

Once More on Bases of Physics

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ABSTRACT: At the beginning it has been explained what possibilities the motion with the velocity $v > c$ (foreseen by the Relativity) creates for the Relativity. One has proved once more [1] that any distinguished reference system doesn't exist in spite of the existence of ether. One has discussed the program of the unification of interactions by the unification their sources. At the end the advantages both of the classical and the quantum attitude to the description of the reality have been presented.

1. Hitherto one has assumed that it was impossible to go beyond the limit velocity called incorrectly the velocity of light.
But others said that one day somebody would discover an object moving faster and it would be necessary to write new handbooks of physics.
Both statements are however wrong. Relativity doesn't forbid the motion with the velocity bigger than the limit velocity but only imposes on such objects the condition of complex mass [1]. So if somebody discovers a particle moving with the velocity $v > c$, then he not only will not abolish the Relativity but he will fulfill the next great confirmation of the wonderful possibilities of the Relativity.
Quantum mechanics doesn't forbid the motion with the velocity $v > c$ so Relativity can't forbid it either and the more quantum gravity.
2. It is a paradoxical fact that in spite of the existence of ether, the distinguished reference system doesn't exist because there are layers in the ether and there isn't any distinguished layer.
All the layers are composed of particles moving with the same velocities and all the layers have the same number of particles. When one particle passes from one layer to another one, another particle passes in the opposite direction.
3. The program of unification of interactions must first contain their sources – more precisely the unification of their sources. In purpose to unify the interactions, it is necessary to unify first all their sources but then the unification of field is automatic.
The interaction of the sources of interactions is done by the de Broglie – Maxwell equation [2]

$$m = \alpha |Q| \tag{1}$$

The explanation in the classical way of the lack of falling of the electron onto the center is a success of the classical attitude. It was possible thanks to referring to the

conception of additional dimensions and loop dimensions too. The Einstein hidden parameters [3] are simply additional dimensions although yet other hidden parameters can exist.

Nevertheless quantum mechanics has the healthy nucleus: two complementary interpretations of wave function – Born's and Schrödinger's [1], the Dirac equation which implicates the de Broglie - Maxwell equation and the Dirac – Einstein equation.

$$(i \hbar \gamma^\mu \delta_\mu + V) \psi = \alpha (R_{ik} + g_{ik} g^{ik} R_{ik}) \psi$$

References:

- [1] Z. Morawski, "Implications of Complex Mass" – this website
- [2] Z. Morawski, "Attempt at Unification of Interactions and Quantization of Gravitation" – this website
- [3] Z. Morawski, "New Aspects of Basics of Physics"