**Research Article**

# Logic proves that time does not get faster or slower (the universe is not produced by the singularity big bang)

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## Abstract

I use the axiom that equal conditions must have the same result.

Axiom proves that no matter how the velocity of an object changes, the time of all objects remains unchanged and unified.

Time can be expressed as an eternal constant.

Time belongs to the abstract concept of material attributes, and time is not a material concept.

There is an abstract concept of uniform velocity in the universe (For example, the velocity of light wave in vacuum is constant "C").

According to the constant and uniform velocity of time, an important physical theory is proved: the universe is not produced by the singularity big bang.

**Mathematical classification code:** 00A79;83F05;00A30;03A05;70A05;70F20;03A10;03F03.

## Introduction

Axiom of equal condition: "equal conditions must have the same result".

Take two different elements arbitrarily, is their time unified?

From low speed to high speed, is their time unified?

I use mathematical logic to prove that time is "uniform" and a constant.

Time is proved to be unified.

It negates that the velocity of time flow is not constant due to the speed of motion of objects.

I have proved that human interpretation of the "Michelson–Morley experiment"[1-3] is wrong.

The Michelson-Morley experiment failed to prove that the speed of light remained the same because photons did not move in a straight line.

Human mistakenly assumes that photons move in a straight line and misinterprets the "Michelson–Morley experiment".

Einstein arrived at the fallacy of time instability [4-6].

Note: "The Michelson-Morley experiment" only proves that the velocity of photons projected on a straight line is constant.

The "helical turning" velocities of photons with different frequencies are different.

## The interpretation and axiom of nouns

Axiom of equal condition: "equal conditions must have the same result".

Axiom of equal condition: $\{a_1, a_2, ..., a_n\} = \{a_1, a_2, ...a_n\}$ ,Get: $\sum (N_i) = \sum (N_i)$

Time certainty axiom: each object's "future time" and "past time" can not coincide.

The time deterministic axiomatic formula is t=t; when $t_1 > 0$, $t \neq t + t_1$.

(it is logical to prove this axiom: the time of element a at that time is t. When a passes through time $t_1$, the current time of element a is $t + t_1$.

If "future time" and "past time" coincide: $t = t + t_1$,

we get: $t_1 = 0$, which is in contradiction with $t_1 > 0$. Therefore, element $a \rightarrow \{ t \neq t + t_1 \}$).

The axiom states that your yesterday could not be your today.

That is, your 1:00 January 1, 2017, can not coincide with your January 1, 2018, 1:00 for one day.

I do not define the time here temporarily, because I do not need to use the definition of time, so I do not have to define the definition of time.

Because time is a concept of scientific recording, communication, and general use.

Today you are Monday, you can not say that you are Tuesday today, you can not say that you are Friday today.

So we have to have certainty and uniqueness.

Your today is January 1, 2017, it can not be your January 1, 2018.

For you, today is January 1, 2017 (each time is the only one), which cannot overlap with your January 1, 2018.

## Logical reasoning and argumentation

### Time is the constant constant

**Time constant theorem**: No matter how fast the velocity of an object moves on a moving path, the time of the object is constant.

The mathematical formula of the time constant theorem:

$\sum m = m (v_1 = a, v_2 = b, v_3 = t) \rightarrow \sum m = m (v_1 = a-y, v_2 = b+y, v_3 = T)$

Get: t=T

Note: The "$\sum m$" is a form of movement of the (m) element.

$V_1$: The linear velocity of the object on the spiral line on the spiral track.

$V_2$: Spin speed of the object.

$V_3$: The projection of the moving object corresponds to the uniform velocity on the centerline of the spiral orbit tube. This is the definition of time.

## The above theorem proves that

Hypothesis 1: Object A moves faster on the path of motion and gets slower A time.

There are two people on earth, A and B. They're relatively static(Relative rest: the same inertial system and the same path speed).

A and B are theoretically the same inertial frame, the same path speed, the same time, the same "time flow speed".

Then let one of them leave B quickly (or at high speed) and rotate around B.

The speed of A's motion is faster, Suppose 1: the time of object A is slower than that of object B, and the time of B is A's "future".

The fast-moving A touches B on its own initiative. At this point, A has a contact point with B.

The time to get this contact point: the time of B coincides with the time of A.

Because B's time is the "future" of A.

It is also A's own "future" and A's own "past" overlap.

Violation of axiom.

Get: "suppose 1" error.

Suppose 2: The velocity of object A moves faster and the A time becomes faster.

Same logic: suppose 2, → "suppose 2" error. Get: t=T.

Hypothesis 3: object A moves slower and time becomes faster.

The same logic: hypothesis 3, → "hypothesis 3" is wrong. Get: t=T.

Hypothesis 4: object A moves slower and time becomes slower.

The same logic: Hypothesis 4, → "Hypothesis 4" is wrong. Get: t=T.

## Reduced to mathematical argument

When A and B are "equal conditions axiom":

For the same mass, the same inertial system, the same trajectory, and the same time t,

Axiom of equal condition: $\sum A = \sum B = m$ ($v_1 = a$, $v_2 = b$, $v_3 = t$),

When the $v_2$ of A increases by y, if the $v_3$ in A becomes ($\pm z$), we get:

$\sum A = m$ ($v_1 = a$, $v_2 = b$, $v_3 = t$) $\rightarrow$ $\sum A = m$ ($v_1 = a-y$, $v_2 = b+y$, $v_3 = t \pm z$)

Fast speed mobile A touches B, gets A and B contacts D point: $D \in A$ ; $D \in B$

At point D, the axiom of time certainty is consistent with the same time: $t = t \pm z = T$,

Get: $\pm z = 0$,

Also have to: $t = t_。$

Get $t = T_。$

Theorem proof.

# Conclusion

Logic proves that time is constant, "unified" and the passage of uniform speed.

It proves that the time of all objects is uniform.

The definition of time is given: the changes of different velocities of objects in different moving environments, and their projection on the abstract T-axis is a uniform velocity. This speed is called time.

Note: The change speed of the object clock ≠ time flow rate.

Clock ≠ time,

Inertia principle: the clock (atomic clock) is subject to different speed changes, and the speed of the clock will change.

The clock (atomic clock) is subjected to different speed changes, that is, it is subjected to different external forces (variable speed is the force behavior: $F = am$) [7].

Material atomic clock: $\sum m$, at this time: $\sum m = m$ ($v_1 = a$, $v_2 = b$, $v_3 = t$)

When the linear velocity of the path increases y: $\sum m = m$ ($v_1 = a-y_1$, $v_2 = b+y$, $v_3 = t$),

the spin velocity becomes slower: $v_1 = a-y_1$. $\rightarrow$ the amplitude and velocity of atomic particles in the material atomic clock slow down. $\rightarrow$ the atomic clock of matter slows down. The time flow velocity ($v_3 = t$) is constant.

∴ Clock ≠ time

It is obtained that the theory of time slowing down and speeding up and time expansion is wrong.

It is proved that time is not material, and time is a material attribute (material attribute: the concept defined by material as a condition).

## Proved the important physical theory: the universe was not produced by the singularity big bang

∵ {time is an eternal constant speed}.

∴{time cannot have acceleration(Time constant theorem)}.

{∵ today's time speed is not static zero speed}→ {∴ time cannot be accelerated from zero speed to today's time speed}.

→ {∴ the universe cannot accelerate from zero speed at the singularity to today's time speed}.

→ {∴ the big bang of cosmic singularity is wrong}.

**Mathematical proof:**

Hypothesis: the universe is produced by the singularity big bang.

The initial time of the singularity Big Bang is T0, T0 = 0.

Today's time speed T1 is not a static zero speed: T1 > 0.

Set: variable time speed = (Ta)

Get the equation: {T0 → T1} = (Ta). It contradicts the time constant theorem.

Wrong assumptions.

The universe was not created by the singularity explosion.

{where does the universe come from} is a false proposition, because the universe has always existed and existed.

Finish the certificate!

## False proposition

{the concept logic theorem of modern mathematical physics is invalid in the "singularity of the universe", so we can't refute the big bang theory of the singularity of the universe with the concept logic theorem of modern mathematical physics.} Marked as: Fk

**prove:**

∵ {the singularity of the universe, the big bang, the universe, high temperature and energy} They are the concepts and logic of modern mathematical physics.

If Fk is correct.

∴{cosmic singularity, big bang, universe, high temperature, energy} is invalid in the singularity.

Get: {the universe is caused by the singularity big bang} is invalid.

∴ Fk is a false proposition.

**Important note:** For all human experimental and theoretical questions, I will make logical proof in other papers to explain your confusion. In short, the correct Newtonian classical mechanics can explain all-natural physical phenomena in the

universe. Because the natural physical phenomena that can be detected and expressed in the universe must be material (m) and material attribute (fm).

## Research ideas

Is the object's clock "time"?

Can the timer go wrong?

What is the definition of time? What is the definition of substance?

Inertia principle [7]: Objects (or atoms) will change speed under the action of external forces. Will time change speed?

When the clock of an object is damaged, the speed of the clock needle will also change.

When the atoms of matter are subjected to external forces, the spin and amplitude of atomic particles will also change.

Because force is the variable speed behavior of an object: am.

(attachment: without variable speed behavior, we can't perceive everything.)

The symbol a is the change in speed. Because: atomic wave–particle duality includes atomic wave curve velocity and spin velocity.

Just prove that my past and my future cannot overlap. It proves that time cannot be faster or slower.

## References

1. Constant speed of light principle: the speed of light in a vacuum is the same for any observer. In special relativity, the principle of constant speed of light means that no matter what inertial frame (inertial reference frame) is observed, the propagation speed of light in vacuum is a constant and does not change with the relative motion of the light source and the observer's reference frame. This value is 299792458 M / s. space almost precisely matched the speed of light repeatedly measured by experiments — a speed that didn't change no matter what. An observer could be running toward the light or. **Link:** https://bit.ly/3u0EyyO

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3. Michelson AA, Peace FG, Pearson F (1929) Repetition of Michelson Morey experiment: Nature 123: 88.

4. Einstein, time is expanding. **Link:** https://bit.ly/3MTK13l

5. Time authenticity. **Link:** https://bit.ly/3JcGScz

6. Gisin N (2020) Mathematical languages shape our understanding of time in physics. Nature Physics 16: 114-116. **Link:** https://go.nature.com/3MPXrNC

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