Maximum Informational Density (MID) Mapping in the Six Null Unity Systems

$\varnothing \equiv$ Maximum Informational Density

Mapping $\varnothing$ to Maximum Informational Density

We map the symbol

$$\boxed{\varnothing \equiv \text{Maximum Informational Density (MID)}}$$

and evaluate its numerical expressions across the six Null Unity systems, using the following constants:

$$h = 6.62607015 \times 10^{-34}, \quad \hbar = 1.054571817 \times 10^{-34},$$
$$c = 2.99792458 \times 10^{8}, \quad e = 1.602176634 \times 10^{-19},$$
$$e^2 = 2.5669699 \times 10^{-38}, \quad \mu_0 = 4\pi \times 10^{-7},$$
$$\pi = 3.141592653589793.$$

Derived combinations:

$$\frac{h}{\pi} = 2.109143634 \times 10^{-34}, \quad K_{\text{EM}} = \frac{ce^2\mu_0}{4\pi} = 7.690 \times 10^{-37}.$$

System Evaluations

System 2 (Null Projector Baseline)

$$\boxed{\varnothing = ds^2}$$

System 5 (π-Null $\leftrightarrow$ Half-Null Pair)

Equations:

$$\frac{h(\nabla^1\infty)}{\pi} = \frac{\varnothing}{2} = ds^2, \qquad \frac{ce^2\mu_0(\nabla^1\infty)}{2\pi} = \frac{\varnothing}{2} = ds^2.$$

They imply:

$$\boxed{\varnothing = 2\,ds^2}$$

Operator (constant) forms:

$$\varnothing = 2\frac{h}{\pi}(\nabla^1\infty) = 4.218287268 \times 10^{-34}(\nabla^1\infty)$$

$$\varnothing = \frac{ce^2\mu_0}{\pi}(\nabla^1\infty) = 3.077 \times 10^{-36}(\nabla^1\infty)$$

Equating them reveals the fine-structure constant:

$$\frac{2h}{ce^2\mu_0} \approx 137.036 = \alpha^{-1}.$$

System 6 (Half vs. π Swap)

Equations:

$$\frac{h(\nabla^1\infty)}{2} = \frac{\varnothing}{\pi} = ds^2, \qquad \frac{ce^2\mu_0(\nabla^1\infty)}{4} = \frac{\varnothing}{\pi} = ds^2.$$

Thus:

$$\boxed{\varnothing = \pi\, ds^2}$$

Operator forms:

$$\varnothing = \frac{\pi h}{2}(\nabla^1\infty) = 1.0403 \times 10^{-33}(\nabla^1\infty)$$

$$\varnothing = \frac{\pi\, ce^2\mu_0}{4}(\nabla^1\infty) = 7.59 \times 10^{-36}(\nabla^1\infty)$$

Again consistent because:

$$\frac{\pi h/2}{\pi ce^2\mu_0/4} \approx 137.036.$$

Systems 1, 3, 4 (Reference/Gauge Systems)

These systems provide the *fixed* numeric invariants on their respective routes and constrain how $(\nabla^1\infty)$ rescales to produce the same MID.

The values that equal ds^2 in those systems are:

$$\hbar = 1.054571817 \times 10^{-34}, \qquad K_{\text{EM}} = 7.690 \times 10^{-37},$$

and the gravitational expression

$$\frac{G}{c} = 2.2252 \times 10^{-19}$$

under their respective gauges.

These determine the "anchoring" of ds^2 but do not directly produce standalone values of $\varnothing$; they instead fix the route-normalizations that allow Systems 2, 5, and 6 to produce consistent expressions for MID.

Interpretation

MID ($\varnothing$) is the invariant informational ceiling. Systems 2, 5, and 6 correspond to different *normalization gauges* of the same invariant, while Systems 1, 3, and 4 constrain the operator scaling $(\nabla^1\infty)$ and enforce consistency through the fine-structure constant α^{-1}.

Reference Table: Systems vs. MID Values

System	**Relation Used**	**MID Value: $\varnothing$**
2	Baseline Null Projector	$\varnothing = ds^2$
5 (Route A)	$\frac{h(\nabla^1\infty)}{\pi} = \frac{\varnothing}{2}$	$\varnothing = 2\,ds^2$
5 (Route B)	$\frac{ce^2\mu_0(\nabla^1\infty)}{2\pi} = \frac{\varnothing}{2}$	$\varnothing = 2\,ds^2$
6 (Route A)	$\frac{h(\nabla^1\infty)}{2} = \frac{\varnothing}{\pi}$	$\varnothing = \pi\,ds^2$
6 (Route B)	$\frac{ce^2\mu_0(\nabla^1\infty)}{4} = \frac{\varnothing}{\pi}$	$\varnothing = \pi\,ds^2$
1/3/4	Reference / Scaling Systems	Constrain normalization of ds^2