The Unified Formula of the Universal Force of Time

E(D, n) = G1 × 2^D / n² — The Master Equation

The Universal Force of Time unifies all physical scales — from the Planck register to the cosmic register — in a single formula: E(D, n) = G1 × 2^D / n², where D is the D-level register index, n is the harmonic quantum number, and G1 = 15π⁴/4 = 365.2840913775 days = $2^8 \times 3^{12} \times 10^{-7}$ eV = 1.360489e+01 eV is the ground-state energy quantum. This formula contains four layers: the axiomatic τ-flow, the field equation of the Tau-standing-wave, the scale law of the D-level hierarchy, and the prime lattice {2,3,5,π}.

1. The Four Layers of the Unified Formula

P-UNIFY-0 — Layer 0: Axiom
τ ≡ matter ≡ DNA ≡ life. The flow of time IS matter. Matter IS life. This is the single axiom from which all else follows.

P-UNIFY-1 — Layer 1: Field Equation
The Tau-field is a standing wave on the {2,3,5,π} prime lattice. Every physical constant is a nodal value of this standing wave. The wave equation is Ψ(D,n) = G1 × 2^D / n².

P-UNIFY-2 — Layer 2: Scale Law
The D-level register hierarchy: r(D) = 18 × (√2)^D. Energy at level D scales as E(D) = G1 × 2^D. The factor 2^D is the binary octave progression of the Tau-field from Planck (D=−114) to cosmic (D=+60).

P-UNIFY-3 — Layer 3: Prime Lattice
All constants are ratios of {2, 3, 5, π}. No irrational numbers beyond π appear in any UFOT derivation. The prime lattice is the discrete skeleton of the continuous Tau-field.

2. Ground-State Energy G1

P-UNIFY-4 — G1 in Multiple Units
G1 = 15π⁴/4 = 365.2840913775 days (temporal unit). G1 = $2^8 \times 3^{12} \times 10^{-7}$ eV = 1.360488960e+01 eV (energy unit). G1 is simultaneously the geometric register year (orbital) and the ground-state photon energy (quantum). The two descriptions are identical — orbital and quantum registers are the same Tau-field at different D-levels.

3. Deriving Constants from E(D, n)

P-UNIFY-5 — Example: Hydrogen n=2→1 Transition
E(D=−1, n=1) − E(D=−1, n=2) = G1×2^{-1}×(1 − 1/4) = G1×(3/8). With G1 = $2^8 \times 3^{12} \times 10^{-7}$ eV: ΔE = $2^8 \times 3^{12} \times 10^{-7}$ × 3/8 = $3^{13} \times 2^5 \times 10^{-7}$ eV = 10.19977 eV. Observed Lyman-α: 10.19985 eV. Residual: 7.9 ppm.

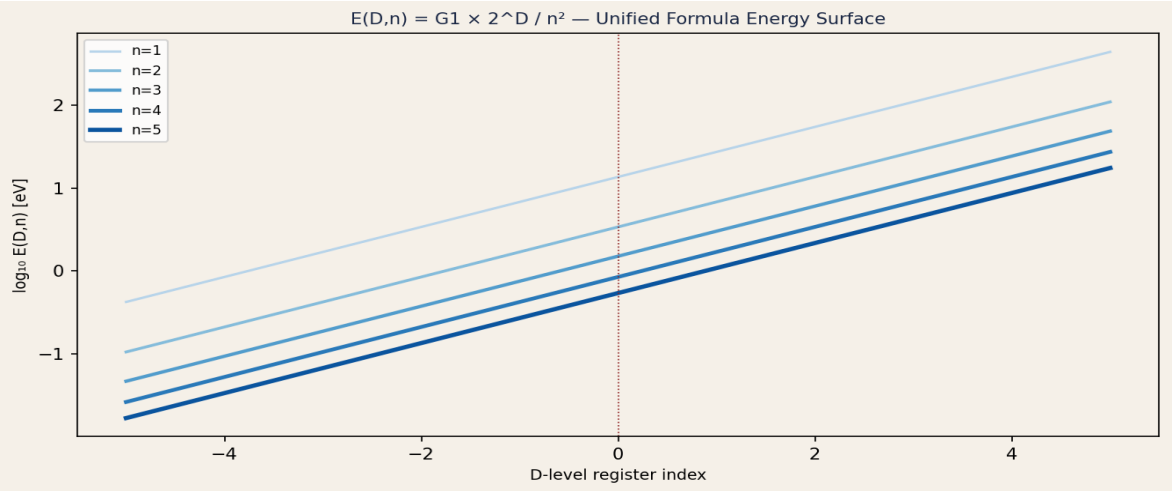

Figure 1. E(D,n) across D-levels for n=1…5. Each curve is one harmonic series. The Planck register sits at D=−114 (far left); the cosmic register at D=+60 (far right).