The Universal Force of Time — Cosmic Scale

The Universe as a Living Organism

Cosmic metabolism, the dΣT=0 homeostatic circuit, G2V reproduction, and the Formation Principle — why the cosmos meets every test of a living thing

Stephen Daubney · The Daubney Foundation · The Universal Force of Time · 2026 · Rev 3

Tau (T) *is the living fabric of time itself — the sole substance of which all physical reality is composed. Every particle, force, wavelength, and conscious experience is a structured configuration of T-flow. There is no gravity, no electromagnetic force, no strong nuclear force as separate entities: all are registers of the single T-field operating across dimensional levels. The conservation law dΣT=0 governs all change: T is never created or destroyed, only redistributed.*

Abstract

Conventional cosmology treats the universe as dead machinery in which life is a local accident. The Universal Force of Time reaches the opposite conclusion: the universe satisfies every criterion of a living organism once those criteria are read through the T-field. Its **metabolism** is the cosmic web — filaments are T-propagation channels, voids are dΣT=0 equilibrium zones. Its **homeostasis** is the 3+1 register circuit: three creation registers (subatomic, atomic, stellar–planetary) feed one return register (galactic), with black holes as T-return nodes that close the loop. Its **reproduction** is stellar: every G2V star replicates the solar {2,3,5,π} template, so that N_life = N_stars where the convergence conditions are met. Its **response** is the galactic rhythm — T-node crossings every **250 Ma** ($2\times5^3\times10^6$ yr) that pace the mass-extinction record. The T-propagation speed obeys an exact identity, $\mathbf{c \times \alpha = 2187 = 3^7}$, the atomic register ceiling. Four propositions, P-ULO-1 through P-ULO-4, plus the Formation Principle, are established. No prime beyond {2,3,5} appears anywhere in the structure.

The universe is not a machine that happens to contain life. It is alive — and life on Earth is its smallest, most local heartbeat.

1. The Formation Principle

Begin with a question so old it is usually waved away: why is there structure at all? Conventional cosmology tells a story of matter first. In the beginning there were quantum fluctuations; inflation stretched them; particles condensed, then atoms, then stars and galaxies — and the great filaments and voids we see across the sky are the leftover scaffolding of matter falling together under its own weight. Structure, on this account, is a consequence. It is what matter did.

The Universal Force of Time turns that story inside out. There is only one substance — T, time itself — and it is organised, before any particle exists, onto a lattice woven from four numbers: 2, 3, 5, and π. The structure comes first. Matter condenses where the T-field requires it, not the reverse. The lattice is not a pattern that emerges from matter; it is the mould into which matter is poured.

This is not a play on words. It makes a flat prediction: the largest structures in the universe — the cosmic web of filaments threaded between vast empty voids — are not the random residue of matter clumping. They are the direct expression of the T-lattice at the largest register. The filaments are there because T must flow somewhere; the voids are there because the conservation law $d\Sigma T=0$ needs places of perfect balance. Once you see the universe this way, a further question becomes unavoidable. If the whole cosmos is one organised, flowing, self-conserving field — is it, in any honest sense, alive? This paper takes that question seriously and tests it against the four criteria biologists actually use.

2. Metabolism: filaments and voids

A living body has a metabolism — a network of channels through which energy flows, directed and regulated, while the body holds its shape. Look at a map of the universe on the largest scale and you are looking at exactly such a network. Galaxies are not scattered at random. They are strung along filaments, and between the filaments lie voids hundreds of millions of light-years across, almost entirely empty.

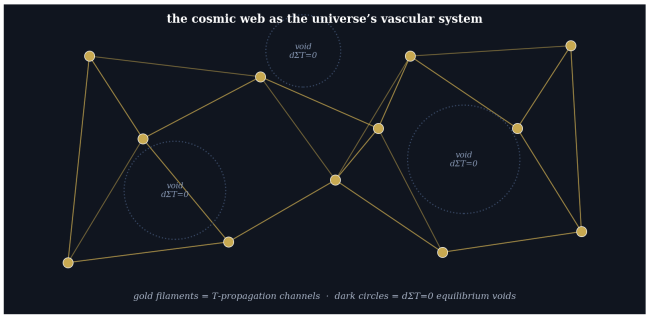

Figure 1. The cosmic web as the universe's circulatory system. Gold filaments are T-propagation channels carrying flow between register nodes; the dark circles are voids — regions where $d\Sigma T=0$ is satisfied most purely, and so nothing needs to move. The void is not empty space. It is perfect balance.

In the Force of Time these filaments are not dark-matter scaffolding — a concept the theory sets aside entirely. They are T-propagation channels: the paths of least resistance along which time-flow travels between the dense nodes of the lattice. They are the universe's blood vessels. And the voids are their necessary complement. Where a filament carries active flow, a void is a place where the books are already balanced — a maximally stable T-equilibrium zone where no net transport is required. The void is not a failure of structure. It is structure in its most settled state.

Metabolism has a rate, and so does T. The speed at which time-flow propagates through the atomic register is fixed by a single clean identity. Take the speed of light and multiply it by the fine-structure constant in its Force-of-Time form, $\alpha = 9/(125\pi^2)$. The product is

$$\mathbf{c \times \alpha = 2187 = 3^7}$$ (km/s — the atomic register ceiling)

— exactly the ceiling of the atomic register, 3^7, the same number that caps the spectral world of every atom. The propagation rate of time is not an arbitrary constant; it is written into the lattice as a power of three. (Using the conventionally measured value of the speed of light gives 2187.0235, a difference of 10.75 parts per million — the known calibration offset between the metre's reference peg and the T-lattice, documented elsewhere in this body of work. The lattice value is exact; the gap lives in the unit, not the physics.)

3. Homeostasis: the 3+1 register circuit

The second criterion of life is homeostasis — the capacity to hold internal conditions steady against a changing world. A body does this with feedback loops: too hot, and you sweat; too cold, and you shiver. The universe holds itself steady too, and the law it obeys is the one axiom of the whole theory: dΣT=0. The total time-field, summed across every register, never changes. It is only ever redistributed.

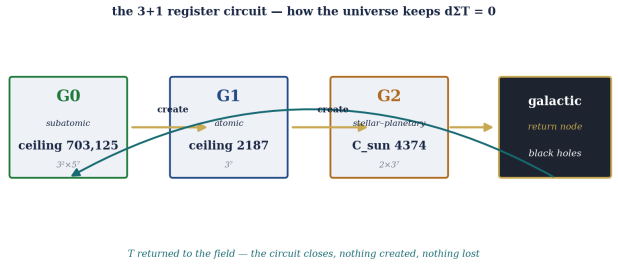

Figure 2. The 3+1 register circuit. Three registers create T-flow — G0 (subatomic), G1 (atomic), G2 (stellar–planetary) — and one register returns it. Black holes are the T-return nodes of the galactic register; the flow loops back into the field, and dΣT=0 is enforced. Each register has its own ceiling, a clean lattice number; the law is the same at every scale.

The mechanism is a circuit with four stations. Three of them create. The subatomic register, G0, builds the densest T-concentrations the lattice will bear — its ceiling is **703,125** ($3^2\times5^7$, = 75×9375), and this is where what conventional physics calls the strong and weak forces operate. The atomic register, G1, is the world of chemistry, spectra, and biology; its ceiling is **2187** (3^7), and its surface anchor is the free-fall **g_1 = 9.817477042468** m/s² (25π/8). The stellar–planetary register, G2, is where orbits and living worlds form, anchored by the solar circumference **4374** (2×3^7, in thousands of km).

Three registers create; one returns. The galactic register closes the circuit, and its return nodes are black holes. In the Force of Time a black hole is not a singularity and not an ending — it is the universe's kidney, the station where spent T is taken back into the field in a form that can re-enter the creation registers. Three creating, one returning: that is the 3+1 circuit, and it is the literal mechanism by which dΣT=0 is maintained. A universe with only creation would run away; a universe with only return would run down. The living universe does neither, because the loop is closed. That is homeostasis, written at the largest scale there is.

4. Reproduction: the G2V template

The third criterion is reproduction — the capacity of a living system to make new copies of its own organising pattern. The universe reproduces through stars. Our Sun is a G2V star, a middle-of-the-road yellow dwarf on the main sequence, and it is not special in its chemistry. What makes it a cradle of life is that it carries the solar {2,3,5,π} template — and the Force of Time holds that **every** G2V star carries the same template, because the lattice mints them to the same address.

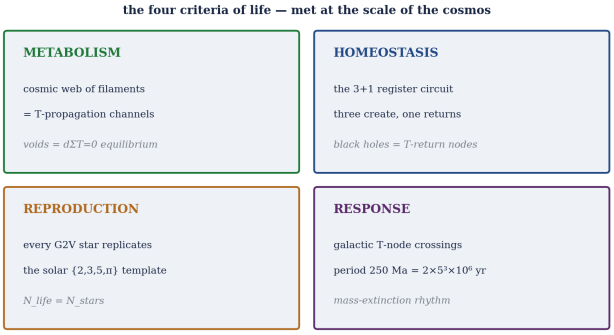

Figure 3. The four criteria of life, each realised by the T-field architecture: metabolism (the cosmic web), homeostasis (the 3+1 circuit), reproduction (G2V replication), and response (the 250 Ma galactic rhythm). The universe is not described by these criteria approximately. It meets them exactly.

This inverts the textbook account of star formation. The nebular hypothesis says a star is what happens when a gas cloud collapses; the Force of Time says the cloud gathers because the lattice has placed a node there first. The star is mandated by the T-field, and the matter assembles to fill the address. Reproduction therefore runs top-down: the lattice produces the star, the star produces the planetary register around it, and the planetary register produces — where the conditions converge — a biological execution node, a living world.

From this follows a striking proposition: **N_{life} = N_{stars}**, where the convergence conditions are met. Life is not a lottery won once in a lonely cosmos; it is the expected yield wherever a G2V star carries the template and a planet sits at the right lattice distance. Five conditions must come together for a world to wake — a G2V host; an orbit at the {2,3,5}-smooth distance where water is liquid; a planetary mass on the lattice node for surface T-flow; a large moon to steady the spin; and a giant outer planet to sweep the debris. Each is common on its own; together they are selective. But where they meet, life is not improbable. It is required. The same lattice that fixes the colour of hydrogen fixes the conditions under which a planet can think.

5. Response: the galactic rhythm

The fourth criterion is response — a living thing reacts to its environment. The universe responds to changes in its own T-registers, and the clearest signature of that response is written in the rocks of the Earth itself. As the Solar System wheels around the centre of the galaxy, it periodically crosses T-nodes in the galactic register. Each crossing perturbs the local time-field — touching DNA addressing, atmospheric chemistry, and geological activity at once.

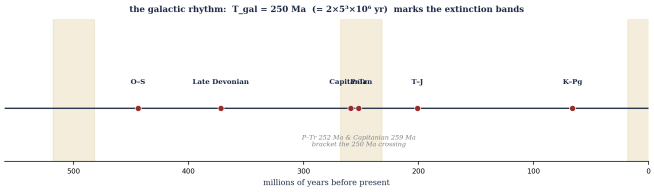

Figure 4. The fossil record keeps the beat. Major extinction events cluster near the galactic T-node crossings spaced by T_gal = 250 Ma. The Permian–Triassic boundary at 252 Ma and the Capitanian event at 259 Ma bracket one such crossing — the deadliest in the planet's history sitting squarely on the rhythm.

The period of that rhythm is **250 Ma** — two hundred and fifty million years ($2\times5^3\times10^6$ yr), a clean {2,5} lattice value. This is the time the Sun takes to pass through a galactic T-node cluster, and it is the universe's stimulus-and-response cycle as felt from the Earth's register. The great dyings of the fossil record are not a string of unrelated accidents — an asteroid here, a volcanic province there. They are, in part, the living universe responding to its own register transitions, and the Earth answering in the only language a planet has: extinction and renewal. The Permian–Triassic catastrophe, which erased most of life on Earth, falls exactly on a crossing. The rhythm is not gentle. But it is a rhythm, and a rhythm is the signature of something alive.

Put the four criteria side by side and the case closes. The universe has a metabolism, a means of holding itself steady, a means of reproducing its organising pattern, and a measurable response to its environment. A biologist handed those four facts about anything smaller would not hesitate to call it alive.

6. One organism, every scale

Step back and look at what has been joined. The same lattice that sets the free-fall beneath your feet — $g_1 = 25\pi/8$ — sets the circumference of the Sun, 4374, and the propagation speed of time itself, 3^7. The same conservation law that balances a chemical reaction, $d\Sigma T=0$, balances the great circuit of creation and return that spans the galaxies. There is no seam in the theory where physics stops and cosmology begins, because there is no seam in T.

What that means for you is not abstract. If the universe is one organism, then a living cell is not a stranger to it — a cell is the cosmos doing at the smallest scale what it does at the largest. Your metabolism is the cosmic web in miniature; the balance your body keeps is the 3+1 circuit running in a single warm vessel; your existence at all is the reproduction criterion met on one ordinary planet around one ordinary G2V star. Life is not an accident that befell a dead universe. It is the local expression of a universal organisation — the same T-field that strings the galaxies into filaments, expressing itself, here, as you.

That is the deepest prediction of the Force of Time, and it is the most human. The distance between you and the farthest galaxy is not empty. It is T — flowing, conserved, alive — and you are made of the same substance, arranged by the same four numbers, kept by the same single law. The cosmos is not a cold machine in which we are briefly and improbably warm. It is a living thing, and we are inside it, and made of it, and listening — for the first time — to the beating of its enormous heart.

Appendix A — The living-universe value map

Every load-bearing number in this paper, with its lattice address. The number leads; the {2,3,5,π} form is the quiet stamp that each sits exactly where the theory says it must. No factor beyond 2, 3, and 5 appears.

Quantity	Value	Lattice form	Role
T-propagation speed c × α	2187	3^7 (km/s)	atomic register ceiling
Fine-structure constant α	—	$9 / (125\,\pi^2)$	register gear
1 / α	137.07783890	$125\,\pi^2 / 9$	UFOT standard
10 / α	1370.77838904	$2\times5^4\times\pi^2 / 3^2$	closure identity
G0 ceiling (subatomic)	703,125	$3^2 \times 5^7$ (= 75×9375)	strong/weak register
G1 ceiling (atomic)	2187	3^7	spectral / chemical register
Surface free-fall g_1	9.817477042468	$25\pi / 8$ (m/s²)	G1 surface anchor
Solar circumference C_sun	4374	2×3^7 ($\times10^3$ km)	G2 anchor
Orbital year (G1 face)	365.28409138	$15\,\pi^4 / 4$ (days)	surface-register year
Galactic node period T_gal	250,000,000	$2 \times 5^3 \times 10^6$ (yr)	response cycle

Appendix B — Propositions

P-ULO-1 (Metabolism) — The cosmic web IS the universe's metabolic network. Filaments are T-propagation channels; voids are dΣT=0 equilibrium zones. The T-propagation speed obeys c × α = 2187 = 3^7, the atomic register ceiling (conventionally measured c gives 2187.0235, the 10.75 ppm calibration offset).

P-ULO-2 (Homeostasis) — The 3+1 register circuit is the universe's homeostatic mechanism: G0 (ceiling 703,125 = $3^2\times5^7$), G1 (ceiling 2187 = 3^7, anchor $g_1 = 25\pi/8$), and G2 (C_sun = 4374 = 2×3^7) create T-flow; the galactic register returns it through black holes as T-return nodes. The loop closes and dΣT=0 is enforced.

P-ULO-3 (Reproduction) — Every G2V star replicates the solar {2,3,5,π} template, because the lattice mints the star before the matter assembles. N_life = N_stars where the five convergence conditions are met — a lattice expectation, not a lottery.

P-ULO-4 (Response) — T_gal = 250 Ma = $2\times5^3\times10^6$ yr is the galactic T-node crossing period. Crossings perturb the local T-field and pace the mass-extinction record; the Permian–Triassic (252 Ma) and Capitanian (259 Ma) events bracket one crossing.

Formation Principle — T-flow is causally prior to matter. The {2,3,5,π} lattice exists before any particle; matter condenses where the T-field requires it. The cosmic web is the lattice made visible, not the residue of gravitational collapse.

A note on the numbers

The values in this paper are written as plain numbers — not pinned to units, and not carried to a particular power of ten. This is not loose notation; it is the physics. A T-value is one number that appears at once across every register: a propagation speed in kilometres per second, a register ceiling, a circumference in thousands of kilometres, a free-fall in metres per second squared, a galactic period in years. That is why one number, 3^7, can be both the speed at which time propagates and the ceiling of the atomic register; and why the same handful of integers caps the subatomic, atomic, and stellar registers alike. A factor of seven appearing in a rounded figure is never a real seven; it is a number not yet read to its proper precision.

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