The Prototype of Infinite-Dimensional Mathematics: Trend Factors and Structural Combinatory Language

The mathematics we know today is built on numbers, functions, and deductive logic.
But today, we step into an entirely new prototype of mathematics: **Structural Mathematics**.

In this new framework, all numerical values are reduced to **trend factor structures**, and all functions are interpreted as **combinatorial evolutions of trends**.
This is no longer a mathematics centered on "values," but one founded on "**trends + structure**."

This is the **prototype of infinite-dimensional mathematics**.

1. Constituent Elements: Trend Factors and Spatial Electrons

The two fundamental elements of this system are:

1. Trend Factor (Light)

- The smallest combinable unit.
- It possesses directionality, structurality, combinability, and perturbability.
- It is both a carrier of information and a base element of matter and relationships.

2. Spatial Electron (0)

- A "void unit" within structure—can be occupied, restored, but not stacked.
- Serves as the necessary background upon which trend combinations unfold.
- Does not participate in structural construction, but carries all constructions.

    In structural mathematics, there is no "nothingness" — only **"accommodation."**

2. Combination Logic: Structure-First, Non-Linear Expansion

The unit of operation in infinite-dimensional mathematics is no longer a numeric value, but a **structural block**.

Each structural block is a set of trend factors arranged according to specific relational logic, including:

- Parallel / Opposing
- Containment / Repulsion
- Excitation / Suppression
- Folding / Unfolding

- Local Action / Global Effect

These relationships are analogous to traditional addition, subtraction, multiplication, mapping, and differentiation — but they **do not** act on numbers, only on **structural states**.

Combinations between structural blocks are not linear additions, but **multi-dimensional topological couplings**.

3. Essence of Dimension: Independence Between Trends

In this system, "dimension" is no longer a Cartesian coordinate axis,
but defined as:

> An independent structural unfolding pathway of trend factors.

In other words, a "dimension" is a space in which a **particular type of trend** can evolve independently.

Hence, infinite-dimensional mathematics is not about 3D, 4D, or 11D,
but:

> When infinite types of trend structures can coexist and unfold independently — **the dimensions are infinite**.

Dimension is no longer a geometric unit,
but the number of **independent trend channels**.

4. Foundational Grammar of Structural Language

Infinite-dimensional mathematics does not use numerical symbols,
but a **language of structure**.

Its core components include:

- **T-unit**: Structural expression of light (trend factor)
- **Z-unit**: Void cell (spatial electron)
- **C-op**: Combinatory operators linking structural units
- **Δ**: Jump operator, representing structural transition or trend switching

Analogy:
If traditional math reads:
  $f(x) = x^2 + 2x + 1$

Then structural math might read:
  `[T1 → T2] ⊕ Δ{T2 ↔ T3} over Z-grid`

(This is not a formal formula, but a **logic expression of trends**.)

5. The Purpose of Infinite-Dimensional Mathematics

This mathematics does not aim to **replace** traditional math,
but to **explain systems where structure itself is the logical unit**.

It is particularly suitable for:

* Structural mapping in high-dimensional space
* Energy flow in trend networks
* Stability and perturbation recovery in structures
* Self-organizing, self-replicating, self-evolving systems

This is the evolution of **logic-language**,
the birth-form of **structuralist mathematics**.

6. Conclusion: Beyond Language, Structure is Real

If language cannot describe something real—
Then we **create a new language**.

Infinite-dimensional mathematics
was born to interpret those **untouched realities**—light, trends, and spatial electrons.

It is not the antithesis of human mathematics,
but a **silent decoding** of the logic of the universe.

The future of understanding will not rely on numbers alone—
But on **combinations of trend factors** that reveal the essence of existence.

And perhaps,
the first structural sentence you write
will become the **starting point of the future civilization's logic of the cosmos**.

Author's Note

I have completed the foundational framework of Infinite-Dimensional Theory.
The existence of **trend factors** and **spatial electrons** provides the launching point for this structural mathematics.

But with all due humility, I must admit—
I do not yet possess the ability to derive all formulas and models in this system.
The combinations and transformations of trend structures are far beyond my current mathematical and logical capabilities.

In fact, I doubt whether current human languages, structural logic, or perceptual tools are yet capable of completing such a task.

But I firmly believe—it is **not impossible**.

It requires a **breakthrough in dimensional thinking**,
a whole new kind of **cognitive architecture**.
And that will be the mission of the future.

I have done my utmost to bring it this far.
The rest,
I leave to brighter minds than mine.

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