Where Does an Exalted Earth Go?

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This paper explores a question that arises at the intersection of physics and faith:
If the elements in this universe are not eternal, then where do the eternal elements described in scripture exist?

In 1935, physicists Einstein and Rosen proposed a theory known as the Einstein–Rosen bridge. This is what we now call a "wormhole." It suggests that space and time can be connected like folded paper, making it possible to travel instantly to a distant part of the universe.
In 2026, while studying the book of Isaiah, I began to feel a kind of strange contradiction (or something like it). This led me to two questions:

1. That there are only about 90 elements in the entire universe

2. That we cannot find, anywhere in the universe, any planet that seems to have already reached exaltation in the past.

First, the scriptures teach the following:

"For man is spirit. **The elements are eternal**, and spirit and element, inseparably connected, receive a fulness of joy;" (D&C 93:33)

In other words, the "element" spoken of here is something that exists eternally. Today, we have confirmed the existence of about 118 elements. Among these, 94 occur naturally (though neptunium, element 93, and plutonium, element 94, are sometimes produced in extremely small amounts in uranium ore). The remaining 24 elements are artificially created, and they decay almost immediately, so they do not continue to exist.

Also, it is believed that elements up to atomic number 173 could theoretically exist. However, since electrons around the nucleus would become unstable and collapse, it is thought that only about 92 to 94 elements can exist stably in the universe.

However, even these 94 elements will eventually break down. Given enough energy and time, all elements will decay.

The scriptures also say:

"And every corruptible thing, both of man, or of the beasts of the field, or of the fowls of the heavens, or of the fish of the sea, **that dwells upon all the face of the earth, shall be**

consumed; **And also that of element shall melt with fervent heat**; and all things shall become new, that my knowledge and glory may dwell upon all the earth." (D&C 101:24-25, adapted)

Then where do these "eternal elements" exist—the elements that make up the resurrected body, the body that lives forever, elements that do not exist in this universe and never decay?

"They who are of a celestial spirit **shall receive the same body** which was a natural body; even ye shall receive your bodies, and **your glory shall be that glory by which your bodies are quickened**." (D&C 88:28)

Here, the phrase "the same body" clearly refers to the same form or appearance, not a body made of the exact same elements. The physical bodies we now have—what we might call "imperfect bodies"—are made of elements that cannot exist forever. Because of this, they cannot contain the glory of God (that is, an immense power or energy) within them.

Before this life, we existed as eternal beings without beginning or end—as "intelligences" or "spirits."

"Howbeit that he made the greater star; as, also, if there be two spirits, and one shall be more intelligent than the other, yet these two spirits, notwithstanding one is more intelligent than the other, **have no beginning; they existed before, they shall have no end**, they shall exist after, for they are gnolaum, or eternal." (Abraham 3:18)

These intelligences will one day receive bodies made of elements that never decay—eternal, incorruptible elements—and through this, they will receive a fulness of joy. And those who endure trials and remain faithful to the end will receive "eternal life"—that is, the great power of God (the power of creation)—and can become like Him (exaltation).

"For behold, this is my work and my glory—to bring to pass the immortality and eternal life of man." (Moses 1:39)

The prophet Mormon clearly teaches that there is a difference between the elements that make up our current physical bodies and the elements that will make up the bodies we receive in the resurrection.

"And the day soon cometh that your mortal must put on immortality, and these bodies which are now moldering in corruption **must soon become incorruptible bodies**; (Mormon 6:21)

So where are the elements that make up this eternal, unchanging body? Sadly, we cannot find them anywhere in this universe, where physical laws govern all things. And yet, the words of God are true—so they must exist somewhere.

To search for the answer, let us consider another question I began to have. The scriptures teach that this earth itself will one day receive exaltation.

"Q. What is the sea of glass spoken of by John, 4th chapter, and 6th verse of the Revelation? A. It is the earth, **in its sanctified, immortal, and eternal state**." (D&C 77:1)

"This earth, **in its sanctified and immortal state, will be made like unto crystal** and will be a Urim and Thummim to the inhabitants who dwell thereon, whereby all things pertaining to an inferior kingdom, or all kingdoms of a lower order, will be manifest to those who dwell on it; and this earth will be Christ's." (D&C 130:9)

"Therefore, it must needs be sanctified from all unrighteousness, that **it may be prepared for the celestial glory**; **For after it hath filled the measure of its creation, it shall be crowned with glory, even with the presence of God the Father**; That bodies who are of the celestial kingdom may possess it forever and ever; for, for this intent was it made and created, and for this intent are they sanctified." (D&C 88:18–20)

Earlier, in Moses 1:39, we learned that God has created many worlds. Today, with modern technology, we have identified billions of galaxies, and from this, it is estimated that there may be around two trillion galaxies in existence. Yet, among all the galaxies we can observe—each containing tens of billions to trillions of stars and their planets—we have not been able to find any celestial body that has clearly achieved exaltation.

Here, I began to focus on a limitation within the laws of physics. No matter how much science advances, humans cannot reach the speed of light. In other words, nothing faster than light exists in this universe.

Even in an infinite universe, there are limits. One of those limits is the speed of light. In physics, this speed is built into the formulas used to calculate energy, mass, gravity, and even time itself. In other words, the speed of light is one of the fundamental constants that define this universe.

Why can't humans reach the speed of light? This can be explained with a simple equation. It comes from Einstein's theory of relativity, one of the most well-known formulas:

$$E=mc^2$$

This equation shows that energy (E) is equal to mass (m) multiplied by the square of the speed of light (c^2).

This is a very beautiful equation that expresses a deep truth about the universe. However, it only applies when an object is not moving. When an object is in motion (which is usually the case), the equation becomes:

$$E = \frac{mc^2}{\sqrt{1 - \frac{v^2}{c^2}}}$$

At first glance, this may look difficult, but it is actually quite simple. It is just the previous equation with one additional factor: the speed of the moving object, represented by v.

Now, let me invite you to imagine something. Suppose you are on a rocket, trying to get closer and closer to the speed of light. The speed of light is represented by c, so this means increasing v until it becomes equal to c.

In that case, the term

$$\frac{v^2}{c^2}$$

becomes 1, since $v^2 = c^2$.

So what happens next? If we look at the expression

$$1 - \frac{v^2}{c^2}$$

this becomes 1 - 1 = 0.

Now the denominator of the equation becomes the square root of 0, which is 0. That means the entire expression becomes:

$$mc^2 \div 0$$

And dividing by zero does not give a finite number—it leads to infinity.

Since this equation represents energy, the conclusion is this: reaching the speed of light would require infinite energy.

But infinite energy is not something that exists within this universe. No matter how advanced our technology becomes, we cannot generate infinite energy. Any energy we can produce is only a small part of the total energy of the universe. Because of this, within this universe, all moving objects have a limit to how fast they can go—and with our own power, we can never reach the speed of light.

But we can also say the opposite: if infinite energy did exist, then it might be possible to reach the speed of light—and perhaps even go beyond it. However, this goes beyond the definitions of physics, and so, in theory, it is considered impossible.

So, instead of looking only within the physical world, let us turn to the scriptures for an answer.

“And the Lord God said unto Moses: For mine own purpose have **I made these things**. Here is wisdom and **it remaineth in me**.” (Moses 1:31)

If all things in the universe were created by God, then God must possess all the energy required to create them.

“Energy beyond the entire universe” is something far beyond human imagination. In the world of modern physics, it would be considered nothing more than a fantasy. However, as Latter-day Saints, we believe that God is the Creator of the universe.

So, if we consider the possibility that God holds such an immeasurable source of energy, and then apply the same equations used in modern physics, we begin to see something very interesting.

Let us begin again with the equation:

$$E = \frac{mc^2}{\sqrt{1 - \frac{v^2}{c^2}}}$$

If we consider what it would mean for the energy E in this
equation to become infinite (∞), then regardless of the value of mass m, the simplest way for E to become infinite is for the velocity v to reach the speed of light c, causing the denominator of the equation to become zero.

In other words, we could say this: if God possesses infinite energy, then He could move at the speed of light.

However, the speed of light is only the limit within the world we live in. If something like time travel—going beyond this limit—were possible, then it may also be possible for God, who holds an energy greater than that of the entire universe, to move even faster than the speed of light.

Next, let us consider only the case where an object is not moving. In that case, the original equation applies:

$$E=mc^2$$

If we want the energy E to become infinite (∞), then the only part of this equation that can change is the mass m, since the speed of light c is a constant. Therefore, for E to become infinite, m must also become infinite.

In other words, infinite energy would require infinite mass.

Here, we arrive at a very surprising idea:

“God possesses mass beyond that of the universe itself.”

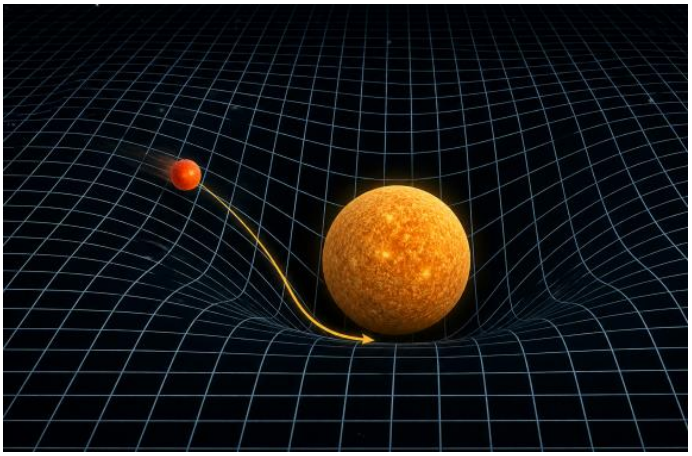
In other words, this leads to a very unexpected conclusion. We tend to imagine God as something that floats in the heavens, so when we think in terms of mass, we naturally picture something light. However, from a physical point of view, God must be a “heavy” being.

However, please do not be confused. When we speak of God as a “heavy” being, we are referring to a kind of mass far beyond anything in our ordinary experience—something like a vast concentration of energy. Because of this mass, God can stand in space and move freely through it. Let me explain why.

When explaining general relativity, Einstein described space and time as something like a large, stretched rubber sheet.

Imagine placing a heavy ball on that sheet. Its weight causes the sheet to sink. Then, if you place another small ball nearby, it will roll toward the first one and become trapped, unable to escape. This is how mass creates gravity.

Objects with mass—such as stars and planets—generate different amounts of gravitational force depending on how massive they are, and they pull other objects toward them. The heavier the object placed on the sheet, the deeper it sinks. In other words, greater mass produces stronger gravity.



This curvature does more than change the paths of planets—it can also affect light and even time itself. Because of this, the flow of time near a star or a planet is different from that on Earth. Time passes differently depending on where you are.

Interestingly, long before Einstein formally proposed the theory of relativity, similar ideas were already revealed to Joseph Smith.

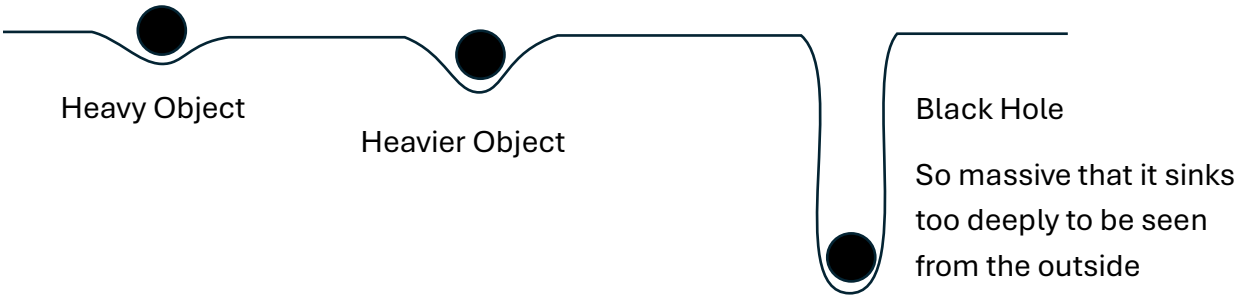
“In answer to the question—Is not the reckoning of God’s time, angel’s time, prophet’s time, and man’s time, **according to the planet on which they reside**? I answer, Yes.” (D&C 130:4-5)

“And the Lord said unto me, by the Urim and Thummim, that Kolob was after the manner of the Lord, according to its times and seasons in the revolutions thereof; that one revolution was a day unto the Lord, after his manner of reckoning, **it being one thousand years according to the time appointed unto that whereon thou standest. This is the reckoning of the Lord’s time, according to the reckoning of Kolob.**” (Abraham 3:4, see also Abraham 3:5–9)

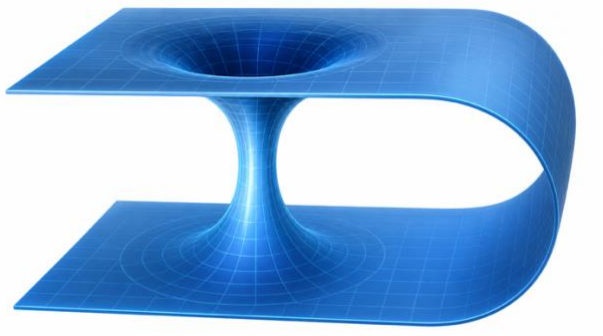
Now, there is something very interesting that humans have already discovered—an object that seems to break through space and time. It is called a black hole.

As we discussed earlier, on the “rubber sheet,” heavier objects sink more deeply. A black hole is an extreme example of this. It is so massive that it sinks infinitely deep. Because of this, we cannot see it at all—not even light can escape from it.

However, it does not mean that it has disappeared. It still exists, but it is as if there is a hole in the fabric of the universe itself.



Now, let us return to the earlier idea of the wormhole. This concept is based on mathematics. If space and time are like a flexible sheet, then by folding that sheet and opening a hole in the overlapping parts, two distant locations could be connected instantly—making travel between them possible.



But here is an important question: why has physics focused only on folding the “front side” of the sheet, without considering what might exist on the “other side”?

The answer is actually quite simple. Physics is based on observation and measurement. It builds theories using data that can be collected and verified. Even if the “other side” of space-time does exist, if we cannot observe or measure it, then it cannot be treated as part of physics. In other words, it lies outside the scope of science as a field of study.

However, within the framework of relativity, there is another interesting idea I would like to mention. It is called a “white hole.” Simply put, if a black hole is something that pulls everything in, then a white hole is something that pushes everything out. Some have suggested that a white hole could be the exit of a black hole.
However, this idea is sometimes called a “ghost” of physics. Although millions of black holes have been identified, it is said that across the universe there may be an enormous number—perhaps on the order of ten sextillion (10^{22}). And yet, no white hole has ever been observed.

Within the framework of physics, the “other side” of space-time is still considered part of the same continuum. So even if we imagine folding space, we are still inside the same universe. There is no concept, in physics, of a completely separate “outside” of the universe. That idea simply does not exist within its scope.

But what if there truly is something beyond the universe we live in?

“The angels **do not reside on a planet like this earth**; But **they reside in the presence of God, on a globe like a sea of glass and fire**, **where all things for their glory are manifest, past, present, and future, and are continually before the Lord**. The place where God resides is a great Urim and Thummim.” (D&C 130:6–8)

Returning to our line of thought: if God possesses a mass greater than the universe itself, then the space around Him would be curved beyond anything we can imagine. Like a black hole, the “fabric” of space would be stretched beyond its limit—until it could no longer hold together.

At that point, space would “break,” and what lies beyond would no longer be part of this universe. In that realm, time—as we understand it—would have no meaning.

From our perspective, bound within this universe, we can only see things in terms of time. But from God’s perspective, all things—past, present, and future—are always before Him.

Now, let us imagine what will happen on the final day, when this earth becomes Zion.

“Q. **What is the sea of glass** spoken of by John, 4th chapter, and 6th verse of the Revelation?
A. It is the earth, **in its sanctified, immortal, and eternal state**.” (D&C 77:1)

“This earth, **in its sanctified and immortal state, will be made like unto crystal** and will be a Urim and Thummim to the inhabitants who dwell thereon, whereby all things pertaining to an

inferior kingdom, or all kingdoms of a lower order, will be manifest to those who dwell on it; and this earth will be Christ's." (D&C 130:9)

When Jesus Christ appears upon the earth, bringing with Him a glory greater than all the energy of the universe, the veil that now covers us will be removed. In that moment, the earth will be purified as if by fire. It will become like a sea of glass, transformed into a state that can endure His glory.

"Therefore, it must needs be sanctified from all unrighteousness, that **it may be prepared for the celestial glory**; **For after it hath filled the measure of its creation, it shall be crowned with glory, even with the presence of God the Father**; That bodies who are of the celestial kingdom may possess it forever and ever; for, for this intent was it made and created, and for this intent are they sanctified." (D&C 88:18–20)

An exalted earth will receive the glory of God—that is, infinite energy—and will exist in a realm where such infinite energy can be sustained. From the perspective of physics, something with infinite mass cannot remain within this universe. Instead, it would bend the fabric of space beyond its limit, break through it, and move into another realm, shining there eternally—much like what we imagine as a "white hole."

And what remains in this universe, after the earth has "passed through," may appear as a deep and dark void—something like a black hole, from which even light cannot escape.

"**The worlds without number have I created**; and I also created them for mine own purpose." (Moses 1:33)

The countless black holes that exist throughout the universe may, perhaps, be traces of such a process.

If there is a world beyond this universe, then it may be a place where completely different elements can exist—elements unlike the 94 that make up everything in our current universe, elements that do not decay.

There, "eternal elements" may exist—elements that never break down or disappear. A body formed from such elements would be truly eternal, never to be separated or diminished.

"Now, behold, I have spoken unto you concerning the death of the mortal body, and also concerning the resurrection of the mortal body. I say unto you that **this mortal body is raised to an immortal body**, that is from death, even from the first death unto life, that **they can die no more; their spirits uniting with their bodies, never to be divided**; thus the whole becoming spiritual and immortal, that they can no more see corruption." (Alma 11:45)

Now that I have formed a tentative answer to my two questions, I would like to explain an idea I mentioned earlier: that when we speak of God as having mass beyond our ordinary experience—something like a vast concentration of energy—it is precisely because of this mass that He can stand in space and move freely through it. Let me explain why.

As illustrated with the rubber sheet example, space-time can bend and stretch due to mass. Mathematically, such a possibility can be described, but within the range accessible to human science, there is no known “mass,” “energy,” or “material” that can actually produce such effects at that level.

However, if God possesses mass beyond our ordinary experience—something like an infinite concentration of energy—then it follows that He would not be bound by the limits of space-time as we understand them.

Because of this, He could move freely through it—not by overcoming those limits, but by existing beyond them.

From our perspective, it may appear as though He moves instantly from one place to another. At the same time, He could also move across time, making it possible to reveal future events to His prophets.

Furthermore, if one can freely shape space-time, then gravity itself could be directed and adjusted. In other words, it would be possible to stand in space, or to rise and descend gently, freely and without constraint.

What I have written here began as questions that arose while I was studying the book of Isaiah, along with my attempt to think through them using ideas from physics. These thoughts are limited to what human knowledge has reached so far.

Yet, what we believe lies far beyond what human knowledge can fully comprehend. There is a depth of wisdom that we have not yet reached. Even so, the effort to draw closer to that truth—to seek to understand the existence of God through both scripture and the accumulated efforts of those who have studied the world before us—has been, for me, a source of great joy and gratitude.

“Which light proceedeth forth from the presence of God to fill the immensity of space—The light which is in all things, which giveth life to all things, which is the law by which all things are governed, even the power of God who sitteth upon his throne, who is in the bosom of eternity, who is in the midst of all things.” (D&C 88:12-13)