

# How to Predict the Big Crunch

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**Abstract** Einstein's general theory of relativity, on its own, predicted that space-time began at the Big Bang singularity and would come to an end either at the big crunch singularity (if the whole universe recollapsed), or at a singularity inside a black hole (if a local region, such as a star, were to collapse) [2]. In addition, I showed that the time is the momentum of space (inversely proportional relation) [3], time is direct proportional to static and it is believed that there is no one is eternal except the Creator which proves his existence, so time is the Creator and the Creator is time [4]. However, the prediction of how the Big Crunch will happen is poorly known. Here I show that if the motion of the planet earth and the sun have stopped, this means that the motion of the black hole at center of the galaxy has stopped also and this means a lot of things: this means that time has stopped according to my theory of the time and because of the gravity of the sun, the earth will come closer to the sun and because of the gravity of the black hole, the sun and the earth will come closer to the black hole and maybe they fall into the black hole which achieve the second prediction of Einstein's general theory of relativity for the big crunch. When the earth move about the sun in the opposite direction after the motion of the earth has stopped, the Big Crunch occurs because it is the opposite direction of moving of the earth about the sun at the beginning of the Big Bang and that explains the first prediction of Einstein's theory of gravity of the Big Crunch.

**Keywords** Time, General relativity, The big crunch, The creator, The resurrection, The judgment day

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## 1. Introduction

Extensive observations show that the Universe started with a Big Bang — namely, a hot explosive beginning. Einstein's theory of gravity cannot explain how space and time come into existence [1]. At the moment of the Big Bang, the volume of the Universe is infinitesimal and with infinite curvature [1].

The Big Bang occurs at zero time and not much is known about this state. According to superstring theory all forms of energy at the occurrence of the Big Bang are the states of the superstring. The question of what existed before the Big Bang can be addressed in superstring theory [1].

Depending on the average density of the Universe, there are then in principle three possibilities (a) the Universe keeps on expanding forever at some finite rate, (b) the Universe expands forever but at an ever decreasing rate asymptotically approaching zero, and (c) the rate of expansion decreases and become negative (after the Universe has reached a finite maximum size, it starts to shrink and ends up in a point — this is often called the “big crunch”) [1].

Einstein's general theory of relativity, on its own, predicted that space-time began at the Big Bang singularity

and would come to an end either at the big crunch singularity (if the whole universe recollapsed), or at a singularity inside a black hole (if a local region, such as a star, were to collapse). Any matter that fell into the hole would be destroyed at the singularity, and only the gravitational effect of its mass would continue to be felt outside. On the other hand, when quantum effects were taken into account, it seemed that the mass or energy of the matter would eventually be returned to the rest of the universe, and that the black hole, along with any singularity inside it, would evaporate away and finally disappear [2].

According to the general theory of relativity, there must have been a state of infinite density in the past, the big bang, which would have been an effective beginning of time. Similarly, if the whole universe recollapsed, there must be another state of infinite density in the future, the big crunch, which would be an end of time. Even if the whole universe did not recollapse, there would be singularities in any localized regions that collapsed to form black holes. These singularities would be an end of time for anyone who fell into the black hole. At the big bang and other singularities, all the laws would have broken down, so God would still have had complete freedom to choose what happened and how the universe began [2].

### The Theory of Time

One needs a theory of time to address the occurrence of the Big Bang and the Big Crunch. In order to predict the Big Crunch we have to discuss time theories and in this paper we will discuss my theory of time because it appears to be

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predicting the Big Bang and the Big Crunch like Einstein’s general theory of relativity.

The momentum of the earth or any object is related to the time because of the more the momentum of rotation of the earth around the sun, the less the time we feel on earth and the time produced on earth will shrink and vice versa. The days and years calculation will be the same or will be more, but the feeling of time on earth will go faster. So, you cannot escape from time because every object that circulating about another object or have momentum in space, it generate time. From this explanation, it is concluded that time is inversely proportional to the momentum [3].

The time is the momentum of space (inversely proportional). Momentum is more precise than velocity because the earth is rotating on its axis and that also generate time (days). The mass of any object is added to this equation because it represents the existence of an object in three dimensions and it is affected by gravity of the sun [4]. The mass was also added to the following equation because there is an inversely proportional relation between mass and the velocity as recent studies observed [7].

If the orbital velocity of the earth or any planet increases, time shrinks and events take more time to happen, but if the orbital velocity decreases, time dilates and events that happen may not take much longer time to happen and maybe the events increase in number [4]. The following equation indicates time for one freely moving object [7].

$$t = \frac{c}{mv} \tag{1}$$

Where  $c$  is the circumference of the orbit or the distance between two objects.

The circumference was added to equation (1) to indicate the length of the orbit because the more the length of the orbit, the more the days of the year and time increases [7].

It is believed that the momentum of any object in space produces time. Without time we cannot have events and we cannot have events without momentum (motion). We can have space but without time we cannot have anything which is believed to be a proof that maybe time is a film that records events. There is no event to happen without motion or movement (momentum). There is no space without time, and there is no time without space in the human perspective [4]. The following equation indicates time for two objects in a relation to each other or for an object moving about another object [7].

$$t = \frac{m_2x}{m_1v_1} \tag{2}$$

Notice that  $m_1$  is the mass of the sun,  $x$  is the distance between the sun and the earth or the circumference of the orbit of the earth,  $m_2$  is the mass of the earth and  $v_2$  is the velocity of rotation of the earth around the sun [7].

The origin of the universe is time because without time, the events and motion cannot exist. Thanks to time we can have our impacts on the earth and the universe. However, the only function of space is that it is the place that events happen on it, nothing more and that is also for human perspective [4].

### How to Prove that the Creator Exists

I added the Creator theory to this paper to prove that the responsible of the Big Bang and the Big Crunch is the Creator because he is the time and he controls it. If it is suggested that time is inversely proportional to momentum, so time is direct proportional to static. So, time is the static state. It is believed that there is no one is immortal other than the Creator which proves his existence, so time is the Creator and the Creator is time. It is concluded that there is a Creator who is immortal and has power on all times. It is concluded that time is the Creator and the Creator is time. This proves the immortality of the Creator. There is no one is immortal other than the Creator which proves his existence. The next equation explains that the Creator is eternal and he is time [4].

$$T = \text{static} \tag{3}$$

It is suggested that if you reached the complete static state, you will be eternal, but this is impossible practically. You cannot escape from time because you cannot be in the static state your whole life or even for one second, and the Earth is rotating about the sun. In addition, if you escaped from the solar system, the solar system that we are in it, is rotating about the center of the galaxy and who knows our galaxy is rotating about, so to be immortal is some kind of illusion. No one can control time because the one that controls time can control everything [4].

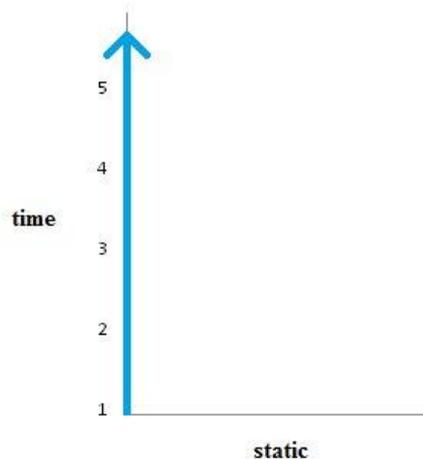


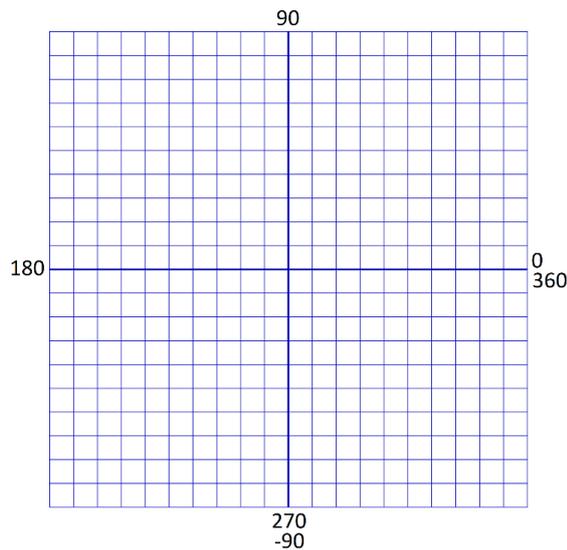
Figure 1. The relation between static and time [5]

## 2. Results and Discussion

The arrow of time cannot back in time because the motion of a planet cannot go back in time to the opposite direction. No one can escape from time because the solar system is rotating about the centre of the galaxy and who knows that our galaxy is rotating about something else [4], and that is a reason why *time travel* to the past or to the future are impossible.

The following graph shows (0°) start at the beginning of the Big Bang and (360°) which is (0°) is a sign of ending of

the universe as the Big Crunch and ( $180^\circ$ ) is a sign of a complete expanding universe. The negative part of the graph (From  $180^\circ$  to  $360^\circ$  or  $0^\circ$ ) is a sign of collapsing of the universe and movement in the opposite direction of expansion to make the Big Crunch (see fig 2).



**Figure 2.** Graph shows and proves the Big Bang, the expanding universe and the Big Crunch

When the Big Bang singularity was first created, it is created in the form of atoms. Since the formation of atoms was before the formation of galaxies, and time is related to momentum. It is suggested that what initiated the Big Bang is due to the electrons were first to have momentum about the nucleus, It initiated the spark of the Big Bang and the beginning of time in the universe, and atoms reflected to shape the great model of the universe like galaxies and solar systems [3]. The momentum or the velocity is related to time which proves that the Creator is the only one responsible on creating everything including the universe, the Big Bang [4] and the Big Crunch.

### How to Know that Time has Stopped

Time started with a motion and cannot end with a stationary because the motion in the vacuum cannot end and there is nothing completely a hundred percent static, however the motion in the vacuum could end with the Big Crunch.

If the motion of the planet earth and all planets of the solar system have stopped, this means that the motion of the sun has stopped and the motion of the supermassive black hole in the center of the galaxy also has stopped, *so time has stopped* because the time of a planet is related to its motion or velocity and because velocity is vector. Anything that you do or happens after time has stopped does not mean anything because the time has stopped.

It is believed that when time (the motion of the planet earth) stops, this means that the earth will come closer to the sun because of the gravity of the sun and the sun will come closer to the black hole in the center of the galaxy because of

the gravity of the black hole and maybe the earth and the sun will fall into the black hole which achieves *the second prediction of Einstein's theory of gravity of the Big Crunch*.

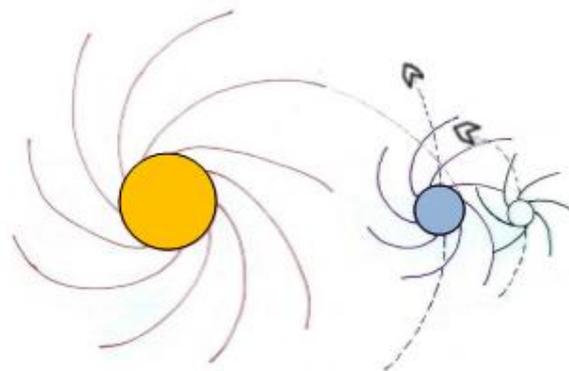
It is also believed that when the earth moves about the sun in the opposite direction after the motion of the earth has stopped, the Big Crunch occurs because it is the opposite direction of the earth movement about the sun in the beginning of the Big Bang and that explains *the first prediction of Einstein's theory of gravity of the Big Crunch*.

If the Big Crunch happened in sometime that means that time has stopped, so the motion of the planets and the earth also have stopped because the motion of a planet is related to time and the motion represents the calculation of days of the year and the age of this planet. Because of the time is the Creator, he is responsible for changing of the motion of all planets, solar systems and galaxies, and controls the motion of them. In addition, any change of motion or the direction of any object means that there is a change in time scale.

### How to Predict the Resurrection

After the change of the direction of motion of planets around the sun, the resurrection happens, but one can wonder that this change of motion means that we are going to live the past again or we can have *time travel* to the past.

However, The Big Crunch means that time can go back to the beginning of time and live the past again, but maybe this is true in a different way. This means that we are not going to be vanished after the Big Crunch because the quantity of matter cannot be removed, but it means that the resurrection happens and we are going to have the afterlife [6]. This also predicts the Judgment Day.



**Figure 3.** Diagram shows that the motion of the sun controls the motion of the earth [5], and the black hole controls the motion of the sun and the earth

### How to Predict the Judgment Day

According to my theory of time, when time stops, this means that the people of the Earth in that time will be immortals because the earth and the universe in somehow become static after a long time of expanding, so this predicts the Big Crunch. If the Big Crunch happens, this means that the universe stopped expanding and the motion of planets especially the earth is in the opposite direction of the regular motion around the sun because the opposite of the Big Bang and the expanding universe is the Big Crunch, so the

resurrection happens and the Judgment Day happens if the Creator or God wanted that.

There is not any theory except my theory of time can explain how space and time come into existence because it proves that there is a Creator that has power on time, gravity, the Big Bang, the Big Crunch and everything, and controls them. My theory of time also predicts the resurrection and the Judgment day which Einstein and his theory predictions did not discuss them before.

In addition, the universe was created in a certain time. However, when the universe exists, the Creator created the universe before any other thing exists before his creation or before spacetime existence. So, the universe sometimes appears to have no beginning [3].

### 3. Conclusions

In conclusion, it is believed that the Big Crunch can be predicted because all Einstein's general theory of relativity predictions for the Big Crunch has been achieved and explained in this paper. In addition, it is concluded also that the resurrection and the Judgment Day can be predicted according to the Big Crunch theory and the only one responsible on those events is the Creator which it is not discussed before in science.

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