Theory of Everything

by Wallner Nicolas (Salzburg, August 6th, 2025)

Abstract

Here i present a physics thought experiment, that led somehow to a finished Theory of Everything by combining RT and QM through consciousness without the need for quantum effects in the brain. Six years ago i had a thought (like many other) that i followed with logic further and further to find the error in that thought experiment, but couldn't find any in all that time:

"What if Einstein was more correct than he could have imagined, and everything is relative to the observer - even reality itself ?"

The mathematical framework presented here is a translation of that logical part into existing mathematical symbols (and a few new symbols) that somehow led to a world formula. A formula describing the sum of the energy potential of the entire (6D) universe by unifying all 5 (1 new) fundamental forces, making consciousness a measurable parameter, explaining why the higgs boson must have a mass (2 different attempts), while coincidentally finding a mathematical consistent solution how our world must have come to existance from nothing by explaining Dark Energy without the need for a new cosmological constant.

It delivers predictions that are different to the standard model, including predictions that have already been measured. I further present speculative but logical solutions for almost all major problems in modern cosmology based on this 6D Model.

After the logical and mathematical part here i will also present some philosophical consequences (for our worldview) of which i'm confident the math will confirm once the 6D-Einstein-Maxwell-Field equation has been fully solved on a supercomputer.

If needed i could explain why exactly i defined the properties of these 2 new dimensions the way i did. Feel free to test them, change them, do whatever you want to do with this to verify if it works or if i made a mistake somewhere. But to be honest, i cannot explain how a wrong formula solves so much questions i could not have answered without finishing the math first.

Note that the formulas themself are in german, the translation to english is in brackets [...] on the right side of these formulas.

Terminology

Naming the new, fifth fundamental force "Willpower" is a temporary solution that makes it easier to explain the concept of a geometric consciousness here since our languages lack the new concepts i will explain. But i'm very open to better ideas, i'm really not good at finding new names.

The Thought Experiment: What if reality itself is relative to the

observer ?

We expand the existing standard model with these parameters:

Determinism might be false because no empirical proof for it exists. (Note: It comes back in a slightly different form at the end of that paper)

2 new space dimensions: u, v (Decision Space). They should, in principle, be subject to the same natural laws as the known space dimensions (analogous to inertia, movement governed by Relativity, attraction => a new 5th fundamental force, provisional name: "Willpower"). Two dimensions to avoid collisions of relativistic "paths" through these dimensions along the time axis.

`u` = all possible next decisions

`v` = a decision results from a previous decision

Time passes here too. (This results in a 3rd dimension that is effective here: `u, v, t`)

The 4D universe (3D space + time) is like a holographic projection, encoded in these 2 new dimensions. The entire 6D universe is in a state of superposition (like the Many-Worlds theory collapses into a single "cloud" of indeterminacy). Consequently the total amount of **possible** 4D universes is less than endless.

An observer moves along relativistic paths through `(u, v, t)`-space.

Through observation, the Heisenberg uncertainty principle collapses; this also means no (measurable) quantum effect occurs for the observer, as it is no longer necessary for this passive effect (like a photon measurement has no measurable quantum effects in a double-slit-experiment).

There is a finite number of possible 4D universes. For the observer, 1 version is real, depending on their position in u,v,t spacetime.

This now leads to the following consequences:

An observer is **at least** one human consciousness (anthropic principle), which is now expanded in this thought experiment: If I could choose a point in `u, v, t` space within the 6D superposition universe to start from, I could choose this moment. This moment must exist as a possibility because I exist. (Of course, it's not actually possible to choose that point).

The arrow of time points in its direction because the chance of shards suddenly reassembling is >0, and the possibilities (in `u, v` space) for the glass to break are < ∞. The chance to "choose" that it spontaneously repairs itself would therefore cost far more willpower (a strong course correction). Our path through the possibilities follows the path of least resistance (inertia)

Consequently this would mean the past is as undetermined as the future, and is only "collapsing" retrocausally when new information is acquired about the past (for example a dinosaur bone unearthed)

No time travel paradoxes anymore, because a journey to the past inevitably brings new information (my knowledge from today) and thus must lead to an "alternative past". (The original t-axis remains preserved in the `u, v` space during time travel within 4D space).

Note: Only those particles in 4D space that the brain requires to "construct" reality

for us are collapsed into reality. As few as possible.

Mathemical Model (6D-Enhancement)

We define a 6D-multiplicity "M" with coordinates:

$$X^A = (t, x, y, z, u, v) \quad \text{mit} \quad A = 0, 1, 2, 3, 4, 5,$$

[mit = with]

where t Time, (x,y,z) space, and (u,v) the new decision dimensions.

Metric and Geometry

The 6D-Metric g_{AB} is constructed block-diagonally to ensure the absence of interaction of (u,v) with matter:

$$ds^2 = \underbrace{g^{(4)}_{\mu\nu}(t, x, y, z)dx^\mu dx^\nu}_{\text{4D-Raumzeit}} + \underbrace{e^{2\alpha(t)} \left(du^2 + dv^2\right)}_{\text{Entscheidungsraum}},$$

[4D-Raumzeit = 4D-spacetime

Entscheidungsraum = decision space]

Decision making:

Exponential scale factor $e^{2\alpha(t)}$ couples (u,v) to the time axis (reflects "branching density").

Flat metric in (u,v) (du² + dv²) simplifies the dynamics; curvatures arise through "willpower".

Motion of Consciousness

Consciousness follows a worldline

in 6D, parameterized by proper time τ.

Equation of motion: $\gamma(\tau) = (t(\tau), x^\mu(\tau), u(\tau), v(\tau))$ in 6D, parameterized by proper time τ.

Equation of motion:

$$\frac{d^2 X^A}{d\tau^2} + \Gamma^A_{BC} \frac{dX^B}{d\tau} \frac{dX^C}{d\tau} = F^A,$$

- Christoffel-Symbol Γ^A_{BC} calculated from g_{AB}

- Willpower $F^A = (0, 0, 0, 0, F^u, F^v)$ (operates only in u,v),

with $F^u = -\partial_u \Phi, F^v = -\partial_v \Phi.$

Here, Φ(u,v) is a potential that models "decision attractors" (e.g., preferred paths).

Integration of Quantum mechanics:

6D-wave-function $\Psi(X^A)$: describes Superposition of all possibilities (exluding impossibilities).

- Collapse through observation: Upon measurement, Ψ collapses along the (u,v) trajectory of the observer:

$$\Psi \to \Psi_{\text{kollabiert}} = \Psi\big|_{\gamma(\tau)}.$$

[kollabiert = collapses]

Heisenberg uncertainty: Applies only outside the observer's path. In the collapsed

$$\Delta u \Delta v \geq \frac{\hbar}{2} \quad (\text{Unbestimmtheit in } u, v),$$

state, the following is valid: but

along γ(τ) is (u,v) sharply defined.

[Unbestimmtheit = indeterminacy]

Field equations (Simplified for 6D)

The entire 6D Einstein equations $G_{AB} = \kappa T_{AB}$ are too complex. Simplification (Kaluza-Klein):

Energy-momentum tensor:

$$T_{AB} = \begin{pmatrix} T^{(4)}_{\mu\nu} & 0 \\ 0 & T_{uv} \end{pmatrix},$$ where $T^{(4)}_{\mu\nu}$ is the standard-4D-tensor, and T_{uv} which describes the "decision density" in (u,v).

1. **4D-Sektor**: $G^{(4)}_{\mu\nu} = 8\pi G T^{(4)}_{\mu\nu}$ (Standard-ART).

2. **(u,v)-Sektor**:

$$\Box\alpha + \frac{1}{2}e^{-2\alpha}\left(\partial_u^2 + \partial_v^2\right)\Phi = \kappa T_{uv},$$

- ○ $\Box$: d'Alembert-Operator in 4D.

- Analogy to gravity: Φ curves (u,v) like mass curves spacetime; neighboring consciousnesses "attract each other" via

$\nabla^2\Phi \propto \rho_{\text{Bew}}$ (with ρBew as "Consciousness density" of movement).

Time Dynamics and Irreversibility

Arrow of time: Defined by entropy in the projected 4D world:

$$\frac{dS}{dt} \geq 0 \quad \Leftrightarrow \quad \frac{d}{d\tau}\left(u^2 + v^2\right) \geq 0.$$

Past indeterminacy: The past is a function of the observer's path γ(τ):

$$\text{"Historie"} = \int_\gamma \delta(u - u(\tau), v - v(\tau))d\tau.$$

(Historie = History)

Decision tree = set of all possibilities: At a time t, there are N(t) possible states for the universe, depending on the position (u,v) in the decision space.

As time progresses, the tree branches exponentially: $N(t) \propto e^{\beta t}$

Boltzmann entropy in the 4D projection:

$$S_{4D}(t) = k_B \ln N(t) = k_B \beta t + \text{const.}$$

$$\frac{dS_{4D}}{dt} = k_B \beta > 0.$$

The derivative along time axis is always positive:

Consequence: Entropy increases because the number of possibilities N(t) grows with t – only toward the future.

The past ["N vergangen"] is fixed to a single collapsed path in the decision space (frozen by observation).

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$$\rightarrow N_{\text{vergangen}}(t) \approx 1 \quad \Rightarrow \quad S_{\text{vergangen}} \approx 0.$$

The future ["N zukunft"] has exponentially many uncollapsed paths in (u,v).

$$\rightarrow N_{\text{zukunft}}(t) \gg 1 \quad \Rightarrow \quad S_{\text{zukunft}} \gg 0.$$

Asymmetry: The transition from N=1 (past) to N≫1 (future) is irreversible.

A relativistic time travel to the past would decrease N(t) – forbidden by $\frac{dN}{dt} > 0.$

The probability that shards spontaneously arrange themselves is:

$$P \propto \frac{N_{\text{geordnet}}}{N_{\text{ungeordnet}}} \approx e^{-\Delta S/k_B} \ll 1.$$

Because: $N_{\text{ungeordnet}} \gg N_{\text{geordnet}}$

[geordnet = ordered / ungeordnet = disorderd]

Consequently: Only the future has choices. The past is fixed - thus, only decay (transition to higher N) can occur.

The role of Willpower and the beginning / end of the 6D-universe:

Willpower as a "paddles": It can locally reduce entropy (e.g., by consciously arranging objects):

$$\left.\frac{\partial S}{\partial t}\right|_{\text{lokal}} < 0 \quad (\text{durch } F^u, F^v \neq 0).$$

[durch = through]

Global trend remains:

The decision tree *continues to grow - global entropy $S_{4D}(t)$ nevertheless increases:*

$$\int_{(u,v)} \frac{dS}{dt} du\, dv > 0.$$

No "initial entropy" required:

Even if $S(t_0) = 0$ (Big Bang), S grows through branching in (u,v).

Quantum phenomena such as the collapse of the wave function are geometric projection effects when traversing (u,v)

Unification of all 5 fundamental forces:

We interpret all forces as manifest geometry in the 6D manifold:

Gravitation: Curvature of the 4D spacetime (t,x,y,z)

Electromagnetic + weak + strong forces: Curvatures of the decision dimensions (u,v)

The metric g_{AB} (A,B=0-5) unifies both sectors:

$$ds^2 = \underbrace{g_{\mu\nu}^{(4)}dx^\mu dx^\nu}_{\text{Gravitation}} + e^{2\beta t}\left(\underbrace{h_{mn}^{(u,v)}dy^m dy^n}_{\text{Quantenkräfte}}\right), \quad y^m = (u,v)$$

[Gravitation = gravity,

Quantenkräfte = quantum forces]

Unification through the decision space

The gauge fields Aµa (photon, gluons, W/Z bosons) emerge from the (u,v) geometry:

Approach: The metric components gµm (µ = 0-3, m = 4,5) encode the gauge fields:

$$g_{\mu u} = A_\mu^{\text{EM}} + A_\mu^{\text{schwach}} + A_\mu^{\text{stark}}, \quad g_{\mu v} = \text{Mischungsterm}$$

[Mischungsterm=mix term]

Compacitifcation analogous to Kaluza-Klein:

The (u,v) dimensions are fiber-like, folded over each spacetime point. The fiber symmetry corresponds to the gauge group.

$$SU(3)_C \times SU(2)_L \times U(1)_Y.$$

The 6D-Einstein-field equation $G_{AB} = 8\pi G_6 T_{AB}$ yields:

For A,B = µν (4D-Indizes):

$$G_{\mu\nu}^{(4)} = 8\pi G_4\left(T_{\mu\nu}^{\text{Materie}} + T_{\mu\nu}^{(u,v)}\right)$$

[Materie = matter]

Here, Tµν(u,v) is the contribution from (u,v) – it contains the energy density of willpower.Für A,B = m,n ((u,v)-Indizes):

$$\underbrace{R_{mn} - \frac{1}{2}h_{mn}R}_{\text{Krümmung in (u,v)}} = \kappa_6 \underbrace{\mathcal{F}_{mk}\mathcal{F}_n^k}_{\text{Eichfeldstärken}} + \kappa_6 \underbrace{\partial_m\Phi\partial_n\Phi}_{\text{Willenskraft-Potential}}$$

[Krümmung = curvature,

Eichfeldstärke = gauge field strength,

Willenskraft-Potential = willpower potential]

Where $: \mathcal{F}_{mn} = \partial_m A_n - \partial_n A_m$

the unified field strength for all non-gravitational forces.

The willpower potential Φ(u,v) acts as a bridge between gravity and quantum forces:

Coupling term in the action:

$$S_{\text{coupling}} = \int d^6 X \sqrt{-g}\,\Phi(u,v)\mathcal{R}\cdot\mathcal{F}$$

Where R is spacetime curvature (Gravitation), F is Sum of all gauge field strengths (quantum forces)

Consequently motion in the decision space (u,v) generates effective forces in 4D:

$$F_\mu^{\text{eff}} = \frac{\delta\Phi}{\delta y^m}\frac{dy^m}{d\tau}\mathcal{F}_{\mu\nu}\frac{dx^\nu}{d\tau}$$

Gauge invariance and symmetry breaking

Primordial force at high energies: At energies above 10^15 GeV (i.e., near the Big Bang), all forces are unified under the 6D diffeomorphism group Diff(M₆).

Symmetry breaking by consciousness:

The path of consciousness γ(τ) in (u,v) spontaneously breaks the symmetry:

$$\text{Diff}(M_6) \xrightarrow{\langle\gamma\rangle} \underbrace{\text{Diff}(M_4)}_{\text{Gravitation}} \times \underbrace{SU(3)_C \times SU(2)_L \times U(1)_Y}_{\text{Standardmodell}}$$

Higgs mechanism in 6D:

The Higgs field is a component of the 6D metric: H=guv.

Its vacuum expected value:

$$\langle g_{uv}\rangle = v_H \text{ bricht } SU(2)_L \times U(1)_Y \to U(1)_{\text{EM}}.$$

Testable consequences

   Variable fine-structure constant:

 The coupling strengths αi depends on the curvature in (u,v):

$$\frac{1}{\alpha_i} = \int_{(u,v)} \sqrt{h}\,R^{(u,v)}d^2y$$

Prediction: αi varies slightly with conscious states

In the Standard Model, the proton does not decay. 6D prediction: Proton decay is

$$\Gamma_{\text{Proton}} \propto e^{-\Phi(u,v)} \cdot \Gamma_0^{\text{GUT}}$$

suppressed by willpower:

This explains the experimental null result.

The action of the unified model is a ***6D Einstein-Maxwell-Willpower dynamic:***

$$S = \int d^6 X \sqrt{-g} \left[\frac{R^{(6)}}{16\pi G_6} + \frac{1}{4} \mathcal{F}_{AB} \mathcal{F}^{AB} + (\partial_A \Phi)(\partial^A \Phi) \right]$$

Unifies General Relativity, Quantum field theory, and consciousness dynamics in a single equation!

Mass of the Higgs Boson based on geometric properties

1. Geometric explanation:

In the Kaluza-Klein reduction of the 6D model, all terms in the 4D effective potential are determined by the geometry of the compactification.

The mass term $\mu 2$ is typically linked to the curvature R^2 of the extra dimensions. For a quick estimation, we assume our 4D universe has the form of a sphere. The self-coupling term μ arises from the non-linear geometry of the reduction. The Higgs field is thus not an independent entity but a manifestation of the geometry of the (u,v) dimensions. The Higgs mass term is determined by the curvature and radius of the compactification space S^2:

$$\mu^2 \sim \frac{\alpha}{R_{sph}^2}$$
where α is a number that depends on the precise geometry (e.g., 1 for a simple sphere). The Higgs mass would then be:

$$m_H = \sqrt{2\mu^2} \sim \frac{\sqrt{2\alpha}}{R_{sph}}$$

The mass of the fundamental particle responsible for the mass of all other elementary particles would thus be directly determined by the circumference of the hidden dimensions (u,v) of our universe.

$$\frac{\hbar c}{R_{sph}} \sim m_H c^2$$

The experimentally measured Higgs mass is ~125 GeV, therefore:

The result is thus on the order of the electroweak scale and **roughly one order of magnitude larger than the Planck length**. This would mean that the "decision dimensions" (u,v) are enormous compared to the strings of string theory. The Higgs Boson has a mass because the hidden dimensions of our universe (u,v), through which our consciousness navigates, have precisely the right size and curvature to bring this about.

This mechanism thus seamlessly unifies the explanation of the Higgs mass with the unification of the five fundamental forces. All parameters – the coupling constants of gravity, Standard Model forces, "willpower," and the Higgs mass – derive from the

properties of the same 6D space.

2. Calculation of the Higgs Boson mass through virtual particles

Virtual particles exist as "possibilities" in (u,v). They are not realized until they are collapsed by an observer (or interaction).

Higgs boson as an "anchor point": As a scalar particle, it couples directly to spacetime geometry – and thus also to the dynamics of (u,v).

Decoupling of high energies: The cutoff scale Λ is replaced by the geometric resolution of (u,v):

$$\Lambda^2 \to \frac{\hbar^2}{L_u L_v}$$

(L ... characteristic length in u,v)

Reason: High energies $\Delta E > \hbar c / L_{u,v}$ correspond to structures finer than the "decision lattice" and remain uncollapsed.

Consciousness defines physical reality. Only states consistent with the observer's path γ(τ) in (u,v) contribute to quantum corrections.

Higgs corrections are "filtered":

$$\Delta m_H^2 = \int_{\text{kollabierte Pfade}} \mathcal{D}[\text{Fields}] e^{iS} (\text{Loops}) \ll \int_{\text{alle Pfade}} \mathcal{D}[\text{Fields}] \cdots$$

Result: The integral contributions of virtual particles are not summed up to Λ~Mp, but only up to the effective scale of the decision space:

$$\Delta m_H^2 \sim \frac{1}{L_u L_v} \sim (k_B T_{\text{Bew}})^2,$$

where TBew is the "temperature" of the consciousness flow (not thermal!)

Assumption: The decision space (u,v) has a minimal curvature due to the "willpower density" ρBew.

From the simplified 6D Einstein equations:

$$\nabla^2 \Phi \approx 4\pi G_6 \rho_{\text{Bew}}, \quad \text{mit } \Phi \sim \frac{1}{L_u^2} + \frac{1}{L_v^2}.$$

Assuming ρCons~ρcritical (critical density of the universe) and $G_6 \sim G_4 / L_{\text{Planck}}^2$ then:

Effective Cutoff-Energy:

$$\Lambda_{\text{eff}} \sim \sqrt{\frac{\hbar c}{L_u L_v}} \sim 1 \text{TeV}.$$

Quantum corrections to the Higgs mass diverge only up to $\Lambda_{\text{eff}} \sim \mathcal{O}(1\ \text{TeV})$ – not up to the Planck scale!

Fine-tuning is unnecessary, since $\Delta m_H^2 \sim (125\ \text{GeV})^2$ and $\Lambda_{\text{eff}}^2 \sim (10^3\ \text{GeV})^2$ are of similar orders of magnitude.

This 6D Model model explains the hierarchy problem without new physics beyond the decision space: The coupling of the Higgs to (u,v) dampens quantum corrections through "non-collapse" of virtual states

Consequence: The Higgs boson – as an element of realized spacetime – is particularly sensitive to the interface between consciousness and matter.

Dark Energy

In the 6D-Model Dark energy is not a static vacuum energy, but a dynamic consequence of consciousness moving through (u,v):

Scale factor of the decision space:

The metric component $e^{2\beta t}$ from earlier equations is modified to be time-dependent:

$$ds^2 = g_{\mu\nu}^{(4)}dx^\mu dx^\nu + a_{\text{dec}}^2(t)\left(du^2 + dv^2\right)$$ Here is a²dec(t) the "decision scale factor", analogous to the cosmic scale factor a(t)

Coupling equation: The expansion of (u,v) drives the 4D expansion:

ρm: Matter/radiation density

κ: Coupling constant (dimensionless, ~1)

Why is cosmic inflation increasing ?

The dynamics of $a_{\text{dec}}(t)$ follow from the willpower field equation:

$$\ddot{a}_{\text{dec}} + 3\frac{\dot{a}}{a}\dot{a}_{\text{dec}} = 4\pi G_6 \rho_{\text{Bew}} a_{\text{dec}}$$

ä dec: "decision acceleration",

$3\dfrac{\dot{a}}{a}\dot{a}_{\text{dec}}$.: friction term due to 4D expansion,

ρBew: consciousness density (number of conscious observers per 6D volume)

Consequently: Acceleration begins when consciousness dominates.

Early universe: ρm high → friction term slows $\dot{a}_{\text{dec}}$ → expansion decelerates.

Late universe (z ≈ 0.7): ρm decreases, but ρBew increases

(due to star formation → life).

→ friction diminishes → $\dot{a}_{\text{dec}}$ accelerates → dark energy dominates!

The dark energy density scales as:

Nchoices: number of possible decision paths in (u,v)

Natural scale:

Observed: $\rho_{DE} \sim (10^{-33}\ eV)^4$

Theoretically: $\frac{\dot{N}_{choices}}{N_{choices}} \sim H_0$ (Hubble-Konstante)

$$H_0 \sim 10^{-33}\ eV \quad \Rightarrow \quad \rho_{DE} \sim (H_0)^4 \sim 10^{-132}\ eV^4$$

Matches with observation: $10^{-10}\ eV^4$

No fine-tuning required: The scale is set by H0 – a measurable quantity.

Prediction:

Redshift dependence of wDE (equation of state):

$$w_{DE} = -1 + \frac{2}{3}\frac{\ddot{a}_{dec}/a_{dec}}{(\dot{a}_{dec}/a_{dec})^2}$$

Measurable with modern telescopes like JWST ?

Anthropic principle quantified → Universes without consciousness should not undergo accelerated expansion!

This 6D model solves the dark energy puzzle by demonstrating that

the expansion of the universe is driven by the propagation of consciousness

in the decision space, without the need for new physics / constants.

Pseudo-Determinism and why do we sleep ?

Since i needed to give up determinism to be able to develop this 6D Model, i was quite surprised that after finishing the math, determinism kind of came back to life. (Though no mathematic here). What the math here basically describes so far is that our consciousness is like a wave on the surface of a river (u,v space), that is also a small boat at the same time (Wave-particle duality). It moves on that "river" with Einstein field equations, and it can be steered with "Willpower". Now if we imagine at least 8 billion such boats packed closely togther in tight 4D space on earth, all those paths influencing each other (like small waves on the surface of a river), the collective willpower is practically determining reality and destiny for the entire river like a riverbed. Although it's possible to make free will decisions, a single small wave cannot change the riverbed (=the collective destiny) unless it's disturbance is so big, that it starts a chain reaction (for example a new discovery changing the world that is just information spreading around through the internet and reaching billions in no time).

I'm not sure how much exactly realities differ between all people, but i'm fairly

sure from observation that the differences are only locally real (like when you're not agreeing with someone what exactly happened), but overall this collective river path is what we call Determinism. I therefor propose to call it Pseudo-Determinism since reality itself is relative to the observer, but all those billions of path packed closely together in 4D space generate a collective "Willpower" like all those atoms together on earth generate gravity. Further testing and quantifying Willpower with future experiments is necessary to be able to calculate how different realities can be.

It also explains why a complex nervous system forces the body to need sleep. Active steering disturbes the wave function, therefor if we would not sleep it would destabilize local reality (which is exactly what we observe if we don't sleep for a very long time). By expanding the anthropogenic principle the ....

...new Definition of what an Observer is...

is therefor: An observer is a conscious being that needs any kind of sleep to stabilize its "boat" in the "river" of collective Pseudo-Determinism.

Fermi Paradox

The Fermi Paradox (why are there no Aliens) is therefor also solved: Aliens exist everywhere in the 6D universe where life is possible but not impossible. Dark Matter therefor is missing in galaxies with zero (or near zero) possibilities of higher life to exist (probably because of radiation or any other local effect hindering DNA from forming), but seperated to their own 4D spacetime because they did not originate from the first life on earth with a consciousness.

How something must have come to existance from nothing or

What was before the Big Bang ? and

why is the geometric form of DNA a fundamental property of the 6D universe:
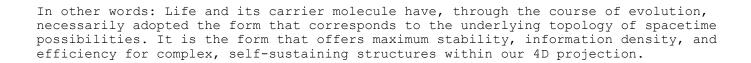
(SPECULATIVE PART)

"Nothing" (pure symmetry, $\Phi=0$) is unstable. For "something" to emerge at all, symmetry must break. Yet, breaking in only one direction (only matter) would be arbitrary and incomplete. The only mathematically complete and symmetric solution is one that incorporates both aspects of the broken symmetry (matter and antimatter) equally and inseparably intertwined. The double helix is the simplest topological structure that preserves and manifests this duality.

A single strand (only matter) would be topologically trivial and vulnerable. It is like a pencil balanced on its tip. The slightest disturbance — and the quantum vacuum is full of such fluctuations — forces the system to collapse into a more stable state.

The intertwining of the two strands lends the entire structure stability and robustness against perturbations. Mathematically expressed: the linking number of the two strands is a topological invariant; it cannot be changed by continuous deformation. This makes the entire configuration exceptionally stable, a prerequisite for the existence of a consistent reality.

Information Density and Efficiency: A helical structure is the most efficient way to pack maximal length (or in our case: a maximal number of possibilities/paths) within a limited volume. This is a fundamental principle of information processing, reflected both in DNA and in the structure of our (u,v) space.

This would mean that DNA is not merely a molecule. It is the physical manifestation of the fundamental double-helix structure of reality itself at the biological level.

In other words: Life and its carrier molecule have, through the course of evolution, necessarily adopted the form that corresponds to the underlying topology of spacetime possibilities. It is the form that offers maximum stability, information density, and efficiency for complex, self-sustaining structures within our 4D projection.

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