The Standard Model Big Bang Age of the Universe Confused for Special Relativity Absolute Time Dilation Barrier

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Abstract

There is a crisis with the standard model of cosmology at its outer limits. Why are well-developed galaxies, observed by the James Webb Space Telescope, existing only 300 million years from the beginning of the observable universe? A solution to the problem is offered that evokes the principles laid down in Albert Einstein's 1905 special relativity, time dilation. Are we looking at a wall where time stops? Special relativity states that time slows down if you're moving — relative to an observer. As a body approaches the speed of light, time will appear to slow on the moving /travelling body. At the speed of light time will appear to stop to the observer. The solution is we are the observers and the galaxies (relative to us) at the outer edge of the universe— right about the place of the said Big Bang beginning — are expanding away from us at the speed of light and faster. We are observing a wall where time stops, a barrier, that we cannot see through. This would suggest the universe can be much older and we may never know how old because of this barrier. Special relativity also says that bodies appear smaller from the perspective of the observer. This may further distort our perception of the accelerating universe; the universe may be even larger than thought.

Keywords: JWST, Big Bang

Introduction

Following is a discussion on the consequences of special relativity time dilation at observable extremes of the large-scale universe. Recent observations from the James Webb Space Telescope (JWST) have created a crisis and our understanding of the standard model of cosmology. The most recent observations place a well-formed galaxy some 400 million years from the claimed Big Bang origin. This leaves little to no cosmic 'deep' time for the elements to evolve via nuclear synthesis.

In this paper the author offers a solution to the problem suggesting what is being observed at the outer limits of the observable universe is the slowing and then stopping of time due to time dilation due to the expansion of the universe moving the galaxies away from the observer — us — at the speed of light. What we are observing is a time barrier upon which we cannot see through. Observations from the JWST are the last galaxies before the barrier.

1 Background Theory

Albert Einstein's 1905 special relativity[1] claimed that clocks on a moving body will slow relative to an observer. At the speed of light, the observer observes the clocks to stop. The

theory also claims that the size of an object will be observed smaller to the observer as the traveller travels at the speed of light.

It is assumed that time dilation only applies to objects that move through space and not to objects carried along by the expansion of space.

2 Observations

From observations and the standard model, the age of the universe is estimated to be 13.787 billion years old[2]. In recent years the JWST has challenged the standard model with observation of well-developed galaxies of all shapes and sizes some 300 to 500 million years from the Big Bang edge[3]. The most recent record of a galaxy, JADES – GS – z14-0, is placed only at 300 million years after the Big Bang. This galaxy contains elements such as oxygen which further challenges the standard model as there would have to be time to allow for nuclear synthesis in this time to produce these elements.

3 Solution and Discussions

It may require that the assumption that special relativity applies only to objects that travel through space and not to space expansion itself needs to be reviewed. From this, scientists of our time may have been biased by this assumption and have neglected the foundation principles that would on their own, in independence, if accepted, explain the phenomenon and crisis they are faced with.

What we are witnessing at the edge of the observable universe is absolute time dilation and a barrier to light and information. This would explain why we have fully formed galaxies at the edge of what we think is the beginning of the universe. The Big Bang CMB edge of the universe may only be a veil created by time dilation and therefore the universe before it has an undefined history.

It must be more than a coincidence that the Big Bang edge of the universe distance is around the same location as where galaxies are said to be travelling at the speed of light away from us observers. If we were to take away the assumption that time dilation does not apply to expanding space then we would expect this information barrier where time stops to the observer.

In other contexts, the distance light travels affects how it is viewed; namely, red and blue shifting. If we didn't have this shifting of light, we would not have discovered Hubble's Law. So, if light can shift, why cannot it reveal time dilation in accordance with special relativity?

There is also the issue of special relativity of the effect on size with respect to speed. As an object approaches the speed of light its size is diminished to an observer. Does this mean that the large-scale universe that we can observe is larger? Exponentially larger?

References

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