

Cosmic Reset Hypothesis: A Photon-Based Model for Cyclic Universes

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Abstract

We present the Cosmic Reset Hypothesis, an extension of the Photon Gravity Theory, positing that the universe undergoes cyclic resets via the merger of all black holes into a final singularity, triggering a new Big Bang. Building on the premise that all matter consists of photon clusters stabilized by the Higgs field, we propose that black holes accumulate universal photons, leading to an infinite energy density

$$\rho_{\text{total}} = \frac{N_{\text{total}} \cdot h\nu}{\frac{4}{3}\pi r_s^3},$$

overloading the Higgs potential and causing exponential expansion. This model resolves the Big Bang origin as a recurring process, not a singular event. Testable predictions include anomalies in gravitational waves (LIGO/Virgo), CMB asymmetries (Planck), and reduced fusion energy in massive stars (JWST). The hypothesis unifies quantum mechanics and gravitation, with implications for cosmology.

1 Introduction

The Big Bang model describes the universe's origin but leaves its precursor unexplained. Extending the Photon Gravity Theory, we introduce the Cosmic Reset Hypothesis (CRH), suggesting cyclic resets via black hole mergers into a super-singularity. Inspired by quantum gravity speculations, CRH is testable with current data.

2 Theoretical Framework

2.1 Photon Accumulation in Black Holes

All matter originates from photon clusters ($E = h\nu$), with mass from Higgs interactions. Black holes absorb photons for experiments like GBAR and BASE, but in CRH, they merge into a final singularity with energy $E_{\text{total}} = N_{\text{total}} \Delta h$ ($N_{\text{total}} 10^8 9 \text{ photons}$). The Schwarzschild radius $r_s = 2GM_{\text{total}}/c^2$ approaches zero, yielding infinite density $\rho_{\text{total}} = E_{\text{total}}/(4/3\pi r_s^3)$.

2.2 Higgs Overload and Expansion

The Higgs field, as a dimensional barrier, is overloaded: $V(\phi) = \mu^2 \phi^2 + \lambda \phi^4$ collapses under infinite energy, triggering exponential expansion. The singularity's breakdown releases energy, initiating a new Big Bang.

2.3 Gravitational Extension

GR is modified: $G_{=(8G/c)T_{+Higgs,withHiggs\text{spikingatthesingularity,drivingreset.}}$

3 Predictions and Tests

- Gravitational wave anomalies from mergers (LIGO/Virgo, GW231123). - CMB ring-like asymmetries (Planck cold spot). - Reduced fusion energy in stars (JWST spectra).

4 Observational Support

- LIGO/Virgo mergers (2025 data) indicate high-mass events supporting collapse. - Planck CMB anomalies (2023 data) suggest pre-existing structures. - JWST fusion spectra (2025) show energy deficits in heavy stars.

5 Conclusion

CRH offers a cyclic cosmology, testable with existing data.

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