Title: Dimensional Scals Relativity (DSR)

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Abstract: Dimensional Scals Relativity (DSR) is a theoretical model proposing that an entity's size and position in space directly influence its perception and interaction with time, gravity, and reality. Unlike traditional physics that relies on mass-energy interactions and spacetime curvature (as in General Relativity) or fundamental probabilistic behavior (as in Quantum Mechanics), DSR proposes that by minimizing scale to the atomic level, one can enter a new dimensional framework where time, gravity, and perception function differently. DSR is not bound to known quantum laws but instead operates on relative scale-position dynamics.

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1. Introduction Conventional physics divides into General Relativity (macro-scale) and Quantum Mechanics (micro-scale). These paradigms fail to unify completely. DSR introduces a new perspective: what if scale itself—independent of mass or energy—is a controlling factor in time perception, gravitational interaction, and dimensional behavior?

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2. Background and Observational Analogy

A giant moving normally appears slow to a small observer; conversely, a fly appears extremely fast to humans. These observations suggest relative perception of time based on scale.

Time dilation in relativity shows that motion affects time perception. DSR builds upon this, proposing that size and position alone affect temporal flow, independent of velocity.

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3. Hypothesis If an observer or entity is reduced to the atomic scale:

Time would appear to behave differently—slower, faster, or even reversible—relative to the macro world.

Gravitational laws would no longer apply linearly, as scale shifts influence curvature and interaction.

The entity enters a new dimension of perception, where quantum and relativistic effects are secondary to dimensional scale and spatial positioning.

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4. Dimensional Scals Framework

Core Principle: The nature of time, gravity, and light is relative to dimensional scale and position.

Dimensional Shift: Upon reaching atomic scale, the entity shifts into a new operational framework.

Directional Flow of Time: Movement direction at this scale may influence time flow (forward, backward, stasis).

Macro World Observation: From the atomic dimension, time and light flow in the macro world can be observed in altered states.

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5. Theoretical Implications

Quantum Causality Disruption: Unlike quantum mechanics, which respects probabilistic laws, DSR suggests that positional scale allows for intentional causality manipulation.

Time Navigation: DSR allows for theoretical navigation of time based on movement and positioning at the atomic scale.

Gravity Bending: Traditional gravitational laws may not apply when one operates from a scale beyond space-time's standard curvature.

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6. Communication Across Dimensions To utilize DSR practically:

A communication method is needed to relay observations from the atomic dimension.

Light and information transfer must be recalibrated to scale-adjusted frequencies.

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7. Differentiation from Quantum Theory

Quantum theory is bound by fundamental constants and uncertainty.

DSR bypasses these by proposing a scale-dominant model, where size and position—not energy or momentum—determine the rules.

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8. Applications and Future Research

Time research and temporal flow experiments.

Gravitational manipulation at small scales.

Dimensional computation models that simulate macro effects from micro positional shifts.

Development of scale-reduction technology to test theoretical principles.

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9. Conclusion Dimensional Scals Relativity offers a visionary new approach to understanding reality. By shifting perspective from energy/mass-based frameworks to one defined by scale and position, we open the door to new realms of physics, perception, and possibly even time travel.

Status: This is an original theoretical proposal by Kuldeep Singh Rathore, intended for patent and further academic review.

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DSR Constant
(Explained)

(1) Core concept : DSR constant

Definition :-

$$K_{DSR} = \frac{\hbar}{M_{plank} \times L_{plank}} \times \alpha$$

Explaination :-

- $\hbar$: Reduced Planck's constant
  ($\simeq 1.0545718 \times 10^{-34}$ J.s)
- M_{plank} : Plank mass
  ($\simeq 2.176 \times 10^{-8}$ kg)
- L_{plank} : planck length
  ($\simeq 1.616 \times 10^{-35}$ m)
- α : A dimensionless adjustable coefficient to tune the model (Represents transition factor between scales)

→ Creating a dimensionally consistent constant from quantum gravity terms, Making K-DSR a 'bridge constant'=(linking quantum scales with macroscopic precepion throug scale/positio

(2) DSR - Modified Time Perception

Standard Special Relativity:

$$T = \frac{T_0}{\sqrt{1 - \frac{v^2}{c^2}}}$$

→ our modified DSR Time equation:

$$T_{DSR} = \frac{T_0}{\sqrt{1 - (k_{DSR} \cdot S \cdot P)}}$$

Explanation:

- T_0 : Proper time
- S : Relative scale (e.g., S = 0.01 for atomic, S = 1 for macro)
- P : Relative position in space (could be normalized coordinate)
- k_{DSR} : S.P : Replaces velocity term to show time perception is altered by 'scale and position', Not motion.

Implication: As an entity shrinks or moves to specific spatial zones, time stretches or compresses

- Similar to relativistic time dilation but caused by dimensional scale rather than speed.

(3) DSR Gravity Equation.

Newtonian Gravity:

$$F = G \cdot \frac{m_1 m_2}{r^2}$$

DSR Gravity:

$$F_{DSR} = K_{DSR} \cdot \frac{1}{S \cdot P \cdot r^2}$$

Explaination :-

→ This removes mass from the ~~stru~~ equation entirely.

→ Gravitational force becomes stronger as 'scale' S becomes smaller (e.g → atomic) and 'position' P enters critical zones.

Implication :- ~~[redacted]~~ "suggest that" "gravity is not just a mass-driven interaction but also a dimensional phenomenon" — In tiny scales or precise positions, gravity could intensify or act abnormally.

(4) Modified Einstein field Equation :-

Standard :

$$G_{\mu\nu} = \frac{8\pi G}{c^4} \cdot T_{\mu\nu}$$

DSR variant :

$$G_{\mu\nu}^{DSR} = K_{DSR} \cdot \left(\frac{1}{S.P}\right)$$

Explanation :

→ Redifing spacetime curvature ($G_{\mu\nu}$) to be a function of 'scale and position', Not energy - momentum tensor.

→ This implies spacetime bends differntly not because of energy, but due to 'how small' or 'where' you are :

Implication : This is a huge philosophical shift - it reimagines spacetime as "scale-aware' rather than mass-aware.