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Dead Universe Theory: From the End of the Big Bang to Beyond the Darkness and the Cosmic Origins of Black Holes

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Abstract

In exploring the enigmatic characteristics of the cosmos, this article introduces the "Dead Universe" theory, a profound reimagining of cosmic genesis and structure. It posits that our current observable universe is not an isolated phenomenon but rather a consequence of a much larger, older universe that has undergone a comprehensive collapse. This predecessor, termed the "Dead Universe," is theorized to exceed the observable cosmos in scale dramatically, enveloping it in a perpetual state of decay and darkness, fundamentally devoid of light. This theory elaborates on the origins and dynamics of our universe by suggesting it sprang from the remnants of this colossal "Dead Universe." Unlike traditional models where light and stellar activities define cosmic vitality, this theory presents a universe born from the ashes of a vast, dark predecessor, where light appears not as a constant but as a rare anomaly. It challenges the prevailing paradigms by proposing that the observable universe, with its stars and galaxies, resides within the core of a massive black hole—the heart of the dead universe. Here, the conventional laws of physics intertwine with the arcane rules of a universe that has ceased to be, yet profoundly influences the cosmic landscape we observe. Moreover, the "Dead Universe" hypothesis provides a novel framework for understanding not only the structure and behavior of our universe but also the anomalies like the Cosmic Microwave Background's Cold Spot. Such features are hypothesized as direct interactions between the remnants of the dead cosmos and our nascent universe, offering new avenues for astronomical research and theoretical physics. This alternative cosmological model invites a paradigm shift in our understanding of the universe's lifecycle, suggesting that what we perceive as the cosmos is merely the visible layer of a much larger, dynamic, and intricately connected cosmic entity. The implications of such a theory could revolutionize our search for dark matter and energy, redefining them within this broader, more complex cosmic narrative.

This framework not only enriches our grasp of the universe's history but also underscores the importance of reevaluating our foundational cosmological theories in light of such transformative ideas.

Subject Areas

Geophysics

Keywords

Dead Universe Theory, Cosmic Heat Death, Universe's End, Big Freeze Scenario, Universe's Ultimate Fate, Massive Black Holes, Axion Dark Matter, UNO Particle Theory, Cold Dark Universe, Dark Matter Dominance, Entropic Cosmology, Future of Cosmic Structures

1. Introduction to the Dead Universe Theory

The phenomenon of galactic redshift, traditionally interpreted as indicative of the universe's expansion, was originally observed by Edwin Hubble. Although widely accepted, this interpretation reflects the limitations of our observational capacity and prevailing theoretical assumptions. The 'Dead Universe' theory offers an alternative explanation, proposing that the observed distancing between galaxies does not result from a continuous universal expansion initiated by a primordial explosion or cosmic inflation. Instead, it suggests that this phenomenon is an intrinsic behavior of galaxies within a much larger and older cosmos—a universe that has completed its life cycle and now serves as a receptacle for the observable universe.

According to this perspective, the dynamics of expansion should be understood as manifestations of the laws that governed this "Dead Universe", not as consequences of an initial inflationary event. The observations of redshift, accurately identified by Hubble, do not necessarily corroborate the Big Bang theory in its entirety. Recent discoveries by the James Webb Space Telescope challenge some of the fundamental premises of the Big Bang, particularly regarding the uniformity and origin of cosmic expansion.

The "cosmic memories" of the dead universe continue to emerge in the form of new galaxies and stars, contradicting the notion of an expansion originating from a dense and hot point. The cosmic microwave background radiation, often interpreted as remnants of a hotter and denser past, is in fact a reflection of the initial conditions of a universe whose hot and dense nature has always been a primary characteristic, not resulting from a process of expansion or inflation.

Thus, Hubble's pioneering work remains valid concerning the direct observation of the motion of galaxies, but traditional interpretations of these observations are challenged by the implications of the 'Dead Universe' theory. This new model suggests that we need to rethink not only our conceptions of the universe's expansion but also the very origins and evolution of the cosmos. By doing so, we pave the way for a deeper and more integrated understanding of the cosmos, aligning astronomical observations with a broader and historically informed theoretical context.

The "Dead Universe" theory proposes two hypotheses to develop an alternative cosmological model that seeks to explain the genesis and evolution of our universe. The first hypothesis suggests that the term "death" should not be interpreted in the traditional sense of stellar death. Instead, it proposes that there has always been a structure immersed in darkness and chaos, composed of dark matter, dark energy, and possible hypothetical particles, such as axions and the UNO particle. These latter represent quantum fluctuations in the vacuum that still lack deeper and more robust explanations. The inclusion of hypotheses in this approach seeks to enrich scientific perspectives, providing new paths for future investigations. Each element of this theory is supported by a set of empirical observations that offer promising, albeit not conclusive, indications of its validity. In contrast to many other theories about the emergence and end of the observable universe, the "Dead Universe" theory avoids unfounded speculations and focuses on building a theoretical framework that can be refined and adjusted as new evidence emerges.

According to the second hypothesis, our universe could have originated from the remnants of a pre-existing universe, possibly hundreds of billions of times larger than the observable universe, now a 'deceased' immersed in the darkness from which primordial black holes originated. According to this hypothesis, the observable universe would be encapsulated within the core of a large black hole formed after the collapse and collision of this previous universe, which is completely dead. The 'Dead Universe' theory offers the only plausible explanation for the existence of unexplainable supermassive black holes, in addition to dark matter and dark energy in large quantities, proposing that the origin of these phenomena arose after the death of that universe, while we are the last living particles of this cosmos that still exerts strong activity on the observable universe, with phenomena such as the expansion of the universe and the folding of space-time, in addition to other unexplained phenomena of quantum mechanics that occur due to the effects of the laws of the dead universe on the laws of the observable universe.

This model challenges traditional Big Bang cosmology, offering new interpretations for phenomena such as dark matter, the accelerated expansion of the universe, and gravitational waves. With recent advances from the James Webb Space Telescope, discoveries of entirely 'dead' galaxies have been reported, suggesting that we may soon discover a universe billions of times larger than the observable universe in the depths of darkness. Furthermore, one of the hypotheses raised by this theory is that this universe is essentially dead, and that light is probably a cosmic anomaly that arose from the mergers that brought into existence the universe with light and life that we know. Unlike other theories, this one does not suggest that the collision of these black holes formed our universe. Instead, they began to emerge after the beginning of the collapse of the dead universe and, for this reason, in this continuous process of death, new supermassive black holes form as a factor of the cosmic memory of a once vibrant universe. On the other hand, according to the alternative hypothesis of a universe that was dead at its origin, composed of dark matter, dark energy, and light particles that gave life to the observable universe, black holes did not initially exist. The only way for them to actually exist would be through the death and collapse of galaxies and stars. Instead, it proposes that the observable universe is composed only of the finest particles of a dead universe. It presents a revolutionary cosmological model that offers a more comprehensive explanation of the origins of the universe and a new model for the natural distancing of galaxies by the influence of the unknown laws of the Dead Universe, describing a simple separation of galaxies in accordance with Hubble's laws, called "natural distancing of galaxies by the influence of the laws of physics', and not an aggressive expansion that leads to the disintegration of matter and the death of the universe, as suggested by the theory of universal expansion." Science should not move in the field of despair, even when a theory loses its validity in the face of new discoveries. Many speculative theories, despite offering intriguing narratives, do not have a robust scientific foundation. One of the most debated theories is the simulation hypothesis, popularized by Nick Bostrom, which suggests that our reality might be an advanced simulation created by a technologically advanced civilization. While this theory stimulates philosophical discussions about the nature of reality, it lacks direct empirical evidence and relies more on theoretical arguments than on observational data. Other speculative theories, such as the Stationary Universe theory, which proposes that the universe has always existed without significant changes in its overall scale, or more recent concepts like String Theory, which introduces multiple dimensions and interconnected universes, face similar challenges of verification.

Multiverse Theory: This theory suggests that there are many universes beyond ours, each possibly having different physical laws, constants, and initial conditions. The multiverse might include parallel universes, universes with different dimensions of space and time, or universes where conditions are radically different from ours. The Multiverse Theory is popular in some interpretations of quantum mechanics and in String Theory. It seems that the arguments proposed by these speculative theories tend to align more with narratives found in the entertainment industry, such as Marvel productions, than with the rigor demanded by the scientific field, which invests billions of dollars in research. Considering the significant investment involved in creating the James Webb Space Telescope, which includes billions of dollars and the involvement of more than ten thousand professionals, it is essential that the scientific community use its time effectively, focusing on theories that are grounded in robust empirical data rather than mere speculations. The Big Bang theory, despite its indelible contributions to our understanding of the universe, is currently challenged by new data that it cannot fully explain. It is in this context that the "dead universe" theory emerges as a promising alternative, proposing explanations for phenomena that the previous theory does not cover. Science advances based on seriousness, meticulous work, and continuous research, not through unfounded skepticism when an established theory faces limitations. It is predicted that the discoveries of the James Webb Space Telescope, which may include structures of billions of extinct galaxies, millions of black holes of "incalculable" sizes, and unexplored quantum anomalies, can now be interpreted through the "dead universe" theory. Thus, while the Big Bang theory approaches its estimated theoretical limit of 13.8 billion years, the "dead universe" theory offers a new path toward a more comprehensive understanding of the structure and evolution of the cosmos, thereby advancing science into the future. Inflationary Universe Theory: Proposed by Alan Guth and others, this theory suggests that the universe underwent a period of exponential expansion shortly after the Big Bang, called cosmic inflation. One of the implications of this theory is the possible existence of an "inflationary multiverse," where different regions of space stop inflating at different times, leading to the formation of many "bubble universes" isolated, each with its own physical laws and constants. Models of Cyclic or Oscillating Universe: These models propose that the universe undergoes repeated cycles of expansion and contraction. In these models, our observable universe could be just the latest phase of an eternal cycle of birth, development, and death of universes. The ekpyrotic theory, for example, is a modern version of the oscillating universe theory, suggesting that our universe is the result of the collision of two three-dimensional branes in a higher-dimensional spacetime. The main criticism of these theories is that, despite their ability to provoke the imagination and expand our conceptual thinking about the universe, they often fail to establish a productive dialogue with the standard scientific methodology. This is partly due to their highly theoretical nature and sometimes due to the lack of predictability or falsifiability. For example, the idea of parallel universes, while fascinating, does not present a clear path to verification, remaining more as a philosophical hypothesis than as an operational scientific theory. Reevaluating established theories is a natural part of scientific progress. As the Big Bang faces its limits, a new path emerges for the scientific community with the "dead universe" theory. This theory not only resonates with the available empirical data, such as Hubble's laws and the observation of phenomena such as dark energy and dark matter, but also offers a model that can integrate and explain anomalies that other theories cannot. The "dead universe" theory shines in the twinkling universe of cosmology and astronomy like a lone star amid a cosmos of speculative theories. It not only proposes a conceptual framework for the continued study of the origin and evolution of the universe, but also provides a basis for future investigations that may finally unravel the deepest mysteries of the cosmos. With its approach that respects both empirical evidence and established theories, the "dead universe" theory represents a promising new frontier for science, inviting the scientific community to redirect its research and perspectives in a direction that may finally illuminate the shadows that remain in the darkest corners of our cosmological understanding. Even theories like the multiverses, which propose an infinite conception of universes to explain the expansion of the observed universe, are based on observational data and Hubble's laws. Other theories, such as the Oscillating Universe, Big Rip, Heat Death, Loop Quantum Gravity, M Theory, and Cosmological Natural Selection, at some point interact with the Big Bang Theory to gain some scientific acceptance. When they significantly deviate from this theory, they tend to be categorized as speculative and more aligned with fiction than with science. In contrast, the "dead universe" theory is able to ground itself practically with sing well-substantiated empirical data, such as Hubble's laws, the General Theory of Relativity, and quantum phenomena, in a way that other speculative theories cannot. We cannot deny the continuous expansion of the universe, but we can rely on the natural distancing of galaxies, as proposed in the dead universe theory, to validate the observational data that Hubble brought us through his research on the redshift of galaxies. Everything that the Big Bang Theory can explain scientifically and through empirical evidence, the "dead universe" theory can explain consistently. Moreover, it goes further by presenting a plausible explanation for the existence of anomalies that the Big Bang Theory cannot explain, let alone the speculative theories. Phenomena such as black holes, the presence of dark energy, the Cold Spot of the universe, and the large amount of dark matter in the observable universe are some examples. This approach not only challenges existing theories but also stimulates a critical and innovative dialogue within the scientific community, proposing a redirection in current and future cosmological investigations. The "dead universe" theory emerges as a revolutionary approach, indicating that the universe we know is just a late manifestation of a much older and vaster cosmos that collapsed and "died". The genesis of the dead universe is under the scrutiny of the James Webb Telescope, which is approaching major discoveries and may better elucidate the dark age of the Dead Universe, defending the premises of a universe that previously existed without the existence of light, but in chaos and darkness. Therefore, this theory proposes the opposite: that the universe did not emerge from a hot state, but perhaps from an extremely cold one, according to this theory. In its second hypothesis, it sustains the existence of a universe billions of times larger than the observable universe that entered a state of stellar death, in a continuous process of death of galaxies and celestial bodies, where it revisits its cosmic memories creating new galaxies and stars, reviving its past of glory and greatness in its cosmic memories, but on reduced scales until the end of its life.

According to this theory, black holes are not the creators of the universe, but rather consequences of the disintegration of a "dead universe", formed by the death on a scale of billions of galaxies. This previous universe, from which the observable universe emerged, would have been exhausted and transformed into black holes, marking the end of its existence. The current observable universe, then, consists of the final particles of this extinct cosmos, destined to follow the same pattern of extinction.

The theory proposes that the end of the observable universe will not be marked by a cataclysmic event, but by a gradual transition to a state where black holes predominate, returning to the initial void similar to what existed before the emergence of any light or matter, where gravity had reduced matter to zero. This scenario contradicts the idea of a continuous universal expansion proposed by the Big Bang, offering a model where expansion is just a temporary stage of distancing galaxies, by the influences of the emerging laws of the dead universe, heralding its return caused to the original state of universal obscurity.

The "dead universe" theory proposes a creative view of the cosmos that challenges traditional conceptions and expands our understanding of the nature of the universe. This theory not only aligns with the relentless pursuit of science for new explanations but also opens doors to a deeper understanding of the cosmological features that the Big Bang model may not fully explain. First, it is important to recognize that science is always evolving. The history of science is full of theories that, although initially controversial or outside the deliberately established norms, eventually revolutionized our understanding across different disciplines. The "dead universe" theory fits into this tradition of challenging the status quo, proposing that the universe we observe is just the remnant of a previous and much larger cosmos that collapsed. This idea stimulates new lines of research in cosmology, particularly regarding dark matter, dark energy, and the very nature of black holes. Moreover, the theory sheds new light on cosmic microwave background radiation. Rather than being seen merely as a remnant of the Big Bang, under the lens of the dead universe, it could be interpreted as a complex interaction between the radiation of the previous universe and the birth of our own. This interpretation could explain some of the anomalies observed in the cosmic microwave background radiation that current models struggle to elucidate. Importantly, the approach that the dead universe theory offers about the end of the universe stands in contrast to cataclysmic scenarios often planned, such as the Big Rip or the Big Crunch, suggesting a gradual return to a state of "cold and darkness" that is more consistent with the second law of thermodynamics. This gradualism provides a theoretical framework that may be more aligned with current observations of the increasing update of the natural distancing of galaxies by the influences of the laws of the dead universe as proposed in this theory. The ability of the dead universe theory to inspire new research should not be underestimated. The James Webb Space Telescope and future missions may seek evidence of a pre-existing universe, challenging our understanding of the origin and evolution of the cosmos. These investigations may reveal completely new results and lead to innovative advances in physics and cosmology. Finally, the provocative nature of the "dead universe" theory is exactly what science needs to advance. By questioning the established model, it not only fosters healthy academic debate but also stimulates the scientific community to reexamine and test the foundations of our most accepted cosmological theories. This is essential for scientific progress [1]-[3].

2. Fundamentals of the Dead Universe Theory

The "Dead Universe" theory proposes a view where our cosmos is the legacy of an ancestral reality whose grandeur has long dissipated into the mists of time. The universe we inhabit can be seen as a diluted echo of a vibrant and expansive cosmic past. In this perspective, black holes, populating our night sky, are not catalysts of genesis, but remnants of a previous cosmic end, markers of the tombs of galaxies and stars long perished. Each star system, each nebula we capture through our telescopes, might be a manifestation of cosmic memory, a persistent whisper from a universe that has completed its cycle. In this view, dark matter and dark energy are reimagined as residual marks of that ancient era, perhaps the last vestiges of a once dynamic cosmic structure.

The young galaxies we witness are not born from the void, but conceived from the remnants of a pre-existing structure in a state of noble and measured dissolution. Similar to the birth of stars from dense cosmic nurseries, our universe may have been partially shaped by the debris left by its predecessor. The vibrant stars and galaxies we observe, in their billions of years of existence, could very well be the ultimate creations of a past universe. On the verge of its cessation, it still possessed the capacity to engender new celestial structures, suggesting that the end of one cosmic cycle and the beginning of another are intrinsically interconnected, leading to an apex projected to occur about 200 billion years from now. These phenomena, observable in our current universe, obey the immutable laws of conservation and transmutation that govern all natural reality.

These emerging galaxies can be interpreted as the final echoes or shimmering remnants of a cosmos that no longer exists. They are fragments of a vast stellar heritage, the final murmur of a universe that once thrived on scale and energetic richness. Thus, we reside in the twilight of a glorious cosmic history, witnessing what might be considered the "last dance" of light and matter emanating from a universe that has faded away. What we discern as our stellar reality is merely the residue—a modest yet still animated segment of a far grander existence than we can comprehend, stretching beyond our temporal and spatial reach. Essentially, everything that exists, everything we behold, and everything we might come to understand merely represents the enduring fragments in time and space, the eternal signature of the dead universe.

As this process unfolds, the density and complexity of the universe diminish. Where there once were dense clusters of matter and energy, now there are increasingly vast and empty spaces, dotted by isolated islands of stellar activity. Observing young galaxies through the James Webb Space Telescope thus serves as a glimpse of this process of decline, revealing the final stages of a cosmos we are just beginning to understand.

In this framework, the death of the ancestral universe was not an abrupt event, but a prolonged phenomenon that allowed the gradual emergence of new structures from its ruins. Black holes, rather than being catalysts for a new birth, are the final guardians of the cosmic memory of the preceding universe, storing in their gravitational abysses the history of all that once was.

The "Dead Universe" theory is essential for understanding our cosmic fate, focusing not on active galaxies, but on contemplating the oldest structures and carefully observing celestial phenomena such as black holes. Such investigations may reveal crucial clues about the primordial universe and provide a more comprehensive understanding of its beginning and end, avoiding repetitive cycles. The firmament that stretches beyond the known stars and galaxies is not a vacuum devoid of existence, but rather a vastness filled with merging supermassive black holes, a universe where complete absence of light reigns, planets submerged in darkness, and where dark matter prevails with incomparable density, even suggesting the presence of particles unknown to our visible universe.

The existence of supermassive entities, whose dimensions exceed by tens of billions those of the largest cataloged entities, and whose gravitation shapes entirely inert galaxies hidden in the shadows, is in perfect harmony with the laws governing the mechanics of this still palpable universe, even in the complete absence of light. According to the "Dead Universe" theory, light, or its absence, is not the determining criterion in characterizing a universe. The advent of such understanding, challenging the notion that our universe is limited to an age of 13.5 billion years, suggests that we should prepare for a paradigm shift, as we undoubtedly have only a brief interval to realize that our previous conceptions may have been mistaken for a long period.

As we advance towards the truth, it is necessary to detach ourselves from less comprehensive theories like the Big Bang, which, while predictive, now gives way to a simpler and more elucidative model. The "Dead Universe" theory stands out for its clarity and the way it rationalizes observational data, offering a straightforward perspective on the empirical evidence that points to a universe characterized by a singular genesis followed by a definitive conclusion. We are on the right path, but embraced by misguided theories.

Black holes, often visualized as catacombs of nascent galaxies, exemplify the inexorable decline of our cosmos towards the vast void of a colossal black hole, a remnant of the preceding universe. This view offers an enlightening interpretation of the enigmatic proliferation of dark matter that permeates the visible universe. Therefore, we inhabit the cradle of a cosmic stellar sepulcher; and when the time comes for our universe to succumb, its epitaph will have been preordained by the long-consumed dementia of the ancient deceased universe.

The young galaxies recently discovered by the James Webb Space Telescope may be perceived as the final echoes of an observable universe that is, in essence, the luminous vestige of an extinct cosmos. These galaxies are the heirs to a broad stellar legacy, merely the final whispers of a universe once expansive and rich in energy. We live, therefore, in the shadow of ancient cosmic splendor, witnessing what may well be considered the twilight of the interaction between light and matter—the radiant conclusion of a universe in decline. Our current stellar reality is just a distant echo—a delicate yet still resonant fragment of a reality much more extensive than transcends the known limits of time and space. At the heart of our existence, everything that exists, everything we observe, and everything within our grasp of understanding are just the preserved remains of a larger universe that disappeared, the enduring and immortal signature of a dead universe.

3. The Dead Universe Theory Hypotheses

The hypotheses of the "Dead Universe" suggest an alternative cosmological model. It explores the origin and evolution of our universe from the chaos of a pre-existing universe. This previous universe would be composed of exotic and hypothetical shadow elements. According to this theory, this "dead universe" would be billions of times larger than our observable universe. It would be mainly composed of dark matter, dark energy, and hypothetical particles such as axions and UNO (A New Order of invisible particles).

At the beginning of the Book of Genesis, we find a fundamental description of the universe's creation that offers an interesting perspective on the origin of light relative to darkness:

The connection to the Dead Universe Theory is evident: both in theology and science, light emerges as an anomaly in an originally dark and chaotic cosmos. From the perspective of the Dead Universe, the light and energetic activity we observe today (such as in stars and the Sun) can be seen as interruptions in a universe that, in its essence, is inert and somber. This cosmological paradigm proposes that, as in the Genesis account, light is not a constant but an exception—a temporary and anomalous phenomenon in a universe that is, by nature, dark.

Two hypotheses are advanced within the framework of the "Dead Universe" theory. Initially, the term "dead" is redefined, transcending the traditional notion of stellar extinction, to denote a universe whose fundamental characteristic since its inception is the intrinsic absence of light. In this model, light is considered a cosmic anomaly arising from fusion and collision events between supermassive bodies within the expanse of a primordial dark universe. Furthermore, this theory asserts that black holes and fusions are not the creators of the universe in which we reside.

The first hypothesis postulates that phenomena such as supermassive black holes, dark energy, and dark matter constitute the elementary components of this primordial universe. Interestingly, light appears under specific circumstances, possibly as a byproduct of complex gravitational interactions, acting as a catalyst for the transition to an illuminated cosmos similar to what we observe today.

The second hypothesis proposes that an ancestral universe, vastly larger than the currently known cosmos, serves as the final relic for the death that devastated all galaxies and extinguished the light of a once vibrant universe. This predecessor universe could provide crucial evidence of cosmological processes that culminated in the current observable state of the universe.

The Dead Universe, in its nature, may be composed of Axion particles and possibly the UNO particle proposed in the article [4]. This perspective proposes an inevitable break from the conventional Big Bang theory, particularly concerning dark matter, the expansion of the universe, and the interpretation of phenomena such as gravitational waves.

After the collapse of this vast cosmos, without light and in chaos, matter and light emerged from the darkness as cosmic anomalies. These anomalies compose the primitive reality of this dead universe, characterized by black holes. In its remote origins, this universe exists in a vast darkness where inactivity prevails. However, it still influences phenomena such as the separation of galaxies under the laws of the dead universe.

Within this cosmic abyss, complex and highly improbable fusions occurred. These fusions involve interactions between axions, UNO particles, and other exotic components. They were born from extreme conditions and a rare convergence of energies. They resulted in small ruptures in the structure of the dead universe, giving rise to luminous phenomena and the matter we know.

These ruptures, though anomalous and limited in scope, were powerful enough to create bubbles of existence. Our observable universe is one of these bubbles, encapsulated within a black hole of this dead universe (See Figure 1).

Image Credits: Global Journals. Source: Global Journals.

Figure 1. In this article were generated using advanced computational technology, specifically designed to visually represent complex astrophysical concepts. Each visualization is crafted through precise algorithms to reflect the intricacies of theories like the "Dead Universe," utilizing specific parameters based on scientific data and theoretical models to ensure the most accurate representation possible within the theoretical context presented.

These fusions are not simple events but intricate processes that defy conventional laws of physics. They occur in a scenario where the collapse of space-time allows exotic particles to merge in ways that would normally be impossible. The resulting light and matter are seen as byproducts of these anomalous cosmic fusions. They represent exceptions in a predominantly dark and stagnant universe.

In essence, these fusions act as resurgence mechanisms within a dead system, where life and light are only brief flashes in a vast sea of darkness.

Theories such as the Antiuniverse, Multiverse, Universe as an Information Processor, Big Rip, Big Freeze, Hubble's Theory of Universe Expansion, and even Albert Einstein's Theory of General Relativity depend on the Big Bang model for their support. The Big Bang has served as the foundation for these theories for many years, providing an essential theoretical base.

On the other hand, the Dead Universe Theory offers an alternative cosmological model that does not rely on the Big Bang as its foundation. It proposes that our current universe is merely a small part of the remnants of a preexisting universe, billions of times larger than the observable universe. This dead universe was primarily composed of a cold mass of exotic elements such as axions, dark matter, dark energy, and UNO particles. The Dead Universe Theory challenges traditional notions and compels us to reconsider the origins of the cosmos from a new perspective.

"The cold axion population is produced in the process of axion field relaxation, commonly called vacuum realignment. The key point is that when the axion mass becomes larger than the inverse age of the universe at that time, the axion field is not initially at the minimum of its effective potential. It then begins to oscillate, and since the axion is very weakly coupled, these oscillations do not dissipate into other forms of energy. The energy density in relic axion field oscillations is a form of cold dark matter (Ipser and Sikivie, 1983). In fact, among all widely considered dark matter candidates, axions are the coldest."—Sikivie, Pierre [1].

4. Foundations for an Astrophysics of Shadows and the Origins of the Dead Universe

On the other hand, the Dead Universe Theory directs us to experiments through simulations with greater rigor, especially regarding the new generation of astrophysicists who are working with the support of quantum computing. As a proposed model, the Dead Universe Theory proves adequate and capable of establishing itself solidly on the evidence and observations. These technological advances enable simulations and models that reveal new perspectives on the formation and evolution of the universe (See **Figure 2**).

Unlike other theories that face difficulties in reconciling quantum and relativistic concepts, the Dead Universe Theory not only aligns with general relativity and quantum mechanics but also strengthens them. It offers a new view of the universe's expansion and the nature of galaxies, providing a more comprehensive and cohesive explanation for phenomena like the cold spot of the universe that traditional theories cannot fully explain.

Recent observations by the James Webb Space Telescope of galaxies that are "dead" provide empirical evidence of a stellar death escalation in the past cosmos, which may support the theory that soon we may discover a universe much larger than the observable one in the depths of darkness. A secondary hypothesis of this theory posits that our universe is inherently dead and that light is a cosmic anomaly resulting from cataclysmic mergers that gave rise to the luminous and living universe as we know it today.

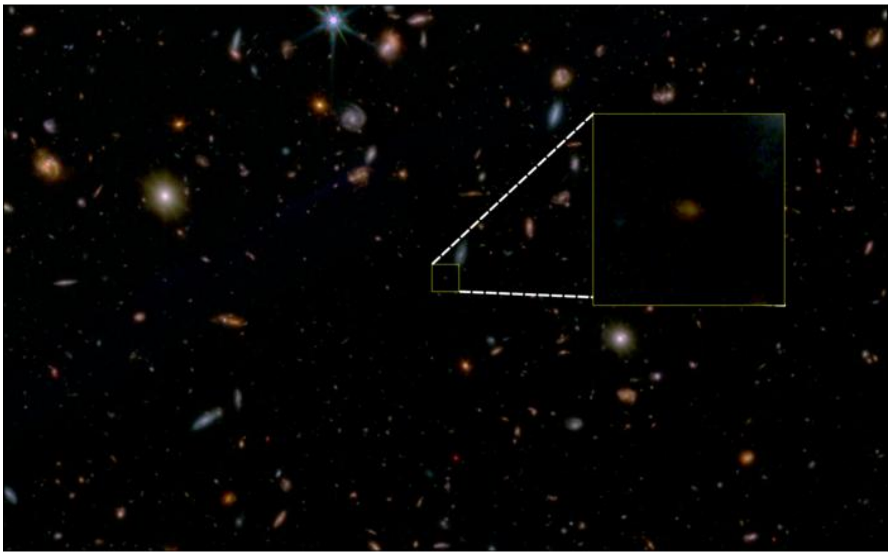

Image: JWST false-color image of a small fraction of the GOODS-South field, highlighting JADES-GS-z7-01-QU, an extremely rare type of galaxy. Credit: JADES Collaboration. License: Public Domain.

Figure 2. Astronomers discover the oldest "Dead" galaxy ever observed.

In light of the "Dead Universe" theory, where darkness precedes light, the biblical references to God's association with darkness can be viewed through a scientific and cosmological lens. When Solomon states in 2 Chronicles 6:1, "The Lord said that He would dwell in thick darkness," and Psalm 18:11 mentions, "He made darkness His hiding place; His canopy around Him was dark waters and thick clouds of the skies," these verses can be interpreted as metaphors for the primordial state of the cosmos.

The "Dead Universe" theory suggests that before the emergence of light, the universe existed in a state of total darkness—a condition that, far from being merely the absence of light, represents the original and fundamental nature of the universe. This darkness, much like the biblical portrayal, embodies mystery, power, and the incomprehensible nature of the universe's origins. Just as God's presence in darkness signifies His transcendence and inaccessibility, the darkness of the early universe can be seen as a state of potential, where the laws and conditions that govern our cosmos were hidden and unfathomable until the anomaly of light emerged, bringing forth the observable universe.

In this context, the thick darkness that surrounds God may symbolize the primordial universe—a vast, enigmatic realm of potentiality, where the principles that would eventually give rise to light and matter were concealed within the depths of cosmic darkness. Thus, the scriptural portrayal of God dwelling in darkness aligns with the scientific notion that the universe's origins are rooted in a dark, hidden state, from which light and creation eventually emerged.

These biblical passages dialogue with contemporary theories about the universe, suggesting that the cosmos' primordial state—characterized by darkness and chaos—is both a scientific reality and a religious perception.

Beyond the conventional view that supports the natural paradigm of the universe in its current state, a second hypothesis can be considered. This second perspective, grounded in the theory of the Dead Universe, proposes an alternative interpretation of celestial phenomena, including the behavior of stars.

As we gaze upon the Sun and other stars, it's hard not to ponder the strangeness of their apparent frenzied activity. The intense emissions of light and radiation emanating from these celestial bodies may appear incompatible with the conception of a dead and inert universe. However, by embracing the theory of the Dead Universe, we can perceive this activity as an anomaly that precipitated the existence of the universe as we comprehend it.

Within the framework of the Dead Universe theory, two hypotheses hold sway. The first postulates a universe in its natural state of death, wherein light would be regarded as an alien presence amidst the otherwise dormant cosmos. The second hypothesis introduces a grander notion: a universe trillions of times larger than our current one, which gradually slipped into a continual state of death. In this expansive cosmos, comprised of light and normal stars, the very essence of existence was altered, manifesting a state where light and stellar phenomena were commonplace. By delving into these hypotheses, we are compelled to reevaluate our understanding of cosmic phenomena. Rather than mere aberrations, they become enigmatic clues, hinting at the profound intricacies of the universe's genesis and its potential demise.

According to the Dead Universe theory, the natural state of the cosmos would be one of total inactivity, without the presence of bright stars, solar flares, or any other form of radiant energy. In this paradigm, starlight and the energetic events associated with it would be seen as unusual disturbances in a universe that would otherwise remain in a state of eternal calm.

Solar flares, coronal mass ejections, and other stellar phenomena would be interpreted as temporary deviations from the inert equilibrium that characterizes the Dead Universe. These manifestations of extreme energy activity would be considered anomalies that arose from exceptional conditions or catastrophic events within this supposedly static universe.

Therefore, by embracing the Dead Universe theory, we are led to reassess our understanding of starlight and celestial phenomena. Instead of being viewed as natural aspects of the cosmos, they become signs of a fundamental disruption that gave rise to the universe as we know it. This alternative perspective challenges our conventional perception and invites us to explore new ways of understanding the nature and origin of the cosmos.

Anomaly of Light: Light, a fundamental manifestation of electromagnetic energy, occupies a pivotal role in the physics of the universe as we know it. To propose that light is an anomaly in this theory is not simply to invoke complexity; rather, it offers answers to some of the most profound questions in classical physics. This approach does not just reinterpret established physical concepts but also proposes a new way to understand the nature of the universe.

The creation of light in stars is a complex process that primarily occurs through thermonuclear reactions in their cores.

Nuclear Fusion: The primary mechanism for creating light in stars is nuclear fusion. In the stellar core, especially in stars like the Sun, hydrogen atoms are fused to form helium in a process called nuclear fusion. During this fusion, a small fraction of the atoms' mass is converted into energy according to the famous equation by Einstein, $E = mc^2$. This energy is released in the form of light and heat.

Pressure of Radiation and Gravitational Pressure: Within a star, nuclear fusion generates an immense amount of energy in the form of radiation and high-energy particles. This radiation exerts an outward pressure in all directions. Simultaneously, the star's massive mass creates a significant gravitational attraction, attempting to compress it toward the center. Hydrostatic equilibrium occurs when these two forces-radiation pressure outward and gravity inward-balance each other.

Fusion Cycle: In the sun and other stars of similar size, the primary fusion process is the proton-proton cycle, where four hydrogen nuclei combine to form a helium nucleus, releasing photons (light particles) in the process.

Gravitational Pressure: Nuclear fusion only occurs in stars due to the immense gravitational pressure in their cores, which forces the hydrogen nuclei to approach close enough to overcome the electrical repulsion between them and allow fusion.

Hydrostatic equilibrium: The light generated by nuclear fusion exerts an outward pressure, balancing the force of gravity that is trying to compress the star. This hydrostatic equilibrium keeps the star stable and in its current state.

Pressure of radiation and gravitational pressure: Within a star, nuclear fusion generates an immense amount of energy in the form of radiation and high-energy particles. This radiation exerts an outward pressure in all directions. At the same time, the massive mass of the star generates a significant gravitational attraction, attempting to compress it toward the center. Hydrostatic equilibrium occurs when these two forces-radiation pressure outward and gravity inward-balance each other.

Stellar stability: When hydrostatic equilibrium is achieved, the star becomes stable. Any disturbance that causes an imbalance between radiation pressure and gravity will result in changes in the stellar structure. For example, if radiation pressure decreases, gravity will begin to compress the star, increasing pressure and temperature at its core. This may lead to an acceleration in the rate of nuclear fusion to restore equilibrium. On the other hand, if radiation pressure becomes too intense, it can overcome gravity and expand the star, resulting in an eventual explosion or ejection of stellar material.

Stellar lifecycle: Hydrostatic equilibrium is crucial to understanding the lifecycle of stars. For most of their lives, stars maintain this equilibrium, remaining stable and generating energy through nuclear fusion. However, as nuclear fuel is consumed, radiation pressure decreases and gravity begins to dominate. Depending on the mass of the star, this can result in different fates, such as transformation into a red giant, supernova, or even a black hole.

Dynamic equilibrium: It is important to note that hydrostatic equilibrium is not a static state but rather a dynamic balance. Conditions within a star are constantly changing due to energy production, movement of stellar material, and other physical interactions. However, hydrostatic equilibrium is essential to ensure that these changes occur in a controlled and balanced manner, keeping the star relatively stable throughout its life.

The premise that, in the origins of the universe, light was not present; it was created subsequently. Whether according to the belief of creationists, who suggest that the universe was shrouded in darkness and that God said "let there be light," or from the scientific perspective of these primordial events, it is undeniable that darkness preceded light.

Primitive Elements: While black holes, dark matter, and dark energy are well-established concepts in modern cosmology, they are generally regarded as emergent phenomena and not necessarily as primordial components of the universe. Nevertheless, the dead universe theory provides a plausible explanation for their origins, presenting them as fundamental elements of a previously inert cosmos. Although dark matter and dark energy are areas of intense research and debate, with their origins still undefined by consensus, this theory presents one of the first rational approaches attempting to elucidate these enigmatic phenomena.

Expansion of Cosmic Understanding: These ideas challenge our imagination regarding the universe and provide fertile ground for theoretical discussions and speculative narratives. Although they remain distant from current scientific consensus, these theoretical considerations seek to expand our comprehension of the possible states of the universe and the fundamental forces that govern its evolution and potential finality. Thus, while respecting the limitations of endorsed scientific knowledge, these propositions allow for speculative exploration based on alternative theories and hypotheses.

The "dead universe" theory implies that the cosmos we know is the residual aftermath of a bygone vastness, where the concept of stellar birth is reversed to universal death. In this scenario, black holes are not the catalysts of creation but rather the epitaph of a universe that has expended its vitality. Rather than being generative singularities, these primordial black holes are the remaining gravitational beacons of a cosmos that no longer exists.

The galaxies and stars we observe, in their seeming youthfulness, are actually the embers of a cosmic fire long extinguished.

Dark matter and dark energy, the enigmatic elements of our universe, may be interpreted as the faint echo of this ultimate cataclysmic event.

Among the theories describing the ultimate fate of the universe, hypotheses of the "Big Freeze," "Big Rip," "Big Crunch," and "Big Slurp" suggest dramatic scenarios based on the continuous expansion, contraction, or phase transitions of space-time. However, the theory of the "Dead Universe" presents a more serene and fundamentally different outcome for the cosmos.

5. Axion and Uno Particles as Quantum Fluctuations of the Vacuum

Regarding the idea of considering axions and hypothetical UNO particles as quantum fluctuations of the vacuum, presented in this article aims to open paths under the research from the new discoveries under the perspective of the dead universe theory. This approach in the coming years is founded on cutting-edge topics in cosmology and particle physics. Axions are already a popular candidate in physics to solve the strong CP problem and potentially explain dark matter. This proposal to integrate them with another theoretical particle like UNO in the framework of quantum fluctuations opens a path to new models that may offer explanations for some unresolved phenomena in the standard cosmological model.

This concept aligns with the search for new physics that could extend beyond the Standard Model and provide evidence about the conditions of the early universe's structure in the dark and the nature of dark matter and energy. If axions and the proposed UNO particles could be substantiated with empirical data, it could significantly advance our understanding of cosmic evolution and fundamental forces. It is crucial that these ideas are supported by rigorous theoretical foundations and, eventually, by experimental evidence to gain broader acceptance in the scientific community, therefore, these conceptions cannot be considered speculative, given that there are various studies.

Dmitry Levkov's study on axion-like dark matter and Bose stars, presented at the international seminar "Quarks-2024," offers robust theoretical support and innovative perspectives that could significantly enrich the theory of a hypothesis that there once existed a universe of a dark nature, composed of black holes, dark energy, dark matter, and an abundance of light particles such as axions and UNO particles as quantum vacuum fluctuations [4].

This mechanism suggests that axions and possibly UNO particles could be fundamental components of dark matter, a hypothesis aligned with the quest to explain the nature and composition of dark matter in the universe.

Quantum Fluctuations and Universe Structure: The theory of axions as quantum fluctuations of the vacuum is supported by Levkov's detailed explanation of how explicit symmetry breaking (via instantons) and the low levels of interaction of these particles with photons and fermions contribute to the cosmological model. This theoretical foundation opens pathways to investigate how small fluctuations in the quantum vacuum might have macroscopic effects, perhaps explaining not only dark matter but also the structural evolution of the universe [4].

Consistency with Current Models and Innovation: Levkov's practical application of the theory shows that the ideas of axions and UNO particles not only align with contemporary physics but also propose a natural extension of current models. The notion that dark matter could consist of these light particles, with extremely weak interactions and very small mass, fits well into the theory of the universe as a dynamic and evolving system influenced by fundamental fluctuations [4].

Importance of Empirical Data: The research points to the critical need for empirical data to validate these theories, something you have also highlighted. Levkov mentions several experimental initiatives aimed at detecting axions and studying their properties, which could provide the necessary confirmation for the theories of quantum vacuum fluctuations [4].

Future Advances and Research: Dmitry Levkov's study suggests that future advances in detecting axions and understanding their properties under cosmological conditions could be decisive. This underscores the importance of continuing to investigate and refine models that integrate axions and UNO particles, with the potential to reveal unknown aspects of the origin and structure of the universe [4].

Origin: Axions are hypothetical particles initially proposed to solve the CP symmetry violation problem in particle physics, specifically in the context of strong interactions.

Properties: Axions are neutral particles with low mass and weak coupling with ordinary matter and electromagnetic fields. They are considered candidates for cold dark matter due to their ability to interact very weakly with other particles and fields.

Cosmological Implications: As dark matter, axions do not absorb, emit, or reflect light, making them invisible and primarily detectable by their gravitational effects.

UNO PARTICLE (NEW ORDER OF INVISIBLE PARTICLES)

Concept: In this scenario, we assume that the UNO particle is a new form of "neutrino" with universal oscillatory properties, potentially capable of transmuting between different types of mass and energy.

Properties: We suggest that the UNO particle can oscillate between different energy states, possibly allowing the conversion of dark energy into ordinary matter or radiation under certain conditions.

Role in the Universe: The UNO could be a catalyst for converting energy forms in the early universe, influencing the formation of the first galaxies and stars, and possibly acting as a bridge between dark matter and visible matter.

6. Interaction between Axion and Uno

The central hypothesis is that at the beginning of the universe, Axion mass particles, forming a dark matter field, began interacting with UNO particles. This interaction could involve the transfer of energy from Axions to UNO particles, resulting in oscillations that convert this energy into electromagnetic radiation—light. This light could form the basis for the observable universe we know.

The Dead Universe is described as a completely dark space, composed of Axion particles, UNO particles, and dark matter. Additionally, there are dark radiation stars, dark nebulas, and planets immersed in darkness and chaos. These characteristics align with the initial hypothesis of a Dead Universe composed of inert stellar elements. Simultaneously, the second hypothesis suggests that this darkness and chaos result from stellar death on a massive scale. In both scenarios, the Dead

Universe remains a vastly unknown structure where life and light are rare exceptions in a predominantly extinguished cosmos.

The representation in the image is based on the "Dead Universe" theory, a new interpretation of the cosmos' origin and evolution. This hypothesis suggests that our universe may have originated from the remnants of a previous universe and that we are merely remaining fragments of a cosmos that entered a state of stellar death or that, in its original nature, was essentially dead. Thus, we inhabit an immense black hole, while countless supermassive bodies are situated on the margins of this Dead Universe. Possibly, supermassive black holes exist, some of which, in a single unit, may be larger than the observable universe.

Behind the primary conception of the Dead Universe, in the sense of stellar death, numerous galaxies are inert. The dating of the Big Bang, estimated at 13.8 billion years, may be reconsidered to understand that the universe's structure may have much more time. Studying these dead galaxies, just as we study dinosaur fossils, and with the help of technology and quantum computing, we may conclude that we have been wrong for more than 100 years. In the second hypothesis, as proposed in this article, the Dead Universe theory assumes a different perspective, while the Big Bang model completely loses its validity as a paradigm for studying this primitive structure. In this hypothesis, the Dead Universe still exists in hypothetical primitive particles, such as UNO, Axion, dark energy, and dark matter (See Figure 3).

Image Credits: Global Journals. Source: Global Journals.

Figure 3. The images in this article were generated using computational technology designed to visually represent complex astrophysical concepts. Each visualization is created through precise algorithms to reflect the intricacies of the "Dead Universe" theories, utilizing specific parameters based on scientific data and theoretical models to ensure the most accurate representation possible within the theoretical context presented. Image Credits: Global Journals. https://globaljournals.org/.

We can formulate a simplified equation to describe the rate of energy conversion from Axions to light through interaction with UNO particles:

The image above illustrates the theoretical interaction between Axion particles and UNO particles, which could have led to the formation of the observable universe. Axion particles form a dark matter field that, when interacting with UNO particles, results in the conversion of energy into electromagnetic radiation, or light, thus creating the universe we know.

Between the observable universe and the dead universe, there is a layer of plasma composed of Axion particles and another layer of UNO particles. The Axion plasma, which is the origin of the dark matter that forms black holes, acts as a barrier, while the UNO plasma, being invisible, allows for the separation and interaction of the two regions. Within a magnetic field, Axions could generate a small electric field, creating oscillations in the plasma, similar to tuning a radio to find the correct dark matter frequency.

7. Observable Universe

The observable universe, which is just the last particles of the dead cosmos, is located inside an immense black hole formed from the death of the dead universe that became an entity without light. It is possible that, upon entering a black hole, our universe's fate is a transition to the "dead universe"—an ancient cosmic structure that interacts with the remaining memories of the cosmos, activated by the death of stars and galaxies under its fundamental laws.

Our observable universe, characterized by lights and galaxies, can be seen as a cosmic anomaly, as proposed in the second hypothesis of the Dead Universe Theory. These anomalies result from the initial interaction between Axion particles and UNO particles during the birth of our universe, suggesting that the luminous state in which we exist is an exception in a vastly dark and stagnant cosmos.

In the theory of the "Dead Universe," the observed expansion is not the result of an initial impulse from an explosion, as in the Big Bang, but is seen as a simple distancing of galaxies due to the influence of gravity and other yet-to-be-understood laws emanating from the nature of the "Dead Universe" itself. This movement is interpreted as a manifestation of the intrinsic and residual properties of a cosmos that is no longer active in the traditional sense.

In other words, while Hubble's Law describes what we observe, the theory of the "Dead Universe" attempts to explain why we observe it. It suggests that the unknown laws of the "Dead Universe" may be residual forces or echoes of a previous cosmic reality, which now direct the dynamics of the observable universe. These forces could be different from the known classical gravity and could explain why galaxies continue to move apart even when the original energy of the Big Bang should have dissipated.

Therefore, the expansion would not be a sign of continuous growth or birth, but a gradual return to the quiescent and fundamental state of the "Dead Universe", a final state of rest after the end of anomalies like light and the complex structures that characterize our current universe. Thus, the theory of the "Dead Universe" adds a new layer of understanding to the ultimate fate of the cosmos and offers an intriguing counterpoint to prevailing cosmological theories.

8. Dead Universe

Surrounding the observable universe is the "dead universe," a vast dark region estimated to be a trillion times larger than the visible universe. This universe is predominantly composed of Axion particles, which form dark matter fields, and UNO particles, which are invisible and hypothetical. Stars and planets within this dead universe are formed by dark matter and Axion particles, without emitting luminous radiation, making it completely opaque and dark. The idea is that, upon entering a black hole, we could end up in the dead universe, which is the primordial space from which our observable universe emerged.

The "Dead Universe" theory proposes an alternative view to the traditional concept of an expanding or cyclically regenerating universe. Instead of continuously inflating or undergoing processes of rebirth, the universe is thought to be in a prolonged state of decay, possibly lasting for trillions of years. This perspective suggests that the cosmos is actually slowly retracting and gradually losing its vitality.

From a scientific standpoint, this theory posits that dead galaxies—those that no longer form new stars and whose stellar fusion processes have ceased—are evidence of a dying universe. These now inactive galaxies represent cosmic remnants that have exhausted their fuel for star creation. The stellar formation process that still occurs in some regions of the universe can be seen as the "last breath" of a declining cosmos, replicating its cosmic memories as its energy slowly dissipates.

Supernovae and young stars that still shine in the vast emptiness of the universe are not necessarily signs of vitality but may be understood as remnants of an ancient process, a residual manifestation of what was once a vibrant universe. As time passes, these cosmic events become less frequent, and the universe approaches a state of maximum entropy—where all usable energy is dispersed, and cosmic activity ceases entirely.

In this scenario, the universe is not expanding infinitely, but galaxies continue to move away from each other due to the residual influence of the "dead universe" laws. While we still observe the formation of new stars, the universe, in its essence, is in a state of decline compared to its more remote times. Galaxies are dying and gradually fading, and this process of cosmic death intensifies as time progresses.

The idea that the universe is "losing its breath" suggests that, instead of a future marked by continuous expansion, we are witnessing the final stages of a cosmos inexorably heading toward its extinction. In this process, all light and movement will eventually cease, resulting in a universe where darkness prevails, marking the silent and complete end of all cosmic activity. This vision contrasts with the idea of a vibrant and growing universe, presenting it instead as an organism in its final breaths, replicating traces of its former vitality before ultimately succumbing to total cosmic inactivity.

This view challenges current cosmological interpretations and suggests that, instead of a universe that renews itself, we are observing a universe that is slowly dying, replicating its memories in its last stellar expansions before finally succumbing to total cosmic inactivity.

9. Interaction between Axion and Uno

The theory suggests that, in the early stages of the universe, Axion particles began to interact with UNO particles. This process involved the transfer of energy from Axion particles to UNO particles, resulting in oscillations that transformed that energy into electromagnetic radiation—light. This phenomenon gave rise to the observable universe, creating the foundation for the existence of the luminous radiation we know today.

10. Cold Spot

The "Dead Universe" theory offers an innovative and scientifically grounded alternative to the "Cold Spot" anomaly in the universe. Unlike the multiverse theory, which suggests that an interaction between parallel universes could have caused the Cold Spot—an idea that may seem far-fetched given the lack of multiple cold spots resulting from numerous universe interactions—the "Dead Universe" hypothesis proposes a more empirical and tangible connection.

Proposed Equation Explanation: The equation presented models the thermal influence of a "Dead Universe" on our observable universe. It integrates the concept of radiation heat transfer over vast cosmic distances. Here's how it works:

ΔT: Represents the observed temperature variation in the Cosmic Microwave Background (CMB).

σ: The Stefan-Boltzmann constant, which is a measure of the total energy radiated per unit surface area of a black body per unit time.

A: The area of interaction between the dead universe and the observable universe.

T_d: The average temperature of the dead universe, which is significantly lower due to its aged and cold nature.

T_u: The average temperature of the observable universe.

d: The distance between the interaction regions.

This formula suggests that the coldness of the "Dead Universe" impacts our observable universe similarly to how opening a freezer in a warm room would lower the room's temperature. The significant drop in temperature at the point of interaction (Cold Spot) can be scientifically explained as a direct transfer of thermal energy from the warmer observable universe to the cooler regions of the "Dead Universe."

Critique of Existing Explanations: The traditional Big Bang theory and other cosmological models often struggle to incorporate such anomalies without additional complex conjectures or adjustments. The "Dead Universe" theory, by providing a straightforward heat transfer mechanism, moves beyond speculation to a hypothesis that can be tested and observed, making it a strong candidate for future cosmological studies.

This approach not only challenges the existing cosmological paradigms but also aligns with the observed data more coherently than theories requiring less probable scenarios such as collisions with other universes. The presence of just one Cold Spot, rather than multiple, supports the idea of a singular, significant interaction rather than frequent collisions predicted by multiverse scenarios. (See **Figure 4**)

Image Credits: Global Journals. Source: Global Journals.

Figure 4. These images were created using computational technology to depict the "Cold Spot" anomaly within the "Dead Universe" theories. Generated through precise algorithms based on scientific data and theoretical models, they aim to provide an accurate visual representation. Image Credits: Global Journals. https://globaljournals.org/.

The image also highlights the "cold spot" of the observable universe, a region where the cosmic microwave background radiation is affected by the presence of the dead universe. This low-temperature region manifests as a "thermal anomaly," caused by the gravitational influence of the dead universe on our visible universe.

The existence of Axions is predicted by physical theories to be produced in extreme environments, such as in stellar cores during events like supernovae. These particles, when emitted by stars into the universe, could briefly interact with surrounding magnetic fields, temporarily converting into photons and potentially becoming detectable.

"In the specific case of Betelgeuse, a red giant star on the verge of becoming a supernova, MIT conducted research to search for axions due to its condition as a 'natural factory' of these particles. Utilizing the NuSTAR space telescope, the researchers searched for axion signatures in the form of X-ray photons but found no detectable signals. These results significantly narrowed the possible characteristics of axions, setting more stringent constraints on their existence and properties" (See **Figure 5**).

Figure 5. A search led by MIT for axions from the nearby star Betelgeuse (pictured here) yielded no results, significantly narrowing the search for hypothetical dark matter particles. Credits: Image: MIT News Collage. Image of Betelgeuse courtesy of ALMA (ESO/NAOJ/NRAO)/E. O'Gorman/P. Kervella.

The conclusions show that if axions exist, they interact very weakly with photons, making them difficult to detect. The research suggests that future investigations should explore other energy ranges, such as gamma rays, especially in events like supernovae.

However, in 2021, the results of these searches did not detect the expected axion signatures in the form of X-ray photons. These findings indicated that ultralight axions, which could interact with photons across a wide range of energies, were excluded by the research.

Axions, proposed as hypothetical dark matter particles, could explain the composition of 85% of the universe. The theory suggests that stars like Betelgeuse, in their final stages, could function as "natural factories" of axions, which, when interacting with magnetic fields, could convert into detectable photons.

11. Uno Hypothetical Particle

The UNO particle is conceptualized as the "zero equation" of all particles, representing a primordial state of masslessness. In the initial quantum fluctuations of the universe, the UNO could have manifested as a fundamental entity. This entity, by dividing or interacting with the quantum vacuum, gave rise to all other particles, generating the complexity of the universe we observe today. The axion, being a hypothetical particle with nearly zero mass, can be considered one of the first elements to emerge in the cosmos after the manifestation of the UNO. Although practically undetectable due to its extremely light mass, the axion could have acted as a multiplier, triggering the processes that led to the formation of more complex particles and eventually the structuring of the universe. Combining these concepts, the UNO, by its nature as the "zero equation" (a state prior to what we consider particles), provides the foundation upon which particles like the axion manifested. In this way, the axion could be seen as the first tangible step in the evolution of the cosmos, directly influencing the formation of matter and the expansion of the universe according to contemporary particle physics models. The UNO particle, described as the "zero equation" of all particles, can be understood as a primordial state of perfect symmetry. This state would not be exactly "nothing," but rather a form of infinite potential, containing within it all the possibilities for the manifestation of particles and forces. This concept can be related to the idea of perfect symmetry in particle physics, where the early universe was highly symmetrical, and only after the breaking of this symmetry did particles and forces as we know them emerge. To deepen the concept of how the UNO particle divides or interacts to create other particles, we can compare it to the Higgs Field. The Higgs Field is known for giving mass to particles through interaction with the Higgs boson. Similarly, the UNO could be seen as a fundamental field that, through a "symmetry break," gave rise to other particles, such as quarks, leptons, and bosons. This symmetry break could occur through a process of intense quantum fluctuations in the early moments of the universe. These fluctuations would allow the UNO to "fragment" into various particles, each with its own properties of mass, charge, and interaction. The UNO Particle theory can be integrated into the standard model of particle physics, particularly concerning the Higgs Field. While the Higgs Field is responsible for giving mass to particles through interaction with the Higgs boson, the UNO can be seen as the precursor to this field. In other words, the UNO would be the fundamental state that, upon "breaking," created both the Higgs Field and the particles that interact with it (See **Figure 6**).

Moreover, the interaction between UNO and the axion could provide insights into the nature of dark matter. The axion, being a lightweight and weakly interacting particle, may have emerged as a byproduct of UNO's symmetry breaking. Thus, while the Higgs Field explains how conventional particles acquire mass, UNO could explain the origin of dark matter particles like the axion.

This approach connects UNO and the axion as fundamental elements in the creation of the universe, with the axion acting as a crucial intermediary in the transition from absolute nothingness to the universe filled with matter and energy that we know.

Image Credits: Global Journals. Source: Global Journals.

Figure 6. The images in this article were generated using computing technology, designed to visually represent complex astrophysical concepts. Each visualization is created through precise algorithms to reflect the complexities of the "Dead Universe" theories, utilizing specific parameters based on scientific data and theoretical models to ensure the most accurate representation possible within the presented theoretical context. Image credits: Global Journals. https://globaljournals.org/.

Today, we know of the existence of supermassive bodies, black holes composed of mass billions of times greater than the Sun. It seems to us that the dead universe calls our universe to its strange origins, beyond our telescopes. The existence of such massive and enigmatic phenomena challenges our understanding of physics and suggests that the laws governing these objects may be radically different from those operating in known particle physics.

The "dead universe" theory, let us consider the hypothesis that the fundamental laws of physics may have been different at the beginning of the universe. This could explain the predominance of dark matter and dark energy, which are almost completely imperceptible through our traditional observation methods, but clearly exert a massive influence on the structure and expansion of the universe.

These primitive conditions may have given rise to a "shadow astrophysics," a theoretical branch that studies celestial bodies and phenomena that operate primarily through non-luminous interactions. This would include not only dark matter planets and dark stars but also nebulas and entire galaxies composed of these invisible forms of matter and energy, which could form the vast majority of the universe."

"Dark stars and their undetectable radiation: As mentioned, "dark stars" may be dead celestial bodies that, unlike normal stars that emit light due to nuclear fusion, emit forms of radiation or interact with common matter in ways that we cannot currently detect directly. These stars could emit 'dark light or dark radiation,' a form of energy that is not visible to our current instruments, but could be detectable through gravitational effects or by new technologies that capture different types of electromagnetic or gravitational interactions.

Modified Gravity Laws: The laws of gravity in regions dominated by dark matter could be radically different. This could explain the anomalous movement patterns in galaxies and galaxy clusters that we observe, which do not align with predictions based on Newtonian gravity or Einstein's general relativity. Theories such as modified gravity (MOG), loop quantum gravity, or emerging gravity theories could offer better models for understanding these phenomena.

Connection with Cosmology and Metaphysics: The "dead universe" theory also paves the way for a new cosmology that is both a science and a metaphysics, questioning the very concept of "existence" and "reality." The idea that the original dead state of the universe was of total darkness, with light and matter as later and secondary developments, radically challenges our preconceived notions about the cosmos and our position within it.

Impact on Philosophy and Religion: Finally, this theory may have profound philosophical and theological implications. If the primordial universe was of total darkness, as proposed in Genesis, and light was an anomaly, this could suggest that the creation and emergence of light (as described in religious texts) represent an act of transformation by God and His revelation to allow the existence of life, where the divine not only creates order from chaos but also infuses the essence of being—light, heat, and energy—into a cosmos that would otherwise be a dark and formless void.

Cyclic Cosmology: This does not exist, nor does the concept of the multiverse; the "dead universe" may represent only an initial phase in the cosmos' life that will reduce to a complete death. According to this view, the universe may also alternate between periods of luminous explosion, like the Big Bang, and long periods of darkness dominated by dark matter and dark energy on its path to its final cosmic coffin.

Dark Matter as the Universe's Substrate: Expanding the notion of dark matter as the main constituent of the universe, we could explore the idea that it acts as a substrate in which visible matter and energy emerge and interact temporarily. In this sense, dark matter would not just be a passive entity but an active source of potential that defines the structure and dynamics of the universe on a large scale.

Dark Energy and the Recession of Galaxies: Dark energy and the gravity laws of the dead universe, which are responsible for the acceleration of the galaxies' recession since there is no expansion of the universe, could be seen as a mechanism by which the universe prepares for a transition back to the "dead universe" state. Instead of being merely a repulsive force, dark energy could be interpreted as an indicator that the universe is degenerating into its total mummification."

Recent research by Dmitry Levkov has reshaped our understanding of the cosmos, introducing the notion of "dark matter stars," or "axion stars," as they are also known, that behave like colossal atoms. This innovative concept offers an impressive parallel to the "dead universe" theory. It is hypothesized that these axion stars are scattered throughout the dead universe, potentially explaining the mysterious dark matter that does not emit light. Contrary to previous assumptions that considered much of space "empty," this new perception suggests that the universe is predominantly composed of dark energy and dark matter, with dark energy constituting about 70% of the universe, dark matter about 25%, and common baryonic matter only 5%. Together, these elements form the basis of the so-called dead universe that permeates the observable universe [5].

In this scientific discourse, the "dead universe" theory is reinforced by empirical evidence from research on axion stars, presenting a strong argument for a cosmos primarily shaped by dark matter and dark energy, rather than being mere residual elements. This narrative highlights the evolution of our understanding of the most fundamental constituents of the cosmos, uniting advanced theoretical physics with metaphysical questions about existence and reality [4].

The work of Dmitry Levkov highlighted that axion stars may form at a faster rate than previously thought, depending on the axion's mass. These discoveries suggest that such stars may be forming within the universe's lifetime and could significantly influence the structure of dark matter, being potentially detectable through their gravitational interactions or photon decay, which could lead to observable radio bursts [5].

The discovery that axion stars can transform into Bose-Einstein condensates under extreme conditions—where all axions occupy the same quantum state, essentially behaving as a massive particle—profoundly deepens our understanding of the cosmos' fundamental structure. Such states have been observed in laboratory conditions on Earth, where atoms are cooled to near absolute zero, presenting a critical phase in which matter exhibits superfluid characteristics, flowing perfectly without friction.

Furthermore, updated gravitational laws proposed by Russian researchers align with the "dead universe" theory's view on the unique gravitational behaviors in areas overloaded with dark matter. These new gravitational theories, including modified gravity (MOG), loop quantum gravity, or emerging gravity theories, provide a framework for understanding the unconventional movements observed in galaxies and galaxy clusters, movements that transcend the explanations offered by Newtonian gravity or Einstein's general relativity.

Axion stars, as theorized, may serve as a crucial element of this dark universe. These stars differ from conventional stars as they do not emit light from nuclear fusion processes. Instead, they are believed to emit "dark radiation" or "dark light," types of energy that are invisible with current instrumentation but can be detected through indirect gravitational effects or innovative detection techniques that explore various electromagnetic or gravitational interactions.

Finally, the "dead universe" theory proposes a cosmos dominated by dark matter and dark energy—components like axions that minimally interact with visible matter or light. In this framework, the universe is imagined as a vast dark expanse where traditional forms of light and matter are seen as exceptions, not the rule.

Jamie Farnes, an astrophysicist at the University of Oxford, introduced an innovative theory suggesting a unification of dark matter and dark energy under a single concept known as "dark fluid," which exhibits properties of negative gravity. This revolutionary theory proposes that the forces known for holding galaxies together (dark matter) and for driving the accelerated expansion of the universe (dark energy) are, in fact, manifestations of the same physical phenomenon [4] [6].

According to Farnes, this dark fluid constitutes about 95% of the universe and operates through an unusual mechanism of negative gravity, where objects with negative mass behave counterintuitively: instead of repelling, they attract when pushed. This contrasts sharply with traditional gravity laws, which describe the attraction between positive masses.

Farnes' theoretical model explores the hypothesis that, under extreme conditions, these negative masses could group together to form axion stars, or dark matter stars, capable of forming Bose-Einstein condensates. In this state, axions would occupy the same quantum state, behaving as a single gigantic particle. This phenomenon is analogous to what is observed in Earth-based laboratories, where atoms cooled to near absolute zero form a superfluid that flows without friction [4] [6].

In Farnes' model, the interaction between negative and positive masses creates a dynamic "cosmic halo" around galaxies, allowing them to maintain their structural integrity even while spinning at high speeds. This repulsive force generated by the negative mass fluid, as it approaches a galaxy, increases the galaxy's attractive force, creating a delicate balance that keeps the cosmic fabric united and in constant expansion.

This innovative approach aligns with the "dead universe" theory, suggesting that the original cosmos is predominantly composed of a dark substance whose fundamental nature we are only beginning to understand. Both theories significantly expand our theoretical framework on dark matter and dark energy, proposing a universe where most of its constitution is not only invisible but functionally inverse to the expectations of traditional physics.

The premise that, at the origins of the universe, light was not present; it was created later. Whether according to the creationist belief, which suggests that the universe was enveloped in darkness and that God said "let there be light," or from the scientific perspective of these primordial events, it is undeniable that darkness preceded light.

Primitive elements: although black holes, dark matter, and dark energy are well-established concepts in modern cosmology, they are generally considered emerging phenomena and not necessarily primordial components of the universe. However, the dead universe theory provides a plausible explanation for their origins, presenting them as fundamental elements of a previously inert cosmos. While dark matter and dark energy are areas of intense research and debate, with their origins still undefined by consensus, this theory presents one of the first rational approaches attempting to elucidate these enigmatic phenomena [4].

Expansion of cosmic understanding: these ideas challenge our imagination regarding the universe and provide fertile ground for theoretical discussions and speculative narratives. While they remain distant from the current scientific consensus, these theoretical considerations seek to expand our understanding of the possible states of the universe and the fundamental forces that govern its evolution and potential finality. Thus, while respecting the limitations of endorsed scientific knowledge, these propositions allow speculative exploration based on alternative theories and hypotheses [4].

The "dead universe" theory implies that the cosmos we know is the residual aftermath of a past vastness, where the concept of stellar birth is reversed to universal death. In this scenario, black holes are not the catalysts of creation but rather the epitaph of a universe that has exhausted its vitality. Instead of being generative singularities, these primordial black holes are the remaining gravitational beacons of a cosmos that no longer exists.

The galaxies and stars we observe, in their apparent youth, are actually the embers of a long-extinguished cosmic fire.

Dark matter and dark energy, the enigmatic elements of our universe, can be interpreted as the faint echo of this final cataclysmic event [1] [4].

Psalm 97:2—"Clouds and darkness are around Him; righteousness and justice are the foundation of His throne" [7].

12. Exploration of Dead Galaxies and Validation of the Dead Universe Theory

The "Dead Universe" theory proposes an innovative view of the origin and evolution of the cosmos, suggesting that our observable universe may be a byproduct of a previous, vastly larger, and primarily dark universe. To solidify this hypothesis, it is essential to develop empirical predictions that can be tested through astronomical observations and experiments. A special focus on observing dead galaxies may provide the necessary evidence to validate this theory.

13. Axion Stars: A Promising Target

Axion stars are proposed as key components of the dead universe. These hypothetical low-mass particles can interact with magnetic fields, converting into photons, making their detection possible in regions rich in dark matter, such as dwarf spheroidal galaxies. By utilizing space telescopes like Chandra and James Webb, it is possible to search for X-ray signatures or other forms of radiation resulting from these interactions. These observations may not only validate the existence of axion stars but also provide direct evidence of the dead universe, corroborating the proposed theory.

14. Axion and Uno Oscillations: A New Avenue of Investigation

The "Dead Universe" theory suggests that interactions between axions and UNO particles generate electromagnetic radiation and common matter. To test this hypothesis, observations should focus on regions dense in dark matter. The James Webb Space Telescope offers a unique opportunity to detect anomalies in the electromagnetic spectrum, especially in the infrared and X-ray bands, which could indicate these interactions. If these oscillations occurred during the early stages of the universe, their signatures may still be detectable, providing crucial evidence for the theory.

15. Observational and Experimental Strategies

In addition to direct observations, it is essential to implement robust experimental strategies to test the theory's predictions. The detection of gravitational waves, for example, can offer significant empirical validation. Fusions between axions and UNO particles could generate gravitational waves with characteristics distinct from those generated by black holes. By using advanced detectors like LIGO and Virgo, these unique signatures can be sought. The detection of these waves would be a powerful confirmation of the existence of the dead universe.

Simultaneously, the exploration of dead galaxies can provide a deeper understanding of the composition of the dead universe. These galaxies, which show no stellar formation activity, are ideal candidates for studies seeking irregularities in the distribution of dark matter. The Chandra X-ray Observatory can be used to map these galaxies and identify anomalies that do not align with current theories, suggesting the presence of axions and UNO particles.

16. Simplification and Scientific Communication of the Dead Universe Theory

The "Dead Universe" theory was developed to reach a broader audience by simplifying the presentation of complex theoretical models, making them more convincing and accessible without compromising scientific depth. The goal is to make this theory more convincing than the Big Bang model. Intuitive analogies play an essential role in this process. For example, the interaction between axions and UNO particles can be compared to waves crossing in an ocean, generating "bubbles" of light—the stars and galaxies we observe. This approach facilitates the understanding of concepts, making the theory more accessible to both the general public and researchers from different disciplines without sacrificing its scientific integrity.

To substantiate the "dead universe" theory, advanced computational models could simulate scenarios involving black hole collisions and the subsequent formation of a new universe. These models would aid in better understanding how the described events might manifest in the current universe's observed structure.

Black holes, long predicted theoretically, have only recently had their existence empirically confirmed. The "dead universe" theory could explain phenomena that the Big Bang theory may never account for, such as certain characteristics of black holes and other cosmic phenomena. This theory has accepted, clear, and verifiable foundations, which not only align with observations from the perspective of the Big Bang but also predict phenomena that the Big Bang cannot efficiently explain. These collision events could be responsible for the anomalies observed in the cosmic microwave background, which the Big Bang only partially explains. In the context of the "dead universe," these would be remnants from the last intense gravitational interactions of the previous cosmos.

Dark matter, an essential component of the cosmos that the Big Bang does not fully explain, finds its place in this theory as a direct remnant of the previous universe. The "dead universe" theory suggests that dark matter consists of particles or compact objects that are remnants from the collapse of the old universe.

Now, the interpretation of dark matter provides a new angle for investigating its properties, as its distribution and behavior could reveal more about the conditions of the pre-existing cosmos than our observable universe currently does.

The acceptance of a theory by the scientific community is not just a matter of accumulating evidence but also involves a paradigm shift. The history of science is filled with widely accepted theories that were eventually supplanted by new theories providing more precise or comprehensive explanations. The "dead universe" theory proposes a reinterpretation of already known phenomena and the possibility to more adequately explain observations such as cosmic microwave background radiation, the abundance of light elements, and the accelerated expansion of the universe.

It is crucial that the "dead universe" theory be debated, tested, and potentially validated by the scientific community. This debate will not only contribute to the advancement of knowledge but will also challenge the foundations of established theories, promoting a deeper and more integrated understanding of the universe.

The substantial presence of dark matter in the universe suggests the validity of the "dead universe" theory. While the Big Bang is recognized for explaining the cosmic microwave background, it fails to precisely determine the universe's age. Astrophysics and cosmology, basing the dating of the universe on still-active celestial bodies, propose that the universe is approximately 13.5 billion years old; however, this conception is destined for revision under the light of the "dead universe" theory. The new methodology suggested by advances such as the James Webb Space Telescope indicates that the observation of extinct stars may point to a much greater antiquity, possibly in the range of hundreds of billions of years.

This approach challenges the interpretation of gravitational waves within the Big Bang paradigm. In the "dead universe" theory, the existence of an astronomical number of extinct stars in a chaotic and random universe, where collisions are frequent, offers a more plausible explanation for the gravitational waves detected near Earth. General relativity, therefore, strengthens the "dead universe" theory, presenting a divergent perspective on the expansion of the universe.

In the view of the "dead universe," the visible universe consists of young galaxies emerging from the death of a precursor universe, propelled by intense conflicts and collisions, phenomena until then unexplained by black holes, as observed.

17. Scientific Rigor and Differentiation between Evidence and Speculation

Maintaining scientific rigor in this theory is essential to clearly distinguish between hypotheses based on robust evidence and speculation. The "Dead Universe" theory relies on solid observational data, such as Hubble's laws, general relativity theory, and evidence of dark energy, dark matter, and black holes. Additionally, the theory utilizes particle physics experiments and observations, such as the "cold spot" in the universe, an anomaly that traditional astrophysics still does not fully explain. By addressing this issue, the theory suggests that the cold spot may be influenced by a dead and cold universe, offering a potential solution to a problem that the Big Bang model has not yet satisfactorily resolved.

The idea that the cold spot is the result of a collision with another universe within an infinite multiverse structure is questionable from a rational standpoint. If this explanation were valid, we should observe numerous cold spots in the universe resulting from multiple collisions. This leads us to seriously consider the possibility that we are part of a larger structure that has already entered decline and death.

Although the fusion of UNO particles has not yet been directly observed, the theoretical basis for this interaction is solid within the "Dead Universe" theory. Highlighting this distinction between evidence and speculation strengthens the theory's credibility, ensuring that it is evaluated based on its scientific merits.

18. Philosophical and Metaphysical Considerations

Although there are philosophical and metaphysical connections in the "Dead Universe" theory, these ideas only serve to enrich the discussion and should not be interpreted as scientific conclusions. It is crucial that the theory be evaluated based on its scientific merits, maintaining a clear separation between science and philosophy. Analogies with religious concepts, such as the primordial darkness mentioned in Genesis, can be useful for illustrating ideas, but they should be understood as philosophical interpretations and not empirical evidence.

19. Comparison with the Big Bang and Response to Criticism

The "Dead Universe" theory offers an alternative to the Big Bang model, making it essential to compare the predictions of both theories in detail. For example, while the Big Bang predicts a uniform cosmic background radiation, the "Dead Universe" theory suggests variations associated with the interaction of axions and UNO particles. These differences show how the "Dead Universe" theory can provide more robust explanations for phenomena such as dark matter and dark energy.

The idea of a dead universe encapsulating the observable universe may generate skepticism at this early stage of the theory's development. However, as new scientific data emerge, especially related to dead galaxies and older, inactive structures, this hypothesis may become a more tangible reality. The theory offers an effective counter-argument by showing how these ideas align with observational anomalies that the Big Bang model fails to satisfactorily explain, such as the "cold spot" in the cosmic microwave background.

The dead universe theory proposes a radical reinterpretation of cosmic dynamics and gravitational forces, challenging the foundational premises of the Big Bang theory. This alternative model suggests that the extraordinary gravitational forces from a preceding cosmos, vastly larger and more complex than our observable universe, have been the primary agents shaping space-time today. Unlike the Big Bang, which posits a singular expansion event, the "Dead Universe" theory posits that our universe is a remnant—just a fraction of a much larger cosmos that has largely decayed over eons.

Key aspects where the "Dead Universe" theory diverges from and potentially surpasses the Big Bang include.

20. Integration with General Relativity and Quantum Mechanics

The "Dead Universe" theory aligns more naturally with the phenomena described by these foundational theories. It provides a framework where the enigmas of dark matter and energy are not anomalies but remnants actively shaping the cosmic structure. This perspective allows for a broader application of general relativity beyond our visible cosmos to interactions with a previous and more expansive cosmic domain.

21. Redefinition of Cosmic Expansion

In contrast to the Big Bang's inflationary model, the "Dead Universe" does not advocate for an ongoing expansion initiated by a singular explosive event. Instead, it views our universe as a tiny active remnant of a previously larger universe. The influence of this "dead" universe's gravitational laws, though not directly observable, is evidenced by gravitational anomalies and the presence of supermassive celestial bodies.

22. Empirical Validation

The James Webb Space Telescope's observations of ancient galaxies with characteristics unexpected under the Big Bang model lend credence to the "Dead Universe" theory. The detection of an ultramassive black hole, for example, supports the existence of a pre-universe whose mass and energy scales are unimaginably larger than what the Big Bang theory could accommodate.

23. Cosmological Implications

The "Dead Universe" theory offers a new paradigm for understanding the accelerated expansion and potential future contraction of the universe. It suggests that these phenomena are influenced by the residual effects of a cosmos that preceded our own, rather than by a continuous expansion from a singular origin point.

24. Theoretical Predictions and Future Research

This theory not only provides a new lens through which to view existing cosmic phenomena but also sets the stage for future theoretical and empirical studies. It challenges current cosmological models to incorporate the influences of a "dead" universe, potentially leading to new discoveries about the structure and fate of our cosmic environment.

The “Dead Universe” theory not only directly confronts the limitations of the Big Bang model but also enriches our understanding of the universe through a more integrated and comprehensive approach to cosmic phenomena. It calls for a paradigm shift in cosmology, moving away from the idea of a universe born from a singular event to one that is the ongoing legacy of a much larger, older, and more complex cosmic structure.

The Big Bang theory offers a limited perspective to explain a cosmos hundreds of billions of times larger than the observable universe. Its validation is based on the universe’s expansion, cosmic microwave background radiation, and the abundance of light elements, but these elements are insufficient for addressing more complex cosmic questions. In contrast, the “dead universe” theory provides a more comprehensive explanation of these phenomena. It is poised to integrate any discoveries that the James Webb Space Telescope might reveal. This theory has the potential to eliminate the surprises and uncertainties that might emerge from new observations, ensuring that there will be no unexpected revelations for the scientific community, just confirmations that the dead universe theory will dominate in the coming years.

25. The Focus on Inactive Galactic Structures and Uno Particle Detectors

Studies focused on dead galaxies, where there is no stellar formation activity, can provide valuable clues about the dead universe. The absence of activity in these galaxies may indicate that they are remnants of a previous universe. The use of advanced telescopes to map these structures and search for signs that support this hypothesis is a promising direction for future research.

The development of detectors capable of identifying interactions between axions and UNO particles is another crucial step in validating the theory. These detectors, based on quantum physics principles such as light particle interferometry, can open new avenues for detecting these particles. A collaborative project with particle physics laboratories could provide direct empirical evidence for the theory, leveraging the future of quantum computing technology and advanced telescopes.

A universe that originated from the Big Bang would inherently be small and hot. However, it would be methodologically incorrect to date this structure when we consider a reality governed by a reverse process, such as the preexistence of a vast ‘Dead Universe’. This theory addresses two fundamental enigmas: first, what existed before the Big Bang, proposing that the event, as traditionally conceived, did not occur. Instead, it is suggested that a larger and older structure was already in a state of extinction, immersed in darkness and rich in light particles and elements.

This structure, hidden in darkness, was disturbed by the emergence of light, an anomaly within this ecosystem. It is presumed that light particles, such as UNO and axions, gave rise to dark energy and dark matter, from which supermassive black holes emerged. The fluctuations in the vacuum and the interactions of these particles culminated in the genesis of light, considered a cosmic anomaly. These events led to the formation of galaxies and, by extension, all types of celestial bodies.

As stars expire and compress matter, they form new black holes, returning to the primitive condition of the dead universe, a vast structure composed of black holes, dark matter, and dark energy.

Thus, this theory not only clarifies the origin of the Dead Universe but also defines the boundary between the observable universe and the Dead Universe, a realm immersed in darkness and abundant in dark energy and dark matter. Elements that, although unexpected in the observable universe, are essential for its existence. The predictions of this theory include the discovery of billions of supermassive black holes and vast amounts of dark matter and dark energy, aligning coherently with the proposals presented. The hypothesis that we inhabit a black hole suggests that we are immersed in the essence of dark matter and dark energy, originating from these light particles. These fluctuations resulted in the fusions that gave rise to the light we know today.

According to this theory, it is evident that black holes, dark energy, and dark matter are not static, and the old structure, equally dynamic, drives the separation of galaxies as a natural process. This separation does not stem from cosmic inflation or an initial explosion but reflects the galaxies and planets moving according to natural laws within this structure of the dead universe, revealing a deeper understanding of cosmic dynamics.

On the other hand, it is conceivable that the same processes responsible for the formation of galaxies and stars also precipitated the progressive collapse of a preexisting universe, immensely larger and with characteristics similar to the observable universe, leading it to a state of gradual extinction. This hypothesis, one of the proposals of this theory, suggests that we are experiencing the final stages of this vast astronomical structure, replicating cosmic memories as we approach an inevitable end.

The two hypotheses grounded in this theory—from the origin to the decline of the cosmos—not only harmonize with existing observational data but also provide additional support to them. This perspective challenges both the Big Bang theory and other current explanations, which are questioned by the recent discoveries of the James Webb Space Telescope. These discoveries point to the need to revisit and possibly reformulate our understanding of the origin and evolution of the observable universe.

26. Conclusion

"Shadow Astrophysics" reveals that, although the observable universe is illuminated by stars and galaxies, the true essence of the cosmos lies in darkness. Dark matter and dark energy, still mysterious fundamental components, make up the majority of the universe, profoundly influencing its dynamics. This study forces us to rethink our definitions of presence and absence, light and shadow. While technological advances, such as computational astrophysics and observations from next-generation telescopes like the James Webb, continue to uncover secrets hidden in cosmic shadows, we are only at the beginning of a journey that promises to redefine our understanding of the cosmos and our place in it. Future research should focus on unraveling the interactions between dark matter and dark energy with visible matter, hoping that this knowledge may further illuminate the deep mysteries that inhabit the shadows of the universe.

Conflicts of Interest

The author declares no conflicts of interest.

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