

## **Pawan Upadhyay**

Independent Scientist | Theoretical Physics & Interdisciplinary Researcher | Economic Science, Soul Science & Biblical Studies

### **India**

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### **Research Website:**

<https://sites.google.com/view/discoveriesbypawanupadhyay/resume>

## **Professional Summary**

Independent scientist and interdisciplinary researcher working at the intersection of Physics, Economic Science, Soul Science, and Biblical Studies. I develop original theoretical frameworks with a focus on fundamental physical laws, economic stability theory, and philosophical questions about consciousness and spiritual reality. I value intellectual freedom, open inquiry, and global accessibility of research.

## **Professional Status**

Independent Scientist and Researcher

Not affiliated with a formal academic institution; research conducted independently with full commitment to academic rigor, open science, and reproducibility.

## **Scientific Positioning**

My work does not propose a replacement for General Relativity, but rather offers a physical interpretation and unifying framework that clarifies the causal role of pressure, energy density, and curvature across gravitational, cosmological, and thermodynamic phenomena.

## **Primary Scientific Contribution**

Pawan Upadhyay's Pressure Curvature Law of Gravity (PPC Law)

### **Core Principle:**

Mass-energy produces pressure, mass-energy bends spacetime by its pressure, pressure generates curvature, and curvature governs motion.

This law provides a mechanical foundation for gravity, long sought since Einstein, by identifying pressure as the missing physical mechanism behind spacetime geometry.

### **Unified Phenomena through PPC Law:**

- Gravity and spacetime curvature
- Time dilation as a pressure-dependent effect
- Entropy evolution in curved spacetime
- Centripetal and centrifugal forces via pressure gradients
- Centripetal force as combination force and centrifugal force as combination force
- Field force and surface force dynamics
- Pressure – curvature dynamics
- Gravitational pressure waves (alternative interpretation of gravitational waves)
- Microgravity
- Role of equation of state parameter in PPC gravity
- Relationship between Energy density and Pressure
- Role of 'field force and surface force'
- 'Field force and surface force' as forces of pressure
- Predictions of the PPC Law
- Interstellar object dynamics
- Cosmic expansion driven by large-scale pressure gradients
- Galactic and planetary binding
- Black hole formation as extreme pressure–curvature collapse
- Event horizons as pressure thresholds
- Wormholes as pressure-supported spacetime tunnels
- Multiverse interpretation via separated pressure domains
- Gravitational Pressure Fields
- Orbital stability and Orbital dynamics
- Light Pressure and Light as Curvature guided wave
- Creation of new 'stars and planets'
- Predictions of PPC Law
- Dark matter and Dark Energy

### **Key Contributions & Distinctions**

- Proposed a unified physical framework (PPC Law) identifying pressure as the causal mechanism of spacetime curvature, providing physical intuition alongside General Relativity.
- Introduced the dual-force structure of gravity via field force (pressure gradient) and surface force (pressure acting on area).
- Reinterpreted gravitational waves as pressure–curvature waves within an equivalent relativistic framework.
- Provided pressure-based interpretations of time dilation, entropy, wormholes, microgravity, blackholes, galaxies, multiverse, cosmic expansion, dark matter, dark energy, light pressure and orbital dynamics.
- Creation of new equations

### **Research Methodology & Approach**

- Development of original theoretical models grounded in established physical principles.
- Consistent alignment with experimentally verified results of General Relativity.
- Use of mathematical reasoning, conceptual analysis, and physical interpretation.
- Emphasis on causal clarity, physical intuition, and unification of concepts.
- Open peer engagement through public repositories and open-access platforms.

### **Scientific Skills**

- Theoretical & Mathematical Physics
- Theoretical Physics
- Mathematical Physics
- General Relativity (interpretation-based analysis)
- Relativistic Cosmology
- Gravitational Theory
- Classical Mechanics

### **Advanced Mathematical & Analytical Skills**

- Tensor Calculus
- Differential Geometry
- Vector and Tensor Analysis
- Dimensional Analysis and Units Consistency
- Equation-of-State Analysis
- Mathematical Modeling of Physical Systems
- Gravity & Cosmology Analysis
- Stress–Energy Tensor Interpretation
- Energy Density and Pressure Modeling
- Gravitational Pressure and Force Density Analysis
- Field Force and Surface Force Modeling
- Cosmological Acceleration Analysis
- Dark Energy and Dark Matter Interpretation
- Physical Modeling & Conceptual Frameworks
- Pressure–Curvature Modeling
- Force Density and Surface Force Formulation
- Continuum Mechanics Interpretation
- Physical Interpretation of Einstein's Equations
- Causal Analysis of Spacetime Dynamics

### **Research & Scientific Practice**

- Independent Scientific Research
- Original Theory Development
- Scientific Writing and Documentation

- Open-Access Research Publishing (OSF, Archive.org)
- Conceptual Unification of Physical Theories

### **Research Areas**

- Theoretical Gravity and Cosmology
- Pressure-Induced Spacetime Geometry
- Black hole and Wormhole Physics
- Galactic and Planetary Binding Mechanisms
- Microgravity and Interstellar Objects
- Energy Density and Equation-of-State in Gravity
- Entropy and Thermodynamics of Spacetime
- Gravitational Pressure Waves
- Gravitational Pressure fields

### **Interdisciplinary Research :**

#### **Economic Science**

- Theory of cash inflow and cash outflow
- Fund creation mechanisms
- Economic stability models
- Three Fund Stabilization Model
- Future Cash inflows theories
- Economic Science based on 'Cash inflows and Cash outflows' theories with mathematical equations
- Solutions of the Economic Problems
- Mathematical framework development for theoretical economic equations
- Equation-based modeling of economic systems

#### **Soul Science & Consciousness Studies**

- Philosophical investigation of soul–body interaction
- Consciousness beyond physical reduction
- Role of Soul in 'Human Body and Plant Body'
- Biological explanation
- Explanation of Soul Science in the language of Biology.
- Soul as Energy and Soul as internal force

#### **Biblical Philosophy**

- 'Resurrection and Reincarnation' studies in Christianity

- Distinction between soul, spirit, and physical body
- Difference between Hell and Satan

### **Biblical Studies – Research Domains**

- Christology (death, descent to the dead, resurrection, ascension)
- Afterlife theology (Sheol, Abraham's Bosom, Paradise, Heaven)
- Salvation history in Old and New Testament theology
- Biblical cosmology and heavenly realms
- Second Temple Jewish and apocalyptic literature
- Canonical and non-canonical textual comparison

### **Research Methodology (Biblical Studies)**

- Historical-grammatical exegesis of biblical texts
- Chronological reconstruction of New Testament events
- Thematic synthesis across multiple scriptural sources
- Distinction between canonical doctrine, theological inference, and interpretive models
- Comparative analysis of biblical and apocalyptic cosmologies

### **Ongoing & Future Research Projects**

- Comprehensive Christology research series
- Afterlife realms in Biblical theology
- Heavenly hierarchies and cosmology from Genesis to Revelation
- Comparative study of Old Testament, New Testament, and Enochic traditions

### **Research Ethics & Scholarly Practice**

- Commitment to academic integrity and responsible citation
- Clear separation of research analysis from doctrinal assertion
- Methodologically transparent theological inquiry
- Respect for canonical boundaries and historical context

### **Publications & Open Access**

- Research papers published with DOIs on Open Science Framework (OSF)
- Long-term preservation and public access via Archive.org

### **Archive Profile:**

[https://archive.org/details/@pawan\\_upadhyay](https://archive.org/details/@pawan_upadhyay)

All research documents are openly available for academic and public use.

**Open Science Statement**

I am committed to open-access knowledge, transparency, and independent scientific inquiry. All my works are freely accessible to ensure global participation and long-term preservation of original research.

**Research Vision**

To advance a physically intuitive understanding of fundamental laws of nature, encourage interdisciplinary dialogue, and make original scientific thought globally accessible through open research.