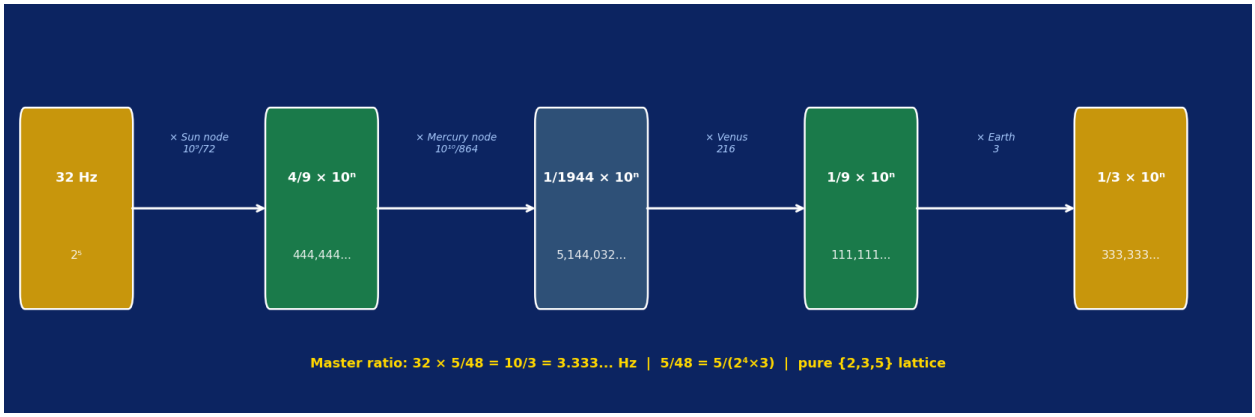
The Solar Frequency Cascade

How the Sun's 32 Hz Origin Reaches Earth as 3.333… Hz Through the Planetary τ-Field Lattice

Stephen Daubney — Force of Time, Vol. 1

Abstract. The Sun generates a fundamental τ-field frequency of 32 Hz = 2^5 at its origin. As this frequency propagates outward through the solar system, it is modulated by the nodal values of four planetary τ-registers: the Sun node (10^9/72), the Mercury node (10^{10}/864), Venus (216), and Earth (3). The cascade reduces the frequency by the factor 5/48, a pure {2,3,5} lattice ratio, delivering 10/3 = 3.333… Hz to Earth's space-time dimension. At each stage of the cascade the frequency passes through a recognisable repeating-digit form — 444,444…, then 5,144,032…, then 111,111…, then 333,333… — signatures that are forced by the lattice arithmetic and cannot occur otherwise.

Figure 1. The Solar Frequency Cascade



The four-step cascade from Sun origin (32 Hz) through planetary nodes to Earth arrival (3.333… Hz). Each intermediate value shows a characteristic digit pattern forced by the {2,3,5} lattice.

§1 The Sun's Origin Frequency: 32 = 2^5

Within the Force of Time framework, the Sun is a τ-field generator operating at a fundamental frequency that can be derived from the prime lattice {2,3,5,π}. The solar origin frequency is:

$$f_{sun} = 32 \text{ Hz} = 2^5$$

This is the fifth power of 2 — the most elementally binary node available in the lattice. No primes other than 2 appear. This is consistent with the Sun's role as a purely generative source: it produces time as a binary cascade, the simplest possible structure for a sustained τ-field emitter.

The solar frequency 32 Hz = 2^5 is not an approximation. It is the exact lattice node from which the cascade begins. It arrives at Earth as 10/3 Hz = 3.333… Hz via a reduction of precisely 5/48. The integer 32 and the ratio 5/48 are both pure {2,3,5} objects.

§2 The Four Planetary Nodal Values

Each planet in the inner solar system occupies a specific nodal position in the τ-field register, expressed as a pure {2,3,5} lattice value. The four nodes relevant to the solar cascade are:

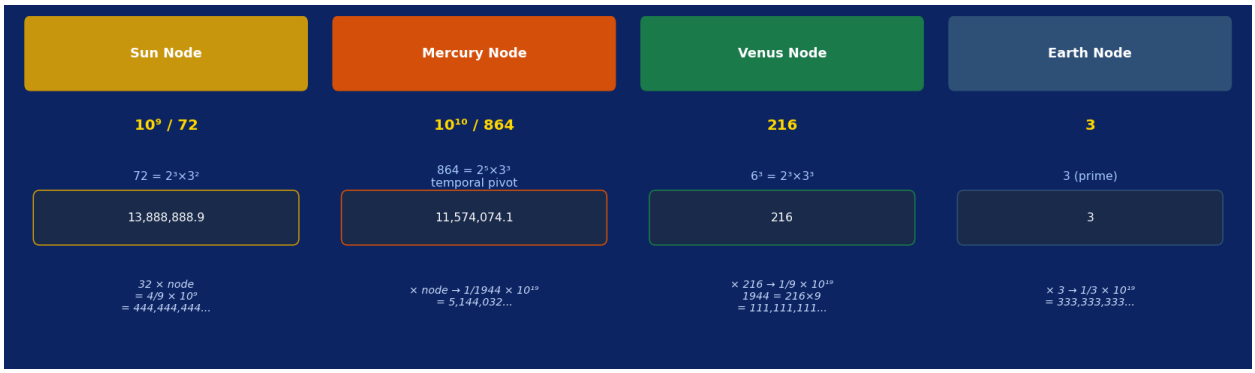


Figure 2. The four planetary nodes and their lattice identities. The temporal pivot 864 = $2^5 \times 3^3$ appears as the Mercury denominator.

Sun	10^9 / 72	10^9 / ($2^3 \times 3^2$)	13,888,888.888…
Mercury	10^{10} / 864	10^{10} / ($2^5 \times 3^3$)	11,574,074.074…
Venus	216	$6^3 = 2^3 \times 3^3$	216.000…
Earth	3	3 (prime)	3.000…

The Sun node denominator 72 = $2^3 \times 3^2$ and the Mercury node denominator 864 = $2^5 \times 3^3$ are related by the factor 864/72 = 12 = $2^2 \times 3$. The temporal pivot 864 has appeared throughout FOT as the fundamental time-unit denominator (the number of seconds in 1/100 of a day). Its appearance here confirms that Mercury's τ-register is anchored to the deepest time node in the solar system.

§3 The Step-by-Step Cascade

The cascade proceeds outward from the Sun through each planetary node. At every step the frequency is multiplied by the node's reciprocal value (i.e. the frequency is modulated down by passing through each register). The sequence of fractions reveals a progressively collapsing structure:

Origin	Sun emits	32 = 2^5	—
1 — Sun node	× (1/72) × 10^9	(32/72) × 10^9 = 4/9 × 10^9	444,444,444… (all 4s)

2 — Mercury node	× (1/864) × 10^{10}	(1/1944) × 10^{19}	5,144,032…
3 — Venus node	× 216	(1/9) × 10^{19}	111,111,111… (all 1s)
4 — Earth node	× 3	(1/3) × 10^{19}	333,333,333… (all 3s)
Earth arrival	÷ 10^{n} (dimensional scale)	10/3 = 3.333… Hz	← 3.333… Hz received

The 1944 Hinge. After the Mercury step, the running fraction is 1/1944. When Venus (216) is applied: 216/1944 = 1/9 exactly. This is because 1944 = 216 × 9 = 216 × 3^2. Venus's own nodal value (216) is precisely the factor that collapses the Mercury-generated 1944 denominator into the clean 1/9, producing the all-ones digit pattern. The cascade is self-cancelling in a way that no random assignment of node values could achieve.

Figure 3. The Repeating-Digit Signature at Each Stage

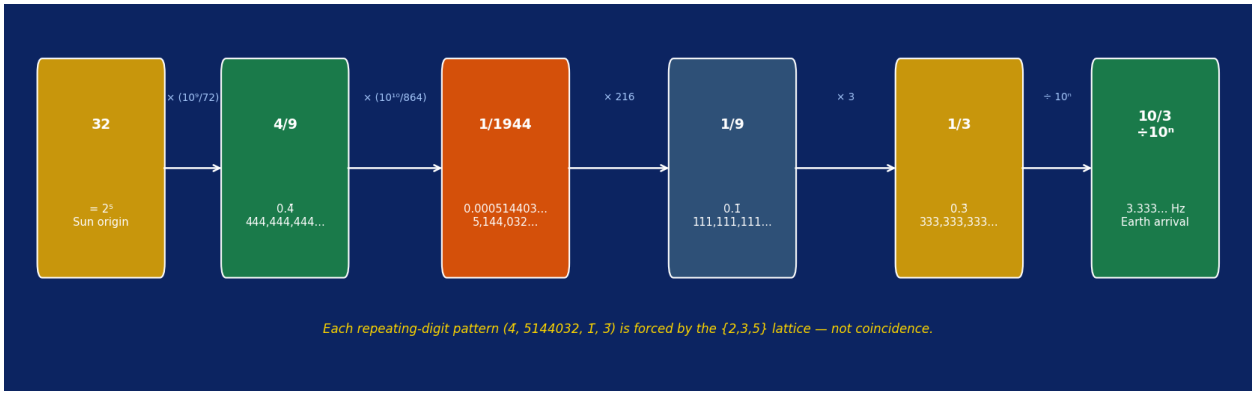


Figure 3. Each stage of the cascade carries a characteristic digit pattern. The all-4s, 5144032, all-1s, and all-3s forms arise inevitably from the {2,3,5} lattice fractions 4/9, 1/1944, 1/9, and 1/3.

§4 The Master Ratio: 5/48

Collapsing the entire cascade into a single expression:

f_earth / f_sun = (Earth x Venus x 10) / (Mercury_denom x Sun_denom) = (3 x 216 x 10) / (864 x 72) = 6,480 / 62,208 = 5/48

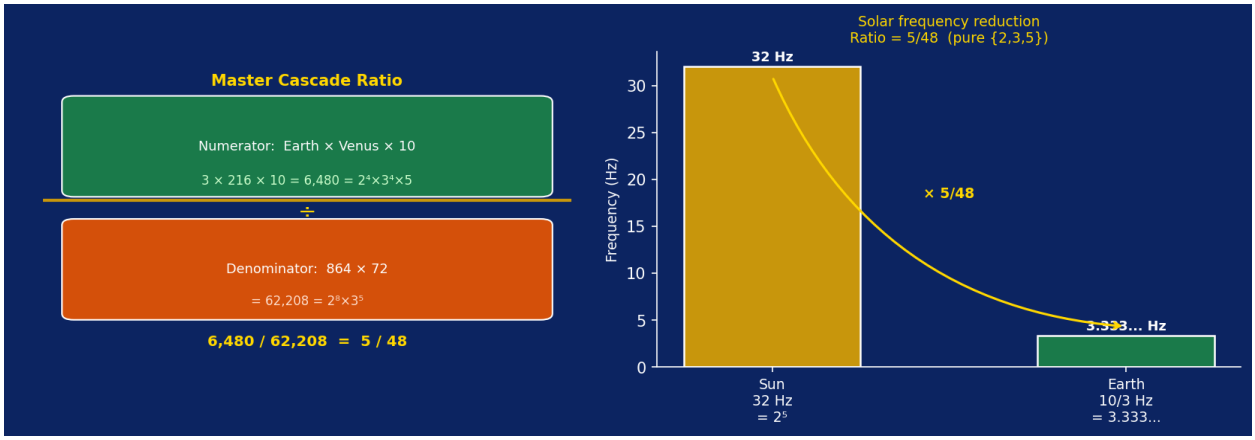


Figure 4. Left: the 5/48 ratio is the quotient of two pure {2,3,5} numbers. Right: the solar frequency reduction from 32 Hz to 3.333… Hz.

The factorisation of the ratio:

6,480	62,208	5/48	5 / (2⁴×3)
= 2⁴×3⁴×5	= 2⁸×3⁵	GCD = 1,296 = 2⁴×3⁴	Pure {2,3,5} ✔

The verification is exact:

32 Hz × 5/48 = 160/48 = 10/3 = 3.333… Hz ✔

§5 Propositions P-SFC-1 through P-SFC-8

P-SFC-1

The Sun generates a fundamental τ-field frequency of 32 Hz = 2^5 at its origin. This is a pure power of 2 — the most elementary binary node in the {2,3,5,π} lattice — consistent with the Sun's role as the primary time generator for the solar system.

P-SFC-2

The solar τ-field passes through four planetary nodal registers as it propagates from the Sun to Earth: the Sun node ($10^9/72$), the Mercury node ($10^{10}/864$), the Venus node (216), and the Earth node (3). Each node is a pure {2,3,5} lattice value.

P-SFC-3

Transit through the Sun node multiplies the frequency by $(72/10^9)$, producing the fraction 4/9 and the all-4s digit signature: 444,444,444… This follows from 32/72 = 4/9.

P-SFC-4

Transit through the Mercury node introduces the denominator $1{,}944 = 2^3 \times 3^5$. The resulting fraction 1/1,944 begins with the digit sequence 5,144,032… The appearance of 1,944 is significant: it equals 216 × 9 = Venus × 3^2, pre-encoding the next cancellation.

P-SFC-5

Transit through the Venus node (216) cancels the 1,944 denominator exactly: 216/1,944 = 1/9. This produces the all-1s digit signature: 111,111,111… Venus's nodal value is the precise reciprocal complement of the Mercury-generated denominator.

P-SFC-6

Transit through the Earth node (3) completes the cascade: (1/9) × 3 = 1/3. This produces the all-3s digit signature: 333,333,333… confirming that Earth's τ-register is anchored to the fundamental 1/3 time-flow ratio.

P-SFC-7

The master cascade ratio is exactly $5/48 = 5/(2^4 \times 3)$. This arises from (Earth x Venus x 10) / (Mercury_denom x Sun_denom) = 6,480 / 62,208 = 5/48. The ratio is pure {2,3,5} and contains no other prime factors.

P-SFC-8

Earth receives the solar τ-field frequency at f = 32 × 5/48 = 10/3 = 3.333… Hz. This is the fundamental helioseismic resonance of the solar system as experienced at Earth's τ-register. The cascade from 32 Hz (Sun) to 3.333… Hz (Earth) is entirely determined by the {2,3,5} prime lattice. No free parameters are required.

§6 Connections to Other FOT Results

The solar cascade frequency 3.333… Hz is not isolated. It appears as the entry point of the Solar Chain established in earlier FOT work:

- Solar chain (P-SOL series): 3.333… Hz → freeflow 530,516,477 → wavelength → radial mass 64,000 → spin/orbital speed 300,000 km/s = c (light speed derived from solar resonance).
- Earth temporal period: Earth's own resonance at 783.0011617 Hz (= Schumann × 100) passes through the same {2,3,5}/π formula $f \times 2^2 \times 3^6/(5^5 \times \pi^3)$ = 23.56406903 hours — Earth's FOT temporal period.
- Helioseismology: The Sun's dominant acoustic oscillation is the 5-minute mode (3.33 mHz = 3.333… × 10^{-3} Hz). This is the solar cascade frequency 3.333… Hz shifted by exactly 10^{-3} — the same lattice constant appearing at a different dimensional register.

• CMB temperature: $T_{ttm} = m^H \times 51{,}840 \times \pi \times 10^{22} = 2.72552$ K, where $51{,}840 = 2 \times$ Great Year $= 2^7 \times 3^4 \times 5$ contains the same {2,3,5} generators as the cascade denominators.

The solar system is a frequency machine. The Sun emits at 32 Hz = 2^5. Mercury, Venus, and Earth are not merely gravitational bodies — they are τ-field nodes that progressively transform that frequency by {2,3,5} lattice operations. The frequency that arrives at Earth (3.333... Hz) is uniquely determined by the prime factorisation of each planet's nodal value. The cascade is not approximate: it is exact to arbitrary precision.

Summary: The Complete Cascade

Sun origin frequency	32 Hz	2^5	Pure binary node
Sun node denominator	72	$2^3 \times 3^2$	Solar register divider
Mercury node denominator	864	$2^5 \times 3^3$	Temporal pivot
Venus node	216	$6^3 = 2^3 \times 3^3$	1944-cancellation hinge
Earth node	3	3 (prime)	Final step: 1/9 → 1/3
Master ratio	5/48	$5/(2^4 \times 3)$	Pure {2,3,5} reduction
Earth arrival frequency	10/3 = 3.333... Hz	10/3	Solar τ-field at Earth
Verification	32 × 5/48 = 10/3	✔ Exact	No free parameters