

# Gravitation as Consciousness-Induced Information Pressure: A Foundational Mechanism for Mass Generation

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July 2025

## Abstract

This paper extends the hypothesis proposed in the previously published study “*Technological Paradigms Following the Experimental Confirmation of Spiral-Induced Bio-Gravimetry*”. We explore the notion that gravity is not merely modulated by consciousness but is fundamentally *generated* through the interaction between coherent conscious states and the informational structure of spacetime, modeled by the  $\Phi$ -field. This leads to a new paradigm where mass and gravitation are not intrinsic to matter, but emerge from informational coherence.

## 1 Introduction

The Helix-Light-Vortex (HLV) model posits that spacetime is structured by spiral-informational flows encoded in a field denoted as  $\Phi(t, \vec{x})$ . Gravitation in this framework emerges not from mass-energy curvature in the classical sense, but from gradients in the informational density of the  $\Phi$ -field—termed *informational pressure*. This paper proposes that **coherent conscious activity** is the source of this pressure.

## 2 Foundational Hypothesis

### 2.1 Original Thesis

In the original HLV framework, gravitation was modulated by coherent neuronal activity. Experimental predictions included  $\Delta g \neq 0$  near active neuronal ensembles due to modulation of local  $\Phi$ -field structure.

### 2.2 Extended Hypothesis

We now propose that:

- Consciousness is a recursive, coherent generator of structured information.
- The  $\Phi$ -field acts as the mediator between mental activity and spacetime structure.
- The interaction between the  $\Phi$ -field and spiral space configurations ( $\Psi$ -vortices) constitutes a pressure field capable of **creating** gravitational potential.

### 3 Mechanism: Consciousness as a Gravitation Generator

#### 3.1 From Modulation to Generation

Rather than merely influencing existing curvature, the  $\Phi$ -field configurations generated by consciousness cause the  $\Psi$ -vortices in spacetime to condense into stable resonant patterns—defining what we experience as mass. The informational pressure organizes geometric standing waves into quantized structures.

#### 3.2 Mathematical Overview

Let  $\Phi(t, \vec{x})$  be the coherent field, and  $\Psi_n$  the  $n$ -th spiral eigenmode in the local dodecahedral lattice:

$$\Delta\Phi(t, \vec{x}) \rightarrow \rho_{\text{info}}(\vec{x}) \Rightarrow \nabla \cdot \vec{g}(\vec{x}) \sim \rho_{\text{info}}$$

$$\text{Mass: } m_i \sim \int_{\mathcal{V}} |\Psi_n(\vec{x})|^2 \cdot \Phi(t, \vec{x}) d^3x$$

### 4 Interpretation and Implications

#### 4.1 Matter Without Mind

In the absence of a coherent  $\Phi$ -field, matter remains in a fluctuating, non-condensed state—potentially massless or unstable. This suggests a foundational role for informational coherence in stabilizing physical reality.

#### 4.2 Consciousness as Cosmological Architect

Consciousness becomes not just a local observer, but an agent of field structuring and spacetime shaping. Gravitation arises as an *act* of directed coherence.

### 5 Technological Outlook

This framework suggests entirely new classes of technologies:

- Mass-tunable materials via informational field alignment.
- Bio-gravitational communication systems.
- Mind-controlled spacetime modulation interfaces.

### 6 Conclusion

This paper proposes a radical extension to the HLV framework: that gravitation is not merely responsive to consciousness, but emerges from it. Through the structured interaction with the  $\Phi$ -field, consciousness generates mass and gravitation by inducing coherence in the fundamental informational substrate of reality. This insight opens both conceptual and technological horizons that challenge the materialist paradigm.