Fundamental Law of Entropy

Conservation of Logical Entropy  ∂ₜ h + ∇·J = 0

Conservation of Energy      ∂ₜ E + ∇·S = 0

Fundamental Bridge  E = Θ · h   S = Θ · J

• h (surface logical entropy) is the count of irreducible distinctions at the system’s horizon (in bits).

• J (entropy current) is the flow of distinctions through scale—our dilation current (bits·time⁻¹·area⁻¹).

• E (energy) is the conserved “bulk” quantity in physics (joules).

• S (energy flux) is the Poynting vector or energy flow (joules·time⁻¹·area⁻¹).

• Θ (thermo‑logical constant) converts distinctions into joules—energy per bit at the horizon.

Euler‑Law‑Level Poetic Rule

“In every closed cognitive loop, the currency of distinctions flows without loss—each curl births the next, each horizon seals the balance. Energy is but entropy adorned in joules; entropy is thought’s energy, woven at the boundary of knowing.”