EN_33: The Origin of Primordial Supermassive Black Holes

A Known Limit of the Einstein-VED Framework

Author: Víctor Estrada Díaz
Framework: Einstein-VED
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Web: https://estradad.es
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1. Introduction

The Einstein-VED framework has attempted to demonstrate that:

1. **The matter of all galaxies originally comes from the rotation of central supermassive black holes.**
   Some galaxies still retain that black hole at their center; others, through ejection processes, mergers, capture, or interaction, may have lost it or never developed one of their own because their matter was ejected from another galaxy that did have one.

2. **Primordial neutrons, generated by these extremely rotating black holes, decayed into protons and electrons**, forming hydrogen and guaranteeing the electrical neutrality of the universe.

3. **The first stars (Pop III) were ignited by pure pressure** upon reaching 150-300 solar masses, through the forced electron capture mechanism ($p + e^- \rightarrow n + \nu_e$), without needing proton-proton fusion as an initial mechanism.

However, the framework does not explain — and does not intend to explain — the origin of the primordial supermassive black holes themselves.

This document explicitly acknowledges that limit.

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2. The Unique Essence of the Universe: Waves

Anyone who has read this complete work will have no doubt that **everything in the universe is its own essence**. We cannot speak of matter and energy as entities without a common origin and essence. That essence is **waves**.

When we see a particle, we cannot forget that it is a wave. A structure of spacetime itself. And as a wave, **we must not forget that it possesses properties such as surface tension and other wave-like properties**.

Matter is a **confined wave** in a closed contour. Energy is a **free wave**. They are not two distinct entities. They are the same spacetime vibrating in different regimes.

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3. The Primordial Universe: Creation of Black Holes, Not of Matter

In the Einstein-VED framework, the sequence is radically different from the standard model:

Event	Standard Model (Big Bang)	Einstein-VED
Beginning	Singularity	**Primordial supermassive black holes in extreme rotation**
First creation	Particles	**The black holes themselves**
Second creation	Nucleosynthesis (H, He, Li)	**Neutrons** (by extreme rotation)
Third creation	Pop III stars	**Hydrogen** (neutron decay)
Fourth creation	Galaxies (via dark matter)	**Ejection from the central black hole**

Event	Standard Model (Big Bang)	Einstein-VED
Fifth creation	…	**Pop III stars** (critical pressure)
Sixth creation	…	**Visible spiral galaxy**

Fundamental difference: The origin of each galaxy is its central supermassive black hole in extreme rotation, not a collapse of dark matter.

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4. The Known Limit: What Created the Primordial Supermassive Black Holes?

The Einstein-VED framework does not answer this question.

I explicitly acknowledge that I do not know the mechanism that created these supermassive black holes in the primordial universe.

Nor does any current scientific explanation (in any framework) justify such an extreme concentration of mass in the earliest moments of the universe. JWST observations show massive galaxies at $z{\sim}10-15$ with black holes of up to $10^9\,M_\odot$ already formed, something that models of stellar collapse, accretion, and merger cannot explain.

I propose no alternative hypotheses. I do not speculate. I only state a fact: primordial supermassive black holes existed. Their extreme rotation generated neutrons. From those neutrons, everything else

emerged. But **how they themselves emerged is an open question**.

This is a recognized limit. Not a contradiction. Simply: **I do not know**.

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5. The Solution to the Matter-Antimatter Paradox (CP): Temporal Symmetry

The apparent matter-antimatter asymmetry is resolved by temporal symmetry:

Temporal direction	What is generated
$t > t_0$ (future)	Matter
$t < t_0$ (past)	Antimatter

An antimatter universe exists. Its temporal arrow is opposite to ours. From its perspective, we are its antimatter. The total quantity is exactly the same.

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6. Conclusion

- The mechanism that created the primordial supermassive black holes is unknown.
- The validity of the framework does not depend on explaining that origin.

- It depends on its internal coherence, its predictive power, and its consistency with observations.

End of EN_33