RigbySpace Documentation

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1 Purpose of This Document

The objective is to provide a standardization and definitions manual to be included with each RigbySpace document for quick reference and to ensure notation and meaning is defined and consistently available across the entire set of documents for readers unfamiliar with RigbySpace. This document is the sole reference for all notation and as such, any symbolic math will be defined here.

For symbolic derivations with worked examples, each section in the accompanying document will include fully expanded derivations with detailed definitions, how it links or has a relationship with the structure of the universe in familiar terms as well as worked examples of full RigbySpace derivations that show computationally reproducible predictive results that fall within error margins of published, tested and reliable empirical data cited from various scientific publications and reference materials.

2 RigbySpace Symbol Glossary

The following table unifies and standardizes all symbolic elements across RigbySpace manuscripts. Each entry is confined to $\mathbb{Q}$ and aligns with the TRTS framework. No irrationals or transcendentals participate in propagation. This glossary supersedes previous fragments and shall be considered the canonical reference.

Symbol	Definition
TRTS	Transformative Reciprocal Triadic Structure. Mechanism of measurement in RigbySpace. Operates by sequential states E $\rightarrow$ M $\rightarrow$ R. All propagation occurs in $\mathbb{Q}$.
Step	A three–part cycle of TRTS: Emission, Memory, Return. Each step subdivides into twelve microticks arranged [e–m–r–e][m–r–e–m][r–e–m–r]. One microtick is ejected as Ω, leaving eleven effective ticks.
Microtick	Subdivision of a Step. Carries deterministic transitions. Emission occurs at microticks 1, 4, 7, and 10. After causal expression, $\mu \rightarrow \phi \mid \mu\ \Omega$, time emerges as a released null tick.
E	Emission state. Source role initiating a triadic step without consuming ledger balance.
M	Memory state. Storage role preserving rational structure and determining if ϙ remains active or dormant.
R	Return state. Closure role that recycles imbalance forward and prepares the next emission.
ϵ	Transition label from E to M.
μ	Transition label from M to R.
ϕ	Transition label from R to E.
Δ_1	First rational difference on a generated sequence.
Δ_2	Second rational difference on a generated sequence.
Δ_3	Third rational difference on a generated sequence.
ϙ	Imbalance operator. Records imbalance across step cycles. Not an energy-bearing propagator but an operator that recycles imbalance forward. Has active, dormant, and field forms.
$ϙ_1$	Active imbalance. Propagates imbalance and recycles through emission.
$ϙ_0$	Dormant imbalance. Stored locally when M $= 0$.
$ϙ_f$	Field-state imbalance. Persistent stored imbalance awaiting interaction.
n	Step index addressing progression in TRTS.

Symbol	Definition
ω_i^s	State position and microstate transition value. Superscript $s \in \{1,2,3\}$ for $(\mathsf{E},\mathsf{M},\mathsf{R})$. Subscript $i \in \{1 \ldots 11\}$ denotes microtick transition, ordered ϵ, μ, ϕ repeating, with μ fixed at 11.
Ω	The Null Time Tick. Released causal tick producing time's emergence. Removes one microtick from the triadic cycle.
P	Prime Fibonacci emission trigger. Determines when emissions occur on memory reset and null tick ejection.
υ	Upper rational oscillator pair. Evolves deterministically within $\mathbb{Q}$, bracketing $\sqrt{2}$ by external comparison only.
β	Lower rational oscillator pair. Complements υ in paired rational oscillations.
ρ	Prime Fibonacci triad sequence number. Indexing mechanism aligned with emission events.
ν_c	Causal neutrino. Refreshes dormant imbalance $ϙ_0$ without altering energy.
γ	Photon traversal. Overwrites $ϙ_0$ with photon emission value.
$\oplus$	Interaction operator. Combines two active ϙ values at a site.
Ξ	Causal check operator at tick 11. Determines whether ϙ recycles ($\mathsf{M} \neq 0$) or becomes dormant ($\mathsf{M} = 0$).