it is considered to be fair for high-speed mechanics. However the formation of the ratio (1) from the positions of classical physics is shown below.

Principle of classical mechanics for high speeds. Let's consider the movement of an elementary particle in the etheric media. The moving particle condenses the mass of etheric media in front of it, increasing its own mass in dm value and total energy in $dm \cdot c^2$ value at the expense of kinetic energy W_k . Let's define:

$$W_k = dm \cdot c^2. \quad (4)$$

Let's define the impulse p of the material point m with speed v

$$p = mv, \quad (5)$$

and force operating on this point, will make up:

$$F = dp/dt = m \cdot (dv/dt) + v \cdot (dm/dt). \quad (6)$$

Kinetic energy in time dt should be registered as:

$$W_k = F \cdot v \cdot dt. \quad (7)$$

Having substituted the values F from (6), we receive:

$$W_k = mv \cdot dv + v^2 \cdot dm. \quad (8)$$

Having substituted this value into (4) we receive a differential equation:

$$(dm/dv) \cdot (c^2 - v^2) - mv = 0. \quad (9)$$

Let's solve this equation, observing the entry condition: at $v = 0$ $m = m_0$

$$\int (dm/m) = \int v \cdot dv / (c^2 - v^2), \quad (10)$$

Further we receive:

$$m = (c^2 - v^2)^{-1/2} \cdot B. \quad (11)$$

From the entry condition the following will be defined: $B = m_0 c$.

So, we receive the solution of the equation (9):

$$m = m_0(1 - v^2/c^2)^{-1/2}. \quad (12)$$

We have received a ratio (1) from the positions of classical physics which confirms increase of particle's mass at its movement in ether.

Resume

1. The primary matter of the Universe in the form of ether was experimentally confirmed.

2. It is impossible to reproduce the «Big Bang» by means of protons' collision.

References

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SYSTEM OF NATURAL UNITS OF PHYSICAL QUANTITIES

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Systems of natural units of mechanical quantities are expressed on three base microscopic units: mass, time and length. Appointments of the basic natural mass unit quantity with prime number 15089 multiplication to an electron's rest mass will be used.

It's a systems of natural units of physical quantities matter for representation of the physical phenomena in microscopic field of space [1, p. 3], with reference to physics of beams of charged particles. Appointments of the basic natural mass unit quantity multiple to an electron rest mass will be used. The multiplicity coefficient is defined by prime number **15089**. It is phenomenological combination of masses we will represent as a micro particle in rare electron-positron plasma without an electromagnetic interaction and any annihilation.

Let's consider some of physical natural units: R – the characteristic impedance of vacuum, u – the speed of light in vacuum, H – quantum unit of physical action, M equal to 15089 electron's masses, T – temperature equal to the rest energy for electron's mass.

$$R = 40 \cdot \pi \cdot 2,99792458 \text{ Ohm (defined);}$$

$$u = c = 2,99792458 \cdot 10^8 \text{ m/s (defined);}$$

$$H = 6,626 \cdot 10^{-34} \cdot J \cdot s;$$

$$M = 15089 \cdot m \text{ (defined);}$$

$$T = m \cdot c^2 \text{ (defined),}$$

where m – electron's mass; M – some boundary between easy and heavy particles.

For definition of unit of an electric voltage we will use the standard expression of energy in «electron-Volt» in microscopic units.

$$q \cdot V = M \cdot c^2;$$

$$e \cdot V = (\text{a.m.u.}) \cdot c^2;$$

$$V = 931,5 \text{ MV,}$$

where q – charge's unit; e – module of an electron's charge; (a.m.u.) – atomic mass unit.

Let's consider the electrical current, which may be used as critical parameter at researches of extreme intensive ion beams. $I = V/R = 2,47 \text{ MA}$.

Traditionally system of natural units of mechanical quantities is expressed on three base microscopic units: mass, time and length. Also we will consider units: temperature and impedance.

Except them, we will construct coherent units of physical quantities, depending on an integer j .

$$u_p = u \cdot 10^p;$$

$$H_n = F \cdot H \cdot 10^n;$$

$$M_k = M \cdot 10^k;$$

$$T_p = T \cdot 10^p;$$

$$R_j = R \cdot 10^j;$$

$$p = 3 \cdot j; \quad n = 11 \cdot j; \quad k = 9 \cdot j,$$

where p, n, k, j – is integer parameters in sequence of coherent units of physical quantities; F – form-factor for alternative systems; $F = 1,0$; for base system; $j = 3$ – for practical system.

References

1. Dubas L.G. Dissertation. – M.: NRNU «MEPhI», 2009. – 141 p.