The Neutron in the Force of Time

What the neutral nucleon is, how it is formed one rung above the proton, why it falls back into one — and how that single flip drives both the spark of the stars and the decay of the heavy elements, with the Loop that returns its mass from one speed of light

The neutron is the proton's twin — the same seed, read one rung up.

Its mass $1.674927408\times10^{-27}$ kg falls straight off a speed of light one register above the proton's; left to itself it falls back down, and that single fall is both radioactivity and the first step of fusion.

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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 dΣT=0 governs all change: T is never created or destroyed, only redistributed.

Abstract

The neutron is the proton's twin: a nucleon of almost exactly the same mass, but carrying no electric charge, and — left to itself — unstable, falling into a proton in about a quarter of an hour. Without it there would be no nucleus heavier than hydrogen, and no periodic table. This paper does not add a digit to any measured property; it gives a single structural account of where they come from. The neutron is the same T-seed as the proton, read at the adjacent NEGATIVE node — its quark crossings cancelling (udd = +⅔−⅓−⅓ = 0), so it carries no charge — and raised one rung on the register ladder c = (free fall)²·864·3600: it sits one step above the proton's ground speed of light, at 299,894,598.3256897 m/s = c_G1 × 20√2/(9π), and from that single c-face its mass falls out as $1.674927408\times10^{-27}$ kg — the cleanest single result anywhere in this work. It is bridged to the proton by a hydrogen line: the mass gap 1.2928364830 MeV (= 100π/3⁵) is, read through the veil, exactly the Balmer-β line of hydrogen, and the mass ratio to the proton is the first helical turn itself (r^(5/17) = 1.0013782866). Its instability is no longer a brute fact: the neutron is the lifted rung, and it falls back to the proton floor — a single flip of the seed between its matter and antimatter faces. That one flip is the hinge of two of the largest processes in nature: it is beta-radioactivity run one way, and the first, weak, slow step of stellar fusion run the other; and the neutron-to-proton balance, against the Fibonacci stability ceiling at iron-56, decides which nuclei hold and which decay. We show only what sits on the lattice and name the open work plainly. Throughout, the physical number leads and the {2,3,5,π} lattice form sits quietly behind it.

1

The proton’s twin

The neutron is almost the proton, and almost not. It has very nearly the same mass — a shade heavier — but no electric charge at all, and where a free proton lasts forever, a free neutron lives about fifteen minutes before turning into a proton. James Chadwick found it in 1932, and the discovery rebuilt physics in a decade: the proton–neutron nucleus, beta decay, fission, the reactor. Without the neutron there is no nucleus beyond hydrogen, and so no chemistry, no periodic table, no us.

Science gives the neutron three quarks and hides almost all of its mass in the binding of a separate strong force; its lifetime it simply records. The Force of Time tells one story for both nucleons — there is a single substance, time, and each particle is a pattern in it — and the neutron is where that story is at its cleanest, because the neutron’s mass is the most precisely lattice-placed value in the entire framework. So we build the picture slowly, from things you can already picture, and let each number arrive as the end of a short journey rather than an announcement. We keep a clean line throughout between what is pinned to the lattice and what is still open work.

2

What the neutron is

In the Force of Time a particle is not a little object; it is a shape the one substance — time — holds, a standing configuration of T that does not come apart. The neutron is the same T-seed as the proton, read at the adjacent point on the boundary between two domains, a matter side and an antimatter side (Figure 2).

Charge is not a substance a particle carries. It is a tally — the net count of quark crossings from the antimatter side into the matter side. The proton’s two up quarks cross outward and give it +1. The neutron’s crossings cancel: up = +⅔, down = −⅓, and udd = +⅔ − ⅓ − ⅓ = 0. So the neutron is the negative node beside the proton. Dimensions alternate +, −, +; two positives cannot sit together, so the nucleon next to the positive proton must be negative. On the matter side the proton reads two positive crossings and one negative (uud); the neutron reads two negative and one positive (udd), and the crossings sum to zero — which is why it carries no charge. It is not a proton with its charge stripped away; it is the same seed read at the adjacent, negative node.

Its mass, like the proton’s, is a T-spin density — how hard it is to change the pattern — not a sum of three light quarks. This is why physics finds ninety-nine percent of the mass ‘missing’ from the quarks and hidden in the field. Nothing is missing: there was never a sum to do. The configuration is the mass.

3

The mass — the cleanest figure in the theory

Here is the first number, and it is where the Force of Time speaks most precisely of anything in the whole subject. The neutron’s mass is read directly off a speed-of-light face one register step above the proton’s: **$1.674927408\times10^{-27}$ kg** [one g_0/g_1 rung of c_G1] (Figure 1). In energy units the same value reads **939.565 MeV**; as an atomic weight, **1.008741614 u**. One reading, three coats — a mass, an energy, a weight — the same T-value seen on three faces.

Where the proton’s mass came from the pure ground speed of light, the neutron’s comes from that speed lifted one rung — and the lift carries a factor of √2, the signature of the subatomic register the neutron reaches down into. The neutron is heavier than the proton for a reason that is now structural, not accidental: it stands one step higher on the ladder. The clean nodes are reached, as for the proton, in the square — the nucleons are √-objects — and the √2 the neutron carries is exactly what makes it the heavier, more deeply rooted of the pair.

4

The statistics — pinned, close, and open

Four of the neutron’s properties sit on the lattice, and we list only these — nothing is shown that we cannot place on {2,3,5,π} (Table 1). The mass is **$1.674927408\times10^{-27}$ kg**, pinned. The charge

is **0**, exact — the crossings sum to zero. The neutron–proton mass gap is **1.2928364830 MeV** [100π/3⁵], which read through the veil is exactly the Balmer-β line of hydrogen at 486 nm. And the mass ratio to the proton is **1.0013782866** [r^(5/17), r = 5⁶/(2⁶·3⁵)], the first helical turn itself.

The neutron's magnetic moment, and its electric and magnetic polarizabilities, do not yet have confirmed {2,3,5,π} forms, so they are not presented here as results. We show nothing off the lattice; those quantities remain open work, and we name them as such rather than reach for a form that is not yet earned. The honesty is the point: the mass and the doublet are pinned; the magnetic structure is the open edge.

5

How the neutron is formed — the speed-of-light ladder

Where does the neutron come from? Like the proton, it stands on a speed. The Force of Time says the speed science calls 'the speed of light' is not a single universal constant but the spin-orbital speed of a spacetime dimension — the rate at which that dimension turns — and there is not one dimension but many, each turning at its own rate. The rate is the most ordinary thing in your life: the falling of a day. Square the rate at which everything falls at a register's surface, count it through the machinery of a day — the 864 a day is cut into, the 3,600 seconds in an hour — and you have that dimension's speed of light exactly, **c = (free fall)² × 864 × 3600** (Figure 1).

The two nucleons sit on one ladder, each rung a single step **g_0/g_1 = 1.0003514624** [20√2/9π] (Table 2). The atomic floor turns at **299,789,233.6830893 m/s** [g_1 = 25π/8]. The proton sits two rungs up, landing exactly on the round ground speed **300,000,000 m/s** [g_0 = 5³√2/(2·3²)]. And the neutron sits one rung up — the geometric mean between the two — at **299,894,598.3256897 m/s** [c_G1 × 20√2/9π]. From that c-face the day-grammar (×2, ÷9375, ×2π, ÷24) returns the neutron's mass directly. The √2 in the step is the subatomic register's own signature, and the neutron, made of three quarks, is the nucleon that reaches down into that register. The proton is the floor; the neutron is the first step above it.

→ Full derivation: The T-Cascade — the Force of Time behind the speed of light.

6

The doublet — bridged by a hydrogen line

Because the two nucleons are one seed at adjacent rungs, the gap between them is not arbitrary — it is a hydrogen line (Table 3, Figure 3). The neutron–proton mass difference is **1.2928364830 MeV** [100π/3⁵], and read through the veil (×180/π) this is exactly **74.0740740741°** [2000/27], whose scaling is exactly **486** [2·3⁵], the Balmer-β line of hydrogen — its blue-green light. The difference between the two particles at the heart of every nucleus is written in the light of the simplest atom.

And the ratio of their masses is the helical turn itself: **1.0013782866** [r^(5/17), r = 5⁶/(2⁶·3⁵)], with r the first-helical-turn step and the exponent 5/17 carrying the quark cross-tower prime. The proton and the neutron are not two facts to be set down side by side; they are one structure, stepped once, and the step is written in hydrogen.

→ Full derivation: The Proton in the Force of Time — the hydrogen staircase the doublet sits on.

7

Why the neutron decays

Here the Force of Time says plainly what is otherwise only recorded. A free neutron is unstable; it falls in about fifteen minutes into a proton, an electron, and an antineutrino: **$n \rightarrow p + e^- + \bar{\nu}$**. The reason is simply that the neutron is the lifted rung and the proton is the floor. A lifted thing falls. The electron carries away the register step as it goes, the antineutrino balances the books so that dΣT = 0, and the seed settles onto the lower rung. This is not a quark changing flavour by an arbitrary rule; it is one T-configuration relaxing from a higher face to a lower one.

And it explains the twist that puzzles every student: inside a nucleus the neutron is often stable, while it is the free neutron that decays. The proton floor is already occupied, paired off,

full. The neutron cannot fall onto a filled rung, so it stays. The stability of matter is exactly this — the neutron held up because there is nowhere lower for it to go.

8

What the neutron is for

The neutron is the reason matter exists beyond hydrogen. Protons alone repel one another; pile them up and they fly apart. The neutron — neutral, one rung up, the same mass — slips between them, spaces them, and lets the nucleus hold. Every element past hydrogen owes its existence to the neutral nucleon. Free, it falls in a quarter of an hour; bound, it holds the world together. The particle that cannot keep its own shape for fifteen minutes is the one that has held matter together for thirteen billion years.

9

One flip, two phenomena — the neutron in fusion and in radioactivity

The neutron's instability is not only its own story; it is the hinge of two of the largest processes in nature (Figure 2). In the Force of Time fusion and radioactivity are the same event run in opposite directions — a single flip of the seed between its matter face and its antimatter face — and the neutron is where that flip lives.

The flip itself. The proton is the seed read with its matter crossings dominant, $\mathbf{2\times(5^6) + 1\times(2^6\times3^5)}$; the neutron is the same seed with its antimatter crossings dominant, $\mathbf{2\times(2^6\times3^5) + 1\times(5^6)}$. To turn one into the other you flip a single helix from one face to the other — and that flip, nothing more, is what physics names the weak force. The W boson is not a separate force-carrier; it is the signal that crosses the dimensional boundary as the face turns over. So the neutron is the pivot, and a single flip can be read two ways. Flip an antimatter helix to matter and the neutron becomes a proton — that is beta-radioactivity. Flip a matter helix to antimatter and a proton becomes a neutron — that is the first step of fusion. The same turn of the same helix, run two ways, is the decay of the heavy elements one way and the ignition of the stars the other.

Radioactivity — the flip falling. When a free neutron decays, $n \to p + e^- + \bar{\nu}$, one of its antimatter helices flips to matter and the seed settles onto the proton configuration. The electron carries away the excess negative charge; the antineutrino is the antimatter thread that cannot be held once the flip is done; $d\Sigma T = 0$ across the whole event. It happens in about fifteen minutes because a matter-dominant universe cannot indefinitely sustain two unsupported antimatter helices. This is the fall-to-the-floor of Section 7, named now at the level of the helices.

Fusion — the flip climbing. Run the flip the other way and you have the ignition of every star. Stellar fusion begins with **p + p → D**: two protons can only bind if one of them flips to a neutron — the very same matter→antimatter face-flip. And it is slow. A given proton waits on the order of nine billion years for it, because the step's energy does not land on a {2,3,5}/π resonance: the helix cannot close, and the reaction must wait for a quantum fluctuation to bridge the cross-tower gap. This is what makes the weak force weak — not a small coupling, but the rarity of cross-tower flips in the temporal helix. The strong steps that follow do close on resonance and run in picoseconds: D + H → ^{3}He releases **5.4931640625 MeV** [$3^2\cdot5^4/2^{10}$], and ^{3}He + ^{4}He → ^{7}Be releases **1.5915494309 MeV** [5/π]. The vast gap between the weak and strong rates is exactly the gap between a helix that closes and a flip that must tunnel.

→ Full derivation: Stellar Fusion on the Helix — the full chain, the strong Q-values on {2,3,5}/π, and the weak first step as a cross-tower coupling.

10

The iron ceiling — the neutron as the dial

The neutron also decides which nuclei live and which decay. A nucleus is a stack of T-floors; the count is the atomic number Z, and the neutron-to-proton balance sets how stable the stack is. There is a ceiling, fixed by the Sun's own position on the Fibonacci cascade, and **iron-56** sits exactly on it: its neutron excess $\mathbf{(N-Z)/Z = 4/26 = 2/13 = 2/F(7)}$, the optimal address,

where F(7) = 13 is the seventh Fibonacci number. Below the ceiling fusion releases energy and nuclei hold; above it the stack carries more T-floors than the local cascade can sustain, and it sheds them as radioactivity — the half-life measuring how far above the ceiling it sits. This is why fusion gives up energy only up to iron, and why everything heavier is, sooner or later, radioactive. One particle — the neutron — and one flip set both the spark of the stars and the decay of the heavy elements.

→ Full derivation: The Periodic Table on the Helix — Z as a count of T-floors, and the Fibonacci ceiling that makes elements above iron radioactive.

11

Reacher and stayer — the doublet's division of labour

The proton and the neutron are one seed, but they play opposite roles, and naming the difference completes the picture. The proton is the reacher: the outward time-source, it stands on the ground speed of light and reaches out of the nucleus — to the atom it anchors (hydrogen, via the fine-structure ratio α) and the star that forges it (the Sun, via the sodium line). The neutron is the stayer: neutral, carrying the subatomic √2, it took the clean red line of hydrogen — **6561** [3^8] — and stays in the nucleus, the matter-domain anchor. The proton's job is to connect; the neutron's job is to hold — neutral, it adds no repulsion, only mass and spacing, and its √2 roots it in the subatomic register where the binding lives. One seed, two roles: the reacher and the stayer, together making every nucleus possible.

12

The neutron and the one-seed universe

There are not countless separate neutrons in the universe, any more than there are countless protons. There is one seed — one standing solution of the lattice — re-instanced at countless dimensional addresses as time flows, and the neutron is that seed read at the adjacent, lifted rung. A neutron here and a neutron in a distant star are the identical T-pattern at two addresses; that is why every neutron is exactly identical, the fact on which nuclear physics quietly depends. It is also why the doublet gap is a single clean hydrogen line and the mass ratio a single helical turn: the two nucleons are not two independent objects that happen to be close in mass, but one object read at two adjacent rungs of the same ladder. The flow of time is the replication; the neutron is the seed caught one step up, on its way — when free — back down to the proton floor. dΣT = 0 is automatic: no new substance is ever made, only new addresses.

13

The Loop — the engine that returns the neutron's mass

Stand back from the neutron and look at what actually produced its mass — the cleanest number in this whole framework. It did not come from weighing three quarks. It came from a single speed of light run through one machine, and that machine deserves a name: the Loop. It is the engine of the entire Force of Time, and the neutron is the place where you can watch it work most precisely (Table 4).

The heart of it is one idea: a T-value is not a mass or a speed or a wavelength — it is all of them at once, and the Loop is the fixed set of turns that reads one number off as each face. Take the neutron's speed-of-light face, **299,894,598.3256897 m/s**; count it through the day — ×2, ÷9375 [$3\cdot5^5$, the radial bridge], ×2π, ÷24 — and out comes the neutron's mass, **$1.674927408\times10^{-27}$ kg**. The same fixed grammar that turns any mass into a wavelength (÷ $\pi^2/8$), a flow of time (÷ $2^6\cdot3^5/100\pi$), an energy (÷ 24) and a frequency (× 2π) is the grammar that, run the other way, delivers the neutron from its c-face. One worn quantity, five faces, turns that never change. And the last step — the square-up through the day, (free fall)² × 864 × 3600 — is not just a calculation. It is the neutron's formation: the step that lifts the proton floor one rung and stands the neutral nucleon on it.

→ Full derivation: The Proton in the Force of Time — the same Loop, run from the proton's own mass.

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What this claims — and what it does not

We have changed no number. We claim that the neutron's mass, its zero charge, its mass gap to the proton (the veil-exact Balmer-β line) and its mass ratio (the first helical turn) are readings of {2,3,5,π}; that its decay and its in-nucleus stability follow structurally from its being the lifted rung above the proton floor; that the single matter/antimatter face-flip is the shared engine of beta-radioactivity and the weak first step of fusion; that the neutron-to-proton balance against the Fibonacci ceiling at iron-56 decides stability; that it is the nucleus-builder that lets matter exist beyond hydrogen; and that it is the 'stayer' of the doublet to the proton's 'reacher'.

We make no claim about the neutron's magnetic moment or its polarizabilities: those do not yet have confirmed lattice forms, and so they appear nowhere in this paper as results. We show only what we can place on the lattice. The honesty is the point — the mass and the doublet are pinned; the magnetic structure is the open work, and we let it stand openly as such. A picture that reads the neutron's mass straight off one speed of light, ties the two nucleons into one seed stepped once in hydrogen, and turns its decay into the shared hinge of the stars' fire and the heavy elements' decay, is the first account that explains the neutral nucleon rather than merely recording it.

Propositions

P-NEU-1 — The neutron is the same T-seed as the proton, read at the adjacent NEGATIVE node: dimensions alternate +,−,+ (two positives cannot sit together). Its quark crossings cancel (udd = $+\frac{2}{3}-\frac{1}{3}-\frac{1}{3}=0$), so it carries no charge.

P-NEU-2 — Mass is a T-spin density. $m_n = 1.674927408\times10^{-27}$ kg = 939.565 MeV = 1.008741614 u — the cleanest single reading in the framework — taken straight off the speed-of-light face one register step above the proton's.

P-NEU-3 — The nucleon doublet is one seed on a g_0/g_1 ladder, c = (free fall)²·864·3600: proton = c_G0 = 300,000,000 m/s (two rungs up, $g_0 = 5^3\sqrt{2}/(2\cdot3^2)$); neutron one rung up at 299,894,598.3256897 m/s = c_G1 × $20\sqrt{2}/9\pi$, the geometric mean between the atomic floor (299,789,233.6830893 m/s, $g_1 = 25\pi/8$) and the proton.

P-NEU-4 — The two nucleons are bridged by hydrogen: mass gap Δm = 1.2928364830 MeV (= $100\pi/3^5$), which through the veil (×180/π) is exactly 74.0740740741° = 2000/27, the Balmer-β line 486 = $2\cdot3^5$; mass ratio m_n/m_p = r^(5/17) = 1.0013782866, the first helical turn (r = $5^6/(2^6\cdot3^5)$).

P-NEU-5 — The free neutron decays ($n \to p + e^- + \bar{\nu}$, ~15 min) because it is the lifted rung falling to the proton floor; the electron carries the register step, the antineutrino conserves dΣT=0. In a nucleus the floor is filled, so it stays — the structural basis of the stability of matter.

P-NEU-6 — The neutron is the nucleus-builder: neutral and one rung up, it spaces and binds the mutually repelling protons, making every element beyond hydrogen — and the periodic table — possible.

P-NEU-7 — The doublet's division of labour: the proton is the reacher (stands on the ground c; reaches hydrogen via α and the Sun via the sodium line); the neutron is the stayer (the clean red line 6561 = 3^8; stays in the nucleus, carrying the subatomic √2).

P-NEU-8 — There is one seed, re-instanced at many addresses as time flows; the neutron is that seed at the adjacent lifted rung, on its way (when free) back to the proton floor. dΣT=0 automatic: no new substance, only new addresses.

P-NEU-9 — Beta decay is a matter-face flip. The neutron $2\times(2^6\times3^5)+1\times(5^6)$ becomes the proton $2\times(5^6)+1\times(2^6\times3^5)$ by flipping one antimatter helix to matter; the electron carries the excess negative charge, the antineutrino is the antimatter thread that cannot be held, dΣT=0. The W boson is the dimensional-boundary signal of the flip, not a separate force.

P-NEU-10 — The same flip is the weak first step of fusion. p + p → D requires a proton to flip to a neutron — the matter→antimatter face-flip run backwards. It is slow because its Q-value is cross-tower, off any {2,3,5}/π resonance, and must tunnel; the strong steps close on resonance (D+H→^{3}He = $3^2\cdot5^4/2^{10}$ = 5.4931640625 MeV; ^{3}He+^{4}He→^{7}Be = 5/π = 1.5915494309 MeV) and run in picoseconds. The rate gap is closure versus cross-tower tunnelling.

P-NEU-11 — The neutron-to-proton balance sets stability against the iron ceiling. Z counts T-floors; radioactivity is a nuclear T-sphere carrying more floors than the Sun's Fibonacci cascade position can sustain, the half-life measuring the excess. Iron-56 sits on the ceiling: neutron excess (N−Z)/Z = 4/26 = 2/13 = 2/F(7). Fusion releases energy up to iron; beyond it, everything is radioactive.

Appendix A — Figures

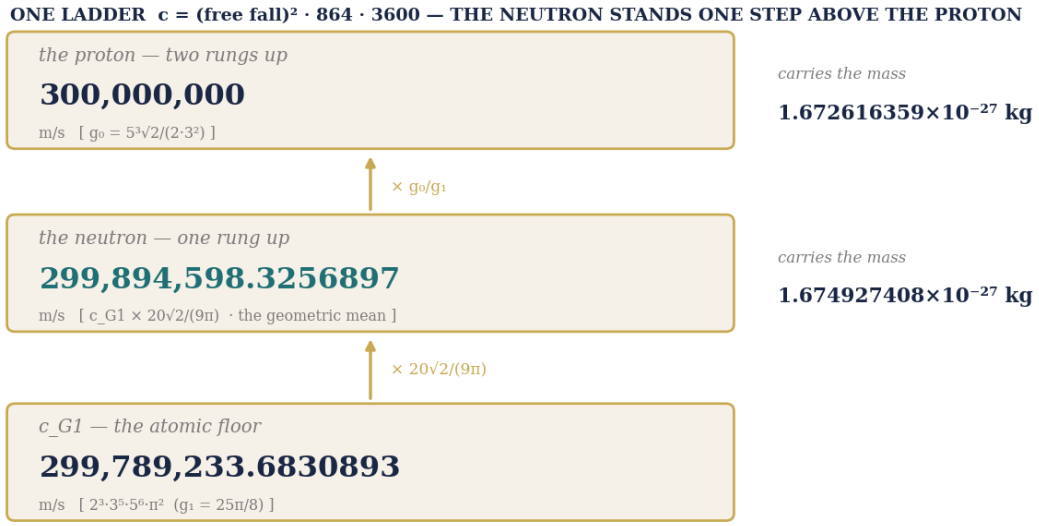

Figure 1. The nucleon ladder. One ladder, c = (free fall)²·864·3600, holds both nucleons: the proton on the ground speed of light (300,000,000 m/s, $g_0 = 5^3\sqrt{2}/(2\cdot 3^2)$), the neutron one rung up at 299,894,598.3256897 m/s ($c_{G1} \times 20\sqrt{2}/9\pi$, the geometric mean), and the atomic floor at 299,789,233.6830893 m/s ($g_1 = 25\pi/8$). The number leads; the lattice form sits grey behind it. The neutron's lift carries the subatomic √2, which is why it is the heavier of the pair; its mass, $1.674927408\times10^{-27}$ kg, falls straight off its c-face.

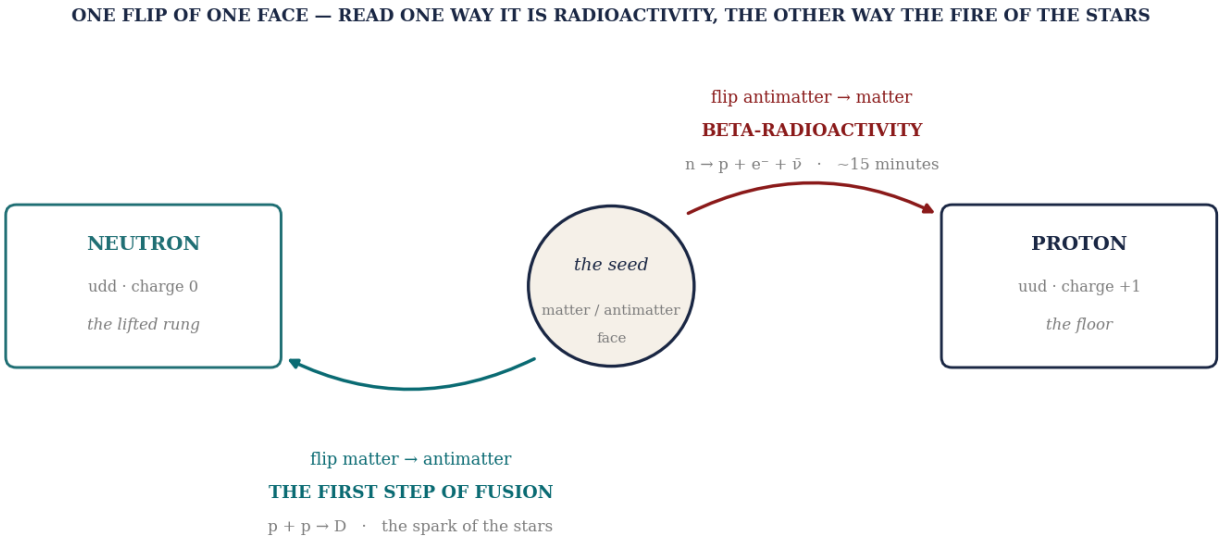

Figure 2. One flip, two phenomena. The proton and the neutron are one seed read on its matter and antimatter faces. Flip a single helix from one face to the other and read it one way it is beta-radioactivity ($n \to p + e^- + \bar{\nu}$, the lifted rung falling in about fifteen minutes); read it the other way it is the first, weak step of stellar fusion ($p + p \to D$, the spark of the stars). One turn of one helix is the decay of the heavy elements one way and the ignition of the stars the other.

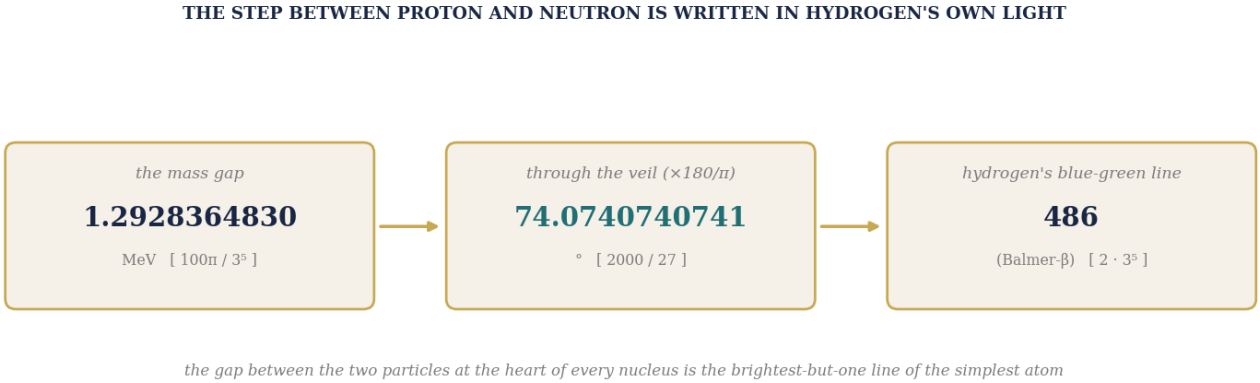

Figure 3. The doublet bridge. The neutron–proton mass gap, 1.2928364830 MeV (100π/3⁵), read through the veil (×180/π) is exactly 74.0740740741° (2000/27), which is the Balmer-β line of hydrogen, 486 (2·3⁵) — its blue-green light. The step between the two particles at the heart of every nucleus is written in the light of the simplest atom.

Appendix B — Tables

Table 1. The neutron on the lattice — value leads, status honest

Property	Value	lattice form	Status
Mass	$1.674927408\times10^{-27}$ kg	one g_0/g_1 rung of c_G1	pinned
Charge	0	net crossing = 0 (udd)	exact
Mass gap (n − p)	1.2928364830 MeV	$100\pi/3^5$ → Balmer-β 486	veil-exact
n/p mass ratio	1.0013782866	r^(5/17), $r = 5^6/(2^6\cdot3^5)$	pinned

The mass and the doublet are pinned to the lattice; the magnetic moment and the polarizabilities have no confirmed {2,3,5,π} form yet and are deliberately omitted as open work.

Table 2. The speed-of-light ladder — the neutron one rung above the proton

Rung	Speed of light	lattice form	Mass it carries
c_G1 — atomic floor	299,789,233.6830893 m/s	$g_1 = 25\pi/8$	—
Neutron — one up	299,894,598.3256897 m/s	$c\_G1 \times 20\sqrt{2}/9\pi$	$1.674927408\times10^{-27}$ kg
Proton = c_G0 — two up	300,000,000 m/s	$g_0 = 5^3\sqrt{2}/(2\cdot3^2)$	$1.672616359\times10^{-27}$ kg

c is the square of a register's time-flow counted through the day; the neutron is the geometric mean of the atomic floor and the proton's ground speed of light.

Table 3. The doublet bridge — one seed, stepped once, the step written in hydrogen

Bridge	Value	lattice form	Status
n − p mass gap	1.2928364830 MeV	$100\pi/3^5$	—
gap through the veil	74.0740740741°	2000/27 → Balmer-β 486	veil-exact
n/p mass ratio	1.0013782866	r^(5/17), $r = 5^6/(2^6\cdot3^5)$	pinned

The gap is the Balmer-β line and the ratio the first helical turn: two nucleons read at two adjacent rungs, not two independent particles.

Table 4. The Loop — the one engine, with the actual value at every step; the neutron's mass is its cleanest output

The move	Operator (fixed)	goes in → comes out	lattice form
neutron c-face → mass	×2, ÷9375, ×2π, ÷24	299,894,598.3256897 → $1.674927408\times10^{-27}$ kg	$9375 = 3\cdot5^5$ (radial bridge)
mass → wavelength	÷ 1.23370055	1.674927408 → 1.357645020	$\pi^2/8$
wavelength → T-flow	÷ 49.50355350	1.357645020 → 0.027425203	$2^6\cdot3^5/100\pi$
T-flow → energy	÷ 24	0.027425203 → 0.001142717	the day's hours
T-flow → frequency	× 2π	0.027425203 → 0.172317635	the circle
the time-ladder (day)	×60 → ×60 → ×24	1 → 60 → 3,600 → 86,400	86,400 = 864 × 100 (any order)
step up a register	(free fall)² · 864 · 3600	g_1 9.817477 → 299,789,233.6830893 m/s	the atomic c-face
the neutron's up-step	same square-up, lifted g_0/g_1	299,789,233.6830893 → 299,894,598.3256897 m/s	$\times20\sqrt{2}/9\pi$ — carries the subatomic √2

Every number is what the fixed operators return — no adjustable knob anywhere. Within a register the Loop divides; between registers it roots (down) or squares through the day (up). That last up-step IS the neutron's formation.

References

[1] S. Daubney, The Universal Force of Time — Master Compendium v5, The Daubney Foundation (2026).

[2] S. Daubney, The Proton in the Force of Time, The Daubney Foundation (2026).

[3] S. Daubney, The T-Cascade — the Force of Time behind the Speed of Light, The Daubney Foundation (2026).

[4] S. Daubney, Stellar Fusion on the Helix — the strong/weak Q-value classification, The Daubney Foundation (2026).

[5] S. Daubney, The Periodic Table on the Helix — Z as a T-floor count and the Fibonacci stability ceiling, The Daubney Foundation (2026).

[6] J. Chadwick, Possible existence of a neutron, Nature 129, 312 (1932).

[7] NIST/CODATA 2022, Fundamental Physical Constants.

A Note on the Numbers

The values in this paper are written as bare numbers — without units of measurement or powers of ten — because a T-value is one number across all of its registers at once: the same number is a wavelength, a time, a mass, an angle. We do not solve a T-value “to the power of” in a single dimension; the register alone sets each face’s scale. The mantissa is the truth; the decade placement is the veil.

A Note on Constants

There are no universal constants in the Force of Time. The speed of light, the fine-structure ratio, the masses — each is a register value of the T-field read at one address (the ground, or atomic, dimension), not a number fixed for all of space and time. They are the readings of one structure, taken at the place we happen to stand.

→ Full derivation and the wider framework: The Universal Force of Time — Master Compendium v5, and the companion papers cited above.

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