

**Time-space Non-classical Nature the "Philosophical Intrinsically Origins, Scientific External Form"**

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**Abstract:** Adopting all scientific literature has never had the new perspective, (1) clarifies: the birth of science originates from experiment verification. It decides that whether can be experiment verified is the determinant gene for determining whether a theory is science. Only on this basis, we can correctly understand and grasp the original difference between the "scientific logic" and "philosophical logic": Those unable to create its "by experiment observation must capable be determined, validated the quantitative mathematical description (Law, equation the formula, constant and so on)" the theory, even though it is completely in line with the objective, all can not be regarded as "science"! Accordingly, "Lorenz - Fitzgerald absolute effect theory" is "space-time non classical nature" the "philosophical origin" rather than the "science"; only the special theory of relativity is its uniqueness correct "science". (2) Reveals: each relativistic observation system all is a "time-space crystal" taking "Lorenz Fitzgerald absolute effect the time-space elements" as its elements, the "scientific simultaneous structure" as its lattice; correct description of pure relatively external relevance "between different time-space crystal", is exactly the special theory of relativity. (3) If there is no "scientific simultaneous structure", is not only a "time-space science" itself unable exist, more important is: in modern physics, all the basic principles, basic laws would totally not exist! (4) Taking "experiments reveal-verify consistent with logical inevitability" as the basis, expound and prove: scientific simultaneous structure, Lorenz transform & astronavigation young, their physical origins all are Lorenz - Fitzgerald absolute effect. (5) Affirm and grasp the opposites unity of non-classical nature "philosophical intrinsically origins & scientific external form", only such a time-space theory can be correct, self-consistent & perfection.

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**0. Introduction**

The dispute about that Relativity whether or not the truths, has continued for more than 100 years, and to be just unfolding. The reasons: one is that Relativity as the time-space theory did not perfectness; but the most important and the most fundamental is that there is no "truth standard" as consensus for "dispute researchers". This paper adopting all scientific literature has never had the new perspective, "to overview & analysis time-space non-classical nature of: experiments open out, philosophical internal origins, scientific external form, theory completeness mandatory requirements". The basic conclusion is that Relativity as a time-space science not only is correct, more important is that it is uniqueness right! Vast majority of the censure, slander, is only "don't know what 'scientific logic'" the misunderstanding! But as time-space theory, Relativity is indeed the "intrinsically original essence congenital absence" non-perfectness theory! The proof key is rightly understanding and grasping: Between "scientific logic" and "philosophical logic" the original difference; If there is no "scientific simultaneous structure", is not only a "time-space science" itself unable exist, more important is: in modern physics, all the basic principles, basic laws would totally not exist; Every relativistic observation

system all is a "time-space crystal" taking "Lorenz Fitzgerald absolute effect the time-space elements" as its elements, the "scientific simultaneous structure" as its lattice; Correct description of pure relatively external relevance "between different time-space crystal", is exactly the special theory of relativity; "Scientific simultaneous structure", Lorenz transform & Astronavigation young, their physical origins all are Lorenz - Fitzgerald absolute effect; The opposites unity of the time-space non-classical nature "philosophical intrinsically origins & scientific external form". So as to overhaul thoroughly, end the controversy.

**1. " Michelson Morley experiment's Zero Results" (after referred to as ZR) with regard to found the non-classical nature of time-space, is driving source and touchstone. Can self-consistently & perfectly explain this ZR, only such a time-space theory may be right. [1]**

What is the ZR?

Because of that "Michelson Morley Experiment's Interferometer two arms" the movement relative to the "Ether system", in the process of "interferometer rotation", the speed-changes will be different (interferometer not only having the motion to be caused by the earth & sun, also follow with the motion of

"solar system, galaxy", the resultant movement of all these motion relative to the "Ether system", its magnitude and direction even "interferometer" not rotate is also always changing), according to the related mechanism of classical physics, including the Doppler effect of light, Interference pattern in the rotating process must change! And according to the classical theory, this change not only confirmed the "objective existence of Ether system", and also not difficult to calculate "interferometer" speed relative to the Ether system.

A great astounded: the interference pattern in the rotating process has not changed! Little analysis is not difficult to understand, it has revealed one vitally important Law: the observation result from any movement system: "along any closed loop, the 'vacuum light average speed' all are constant c" (after referred to as *LCAC*---the Laws of 'along any Closed-loop the vacuum light Average-speed' all are Constant c). It is that no sublate the classical time-space view will absolutely unable to be explained. Thus driven, urged, to create a "Non-classical concept of the new era of time-space, which must self-consistently & perfectly derive to *LCAC*, interpret *ZR*!" The special theory of relativity, arise at the historic moment.

Must be emphasized that *LCAC* and *ZR* to be mutually complete equivalent.

**2. Lorenz - Fitzgerald Absolute Effect theory (after referred to as *LFAE theory*:** The existence of "Ether system" is objectively Uniqueness: any system relative to the Ether system movement the "Lorenz motional clock slowed ruler contracted effect" all are absolute, objective, true physical change -- "absolute motion and absolute effect") is uniqueness correct philosophic theory, which can self-consistently & perfectly derive to *LCAC*, interpret *ZR*!

The so-called "Ether system" is that covered whole the universe, time-space has been classic, zero-curvature, absolutely static, i.e. the one and only the vacuum system. The light propagation in the vacuum system, speed is isotropic-constant C; from any motional system to observe "vacuum speed of light", because of the observing system itself "the absolute motion and the absolute effect" caused by, all abide by *LCAC*. Specifically, is: "observational system in absolute velocity V and two-system (i.e. the observational system and the 'vacuum system') X shaft direction to be all same, two-system 'coordinate origin clock' in three axis corresponds overlapping instant start timing" of the situation, there is:

$$\begin{cases} T_{\tau} = T_0 \sqrt{1 - v^2/c^2} \\ X_{\tau} = (X_0 - vT_0) / \sqrt{1 - v^2/c^2} \end{cases} \dots$$

(A)

Formula (A) is the "classical description" of *LFAE* quantitative mechanism, can derive *LCAC*. Said it "classical", because of that "*LFAE* to be used to self-consistently derive, explain the *LCAC*, does not involve 'simultaneous structure' problem"; its 'quantitative description' will be different, if the observational system simultaneous structure changed; formula (A) is corresponding to the 'classical simultaneous structure". The so-called "classical simultaneous structure", is Galileo time-space "simultaneous structure"; it is the only, when people recognize the diversity of the "simultaneous structure" before. Here refers to: "the 'same moment space' is defined as that the 'Remote Proofreading clock' according the principle of 'vacuum light speed being isotropic-constant C'; and deemed: which not only be the 'same moment space' of 'Ether system', but also to be the 'same moment space' of all the motional system of whole universe".

**3. "Lorenz transform" is the "scientific description" of *LFAE* quantitative mechanism, is one of the innumerable "non-classical descriptions" of *LFAE* quantitative mechanism.**

"Experiment verification" is the original gene of science, it is gave by the "scientific father Galileo"; Newton "mathematical principles of natural philosophy" gave more theoretically further definition: Those who unable to create its "by experiment observation must be determined, validated the quantitative mathematical description (Law, equation the formula, constant and so on)" the theory, supposing even it is completely in line with the objective, can not be regarded as "science"! This is the most basic, most essential "scientific logic".

According to this logic, the "classical description" of *LFAE* quantitative mechanism (A) is just-only the "time-space philosophy", but not "time-space science". Why? Because of that firstly, inside the "formula (A)", the V is always changing, is relative to the "never be experimental observations-measure confirm, verify, but must be uniquely exist in the universe---the absolute static Ether system" movement speed, absolutely can not be experimental observations-measure confirm, verify; secondly, as "formula (A)" can be established the foundational condition "classical simultaneous structure", also unable to be experimentally defined; and so the "formula (A)" became nobbut that "revealed according to *ZR* and 'philosophical logic', but scientific gene congenital absence (i.e. absolutely can not use any experiment, observation to identify, determined & verify) the universe secrets mathematical

description".

Unfortunately, not all scientists know this "scientific logic". Lorenz because the scientific community has not used his "LFAE theory" to replace the "'freak' theory of relativity" as "time-space science" while resentment & "turning in his grave", is a typical example.

So, what is "time-space science"?

Answer: Only the "Lorenz transform" it is the "worthy of the name" time-space science, which is that after its expressed gene has been genetically modified and so became the "scientific description" of LFAE quantitative mechanism".

"Time-space gene" is the opposites unity by three genomes: clock speed, ruler length and simultaneous structure. Clock speed, ruler length is the "time-space element" own "inherent gene", which is "not to people's subjective will as the shift and the objective existence". The "simultaneous structure" is "association between time-space elements" the "system expression gene", which is "according to the expression requirement and man-made definition (can be man-made changed) the 'time-space elements lattice structure'". Formula (A) three "genomes" is the "LFAE clock speed slowed", "LFAE ruler length shorted" (Naming such "time-space element" For the "LFAE element") and "classical simultaneous structure". What is the "Lorenz transform" three "genome"?

Careful observation formula (A) is not difficult to find, the first formula can be rewritten as follow:

$$T_v = (T_0 - X_0 v/c^2) / \sqrt{1 - v^2/c^2} + X_v v/c^2$$

If to its right add a  $(-X_v v/c^2)$ , we have:

$$T_v = (T_0 - X_0 v/c^2) / \sqrt{1 - v^2/c^2}$$

Only to add on it with formula (A) the second formula, we have the complete "Lorenz transform philosophical formula":

$$\begin{cases} T_v = (T_0 - X_0 v/c^2) / \sqrt{1 - v^2/c^2} \\ X_v = (X_0 - vT_0) / \sqrt{1 - v^2/c^2} \end{cases} \quad (B)$$

This shows that, the "classical description" of LFAE quantitative mechanism (A) to be genetically modified into "Lorenz transform philosophical formula" (B), only need add "the  $(-X_v v/c^2)$ ". Onto the (A) first formula the right side. Therefore, if we can accurately reveal that "add  $(-X_v v/c^2)$ ". The "physical meaning and 'what the gene mutation' has been caused by", "Lorenz transform philosophical formula" (B) three "genomes" is what, is as clear as noonday.

"Add  $(-X_v v/c^2)$ ", Physical meaning is not recondite. It is just that "classical simultaneous structure" the "same moment space" of "absolute velocity to be V the observation system", has been

defined as time value gradient to be  $(-v/c^2)$  the "non-same moment space", but made no touch the "clock speed" and "ruler length"! That is to say, formula (A) "the LFAE 'real physical changes clocks slowed'", "the LFAE 'real physical changes ruler shorted'" such two "time-space element intrinsic gene", has been genetic into the "Lorenz transform's philosophical formula" (B) completely. In other words: (A) (B) two formula are "LFAE element allotropes" --- "classic type" and "Lorenz transform philosophical type".

Some people will ask: since "in  $(-v/c^2)$  The V is 'unable to experimental observations-measure confirm, verify' the absolute

velocity, and so  $(-v/c^2)$  The value is unable to be ascertained, then, "classical simultaneous structure" the "same moment space" of "absolute velocity to be V the observation system", has been defined as time value gradient to be  $(-v/c^2)$  The "non-same moment space", how possible?

The oppugn is reasonable; but disambiguation is easy: the above analysis shows that in "LFAE theory" correctly described the "objective absolute motional clock slowed ruler contracted effect" under the premise of, "classical simultaneous structure" the "same moment space" of "absolute velocity to be V the observation system", has been defined as time value

gradient to be  $(-v/c^2)$  The "non-same moment space", "the Lorenz transform philosophical formula" and "the principle of light velocity constancy" three is "mutual necessary and sufficient conditions"; therefore, extremely easy to use "principle of light velocity constancy" in the absolute speed to be V the observation system on the 'Remote Proofreading clock' to establish this observation system itself the "simultaneous structure", which is exactly the realization of the "classical simultaneous structure" the "same moment space" of "absolute velocity to be V the observation system", has been defined as time value gradient to be  $(-v/c^2)$  The "non-same moment space".

In formula (B) The V also is the "unable to experimental observations-measure confirm, verify" the absolute velocity, isn't it?

Right. This is why that we call (B) as "Lorenz

transform philosophical formula" and not call it as "Lorenz transform scientific formula". It is "not science"!

From the "Lorenz transform's philosophical formula" derive to the "Lorenz transform's scientific formula", first, we must derive the speed synthesis formula of "Lorenz transformation's philosophical formula".

Assume there are two observation systems of  $\Sigma_1$  and  $\Sigma_2$ , their absolute speed of  $v_1$ ,  $v_2$  respectively, and  $v_1 < v_2$ , whose direction and three X shaft to be same. According to "Lorenz transformation's philosophical formula", the coordinates of  $\Sigma_2$  system coordinates origin are:

$$\begin{cases} T_{21} = \frac{T_{20} - X_{20}v_1/c^2}{\sqrt{1 - v_1^2/c^2}} = \frac{T_{20} - v_2T_{20}v_1/c^2}{\sqrt{1 - v_1^2/c^2}} \\ X_{21} = \frac{X_{20} - v_1T_{20}}{\sqrt{1 - v_1^2/c^2}} = \frac{v_2T_{20} - v_1T_{20}}{\sqrt{1 - v_1^2/c^2}} \end{cases}$$

Simply the second formula to be divided by the first formula, we get the  $\Sigma_2$  relative to the  $\Sigma_1$  the velocity, which is the  $v_2$ ,  $v_1$  synthesis formula:

$$v_{21} = (v_2 - v_1)/(1 - v_2v_1/c^2) \dots \dots \dots (1)$$

Then, according to the "Lorenz transform's philosophical formula", there is:

$$\begin{cases} T_0 = \frac{T_1 + X_1v_1/c^2}{\sqrt{1 - v_1^2/c^2}} = \frac{T_2 + X_2v_2/c^2}{\sqrt{1 - v_2^2/c^2}} \\ X_0 = \frac{X_1 + v_1T_1}{\sqrt{1 - v_1^2/c^2}} = \frac{X_2 + v_2T_2}{\sqrt{1 - v_2^2/c^2}} \end{cases}$$

Find out these two equations solution and put the type (1) into it, we get:

$$\begin{cases} T_2 = (T_1 - X_1v_{21}/c^2)/\sqrt{1 - v_{21}^2/c^2} \\ X_2 = (X_1 - v_{21}T_1)/\sqrt{1 - v_{21}^2/c^2} \end{cases} \quad (C)$$

In formula (c) The  $v_{21}$  is the "relative velocity", which "can be determined by experimental observant verification". So it is fully in line with the "scientific logic", is the "Lorenz transform's scientific formula" (in this paper the "Lorenz transform" all refers to this type).

Therefor, the "classical simultaneous structure" the "same moment space" of "absolute velocity to be  $V$  the observation system", has been defined as time value

gradient to be  $(-v/c^2)$  the "non-same moment space"---such the "simultaneous structure", must be called as the "scientific simultaneous structure".

So, Lorenz transform's formula (C) three "genomes" is the "LFAE clocks slowed", "LFAE ruler length shorted", the "scientific simultaneous structure".

Please note the deduction is reversible. This is: The first formula of the (C) can be rewritten into:

$$T_2 = T_1 \sqrt{1 - v_{21}^2/c^2} - X_2v_{21}/c^2$$

Only "to specify the system  $\Sigma_1(T_1X_1)$  is vacuum system, and remove the right second" --- the "remove the right second" is to restore the "whole universe has the uniqueness 'classical simultaneous structure'"; while the remaining part of (C) will be reduced to "the LFAE classic type" first formula. That is to say, simply to divest "scientific simultaneous structure", restoration "classical simultaneous structure", formula (C) the "LFAE intrinsic origin nature" is in bare!

**4. LFAE is the "precondition, basis, essential connotation" of the "scientific simultaneous structure & Lorenz transform"--- if no LFAE, must certainly no scientific simultaneous structure & Lorenz transform can be created by definition non-classical simultaneous structure**

Argumentation is very simple: for instance, the mathematical expression of "classical time-space element the classical simultaneous structure crystal", is following formula (D):

$$\begin{cases} T_v = T_0 \\ X_v = X_0 - vT_0 \end{cases} \dots \dots \dots (D)$$

Regardless of that to the right of first formula add what moment value added items---so as to definition its non-classical simultaneous structure, all are absolutely impossible to change its second formula, and so formula (D) is absolutely impossible to turn into Lorenz transform, also there is absolutely no meet the "principle of light velocity constancy" the scientific simultaneous structure, can exist! The negation of time-space element nature to any non-LFAE element other assumptions, its expound and prove can be all same to this.

This is a most important conclusion in this paper, because of that it is necessary and sufficient truth for cured that "generally cognizance: the 'LFAE theory' has been negated by the 'Lorenz transform' " such a Century fallacy, ends that caused by this fallacy the "pure relativistic motional effect" view. Therefore,

*treat this fundamental truth, no matter how emphasized, not too excessively!*

### 5. About "Motional Clock Slowed Ruler Contracted Effect"

In order to without loss of rigor simplify the discussion, here only relates to "Motional Clock Slowed Effect", and first of all to make clear that "what is the 'Series Clock's Time-moments D-value [SCTD]?"

Any a "Designated Clock" [DC] of any a system in two relative motion systems, in any "Specified Process" [SP], there is a Series Clocks [SC] in another system which must one by one overlapping to the DC; the time-moment value of the "overlapping clock" at the end of the SP, subtracting the time-moment value of the "overlapping clock" at the start of the SP, their D-value is the SCTD corresponding mutually to the "Real Elapsed Time" [RET] of the DC in the SP.

So far, on "Motional Clock Slowed Ruler Contracted Effect" the understanding and description, we already have opposites unity the duality. Whether or not understanding that "this duality is purely caused by the different of simultaneous structure, their kernel essence are the same---both objective real physical changes the LFAE", which is one important key for that whether or not can rightly understand and grasp the time-space theory.

The first side: whole universe every reference systems are all in the same classical simultaneous structure. Here, any a designated system in any a SP chronograph use any a DC the RET, must all identically equal to the SCTD chronograph use any a SC. The "movement clock slowed" refers to that the movement system any a DC in any a SP the RET, must be  $\beta = \sqrt{1 - v^2/c^2}$  times the RET of "Ether system" any a DC in same SP. It is two-systems asymmetric "LFAE real physical changes in the objective", in the (A) It is the type of stick out a mile, but it is "Can't use any experiment, observation directly confirm, verify", and so is only "Motional Clock Slowed Ruler Contracted Effect" the "philosophical origin (instead of 'science')".

The second side: whole universe every reference systems are all in their-self scientific simultaneous structure, which is the result of that "classical simultaneous structure" the 'same moment space' of 'absolute velocity to be  $V$  the observation system', has been add a time value  $(-X_{\sigma}v/c^2)$ , And so has been defined as time value gradient to be  $(-\bar{v}/c^2)$  the 'non-same moment space'. Caused by it, any a designated system in any a SP chronograph use any a DC the RET, must all certainly

unequal to the SCTD chronograph use any a SC. The "movement clock slower" can be simply described as that chronograph use any a DC the RET must be  $\beta$  times the SCTD chronograph use its corresponding SC. This is symmetrical of relative movement systems between mutual observational, purely external relationship, but not the objective real physical change, can be called "appearance effect". It can be expressed as that in formula (C): when  $X_2 = 0, T_2 = \beta T_1$ ; conversely, when  $X_2 = -v_{21}T_1/\beta$ , then  $T_2 = T_1/\beta$ . It is that "available to be experimental observations confirmed, verified", and so is "Motional Clock Slowed Ruler Contracted Effect" the "external-form 'science'". If in the two "relative motion systems", each holding a DC and setting a reasonable conditions by formula (A) from theory to calculate out their RCTs ratio, only when one is Ether system, will with (C) the two has been described opposite results, one is same and other one is opposite; in addition, all does not match -- neither the same nor the contrary.

Brings to the "Motional Clock Slowed Ruler Contracted Effect" so badly "original mechanism hidden, observation results usually deviate from the true, lead to various paradox" such a "scientific simultaneous structure", why want it?

### 6. About "scientific simultaneous structure"

At the end of nineteenth Century, scientists generally believe that the relative principle only applies to dynamics and not suitable for Electromagnetics. This is because of they believe that the laws of dynamics is "acceleration properties law" nothing to do with the speed; but Maxwell's equations is the "velocity correlation equation" should vary with the change of the absolute velocity of inertial reference system, so the most simple form of Maxwell equations must only exist in the "universe uniqueness existence special reference system". This special inertial reference system is the so-called "Ether system". So, find the "Ether system", measure the laboratory relative to the "Ether system" speed, determine different direction vacuum light speed so as to determine the Maxwell equations in the laboratory specific form, become one of the major strategic task of scientific development at the time.

Therefore, more than one hundred years, numerous scientists and scientific enthusiasts rack one's brains, repeatedly design and actualize a series of experiments observation, but so far only the "Michelson Morley experiment" is the unique Necessary and Sufficient one which has the decisive significance! Its ZR authoritatively proclaim:

(1) The *LCAC* is the quantitative mathematical description" which has been confirmed, verified" by *ZR*, so is "science", is the bases principle of the correlation sciences.

(2) The "*LFAE* theory" is the uniquely self-consistent time-space theory, which can derive and explain the *ZR*, so it is objective truth. But its Basic connotation "Ether system will uniquely objectively exist" and "based on this basis, in accordance with the 'classical simultaneous structure' (at that time, people still don't know there is another 'simultaneous structure' exist the possibility), with respect to any movement observation system, the vacuum speed of light must be 'anisotropy'" such two, are "absolutely can not use any experiment, observation to identify, verify", and therefore it is only "time-space philosophy" but not "time-space science"!

In this predicament, "science" uniqueness can do is that following the scientific logic and don't violate the *LCAC*, make further efforts assuming the principle of light velocity constancy can be regarded as the verity, have a look whether out of dilemma!

From the *LCAC* into "the principle of light velocity constancy", the essence is that from existing between "*LFAE elements*" the "infinite number possible 'system associate expression gene'-- non-classical simultaneous structures" which all tallying with the *LCAC*, select and establish uniquely the "scientific simultaneous structure", to create "time-space science" the Lorentz transformation. It has been thoroughly elucidated in the front.

*Here must be further emphasized that: if there is no "scientific simultaneous structure", is not only a "time-space science" itself unable exist, more important is: in modern physics, all the basic principles, basic laws would totally not exist! Why? Because of all these basic principles, basic laws, only in that "the correlation between LFAE elements' is the 'scientific simultaneous structure'"(but not the "classical simultaneous structure"), was right! This is why all of these basic principles, basic laws must be invariant under Lorentz transformation! And the first to bear the brunt naturally is the Maxwell equations.*

As long as the "principle of light velocity constancy" was right, the Maxwell equations in all inertial reference systems (not only in the Ether system) have the same simplest form. And that means, the relative principle apply to electromagnetics! (The principle of special relativity, "every physical laws in all inertial systems are provided with the same form", seemingly mystery, actually in the electromagnetics domain mainly refers to this point. In this sense, "the principle of light velocity constancy" and "the principle of special relativity" in the electromagnetics domain is essentially "two combine into one"). Of course, this "the most simple form" is no longer the original classic

type, they must be the invariant in the "Lorentz transformation".

Einstein has repeatedly said that the special theory of relativity has been established was rely on many people but not he alone; the key contribution he made is only invented the "scientific simultaneous structure".

## 7. About the special theory of relativity

We have expounded and argument: the "*LFAE* scientific formula" (C), as the "time-space science", not only the right, more important is the only -- absolutely impossible that there is other "time-space science"!

*Einstein about "LFAE scientific formula" (C) the interpretation of "purely relative external-form science" is so-called the special theory of relativity (SR). It decides that SR is the "correct purely external-form theory", the "internal original essence congenital absence":*

On one hand, in the "scientific logic" category, it not only correct, self-consistent, and certainly unassailable, irreplaceable! Can withstand that numerous skeptics, there is no lack of Lorenz's top scientists, deliberately design to create first-class the whole series "tricky paradox" to inculcation, unscathed stand towering exceed a hundred years, exactly is completely correct the proof. All the censure, slander, is only "don't know what 'scientific logic'" the misunderstanding!

On the other hand, in the "philosophical logic" category, as we have previously demonstrated that "formula (C) is '*LFAE elements*' (but not 'classical time-space elements') 'scientific formula', its 'precondition, basis, essential connotation' is *LFAE*". About it, Einstein early years was "know nothing about it"; In his later years, he seemly had know it is objective existence, but stick the "original meaning scientific epistemology", tacking the pretext of "it is unable to direct experimental determinate", still persevere in "it is utterly useless" refused to admit; which resulting *SR* become to one-sided interpret "Motional Clock Slowed Ruler Contracted Effect" the pure external-form science ---pure "clothes masks" theory, like "water without a source, the tree without root". Then step further the time-space theory to be astray! [2-5]

Can be "experiment verified" this evaluation? Certainly.

## 8. "Astronavigation young" the physical essence

A spaceship relative to the "earth-star system" the velocity is  $c\sqrt{1-10^{-8}}$  From the earth to the star uniform rectilinear flight "earth-star system" the *SCTD* is 10000 years; velocity instantaneously became the opposite direction of equal size, uniform rectilinear

return to earth. According to the Lorenz transform, can obtain "table 1".

This experiment the 4 dimensional rigorous vector-properties connotations, revealing and demonstrating is very trouble (interested to see <http://sea3000.net/linyuhua/20090807233239.php>.)[6-

9], here only giving the two-dimensional scalar type briefly:

We must firstly emphasize following "because of 'scientific simultaneous structure relative' the 'caused trouble', so to be not abstruse but very difficult to grasp" the rule:

Table 1. The viewed time value of the observed systems. Units: years

Observed system	Observing system	The viewed time value of the observed systems			
		Forward	Reversed	Return	Whole
Earth	Earth	10000	0	10000	20000
	Spaceship	0.0001	19999.9998	0.0001	20000
Spaceship	Earth	1	0	1	2
	Spaceship	1	0	1	2

The chronograph *DC* of the observing system, if not in chronograph process start & end two moments both overlap to observed system the same point, the *DC* chronograph value and any chronograph use *SC* the *SCTD*, all isn't that observed system in chronograph process the *RET*. For example, in the table "the observed from spaceship chronograph use *DC* in 'spaceship forward or return' the *RET* of 0.0001 years" and "from the earth star system to observe chronograph use *SC* in 'spaceship forward or return' the *SCTD* of 10000 years", all is not the *RET* of the Earth star system in 'spaceship forward and return"! "The relative motional two system in the specific process, their chronograph value must be both equal to their *RET* the necessary and sufficient condition is: "they must able each hold an at the process start & end two moments both are overlap each other the *DC* to chronograph. On "Table 1", "in the whole process, the 20000 years and 2 years respectively is the earth and the spaceship the observation duration values, and also both are their *RET*, is a typical example of. Such a results, is already by "high energy meson long life" etc. physics practice repeatedly confirmed to be the "objective, real physical changes the absolute effect" (isn't *SR* meaning the kind of pure "appearance effect") such the "astronavigation young"!

The true master of the above rules, there may be correct in the following judge:

(1). This experiment how to verify the *SR* in the "scientific logic category" is "self consistent"?

Despite while the observation system changed, "earth star system" sectionalized observed time number will be different, but the whole process from two-systems observed time value was no change. "Conclusion for the observing system change no different" is the most purely self-consistent of *SR*---

every the " *SR*'s paradox be not contrary all", must all be such comprehension.

(2). This experiment how to "verify": " in 'philosophical logic category', *SR* is like 'water without source or tree without root' such a time-space theory"?

Einstein asserted: inside *SR*, the problem of astronavigation young physical nature can not be resolved; It only works in, indeed already in general relativity, has been resolved using "equivalent to 'gravitational field deep well effect' the 'acceleration effect'".

The acceleration effect is also called non-inertial effect. In this "experiment", only "Table 1" spaceship "velocity instantaneously became the opposite direction of equal size", is the "non inertia". The related literature and textbooks do agree that "spaceship reverse instant the earth observed time has leaped 19999.9998 years, is the so-called 'spaceship non-inertial motion effect", and correctly confirmed: just is it, causing the "twin paradox of *SR* be not contrary all". But they all misinterpreted Einstein's judgment, mistook it just as Einstein said that "has solved" "the problem of astronavigation young physical nature " the "acceleration effect"!

But why do you say that?

Figure out what is that spaceship reverse instant the earth observed time leaping 19999.9998 years, it will not difficult to be understand.

According to *SR*, the "purely external mutual observational measurement relevance", "the spaceship instant reverse direction" completely equivalent to that maintain the original spaceship inertia state, in addition to the spaceship, the universe 'taking the star as the center' suddenly reversed half cycle". Therefore, at the reverse before and after, their time value has leaped:

$$\Delta T(X) = \Delta X \cdot (-v/c^2) = -\Delta X \sqrt{1 - 10^{-8}}/c = 2 \left( 10^4 \sqrt{1 - 10^{-8}} \text{cy} - X \right) \sqrt{1 - 10^{-8}}/c$$

And so "the earth observed time has leaped" must be:

$$\Delta T_E = 2 \left( 10^4 \sqrt{1 - 10^{-8}} cy - 0 \right) \sqrt{1 - 10^{-8}} / c = 19999.9998y$$

Must emphasized note: such a "spaceship instant reverse non inertial motional effect" at almost the entire universe but is not only the earth. For example:  $X = 10^{11}cy$ ,  $\Delta T = -199.998$  million years, i.e. the time value has been "effect back to nearly two hundred billion years ago"!

"Not worth mentioning a spaceship 'instant reverse the non inertial motional effect' scientific logically inevitability causing 'one hundred billion light-years away the universe's every points time number value all retrogression to the one hundred billion years ago the universe was created before", said it is "the objective, real physical change" -- the "astronavigation young" physical essence, would you believe it?

Einstein is a clever man, he can see very clearly: "spaceship instant reverse the non inertial motional effect" is completely, thoroughly "science simultaneous structure relative mutation effect", one hundred percent "just 'mutual observation, purely external relations results, but not moving objects objectively the real physical change". On the one hand, it makes the "despite when the observation system changed, 'earth-star system' sectionalized observed time number will be different, but the whole process two-systems observed time value were no change"; exactly rely on it, *SR* can achieve the most pure self-consistent; and so it is *SR* indispensable effect but not general relativity effect. On the other hand, it is absolutely impossible that to be the origin of the real physical change astronavigation young! Add he firmly believe that "Lorenz effect just the result of mutual observation, purely external relationship, isn't the moving objects objectively real physical change"; while "astronavigation young" the experiment whole course there is only the "Lorenz effect" and "spaceship instant reverse non inertial motional effect" of the two, he have no choice but to wisely say "inside *SR*, the problem of astronavigation young physical nature can not be resolved", which

essentially admitted to that "in the *SR* astronavigation young" is 'just water without the source, or tree without the root' !

(3). "Astronavigation young" is the product of *LFAE*

Verification extremely simple: suppose the Earth star system absolute speed is constant *V*, according to formula (A) can calculate to get follows "Table 2 and table 3":

Table 2. The absolute velocity and absolute effect factor

Department	Absolute speed	Absolute effect factor
E-S System	$v$	$\sqrt{1 - v^2/c^2}$
Forward Spaceship	$\frac{c(v + c\sqrt{1 - 10^{-8}})}{c + v\sqrt{1 - 10^{-8}}}$	$\frac{10^{-4}\sqrt{c^2 - v^2}}{c + v\sqrt{1 - 10^{-8}}}$
Return Spaceship	$\frac{c(v - c\sqrt{1 - 10^{-8}})}{c - v\sqrt{1 - 10^{-8}}}$	$\frac{10^{-4}\sqrt{c^2 - v^2}}{c - v\sqrt{1 - 10^{-8}}}$

Please pay attention to two points:

First, in "table 3" the "whole", Whether the spaceship system and Earth-star system both *RET* numerical value or ratio, all are not only gave the above judgment with the most perfect verify; they all are not rely to the absolute speed *V*, thusly reveals a general disciplinarian: relative to any an inertial system with a constant rate *U* the motional system, As long as they are able to each hold an "at the process the start and end such two moments", both each other 'overlap' the *DC* as chronograph *DC*, in the process the motional system *RET* must be equal to the inertial system *RET*

$\beta = \sqrt{1 - v^2/c^2}$  times and it don't be changed by the different of the inertial system absolute velocity *V*.

Table 3. The *RET* value. Unit: year

Department	The <i>RET</i> value			
	Forward	Reverse	Return	Whole.
Spaceship	1	0	1	2
Vacuum	$\frac{c + v\sqrt{1 - 10^{-8}}}{10^{-4}\sqrt{c^2 - v^2}}$	0	$\frac{c - v\sqrt{1 - 10^{-8}}}{10^{-4}\sqrt{c^2 - v^2}}$	$\frac{20000c}{\sqrt{c^2 - v^2}}$
E-S System	$10^4 \left( 1 + \frac{v}{c}\sqrt{1 - 10^{-8}} \right)$	0	$10^4 \left( 1 - \frac{v}{c}\sqrt{1 - 10^{-8}} \right)$	20000

Secondly, because of that the absolute speed of Earth-star system etc. such macro system is far less than the speed of light, in "Table 3" Earth-star system the *RET*, whether it is "Forward" of

" $10^4 \left( 1 + \frac{v}{c}\sqrt{1 - 10^{-8}} \right)$  years" or "Return" of " $10^4 \left( 1 - \frac{v}{c}\sqrt{1 - 10^{-8}} \right)$  years" both are very similar to ten



thousand years. This shows that: "Nearly light-speed spaceships" the clock rate is only Earth system the clock rate of 1/10000. "The physical essence of energetic meson long life", just is this like of the "exclude all 'non inertial effect' interference, purely near light speed the *LFAE*"!

### 9. Conclusion:

What is "Astronavigation young" as witness the testimony?

(1). Astronavigation young is non classical time-space science formula (c) the logical necessity product; Astronavigation young is already by "high energy meson long life" etc. physics practice repeatedly confirmed to be the "objective, real physical changes the absolute effect"; Astronavigation young and "high energy meson long life" both now has been mathematical logically proof that their physical essence all are *LFAE*. Integrating such three, educe: Aerospace young experimentally confirmed that the formula (c) is indeed the scientifically mathematic description of *LFAE* quantitative mechanism, the "*LFAE element crystals*" taking "scientific simultaneous structure" for its lattice. It is the philosophical essential origins of non-classical nature of time-space.

(2). *SR* is indeed as Einstein asserted that unable solve the problem of Astronavigation young the physical essence. The reason is very simple. Einstein doesn't know that *LFAE* is principle of light velocity

constancy "the precondition, the basis, the essential connotation". Therefore, he put the principle of light velocity constancy as "incapable to trace the source" the basic axiom, to create *SR*, such a theory *SR* must certainly like "without source the water, without roots the trees". But it must be emphasized that, *SR* as a time-space science not only is correct, more important is that it is uniqueness right!

(3). Affirm and grasp the opposites unity of non-classical nature "philosophical intrinsically origins & scientific external form", only such a time-space theory can be correct, self-consistent & perfection.

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