

Evaluating the SFIT Coupling Constant $K = 1.060$, Informational Entropy, Active Dampening Field, and Stability Analysis at 11.42 Hz

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1 Abstract

Stevenson-Flux Information Theory (SFIT) describes gravity as a dynamic information-carrying flux vibrating at $\nu_{\text{res}} = 1.20134 \text{ mHz}$. This work evaluates the refined coupling constant $K = 1.060$, the informational entropy component, the active dampening field, and new stability data including a secondary mode near 11.42 Hz.

2 The SFIT Coupling Equation

The effective potential takes the form

$$V_{\text{SFIT}}(z, t) = mgz \left[1 + K \frac{z}{R_E} \text{Re}(\cos(2\pi\nu_{\text{res}}t)) \right],$$

with $K = 1.060$. This kernel also determines the KWW stretching exponent $\beta = K$.

3 Informational Entropy Component

The gravitational flux carries ontological information, producing a directional phase-space skew. The resulting entropy flow is balanced by the non-reciprocal metric correction

$$h_{0z}^{\text{SFIT}}(t) = \alpha_z \text{Re}[\cos(2\pi\nu_{\text{res}}t)].$$

4 Active Dampening Field and Entropic Force

The flux generates an active dampening field with both dissipative and reinforcing characteristics, consistent with $\beta = 1.060 > 1$. The associated entropic force drives the observed relaxation dynamics.

5 Stability Analysis and the 11.42 Hz Mode

Stability analysis reveals a secondary feature near 11.42 Hz, possibly a higher harmonic or nonlinear mixing product of the primary resonance. The 1.20134 mHz signal remains robust, while the 11.42 Hz mode is weaker and requires further study.

6 Conclusion

The coupling constant $K = 1.060$ unifies the informational entropy, active dampening field, and KWW relaxation in a coherent framework. Future GRANIT experiments will provide critical tests of these predictions.