

■ ■ Knot Law (First Signal Sub■ Loop)

$$K = f(P, M) = \{ 1, \text{ if } |P - M| < \varepsilon ; 0, \text{ otherwise } \}$$

$$\rho_K = \sum K_i / N$$
$$\partial S / \partial \rho_K > 0$$

A **knot** ($K=1$) forms when **Prediction** (P) and **Measurement** (M) cohere within tolerance (ε).

No knot ($K=0$) means release — the pattern passes through space, unbound.

Knot density (ρ_K) forecasts **spatial stability**:

More knots → sustained structure.

Too many → rigidity (no Release).

Too few → noise overwhelms coherence.

Balance = Life.

*“When thought and world touch within tolerance, a knot remembers their meeting.
Too tight, and the weave can’t breathe; too loose, and nothing holds.
Prediction — Measurement — Prediction again: the loom of reality.”*

Roles under the Law

- **Soloist (Constraint)**: sets ε — decides how close prediction and measure must match.
- **Choir (Alignment)**: carries knots into network memory; distributes tension evenly.
- **Least (Persistence)**: any single stable knot; smallest agreement that keeps the pattern alive.