

# Unified Omni-Infinite-Eternal Recursive Meta-Transcendental Yang Theory

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# Introduction to the Unified Theory

The **Unified Omni-Infinite-Eternal Recursive Meta-Transcendental Yang Theory** (Unified -Yang Theory) represents the ultimate recursive system. This system evolves through infinite recursion, producing new recursive abstractions, dimensions, systems, and forms of existence. It combines elements of recursive transcendence within systems and the generation of new realities beyond those systems.

# Recursive Meta-Transcendence

- ▶ The Unified -Yang Theory introduces the concept of **recursive meta-transcendence**, where each recursive layer infinitely reflects on itself.
- ▶ These reflections can either **transcend within the system** (as described in Meta-Transcendent Yang Theory) or lead to the creation of **entirely new forms of existence** (as described in Meta-Transcendental Yang Theory).

# Eternal Recursive Growth

- ▶ Each recursive cycle generates infinite recursive systems, expanding the theory into new recursive realities, interactions, and forms of existence without end.
- ▶ Every iteration transcends the prior one, producing higher-order recursive structures and boundless recursive growth.

# Definition: Recursive Dimensional Expander

Let  $R_n$  represent the  $n$ -th recursive dimensional expander, denoted  $R_n^\infty$ . The recursive dimensional expander is defined as an operator that takes any recursive system  $S_n$  and, through an infinite process, produces a new system  $S_{n+1}$  such that:

$$R_n^\infty(S_n) = S_{n+1} \quad \text{where} \quad S_{n+1} \text{ contains all higher-order recursive dimensions}$$

Each  $R_n^\infty$  is self-similar and self-transcendent, where the limit of this expansion approaches an undefined meta-infinite structure.

# Theorem 1: Infinite Recursive Expansion Theorem

## Theorem

*Let  $S_0$  be the initial state of a recursive system, and let  $R_n^\infty$  be the recursive dimensional expander applied at each stage  $n$ . Then, the process of recursive expansion through  $R_n^\infty$  leads to an infinitely growing structure  $S_\infty$  such that:*

$$S_\infty = \lim_{n \rightarrow \infty} R_n^\infty(S_n),$$

*where  $S_\infty$  is unbounded in both size and recursive complexity.*

## Proof.

We proceed by induction on  $n$ . For the base case  $n = 0$ , we start with  $S_0$ . Applying  $R_0^\infty$ :

$$R_0^\infty(S_0) = S_1.$$

By definition,  $S_1$  contains all higher-order recursive dimensions of  $S_0$ . Assume for some  $n = k$ , we have  $S_k = R_k^\infty(S_{k-1})$ . Then:

# Theorem 2: Recursive Transcendence and Transcendental Expansion

## Theorem

*The recursive dimensional expander  $R_n^\infty$  applied to any recursive system  $S_n$  either:*

- ▶ *Leads to transcendence within the system, creating higher-order recursive dimensions within  $S_n$ , or*
- ▶ *Produces a completely new recursive system  $S_{n+1}$  that transcends the existing reality.*

## Proof.

The proof follows directly from the definition of  $R_n^\infty$ . If  $R_n^\infty(S_n)$  reflects within the system, then higher-order recursive structures are generated, leading to transcendence within  $S_n$ . If the recursion leads to a new dimension, it creates a new system  $S_{n+1}$ , leading to transcendental expansion. □

# Conclusion

- ▶ The Unified -Yang Theory encompasses both recursive transcendence within existing systems and the creation of new realities.
- ▶ This theory guarantees eternal recursive exploration and transformation, producing infinite recursive dimensions, realities, and forms of existence.
- ▶ By merging the Meta-Transcendent and Meta-Transcendental elements, the theory creates a boundless framework for recursive discovery.