

The Nature of Whiteholes, Blackholes, and the Energy Cycle of the Universe.....Paul Caracristi (240328.5.6)

Abstract. This paper proposes and explores the theory that whiteholes and blackholes serve as complementary structures in the cosmos, facilitating a continuous energy cycle between a dynamic universe and a static ¹Latent realm. Whiteholes are proposed as sources of energy and entropy, giving rise to dynamic universes, while blackholes transition the complexity of matter and energy back into a latent, negentropic state. The interplay between these phenomena is governed by a ²temporal spectrum, wherein energy fluctuates between near-zero values in the latent realm and greater-than-zero values in a dynamic universe. The proposed model offers an integrated framework for understanding the universe's origin, evolution, and potential termination within a broader cosmological context.

The nature of blackholes has been previously presented as transitional systems mediating between realms of increasing and decreasing entropy, governed by a temporal spectrum of energy values. Conversely, the concept of whiteholes remains largely speculative. This paper proposes a structured framework where blackholes and whiteholes function as cosmic complements, serving as conduits for energy transitions between realms. This model addresses fundamental questions regarding the origin of our universe and the mechanisms governing its energy cycle.

Multiple blackholes, which eventually consolidate into a single mega-blackhole, facilitate the transition of matter into energy between our universe (the ³Patent realm) and the Latent realm. Conversely, a single whitehole transitions energy into matter from the Latent realm to the Patent realm, forming the basis of the dynamic universe.

Blackholes are traditionally understood as regions of spacetime with intense gravitational pulls that not even light can escape. From an entropic perspective, blackholes represent

¹ Latent realm refers to a theoretical or conceptual domain that embodies potentiality, unmanifested states, or underlying conditions that precede observable phenomena. It is a realm where possibilities exist in an implicit or undeveloped form, not yet actualized in the tangible or perceptible reality.

² Temporal Spectrum is a conceptual framework that describes the continuum of time as existing across different states, phases, or dimensions, rather than as a singular, linear flow. It implies that time encompasses a range of conditions, from unmanifested potential (timelessness) to fully realized and measurable sequences (chronological time).

³ Patent realm is the domain of manifest reality, where phenomena, entities, and processes exist in an observable, tangible, and actualized form. It contrasts with the latent realm, which represents unmanifested potential or underlying conditions. The patent realm is the realm of actuality — what has emerged into existence through dynamic processes.

points of decreasing entropy, beginning at their event horizons, as they collapse complex systems into simpler states. In this theory, blackholes serve as conduits, transitioning matter into energy and transferring it from the dynamic universe into a static, latent realm. This latent realm is characterized by near-zero energy states and minimal entropy, a realm of potentiality rather than activity. Importantly, blackholes do not lose mass and size entirely through Hawking radiation but through dynamic energy transition from our universe into the latent realm as near-zero latent energy.

A whitehole, on the other hand, serves as the single source of energy and entropy that initiates the formation of the Patent realm (our universe). As a conceptual opposite to a blackhole, a whitehole is proposed as a source of increasing entropy. It releases energy into spacetime, forming a dynamic universe. The process begins with an ⁴asymptotic disturbance in the Latent realm, resulting in the cavitation of time and space functions and the creation of a negative spacetime fabric. This cavitation spectrally releases energy, transforming it into elementary particles and, eventually, complex matter.

The concept of a Temporal Spectrum is central to this cosmological model. Energy fluctuates asymptotically between a near-zero state in the latent realm into a greater-than-zero state in our dynamic universes. The amount of energy available to a universe is determined by the amplitude of the asymptotic disturbance that initiates its formation. This fluctuation creates a seamless cycle, with blackholes transitioning energy back to the latent realm and whiteholes initiating new universes.

The universe begins as a temporal asymptotic disturbance in the latent realm. This disturbance causes the cavitation of time and space functions, leading to the emergence of spacetime fabric. The released energy transitions into quantum fluctuations of near-zero density, forming elementary particles and initiating an entropy-driven process of increasing complexity, culminating in the dynamic universe we observe. It is important to understand that our universe did not begin as an infinitely hot and dense singularity but rather as a cold emergence with increasing temperature and density, as time inflated exponentially and space expanded geometrically.

As blackholes form in the dynamic universe, they act as gateways, dematerializing matter and transferring static energy into the latent realm. This process effectively reverses the entropy increase in the Patent realm by transitioning the universe back into a static, potential state. Over time, the collapse of spacetime fabric leads to the complete re-immersion of the universe into the latent realm, also as a cold and denseless submergence.

Up to the moment matter or energy crosses the event horizon of a blackhole, entropy reaches its maximum state of complexity. However, within the event horizon, a negentropic process begins. This process involves the dematerialization of matter, the contraction of time, and the collapse of space into a static, latent state.

⁴ Asymptotic refers to a concept in mathematics, physics, and other fields, describing the behaviour of a function, curve, or sequence as it approaches a particular value, often at infinity or at a boundary, but without necessarily reaching it.

Conversely, entropy remains static within the interior of an event horizon of a whitehole. Upon emerging beyond the whitehole's event horizon, time expands, space inflates, and entropy increases. This process continues until the expanding system reaches the event horizon of a blackhole, where the cycle reverses, transitioning back into a negentropic state and, lastly reaching stasis in the latent realm.

The cyclical nature of energy between the Latent and Patent realms suggests that multiple universes can emerge from the latent realm, each initiated by unique asymptotic disturbances with distinct potential amplitudes. While these universes are distinct, they share a common destiny as they eventually collapse into the latent realm, maintaining a continuous energy cycle.

The proposed model offers potential explanations for dark matter and dark energy. Dark matter may be understood as remnants of latent energy transitioning into dynamic states, while dark energy might represent the driving force of the cavitation process that expands spacetime.

Potential observational evidence for whiteholes could include anomalies in cosmic microwave background radiation or regions of space with unexplained energy surges. Similarly, the latent realm's influence might be detectable through the behaviour of blackholes and their interactions with surrounding spacetime.

Conclusion. This proposed theory positions blackholes and whiteholes as integral components of a cosmic energy cycle, transitioning between a dynamic, entropic universe and a static, negentropic latent realm. The model bridges gaps in our understanding of universe formation, evolution, and dissolution, offering a coherent framework for further exploration. While the ideas presented here are speculative, they invite new avenues of research into the fundamental nature of reality. ⁵The end.

Future Research Directions

1. Develop mathematical models to describe the cavitation of time and energy transitions.
2. Investigate potential observational evidence for whiteholes and latent realm interactions.
3. Explore the implications of the temporal spectrum on quantum mechanics and general relativity.

⁵ This document has been edited using AI tools to enhance the clarity, coherence, and flow of the work. The AI-assisted editing aims to improve the overall readability and structure of the article while preserving the author's original message and intent.

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