
UNIVERSE
OUT OF
NOTHING
CHAN HIN
Green
Forest

Universe Out of Nothing

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FOREWORD

I can see that there are a lot of irrationalities in the current theories of astronomy, and yet these theories have become the mainstream of current theories. If these theories are indeed wrong and people are indulging in them, will this affect the development of astronomy?

It is pleasurable to enjoy a moment of leisure from a busy life. When I have time, I will write down the ideas I have accumulated over the years for the benefit of like-minded people. I think it is time to update some old theories.

We are all standing on the shoulders of giants, looking at the same universe. But because of the

different perspectives, we see things differently, and we think in different ways. Of course, I cannot be sure that my theories are absolutely correct, or that there are many flaws in the details. But if some of them are right, even if it is only one-tenth right, I am still satisfied because it will give a little help to astronomy. But if they are all wrong, and there are articles that can point out my mistakes, they will be worth reading.

As the saying goes, why not throwing a brick to attract a jade? The last thing I want is that no one tells me what is wrong with my opinions. You say your own point of view, and I believe what I believe. Or just say, "Your theories all go against the current theories, so I object to them." but fail to provide any convincing arguments, I'll be very disappointed.

I hope readers can finish reading the whole book. Even if you do not believe in all my views, you may find some insight in the book, at least in the knowledge that there are people who hold such a view of the formation of the universe. The book is new in concept and presents a new theory of the formation of the universe, not the old concept that full of contradictions. The book is as concise as possible, with no difficult language and difficult equations to understand. The reasoning is straightforward and suitable for those who are fond of astronomy.

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DISCUSSING THE SPEED OF LIGHT

Light is a ray. Some people think it is a particle, others think it is a kind of wave. Actually, it contains the features of both of them. There are a lot of rays in our universe, and light is a very narrow fraction of these rays. But this narrow fraction of ray is the strongest and most abundant rays that the sun shines on earth. Of course, ultraviolet light is the strongest, but it is not the most. One of the reasons is it has been largely blocked by the atmosphere. Fierce light shining on earth and the animals must definitely have some feelings about it. What they feel the most is the visible light ray. Thus, starting from the lower animals, cells that can feel light waves have evolved, and then the eyes have evolved. So to speak, light allows humans to evolve their eyes to feel it.

Light is extremely important to humans as humans have eyes. If there is no light to transmit information, the human perception ability will correspondingly be greatly reduced. We were not able to conduct cutting-edge research, and it would hinder our development. It is the same as to the understanding of light. If we don't correct our mistakes even though we know it is wrong, it would also hinder human cognitive development.

We can feel light rays right after we open our eyes every day. We are very familiar with light rays, but do we know all about light rays? In fact, up till now, there is still a lot of controversy over human understanding of light. At least I personally disagree with some of the current theories about light.

Discussing the constancy of light velocity

I grew up in the countryside. In those days, there were no electric lights in poor rural areas. In summer nights, people were used to go outdoors to enjoy the breeze and cool off. Adults were waving a fan and gossiping, while children running around. It was dark all around, only the sky was the brightest. At this time, what else could you look at if not the sky? Therefore, the starry sky had become the most attractive place for children to look at in summer nights.

The moon is the brightest in the starry sky. That was the time when I discovered that the moon actually moves with people. You take a step forward and it moves a step with you; you walk fast, it moves fast with you; you stop, it stops as well. Then I pondered,

did the moon only move with me? I asked my friends and only found that they all thought the moon moved with them. It made me wonder how the moon could move with so many people when there is only one moon. After I grew up, then I came to realize that it is an illusion the moon gives you. The moon is actually very far away from us, but it gives an illusion to our eyes that it is closer, not much farther than the white clouds. Sometimes, it hides behind the white clouds, and then showing its face from the edge of the clouds. When I was a child, I felt that the moon was only as big as the plate that served the dishes when I was having meals. Our daily life experience tells us that when we run forward, the scenery around us will recede. If it does not recede, then it'll definitely run with you. On the other hand, when you move forward (like sitting inside a moving train), the scenery closes to you moves fast while distant scenery moves slowly. The moon is actually

very far away, and you won't see it move. But since you mistakenly think that it is close to you, so when you move forward, it should move backward. When you move forward and find that the moon does not move backward, it makes you feel that it is moving at the same speed as you.

The old doubts are solved, but the new one comes up. The prevailing theory says that the speed of light remains constant. Disregard of your own speed, light is about 300,000 kilometres per second, relative to your speed. Isn't it like the moon in childhood, which followed people everywhere? You move faster, the light moves faster; you move slower, the light will slow down its pace, always maintains a speed of 300,000 kilometres per second with you. This is not possible in our daily life experience. Originally, the saying that "the speed of light remains constant" does not have any solid justification. And if you think

about it a little deeper, you will find that this claim is a clear violation of the relativity theory of object motion. Since light has speed, relative to people with different speeds, it must have different relative speeds. How could it be the same 300,000 kilometres per second for people with different speeds?

But then again, in our daily experience, there are people with different speeds. And no matter what one's speed is, one can always see the light, and there will never be a pitch-black scene appearing in front of him. So, if he can see white light, the speed of this white light must be 300,000 kilometres per second. This is the speed of white light, which is one of the natures of white light. If you can see it, its relative speed to you must be 300,000 kilometres per second. Moreover, scientists have measured with an interferometer and found that the white light emitted by light sources with different speeds has the same

speed and will not cause interference. If you believe that the speed of light is variable, how do you explain these two circumstances? (These two situations will be discussed later.) Thus, many people believe that the speed of light to people with different speeds, the relative speed is 300,000 kilometres per second. But for those who believe in the relativity theory of object motion, it is very difficult to comprehend. (The theory of relativity mentioned here refers to Galileo and Newton's relativity theory of object motion, rather than general or special theory of relativity. And it is applicable to the theory of relativity mentioned later.) Hence, these people only have two choices. One is to believe the theory of relativity and disbelieve the constancy of light velocity; the other is to believe the speed of light won't change and give up the relativity theory of object motion. But it would be hard to give up the theory of relativity; you simply cannot find any reasons to disbelieve it. Therefore,

the majority of the experts opt for the third choice, namely to believe the principle of the constancy of light velocity, but they remain silent about the fact that this theory contradicts the theory of relativity. As a result, the photon has become the only particle in the world that does not obey the relativity theory of object motion. The theory of relativity is no longer a universal theory.

For these reasons, many people believe that the speed of light remains the same for people or objects with different speeds. And from this, it is deduced that the speed of light is the limit of speed. It is believed that if the speed of light exceeds the limit, history will be reversed, and it is also deduced that humans can go back to the past or go to the future with the change of speed. The saying that speed can change time only sounds like a fantasy story. Since this theory is so bizarre, more people are attracted to it.

Many scientists have wasted a lot of money and time on research in this area. Recently, some scientists even put a precise timer on a high-speed airplane to see if the time of the timer has slowed down. In my opinion, these experiments are useless. In fact, the speed of light can be surpassed. Speed can neither change the time nor the length. These questions will be further elaborated in "Discussing Time" in chapter 2.

In fact, if the speed of light really remains constant? Can photons really violate the theory of relativity and rampage in the physical world with the theory of "the speed of light remains constant" (but at the same time with the ever-changing speed)?

Actually, what we see with our naked eyes is not necessarily equivalent to the real situation. If the impressions of what you see must match the reality,

there will be no magicians in the world. As we have magicians, will nature or God also come up with some little magic tricks to prank us, leading us to think in the wrong direction about some natural phenomenon and think that the speed of light remains constant, just like we mistakenly thought that the moon moved with us when we were children.

I have to state clearly my perspective: I agree that the speed of photons coming out of a luminous body is about 300,000 km/second in a vacuum, but this is only relative to the speed of this luminous body. I will never agree with the theory of "the speed of light remains constant". It has different speeds relative to people with different speeds. I think this is because white light is composed of seven colours of light with different speeds, so the white light seen by people with different speeds is not the same combination

of white light. That is to say, he can only see the white light corresponding to his speed. I think photons are just like other substances, there should be different relative speeds for people with different speeds. The speed of light is variable. Why would I come up with this idea? Because if the speed of light remains constant, there will be many contradictions. A theory with many contradictions will never be a good theory, and eventually it will be discarded. Now let us devise two experiments to demonstrate the contradictions that would arise if the theory of "the speed of light remains constant" is established.

1. Ultra-high-speed flying experiment

In order to execute this ultra-high-speed flying experiment well, we have to build space stations A and B on the two sides of the earth respectively. The distance from the two stations to the centre of the earth is both 9 light days (i.e. it takes 9 days to travel

at the speed of light to arrive), and the earth happens to be in the centre. In that case, the distance between space station A and space station B will be 18 light days. Their means of transportation are spacecraft that travel at 90% of the speed of light. Thus, it takes 10 days for the spacecraft departing from station A to reach the earth and 20 days to reach the station at the other side of the globe.

When the experiment begins, rockets a and b fly towards each other's base at 90% of the speed of light from Station A and B. The two rockets must flash once in every second to let each other see their presence. Then after ten days of flying, they must have met somewhere above the earth. What will they see when they meet?

The observers on earth must have seen rockets a and b flying from both sides at 90% of the speed of light,

but the flash shoots at them at 100% of the speed of light (according to the theory of the speed of light remains constant). So the flash that the rocket emits a second ago must be 10% faster than the speed of light of the rocket. That is 30,000 kilometres away from the rocket (the speed of light is around 300,000 km/s). And at this time the rocket emits a second flash. Based on this calculation (use mathematical calculations to verify the laws of physics, not necessarily requires complex physical formulas, sometimes just simple mathematical method can do). The observers on earth will be seeing the flashes the two rockets emit every second coming out in a string and it is ahead of the rockets. The distance between them is 30,000 kilometres. Since it is ahead of the rockets, it must have illuminated the other's rocket first, and then the two rockets meet. When this string of flashes, which is 30,000 kilometres apart, hits the eyes of the observer on earth, he will be seeing 10

flashes in a second. The observer will then feel that the rocket does not follow the regulations to emit one flash in each second. Instead, it has emitted 10 flashes. And it can immediately be seen on earth that the rocket has emitted 10 flashes in a second. Based on this calculation, isn't one second on earth equivalent to 10 seconds on a rocket? This calculation method is worth remembering. That is to say, if the theory of the speed of light remains constant holds, one second on earth is equivalent to 10 seconds on a rocket; one year on earth is equivalent to ten years on a rocket. Thus, people on earth think that rockets a and b require 10 days to meet, but rockets a and b might feel that they have already been flying for 100 days. Would it be possible?

However, the observers on rockets a and b do not agree with this argument. The observer of rocket a says, "My rocket is heading towards rocket b at 90%

of the speed of light, and at the same time, rocket b is also heading towards me at 90% of the speed of light. Since they are flying at inertial speed, I assume my rocket does not move, and I see rocket b heading towards my direction at 180% of the speed of light. (note: there is a saying that the relative speed is not a simple addition, it needs to add the formula of calculation of relative speed. But whether to add the formula or not will be discussed later.) And the flash emits by rocket b in every second is heading towards me at 100% of the speed of light. In this case the light is lagging behind rocket b. I first see rocket b pass by, and then I see the flash it emits every second. Moreover, the earlier the flash it emits, the more it is lagging behind, and the later to be seen."

However, rocket b says, "No, I don't agree with some of your claims. The flash my rocket emits every second is 100% of the speed of light faster than my

rocket (according to the theory of the speed of light remains constant.) So all the flashes we emit are head of our rockets. If you cannot see the flash my rocket emits before we meet, then where do the flashes ahead of my rocket go? When we flash, we shoot them forward, like when we are holding a torch. There is no flash behind us." Rocket b continues, "However, the condition that we see rocket a and its flash is the same as rocket a sees us, both pass by rocket a first, then we see the flashes follow behind."

The moment when rocket a suddenly sees rocket b pass by, then it'll see the flash emitted by rocket b. How does the flash that rocket a sees? The relative speed of rocket b and rocket a is 180% of the speed of light, namely, rocket b and rocket a are close to each other by 540,000 km/s (because it enables them to meet on earth in time in ten days), then they flash one time. According to the theory of the speed

of light remains constant, rocket a only sees light flashing towards it at 300,000 km/s. In that case, light is 240,000 km/s behind, that is 80% of the speed of light. Then rocket a sees a string of flashes that is 240,000 kilometres apart, following rockets b, and heading towards rocket a. The flashes emitted earlier fall behind, and much later to be seen by rocket a. It is because according to the theory of the speed of light remains constant, relative to rocket a, light is 300,000 km/s , so the flash that is 240,000 kilometres apart must be flashing in every 0.8 seconds, that is to say, in every 0.8 seconds, rocket a can see the flash emitted by rocket b in every second. In that case, how much time does rocket a need to see all the flashes emitted by rocket b ten days before they meet? To make a simple calculation, it requires eight days.

On the 8^{th} day when rocket a and rocket b meet, rocket a sees the last flash, but this is the first flash

emitted by rocket b. It was the first flash the rocket emitted when it was launched. The flash illuminated the launching pad, the rocket that was being launched, and the crew members at the launching station. Then the reflected light of these scenes will also fly at the same speed towards rocket a. If rocket a has a good telescope, it will be seeing the happy smile on the faces of the crew after launching rocket b, and then heading to the cafeteria to enjoy a meal together, while the cleaning staff is busy cleaning up the mess left behind by rocket b after it has been launched.

If there is a small observation station fixed over station B and rocket a happens to pass by the observation station, then everything rocket a sees, the small observation station fixed over station B can see as well. It is because according to the principle of "the speed of light remains constant", people with different speeds are the same as the relative speed of

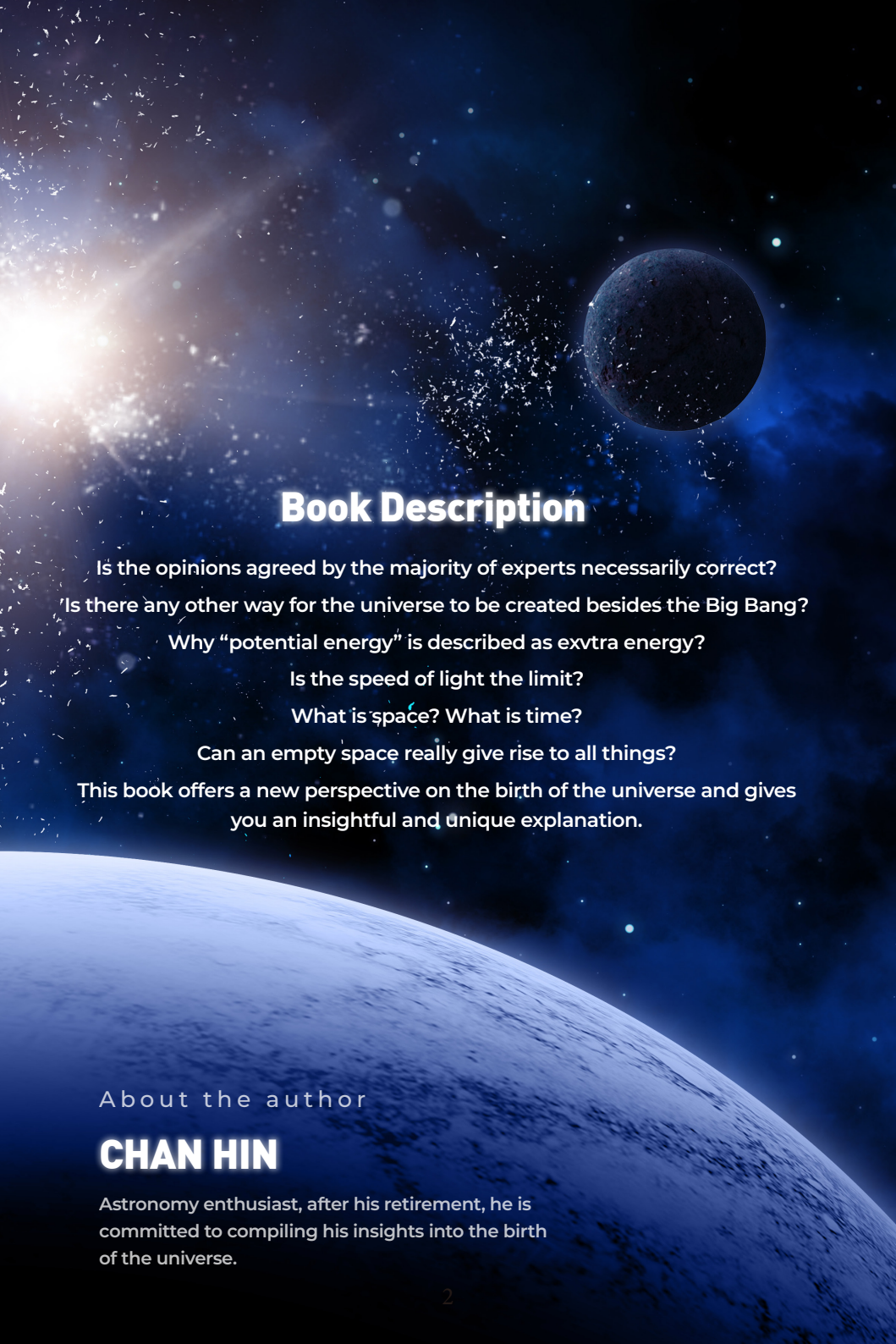
light, that is to say they should be able to see the same light at the same time because when rocket a passes by the small observation station, is there any reason why the small observation station is not able to see what rocket a sees at the same time?

If rocket a can make a wireless phone call to the small observation station at this time and asks, "Did rocket b at station B just take off?" It certainly will reply, "No! We see that rocket b has just taken off, but it takes time for the light to be transmitted. Rocket b is 90% of the speed of light. Its speed is only 10% slower than the speed of light. It is only 2-days rocket journey from here (small observation station) to station B, so it only takes around four more hours for rocket b to fly here." After hearing the reply of station B, rocket a is getting ready to meet rocket b. However, rocket b has already met rocket a on earth eight days ago. Do you think they will meet again?

Do you see any contradictions in this process?? If you still have doubts and think that everyone says their own version, don't know which version you should believe, then let's look at the next experiment to experience the contradictions in the nature of the theory of "the speed of light remains constant".

2. An experiment to intercept photon

Many people in the scientific community now believe in the theory that the speed of light remains constant. That is to say, people with different speeds looking at the same light at the same time, they will see light at the same speed, which is about 300,000 km/s. If that's the case, then assign speeds from 1 km/s to 10,000 km/s to 10,000 people, and these 10,000 people with different speeds look at a photon at the same time. According to the theory of "the speed of light remains constant", the photon must change its speed 10,000 times and show it to every individual



Book Description

Is the opinions agreed by the majority of experts necessarily correct?

Is there any other way for the universe to be created besides the Big Bang?

Why “potential energy” is described as exvtra energy?

Is the speed of light the limit?

What is space? What is time?

Can an empty space really give rise to all things?

This book offers a new perspective on the birth of the universe and gives you an insightful and unique explanation.

About the author

CHAN HIN

Astronomy enthusiast, after his retirement, he is committed to compiling his insights into the birth of the universe.