https://coshair.ru/cs/animal/opyt-maikelvona-morli-opyt-maikelsona-morli-opyt-maikelsona-kratko/

Michelson-Morley Experiment, Bulldog Efforts

Is motion relative? After a moment of thought, you might be inclined to answer, "Yes, of course!" Imagine a train heading north at 60 km/h. A man on a train travels south at 3 km/h. In what direction is it moving and what is its speed? It is quite obvious that this question cannot be answered without specifying the frame of reference. Relative to the train, a person is moving south at a speed of 3 km/h. Relative to the Earth, it moves north at a speed of 60 minus 3, i.e. 57 km/h. Can we say that the speed of a person relative to the Earth (57 km/h) is his true, absolute speed? No, because there are other, even broader frames of reference. The earth itself moves. It rotates on its axis and at the same time moves around the Sun. The Sun, along with all its planets, moves within the Galaxy. A galaxy rotates and moves relative to other galaxies. Galaxies, in turn, form clusters of galaxies that move in relation to each other. No one knows how far this chain of moves can actually go. **There is none** the obvious way, to determine the absolute motion of an object. It amazes me. I think that one /framework/ would be: **space-time 3+3D infinite, flat (without curvature of dimensions), without passage of time and without expansion of space, without matter and without interactions of 4 forces**. Why not??? This "frame of reference" is transferred to "our universe" after the big-bang, from the state before the big bang as a web, a thread, a grid in which "everything floats". After the big bang, there was a sudden change in the curvature of dimensions 3+3, from zero curvature to extreme curvature, and in this soup = plasma, the construction of matter takes place by "curving, packing dimensions". This is how matter is built from dimensions http://www.hypothesis-of-universe.com/docs/c/c_455.jpg . Space-time remains flat here as a "raster" in which all states of matter and fields (gravity and the three other forces) "float" because they too are built from curved dimensions. For this simple vision, thinking about the movement (of both matter and geometric points) of light does not lead to delusion, as we see further down in this article. "The problem does not apply" with the speed of light because it is constant. The symbolic notation will be →

Flat spacetime = 1/1 = c > v = 1/∞ = 0/1. It must also hold $c^2 = x^2/t^2 = 1^2/1^2$, and also $c^3 = x^3/t^3 = 1^3/1^3$; http://www.hypothesis-of-universe.com/docs/c/c_486.jpg and … whether we choose a unit interval ***for length and time arbitrarily large***. Photons are the only elementary particles with zero rest mass, all other particles have non-zero mass, "floating" (!) in a flat grid, yarn, network of dimensions with movement **v < c = 1/1** ; **$m. v = m_0 . c$** . Everything is carried not by ether, but by "flat 3+3D space-time". Everything "floats" in flat space-time, because everything is essentially a **"state of warped dimensions"**; all matter is built from both length and time dimensions. (!) Nowhere is it forbidden or proven that time cannot have more dimensions than one. !!!!!!! It is also possible to correctly consider whether the expansion of the universe = space-time (movement of its point) is identical to the speed of light **c = 1/1**. If this is the case, then it would mean that during the history of the universe, the number=magnitude of the speed of light changes, but it is still constant **c = 1/1** with a different "unit". Now some samples from 2000-2004 about LT and M-M ex. http://www.hypothesis-of-universe.com/docs/d/d_011.pdf →

I will demonstrate ""relativity"" in the opposite way (I will break the convention):

$$\sqrt{2}\,.\,v \;=\; c \;=\; \sqrt{2}\;k\;w \;=\; 2\,k^2\;u$$

$$\Downarrow$$

$$c^2 = 2\,.\,k^2\,w^2$$

$$c^2 = k^2\,.\,w^2 + k^2\,.\,w^2$$

$$m^2\,.c^2 = m^2\,.\,k^2\,.\,w^2 + m^2\,.\,k^2\,.\,w^2$$

$$m^2\,.c^2 = m^2\,.\,k^2\,.\,w^2 + m^2\,.\,k^2\,.\,\frac{x_v^2}{x_c^2}\,.\,\frac{x_c^2}{t_c^2}$$

$$m^2\,.c^2 = m^2\,.\,k^2\,.\,w^2 + m^2\,.\,k^2\,.\,\frac{x_v^2}{x_c^2}\,.\,\frac{x_c^2}{t_c^2}$$

$$m^2\,.c^2 = m^2\,.\,k^2\,.\,w^2 + m_0^2\,.\,k^2\,.\,\frac{x_c^2}{t_c^2}$$

$$m^2\,.c^2 = m^2\,.\;v^2 + m_0^2\,.\,\mathbf{k^2}\,.\,c^2$$

$$m^2\,.c^2 = m^2\,.\;v^2 + m_0^2\,.\,\frac{\mathbf{t_c^2}}{\mathbf{t_v^2}}\,.\,c^2$$

$$m^2\,.c^2 = m^2\,.\,v^2 + m_0^2\,.\,c^2\,.\,\frac{\mathbf{t_c^2}}{\mathbf{t_v^2}}$$

$$m^2\,.c^2.c^2 = m^2\,.\,v^2.c^2 + m_0^2\,.\,c^2.c^2\,.\,\frac{\mathbf{t_c^2}}{\mathbf{t_v^2}} \qquad 01^*)$$

$$\mathbf{m^2\,.\,c^4 = m^2\,.\,v^2.c^2 + m_0^2\,.\,c^4\,.\;\Delta t^2 / t^2} \qquad 02^*)$$

$$\mathbf{C^2 = A^2 + B^2}$$

Pythagorean energy theorem $\mathbf{E^2 = p^2\,.c^2 + m_0^2\,.\,c^4\,.\;\Delta t^2 / t^2}$

$$\mathbf{m\,.\,v\,.\,x_c = m_0\,.\,c^2\,.\,t_c\;.\;t_c / t_v} \qquad 03^*)$$

And since 02*) is a right triangle **isosceles**, then I can write here A = B, i.e. shape 03*), resulting in Heisenberg's uncertainty principle, =but already corrected= by the factor Δt / t of the gravitational redshift or violet shift

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by which all movements could be measured. Motion and stillness, like big and small, fast and slow, up and down, left and right, seem entirely relative. There is no other way to measure the motion of any object than by comparing its motion with that of another object. http://www.hypothesis-of-universe.com/docs/aa/aa_353.pdf Unfortunately, it's not that easy! If one could limit oneself to what has already been said about the relativity of motion, then there would be no need for Einstein to create a theory of relativity. The reason for the difficulty is this: there are two very simple ways to detect absolute motion. In one of the methods, the properties of light are used, in the other, various phenomena of inertia that arise

when a moving object changes its path or speed. Not only the trajectory, but also the pace of the passage of time, where "curvature" = change in pace, is almost imperceptible, it is 8 orders of magnitude less "crooked". Objects also move due to "space-time expansion", then the question will be how to distinguish them? Einstein's special theory of relativity deals with the first method and general relativity with the second. O.K., but...Einstein's STR does not look for the ""what and how"" of a body in uniform motion with a speed of "v_7" changes that speed to "v_8", then to v_9", etc. In the LT equation, sections of non-uniform motion must be inserted !!!, which according to OTR means that either an external force acts on the body, or the body moves through curved space-time. So what is the point of STR then? STR is just a "stop-state" for some particular speed, nothing more. STR is thousands, millions of stop-states in non-uniform accelerated motion, i.e. it is basically only accelerated motion, into which "stop-states" are inserted, which will then be called "transformation" and "relativity", although it is unnecessary . The movement of the object in the STR is still uneven from $v = 0$ to $v \rightarrow c$ and with this power the body rotates the systems. The transformation is here only by comparing the intervals on the curved path... and we compare by "scanning" into the plane of the Observer and then call it "dilation and contraction", which are not on the object. In this and the next two chapters, we will look at the first method that may serve as the key to understanding absolute motion, a method that uses the properties of light. In the nineteenth century, even before Einstein, physicists imagined space filled with a strange motionless and invisible substance called the ether. It was often called the "light" ether, that is, it is the carrier of light waves. Aether filled the entire

universe.

He permeated all material ~~bodies~~ bodies. If all the air were pumped out from under the glass bell, the bell would be filled with ether. How else could light travel through a vacuum? Light is the movement of waves. Therefore, there must be something that fluctuates. The ether itself, although there are vibrations in it, rarely (if ever) moves in relation to material objects, rather all objects move through it, like the movement of a sieve in water. The absolute motion of a star, planet, or any other object is simplified (of this the physicists of the day were sure) if the motion is considered in relation to such a motionless, invisible etheric sea. But you ask if ether is an intangible substance that cannot be seen, heard, felt, smelled or tasted. But how can we consider the movement of, for example, the Earth relative to it? The answer is simple. Measurements can be made by comparing the motion of the earth with the motion of a light

beam. To understand this, let's go back for a moment to the nature of light. In fact, light is only a small part of the visible spectrum of electromagnetic radiation, which includes radio waves, ultrashort waves, infrared light, ultraviolet light, and gamma rays. In this book, we use the word "light" to refer to any type of electromagnetic radiation because the word is shorter than "electromagnetic radiation." Light is the movement of waves. Considering such motion without simultaneously thinking about the material ether seemed as absurd to the physicists of the past as thinking about waves on water without thinking about water itself. That's why it didn't occur to them that the "carrying medium" could be (and is) 3+3D space-time itself…; everything "floats" in it, not just light. If you shoot from a moving jet plane in the direction of its movement, then the speed of the bullet relative to the Earth will be greater than the speed of a bullet fired from a gun on Earth. The speed of the missile relative to the ground is obtained by summing the speed of the aircraft and the speed of the missile. O.K. if the

movement trajectory is straight.

In the case of light, the speed of the ray does not depend on the speed of the object from which the light was emitted. This fact was conclusively demonstrated experimentally at the end of the nineteenth and the beginning of the twentieth century, and since then it has been repeatedly confirmed. The last check was made by Soviet astronomers in 1955 using light from opposite sides of the rotating sun. One edge of our Sun is constantly moving towards us and the other in the opposite direction. However, the reality of dimensional curvature in a strong gravitational field must be "taken into account" here, movement is not in a straight line It was found, how ? that light from both ends hits the Earth at the same speed. Similar experiments were done decades ago with the light of rotating binaries. Despite the motion of the source, the ||speed of light **in the void** is always the same : In the void at the stop-age of 13.8 billion years since the big bang, spacetime is almost flat, a change in curvature on the order of 10^{-10}, maybe more … is slightly less than 300,000 km/s.

Vidíte, jak tato skutečnost poskytuje vědci (říkejme mu pozorovatel) způsob, jak vypočítat svou absolutní rychlost. Pokud se světlo šíří nehybným, neměnným éterem určitou rychlostí *S* a pokud tato rychlost nezávisí na rychlosti zdroje, pak rychlost světla může sloužit jako standard pro určení absolutního pohybu pozorovatele. Pozorovatel pohybující se stejným směrem jako paprsek světla by musel zjistit, že kolem něj paprsek prochází rychlostí menší než *S*; pozorovatel pohybující se směrem k paprsku světla by si měl všimnout, že paprsek se k němu blíží rychlostí větší než *S*... Jinými slovy, výsledky měření rychlosti světla by se musely měnit v závislosti na pohybu pozorovatele vůči paprsku. Tyto změny by odrážely jeho (pozorovatelův) skutečný, absolutní pohyb éterem.

Při popisu tohoto jevu fyzici často používají pojem „éterický vítr“. Abyste pochopili význam tohoto termínu, zvažte znovu jedoucí vlak. Viděli jsme, že rychlost člověka jdoucího ve vlaku rychlostí 3 km/h je ve vztahu k vlaku vždy stejná a nezávisí na tom, zda jede směrem k

lokomotivě nebo ke konci vlaku. To bude platit i pro rychlost zvukových vln uvnitř uzavřeného vozíku. Zvuk je vlnový pohyb přenášený molekulami vzduchu. Protože vzduch je obsažen ve vozíku, zvuk uvnitř vozíku se bude šířit na sever stejnou rychlostí (vzhledem k vozíku), jakou se pohybuje na jih.

Situace se změní, pokud přejdeme z uzavřeného osobního vagónu na otevřené nástupiště. Vzduch již není uvnitř vozíku izolován. Pokud se vlak pohybuje rychlostí 60 km/h, pak vítr fouká opačným směrem podél nástupiště rychlostí 60 km/h. Kvůli tomuto větru bude rychlost zvuku ve směru od konce k začátku vozíku nižší než normálně. Rychlost zvuku v opačném směru bude rychlejší než normálně.

Fyzici devatenáctého století byli přesvědčeni, že éter by se měl chovat jako vzduch foukající na pohyblivou platformu. Jak by to mohlo být jinak? Pokud je éter nehybný, pak se jakýkoli předmět pohybující se v něm musí setkat s éterickým větrem vanoucím opačným směrem. Světlo je pohyb vln v nehybném éteru. Éterický vítr musí samozřejmě ovlivňovat rychlost světla měřenou od pohybujícího se objektu.

Země se řítí vesmírem po své dráze kolem Slunce rychlostí asi 30 km/s. Tento pohyb by podle fyziků měl způsobit éterický vítr vanoucí směrem k Zemi v intervalech mezi jejími atomy rychlostí 30 km/s. K měření absolutního pohybu Země (jejího pohybu vůči nehybnému éteru) je potřeba pouze změřit rychlost, jakou světlo urazí určitou určitou vzdálenost po zemském povrchu tam a zpět. Díky éterickému větru se světlo bude pohybovat rychleji jedním směrem než druhým. Porovnáním rychlostí světla vyzařovaného v různých směrech lze vypočítat absolutní směr a rychlost Země v daném okamžiku. Tento experiment byl poprvé navržen v roce 1875, 4 roky před narozením Einsteina, velkým skotským fyzikem Jamesem Clarkem Maxwellem.

V roce 1881 provedl Albert Abraham Michelson, tehdy mladý důstojník námořnictva Spojených států, přesně takový experiment.

Michelson se narodil v Německu, jeho rodiče jsou Poláci. Jeho otec se přestěhoval do Ameriky, když byly Michelsonovi dva roky. Po absolvování námořní akademie v Annapolis a dvouleté námořní službě začíná Michelson vyučovat fyziku a chemii na stejné akademii. Bere si dlouhé prázdniny a jede studovat do Evropy. Na berlínské univerzitě v laboratoři slavného německého fyzika **Hermanna Helmholtze** se mladý Michelson nejprve pokusil detekovat éterický vítr. Ke svému velkému překvapení, v žádném směru kompasu, našel rozdíl v rychlosti, kterou se světlo šíří tam a zpět. Bylo to, jako by ryba zjistila, že může plavat v moři jakýmkoli směrem, aniž by si všímala pohybu vody ve vztahu k jejímu tělu; jako by si pilot letící s otevřenou kabinou nevšiml, jak mu vítr fouká do obličeje.

The excellent Austrian+ Czech physicist **Ernst Mach** (we will talk about him in the 7th chapter) already criticized the concept of absolute motion through the ether. After reading Michelson's published description of the experiment, he immediately concluded that the concept the ether must be discarded. Well, every physicist can come to the "conclusion" that (?!)..., concept must be proven, not just shouted that it is wrong... However, most physicists rejected such a bold step. Michelson's device was crude, there were >reasons enough think, prove and "think" are not the same thing... that an experiment with a more sensitive device would produce a positive result. Michelson himself thought so. He found no fault in his experience and tried to repeat it. Michelson retired from the naval service and became a professor at the Keyes School of Applied Sciences (now Keyes University) in Cleveland, Ohio. Nearby, Edward William Morley taught chemistry at the University of the Western Territory. These two people became good friends. "Outwardly," writes Bernard Yaffe about the book "Michelson and the Speed of Light," "these two scientists were an example of contrast ... Michelson was handsome, smart, always perfectly shaven. Morley, to put it mildly, was slovenly in his dress, and served as an example of the absent professor ... He had grown his hair until it curled over his shoulders, and he had matted red stubble that reached almost to his ears." In 1887, in the basement of Morley's laboratory, the two scientists made a second, more precise attempt to find the elusive ether wind. Their experiment, known as the Michelson-Morley experiment, is one of the great turning points in modern physics. The device was installed on a square stone slab with sides of about one and a half meters and a thickness of more than 30 cm, which floated in liquid mercury. This eliminated vibration, kept the board level and made it easier to rotate around the center axis. A system of mirrors

directed the beam of light in a certain direction, the mirrors reflected the beam back and forth in one direction, so it made eight passes. (This was done to make the track as long as possible while maintaining the dimensions of the device so that it could still rotate easily.) At the same time, another mirror system sent out a beam for eight runs in a direction that formed a right angle with the first beam. It was believed that when the plate was rotated so that one of the rays ran back and forth parallel to the etheric wind, the ray would take a longer time to complete the flight than the other ray would travel the same distance perpendicular to the wind. At first it seems the opposite should be true. Consider the travel of light downwind and upwind. Wouldn't the wind increase the speed on one path as much as the other? If so, then the acceleration and deceleration would cancel each other out and the time spent on the entire trip would be exactly the same as if there was no wind at all. Indeed, the wind will increase the speed in one direction by exactly the same amount as it decreases in the other, but - and this is the most important - the wind will decrease the speed for a longer period of time. Calculations show that it takes longer to cover the entire course against the wind than when there is no wind. The wind will have a retarding effect on the beam propagating at right angles to it. This is also easy to see. It turns out that the retardation effect is smaller than in the case where the beam propagates parallel to the wind. If the Earth is moving through a sea of motionless ether, an ether wind should appear and be registered by the Michelson-Morley device. Indeed, both scientists were convinced that they could not only detect such a wind, but also determine (by rotating the plate until they found the position at which the difference in the time of passage of light in the two directions is maximum) at any given moment the exact direction of the Earth's motion through the ether.

It should be noted that the Michelson-Morley instrument did not measure the actual speed of light for each of the beams. The two beams, after making the required number of round trips, were combined into a single beam that could be observed with a small telescope. The device slowly turned. Any change in the relative velocities of the two beams would cause a shift in the interference pattern of alternating light and dark stripes. http://www.hypothesis-of-universe.com/docs/f/f_061.jpg ; http://www.hypothesis-of-universe.com/docs/f/f_065.jpg ; http://www.hypothesis-of-universe.com/docs/f/f_033.pdf ; Michelson was again stunned and disappointed. All the physicists around the world were also surprised. It did not occur to a single physicist that Lorentz transformations are "pseudo-transformations" (?), because the system of the object rotates??... And it did not occur to them that the M-M device - the interferometer will be very large, in "cosmological size ” that the rectilinear light does not return back to the mirrors on the plate, which no longer perform rectilinear motion ??? ! Despite Michelson and Morley turning their devices around, they didn't notice even a trace of

the ethereal wind! Never before in the history of science has the negative result of an experiment been so destructive and so fruitful. Michelson again decided that his experiment had failed. He never thought that this "failure" would turn his experience into one of the most significant, revolutionary experiments in the history of science. Later, Michelson and Morley repeated their experiment with an even more perfect device. Other physicists did the same. The most accurate experiments were carried out in 1960 by Charles Townes at Columbia University. His instrument using a maser ("atomic clock" based on molecular vibrations) was so sensitive that it could detect the etheric wind even when the Earth was moving at a speed of only one thousandth. But no trace of such a wind was found. Physicists were initially so stunned by the negative result of the Michelson-Morley experiment that they began to come up with all sorts of explanations to save the ether wind theory. And didn't anyone think that this was about rotating the systems? Of course, if this experiment had been carried out a few centuries earlier, then, as HJ Whitrow notes in his book The Structure and Development of the Universe, everyone would have quickly realized mind a very simple explanation of the earth's immobility. But this explanation for the experience seemed unlikely. The best explanation was the theory (much older than the Michelson-Morley experiment) that the ether is carried by the Earth, like air inside a closed carriage. Michelson thought so too. But other experiments, one of which Michelson performed with his own hands, ruled out this explanation. The most unusual explanation was given by the Irish physicist George Francis Fitzgerald. Perhaps, he said, the ethereal wind pushes against a moving object, causing it to contract in the direction of motion.

To determine the length of a moving object, you must multiply its length at rest by the value given by the formula → where v^2 is the square of the speed of the moving body and from 2 - the square of the speed of light. From this formula it can be seen that the rate of contraction is negligible at low body velocities, increases with increasing velocity, and increases as the body velocity approaches the speed of light. Thus, a long cigar-shaped spaceship takes on the shape of a short cigar when moving at high speed. The speed of light is an unattainable limit; for a body moving at this speed, the formula would have the form (Unfortunately, the article lacks equations and pictures because I don't have a single friend who would help me convert the downloaded document in "PDF" to "Word", i.e. to "doc" where I could already see the formulas and react to them with a comment. I can't do that.) and this expression is equal to zero. Multiplying the length of the object by zero would give us a zero in the answer. In other words, if an object can reach the speed of light, then it will have no length in the direction of its motion! Of course this is nonsense. Indeed, the observer /in a stationary system/ will scan (!) a system of an object (in motion) rotated into its projection, for which the coordinate - the "x" axis, originally perpendicular to the movement, will turn to the position of the "y" axis, and thus it will shorten in the projection scanned interval. For a system with time axes, it will be the other way around: the scanned interval will stretch (relative to the unit reference in the observer's system). The elegant mathematical form of Fitzgerald's theory was given by the

Dutch physicist Hendrik Lorenz, who independently arrived at the same explanation. (Lorenz later became one of Einstein's closest friends, but they did not know each other at the time.) This theory became known as the **Lorentz-Fitzgerald** (or Fitzgerald-Lorentz) contraction theory. It is easy to see how the contraction theory explained the failure of the Michelson-Morley experiment. If the square plate and all the devices on it were slightly reduced in the direction the etheric wind was blowing, then the light would travel a shorter full path. Although wind would generally have a retarding effect on the forward and backward motion of the beam, the shorter path would allow the beam to complete this journey in exactly the same time as if there were no wind or contraction. In other words, the contraction was just such as to keep the speed of light constant regardless of the direction of rotation of the **Michelson-Morley apparatus**. http://www.hypothesis-of-universe.com/docs/f/f_033.pdf ; You may be wondering why it was not possible to simply measure the length of the instrument and see if the shortening actually occurred in the direction of the Earth's motion? But the line also shrinks in the same ratio. The measurement would give the same result as if the contraction had not occurred.

Everything on the moving Earth is subject to contraction. The situation is the same as in Poincaré's thought experiment, in which the universe suddenly expands a thousand times, but only in the **Lorentz-Fitzgerald theory** changes occur in a single direction. Since everything is subject to this change, there is no way to detect it. Within certain limits (the limits are established by topology—the science of the properties that persist when an object is deformed), form is as relative as size. The download of the device, like the shrinking of everything on Earth, could only be noticed by someone who is outside the Earth and not moving it. Many writers, talking about the theory of relativity, considered the Lorentz-Fitzgerald contraction hypothesis to be an ad hoc (Latin term meaning "just for this case") hypothesis, unable to be verified by any other experiments. http://www.hypothesis-of-universe.com/docs/d/d_012.pdf Adolf Grünbaum thought it wasn't quite fair. The reductive hypothesis was ad hoc only in the sense that there was no way to test it at the time. In principle, it is not ad hoc at all... And this was proven in 1932, when Kennedy and Thorndike experimentally disproved this hypothesis. **Roy J. Kennedy and Edward M. Thorndike**, two American physicists, repeated the Michelson-Morley experiment. But instead of trying to make the two arms as equal as possible, they tried to make their lengths as different as possible. In order to detect the difference in the time it takes the light to travel in the two directions, the instrument was rotated. In accordance with the contraction theory, the time difference should have changed when rotating. This could be observed (as in Michelson's experiment) by changing the interference pattern produced when the two beams were mixed. But no such change was found. The easiest way to test the contraction theory would be to

measure the speed of light rays traveling in opposite directions: in the direction of the Earth's motion and against it. Obviously, shortening the path does not make it impossible to detect the ether wind, if it exists. Until the recent discovery of **the Mössbauer effect** (discussed in Chapter 8), gigantic technical difficulties prevented this experiment from being carried out. In February 1962, at a meeting of the Royal Society in London, Professor **Christian Möller** of the University of Copenhagen spoke about how easy it was to perform this experiment using **the Mösebauer effect.** For this, the source and absorber of electromagnetic oscillations are installed at opposite ends of the rotary table. **Möller** pointed out that such an experiment could disprove the original theory of contractions. It is possible that such an experiment will be carried out during the printing of this book. Although experiments of this kind could not be carried out in Lorentz's time, he reckoned with their basic possibility and considered it quite reasonable to assume that these experiments, like Michelson's experiment, would lead to a negative result. To explain this likely result, Lorenz made an important addition to the original cancellation theory.

Introduced a time change. He said the clock clock no ! If anything, **time slows down**, but the clock must never be slowed down, because that is the mechanism built for the standard intervals by which it is measured. (!) will slow down due to the etheric wind, NOT, so that the measured speed of light will always be 300,000 km/s. Let's look at a concrete example. Suppose we have a sufficiently accurate clock, time is variable but watches are not, to perform an experiment measuring the speed of light. We send light from point A to point B in a straight line in the direction of the Earth's motion. We synchronize two **two** clocks at A and then move one one of them to B. Note the time the light beam left A and (according to other clocks) the time it arrived at B. Because if light were moving against the etheric wind, its speed would be slightly reduced and the travel time would be increased compared to the case of the Earth at rest. Do you notice any errors in this reasoning? A clock moving from A to B also moved against the etheric wind. This slowed down the clock NO at point B, lagging behind the clock at point A. time yes, clock no This leaves the measured speed of light unchanged - 300,000 km/s. The same thing happens (says Lorentz) if you measure the speed of light traveling in the opposite direction from point B to point A. Two two clocks synchronize at point B, and then one one of them moves they transfer to point A. The ray of light spreading from point B to A moves along the etheric wind. The speed of the beam increases and, as a result, the transit time decreases somewhat compared to the case of the Earth at rest. However, when you move the clock from point B to point A, you "blow the wind". Reducing the drift pressure of the aether will allow the clock to increase its speed, and therefore, by the time the experiment is over, the clock at A will run ahead compared to the clock at B. It's a "beautiful model", but unfortunately it's speculative. I believe that my vision with the rotation of the systems is more realistic. And as a result, the speed of light is again 300,000 km/s. Lorentz's new theory not only explained the negative result of the Michelson-Morley experiment; this resulted in the fundamental impossibility of experimentally ascertaining the effect of the etheric wind on the speed of light. His equations for the change of length and time work in such a way that any possible method of measuring the speed of light in any frame of reference will give the same result. It is clear that physicists were dissatisfied with this theory. It was an ad hoc theory in the full sense of the word. Efforts to plug the holes in the ether theory proved to be doomed. O.K., but I'm still surprised that in the whole 20 years no physicist has provided evidence (not even an argument) to disprove my vision of rotating systems. No one! Not a single physicist commented on it. O is literally

impossible…, possible as an original CASE… It is impossible to think of ways to confirm or disprove thist. It was hard for physicists to believe that after creating the etheric wind, nature arranged everything in such a way that it was impossible to detect this wind. The English philosopher-mathematician Bartran Russell later very successfully quoted the song of the White Knight from Lewis Carroll's Alice in Wonderland.

Z knihy **Atomová energie** pro vojenské účely autor **Smith Henry Dewolf**

POMOCNÝ EXPERIMENT ZPOŽDĚNÉ NEUTRONY 6.23. Nebudeme se zmiňovat o mnoha různých pomocných experimentech provedených během tohoto období. Budeme však uvažovat o jednom takovém experimentu, o studiu zpoždění neutronů, protože je

Z knihy Hyperprostor autor

Kaku Michio - Dekadalita a experiment.

Ve vzrušení a zmatku, který doprovází zrod jakékoli významné teorie, je snadné zapomenout, že v konečném důsledku musí každá teorie spočívat na základech experimentu. Bez ohledu na to, jak elegantní a krásné to může vypadat

EXPERIMENT S COVETOU S LEDEM.

Práce na statické elektřině a izolační účinek Faradayovy klece byla potvrzena experimentem v roce 1843 pomocí ledové kyvety. Schéma přístroje použitého Faradayem pro experiment s ledovou celou. Pro izolaci

Источник: https://coshair.ru/cs/animal/opyt-maikelvona-morli-opyt-maikelsona-morli-opyt-maikelsona-kratko/

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