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To the Theory of Relative Absoluteness.

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Summary

This work discovers and proves the* relative absoluteness *of motion, space, time and action and shows its consequences for physics.

T h e s e s

1. **Inertia** (≡ the resistance of any mass to its acceleration) is a result of **gravitation**, resultant of **equal-action** of counter-gravitations of endless sets of the surrounding world masses.

$$f(r) = \rho m_g \iiint_{v'} \frac{(r-r')dv}{|r-r'|^3},$$

or in the sphere's centre (where radius $r = 0$)

$$f(0) = \rho m_g \iiint_{v'} \frac{r'dv'}{|r'|^3} \quad \text{etc} \quad \text{(equations 25.1-3).}$$

And since the *centre* ($r = 0$) *of infinity* (radius of universe $R = \infty$), according to its definition, is **everywhere**, then, over the unbalanced attraction of the near masses, **everywhere** there is this **centre** of gravitation' equilibrium, and the resistance (≡ inertia) to acceleration from its disturbance, that is equal to an object's own mass, $\boldsymbol{m_i} = \boldsymbol{m_g}$, and homogeneity and isotropy of inertia establish (chapter 25) – as opposed to the "Mach's principle".

2. Action of inertia is **instant**, and since inertia is a sort of gravitation thus the it's long-range action is also instant. A gravitational field does **not** have any velocity, because it is not a radiation, does **not** *arise* and **not** *propagate*, but **extends**, **exists** beforehand as the **extension** ***of the object***, its continuation *whole* **nimbus,** invisible mutually *permeable* and weakening with the distance $\boldsymbol{\sim 1/r^2}$ and it moves with its centre as a whole, of course, at the *sub-light* velocity like the central mass. Therefore the gravitation shift velocity $\boldsymbol{v} < \boldsymbol{c}$, but its revelation in action at any distance is instant.

Instantaneity of gravitation action is confirmed by all the known facts of cosmic ballistics (chapters 25, 27) and excludes *gravitational waves*. Although it should be the *structure* and *fluctuations* of the gravitational field due to oscillations of its center – the mass, but not as the *radiation*.

3. Motion of two bodies ("reference system") (e.g. the Earth and the Sun) relatively each other loses its ***kinematical*** "equality" and "equivalence" if we consider the difference of their motion relatively a third body and its field, of a fourth, a fifth (the Moon, Venus, Saturn, stars) etc. relatively to an endless set of external bodies and fields, of the world medium. Thus **relativity** (relativeness) of motion, space and time **forms** their **Absoluteness** (≡ uniqueness any and → **not** *interchangeability*). (Chapters 13-16).

4. ***Relative*** **absoluteness** of motion, space, time and action is not only kinematical, but also **dynamical,** that displays themselves in instantaneity of gravitational and inertial long-range action (theses 1, 2) and in the fact that all effects both in uniformity and rectilinearity of inertial motion as well as mass and electrical charges acceleration relate not to near-by objects but to absolute space and time, to which asymptomatically resultant of bodies is approximating in infinitum and which therefore are accessible for exact physical measurement. (Chapters 14 -16).

Absoluteness of masses and electrical charges motion is revealed **in all** experimentally discovered mechanical and electro-dynamical effects (Chap. 18 -19).

5. In relative absolute space and time the *light speed* ***c*** cannot be invariable relatively to differently moving bodies, but there occurs its addition with the velocity of a radiator ***v*** and a receiver (detector) ***u***, but according to special law, **inverse** to habitual in mechanics – inertial.

The light-speed ***c*** of electromagnetic radiation does **not** relates to a *radiator*, as Michelson thought (to the Earth), and is added to its velocity ***v*** **not** ballistically ≡ **not** *inertial*, as in gravitational mechanical motion and as W. Ritz assumed.

The light-speed ***c*** relates to the instant spot of its radiation in *absolute space*, and then separated from the radiator and distributed independently from the radiator by sequential **induction** and according is added to **non-*inertial*** aballistics' laws (chapters 11, 21); owing to **inversion** it can variable **not** only relative to a receiver, but relative to a radiator itself, and as a result the received velocity of a radiation (***c***'), contrariwise, can **not** be changed from the motion of a radiator: $\vec{\bar{v}} * c = c' = const$, but $\vec{c}_0 - \vec{v} = \vec{c}_i$, $\vec{c}_i = \vec{c}_0 + \vec{v}$, $\vec{c}' = \vec{u} + \vec{c}$, $\vec{c}' = \vec{c} - \vec{u}$, etc. and addition in case of connection of motion of a radiator and a receiver $(\vec{u} = \vec{v})$.

Aballistics' **non-inertial addition** $(\overline{w})$ of electromagnetic speed means the corresponding anisotropic modification of the Maxwell's equations (21.16-17):

$$\textbf{rot H} = \frac{1}{c}\left(4\pi\overline{j} + \frac{\partial \overline{E}}{\partial t} + \overline{w}\cdot div\overline{E} + rot\left[\overline{w}\overline{E}\right]\right),$$

$$\textbf{rot E} = -\frac{1}{c}\left(\frac{\partial \overline{H}}{\partial t} + rot\left[\overline{w}\overline{H}\right]\right) \quad \text{etc (chap. 21).}$$

6. Aballistics non-inertial laws (thesis 5) give a non-contradictory **explanation** of star aberration, Doppler effect, motion of binary stars, rotating pulsars, negative results of Michelson's and Trouton's experiments of second order and the peculiarities of optics of moving bodies. Both with the **photon**-genesis theory of substance (chapters 5, 26, 28- 30) they explain the well-known **sub-light effects**: longitudinal deformation of bodies, deceleration of processes in them and growth of mass.

7. Relative absoluteness gives **prediction** of new effects: weak gravitational induction of electromagnetic radiation (chapters 25 - 26, *p*.170), magnetic display of relative electric current (chapter 21), dependence of Doppler spectrum shift **not** on frequency, but on the **length** of waves (chap. 22, 23), invariability of wave length and radiation frequency in case of **tie-in** of motion of a radiator and a detector (chap. 22, 24), transformation of substance **particles** at achieving light-speed ***c*** into electromagnetic **radiation** (chapters 5, 26, 28).

8. Einstein's hypothesis absolute relativity, it absolutizes relativity, **contradicts** phenomena of star aberration, Doppler effect, absoluteness and instantaneousness of inertia and gravitation action, laws of conservation and conversion of energy and mass, and all it leads to numerous "paradoxes" – to a euphemism of absurdities having not found a solution in it.

Created to overcome contradictions the "general" hypothesis of relativity nevertheless keeps them, and more than that – it proceeds upon:

a) Impossible absolute identity ("principle of equivalence") of radial gravitation and isotropic inertia, ***b***) Reshuffle – mixing of reference systems with coordinate systems – in ideally of "general covariance" of physical laws equations and ***c***) that means ***loss*** of spatial **dimensions** (chap. 20), and in actual revision it does **not** have neither experimental confirmation or predictions.

Truths being contained in it: existence of gravitation in electromagnetic radiation and dependence of mass from its velocity – had been known long **before** Einstein (chap. 26, 27), as well as equivalence of energy and mass $\boldsymbol{E = c^2 m}$ (Chapter 4).

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Next (on *p*. 4) – **The popularization:**

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The relative Absoluteness*.

Summary

The work claims the discovery and the proof of the relative absoluteness of motion, space, time, and action and shows its consequences for physics.

There are three basic facts:

1. The indubitable **principle of relativity** of motion (e.g. of the Earth) implies:

1.1. The **difference** of its distances, trajectories and its velocity relative to different objects (i.e. the Sun, the Moon, the Venus, etc.).

1.2. The mutual ***identity*** of the motion of each of these two bodies (e.g. of the Earth and Sun): the first one moves relative to the second, as well as the second one moves relative to the first, both of them are identical.

However, the relativism absolutizes their inner *identity* (**1.2**) by distracting from the ***difference*** (**1.1**) of each of them relative to different third external objects (the Moon, Venus, Saturn, and stars). Taking into account the difference of motion of these *third* bodies turns its relativity into the relative **absoluteness** (≡ *uniqueness* any, *difference*, but **not** "equivalence"→ **not** *interchangeability*) (Here § 5).

2. Relativism comes from the principled impossibility of the superluminal signal and its time subtraction for absolute synchronization of motion of two bodies. However, there is an **instant *action***, which is ***inertia*** and a ***shift*** of the ***gravitational*** field (§ 2- 4).

3. The ***acceleration*** both for mass and electric charges with electromagnetic radiation are **absolute**, i.e. they refer not to the near-by bodies but to the absolute space, "the space of stars" (§ 7).

These facts lead to the conclusion that there is a **non-inertial addition** of the light speed ***c***, which is unusual for the mechanics of our macro-conditions, namely, ≡ excluding the inertia of electromagnetic radiation because electromagnetic radiation is propagated not by inertia but by **induction**, and the speed of each next its impulses refers not to the radiator but to the location of its radiation which stays behind it in the **absolute** *space* (§ 8-9).

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To my surprise it turned out that the essence of the theory can be presented in a shorter form and without frightening mathematics, though, some specifics can be lost. However, new basic ideas have become more distinct. Perhaps, simplification is much better for popularization.

The corresponding modification of Maxwell's equations gives a non-contradictory explanations of all the facts known in electrodynamics, and allows the prediction of the new ones (§ 10).

The new theory leaves Einstein to be correct only partially and limitedly, and has new consequences available for experimental check.

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§ 1. Contradiction

Who would not noticed that raindrops become oblique on the window glasses of cars and coaches? It happens because their vertical velocity ***c*** is added to the horizontal velocity of the moving vehicle (***c*** + ***v***). A similar addition of light speed ***c*** is shown in small circles described by the stars in the sky for the year as a result circling of the annual orbit of the Earth around the Sun -- the *aberration* of star rays.

But nowadays hear, perhaps, all the celebrated Einstein's theory of relativity proceeds from the postulate of the constancy of the light speed ***c***=*const,* i.e. *absence* of its addition. Of course, the special theory of relativity has its own formula for aberration; however, according to it the aberration depends not on radiator's velocity, but only on its ***acceleration***. It does not agree with the facts and the astronomers still prefer using its classical formula (In the book, chapter 7).

Everyone noticed that the hoot of an approaching locomotive becomes both louder and higher but when the locomotive passes by, the sound decreases abruptly. It happens because the sound velocity ***c*** is added to the velocity of the locomotive ***c*** ± ***v***.

Such an addition of velocities, called by the name of its first explorer of the Doppler Effect is observed also in the Light -- a shift in its spectral lines, famous ***reddening*** of the rays when they are removed an electromagnetic radiator, for example, the stars and ***blue*** with his approach, e.g. with the rays emitted from the opposite edges of the rotating Sun or from binary stars. But the relativity theory, de facto, **conserves** the classical addition of light speed ***c*** in the own formula proposed for the Doppler Effect (Chapter 8.2, 8.3) which is it contradiction with the own postulate of its supposed constancy.

The constancy of the light speed also means that it is ultimate and therefore the impossibility of *superluminal* speed, moreover, "the infinite speed" of signal transmission. This is used by the relativists, in particular, in order to exclude the possibility of correction for the absolute synchronization of events.

What do these contradictions mean?

§ 2. Why is gravitation instantaneous? Instantaneity

In spite of the relativistic prohibition on "the infinite speed", long-range interaction of ***gravitation and inertia*** is transferred just instantly (at the same instant). This is represented in the formulae of the Newtonian laws, where there is no propagation of the gravitation with any finite velocity ***v*** and therefore it is no a *delay* the action of gravitation shift in time ***t = s/v,*** it does **not** seem to reach any point at a distance ***s***. It contrasts to the laws of electrodynamics where according to the Maxwell's equations electromagnetic radiation propagates from point to point meaning the transference from the neighboring changes with a

finite *light speed* ***c*** resulting in their delay in time ***t = 1/c***.

Even Laplace notices the absence of any ***1/v*** deviations in the gravitation-inertial motion of the Earth and Moon. Modern astronomical observations do not record any differences both heavy binary stars ("white dwarfs") which revolve very quickly and star explosions, where such difference from the instantaneity of the gravitational action must be extremely high. Thus, they **refute** the relativistic proposition that $v_g=c$.

Now the instant of transfer of the gravitation shifts in the motion of planets and stars is proved by all the known facts of space ballistics all over the universe accessible to telescopes at distances in billions of light years. (Chapters 25-26).

What do these facts mean?

§ 3. Gravitationalness of inertia

The author states that:

The *inertial* mass of the object is surprisingly constant and completely equal to its *gravitational* mass $\boldsymbol{m_i = m_g}$ because inertia (≡ the resistance of any body to its acceleration) is the result of **gravitation**.

Namely, inertia is resultant of **equal-action** of counter-gravitations of infinite sets of the surrounding it universe masses (Equations 25.1-3). It is similar to a fable, where a cart is immobile because it is pulled once in different directions.

However, when the object is slightly shifted, why is it still in this center of the resultant gravitations (**"centre of gravity"**) disturbing the balance and heading in some direction? Where can we find this "center of gravitation" of the all infinite universe, an absolute centre? This "centre of gravity" will always shift relative to various collections of masses.

Because the centre of ***infinity*** (that is the centre of the sphere with an infinite radius of the universe R = ∞), according to the definition of infinity, is **everywhere**, which means that even if the body is shifted, the same infinite of masses will remain behind it as well as in front of it and the body will not go out of this centre of equilibrium and only the unbalanced pull of *closer bodies* and resistance (≡ inertia) to the acceleration are distinguished – the disturbance of other balance equal to the own mass of the body ***m***.

That is why the *inertia* acts instantaneously as well as the transfer of the *gravitation* shifts (§ 1).

§ 4. Gravitation is neither radiation nor waves

Instantaneousness of gravitation long-range action means that its field simply does ***not*** have any velocity.

The gravitational field is not a *radiation*, but it is the **extension of the object**, its *whole* ***nimbus*** – invisible mutually *permeable* and weakening with the distance $\sim 1/r^2$. It does not propagate but **extends,** i.e. it does not arise but exists beforehand as the continuation of an object and moves with its centre as a whole, of course, at the sub-light velocity like the central mass.

It also means that *gravitational waves* do not exist at all. Although it should be the *structure* and *fluctuations* of the gravitational field due to oscillations of its center – the mass, but not as the *radiation*.

Waves imply not only field discreteness, but also that the field does not ex-

tend – stretch in the space beforehand, but it is *radiated* and *propagated* with a finite velocity v therefore all its actions are time delay $\boldsymbol{t = s/v}$. However, astrophysics does not observe such a delay anywhere in the universe (§ 2). Thus, the assumption of the gravitational waves contradicts to **all** the known facts.

The assumption of their existence and unsuccessful centenary search are caused by erroneous likening of the gravitational field to the electromagnetic field, when the fundamental difference between them is not taken into account.

§ 5. Kinematic absoluteness – relative to the third objects

Starting with the kinematics where motion in space and time is considered still abstract from its relation to the action, the relativism states the *absolute* (≡ only) of motion ***relativity***: the distance, trajectories and velocity of the Earth relative to the Sun are different from those of the Moon and Venus, etc. However, besides they are mutually symmetrically inverse: the distance and velocity of the Earth relative to the Sun are identical with those of the Sun relative to the Earth. (See the Summary, 1.1-2)

However, just out of such axioms the relativism (in particular, H. Poincare, A. Einstein, A. Eddington, see chapter 14) draws a defiant conclusion: the historical dispute between Ptolemy and Copernicus is "*senseless*": no matter whether the Sun revolves round the Earth **or** the Earth rotates about its axis and round the Sun – both of these are convenient assumptions because all the "reference systems" are "equal" and "equivalent". "*Both* Ptolemy and Copernicus are *right*".

The motions of the celestial bodies, indeed, can be described both in relation to the Earth and to the Sun. But descriptions will be *different*. It was these differences (**1.1**) in the motion of the Sun relative to the ***third bodies*** (planets and other celestial luminaries) this put Copernicus into his discovery. Almost all the visible stars do not move relative to each other and they rotate as a single whole, the sky.

The exceptions are only few luminaries, which roam and make loops and since ancient time this strangeness they attract attention. Two of them: Mercury and Venus are always visible close by Sun but never on the opposite side of the sky; hence their orbits are closer to the Sun than that of the Earth. Other planets such as Mars, Jupiter and Saturn are always on the opposite to the Sun side of the sky, therefore they are farther from the Sun than the Earth. Loops in their movement represent the annual revolution of the Earth round the Sun. The less the loop is, the farther the planet is. Annual elliptic displacement of the stars in the sky, parallax and aberration, is another evidence of the revolution of the planets around the Sun. So the picture of the motion of all the celestial bodies as a single whole enforces us unambiguously to heliocentrism. The whole of the Copernicus' theory is the mathematical concretization of these facts.

The motion of the Sun and Earth loses its *kinematic "equality"*, if we take into account the its difference relative to the Moon, Venus, Saturn, etc. – relative to the endless set of the third bodies and fields of the universe. Thus, if we do not separate it from the other world, the motion of the Sun and Earth are not equal even from the kinematic point of view. People were looked at the sky and saw the Earth there.

And the extravagant conclusion of the relativism comes out, if we shut one's eyes to other planets and stars and take into account solely *two* objects ("reference systems"). And it is quite wrong if we look at the third – external objects,

and it is wrong in virtue of to the difference (**1.1**) of the third distances, trajectories, and velocities of each of these two relative to the third, fourth etc - external objects. (Chapter 14).

We simply turn our eyes from one spatial and time relation to the other, but none of them abolish the endless set of the others. Here in their unity, relative *distances* of the body are added into its absolute (≡ unique) ***location*** **(place)**, relative *trajectories* are added and form its absolute **way**, separate bodies and fields form an absolute **medium,** and further, its structure forms absolute **universe space** ("Space of Stars"), its changes and states form absolute **time**. Their "equality" disappears. And each of them is unique. So the **relativity** of motion, space and time **forms** their **absoluteness** (chapters 14-16).

This *dialectics* of relativity and absolute is quite did not see out of the chamber scope of relativism. "Any the third is excess" is its protective motto.

§ 6. Dynamic absoluteness

Relative **absoluteness** of motion, space and time exists not only kinematical (§5), but also the more dynamical, that displays themselves in instantaneity of gravitational and inertial long-range action (§ 2, 4), in the laws of conservation and transformation of energy and mass, in the fact that all effects both in uniformity and rectilinearity of inertial motion as well as mass and electrical charges acceleration relate not to near-by objects but to absolute space and time.

The relativistic myth, its "postulate" about the quite "equality" and "equivalency" of two moving objects as a "reference systems" and therefore the quite freedom and the "arbitrariness" in its "lawful choice" comes to a full impasse in the dynamics where it gets in torturous contradiction to laws of the energy and mass conservation and conversion.

According to the relativism with two fingers I impart some spin to a top, or, probably, the whole universe. Perhaps, a train moves post the surrounding, or perhaps, it is the surrounding moves post the train. Perhaps, the Earth revolves round the Sun **or** perhaps, the Sun revolves round the Earth. Both of these views are declared equal.

So in the relativity, the quite "equality" and "equivalency" of the "reference systems" relativism appears the ***miracle*** of creation energy and the mass of matter, i.e. its arising and vanishing in the dependence from only change of reference systems, in "general theory of relativity" – in the dependence even from coordinate transformation.

Nevertheless, as it discovered in physics, the condition for "physical reality" of taken account kinetic energy $mv^2/2$ of any system of interacting masses, for example, at they separating from each other, reality in sense of possibility of the transformation of this energy into thermal, electromagnetic, chemical, etc, -- is the consideration of the system of this bodies in the **equal-action**, i. e. the invariability of total sum of their impulses $\sum_i m_i v_i = 0$, – if the system is **closed**.

But this very condition of the dynamical reality excludes this notorious "arbitrariness" in the choosing of the reference system because the equal-action of the bodies exists only in relation to the point which does not take part in the motion of these bodies system, namely – relative to the **center of gravity** of system, where $\sum m_i v_i = 0$.

There is no dynamical equality and equivalence of the rotation of the top and universe, the motion of the train and its surrounding. Not the universe, but the top gets the impulse. Not the surrounding, but the train gets the energy of the fuel oil and electricity.

If we agree with relativism in the quite equivalence of motions and take the Earth as a reference system, the Sun revolving around us acquires huge kinetic energy. But the only trouble for relativism and happily for the practical reality is this energy will not be practical reality but be fictive, notional, mental – the taking into accounts assumptions of the relativism, but distraction of the attention from the center of gravity. (Chapter 2).

But if we consider the Sun as a reference system, the error is insignificant because although the Sun also attract the Earth and revolves round it, but according to the mass difference, it is $\sim 33 \cdot 10^4$ times slower and the center of gravity of the solar planetary system is located slightly far from the center of the Sun.

It does without saying that the Sun is not the hub of the world. It revolves along with the other stars around the center of mass of the Galaxy making the complete revolution for near 280 million years. As well as the center of the Galaxy cannot be considered the center of the universe because there are other galaxies.

But in the Solar system the center of gravity is near the center of the Sun. Only this fact was always implied by the physics in the Copernicus' picture of the world.

§ 7. Absolute acceleration in the electrodynamics

The absoluteness of the motion displays itself not only in mechanics (≡ *graviodynamics*) but also in ***electrodynamics***.

World *inertial field* reacts only ***to the*** **acceleration** (≡ the changing of the velocity) both mechanical m_i and electrodynamics where the electromagnetic radiation (≡ detachment of a part of the electric field from the charge) is caused by the acceleration of the electric charge or the oscillation of the electric field.

But an electric charge, motionlessly hanging in a gravitational field, will not emit electromagnetic radiation, due to acceleration of an adjacent body. Therefore, the radiation is emitted by the acceleration of the charge relative not to the other object, but to the absolute space, absolute acceleration.

Why does not the magnetic field of the conductor with *current* actuate the *adjacent* motionless charge, although it just moves relative to the charges flowing in the conductor? And on the contrary, why do two parallel conductors with equal currents and two parallel electron beams interact with each other (are mutually electrically repel and magnetically attract), although they are at rest relative to each other?

It appears, that there must be not such a "relative" acceleration or such a "relative" rest of the charges, but motion towards an allocated some particular reference system, world medium, absolute space, – *absolute acceleration*. All effects of uniformity and rectilinearity of the inertial motion and all effects of acceleration of mass and electromagnetic radiation of electric charges relate not to the neighbor objects but to the absolute space and time, i.e. they need an absolute acceleration.

Such an absoluteness of masses and electric charges motion is revealed in

all the mechanical and electro-dynamical effects discovered *experimentally* (chapters 18-19), as well as in the pointed above (§1, 2) instantaneousness of gravitational and inertial long-range action.

But locally resultant reference system in the expansion of included into it bodies in infinitum it transforms asymptotically into the dynamic absolute reference system of the absolute space. And in infinity asymptotically the resultant interaction of the bodies approximates to the absolute time; therefore absolute time is accessible for unambiguous physical measurement. (Chapters 15 - 16).

§ 8. Absolute place of radiation

In the gravitation-inertial motion of the commensurate with us macro-mechanics it is used for us such an ***addition of velocities***, which is described in ballistics, i.e. a ***ballistic*** addition, when – due to the conservation of inertial motion – the velocity (let $\boldsymbol{v}^2$) of a launched object (an arrow, bullet, shell, etc.) is added according to the vector ally with the velocity (let $\boldsymbol{v}^1$) of the launching object (a rider, airplane, etc.) if their directions coincide ($\boldsymbol{v}^2 + \boldsymbol{v}^1$), or subtract if their directions are opposite ($\boldsymbol{v}^2 - \boldsymbol{v}^1$).

But in electrodynamics according to the Maxwell's equations the propagation of the electromagnetic radiation is determined **not** by **inertia** (the inertia component in the propagation of the light is insignificant) but by **induction**, i.e. each transverse oscillation (impulse) sequentially causes the following oscillation in the opposite transverse direction.

Also taking into accounts the facts established by quantum physics and material meaning of the Maxwell's equations produce a more impressive conclusion: a *photon* is not an electric charge (see chapter 5) but an ***electric quantum***; so therefore "the *motion* of the light" (and electromagnetic radiation at all) as the whole something does not exist. Instead there are *discrete* quantum **jumps**, i.e. *vanishing* of photon in one spot of the space and its *arising* (≡ the **induction** with the speed $\boldsymbol{c}$) in another spot at the distance of the "wave length" $\boldsymbol{\lambda}$ from the former point. (Chapter 11).

Hence *second* fundamental proposition of the author:

- The light speed $\boldsymbol{c}$ is the **speed** of the **inducting** by the foregoing transverse electric impulse (photon) of the following impulse at the distance of the "wave length" $\boldsymbol{\lambda}$ from it.

And since the electromagnetic radiation is caused not by inertia, but by acceleration relative to the world space, it means that:

- The ***light speed c*** of the electromagnetic radiation relates not to the moving radiator, a charge (as usually thought), but to the point in world space which is behind the radiator, to its instant place in the absolute space where its preceding impulse was, and in the issue to the initial absolute location of the radiating charge, thus it is detached from it and is independent from its velocity.

And this *third* proposition has been confirmed by all the known facts.

If a star continues its way after the radiation, and we see it on its former place, where it is long no more, then this can only mean, that the electromagnetic radiation propagates from its center in the world absolute space as something independent and that its radiator detaches and shifts relative to this center.

(Though like the waves in the water which do not depend on the further motion of the vibrating body, or like the sound waves which we hear the roar of the airplane coming from the place in the sky, where it cannot already be seen).

If the sun beams have the single speed, but not many of different speeds according to the high and different velocities of radiating atoms fussing in the solar atmosphere, we have to admit that the speed of the rays do **not** *depend* on the motion of their source - radiator.

If the rays reflected from the mirrors and refracted in the lenses despite everything keep their coherence and produce interference, it is possible only because the speeds of these secondary radiations of the matter do not depend on the motion of the electrons and are not *added* to their speed but relate to their instant place in the world space.

The **in**dependence of the electromagnetic radiation speed on its source is also proved by the absence of the expected by W. Ritz visual deviations in the motion of the binary stars from Keplerian orbits (Chapter 10), as well as by Doppler's blue shift in the spectrum of one of the binary stars approaching to us and the red shift in the spectrum of its retreating partner (Chapter 8), and also by invariability of radio pulses received from the rotating pulsars, the behavior of radiation from the particles accelerated in a cyclotron, etc.

That is why the basic Einstein's statement that the light speed in vacuum does not depend on the motion of the radiator is true, but it does *not* in the sense that it is absolutely fantastic invariable relative to "*any*" moving bodies.

§ 9. Non-inertial addition of the light speed

On the contrary, in absolute space and time the light speed $\boldsymbol{c}$ cannot be invariant (≡ the same) relative to the differently moving bodies. But comes its ***addition*** with velocities $\boldsymbol{v}$ of the radiator and with velocities $\boldsymbol{u}$ of the detector, however, by special laws, inverse to the usual inertial in mechanics.

The light speed does **not** relate to its radiator, as Michelson assumed (to the Earth), and is added to the velocity of the radiator $\boldsymbol{v}$ **not** ballistically – inertial as in gravitational mechanical motion (§ 8), as W. Ritz assumed.

The *forth* my fundamental proposition:

Since the constancy of the light speed $\boldsymbol{c} = const$ relates to the particular place in the absolute world space (§ 8) it means its **independence** on the radiator motion, but therefore it means its changes relative to the other moving bodies (1.1). Thus, it means the ***addition*** *of light speed* by special laws, inverse to ballistics with its inertia.

Namely:

If the radiator and the ray move in the same direction, the velocity of the radiator $\boldsymbol{v}$ relative to the ray is not added inertially to the speed of the ray $\boldsymbol{c}$ (§ 8), but on the contrary, it is subtracted from it: $\boldsymbol{c - v}$.

And if the radiator and the ray move in the opposite directions, their velocities are not subtracted as in mechanics, but on the contrary, they are added: $\boldsymbol{c + v}$.

The addition of the electromagnetic speed $\boldsymbol{c}$ with the velocity $\boldsymbol{u}$ of the receiver is analogous (Chapter 21).

In short, the addition of the light speed $\boldsymbol{c}$ with the velocities of the radiator $\boldsymbol{v}$ and receiver $\boldsymbol{u}$ is ***non-inertial, "aballistic"***. (Equations 21.1-21.5).

The speed of the electromagnetic radiation relates to the instant place of the radiator in the absolute space in the absolute moment of its radiating and later it detaches from the radiator and propagates independently from it by the way of series successive **induction**. Therefore it is added according to the non-inertial aballistic laws (chapters 11, 21); owing to inversion it can be changed not only relative to the receiver, but to the radiator itself, and the received speed of the radiation (c'), on the contrary, can be not changed through the motion of radiator.

Why is the addition of the speed of electromagnetic radiation so different from the ballistic?

The cause of the difference has already been pointed: ballistic addition of the velocities occurs under the action of inertia, and therefore it occurs in **mechanical** phenomena. While aballistic laws of the light-speed addition conditioned on the fact that in the electrodynamics motion is not gravitation-inertial (§ 8) but inductive. When there is no inertia or it is insignificant, radiation detaches from the electromagnetic radiator.

And this is one of the fundamental differences between mechanical and electro dynamical processes.

§ 10. Non-inertial explanation of the contradictions

The established here (§ 9) laws of the non-inertial addition (let it be **w**) of light speed require the corresponding anisotropic relative-absolute modification of the Maxwell's equations, i.e. complement of this aballistic non-inertial addition of light speed **w**.

The recalculation of this speed addition in various known electromagnetic phenomena brings inspirational results. It turned out that aballistic laws give non-contradictory explanation of stellar aberration, Doppler's effect, the motion of the binary stars, rotating pulsars, and the special features of the optics of moving bodies.

Nowadays, according to the excepted in astronomy classical conclusions about *aberration* of the star light, it is considered (however, it is tacit, without any special reservations) that speed of light does not depend on the motion of the electromagnetic radiator (21.1), which was interpreted earlier as an "immobility of ether". Non-inertial addition of speed is also a hidden (implicit) premise which is the base for the modern non-relativistic theory of the Doppler shift in the spectrum of the moving radiator.

And any other explanation for them is unknown. In the relativistic hypothesis it does not exist and its absence is kept silent. (See chapters 7-8).

Non-inertial speed addition of electromagnetic radiation also shows why in the most important for relativity theory Michelson's experiments and in the following analogical Michelson's and Trouton's experiments of the second order (Chapter 1) the result must be negative: no visible addition of light speed and the velocity of Earth as well as its appearance in the interference of the longitudinal and transverse rays must not exist as was erroneously expected according to the ballistics by those theorists of those experiments.

However, as the analysis convinces (chapters 1, 2, 10, 12, 13) these experiments cannot be explained without any contradictions by neither dynamic electrodynamics of Lorenz, nor relativistic hypothesis of Einstein or ballistic hy-

pothesis of Ritz.

And with it, together with photon-genesis theory of substances (Chapters 5, 26, 28, 29) non-inertial laws of electrodynamics explain famous and supposedly "relativistic", but in fact well-known **long before** Einstein **close-to** (or ***near-by-light***), **sub-light effects**: longitudinal deformation of bodies, deceleration – slowing of their processes and growth of their mass.

§ 11. New predictions

Therefore, the relative absoluteness gives the **prediction** of new effects:

- Magnetic activity of additional relative electric current (Ch. 25-26, *p*. 194).
- Dependence of the Doppler's spectral shift not on wave frequency but on its ***length*** (they do not always changed simultaneously) (Chap. 22 - 23).
- Invariability of the wave-length and frequency in case of ***tie-in*** of motion of the radiator and receiver (Chapters 22, 24).
- Weak gravitational induction of electromagnetic radiation (Chap. 25, 26).
- Transformation of substance particles at achieving of light-speed ***c*** into electromagnetic radiation (Chapters 5, 26, 28).

§ 12. Einstein's boundaries

The Einstein's hypothesis absolutizes relativity (≡ asserts its absoluteness). It **contradicts** to the phenomena of stellar aberration, Doppler's effect, absoluteness and instantaneousness of gravitation-inertia action, laws of conservation and conversion of energy and leads to innumerable "paradoxes", the euphemisms of absurdities which having not found a solution in it.

The "general" hypothesis of relativity which was created for overcome these contradictions, nevertheless, keeps them. Moreover, it issues from the impossible absolute identity ("the principle of equivalence") of radial gravity and isotropic inertia, as well as from Reshuffle – mixing of reference systems with coordinate systems, in the ideal state of "general covariance" of the equations of the physical laws, loses the spatial dimensions (chapter 20) and, in actual revision it has neither experimental confirmation nor any further predictions.

Containing in it some verities: the existence in electromagnetic radiation gravity and dependence of the mass from its velocity, however, had been known long **before** Einstein (chapters 26-27), as well as the equivalence of energy and mass $E=c^2m$. (Chapter 4).
