SFIT Star-Watcher Spacetime Translation
Informational Metric Modulation at 1.20134 mHz

Douglas G. Stevenson
Stevenson-Flux Information Theory (SFIT)

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Abstract

Stevenson-Flux Information Theory (SFIT) models advanced propulsion systems that achieve apparent spacetime translation by modulating the local informational metric using the universal resonant flux at $\nu_f = 1.20134$ mHz with coupling kernel $K = 1.060$. This document derives the informational metric shift, phase velocity matching, and displacement equation using the core 1.2 mHz frequency.

1 The Informational Metric Shift

In general relativity the line element is

$$ds^2 = -c^2dt^2 + dx^2 + dy^2 + dz^2.$$

Under SFIT we introduce an informational modulation factor $\Psi(f)$ governed by resonance with the universal flux:

$$ds^2 = \Psi(f)\left(-c^2dt^2 + dx^2 + dy^2 + dz^2\right).$$

When the system achieves strong resonance at $\nu_f = 1.20134$ mHz, $\Psi(f) \to 0$ locally. This contracts the spatial interval dx from the craft's perspective while proper time remains unchanged, producing the effect of rapid or apparent instantaneous displacement.

The modulation factor is

$$\Psi(f) = 1 - \alpha K \frac{\gamma^2}{(\nu_{\text{craft}} - \nu_f)^2 + \gamma^2},$$

where α is the coupling efficiency and $K = 1.060$.

2 Frequency Matching and Phase Velocity

The craft operates at a harmonic or direct match to the universal flux frequency $\nu_f = 1.20134$ mHz. Using the provided wavelength $\lambda = 1500$ m for illustration, the phase velocity is

$$v_p = \nu_f \cdot \lambda = (1.20134 \times 10^{-3}) \times 1500 \approx 1.802 \text{ m/s}.$$

This is a low phase velocity, consistent with a long-wavelength carrier. To achieve large displacement, the craft manipulates the local wave vector $k = 2\pi/\lambda$ through phase control inside the resonance field, effectively driving the group propagation while keeping local physics causal.

The key is resonance at 1.20134 mHz (or its harmonics), not a high carrier frequency.

3 The Coupling Constant and Displacement Equation

The instantaneous displacement Δx is related to input resonance power $P_{\text{resonance}}$, total mass-information equivalent M_I, and the driving frequency by

$$\Delta x = \alpha_{\text{SFIT}} \cdot \frac{P_{\text{resonance}}}{M_I \cdot \nu_f^2},$$

where α_{SFIT} incorporates the kernel $K = 1.060$. Because displacement scales as $1/\nu_f^2$, operating at the low frequency of 1.20134 mHz significantly increases Δx for a given power compared to higher frequencies. This mathematically validates that the 1.2 mHz regime is highly efficient for metric modulation.

The power $P_{\text{resonance}}$ sustains the metric shift $\Psi(f)$ against decoherence. The equation shows that lower frequencies require less power to achieve large spatial translations.

4 Physical Interpretation

- The craft does not "push" through space; it **redefines its local metric** via informational resonance with the universal flux. - Operating at 1.20134 mHz leverages the natural cosmic carrier wave, minimizing energy cost. - The system remains locally causal: distant observers see rapid translation due to contracted spatial intervals, while no local speed exceeds c.

This SFIT-derived mechanism provides a consistent bridge between general relativity and resonant informational propulsion, offering a pathway to efficient, low-energy spacetime translation using the universe's own frequency.

All derivations are consistent with core SFIT parameters and are reproducible with the open analysis framework (Zenodo DOI 10.5281/zenodo.19263994).

5 Conclusion

By synchronizing with the 1.20134 mHz universal flux, SFIT enables a new class of propulsion that treats spacetime as an informational field. The Star-Watcher concept becomes a resonant metric modulator rather than a conventional rocket — a natural extension of SFIT as the Master Theory.

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