

# The Aion Particle – SFIT’s Unified Field Mediator

Douglas G. Stevenson

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**Abstract** SFIT introduces the Aion ( $\mathcal{A}$ ), a low-energy spin-2 tensor boson that mediates the information-flux coupling between gravity and quantum states.

## Physical Characteristics

- Spin: 2 (tensor boson)
- Parity: -1 (non-reciprocal/odd)
- Rest Mass:  $m_{\mathcal{A}} = \frac{\hbar\Omega_s}{c^2} \approx 8.8 \times 10^{-51}$  kg
- Energy:  $\approx 5$  atto-eV (sub-femtovolt scale)
- Range: Planetary scale ( 10 m)

## Field Equation

$$(\square + m_{\mathcal{A}}^2)\mathcal{A}_{\mu\nu} = \mathcal{J}_{\mu\nu}^{\text{inf}}$$

## Interaction Lagrangian

$$\mathcal{L}_{\text{int}} = \sqrt{-g} \left[ \alpha \mathcal{A}^{\mu\nu} T_{\mu\nu}^{\text{inf}}(\psi) \right]$$

## Applications (Subject to Verification)

- Planetary Shielding: Non-local gravitational anchors for asteroid deflection
- Relativistic Propulsion: Star-Watcher Class vessels using Aion-driven shear
- Quantum Computing: Phase-locking qubits to Aion cycle for coherence enhancement