

What Science Calls Gravity

The T-Flow Origin of Falling Bodies and Orbital Motion — and the Identity That Binds Free Fall to the Speed of Light

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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 $d\Sigma T=0$ governs all change: T is never created or destroyed, only redistributed.

Abstract

For three centuries one phenomenon has been described with extraordinary precision and explained with almost none. Newton gave us the formula for what he called attraction and freely admitted he could not say what carried it; Einstein replaced the force with curved geometry, which is a description, not a cause. The Universal Force of Time names the mechanism: what science calls gravity is not a force at all but the local gradient of T-flow — time itself, flowing toward the denser nodes of the dimensional lattice. The surface value is **9.817477042468 m/s²** (= $25\pi/8$), read straight from the {2,3,5, π } lattice with no free parameter. And it does not stand alone. Squared and carried through the day's own arithmetic, **9.817477042468² × 864 × 3600 = 299,789,233.683089 m/s** — the speed of light, exactly. The rate at which a stone falls and the speed at which light travels are not two facts of nature but one lattice quantity worn at two registers. From the same surface value the orbital year follows at the G1 register — 365.284091377509 days (= $15\pi^4/4$), the orbital time read at the surface register specifically, not the conventional sidereal year (365.256 days), which is the same orbit read at a different register — and the hydrogen H β line returns it through the 864 bridge. And the so-called gravitational constant is unmasked: **G = 20/3 × 10⁻¹¹ = 1/0.15**, the reciprocal of the orbital distance — not a constant of nature but a unit-bridge, which is why Cavendish's G is the worst-measured number in physics. Action at a distance disappears; the inverse square is dilution over a sphere; F = ma is a tautology that yields a frequency, not a force; the free fall carries a second face g₂ that sets the sidereal day; and the 85% of the universe attributed to dark matter is shown to be a galactic-register T-flow signature, not missing mass. Eleven propositions carry the argument. Every figure is at full precision and reproducible on a calculator.

1. The Problem With a Force Nobody Has Seen

Drop a stone. It falls. This is so familiar, so reliable, that most people never pause to ask what is actually happening. The stone accelerates toward the Earth at $9.817477042468 \text{ m/s}^2$ — and science calls this the effect of gravity. But what is it, really? What carries the influence from the Earth to the stone across the space between them? Isaac Newton gave the most precise description in the history of science, and knew he had not given a cause. In 1693 he wrote to Richard Bentley that for one body to act upon another at a distance through a vacuum, “without the mediation of anything else,” was “so great an absurdity that I believe no man who has in philosophical matters a competent faculty of thinking can ever fall into it.” He had the formula. He did not have the mechanism, and he said so: “*I feign no hypotheses.*”

Einstein replaced the force with geometry — mass curves spacetime, and bodies follow the straightest paths through the curve. It is a profound reframing, and it is still a description. What curves? What is spacetime, that it can be curved? Geometry is a language, not a cause. And in the twentieth century the gap widened: the outer stars of galaxies orbit as fast as the inner ones, far faster than the visible matter allows, and the conventional repair was to posit that 85% of all matter is invisible and undetectable — dark matter — which, after four decades of dedicated searching, no experiment has ever found. These are not minor gaps. They are the symptoms of a missing mechanism. The Universal Force of Time supplies it.

2. T-Flow: The Mechanism That Was Missing

In the Universal Force of Time there is one substance, T — the living fabric of time itself — and matter, energy and space are not separate ingredients but expressions of T at different registers of the dimensional lattice. T does not sit still. It propagates, flowing through the lattice in directed currents. Where T concentrates — at the nodes: the Sun, the Earth, an atomic nucleus — the surrounding field carries a gradient, steeper close to the node and gentler far from it. That gradient is what instruments report as “gravitational acceleration.” It has nothing to do with mass acting on mass across a distance. It is simply the local slope of the T-flow field at the point of measurement.

An object in that gradient is not pulled. It is carried — as a leaf moves with a river, not because the river grips it but because the river is the medium it lives in. The direction is always toward the nearest nodal concentration, because that is the direction the flow runs. You do not fall because the Earth reaches out and

pulls you; you fall because, beneath your feet, time runs into a denser node, and you go with it. This is the whole of it. What remains is to show that the rate of that flow is fixed by the lattice, and that the same number reappears as the speed of light and the length of the year.

3. The Inverse Square Is Dilution, Not Action at a Distance

Newton's formula weakens with distance as $1/r^2$, and for three centuries that has been read as a force reaching out and growing tired with the miles. The truth is gentler and already sitting inside the equation. A node sets a T-density, and that density spreads outward. A thing spreading outward in three dimensions is spreading over the surface of a sphere, and the area of a sphere is $4\pi r^2$. Double the distance and the same T is smeared over four times the area — four times thinner. That is the whole of the inverse square: not a force reaching further, but one fixed quantity diluted across a growing shell.

The river image makes it plain. Stand near a single voice singing in a cathedral and it is loud; walk to the back and it is faint — not because the singer is straining less, but because the same sound is now spread through far more of the room. Nothing is pulling. The 4π that governs that thinning is the same $4\pi^2$ that sits, squared, in the lattice expression for the Sun's gravitational parameter — the geometry of the sphere written once into the dilution and once into the orbit. The inverse square was never the mechanism. It was always the shape of space.

4. The Flow Has One Direction

Every measurement ever made of what science calls gravitational force has recorded the same thing: acceleration toward the Earth. Downward. Toward the node. Every pendulum, every falling body, every accelerometer, every satellite — one direction. The T-flow field at the surface register is unidirectional: it flows toward the concentration; it does not flow away from it.

Newton's Third Law asks us to believe the Earth pushes up on you with exactly the force that pulls you down. But has any instrument ever recorded the Earth *emitting* a downward-defying field directed away from its surface? It has not — not once. What has been measured is something else entirely: mechanical resistance. The floor compresses fractionally under your weight; the atoms of the floor will not let the atoms of your feet pass through them. That is a structural property of matter — two T-nodes cannot occupy the same lattice position at the same register — and it feels like an upward force only because it forbids

downward motion. Newton's Third Law bundled two unrelated things, a field gradient and a geometric constraint, into one equation and called them an action-reaction pair. The equations balance either way, which is why the conflation went unnoticed for three hundred years. The mechanism, nonetheless, is two different classes of T interaction, not one.

5. The Surface Value — $25\pi/8$ From First Principles

The sternest test of any framework is a number. The Universal Force of Time gives the surface T-flow gradient at an Earth-register (G1) node directly from the {2,3,5, π } lattice:

$$T_g = 9.817477042468 \text{ m/s}^2 (= 25\pi/8)$$

This is not fitted and not adjusted after the fact. The numerator $25 = 5^2$ and the denominator $8 = 2^3$ are pure {2,3,5} numbers; the single π enters because the surface node sits at the junction of the radial (gradient) and angular (rotational) directions of the lattice. There are no tunable constants. The same value descends from the atomic register through the 864 bridge and the degree-radian veil:

$$T_g = H\beta \div K = 486 \div 49.50355349930312 = 25\pi/8$$

where $K = 2^6 \times 3^5 / (100\pi) = 49.50355349930312$ and $H\beta = 486 \text{ nm} (= 2 \times 3^5)$, the master hydrogen seed. The fall of a stone is written in the same arithmetic as a line in the hydrogen spectrum. But the derivation does not stop at the surface — and the next step is the heart of this paper.

6. Free Fall Is a Time Correction — the Two Faces g_1 and g_2

There is a second thing the surface value tells us, and it is the deepest reframing of all: free fall is not a pull at all but a correction to a clock. The Earth does not quite turn once in a 24-hour day — its true rotation against the stars, the sidereal day, runs a little short. What science calls gravity is the T-flow that makes up the difference, topping a sub-24-hour spin back up to the full day. Fall is the rate at which the surface clock is being corrected.

$$g_2 = g_1 \times (1 + \delta_G) = 9.81836209394692 \text{ m/s}^2$$

The free fall therefore has two faces, one register-step apart. The surface face $g_1 = 25\pi/8 = 9.817477042468 \text{ m/s}^2$ is the value a falling stone reports. The sidereal face $g_2 = 9.81836209394692$ carries one G-bond step $\delta_G = 90.1506 \text{ ppm}$, and it is the one tied to the turning of the world:

$$g_2 \times 2400 = 23564.069025 = 7500\pi \times (1 + \delta_G) = \text{the sidereal day}$$

The same T-flow that drops a stone, multiplied by 2400, is the length of the Earth's true rotation. A falling body and a turning planet are reading the one correction at two faces — the surest sign that what science calls gravity is not a force between masses but the housekeeping of time itself.

7. The Identity That Binds Free Fall to Light

Take the surface value. Square it. Carry it through the day's own arithmetic — the 864 that is a day of 86,400 seconds with the hundreds dropped ($864 = 2^5 \times 3^3$, and also the Sun's circumference-to-radius ratio exactly), and the 3600 that is the seconds in an hour ($60^2 = 2^4 \times 3^2 \times 5^2$). What returns is not approximately but *exactly* the speed of light:

$$9.817477042468^2 \times 864 \times 3600 = 299,789,233.683089 \text{ m/s} = c_{G1}$$

$$c_{G1} = 2^3 \times 3^5 \times 5^6 \times \pi^2 \text{ (ratio to the line above: 1.000000000)}$$

There are no conversion factors hidden in this and no approximation. The rate at which a stone falls and the speed at which light travels are one lattice quantity, worn at two registers of T. What science treats as two unrelated constants of nature — one a humble 9.8, the other a cosmic 3×10^8 — are the same object, and the bridge between them is a day and an hour (Fig. 2). The famous 299,792,458 m/s is the metre's own calibration peg; it sits 10.755 ppm above the Earth-register value, and is not a universal constant but the reading light takes here. From the same surface value the orbital year follows in turn — and a word of care is owed on which year this is:

$$\text{Earth year (G1 register)} = 15\pi^4/4 = 365.284091377509 \text{ days}$$

This 365.284091377509 is not the calendar year and not a misprint of it. It is the orbital time at the G1 register specifically — the surface register this whole paper is written in — and it belongs with the surface free fall and the speed of light, all read at that one register. The familiar sidereal year, 365.256 days, is the very same orbit read at a different register; the two are register-faces of one motion, not rival measurements of one number. We state the register openly so the figure is not mistaken for a wrong value of the calendar year. The number that governs how fast a dropped stone accelerates also sets how long the Earth takes to round the Sun: in conventional physics these are unrelated; in the Universal Force of Time they are the same quantity, read at the surface register and at the orbital register of one lattice.

→ *Want this in full? See the companion paper: Mercury's Perihelion Precession — the same surface free*

fall is one of sixteen roads to the precession, and the precession is the speed of light read at the orbital register.

8. The Constant That Isn't — $G = 1/0.15$

If what science calls gravity were a force, it would have a strength, and that strength would be a constant of nature. It has a name — G , the number Henry Cavendish first weighed in 1798 — and here is the quiet scandal physics rarely dwells on: G is the worst-measured quantity in all of physics. The Sun's gravitational parameter GM is known to ten digits; G alone is pinned to barely four, and laboratories with the finest apparatus ever built disagree with one another by hundreds of parts per million. That is not bad workmanship. It is the signature of a quantity that is not a constant of nature at all.

The reason is plain once GM is read off the lattice. The real, physical quantity is GM , and it comes straight from the $\{2,3,5,\pi\}$ structure with no G and no separate mass in it:

$$GM_{\text{sun}} = AU \times \alpha_{\text{cel}}^3 \times c^2 / (4\pi^2) = 1.32703 \times 10^{20} \text{ m}^3/\text{s}^2$$

Everything on the right is the speed of light and pure $\{2,3,5,\pi\}$ — and there sits the $4\pi^2$ again, the surface of the sphere from Section 3. Now divide that real quantity by the Sun's real mass, and what falls out is not a new constant but the reciprocal of the orbital distance itself:

$$G = 20/3 \times 10^{-11} = 6.666666666667 \times 10^{-11} = 1 / 0.15$$

0.15 is the 150-million-kilometre Sun-Earth distance, inverted. G is a unit-bridge — the factor that turns a lattice quantity into a Newtonian 'force,' exactly as $5^5/(2^3 \times 3^5)$ turns kilometres into miles. The endless repeating six is the fingerprint of a calculation that closes on itself. There is a further reason this exact value matters and not the catalogued 6.6674: the clean 6.666666666667 is the gear that keeps the answer inside the one dimension everything here is measured in — the Earth's own register. Fed this value, the formula returns a spacetime figure that stays on the lattice with the day, the Moho and the year; it is, in the theory's own terms, an intradimensional value. The catalogued laboratory figure drifts the answer out of that register and off the lattice. G looks roughly fixed only because the orbital distance is roughly fixed; it is the one number physics cannot pin down because it is the one number that was never a constant.

This also dissolves the oldest puzzle of all — why what science calls gravity seems impossibly, billions-of-times weaker than the electric force. The orbital identities close with a fine-structure constant a single small term

away from the spectroscopic one:

$$1/\alpha_{\text{spec}} = 125\pi^2/9 = 137.0778389 \text{ (light, atoms)}$$

$$1/\alpha_{\text{cel}} = 125\pi^2/9 - 5/(3\pi^2) = 136.9089703 \text{ (orbits)}$$

They are separated by exactly $5/(3\pi^2) = 0.1688686$. What science calls gravity and what it calls electromagnetism are not two forces of wildly different strength; they are the same T -coupling read in two registers, one small $\{3,5,\pi\}$ term apart. The chasm was an artefact of reading one coupling from inside the wrong register.

9. $F = ma$ Yields a Frequency, Not a Force

Newton's second law, $F = ma$, is treated as the bedrock definition of force. But it has exactly the shape of $d = vt$ — distance equals speed times time — which is no law at all, only three readings of one quantity. Mass is T -spin density; acceleration is the rate the flow changes a node's mode; force is their product. $F = ma$ never tells you why a body accelerates. It defines force as that product and stops.

Walk it through the same T -grammar that built the speed of light and something striking falls out — not a force, but a clean, π -free frequency, one for each planet, and every one climbing the time-ladder to the 432 node:

$$\text{Sun 12000} \rightarrow \text{Mercury 13888.889} \rightarrow \text{Venus 30000} \rightarrow \text{Earth 90000}$$

Each stage is the one before it times that planet's own dimensional speed, the π cancelling at every frequency. The Earth's stage is the Sun's $\times 7\frac{1}{2}$, the product of the three inner speeds. $F = ma$, fed the lattice, does not return a pull. It returns the clockwork of the Solar System — the clearest evidence that 'force' was always a bookkeeping word laid over the flow of time.

10. The Formula Reports a Size, Not a Pull — the Moho

One last demonstration closes the case. Take Newton's $m_1 m_2 / r^2$, feed it the Sun's mass and the Earth's mass over the orbital radius, and walk the result through the grammar. It does not return a force between the two bodies. It returns the Earth's own radius:

$$\text{Sun} \times \text{Earth} / 150^2 \rightarrow \times 24 \rightarrow \times 2\pi \rightarrow \times 8 = 6366.197724 \text{ km}$$

6366.197724 km = $200/\pi$ — the Moho, the Earth's first internal shell, the depth at which its radial and orbital T -speeds equalise. The reason is exact: a planet's dimensional mass is its radius $\times 9375$, and the grammar's steps multiply by $32/3$, with $(32/3) \times 9375 = 10^5$ — so the chain simply undoes the $\times 9375$ and hands

back the radius the mass was built from. Newton's formula, walked home, is a node reporting its own size. There is no pull in it anywhere — only a body, and its measure.

11. Spectral Lines, Falling Bodies, and the Atomic Register

The connection runs deeper. The H β line of hydrogen — the second Balmer transition, the vivid blue at 486 nm — is among the most precisely measured quantities in atomic physics, and it sits at the same {2,3,5, π } position as the surface gradient: $T_g = H\beta \div (864 \times 180/\pi)$ in surface units, the same 864 bridge and the same $180/\pi$ veil that separates a degree-domain reading from a radian one. The hydrogen atom and the Earth's surface are not analogous systems; they are nested registers of one lattice, the atomic spacing scaled through the bridge to the surface gradient and scaled again to the orbital period — the same geometry across twenty orders of magnitude.

This is also why Fraunhofer lines in sunlight shift when read from different depths of the T-flow field — the effect science calls gravitational redshift. In the Universal Force of Time it is not an energy exchange with a force field but a change in lattice spacing between the emitting node (the solar surface) and the receiving node (the Earth's): the measured shift encodes the register ratio between the two.

→ **Want this in full?** See the companion paper: *Cosmological Redshift — Seam-Crossing and the Gravitational-Redshift Distinction (why the Fraunhofer shift is a register transition, not energy lost climbing a well)*.

12. Orbits, the Two-Movement Law, and Planetary Synchronisation

Every T-node has two movements at once: an internal one (spin — the rotational current within the node) and an external one (orbit — the translational current of the node through the lattice). They are not independent. The orbital motion is the outward expression of the very current whose inward expression is what instruments read as free fall. Kepler's exact period-distance relations are not empirical regularities awaiting a cause; they are the lattice expressing its geometry in orbital periods. Every major body in the Solar System obeys the same $N \times \pi \times 86400$ timing law to better than 0.007 ppm.

What holds a planet in its orbit, then, is not a force. It is the geometry of the lattice at the orbital register. A planet at the wrong place would feel no restoring pull — it would simply be at a position that does not exist in the lattice. Stable orbits are not force-balanced trajectories; they are nodal positions in a {2,3,5, π }

structure.

13. Dark Matter — a Solution to a Non-Problem

Flat galactic rotation curves are cited as the strongest evidence for dark matter: the outer stars orbit as fast as the inner ones, where visible mass predicts they should slow. In the Universal Force of Time this is no mystery. A galaxy is a T-structure at the galactic register — the fourth register above the atomic, surface and orbital — and its flow radiates from the central node (Sgr A* at our scale) through a lattice whose geometry, at that register, sustains a flat profile. Not extra mass: different geometry. The S-stars near Sgr A* sit at $n \times 486$ AU shells — the same 486 that names the H β line, the surface fall and the year. The galaxy is the atom at a larger register.

Dark matter has been hunted with underground detectors, accelerators and astronomical probes for over forty years, and every dedicated experiment has returned null. The Universal Force of Time does not predict its detection, because the effect it was invented to explain is the geometry of the lattice at the galactic register. There is no missing mass. There is a missing framework.

14. The Register You Inhabit and the Register You See

One consequence follows so directly it is worth stating plainly. The surface gradient, $T_g = 25\pi/8$, is the register you *live in*. You do not detect it with instruments — you feel it the moment you try to stand. Your skeleton evolved to resist it, your heart pumps against it, your balance exists because of it. The electromagnetic register, $c_{G1} = 299,789,233.683089$ m/s, is the register you *see*: sunlight, colour, warmth, the whole visible universe arriving at your node from one step above where you exist. You can close your eyes and the surface flow runs on unchanged; you cannot switch off the surface register and remain present. You are constituted by one register and informed by the next, and the two are joined by the single identity $g_1^2 \times 864 \times 3600 = c_{G1}$ — adjacent rungs of one lattice.

The architecture is precise and three-deep: the atomic register is what you are *made of*, the surface register is where you *exist*, the electromagnetic register is what you *perceive*. Constituent, inhabitant, observer. Human biology confirms the registration — the 40 Hz gamma rhythm of waking thought is $C_{Earth} \div 1000$, body temperature 36.864 °C, gestation 270 days (= $2 \times 3^3 \times 5$) — all {2,3,5} numbers at the surface register. To exist in the surface flow is to have time pass through your node at the rate g_1 ; velocity cannot change it, because

you cannot outrun the register you inhabit. What ages you is not clock-time but accumulated T-flow through your biological node.

→ **Want this in full?** See the companion paper: *The Register You Inhabit — why velocity cannot change the T-flow you live in, and what that means for ageing.*

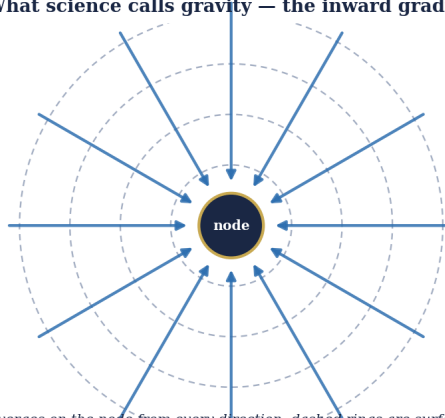
15. What Remains, and What Does Not

The picture is complete where it is closed. What science calls gravity is the local T-flow gradient — the directed propagation of time toward the nodes. The surface value $9.817477042468 \text{ m/s}^2$ ($= 25\pi/8$) falls from the lattice with no free parameter; squared through 864×3600 it is the speed of light; through $15\pi^4/4$ it is the orbital year at the G1 register (365.284091377509 days — the surface-register face, not the sidereal 365.256); through the 864 bridge it is the hydrogen H β line. One object, read at four registers. What the framework removes is the need for action at a distance, the need for 85% of the universe to be invisible, the puzzle of how a geometry can be a cause, and the three-century gap between the formula and the mechanism.

What remains open is the quantitative derivation of the galactic-register flow, which will turn the structural argument for flat rotation into specific numerical profiles; that is live work. The surface and orbital registers are closed. When the stone falls, it traces the same geometry as the Earth's orbit, as the hydrogen atom, as the galaxy. The stone falls because the lattice requires it to — and the very same requirement, one register up, is the speed of light.

Figure 1. The inward gradient

Figure 1. What science calls gravity — the inward gradient of T-flow

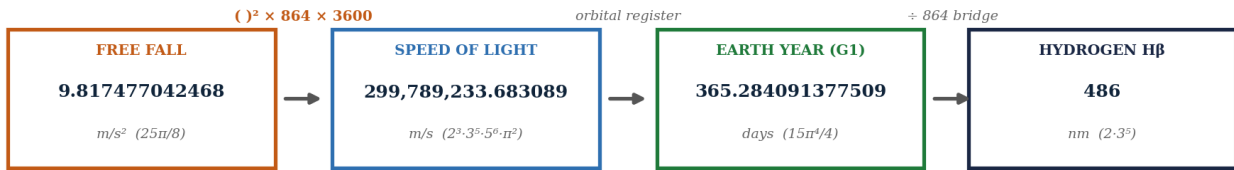


Directed T-flow converges on the node from every direction; dashed rings are surfaces of equal gradient. What an instrument reads as "gravitational acceleration" is the magnitude of that gradient — 9.817477042468 m/s² (= 25π/8) at Earth's surface. Nothing flows outward: there is no opposite gravitational field, only the structural resistance of matter that stops you falling through the floor.

What science calls gravity is the inward gradient of T-flow toward a node; nothing flows back out.

Figure 2. Free fall and light are one number

Figure 2. The identity that binds free fall to light — one lattice object at four registers

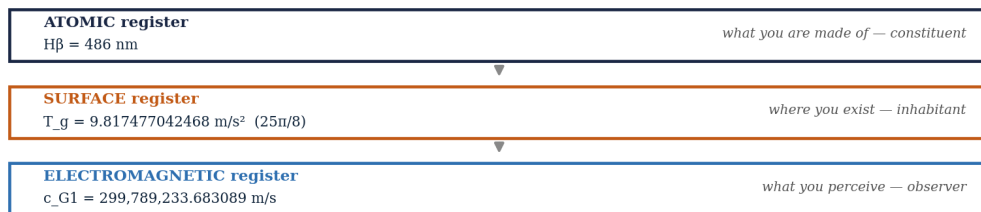


Each arrow is an exact {2,3,5,π} step, reproducible on a calculator. The surface fall, the speed of light, the orbital year and the hydrogen line are not four independent constants that happen to agree with measurement — they are one T-lattice object expressed at four scales. The keystone: 9.817477042468² × 864 × 3600 = 299,789,233.683089 m/s, the speed of light, to a ratio of 1.000000000.

The keystone identity and the four-register chain, every step exact on the {2,3,5,π} lattice.

Figure 3. The three registers

Figure 3. Three registers — what you are made of, where you exist, what you perceive

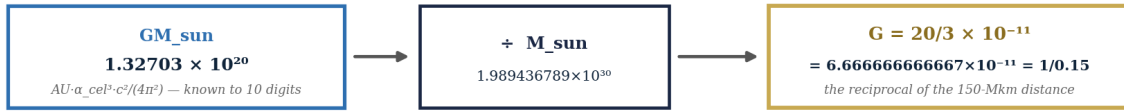


The inhabited register and the perceived register are one step apart, joined by $g_1^2 \times 864 \times 3600 = c_{G1}$. You have sensory access specifically to the register adjacent above — not to the solar scale two steps up, nor the atomic scale below.

Constituent, inhabitant, observer — the inhabited and perceived registers joined by $g_1^2 \times 864 \times 3600 = c_{G1}$.

Figure 4. The constant that isn't

Figure 4. The constant that isn't — G is the reciprocal of the orbital distance

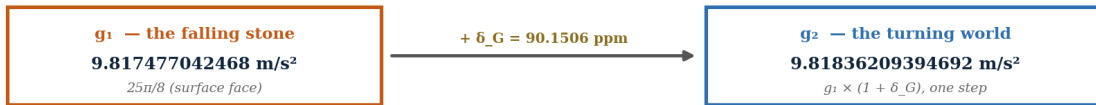


The physical quantity is GM, pure {2,3,5,π} and the speed of light. G is only GM ÷ M — the leftover when you split a real T-flow quantity into “G × kilograms.” It is a unit-bridge equal to 1/r; not a constant of nature — which is exactly why Cavendish’s G is the worst-measured number in physics, the labs scattering by hundreds of ppm around a value that was never fixed.

GM is the real lattice quantity; $G = GM \div M = 1/0.15$, a unit-bridge equal to the reciprocal of the orbital distance.

Figure 5. The two faces of free fall

Figure 5. Free fall is a time correction — the two faces g_1 and g_2



$g_2 \times 2400 = 7500\pi \times (1 + \delta_G) = 23564.069025 =$ the sidereal day. The same T-flow that drops a stone, multiplied by 2400, is the length of the Earth’s true rotation against the stars. A falling body and a turning planet are reading one time-correction at two faces — not a force between masses, but the housekeeping of time itself.

g_1 (the falling stone) and g_2 (the turning world) one G-bond step apart; $g_2 \times 2400$ is the sidereal day.

Values used in this paper – all exact lattice derivations, none fitted

Quantity	UFOT value (full precision)	Lattice form
Surface flow of time T_g (g ₁)	9.817477042468 m/s²	25π/8
Sidereal flow-of-time face g ₂	9.81836209394692 m/s²	g ₁ × (1 + δ_G)
Sidereal day (g ₂ × 2400)	23564.069025	7500π × (1 + δ_G)
Dimensional spin-orbit value c_G1	299,789,233.683089 m/s	2 ³ × 3 ⁵ × 5 ⁶ × π ²
Keystone identity	g₁² × 864 × 3600 = c_G1	ratio 1.000000000
Earth orbital year (G1 register)	365.284091377509 days	15π ⁴ /4
Hydrogen Hβ	486 nm	2 × 3 ⁵
Bridge constant K	49.50355349930312	2 ⁶ × 3 ⁵ / (100π)
864 solar bridge	864	2 ⁵ × 3 ³
Intradimensional constant	6.666666666667 × 10⁻¹¹	20/3 = 1/0.15
Solar parameter GM_sun	1.32703 × 10²⁰ m³/s²	AU·α_cel ³ ·c ² /(4π ²)
Inverse fine-structure 1/α_spec	137.07783890401888	125π ² /9
Inverse fine-structure 1/α_cel (celestial)	136.90897026461500	125π ² /9 – 5/(3π ²)
SI metre peg vs c_G1	+10.755 ppm	calibration offset

No value is fitted to observation; no free parameter enters. Every figure is reproducible on a calculator. The orbital year 365.284091377509 is the G1 (surface) register face; the conventional sidereal year, 365.256 days, is the same orbit read at a different register. In this table, flow of time = what science calls free fall and gravity; the dimensional spin-orbit value = what science calls the speed of light; the intradimensional constant = what science calls the gravitational constant G.

Propositions

- P-MGRAV-1** — What instruments read as gravitational acceleration is the magnitude of the local T-flow gradient, $T_g = H\beta \div K$. It has no dependence on mass as a separate concept; mass is itself T_{spin} , the rotational component of T at a node. “Gravity” and “mass” are two measurements of one T-nodal phenomenon, which dissolves action at a distance: the Earth does not pull the stone; the T-flow carries it.
- P-MGRAV-2** — The surface T-flow field is strictly unidirectional: it flows toward the node. No equal-and-opposite T-flow has ever been measured emerging from the Earth. What stops objects falling through solid matter is structural T-node incompatibility — two nodes cannot share a lattice position at one register — a geometric constraint, not a reaction force. Newton’s Third Law conflates two separate classes of T interaction.
- P-MGRAV-3** — The surface gradient is not independent of the speed of light: $9.817477042468^2 \times 864 \times 3600 = 299,789,233.683089 \text{ m/s} = c_{G1}$, exactly (ratio 1.000000000), with no conversion factor. What science treats as unrelated constants are projections of one T-lattice object; their separation is an artefact of register-localised measurement.
- P-MGRAV-4** — The surface value falls from the lattice as $T_g = 25\pi/8 = 9.817477042468 \text{ m/s}^2$, numerator 5^2 , denominator 2^3 , the single π from the radial-angular junction; and descends from the atomic register as $H\beta \div K$ with $K = 2^6 \times 3^5 / (100\pi) = 49.50355349930312$. From the same value the orbital year follows at the G1 register, $15\pi^4/4 = 365.284091377509$ days — the surface-register face of the orbit, not the conventional sidereal year (365.256 days), which is the same orbit read at a different register.
- P-MGRAV-5** — Gravitational redshift is a T-register transition effect. A photon emitted at one register and received at another crosses a T-lattice gradient; the frequency shift encodes the lattice-spacing ratio between the two nodes, not an energy exchange with a force field.
- P-MGRAV-6** — Galaxy rotation curves are a galactic-register T-flow signature. The flat velocity profile is the geometry of the lattice at the fourth register, radiating from the central node (Sgr A* in the Milky Way); no undetected mass is invoked. The S-stars sit on $n \times 486 \text{ AU}$ Balmer shells — the same 486 of the $H\beta$ line, the surface fall and the year.
- P-MGRAV-7** — The gravitational constant G is not a constant of nature but a unit-bridge equal to the reciprocal of the orbital distance: $G = 20/3 \times 10^{-11} = 1/0.15$. The physical quantity is $GM_{sun} = \text{AU} \times \alpha_{cel}^3 \times c^2 / (4\pi^2) = 1.32703 \times 10^{20} \text{ m}^3/\text{s}^2$, pure $\{2,3,5,\pi\}$ and the speed of light; G is merely $GM \div M$, the leftover when a real T-flow quantity is split into “G \times kilograms.” This is why GM is known to ten digits and G is the worst-measured quantity in physics.
- P-MGRAV-8** — What science calls gravity and what it calls electromagnetism are one T-coupling read at two registers, separated by a single $\{3,5,\pi\}$ term: $1/\alpha_{spec} = 125\pi^2/9 = 137.0778389$ (atoms, light); $1/\alpha_{cel} = 125\pi^2/9 - 5/(3\pi^2) = 136.9089703$ (orbits); $gap = 5/(3\pi^2) = 0.1688686$. The apparent vast weakness of what science calls gravity is an artefact of register-localised measurement, not a real difference of strength.
- P-MGRAV-9** — Free fall is a time correction, not a pull. It carries two faces one G-bond step apart: the surface face $g_1 = 25\pi/8 = 9.817477042468 \text{ m/s}^2$ and the sidereal face $g_2 = g_1(1+\delta_G) = 9.81836209394692 \text{ m/s}^2$, $\delta_G = 90.1506 \text{ ppm}$. The sidereal face sets the Earth’s true rotation: $g_2 \times 2400 = 7500\pi(1+\delta_G) = 23564.069025 =$ the sidereal day. A falling stone and a turning planet read one correction at two faces.
- P-MGRAV-10** — Newton’s $F = ma$ is a tautology of the form $d = vt$, not a law; walked through the T-grammar it yields a clean π -free frequency per planetary stage (Sun 12000 \rightarrow Mercury 13888.889 \rightarrow Venus 30000 \rightarrow Earth 90000), each the previous \times that planet’s dimensional speed, every one climbing to the 432 node. And $m_1 m_2 / r^2$ fed two masses returns the node’s own radius (Earth \rightarrow Moho $200/\pi = 6366.197724 \text{ km}$), the grammar undoing the $\times 9375$ that built the mass. The formula reports a size, never a pull.
- P-REG-1** — A conscious observer at the surface register inhabits the T-flow gradient ($T_g = 25\pi/8$) and perceives the electromagnetic register (c_{G1}). These are adjacent registers of the $\{2,3,5,\pi\}$ lattice, joined by $g_1^2 \times 864 \times 3600 = c_{G1}$ exactly. The architecture of existence — constituent, inhabitant, observer — is encoded in the lattice.

References

- [1] S. Daubney, *The Universal Force of Time — Master Compendium v5*, The Daubney Foundation (2026).
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- [4] I. Newton, letter to Richard Bentley (1693); *Philosophiæ Naturalis Principia Mathematica* (1687).
- [5] A. Einstein, “Die Grundlage der allgemeinen Relativitätstheorie,” *Annalen der Physik* 49, 769 (1916).

The Conversion Loop — the gears between the faces

Every value in this paper is one T-value read in different units. To move a quantity from one face to another — mass, wavelength, flow of time, frequency, energy, joules, circumference, the dimensional spin-orbit value (c) — apply the fixed gear below; any conversion in the paper can then be reproduced by hand.

from face → to face	apply (number-first)	lattice
energy (eV) → energy (kJ)	÷ 10368	27·3 ⁴
energy (kJ) → wavelength λ	÷ 36	2 ² ·3 ²
wavelength λ → flow of time g	÷ 49.50355350	3888/25π
flow of time g → frequency f	× 6.283185307	2π
flow of time g → energy (joules)	÷ 24	2 ³ ·3
wavelength λ → mass (λ-door)	× 1.233700550	π ² /8
energy (eV) → circumference C	÷ 31104	27·3 ⁵
circumference C → mass (circ-door)	÷ 22.00157933	1728/25π
flow of time g → dimensional spin-orbit value c	c = g ² × 3,110,400	864·3600

Key. Flow of time (metres per second) = what science calls gravitational free fall. Dimensional spin-orbit value = what science calls the speed of light.

Direct laws: mass↔energy $E = 6.822485557 \cdot m$ ($m = 1.465741469 \cdot E$); mass↔wavelength $\lambda = 0.810569469 \cdot m = 8m/\pi^2$ ($m = 1.233700550 \cdot \lambda = \pi^2 \lambda / 8$); $eV = 373248 \cdot \lambda$ ($2^9 \cdot 3^6$); mass↔frequency $f = 0.102880658 \cdot m$ ($25/243$).

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. Under the Universal Force of Time a quantity is not the property of one dimension: the same T-value shows up as a wavelength in an atom, a span of time in the heavens, a mass in a star, an angle in an orbit — one number wearing different coats. That is exactly why the one surface value, 9.817477042468, can be read as a falling stone, the speed of light, the Earth's year and a hydrogen line: they were never separate quantities. We therefore do not solve for a result 'to the power of' anything in one register and stop. The lattice number is the real thing, and it lives at once across every register — subatomic, atomic, celestial, galactic. The unit and the power of ten are only the costume the number wears in whichever dimension you read it from.

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