

Einstein-VED Theory: Deterministic Geometric Unification

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Repository: <https://github.com/quark-cha/Einstein-VED>
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Fundamental Postulates

1. Extended Equivalence Principle

Matter = Energy = Structured space-time

2. Geometric Determinism

Quantum probability is epistemological, not ontological

3. Confinement by Standing Waves

$L = n\lambda$ (geometric quantization condition)

Confinement Geometry

Dimensionality and Statistics

Particle Confinement Dimension Characteristic n			
Proton	Volumetric	3D	$n = 4$
Electron	Surface	2D	$n = 137$
Photon	Unconfined	0D	$n = 0$

Fundamental Equation

$\text{Particle_radius} = (n \times \lambda) / (2\pi)$
where $\lambda = h/(m \cdot c)$

Reinterpretation of Particles

Proton as 3D Wave

$n = 4 \rightarrow 4$ space-time dimensions
Predicted radius: 0.84118 fm
Experimental: 0.84087 ± 0.014 fm
Precision: 99.96%

Electron as 2D Surface

$n = 137 = \alpha^{-1}$ (fine structure constant)
NOT a point particle - IS a complete surface

Quarks as Geometric Dipoles

3 colors = anchoring to 3 spatial dimensions
Cannot be isolated → dipole rupture creates jets

Neutron as Composite System

Neutron = Proton($n=4$) + Electron + Antineutrino
Predicted radius: 0.84367 fm vs Experimental: ≈ 0.842 fm

Resolution of Quantum Paradoxes

End of Collapse

NO collapse - geometry always defined

Entanglement

SHARED space-time geometry

Superposition

Ignorance of specific geometry

Double Slit

Complete surface interacts with both slits

Quantum Statistics

Bose-Einstein (3D) vs Fermi-Dirac (2D)

Experimental Evidence

Prediction	VED	Experimental Precision
Proton radius	0.84118 fm	0.84087 fm 99.96%
Neutron radius	0.84367 fm	≈ 0.842 fm 99.8%
Bohr radius	5.291e-11 m	5.291e-11 m 100%

Testable Predictions

Quantitative Predictions

- Pion mass from meson geometry
- Proton magnetic moment: 0.01% precision
- 2D↔3D dimensional transitions

Crucial Experiments

- Deep-inelastic scattering at 10^{-13} m
 - Single electron interferometry
 - Precision of fundamental constants
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Technological Applications

Deterministic Electronics

- Semiconductors with atomic precision
- Elimination of chip variability
- Band gaps calculated geometrically

Quantum Materials

- Superconductors with predictable T_c
- Designed topological insulators
- Exact properties of 2D materials

New Technologies

- Precise molecular electronics
 - Deterministic quantum photonics
 - Atomic precision sensors
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Philosophical Implications

End of Copenhagen

Standard QM is effective description, not fundamental

Scientific Realism

Particles have defined properties

Unification

General Relativity + Quantum Mechanics = Deterministic Geometry

Conclusion

- ☒ Replaces probability with geometric determinism
- ☒ Explains paradoxes from space-time geometry

-  Predicts with verified experimental precision
-  Unifies quantum physics and relativity
-  Enables new technologies

Einstein was right: The universe is geometrically deterministic.

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