

Original Paper

The Divergence of Physics

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Abstract

It shows that the current physics is divorced from reality in many aspects and violates some basic scientific principles. This paper makes an illustration in six aspects: impossible time travel, unreal black hole photos, invalid principle of equivalence, unscientific principle of electromagnetism, incorrect subjective analysis, and untrue lunar motion.

Keywords

Special relativity, time travel, black hole photos, principle of equivalence, current, magnetic field, universal gravitation, general relativity

1. Introduction

In recent years, great achievements have been made in the innovative research of science and technology, which greatly enriches human understanding of the material world and effectively promotes the progress of human civilization. Physics is the foundation of all sciences, and the development of physics plays an important role in promoting the development of all sciences. Therefore, it is a basic principle that human beings must follow to ensure the development of physics along the correct scientific direction. However, it is very regrettable that there are still many physical studies that are divorced from reality and violate basic scientific principles. These unscientific physical studies lead physics to the wrong direction and hinder the development of physics. Here are six examples to illustrate:

1. Divorce from reality and take the impossible time travel fantasy as truth:

In the year of 1927, it was proposed by some people the beautiful vision of time travel, which believed that if people could travel in the universe with a speed close to the speed of light, their life span can be extended several times or even ten times. Scientists such as Einstein and Hawking also believed that time travel exists. Hawking also wrote a book *A Brief History of Time*, which has been sold more than 40 million copies worldwide, setting off a frenzy of time travel. Time travel themed novels, TV dramas,

games, and songs appeared one after another, leading many people to fantasize about the wonderful vision of time travel. However, time travel first requires a time travel spaceship, and everyone ignored what it takes to build a time travel ship out of reality. When it is connected with reality, we can easily understand that it is impossible for human beings to create a spaceship for time travel.

The reason is simple. The speed of the time travel spacecraft must be close to the speed of light, that is, about 300,000 kilometers per second, while the speed of the American moon landing spacecraft Apollo 11 is only 10.5 kilometers per second. The energy of the spacecraft is proportional to the square of its inertial mass and speed. The inertial mass of the time spacecraft is calculated as 10 times larger. The calculated ratio of the energy of the time spacecraft to the moon landing spacecraft is 8163265300 to 1. That is to say, the rocket to launch the time travel spaceship should be 816,326,5300 times larger than the rocket that launched the moon spacecraft. The volume of the rocket is proportional to the cube of the height or diameter of the rocket, and the size of the rocket is the cube root, that is 2013 times larger. The height of the Apollo rocket and the spacecraft is 113.8 meters, so the total height of the rocket to launch the time travel spacecraft should be 229,079 meters, which is equivalent to the height of 26 Mount Everest, and the diameter is 7,851 meters. Obviously, it is impossible for human beings to create such a huge rocket, that is, it is impossible to create a time travel spacecraft. Moreover, even if such a rocket can be made, humans may dare not to use it, because the reaction force of launching this rocket will obviously change the orbit of the earth, which may cause serious consequences for human survival. Another important reason is that the time travel spacecraft must go back and forth, that is, it must make a circular motion back and forth in the universe. The circular motion must generate centrifugal force, which must be balanced by the gravitational force of a large celestial body, while the centrifugal force is proportional to the square of its speed. Therefore, the centrifugal force of the time spacecraft should be several hundred million times larger than the centrifugal force of the general planetary position spacecraft. Obviously, there is no gravitational force of any celestial body in the universe that can balance the huge centrifugal force of the time travel spacecraft, therefore, even if humans make a real time travel spacecraft, it cannot be used to fly in the universe.

2. In order to take photos of black holes, they actually violated the basic common sense and logic of physics, and fabricated fake black hole photos:

On April 10, 2019, the Event Horizon Telescope released the black hole photos they took through the media around the world. The basis of the shooting was that due to the existence of a large amount of gas or dust around the black hole, under the strong gravitational force of the black hole, these gas molecules and dust hurl themselves into the black hole at high speed, creating a ring around the black hole as they collide with each other and glow. Obviously, such an explanation does not conform to the basic principles of physics, because people knows that the gravitational direction of a black hole is perpendicular to the surface of the black hole, that is to say, all adjacent gas molecules and dust are forced in the same direction. The speed of gas molecules and dust in the same direction must be greater in the front than in the back, so, it is impossible to collide; adjacent gas molecules and dust cannot

collide with each other even if they move in the same direction. Therefore, it can be sure that it is impossible for particles around a black hole to collide with each other. That means the idea that the gas molecules and dust around the black hole are colliding violently with each other to generate heat and light is wrong. We all have seen that when it rains or hailstones, there is no phenomenon of raindrops or hailstones colliding in the air. This similar phenomenon also proves that the violent collision of particles above the black hole may not exist. If we assume that there is an unknown reason for the gas molecules and dust around the black hole to actually glow, then this luminous body has existed for at least 13 years from 2006 to 2019, and it should be certain that the number of gas molecules and dust around the black hole is extremely large or even is endless. That is to say, there are luminous bodies on the surface of all black holes, that is, black holes are surrounded by a complete luminous body, so the black hole we observe can only be a circular luminous body, not a halo. To sum up, it can be confirmed that this black hole is only in the direction perpendicular to the observation direction of the earth, and passes behind the central plane of the black hole, and there may be no particles that emit light. More importantly, the universe is in a high vacuum state, which is well-known common sense of science. Gas clusters or dust clusters cannot exist in a vacuum at all, and it's unlikely that there would be any glowing particles of gas or dust around the black hole. It can be seen that the black hole photos released in 2019 could not be real black hole photos.

In addition, the principle that the Event Horizon Telescope used to photograph black holes doesn't work either. The description of the photo pointed out that the 8 telescopes were evenly distributed on the earth constituting a virtual telescope about the diameter of the earth, and a clear picture of the black hole was taken using this virtual telescope. It should be known that this virtual telescope can only take clearer pictures of close-range celestial objects, and it cannot take real effects for far-distant objects. Anyone with shooting experience knows that if two people A and B take pictures of object O simultaneously, when the Angle AOB is less than 1 degree, the difference between the photos taken by A and B is very little. If the Angle AOB is less than one in ten thousand degree, there is basically no difference between the photos taken by A and B. The black hole in Virgo is 55 million light-years away from the earth. The angle formed by the farthest two points on the earth and the black hole is far less than one billionth degree. It can be considered that the photos of this black hole taken by any two points on the earth are exactly the same. It should be that the Event Horizon Telescope artificially arranged 8 identical bright spots into a circle to form a fake black hole photo.

3. Blindly believe in "The Principle of Equivalence" that has no practical basis, forgetting to make a serious comparative analysis based on the obvious objective facts:

The gravitational mass is equal to the inertial mass, which is the equivalence principle postulated by Einstein, and this principle is the foundation of the general theory of relativity. According to the general theory of relativity, Einstein accurately deduced the precession of the perihelion of Mercury, so the general theory of relativity was recognized for a while, thus, the principle of equivalence was also recognized as the truth.

We know that one or two correct inferences do not make a principle true. For example, the atmospheric pressure is inversely proportional to altitude generally. However, this inference is wrong when the altitude is above 1200 meters. Similarly, we have no reliable facts to prove that the general theory of relativity still works when the object is moving at high speed. Why do we say so? Because when the object moves at high speed, the principle of equivalence definitely does not work.

It is proved by experiments that the inertial mass of an object increases with the increase of the moving speed of the object, and it is a variable. If the principle of equivalence works, then the gravitational mass of the object should also increase as the increase of its moving speed. However, a simple fact proves that the gravitational mass of an object is definitely independent of the speed of the object. This fact is that the weight of a spring scale is independent of its speed. For example, if a weight of one kilogram is placed on a spring scale, and the pointer of the spring scale stops at the position of one kilogram, people on the satellites or in the plane can definitely see that the pointer stops at the position of one kilogram. That is to say, the weight of a weight, that is, the gravitational mass, has nothing to do with the moving speed of the weight relative to the observer, that is, the gravitational mass has nothing to do with the moving speed of the object. This shows that the gravitational mass is constant, and it cannot be the same as the variable inertial mass, that is to say, the principle of equivalence cannot be established.

We can also simply prove that the gravitational mass is constant theoretically. It can be proved as follows: the distribution of the electric field of a spherical charged body is exactly similar to the distribution of the gravitational field of the earth. The charge of a given object is independent of its motion, so no matter what motion the sphere makes, the electric flux surrounding any closed surface of the sphere is constant. Similarly, when the earth whose field distribution is exactly similar to that of a sphere moves, the gravitational field flux surrounding any closed surface of the earth is of course constant, which shows that, the same as the quantity of electric charge is constant, the gravitational mass must also be a constant that has nothing to do with motion. This also proves that the gravitational mass must be different from the inertial mass, that is to say, the principle of equivalence definitely cannot be established.

The principle of equivalence is the foundation of the general theory of relativity, if the principle of equivalence does not work, the general theory of relativity won't work naturally. Why can the general theory of relativity accurately infer the precession of the perihelion of Mercury? This is because the running speed of Mercury is very low, only 48 kilometers per second. The inertial mass of Mercury changes very little at such a low speed. It can be considered that the inertial mass of Mercury is also constant, and both gravitational mass and inertial mass are constant. The principle of equivalence can work, the inference of general relativity is of course correct.

Black holes are the result derived from the general theory of relativity under the condition that there is no limit for the speed. For example, when the speed is close to the speed of light, the gravitational mass and the inertial mass both become extremely large, thus, black holes are produced. Since the general

theory of relativity does not work under high-speed conditions, therefore, theoretically, black holes can't exist. On the other hand, if we assume that the black hole exists in a state of motion, then the black hole cannot move forward in a straight line, but only in a circular motion. There is no gravitational force of any celestial body that can balance the centrifugal force of the black hole's circular motion, so the black hole can only be in stationary state. That is to say, the necessary condition for the existence of a black hole is that the speed of motion is equal to zero. Obviously, under the necessary condition of zero speed, the existence of a black hole cannot be deduced at all based on the general theory of relativity. What is even more absurd is that it is inferred from the black hole theory that the density of black holes is more than one million times that of neutrons, it has no material structure, and any celestial body that is attracted by a black hole will immediately become a black hole, that is to say, all the atoms, electrons, and neutrons in the celestial body attracted by a black hole disappear instantly, and all become black holes without any material structure. Such absurd views completely subvert the basic common sense of physics.

I believe that contrary to basic physical common sense, there is no black hole with no material structure and a density more than one million times that of neutrons. It is a huge waste that countries around the world have invested huge funds and many outstanding scientists to study black holes for many years.

4. Electric current produces magnetic field, and magnetic field is a real substance. This kind of understanding not only does not conform to the basic scientific principles, but also violates the objective facts. This kind of understanding is the fundamental defect of electromagnetism:

"Electric current generates magnetic field" does not clarify by what means and by what mechanism electric current generates magnetic field in all spaces, which is an idea of action at a distance that violates basic scientific principles. Moreover, the magnetic field of space can suddenly disappear or be produced, which is obviously in violation of the law of matter immortality, so, it can be considered as an unscientific idea that electric current generates magnetic fields.

The magnetic field is a real substance and does not conform to the objective fact. Because electromagnetism concludes that the magnetic field around the high-speed rotating permanent magnet must rotate together with it, that is to say, the rotational speed of the magnetic field at any point in space is proportional to the distance from the point to the axis of rotation, and the inevitable result is, beyond a certain distance from the axis of rotation, all magnetic fields rotate faster than the speed of light. It is pointed out by the principle of invariance of the speed of light that the speed of light is the limit speed in nature, and the moving speed of any real substance cannot exceed the speed of light. Since the moving speed of the magnetic field can exceed the speed of light, it proves that the magnetic field cannot be a real substance at all. So, what is the real magnetic field? For example: there is a charged object O on a high-speed running train, and an observer A on the train thinks that there is only an electrostatic field around O, however, another observer B on the ground thinks that there is not only an electrostatic field but also a magnetic field around the moving O. This fact shows that regarding whether there is a magnetic field around O, A and B hold opposite views, which means that whether the

magnetic field exists depends on the observer. As we all know, the existence of real substance has absolutely nothing to do with the observer, and if the existence of the magnetic field can be related to the observer, it proves that the magnetic field is not a real substance at all. So what is a magnetic field? Undoubtedly, the objective point of view of the above example must be that A sees a stationary electric field around O, and B sees a moving electric field around O. If we use the term magnetic field to express the moving electric field, then the views of A and B are not contradictory. Therefore, we define a magnetic field as a moving electric field. Because the electric field is a substance, according to the special theory of relativity, the length of the substance in the direction of motion is shortened, and the final definition of the magnetic field is: the magnetic field is the electric field of motion contraction. According to this definition combined with basic electromagnetic phenomena, we can easily establish a formula: The strength of the magnetic field is equal to the product of the velocity of the electric field and the strength of the electric field. The electric field is shortened according to the Lorentz length transformation formula in the direction of motion. According to this formula, it is not difficult for us to deduce all the laws of electromagnetism. It should be pointed out that the derivation of the Lorentz force only works in a uniform magnetic field, therefore, the Lorentz force law does not work in a non-uniform magnetic field. This inference can be proved by a simple fact. We analyze a charged particle moving towards the center of a square current-carrying coil, and the direction of motion is perpendicular to one side of the coil. The deduced conclusion must be that the Lorentz force of the coil magnetic field on the charged particle is in the same direction as the Lorentz force of the charged particle magnetic field on the coil current, that is, the direction of the action force is the same as that of the reaction force. Such absurd inference is sufficient to prove that the Lorentz force law does not work in a non-uniform magnetic field.

The scientific nature of the new view of the magnetic field not only proves that the Lorentz force does not work in the non-uniform magnetic field, but more importantly, the new view of the magnetic field can prove the objective fact that the static magnetic field is accompanied by the electrostatic field. In February 2012, Mr. Wang Zhisheng and I published a paper, *The existence of static magnetic field accompanied by electrostatic field is deduced based on the relativity theory and its experimental verification*, in the Canadian journal of Applied Physics Research. The dissertation accurately predicts the distribution and specific value of the electrostatic field around the cubic permanent magnet. However, electromagnetism believes that it is impossible for the electrostatic field exists around the permanent magnet of the non-charged body. This wrong inference of electromagnetism proves that there is a fundamental flaw in electromagnetism, and it also proves the superior scientific nature of the new viewpoint on the magnetic field. Moreover, I also explained the theoretical defects and errors of electromagnetism from more than a dozen aspects in another of my paper, which will not be introduced here.

As we all know, the existence of permanent magnets is the most important source of modern science and technology, and it is a key to the progress of human civilization. The new viewpoint of the

magnetic field proves that the existence of the permanent magnet comes from the contraction of the electric field in the direction of motion, and the contraction of the electric field in the direction of motion comes from the Lorentz transformation of special relativity, and the Lorentz transformation comes from the principle of invariance of light speed, while the principle of invariance of light speed, like the mathematical formula that one plus one still equals one, is a law that humans never understand. What human beings cannot understand can only be attributed to the gift of God. Therefore, we should believe that the principle of invariance of light speed is God's most precious gift given to human beings!

Why is the speed of light 300,000 kilometers per second? Analysis shows that if the speed of light is infinite, then there will be no electromagnetic waves, the greater the speed of light, the smaller the electric waves. More importantly, the magnetic permeability of vacuum is inversely proportional to the square of the speed of light, that is to say, if the speed of light is too high, the magnetism available to humans will be too weak to be practical, therefore, the speed of light cannot be too high; however, if the speed of light is too slow, and not only do radio waves travel too poorly, also, electromagnetic interference and electromagnetic pollution will be too serious, so the speed of light can't be too slow. As a result of the comprehensive analysis, the speed of light of 300,000 kilometers per second should be the best speed of light for human beings. Therefore, we should believe that the speed of light of 300,000 kilometers per second is God's second precious gift to mankind!

5. When analyzing the interaction of two objects, the objective principle is often abandoned, and the opinions of people who have nothing to do with the two objects are used as the basic analysis method: When analyzing the interaction force of two like charges in the same direction and at the same speed, people's basic analysis conclusion is that two like charges move in the same direction, forming two currents in the same direction, thereby they attract each other, but the like charges also repel each other, so the combined force between the two charges should be the difference between the repulsive force and the attractive force. Obviously, such an analysis result is wrong, because people with different moving speeds will analyze and obtain completely different gravitational forces, that is to say, different people have different analysis conclusions, and this analysis method is definitely wrong. Then, what is the correct method of analysis? That is to abandon people who have nothing to do with charges, and objectively analyze the interaction between two charges: The two charges have the same speed in the same direction, which means that the two charges are relatively static, so there is only electrostatic repulsion between the two charges.

For another example, two charges are in a plane, one moves in the horizontal direction and the other moves in the vertical direction. To analyze the interaction force of such two charges, the general analysis method is that in addition to the existing electrostatic force, the two charges also have the Lorentz force on the horizontal moving charge when it passing through the magnetic field generated by the vertical moving charge and the Lorentz force on the vertical moving when it passing through the magnetic field generated by the horizontal moving charge, and the result of the analysis must be that, in

all cases, the interaction forces of the two charges are not equal and opposite, that is, they do not conform to the law of reaction force. Especially when the horizontal moving charge passes directly below the vertical moving charge, the magnetic field strength of the vertical charge here is zero, and the Lorentz force on the horizontal moving charge is zero, while the Lorentz force on the vertical moving charge is exactly the maximum. Apparently, the results of such an analysis ultimately prove the absurdity of such an analysis method. Obviously, the correct method of analysis must be to objectively analyze the relative speed of the two charges that are related to each other, regardless of the people who have nothing to do with it. There is no doubt that the relative motion speed of two moving charges is always equal and opposite. The result of the analysis must also be that the interaction force between the two is always equal and opposite, which always conforms to the law of reaction force.

The above analysis shows that when we analyze anything, as long as irrelevant people are involved, correct analysis conclusions cannot be obtained. Therefore, when we analyze the interaction between two, three or more objects, we must put aside people's views and only analyze the interaction of interrelated aspects in order to obtain objective and correct analysis conclusions. I call this analysis method the principle of stakeholder analysis.

6. A partial analysis of the matter, only analysis of the earth's gravity to the moon, not the moon's gravity to the Earth:

For more than 300 years, popular science has told us that because the earth has gravitational force on the moon, the centrifugal force generated by the moon's rotation around the earth is offset by the gravitational force, and thus it is in an eternal state of balance. The strange thing is that the moon has the same gravitational force on the earth, but no one asked why the earth doesn't rotate around the moon to generate centrifugal force and counteract the gravitational force of the moon? Obviously, if the earth does not have the centrifugal force of rotation to counteract the gravitational force of the moon, the earth will inevitably crash into the moon! There is no doubt that the earth must have a centrifugal force equal to the gravitational force of the moon, that is to say, the earth must have a rotational motion relative to the moon. What kind of motion is this? In 2016, I published *A New Principle to Eliminate the Application Defects of Relativity* in the International Journal of Theoretical Physics, and pointed out that any two celestial bodies in the universe must be in a state of force balance, the two celestial bodies in relative motion must rotate around a common center of rotation, their distance to the center of rotation is inversely proportional to their mass, and the gravitational force between them is equal to the centrifugal force of their rotation. Assuming that there are only the earth and the moon in the universe, the average distance between the two is known as 384,400 kilometers, and the mass of the earth is 81 times that of the moon, then it is calculated that the common rotation center of the two is about 4,688 meters from the center of the earth. In 2018, some astronomers observed that the center of rotation was 4,800 meters from the center of the earth, which is quite different from 4,688 meters. What is the reason? This is because the orbit of the moon is not circular but elliptical, and more importantly, the 5-degree angle between the ecliptic plane and white plane is ignored. Then, when the moon moves

between the sun and the earth, the gravitational force of the sun on the moon is opposite to the gravitational force of the earth on the moon, which means that the gravitational force of the earth on the moon is reduced; when the moon moves to where the earth is between the sun and the moon, the gravitational force of the sun on the moon is in the same direction as the gravitational force of the earth on the moon, which is equivalent to the increase of the gravitational force of the earth on the moon. The overall effect is that the distance between the earth and the moon and the gravitational force are constantly changing, therefore, the common rotation center of the two is also changing all the time. That is to say, the size of the center of rotation observed by astronomical observations at any moment is not the same. Of course, the gravitational force of Venus, Mars and other seven planets also has an impact on the moon, but it is relatively small and negligible.

In addition, the sun and the Earth also have centers of rotation. If you don't take into account the gravitational force of the other seven planets, the calculations show that, the common center of rotation of the Earth and the sun should be about 449 kilometers away from the Sun's center; if you also consider the gravitational force of the other seven planets, then, the gravitational force on the sun should be the combined gravitational force of the eight planets, obviously, the magnitude of this combined gravitational force changes from time to time. Therefore, the position of the sun's center of rotation also changes from time to time. However, no matter how the sun's rotation center changes, the sun's rotation around this rotation center is inevitable.

2. Summary and Analysis

The above introduces the unscientific theories existing in physics at present, among which the most important problems are black holes and electromagnetism. According to the analysis of basic scientific principles, black holes cannot exist, because if there were black holes at the beginning of the universe, then the strong universal gravitation of black holes that even light could not escape would inevitably absorb nearby celestial objects first, and then gradually attract the remaining celestial objects through chain reaction, and the final result was that only black holes existed in the universe. Obviously, the study of nihilistic black holes is bound to get some absurd results. For example, in the celestial observation, the density of Sagittarius A black hole is less than 200 times of that of the Earth; what's more, the density of M87 black hole is smaller than that of water. Can such black holes still attract light? Obviously, celestial observation results of black holes completely overturn the basic definition of black holes.

Analysis of electromagnetism clearly shows that Biot-Savart Law, law of Lorentz force, electromagnetic induction and other laws are all empirical physical laws directly felt by people, just like the empirical laws obtained by observing planets 300 years ago. Newton explained the law of planetary motion with the law of universal gravitation. Similarly, the laws of electromagnetism should also be reasonably explained by a scientific principle. The author believes that all the laws of electromagnetism can be reasonably explained by applying the principle that magnetic field is the

contraction electric field of motion (see Reference 2). As the basic law of electromagnetism is empirical physics, it is inevitable that there are some defects. For example, the principle of electromagnetism cannot explain Lorentz force under the condition of non-uniform magnetic field; by analyzing the interaction force between the current-carrying coil and the moving charge, we can draw the absurd conclusion that the direction of the acting force and the reaction force is the same; in particular, electromagnetism cannot explain why there is electrostatic field around permanent magnets. The above examples show that there are still some wrong methods in study of physics that are divorced from reality, violate the basic principles of physics and violate normal logical thinking. These unscientific research methods will inevitably lead physics to wrong direction or even into a dead end in some fields. There is no doubt that such study will inevitably consume many precious human resources and obviously hinder the rapid development of physics. In order to eliminate the obstacles on the way of physics, it is very necessary to expose and eliminate such study of physics which is divorced from reality and violates science.

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