

# In than advantage and deficiencies in the special theory of relativity?

F. F. Mende

<http://fmnauka.narod.ru/works.html>

[mende\\_fedor@mail.ru](mailto:mende_fedor@mail.ru)

In order to understand advantages and deficiencies in the special theory of relativity (STR) we they must describe as it is built and what basic condition lie at its basis. Within the framework the conversions of Galileo with the description of physical phenomena they are used four independent variables (three coordinates and time). In STR variables they are not already independent variables, since is accepted the postulate about the independence of the speed of light upon transfer of one inertial system (ISR) into another. This postulate made time and coordinates those interdependent, since the speed is defined as the relation of coordinate and time and so that it would not change upon transfer of one ISR to another speed, should be simultaneously changed both coordinates and time. Such conversions are called covariant. It is possible to take any other collection of postulates and to obtain the appropriate covariant conversions.

Why STR did have this success? Yes for that simple reason, that it in many instances gave correct answer with the description of a number of the electrodynamic phenomena, which the classical electrodynamics explain could not. They include the phase aberration and the transverse Doppler effect. But at the same time STR it could not explain the electrization of the superconductive windings and tori during the introduction in them of direct current, it could not explain physics of the electric pulse of nuclear explosion. Exponential is the circumstance that this approach the dependence of the scalar potential of charge on the speed.

But from writing of the equations of induction in the complete derived within the framework conversions of Galileo also follows the dependence of scalar potential on the speed very close to that, which occurs into STR. These dependences coincide with an accuracy to the quadratic members of the ratio of

charge rate to the speed of light. There is no such agreement indicated for the higher degrees of the relation. Specifically, this noncoincidence makes charge dependent on the speed into STR charge it is, while its invariant. The proposed approach makes it possible to explain not only the phase aberration and the transverse Doppler effect, but also the electrization of windings and tori, or the electric pulse of nuclear explosion. And the main advantage of the method indicated is the fact that it is based not on the devised postulates, but on the laws of induction, which are confirmed experimentally.