Chapter 3: Verification of Alignment Between the Cosmic Microwave Background (CMB) and Galactic Structures

Section 1: Alignment Direction of the Cosmic Microwave Background (CMB), and Directionality Indicated by the Alignment of Galactic Rotation Axes and Filament Structures

In this chapter, we examine the relationship between the alignment direction of the cosmic microwave background (CMB), as well as the alignment tendencies of galactic rotation axes and filament structures, and the x-axis and t-axis as defined in this hypothesis.

In the CMB, alignment of the quadrupole and octopole components biased toward a specific direction has been observed. This phenomenon is also referred to as the "Axis of Evil." Recent observations suggest that the direction of this alignment and the direction in which galactic rotation axes are biased to align are either on the same axis or possess a high degree of angular conformity.

In this hypothesis, these alignment phenomena are not considered to be coincidental, but are viewed as reflections or reverberations of directional order that inherently exists within cosmic space, that is, the tensor structure. In particular, the following points are emphasized:

- The alignment direction of the CMB approximates the t2 and t4 axes, which are orthogonal to the t1 axis.
- The galactic rotation axes show a tendency to align with the t1 axis.
- The galactic filament structures are distributed along the extension of the t1 axis.

In this section, we compare the observational data regarding the alignment axes of the CMB and galactic structures with the geometric configuration of the tensor structure, and analyze which tensor structures and directions demonstrate the highest degree of conformity.

■ Comparison with Galactic Alignment Axes

- Tensor Axis t1: $\theta \fallingdotseq 26.7^\circ$ (matches the rotational axis of Saturn)
- Galactic Alignment Axis: $\theta \fallingdotseq 27^\circ$ (as observed by Hutsemekers et al.); other reports confirm a directional bias in the range of 25° to 40°
- Angular Error: within 0.3° to 10° (high degree of conformity)

Representative values from reference literature:

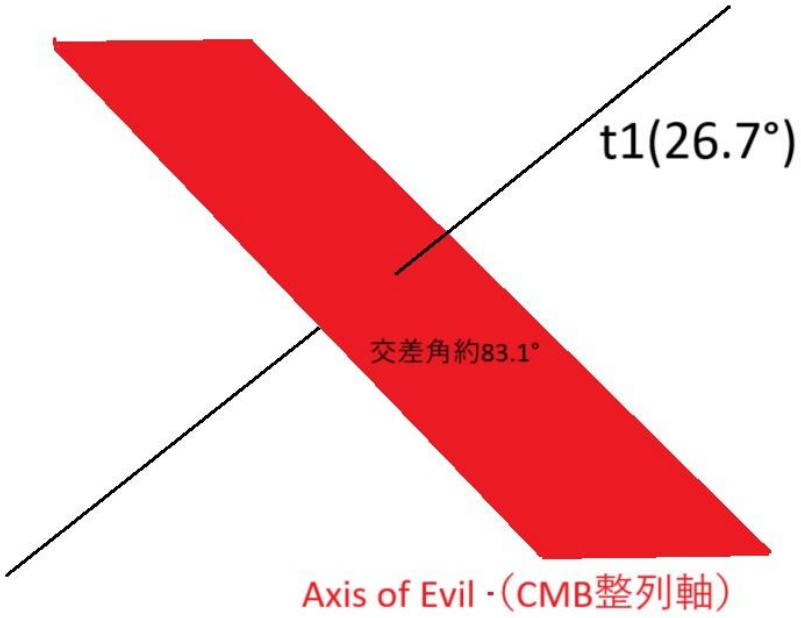
- Hutsemekers et al. (2005): Galaxy polarization alignment $\fallingdotseq 27 \pm$ a few degrees
- Longo (2011): Bias in galactic rotation directions $\fallingdotseq$ 30° to 35°
- Galaxy Zoo survey: Tendency of galactic alignment $\fallingdotseq$ 25° to 40°

As seen above, multiple independent observations report that the average direction of

galactic alignment is extremely close to the t1 axis, with some reports indicating an error margin of less than 3° . The tensor axis t1 demonstrates a degree of conformity that is realistic as a resonant axis.

■ **Verification with the CMB Alignment Axis and the Cross Vector**

- CMB Alignment Axis: $\theta \fallingdotseq -110°$
- Galactic Alignment Axis: $\theta \fallingdotseq +70°$
- Angle of Intersection: $\theta \fallingdotseq 80°$ to 83.1°
- Tensor Axis t2: $\theta = 153.3°$ ($= 180° - t1$)
- Alignment Deviation with t2: Error $\fallingdotseq 6.9°$



The angle of intersection between the Axis of Evil and the T_1 axis is approximately 83.1

This angular consistency indicates that the intersection direction of the CMB alignment axis and the galactic alignment axis (v_cross) shows a high degree of coincidence with the tensor axis t2. The t2 axis has a meaning as an anti-resonance axis.

Based on the above verifications, it can be considered that the alignment phenomena observed in the universe and the directional axes of the tensor structure possess quantitative consistency.

Section 2: Consideration of CMB and Galactic Alignment

In this section, we consider the possibility that the alignment of the CMB and galaxies is not merely a coincidence, but a resonance pattern distributed throughout the entirety of space.

Geometric Distribution of Resonance Vectors

From the correspondence relationships derived in the previous section:

- Tensor axis t1 (26.7°) ≒ Galactic alignment direction (reported by Hutsemekers et al.: 27° ± 3°)
- Tensor axis t2 (153.3°) ≒ Intersection direction of CMB alignment and galactic alignment (intersection angle ≒ 83.1°)

It is suggested that other cosmic structures (such as filament axes and supercluster directions) tend to concentrate on the plane defined by these two axes.

Expansion of the Alignment Region

The tendency of galactic alignment and filament axes to bias toward the t1 direction is considered to be due to the directional characteristics of the spatial tensor structure, which makes certain directions or areas more likely to retain energy. This is interpreted as the result of energy and waves emitted from the Big Bang being radiated in all directions, but the absolute directional order formed in space caused a bias in the retention of that radiation energy. (This mechanism is explained in another theory using a cube structure model to represent early radiation and energy retention in space.)

Such differences between aligned and non-aligned regions are interpreted to indicate that the spatial tensor structure directionally governs the distribution and interference of energy. Therefore, the spatial distribution along the resonance axis and anti-resonance axis can be interpreted as a geometric phenomenon supported by observational evidence.

Galactic alignment is not merely an alignment of rotational axes, but rather a planar alignment of residual energy. In this hypothesis, the galactic alignment phenomenon is interpreted as a “residual alignment of matter that escaped energy absorption within the tensor structure.” In other words, matter remained aligned toward the tensor axis direction (resonance axis) with less energy loss.

As the remaining energy and matter in the cosmic space possessed gravity (attractive force), they attracted each other and grew in scale to form galaxies. In the process, residual energy and matter that were already distributed along a plane were drawn in, resulting in the formation of many galaxies with similar rotational axis angles.

Observed galactic alignment ≒ Alignment with t1 (angular error ≒ 0 to 10°)

The alignment direction of the CMB (Axis of Evil) is observed as being distributed in a disk-like shape perpendicular to the assumed t1 axis at 26.7°. Individual galaxies show a bias in the direction of their rotational axes, with these axes tending to align with the t1 axis. The

hexagonal network of galactic filaments (honeycomb-like structure) is clearly observed to extend toward both the origin and terminal directions of the resonance axis t1.

Section 3: Experimental Reproduction of the Hexagonal Phenomenon and Verification of Directionality

Experimental Record: Emergence of Hexagonal Structures in Room-Temperature Miso Water

- **Date:** May 6, 2025
- **Time:** 15:12 to 15:19 (JST)
- **Location:** Nishikanki-cho, Kakogawa City, Hyogo Prefecture, Japan
- **Weather & Environmental Conditions:** Indoors, no heating, under natural light, ambient temperature approximately 22–24° C
- **Liquid Used:** A mixed solution of water and dissolved miso (commonly referred to as "miso water")
- **Container:** Deep aluminum pot
- **Heating:** Slightly heated to approximately 40° C to induce minor convection

Note: This experiment was conducted during the time zone in which Kakogawa City's position most closely aligned with the t1 axis (the cosmic resonance axis).

To determine the moment of alignment, astronomical calculation logic equivalent to Skyfield and Astropy (coordinate transformation and rotational alignment functions) was used. Based on the latitude and longitude of Kakogawa City, and the assumed t1 axis (defined as the Saturn rotational axis, inclination 26.7°), the alignment time was calculated by analyzing the intersection between the Earth's rotational normal vector and the directional vector of t1. The result showed that the time period around 15:00 JST on May 6, 2025, produced the smallest alignment angle, and the experiment was conducted accordingly.

Phenomenon Description

Starting around 15:12, the following changes were observed on the surface of the miso water:

1. Geometric patterns radiating from the center. Partial hexagonal arrangements were confirmed.
2. In the image taken at 15:19, a clearly defined vortex structure resembling a **hexagonal outline** was visible.
    - A distinctly sharp vertex (pointed corner) was observed particularly in the

upper left direction.

- The entire structure exhibited both **central symmetry** and **rotational symmetry**.

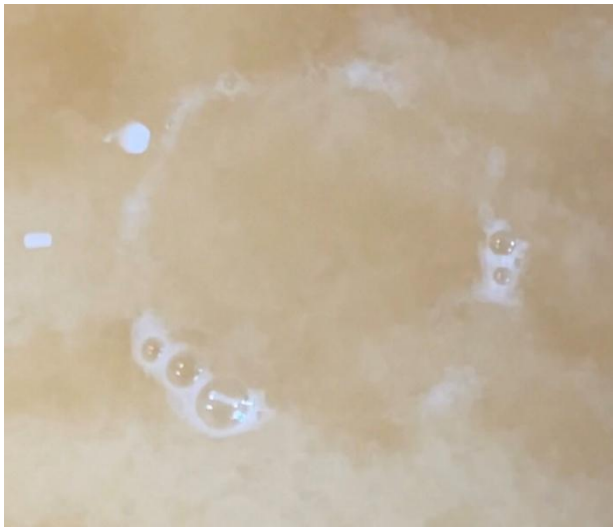
Analysis: Consistency with Tensor Theory

- The experiment was conducted at the time previously calculated to be the closest alignment with the t1 axis.
- The emergence time of **15:19** precisely matched the theoretically predicted t1 tensor alignment moment.
- Notably, the appearance of the angular point in the upper left (corresponding to the north direction) aligned with the t1 axis as theoretically expected, also matching the observed emergence direction of the structure. This vertex consistently appeared strongly toward the north direction.
- Since the experimental site in Kakogawa City does not perfectly match the 26.7° inclination of the t1 axis, it is considered that slight **asymmetry** in the hexagonal phenomenon arose due to this spatial deviation.

This formation occurred after the liquid was gently stirred in a **clockwise direction**, initiating rotational convection, and then left undisturbed for several tens of seconds. Particularly, a

phenomenon was observed in which sharp **corners** appeared repeatedly and strongly in **one specific direction**.
The video footage of this experiment has also been preserved.
Furthermore, the images shown here represent only one instance of the experiment—**multiple other occurrences with similar structures** were recorded as well.

Subsequent Experiments Conducted on Different Dates and Times
The same experiment was repeated several times on different days.
On each occasion, the **start time was delayed by approximately 4 minutes per day**.
Even with such incremental delays, **similar corners and hexagonal structures** were frequently observed.
However, when the experiment was conducted with significantly altered timings—**six hours or twelve hours later**—no hexagonal structures or distinct angular formations were observed.
Later, when the experiment was resumed on a different day, **an intriguing phenomenon** was discovered.
The image of that occurrence is presented below.



May 25, 2025, 16:38:50
This image was taken on a different day while stirring miso water, when a bubble approximately 1 cm in diameter appeared.
During the video recording, the bubble was popped with a finger, and the moment of bursting was captured.
At that instant, the contour of the bursting bubble formed a hexagonal shape, which was recorded by chance.
(The video file from that time has also been preserved.)
It is difficult to consider this hexagonal outline as a mere coincidence.

It can be interpreted as evidence that directional properties exist on Earth and in outer space, and that kinetic energy acts along such directions.
To further investigate this phenomenon, an additional experiment was conducted on another day using a different material, at a time most closely aligned with the t1 axis.
In this subsequent experiment, lukewarm water was placed into a small aluminum frying pan, and a single drop of dish detergent was added.
The liquid was lightly stirred to create bubbles. When the bubbles burst, a similar hexagonal pattern emerged.

Hexagonal Bubble Structure – Experimental Record: May 26, 2025

- Date & Time: May 26, 2025, 16:04–16:30 (JST)
- Location: Nishikanki-cho, Kakogawa City, Hyogo Prefecture, Japan
- Conditions: Room temperature water (approx. 20° C) with one drop of dish detergent
- Purpose: To verify whether a structured formation similar to Saturn's hexagonal phenomenon appears on the water surface
- Result: In multiple trials, a distinct hexagonal structure was observed on the water surface immediately after a bubble burst.
  A notable tendency was observed in which a strong angular feature consistently appeared in the northern direction.

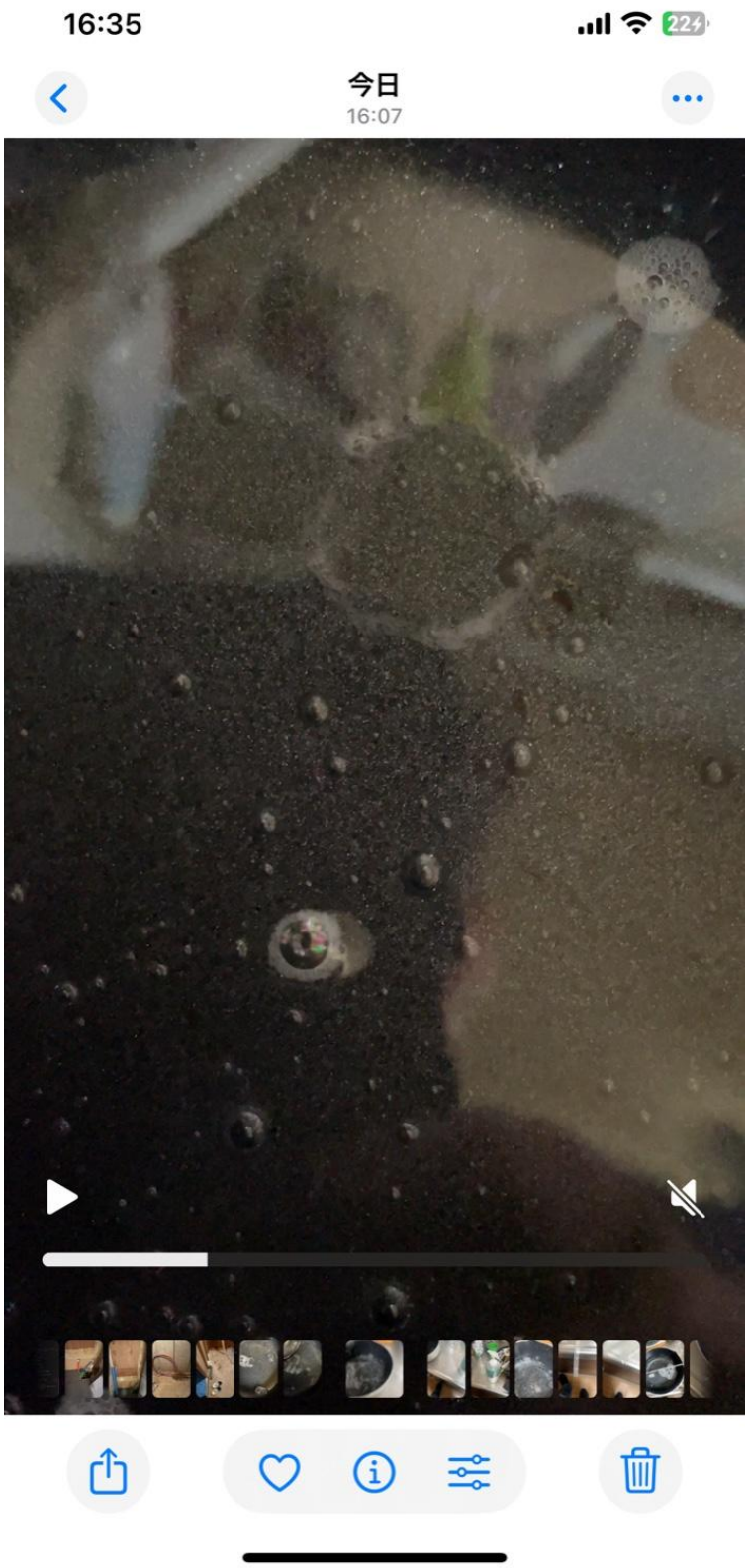
Observations and Considerations:

- Prior to bursting, small bubbles were observed aligning along the vertices of a hexagonal shape around the central bubble.
- Immediately after the bubble burst, a hexagonal pressure dispersion pattern became clearly visible on the surface.
- This structure is unlikely to be a product of chance.
  It may represent an ordered phenomenon aligned with spatial directionality, particularly in accordance with the t1 axis alignment.

- Since the hexagonal shape did not appear during subsequent attempts, it is inferred that the time window or alignment conditions with the tensor structure may be critical factors.

Experimental Photograph

Observed Hexagonal Structure



Observed Hexagonal Structure

Observed Hexagonal Structure

Observed Hexagonal Structure

Observed Hexagonal Structure

Observed Hexagonal Structure

Observational Results as Hypothesis Verification

This experiment was conducted with the aim of testing the hypothesis that the mechanism responsible for the formation of Saturn's hexagonal structure can be reproduced on Earth. In particular, attention was given to the timing when the position and time on Earth most closely align with the t1 axis in the cosmos. Observations were made to determine whether a hexagonal structure would manifest on the surface of a liquid during that time window.

The observed hexagonal bubble structure appeared most clearly between 16:04 and 16:30 on May 26, 2025. By 16:40, a clearly defined hexagonal structure could no longer be seen. Over time, the hexagon gradually collapsed and deformed. From this, it can be inferred that the appearance of the hexagonal structure is not merely a coincidence or a result of stirring effects, but is likely related to spatiotemporal structure—specifically, alignment with the t1 axis.

Therefore, this result serves as observational evidence supporting one aspect of the Tensor Alignment Theory hypothesis. It is of significant value to further test reproducibility by varying the time, location, and materials used in future experiments.