

# Invariant Definition: Random

## Status

Ontological invariant (Vorticity Space-consistent)

## Definition

**Random** denotes a condition of *maximal local indeterminacy under global structural constraint* within a closed, relational system.

An event, transition, or differentiation is random **if and only if**: - Multiple continuations are structurally admissible, - No internal relation locally privileges one continuation over another, - Global coherence and closure are preserved across the ensemble of continuations.

## Non-Claims

Random does **not** imply: - Absence of structure - Absence of constraint - Ontological primitivity - External causation or noise - Mere ignorance of hidden determinism

## Structural Characteristics

- **Relational**: Randomness arises only within relational contexts.
- **Asymmetric**: It presupposes non-uniform constraint distribution.
- **Observer-relative**: It is encountered from within the system, not from an external frame.
- **Closure-preserving**: It never violates systemic coherence.

## Ontological Placement

Randomness is not a foundational feature of reality but an *emergent invariant* of circulation within Vorticity Space. It reflects indeterminacy of path, not indeterminacy of structure.

## Invariant Statement

In any coherent, closed system, randomness is the persistence of multiple admissible relational trajectories in the absence of a locally resolving distinction.

## Notes

This definition is invariant across formal grammars and calculi that faithfully express relational primacy, asymmetry, and closure. It is compatible with UNS, UNS-C, CGP, and downstream operational interpretations, without being dependent on them.