GTESI Mapping to Foundational Frameworks

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1. Maxwell's Equations → GTESI Field Persistence & Curvature Flow

Traditional View: Maxwell's equations govern the dynamics of electric and magnetic fields — their generation by charges and currents, and how they propagate as electromagnetic waves.

GTESI View: The electromagnetic field is a 3D projection of rotating vector alignments in the 5D condensate. Electric and magnetic fields arise from projected vector curvatures:

- Electric field → radial curvature strain (resistance to condensate inflow)
- Magnetic field → rotational coherence (flow alignment)
- Wave propagation in Maxwell = curvature coherence propagation in GTESI.

Key Mapping:

$\nabla \cdot \mathbf{E} = \frac{\rho}{\varepsilon_0}$	Charge density is curvature pressure from condensate impinging on a boundary
$\nabla \cdot \mathbf{B} = 0$	No magnetic monopoles = curvature cannot terminate in spin-locked state
$\nabla \times \mathbf{E} = -\frac{\partial \mathbf{B}}{\partial t}$	Electric field curl is induced by change in curvature alignment
$\nabla \times \mathbf{B} = \mu_0 \mathbf{J} + \mu_0 \varepsilon_0 \frac{\partial \mathbf{E}}{\partial t}$	Magnetic field emerges from curvature flow of energy-rate (processing dynamics)

2. Bose-Einstein Condensate → GTESI Coherence Domain

Traditional View: BEC is a state where multiple bosons occupy the same quantum ground state — exhibiting coherence and macroscopic quantum phenomena.

GTESI View: Coherence = alignment of curvature vectors across a local region. When vectors are aligned, resistance drops, and information persists longer.

Mapping:

- Ground State → Minimum-resistance vector configuration in 5D curvature field
- Macroscopic Coherence → Region of aligned vector flow in 3D = persistent structure
- Critical Temperature → Temperature at which curvature coherence decays

3. Feynman & QED → GTESI Probabilistic Flow Evaluation

Traditional View: Particles take all paths; amplitudes are summed to compute probability.

GTESI View: All potential curvature paths exist in the 5D condensate. The path of least resistance is selected thermodynamically.

Mapping:

$$\sum e^{iS/\hbar} \rightarrow \text{Vectorial evaluation of curvature coherence in 5D}$$

$$\text{Probability amplitude} \rightarrow \text{Resistance-weighted curvature persistence score}$$

$$\text{Interference} \rightarrow \text{Competing projection pathways from 5D pressure}$$

4. Einstein ($E = mc^2$) $\rightarrow$ GTESI Processing Identity

GTESI View: Mass is a record of curvature persistence. Energy is the rate of curvature processing. Space expansion arises from reduced processing rates.

$$m = \frac{E}{S} \quad \text{where } S = \text{Entropy surface (processing inefficiency)}$$

$$E = m \cdot S = \text{Rate} \cdot \text{Resistance}$$

Toward a GTESI Master Equation

$$\mathcal{P} = \frac{d\kappa}{dt} \cdot R = E$$

Where:

- $\mathcal{P}$ = Persistence rate
- $\frac{d\kappa}{dt}$ = rate of curvature change (rotational processing)
- R = resistance (space, entropy)
- E = energy flow (rate of processing capacity)