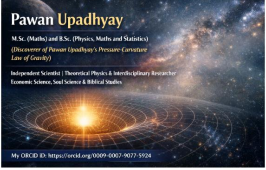


Conceptual Chain in PPC Law of Gravity

Conceptual Chain in Pawan Upadhyay's Pressure-Curvature law of Gravity (PPC Law of Gravity)

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Mass and Energy Are Not Separate

Mass and energy are fundamentally equivalent physical quantities. Any mass inherently carries energy, and this energy is distributed in space as energy density. In gravitational physics, this equivalence implies that mass cannot be treated independently of energy when describing spacetime structure and motion.

Conceptual Chain in the PPC Law of Gravity

The complete causal sequence in **Pawan Upadhyay's Pressure–Curvature Law of Gravity (PPC Law)** is expressed as:

Mass Density → Energy Density → Pressure → Forces of Pressure → Curvature via Stress–Energy Tensor → Spacetime Curvature → Geodesic Motion → Pressure Waves

Step-by-step interpretation

- **Mass Density:** Matter exists as mass distributed in space.
- **Energy Density:** Through mass–energy equivalence, mass density corresponds to energy density.
- **Pressure:** Energy density gives rise to gravitational pressure.
- **Forces of Pressure:** Spatial variations of pressure generate effective pressure forces.
- **Curvature via Stress–Energy Tensor:** Energy density and pressure appear in the stress–energy tensor, sourcing curvature.
- **Spacetime Curvature:** The geometry of spacetime responds to this energy–pressure content.
- **Geodesic Motion:** Matter follows natural paths determined by curved spacetime.
- **Pressure Waves:** Dynamic motion of mass–energy produces propagating pressure–curvature disturbances.

One Line Summary:

In the PPC framework, gravity arises from the continuous transformation of mass density into energy density, pressure, curvature, and motion, with pressure waves emerging as dynamical manifestations of spacetime geometry.

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