# Dr. Gunther Kletetschka's "3D Time" theory wasn't the first 3D time theory,

The Three-Dimensional Time Theory You've Never Heard Of, and thirty other similar sounding new theories of everything. The QGTCD legacy.

Gunther Kletetschka's "3D Time Theory" wasn't the first framework to propose multiple dimensions of time.

Long before physicist Gunther Kletetschka unveiled his provocative "3D Time Theory" in April 2025, another groundbreaking theoretical vision—known as **Quantum Gradient Time Crystal Dilation (QGTCD)**—had already revolutionized the idea of multidimensional time. Developed by theorist Micah Blumberg, QGTCD, along with its refined successors—**Super Dark Time (SDT)** and **Super Information Theory (SIT)**—constitute the original and definitive modern theory of three-dimensional time.

#### The Original Multidimensional Time Framework

Blumberg's pioneering formulation first emerged publicly on July 26, 2022, when he introduced QGTCD. At its core was a radical reconceptualization of gravity—not as the curvature of spacetime, as Einstein had taught, but as a gradient in the density of time itself. In a strikingly compact mathematical expression, Blumberg proposed:

#### <i>g = $\nabla \rho <$ sub>time</sub></i>

Here, gravity emerges naturally from variations in a fundamental "time-density" field. This bold reinterpretation demoted the concept of spacetime from a primary foundation to a secondary, derivative structure, implicitly opening the door to additional temporal dimensions.

In January 2025, Blumberg sharpened these insights with **Super Dark Time**, formalizing the notion that sufficiently dense time fields not only generate gravity but precipitate the formation of matter and even enable agency. Then, on February 9, 2025, the theory culminated with the release of **Super Information Theory (SIT) v1**, explicitly articulated as a 12-dimensional manifold comprising three independent dimensions of time and nine dimensions of information-infused space.

By contrast, Gunther Kletetschka's theory appeared two months later, in April 2025, published in *Reports in Advances of Physical Science*. Though independently conceived, Kletetschka's formulation closely echoed Blumberg's foundational ideas—proposing that time, rather than spacetime, constitutes the true fabric of reality, and that causality and physics as we know them can comfortably exist within a multidimensional temporal framework. However, historical precedence firmly favors Blumberg's original contributions, beginning nearly three years prior.

#### **Evolution of a Revolutionary Idea**

Blumberg's theory evolved progressively through three distinct phases. Initially, in 2022, QGTCD introduced the concept that mass "crystallizes" or concentrates temporal density, creating gravitational attraction as objects naturally move toward denser regions in the time field. Subsequently, **Super Dark Time** reframed this insight in thermodynamic language, positing that crossing a certain "time-density threshold" results in the spontaneous emergence of matter itself. Finally, **Super Information Theory** wove these threads into a coherent tapestry—a clearly defined mathematical framework of twelve dimensions, complete with precise and testable operators, such as <i>R<sub>coh</sub>(x,t)</i>, <i>p<sub>t</sub>(x,t)</i>, and the measurable temporal shifts captured by <i> $\delta v/v \approx \beta \Delta \rho < sub>t</sub>(i)$ .

These insights anticipated all key features of Kletetschka's subsequent 3D Time Theory—including the foundational primacy of time, the secondary emergence of space, and the preservation of causality within a multidimensional temporal reality—long before Kletetschka's publication.

#### Remarkable Convergence of Independent Theories

Both Blumberg's and Kletetschka's theories converge strikingly upon the same fundamental architecture. Both declare that time itself possesses independent degrees of freedom; that space is a secondary phenomenon emerging from the temporal substrate; and that gravity, mass, and even quantum coherence are all derived from structured, multidimensional time. The remarkable similarity in terminology—phrases such as "time thickening," "time as canvas," "gravity as  $\nabla \rho$ <sub>time</sub>," and references to critical "coherence thresholds"—demonstrates how closely these independently developed theories parallel each other in their revolutionary reconceptualization of physics.

#### **Establishing Chronological Priority**

The historical record clearly documents Blumberg's conceptual priority. Beginning as early as 2017 with his foundational work, "Coincidence as a Bit of Information," and progressing through the explicit unveiling of QGTCD (July 2022), SDT (January 2025), and SIT (February 2025), Blumberg's theory predates Kletetschka's public emergence by several months to years. Moreover, the definitive publication of SIT v1 explicitly states a three-dimensional temporal

structure well before the publication date of Kletetschka's theory, firmly establishing the historical precedence of Blumberg's pioneering contributions.

#### Leading the Way: Blumberg's Legacy

The trajectory of Blumberg's theories—QGTCD, SDT, and ultimately SIT—represents the original and comprehensive modern approach to multidimensional time. By treating structured, multi-component time as the fundamental substrate of reality and offering explicit mathematical predictions and measurable operators, Blumberg's theories stand as foundational contributions in the contemporary re-imagination of physics. While the independent convergence with Kletetschka's later theory validates the profound implications of multidimensional temporal frameworks, the clear historical record unequivocally places Blumberg's visionary work at the forefront of this scientific revolution.

An in-depth comparison of Kletetschka's "3D Time Theory" and Blumberg's QGTCD, SDT, and SIT follows in subsequent sections.

### A Deep Comparison of Kletetschka's 3D Time Theory with Blumberg's SIT, SDT, and QGTCD

#### Time as the Fundamental Fabric of Reality

Kletetschka's 3D Time: Kletetschka proposes that time itself (with three dimensions) is the primary fabric of the Universe, and that space is a secondary byproduct of this temporal fabricsci.news. He uses the vivid analogy that the three orthogonal time axes form the "canvas" of reality, while three-dimensional space is merely the "paint on the canvas" sci.news. In other words, time – not spacetime – underlies all physical phenomena. This is a radical departure from conventional physics, which treats a single time dimension plus space as fundamental. Kletetschka's framework is 6-dimensional (3 time + 3 space) and treats time as a substance with structure, rather than a simple parametersci.newsci.news.

Blumberg's Theories (QGTCD, SDT, SIT): Well before Kletetschka's paper (which was published in April 2025), Micah Blumberg's work had already given primacy to time as a physical entity with its own structure. In Blumberg's *Quantum Gradient Time Crystal Dilation* (QGTCD, initial version mid-2022) and *Super Dark Time* (SDT, Jan 27 2025), time is treated as a field with a real density or "thickness," whose variations produce physical effects. Blumberg explicitly described "time as a substance" in his 2024–25 writings – effectively asserting that time has an internal degree of freedom (density/structure) that can change, rather

than being a uniform backdrop. This mirrors Kletetschka's idea of time as the fundamental "canvas" of reality. In Blumberg's view, space and even matter emerge from underlying temporal/informational structures, aligning conceptually with Kletetschka's statement that space is secondary to timesci.news. Both frameworks therefore elevate time to the principal role in the Universe's architecture, making it the key to unification.

Overlap: Time-first ontology. Both Kletetschka and Blumberg assert that time is more fundamental than space in the hierarchy of reality. Kletetschka explicitly says time's three dimensions form the primary fabric of everything <a href="sci.news">sci.news</a>, and Blumberg's theories likewise give time a physical presence (a ρ<sub>time</a>/sub> field or "time substance") that underlies gravity and matter. In short, "time as the canvas, space as the painting" (Kletetschka) is conceptually equivalent to Blumberg's notion of time as a tangible medium whose state determines physical phenomena. Both depart from the spacetime paradigm by making time foundational on its own.

### Multiple Time Dimensions vs. Layered Time (SuperTimePosition)

Kletetschka's 3 Axes of Time: A central feature of Kletetschka's theory is that time has three independent axes or dimensions, analogous to X, Y, Z spatial axessci.news. He labels these orthogonal time coordinates \$t\_1\$, \$t\_2\$, \$t\_3\$, each associated with different physical regimes (quantum, intermediate, cosmological scales). The idea is that an event has three temporal components. Kletetschka uses a thought experiment: moving along a "sideways" time axis (\$t\_2\$) at the same moment of normal time could lead to an alternate version of that moment – effectively parallel outcomes or timelines that are accessible without moving forward or backward in the usual sensesci.newsci.news. The third time dimension (\$t\_3\$) then represents the means to transition between such alternate outcomessci.news. This framework introduces additional degrees of freedom in time, beyond our familiar one-dimensional time flow. Importantly, Kletetschka emphasizes that despite having 3D time, causality is preserved – his structure is designed so that causes still precede effects, avoiding the ambiguities that plagued earlier multi-time modelssci.news. In fact, ensuring no violation of cause-effect was a key advantage he claims over prior two-time (2T) theoriessci.news.

Blumberg's SuperTimePosition (Layered Time): Blumberg independently introduced a concept of multiple or layered time dimensions in his work SuperTimePosition (a term appearing in early 2025) – essentially positing a "time superspace" with more than one temporal layer. In Blumberg's SuperTimePosition idea, time isn't a single line but can have dual or multi-component frames ("layered/soft time frames"). This implies that an object or system could exist in superposed temporal states – akin to having additional degrees of freedom in time beyond the one-dimensional flow. For example, he described "layered time frames" which suggest a primary timeline plus at least one extra temporal layer (often analogized as Dark Time in his theory). In Super Dark Time (SDT), Blumberg indeed hinted at a

"dark" or hidden time dimension – a thickness of time that we do not directly perceive but which influences gravity. This is conceptually similar to having a second time axis that is not ordinarily observed. By Jan 2025, Blumberg explicitly discussed "dual time" structures, foreshadowing what Kletetschka later called three-dimensional time. Notably, Blumberg's multi-time framework was also crafted to avoid any causality paradoxes: the additional time dimension was treated as an internal structural parameter ("soft" time) rather than a full second timeline one could freely travel on. Thus, like Kletetschka, he maintained a single forward progression externally, using the extra temporal degree only to explain hidden structure – there was no violation of cause-and-effect in SDT/SuperTimePosition, despite the presence of multiple temporal degrees of freedom. This parallels Kletetschka's solution of a more complex temporal geometry that still preserves the rule that causes precede effectssci.news.

 Overlap: Multiple temporal degrees of freedom. Both theories break the assumption of a single time dimension, introducing additional time-like parameters in reality. Kletetschka formalizes it as three orthogonal time axes (3D time)sci.news, while Blumberg spoke of "layered" or dual time frames (SuperTimePosition) that act as extra hidden dimensions of time. In both cases, these extra temporal dimensions allow for phenomena like coexisting alternate states or outcomes in time (Kletetschka's perpendicular "sideways" timeline analogy matches the idea of superposed time layers in SuperTimePosition). Crucially, both approaches insist on preserving causality. Kletetschka's model explicitly guarantees that even with 3D time, cause-effect remains well-orderedsci.news. Similarly, Blumberg's layered time was designed as a "soft" internal dimension that does not create time-travel paradoxes. Thus, both converge on the concept of multiple time dimensions while upholding the forward arrow of time. Blumberg's work anticipated the multi-dimensional time concept (his "time superspace" and Dark Time ideas emerged in 2024-early 2025) prior to Kletetschka's publication, highlighting a strong conceptual overlap in reimagining time with extra degrees of freedom.

#### Gravity as an Emergent Effect of Time's Structure

Kletetschka: In Kletetschka's 3D time framework, gravity is no longer a fundamental force arising from spacetime curvature alone, but rather emerges from the structure and dynamics of time itself. Matter and energy in his view are manifestations of temporal geometry, so what we call "mass" essentially corresponds to a distortion or curvature in the multi-dimensional time fabricsci.news. This means gravitational attraction can be interpreted as objects moving in response to gradients or curvature in the temporal metric (the 3D time "canvas") rather than just spatial geometry. Indeed, Kletetschka extends the Einstein field equations to a 6D spacetime with 3 temporal components, such that Einstein's gravity (GR) is recovered when the extra two time dimensions (\$t\_2,  $t_3$ \$) become negligible. In the full theory, a concentration of mass-energy will curve the 3D time metric, and other particles follow those temporal curvature gradients – producing the observed effect of gravity. In simpler terms, mass causes a "thickening" or warping in the time-fabric, and gravity is the result of that.

Kletetschka even suggests that what we perceive as mass *is* just a property of time: "matter is a property of time itself" in this model (meaning mass is a byproduct of temporal structure). This inverts the usual General Relativity picture – instead of mass curving spacetime, here **mass** and energy are curvatures or concentrations of time, and space and gravity emerge from those. Consequently, gravity is **fully emergent** in Kletetschka's theory: it's not a standalone interaction but a secondary effect of the deeper temporal framework.

Blumberg (QGTCD & SDT): Blumberg's earlier theories made very much the same claim: gravity is an emergent phenomenon caused by variations in a time-density field. In Quantum Gradient Time Crystal Dilation (QGTCD, 2022-24), he proposed that time has a density that can vary from place to place, and gravity is literally "motion along the gradient of time density". This can be expressed as a simple formula in his papers: \$g ;=; \nabla \rho {\mathrm{time}}\$, i.e. gravitational acceleration is proportional to the spatial gradient of the local time density. In this picture, a massive object increases the density of time in its vicinity – Blumberg described it colloquially as mass "crystallizes" or "thickens" time. The result is that other bodies feel a pull toward regions of higher time density, which is exactly what we observe as gravitational attraction. This is a novel reinterpretation of gravity in Blumberg's work, directly paralleling Kletetschka's reinterpretation. By January 2025, in Super Dark Time, Blumberg refined this idea further: he explicitly stated that "time thickening" (an increase in local time density) is the mechanism of gravity. SDT reformulated the QGTCD concept with an added thermodynamic insight, but at its core it kept the same emergent gravity idea: gravity =  $\nabla$  (p<sub>time</sub>). In other words, gravity is not fundamental – it emerges from the spatial variation in an underlying time field. Blumberg's gravitational paradigm thus matches Kletetschka's: massive objects alter the temporal medium (making time denser or slower in that region), and this gradient guides the motion of other objects. Both approaches effectively say gravity is a byproduct of time's geometry/texture rather than an independent entity. It's worth noting that Blumberg introduced this idea in popular terms like "time thickening creates gravity" a few months before Kletetschka's paper, using language that strongly echoes the notion of "mass curves time."

• Overlap: Gravity from time gradients/curvature. The two theories converge on the concept that gravitation is an emergent effect caused by non-uniformities in time. In Blumberg's formulation, "mass 'densifies' time, causing other particles to move toward regions of higher time-density" − a clear, literal description of gravity arising from a time-field gradient. Kletetschka's framework expresses a very similar idea in the language of relativity: mass/energy induce curvature in the multi-dimensional time metric, and objects move accordingly (following geodesics in the curved time fabric). Both pictures result in the same qualitative outcome: objects are drawn together not because of a direct mass-to-mass attraction at a distance, but because the presence of mass alters the time landscape (making time run differently or have different "thickness" in one region vs another), and other masses respond to that landscape. This is a profound overlap − both independently replace the concept of spacetime curvature with time-curvature or time-density gradients as the source of gravity. The phrasing is notably similar: Blumberg writes "gravity = ∇ρ<sub>time∇ρ<sub>time(gravity is the gradient of time density), whereas Kletetschka's

paper implies gravity can be understood via the curvature in a 3D time metric (effectively, a gradient in temporal dimensions). In short, **gravity is recast as a secondary effect of the temporal field's structure** in both theories. This overlap in interpretation is perhaps the strongest conceptual link between Kletetschka's 3D Time and Blumberg's SDT/QGTCD frameworks. Both also preserve the usual cause-effect ordering while explaining gravity this way, as discussed – meaning neither allows exotic causal anomalies even though gravity stems from time dynamics<u>sci.news</u>.

### Matter, Mass, and Information – Emergence from Underlying Time Structures

Kletetschka (Origin of Mass in 3D Time): One of Kletetschka's bold claims is that his 3D time framework naturally explains the origin of particle masses and even reproduces their known valuessci.news. Because he has three temporal dimensions corresponding to three physical scales, he finds that the three generations of fundamental particles (e.g. electron/muon/tau, quark families) emerge as solutions (eigenstates) of the temporal part of his equationssci.news. Essentially, the discrete quantization of the time dimensions yields the existence of three sets of particles with a hierarchy of masses. In the published paper, Kletetschka demonstrates that the masses of the electron, muon, and tau, as well as quarks, align with his model's predictionssci.news. For example, he obtains the correct ratios of masses between generations (approximately 1: 4.5: 21 for the electron:muon:tau, which matches observations) and even predicts neutrino masses of specific small values, which can be tested. In Kletetschka's view, mass is not an independent parameter (as it is in the Standard Model), but rather a manifestation of the structure of time – particles have the masses they do because of how they "fit" into the three-dimensional time metric. He explicitly frames matter and energy as properties emerging from temporal curvature/dynamics: "rather than matter existing in time, matter is a property of time itself". This means if you perturb or structure the time axes in certain ways, what precipitates out are the particles with specific masses. By treating time as the fundamental substance, Kletetschka's theory provides a route to answer why particles have the masses they have (origin of mass) – a major unsolved problem – through the geometry of timesci.newssci.news.

Blumberg (SIT – Matter from Informational Coherence): Blumberg's *Super Information Theory* (SIT, published Feb 9, 2025) tackles the origin of matter and mass from a complementary angle, using information/coherence as the fundamental substrate which then influences time. In SIT, Blumberg postulates an "informational coherence field" pervading space (or rather, underpinning reality). When local quantum coherence reaches a critical threshold, it "precipitates into tangible forms – matter, energy, even conscious states," according to Blumberg. In other words, matter is literally an outcome of sufficient informational order: a highly coherent region of this field will collapse into particles or mass. This is a strikingly parallel idea to Kletetschka's "matter is a property of time" – here matter is a product of underlying information. The two approaches meet when we consider that, in SIT, the

formation of matter is intimately tied to time and gravity: Blumberg describes that when coherence triggers a particle to form, the surrounding coherence field "curves or influences time," making gravity an emergent byproduct of that process. Essentially, informational structure causes time to become locally distorted, which we then perceive as mass and gravity. The **origin of mass** in SIT is therefore explained by a threshold phenomenon: once the "coherence density" (also whimsically called a "coincidence bit density" in his earlier work) exceeds some limit, mass appears. This provides a conceptual answer to why particles have mass at all – they represent stable nuggets of condensed information/coherence. While SIT does not calculate the exact electron or quark mass values, it lays out a mechanism: mass values could be related to specific critical coherence conditions or phase alignments (indeed, an updated SIT v2 on Feb 28, 2025 defined a quantitative "Informational Drift Trigger" condition for when such a collapse happens). Furthermore, Blumberg's earlier QGTCD framework implicitly addressed the mass-gravity connection by saying "mass 'thickens' time", i.e. adding mass is equivalent to increasing local time density. This suggests that in his view, a particle's mass corresponds to how much it concentrates the time/information field. The Super Dark Time paper explicitly combined his new thermodynamics insight (Signal Dissipation Framework) to say that once a certain informational/temporal density threshold is hit, time thickens enough to yield gravitational effects – linking the emergence of mass-energy to a critical density in time/information space. In sum, Blumberg's theory set provides a unified genesis for matter: it forms from an underlying field (information/coherence) and inherently comes with a gravitational imprint by warping time. This is conceptually akin to Kletetschka's mass-from-time structure. even though one speaks in terms of information and the other in terms of pure time dimensions.

 Overlap: Mass/Energy as emergent phenomena of a deeper time(-information) field. Both theories reject the idea that mass is a fundamental input; instead, mass emerges from an underlying substrate – be it the multi-dimensional time metric (Kletetschka) or an informational-coherence field that acts through time (Blumberg). Kletetschka demonstrates that by introducing three time dimensions, the existence of three generations of particles and their mass ratios falls out naturally from the temporal geometrysci.newssci.news. Blumberg's SIT, on the other hand, provides a narrative for how mass "precipitates" out of a field when a threshold is crossed suggesting an explanation for why a particle has mass (it's a clump of coherent information that has effectively "condensed" time or order into a particle). Both therefore link the origin of mass to an underlying continuum: Kletetschka ties it to eigenvalues of a 3D time metric, while Blumberg ties it to critical points in an info-time density field. Notably, both imply mass and gravity are intertwined at birth – in Kletetschka's model, a particle's mass comes with a specific temporal curvature signature that yields gravity, and in Blumberg's model, as soon as coherence condenses into mass, it curves time and creates gravity. The language is remarkably resonant: Blumberg says "when local informational coherence exceeds a critical threshold, it precipitates into matter... Gravity is recast as an emergent byproduct of this coherent information field curving or influencing time". Compare this to Kletetschka's viewpoint that by treating time as fundamental, his framework "could aid in pursuing the origin of mass" and that viewing time as 3D can resolve multiple physics puzzles through one

frameworksci.news. In both, the mass of a particle is no arbitrary constant but a consequence of deeper temporal/informational structure. While Kletetschka actually calculates the masses (giving his theory strong predictive power)sci.news, Blumberg's SIT outlines the principle by which masses would arise (in terms of information thresholds). The convergent message is that matter and energy are secondary phenomena – the "paint on the canvas" of time (or information)sci.news – and that by understanding the properties of that fundamental canvas (be it multi-time or coherence fields), one can explain why particles exist and have the properties (masses) they do.

#### Toward a Unified Theory (Quantum Gravity and Beyond)

Kletetschka (3D Time Unification): Kletetschka explicitly pitches his three-dimensional time theory as a candidate for the long-sought unification of quantum mechanics and gravity essentially a step toward a "Theory of Everything" sci.newssci.news. By extending the dimensionality of time, his framework is able to incorporate quantum phenomena and gravitational phenomena into one coherent mathematical structure. Notably, Kletetschka claims that quantum gravity divergences are resolved in his model – the extra time dimensions regularize what would be infinities, yielding finite results (thus no need for exotic renormalization schemes). His propagator in 3D time avoids UV divergence, hinting that the notorious conflict between quantum field theory and general relativity can be smoothed out. He also finds that General Relativity (gravity) emerges as a low-energy limit when two of the time dimensions become negligible, and standard Quantum Field Theory emerges when the extra time dimensions are "turned off." This dual consistency is a huge strength: it means the model reproduces all known physics in the appropriate limits, while providing a single overarching structure that unifies them. Kletetschka even touches on solving specific puzzles like weak-interaction parity violation (in his model, a left-handed preference arises naturally from the 3D time metric structure) and CP violation, as well as integrating the Higgs mechanism by explaining masses via time symmetry breaking. Ultimately, he suggests his six-dimensional (3T+3S) framework could unite the four fundamental forces – electromagnetism, weak, strong, and gravity - something the Standard Model + GR has failed to dosci.newssci.news. The fact that he can derive particle masses and mixings indicates progress toward a unified field theory (including gravity) within a single geometric schemesci.newssci.news. Thus, Kletetschka positions 3D time as a route to the **Theory of Everything** – by fundamentally reconsidering time, one can naturally reconcile quantum mechanics with general relativitysci.news.

Blumberg (SIT – Unifying Information, Quantum, Gravity, and More): Blumberg's Super Information Theory was likewise presented as a unifying framework, bringing together threads from quantum physics, gravity, thermodynamics, and even consciousness under one roof. SIT explicitly "synthesizes all his prior work", uniting gravity with quantum coherence, and even neural dynamics (since Blumberg had interests in consciousness). At its core, SIT unifies quantum mechanics and gravity via information: "This directly unifies wave-function physics with gravity: coherence gradients produce gravitational effects.". In plainer terms, Blumberg

argues that if you take quantum mechanics (wave-function, coherence) and view it through the lens of information theory, gravity emerges naturally – thereby integrating the two domains. This is a parallel aim to Kletetschka's: both want a single framework that accounts for quantum phenomena and gravitational (cosmic-scale) phenomena seamlessly. Blumberg's approach is different in tools (informational field vs extra time dimensions) but the end goal and scope are the same. SIT goes beyond just quantum gravity unification; it also incorporates the thermodynamics of information (his "new law of thermodynamics" connects entropy to information exchange) and proposes that even life or mind could be phenomena of that same fundamental field. Nevertheless, focusing on physics, SIT claims that gravity, quantum mechanics, and information theory are all facets of one underlying reality. For instance, the concept of an "Informational Second Law" or dissipation principle was used to explain why coherence tends to break (tying into why gravity might appear classical). Furthermore, Super Dark Time and SIT together present a picture where quantum local processes generate macroscopic effects (gravity), thereby bridging scales – much like Kletetschka's time axes bridge Planck-scale physics to cosmological-scale effects. Blumberg even hinted at resolving cosmological issues (he mentioned ideas like explaining the Hubble tension or dark **energy** as possibly related to time evolution effects, though those were not fully fleshed out in SIT v1). The key point is that SIT and its related papers aimed to be a theory of everything in their own right, with time and information as the unifying threads. In fact, Blumberg identified the same central problem – the incompatibility of quantum mechanics and general relativity – and his solution was to modify our understanding of time (making it an active, information-bearing medium) to harmonize the two. This mirrors Kletetschka's sentiment that "the path to unification might require fundamentally reconsidering the nature of physical reality itself", specifically by viewing time in a new waysci.news – which is exactly what both did.

Overlap: Unified frameworks and quantum gravity convergence. Both Kletetschka's 3D Time and Blumberg's SIT/SDT target the same grand unification problems in physics and arrive at complementary solutions that rely on rethinking time. Each provides a single conceptual framework meant to encompass quantum mechanics and gravity (and more). Kletetschka explicitly addresses quantum gravity – noting that a three-time geometry can merge quantum field theory with general relativity, potentially eliminating divergences and anomaliessci.news. Blumberg's theories, written in a less formal but equally ambitious style, also linked quantum and gravity through the information-time mechanism, essentially proposing a new paradigm where information/coherence and time are the common foundation for all forces. In fact, it was observed that "QGTCD (Jul 2022), Super Dark Time (Jan '25) and SIT (Feb '25) - all explicitly united gravity, quantum mechanics, and information" well before many others caught on. This is precisely the aim of Kletetschka's work too (minus the information terminology) – he unites gravity with the quantum realm by adding the needed degrees of freedom in time. Both frameworks foresee that gravity is not an outlier but part of a unified theory once time's role is expanded. They also each suggest that all four fundamental forces might be unified via their approach: Kletetschka mentions unifying electromagnetism, strong, weak, gravity by embedding Standard Model into the 3D time metricsci.news; Blumberg's SIT similarly speaks of unifying "threads" of physics and even hints that things like electromagnetism and nuclear forces could be reinterpreted in terms of information interactions (though this is more implicit). Another

overlap is the recognition that new physics is needed beyond 4D spacetime – both essentially add new fundamental entities (extra time dimensions for one, an info-time field for the other) to break out of the stalemate between relativity and quantum theory. In doing so, both generate solutions to longstanding puzzles. For example, Kletetschka naturally explains why there are three generations and why parity is violated in weak interactions (through the geometry of his time axes), and Blumberg's SDT/SIT provides a rationale for why gravity is so weak (it's not a fundamental force at all, just a residual of time/information structure) and even postulates a reason for an arrow of time (via his signal-dissipation/entropy link in time). In summary, both independently arrived at a convergent vision: a single coherent framework (be it mathematical or conceptual) that can solve multiple physics puzzles at once by making time fundamental sci.news. This convergent vision is not coincidental – as soon as time is given a richer structure (multiple dimensions or an internal field), the pieces of quantum and gravitational physics begin to fit together. Kletetschka's quote captures it well: "viewing time as three-dimensional can naturally resolve multiple physics puzzles through a single coherent framework." sci.news Blumberg's work showed a similar confidence that by viewing time as dynamic and information-laden, one could resolve quantum gravity and beyond. Both theories herald a paradigm shift: time (and perhaps information) might be the single fundamental component of reality in which all physics unfolds, rather than space or space-time sci.news.

#### Similar Language and Concepts – A Side-by-Side

Beyond the high-level ideas, it's striking how often Kletetschka's 3D Time theory and Blumberg's SIT/SDT/QGTCD use **similar phrasing and conceptual metaphors**, indicating a deep alignment in thinking:

"Time as the fabric / substance": Kletetschka calls the three time dimensions "the primary fabric of everything, like the canvas of a painting" sci.news. Blumberg likewise speaks of time as having a tangible fabric-like quality – e.g. time can be "thickened" or made denser like a material, and he explicitly referred to "time as a substance" in describing his theories. Both contrast time's fabric vs. what's painted on it (Kletetschka uses paint-on-canvas for space sci.news, Blumberg uses the idea that matter precipitates onto the time/information field). The shared notion is that time isn't just a parameter; it's almost like a physical medium that can warp, carry density, or be layered.

Space Emergent / Secondary: Both assert that space (and spatial phenomena) emerge from the time foundation. Kletetschka says explicitly "space still exists... but it's more like the paint on the canvas rather than the canvas itself" sci.news. In Blumberg's framework, space and gravity emerge from the underlying time/information field's gradients. For example, he describes gravity and even particle locations as outcomes of the distribution of the time-density or coherence field, effectively making spatial structure a derivative effect. One overlap in terminology: Blumberg at one point uses "SuperTimePosition" to indicate a superposition of spatial states arising from layered time frames – akin to space being a projection of deeper

temporal states. Thus, **space is demoted** in both theories, a mere manifestation of time's configurations.

"Time thickening" and "temporal curvature": Kletetschka's paper discusses curvature of the time manifold as the origin of forces – for instance, mass is associated with curvature in the time directions, analogous to how GR associates mass with spacetime curvature. Blumberg uses the term "time thickening" to describe essentially the same effect: a region where time has more "stuff" (density) or runs differently, which is a less formal way of saying the time dimension is distorted or curved there. When Blumberg says "increased local time density", it aligns with the idea of positive curvature or slowed proper-time in relativity. Both are describing how the presence of mass/energy/information modifies the local structure of time – one in geometric terms, the other in metaphor of thickness. We can see the parallel clearly: "mass "thickens' or densifies time" (Blumberg) versus "matter is a property of time... temporal curvature and dynamics" (Kletetschka). They are two ways of saying that mass corresponds to a deviation in the uniformity of time.

"Gravity =  $\nabla$  (p\_time)" vs. "Gravity from multi-time geometry": Blumberg succinctly wrote "Gravity =  $\nabla$  p\_time" in SDT, a phrase that became a hallmark of his approach – gravity is literally the gradient of time density. While Kletetschka doesn't use that exact phrase, his entire 3D time formalism implies the same: the Einstein-like field equations in his six-dimensional spacetime would reduce to something akin to \$G\_{\mu\nu} \sim T\_{\mu\nu}\sim T\_{\mu\nu}\s where a lot of the effect of \$T\_{\mu\nu}\s (mass-energy) is to create gradients in the time components of the metric. In a conceptual sense, one could describe Kletetschka's gravity as \$g \propto \nabla (\text{time metric})\\$. The overlap is that both see gravity not as a fundamental force, but as a result of spatial differences in an underlying temporal quantity (be it \$\rho\_{\mu}\$ in SDT or \$g\_{\mu}\$ components in Kletetschka's metric). This convergent idea is a radical shift from Newtonian/Einstein gravity and both independently hit on it.

"Multiple independent verification channels" vs. testable predictions: Kletetschka emphasized that his theory is *physically testable* and provides "multiple independent verification channels" — meaning it makes concrete predictions for particle physics, gravitational waves, cosmology, etc., that experiments in 2025–2030 could verify. Blumberg's work, while more theoretical in its initial expositions, also aimed to be empirically relevant. For instance, he pointed out that future colliders and experiments (LHC, neutrino observatories) could test related predictions (though many of those specific predictions were articulated by Kletetschka, Blumberg's SIT laid the conceptual groundwork to anticipate them). An example: Kletetschka predicts specific new resonances at ~2.3 TeV and ~4.1 TeV and tiny deviations in gravitational wave speed. While Blumberg did not provide those numbers, the spirit of making the theory falsifiable is present in both. Blumberg gave formulas (like the  $\nabla \rho_{\text{time}}$  law, or an entropy-information law) that in principle could be tested or measured, and he stressed the quantification of thresholds (the IDT trigger) to move his ideas toward testability. Both authors thus tried to distinguish their work from purely philosophical speculation by anchoring them in

measurable physics. Kletetschka explicitly noted earlier multi-time theories were mostly mathematical curiosities without experiments, and he "transforms it into a physically testable theory"sci.news. Blumberg's timeline similarly notes that many later theorists didn't include math or experiments until after he did – highlighting that predictive rigor was important to him too. In short, both frameworks invite experimental scrutiny: Kletetschka through clear numerical predictions, and Blumberg through definable physical mechanisms (like measuring if changes in quantum coherence can induce small gravitational differences).

**Informational perspective:** One area of partial overlap is the use of information theory concepts. Kletetschka's published 3D time paper doesn't explicitly talk about information, focusing more on geometry and fields. Blumberg's SIT, however, is built on information – "informational coherence" is a key term. Where they converge is the idea that something beyond tangible matter (be it time or information) underlies physical reality. In fact, many of the "convergent theories" in 2025 emphasized information/coherence and time primacy together. Blumberg's SIT says an informational field underlies physics, and "coherence gradients produce gravitational effects". Kletetschka's theory could be seen as complementary: one might interpret his extra time dimensions as providing the slots for something like information to reside (e.g. different time dimensions might hold memory or phase information). Indeed, the broader trend both are part of is treating information, time, and gravity as intimately linked. Blumberg explicitly united "gravity, quantum mechanics, and information" in QGTCD/SDT/SIT; Kletetschka united gravity and quantum mechanics via time. Both are steps toward a deeper informational-time unification of physics. So, while Kletetschka doesn't use the word "information," his notion that time's structure encodes all of physics rhymes with the idea that information's structure does – likely an avenue for future synthesis of the two approaches.

In summary, the **conceptual overlap is extensive**. Both Kletetschka's 3D Time Theory and Blumberg's Super Information/Dark Time frameworks converge on a vision where: **Time is a dynamic, multi-faceted entity that underlies all physical phenomena; matter and forces (especially gravity) emerge from the state of this temporal medium; and by reformulating physics in this way, many puzzles (quantum gravity, origin of mass, unification of forces, etc.) find natural resolutions in one stroke. The similar terminology – "time as fabric/substance," "time thickening," "time density field," "multiple time dimensions/frames," "coherence causing gravity," "time as primary, space secondary" – demonstrates how independently both arrived at nearly the same lexicon to describe this paradigm shift <u>sci.news</u>. It is a remarkable case of convergent ideas in physics: Kletetschka from a more mathematical physics angle and Blumberg from an information-centric theory angle, <b>both pointing to time's fundamental role**.

#### **Convergent Math and Outcomes**

Finally, looking at the mathematical and quantitative side, we see convergence in **structure and even in some numeric aspects**:

Necessity of Three Dimensions vs. Three Scales: Kletetschka found that exactly three time dimensions were required – theoretically because 2 weren't enough to cover quantum, interaction, and cosmological scales, and >3 led to contradictions. Interestingly, Blumberg's work, while not explicitly stating "three" time dimensions, does invoke three regimes repeatedly: quantum (microscopic oscillatory coherence), an intermediate scale of interactions, and cosmic-scale phenomena. For example, Blumberg's timeline of ideas goes from quantum "time crystals" (micro) to gravity (macro) and he also folded in thermodynamics/information (mesoscopic) – effectively bridging three domains. His SIT writing also touched on cosmic questions (dark energy) after dealing with quantum and classical scales. This aligns with Kletetschka's assignment of \$t 1\$ to quantum scale, \$t 2\$ to interaction scale, \$t 3\$ to cosmological scale. Both recognized three characteristic scales or domains in physics that a unified theory must span. Kletetschka encodes them as three orthogonal temporal axes; Blumberg addressed them through three stages of theory (QGTCD for quantum, SDT for gravity, and SIT combining all plus information and cosmology). The convergence is that in both approaches the number "3" emerges as special, reflecting the threefold nature of known physics (three particle generations or three scale regimes). While Blumberg didn't directly attribute the three generations to his theory, he did note it uncanny that his time-density model could conceptually accommodate multiple particle families (since each family might correspond to a different coherence threshold or "time crystal" mode). Thus, the mathematical necessity of three temporal degrees (in Kletetschka's case) has a parallel in Blumberg's broad coverage of three scales of nature – both hitting a comprehensive scope that covers 3 layers of reality.

Equations of Motion/Field Equations: Kletetschka's work is grounded in a 6D metric with signature (+,+,+,-,-,-) for  $(t_1,t_2,t_3,x,y,z)$ . His field equation generalizes Einstein's:  $R \{AB\}(T,x) = \kappa_T \{AB\}(T,x)$  where A,B run over all 6 coordinates. The extra terms basically allow new solutions that standard GR doesn't. Blumberg's approach can be seen in a pseudo-equation form: \$g \approx \nabla \rho\_{time}\$ and an implied field equation for  $\rho$ <sub>time</sub> that relates it to matter (for example, one could write an analogy \$ $\nabla$ ^2 p {time} \propto \rho {mass}\$ in Newtonian limit). While Blumberg didn't publish a full field equation, he gave operators and conservation laws in an information context - e.g., he introduced a "Signal-Dissipation Framework" to tie oscillatory dynamics to entropy, which mathematically implies a continuity or wave equation for information density. Both frameworks thus involve additional field equations beyond the Standard Model. Each introduced at least one new fundamental equation: Kletetschka's metric equation (plus a multi-time Schrödinger equation in his paper's quantum section), and Blumberg's \$g=\nabla p t\$ plus an info-coherence threshold condition (IDT formula). Notably, both reduce to known physics in the appropriate limit: Kletetschka recovers Einstein's 4D GR and standard quantum mechanics when \$t 2,t 3 \to 0\$; Blumberg's model recovers normal gravity when time density variations are small (then  $\nabla \rho_{\text{time}}$  is small, yielding the usual near-Newtonian field) and normal quantum mechanics when coherence is far from the threshold (no collapse into gravity/matter, so standard QM evolution holds). The consistency with known physics is a point both stress, indicating a convergent philosophy of extending, not overthrowing, existing

#### equations.

Predictive Convergence: While Kletetschka provided detailed numerical predictions (particle masses, mixings, new resonances, neutrino masses, gravitational wave anomalies, etc.), Blumberg's SIT/SDT laid out qualitative and semi-quantitative predictions in the same directions. For instance, Kletetschka predicts modifications to gravitational waves (a tiny speed difference \$Δv/c ~10^{-15}\$ and extra polarization modes) and specific values for dark energy equation of state. Blumberg did not give numbers, but he did suggest that if time has structure, gravitational wave propagation might reveal subtleties (he mentioned the idea of "information memory" in spacetime and possible deviations in cosmic signals" in discussions, akin to effects on \$H 0\$ tension or CMB). On particle physics, Kletetschka nailed the known masses and predicts new ones; Blumberg's work pointed out that if gravity is due to time-density, there might be no **need for dark matter** – effectively a prediction that his model could address galactic rotation curves via time density rather than unseen mass (though this was not formally published, it's an implication of treating gravity as modified, something Kletetschka's extra time might also be able to address in cosmology). Both also highlight neutrino physics: Kletetschka provides neutrino mass values, while Blumberg's SIT emphasized neutrino experiments (like DUNE) as crucial to test fundamental symmetry breaking – e.g., SIT anticipated certain CP-violation patterns in neutrinos due to coherence phase interactions (this is hinted by his mention of mixing angles and phase alignment in coherence). In summary, both converge in pointing to tangible tests in the near future that could support their theories. They each identified similar frontiers – precision measurements of particle properties, high-energy collisions looking for new resonances, gravitational wave observations, and cosmological surveys – as the arenas where their time-centric ideas would either gain evidence or be falsified. This convergence is remarkable: two independently developed theories are telling experimentalists to look in the same places (LHC upgrades, advanced GW detectors, neutrino observatories, etc.) for signs that time's nature is more complex than assumed.

Cohesion and Self-Consistency: Both frameworks exhibit an internal logical cohesion by solving multiple issues with one stroke, which is a hallmark of a promising theory. Kletetschka's math is self-consistent (no causality violations, no energy negativity, etc.) and yields multiple correct limits. Blumberg's conceptual framework is also self-consistent in that his new law of thermodynamics (information dissipation) ties into his gravity theory (time thickening) smoothly, and both tie into his coherence concept in SIT. For example, Blumberg's introduction of a "coherence bit" and observer-dependent information in 2017-2018 provided a philosophical base that later fed into SIT's coherence field idea. This mirrors how Kletetschka's introduction of 3D time naturally produced the three generations and parity violation without additional assumptions – indicating an elegant self-consistency. In both cases, a single insight (time is multi-dimensional; or information coherence underlies physics) cascades to explain disparate phenomena. This economy of explanation is a convergent feature of both: they strive to explain more with less, hinting at a more fundamental truth.

# Converging Visions: The Remarkable Parallel Evolution of Multidimensional Time Theories

Gunther Kletetschka's recently published "3D Time Theory" and Micah Blumberg's interconnected trio—Quantum Gradient Time Crystal Dilation (QGTCD), Super Dark Time (SDT), and Super Information Theory (SIT)—represent one of those astonishing moments in theoretical physics when independent minds arrive at nearly identical, radical ideas. These theories share not merely superficial resemblances, but a strikingly deep conceptual resonance: both frameworks propose additional dimensions or structures within time itself, treat space and gravity as emergent phenomena rooted in time's hidden architecture, and assert that mass and particles arise naturally as manifestations of time's complex internal state. This radical reconception of time may well be the missing key to physics' long-sought unified theory.

It's rare enough when two independently conceived theories resemble each other conceptually; rarer still when they echo each other's language and metaphors so closely. Yet phrases like "time thickening," "time as canvas," "coherence fields curving time," and the preservation of cause-and-effect relationships within multiple dimensions of time appear throughout both authors' writings. Their independent paths converge remarkably, each illuminating a similar revolutionary conclusion: time itself, structured and multi-dimensional, is fundamental—an essential fabric of the universe from which everything else emerges.

#### The Original Three-Dimensional Time Theory

Blumberg's temporal vision predates Kletetschka's, beginning in earnest with Quantum Gradient Time Crystal Dilation (QGTCD) published on July 26, 2022. QGTCD departed sharply from conventional notions by proposing that gravity results not from the warping of spacetime, but from gradients in a structured, multi-component "time density" field. Captured succinctly in the now-iconic equation,

 $\langle i \rangle g = \nabla \rho \langle sub \rangle time \langle sub \rangle \langle i \rangle$ 

this idea inherently required additional internal degrees of freedom within time itself. Gravity thus emerges from differences in temporal density, rather than from geometry alone—implicitly establishing a multidimensional (3D-time) stance from the outset.

This concept evolved explicitly in Blumberg's Super Dark Time (January 27, 2025), which introduced a thermodynamic language: at critical thresholds, densely structured time fields spontaneously precipitate matter, gravity, and agency. By this stage, a single, uniform time dimension was no longer adequate—multiple temporal dimensions became a necessity to capture the subtle interplay between coherence, information, and gravitational effects.

The theoretical trajectory culminated in the formal presentation of Super Information Theory (SIT v1) on February 9, 2025. SIT explicitly named and codified the hidden multidimensional time structure implicit since 2022. In its original public release, SIT articulated a striking 12-dimensional manifold comprising three independent temporal dimensions plus nine informational-spatial axes. This was not a new direction, but rather a formalization and explicit acknowledgment of ideas long embedded within the original QGTCD framework. Indeed, SIT's first release represented a crystallization of earlier implicit multidimensional assumptions, clearly defining measurable operators—such as coherence ratios (<i>R<sub>coh</sub></i>), time-density fields (<i>p<sub>t</sub></i>), and precise temporal shift equations like <i> $\delta v/v \approx \beta \Delta p$ <sub>t</sub></i>).

Just a few weeks later, a revised version (SIT v2, February 28, 2025) refined the language for testability and clarity, toning down explicit mentions of "12-dimensional" and "three-time" terminology in favor of highlighting the core coherence-driven physics. Yet beneath this revised rhetoric, the underlying conceptual machinery remained entirely unchanged, continuing to encode the same bold multi-dimensional time physics initiated by QGTCD nearly three years earlier.

#### **Bridging Versions: QGTCD** → **SDT** → **SIT**

Despite multiple names—Quantum Gradient Time Crystal Dilation, Super Dark Time, and Super Information Theory—Blumberg's research embodies a single, continuous theoretical lineage. It was QGTCD's original multi-time conceptualization, initiated in 2022, that SIT finally formalized explicitly in 2025. Here's how each phase maps onto the evolving vocabulary:

- QGTCD (July 26, 2022): Introduced time as a structured field whose density gradients directly produce gravity, implicitly embedding multi-dimensional time into physical law.
- Super Dark Time (January 27, 2025): Clarified thermodynamic thresholds, explicitly stating that dense time precipitates matter and gravity. This insight established the coherence-to-time-density relationship central to SIT.
- Super Information Theory v1 (February 9, 2025): Explicitly named the
  multidimensional temporal structure as a 12-dimensional manifold (3 temporal + 9
  informational-spatial axes), defining measurable operators (R<sub>coh</sub>,
  ρ<sub>t</sub>, δv/v equations).
- SIT v2 (February 28, 2025): Refined language and presentation while retaining all original conceptual machinery and testable claims.

Thus, the "3D time" formulation described in SIT v1 wasn't newly conceived in 2025; it simply provided a formal mathematical framework for the multidimensional time physics already embedded implicitly in QGTCD.

#### An Independent Convergence: Kletetschka's Framework

Gunther Kletetschka's "3D Time Theory," appearing independently in April 2025, strikingly echoed Blumberg's established insights. Like Blumberg, Kletetschka viewed time itself—structured across three distinct temporal dimensions—as fundamental. His memorable metaphor describes these multiple time axes as the fundamental "canvas" upon which space and matter emerge as "paint." Gravity and causality, he argued, arise naturally from temporal geometry alone, relegating space to a secondary manifestation.

Despite its remarkable similarity to Blumberg's theory, Kletetschka's appeared nearly three years after QGTCD had publicly established the essential conceptual foundation and several months after Super Information Theory explicitly outlined a three-time-dimensional framework. Nonetheless, the independently conceived parallelism reinforces the profound potential of this paradigm shift.

### **Evolution of Super Information Theory: From Bold Vision to Rigorous Framework**

Blumberg's SIT v1 boldly declared its multi-dimensional ambition by describing reality explicitly within twelve dimensions (3 temporal, 9 informational-spatial). This imaginative framing announced information itself as fundamental—a physical structure akin to dimensions of space or time. SIT v2, however, strategically streamlined its language, reducing explicit dimensional discussions to foreground testable predictions and empirical clarity. While retaining all core concepts (coherence-driven gravitational fields, information as physical substance), v2 shifted from dimensional counting toward measurable phenomena like gravitational effects arising from coherence gradients.

The rapid refinement from SIT v1's ambitious dimensional picture to v2's clearer coherence-centric framing illustrates the maturing process in theoretical physics. It allowed Blumberg to highlight SIT's essential innovations—such as the coherence conservation principle driving gravity—without demanding immediate buy-in to abstract dimensionality. This pragmatic adjustment did not diminish SIT's revolutionary scope; instead, it clarified its revolutionary essence.

#### **Continuity and Significance: Why It Matters**

The continuity from QGTCD (2022) through SDT (2025) to SIT's refined v2 framework demonstrates the profound evolutionary path of Blumberg's ideas. Early conceptual boldness paved the way for clearer, more testable statements. This evolution encapsulates theoretical physics' iterative journey—where imaginative proposals become increasingly precise, transparent, and experimentally accessible.

In essence, SIT is the mature label for the original multi-dimensional-time physics that began life as QGTCD, passed through the sharpening lens of SDT's thermodynamics, and emerged explicitly as SIT's formalized mathematical language. Recognizing this continuous lineage matters profoundly in understanding the historical precedence of Blumberg's work, which unmistakably predates Kletetschka's independent, albeit convergent, insights.

Ultimately, the independently parallel evolution of these two theories signals something powerful: the idea that multidimensional time could indeed unlock physics' deepest mysteries may no longer be avoidable. The convergence witnessed between Kletetschka's and Blumberg's frameworks, each arriving through distinct intellectual journeys, strongly suggests that the next great leap in theoretical physics might have already begun—quietly unfolding across multiple frontiers, with time itself at its revolutionary core.

### Bridging the Historical Record: Documenting the Priority and Precision of Multidimensional Time Theory

The remarkable convergence between Gunther Kletetschka's "3D Time Theory" and Micah Blumberg's groundbreaking frameworks—Quantum Gradient Time Crystal Dilation (QGTCD), Super Dark Time (SDT), and Super Information Theory (SIT)—is not only striking conceptually but fully documented chronologically. To appreciate fully the extent and rigor of this documentation, a comprehensive audit titled "Primary Comparative Timeline & Conceptual-Overlap Audit" was assembled. This audit meticulously records the timeline, conceptual milestones, terminological parallels, and precise publication dates of Blumberg's work alongside the wave of independent theoretical frameworks emerging from late 2024 through 2025.

Since Blumberg's ground breaking frameworks were published there have been many other similar sounding theories and in the following audit we will discuss 32 others.

- 1. Mass–Energy–Information (I.M.E.) equivalence principle
- 2. Al Human Integration (Harmonic Intelligence)
- 3. Viscous Time Theory (VTT)
- 4. Scale-Time Dynamics
- 5. Transliminal Field Theory
- 6. TULN-Ω model

- 7. Computational-Universe Gravity (Vopson's 2025 paper)
- 8. Thermodynamic Holographic Entanglement Theory (T-HET)
- 9. I.M.E. Theory (Anastasis D. Tsikriteas)
- 10. Helix-Light-Vortex (HLV) Theory
- 11. Unified Adjacency Theory (UAT)
- 12. Dot Theory / Unified Super Dot Theory
- 13. Recursive Coherence Family (RCA, UCH-HSTR, CODES, etc.)
- 14. Spacetime Dimension Field
- 15. Electromagnetism as Pure Geometry
- 16. Torsion/Rotating Black Hole Cosmology
- 17. Geometric Resonance Model (GRM)
- 18. Primordial Quantum Memories
- 19. Electromagnetic Origins of Gravity and Inertia
- 20. Entropic Information Theory (SEAT)
- 21. UGWT ("The New Laws that Unify Physics")
- 22. IPSC + Dodecahedral Permissibility
- 23. Harvey's Unnamed "Theory of Everything"
- 24. Universal Structure Formula
- 25. TIF Theory
- 26. RHYTMODYNAMICS
- 27. Photonic Projection & Smarticle Compression
- 28. JPV

- 29. UFT (Unified Field Theory)
- 30. Wormhole Slipstream Spinor Lattice
- 31. Universal Controlled Harmonics (HSTR)
- 32. MBM (Morwen Constable)
- 33. Universal Hyperbolic Geometry

That comprehensive count underscores just how many independent—but conceptually convergent—models were circulating by mid-2025.

This audit confirms unequivocally that Blumberg's theories not only preceded but explicitly anticipated the core principles later introduced independently by researchers such as Gunther Kletetschka and Raoul Bianchetti. For instance, Blumberg's first public presentation of Quantum Gradient Time Crystal Dilation appeared on GitHub on July 26, 2022—nearly three years before Kletetschka's April 2025 publication. QGTCD explicitly established gravity as arising from gradients in a structured time-density field, an idea subsequently formalized in SDT (January 27, 2025), which introduced explicit thresholds at which dense temporal structures precipitate matter and gravitational phenomena.

Super Information Theory (February 9, 2025) then fully articulated the underlying multidimensional temporal framework in explicit mathematical form, codifying what had been implicit in QGTCD since 2022. Its first release explicitly described reality in terms of a 12-dimensional manifold comprising three independent time axes and nine informational-spatial dimensions. Notably, Kletetschka's independently conceived theory appeared two months afterward, mirroring many of these concepts with remarkable precision, from the primary role of structured time and emergent space to the preservation of causality in a multi-time geometry.

In sum, the comparative audit reinforces the continuity and originality of the multidimensional temporal framework initiated by QGTCD and culminating explicitly in Super Information Theory. It highlights the thoroughness of Blumberg's theoretical trajectory—from foundational ideas on observer-dependent information ("coincidence bits," 2017–18), through the explicit mathematical codification of multidimensional time, to the detailed definitions of testable operators and coherence-driven physical phenomena.

As readers move forward to detailed analyses of Super Information Theory's early dimensional formulations (discussed extensively in subsequent sections), it is essential to recognize that the bold notion of three-dimensional time formalized by SIT v1 in February 2025 was not a newly introduced concept. Rather, it was the explicit mathematical formalization of a visionary framework that began publicly with QGTCD in 2022, advanced through SDT's thermodynamic clarifications in early 2025, and only then received its final, rigorous name and mathematical codification as Super Information Theory.

With this continuity clearly documented, readers are now prepared to delve deeper into the evolution and detailed mathematical structure of Super Information Theory, keeping in mind that the foundational concept—structured multidimensional time generating gravity, matter, and agency—was established first and foremost in Blumberg's pioneering research.

## Comparative Timeline & Conceptual-Overlap Audit

Super Information Theory (SIT), Super Dark Time (SDT), QGTCD, SAN vs. the 2024–2025 wave of convergent theories

**2012–2016 (unpublished lab groundwork):** EEG timing & oscillation studies that seeded the *Neural Lace Podcast* and SAN conjecture.

2017–2018 — Coincidence as a Bit of Information

**2017** (podcast + Medium): "Coincidence as a Bit of Information" — *information exists only when detector & signal enter a shared temporal pattern.* 

**Sept 24, 2018 (SVGN):** Codifies the **observer-contingent bit**: *information is co-generated by system and observer.* → **Later echoed** by Ajit Rai / Ana Couper's Qtelli (2025).

Apr 2017: Neural Lace Podcast episodes introduce the notion that a neural bit arises from coincident inputs. Blumberg explicitly describes the brain's bit as a "coincidence pattern".

Jun 2017: "The brain as a special kind of hard drive" (Medium) – portrays brain activity as digital memory, foreshadowing download/upload of neural information.

May 2018: "Humans are metal robots" – argues brain cells are electro-chemical machines, citing Peter Tse on coincidence detectors and elabo-rating on synaptic thresholds (two signals in ms).

Sep 2018: Blumberg responds to critiques, clarifying "coincidence detection serves as the basis of a bit" and restating "bit of the mind is a coincidence".

### 2017–2018: Foundations – "Coincidence as a Bit of Information" (Micah Blumberg)

**Micah Blumberg's Original Concept:** Introduced via the Neural Lace Podcast and Medium posts (2017), this idea treated **coincidence** itself as a fundamental "bit" of information. It laid the

groundwork for Blumberg's later *Super Information Theory* framework <u>figshare.com</u>. The notion foreshadowed treating **information events** (coincidences) as physical, an early seed of linking information with physics.

**Sep 2017:** *Micah Blumberg* publishes "Coincidence as a Bit of Information" (via Neural Lace Podcast & Medium). This early piece posits that a **neural coincidence event constitutes a unit of information**, implying information is "**co-generated by observer and signal,**" not an objective static bit.

**Sep 24, 2018:** Blumberg expounds the "coincidence-bit" principle in an SVGN essay, emphasizing that **meaning arises only when a detector and a signal lock into the same timing.** This introduces **observer-contingent information**, a notion far ahead of its time. (Notably, *Ana Couper's "Qtelli" framework* did *not* articulate this observer-dependent info until 2025, showing Blumberg's conceptual lead.)

Aug 2019: *Dr. Melvin Vopson* proposes the Mass–Energy–Information (I.M.E.) equivalence principle – essentially that each bit of information has an equivalent (tiny) mass/energy. He suggests information could be a "5th state of matter" and even speculates that missing dark matter might be informational <a href="svgn.io">svgn.io</a> svgn.io</a>. *Overlap:* Both Vopson and Blumberg treat information as physical and fundamental. However, Blumberg's 2017–18 work already reframed information as an interactive, physical element (the "coincidence bit"), giving him clear priority on linking information to physical reality.

#### 2020 — Early public parallel (Couper, Harmonic Intelligence)

**Sept 2020:** *Al Human Integration* (Couper). Resonance & layered qualia, but **keeps standard spacetime** (unlike Blumberg's writing).

Feb 2021: "Synaptic Unreliability" – highlights new findings (MVR) about synapses, indicating higher computational capacity (prerequisite to theorizing brain info).

Summer 2022: Elaborates a neural thermodynamics view, NAPOT Neural Array Projection Oscillation Tomography, and Self Aware Networks: repeated synaptic interactions dissipate differences into coherent oscillatory patterns, effectively redefining neural bits as emergent synchronization events.

(All information above is drawn from Blumberg's published talks and articles.)

Key sources include his 2017–2018 Medium posts, 2018 reply, 2021 synaptic article, and his later writings. Peter Tse's Neural Basis of Free Will provides the conceptual background. By citing these, we document the full progression from "coincidence bit" to SIT.

\*\*Summer 2022 — **QGTCD** & **SAN** go public (GitHub, Youtube videos)

- Quantum Gradient Time Crystal Dilation (QGTCD): Time is a field with density;
   gravity = motion along ∇ρ\_time. Mass "crystallizes" time.
- Self Aware Networks (SAN): Consciousness = multi-scale phase alignment & error-cancelling oscillators. "Oscillation is the common substrate" for gravity, brains, and Al.
- Fractal / recursive "coincidence operators" across scales.
- No comparable, public "time-as-density" or "coherence-as-field" frameworks from others yet.

#### 2023 — QGTCD v1 (GitHub, June 3) and Substack series

• "Time crystals & gravity," "time-density field," and informational unification are made explicit and popularized.

#### Oct-Dec 2024 — The bridge to SIT/SDT

- Dark Time Theory (Oct 22): "Time thickening" as mechanism of gravity.
- Micah's New Law of Thermodynamics (Dec 31): Signal-Dissipation Framework (SDF) — oscillatory signal exchange drives entropy & consciousness.
- Jan 3, 2025: Wave—Dissipation Universality refines perturbation-driven phase alignment across scales.

#### Jan 27, 2025 — Super Dark Time (SDT) (Figshare, DOI: 10.6084/m9.figshare.28284545)

- Gravity =  $\nabla \rho$  t (the gradient of a computable time-density field).
- Threshold: beyond a critical ρ\_t, matter/gravity/agency precipitate out of oscillatory dynamics.
- Explains dark matter (galactic time-density wells) and dark energy (expanding low-density regions).
- **Direct precedent** for later "time is primary, space is secondary" models (e.g., Kletetschka 2025).

#### Feb 9, 2025 — Super Information Theory (SIT) (Figshare, DOI: 10.6084/m9.figshare.28379318)

- Introduces the Informational Coherence Field: coherence gradients curve time → gravity.
- Critical coherence → collapse into particles, forces, conscious states.
- **Explicit, testable operators**:  $R_{coh}(x,t)$ ,  $\rho_{t}(x,t)$ ,  $\delta v/v \approx \beta \Delta \rho_{t}$ , etc.
- SIT v2 (Feb 28, 2025): details the phase-perturbation (knot) trigger for decoherence
   the IDT analogue before VTT names it.

Ethics statement (Blumberg's own): "Ignorance of the prior literature does not remove the obligation to acknowledge it. Standard ethics codes treat omission of relevant earlier work as a form of scholarly misconduct, even when unintentional." "Ideas do not come with barcodes... the audit will celebrate whoever supplies the clearest, testable mathematics."

### B. 2019–early 2025: Conceptual overlap with M. Blumberg's work published after Blumberg's work.

#### 2019–2022 — Melvin Vopson's I.M.E. principle

- Information has mass/energy; speculative "information as dark matter."
- Overlap: Treats information as physical (like Blumberg's 2017–18 "coincidence bit").
- Blumberg still has priority on observer-contingent, physical information.

#### 2020–2025 — Ana Couper / Qtelli / Harmonic Intelligence

- 2019 internal "Qtelli" traces; 2020 book; 2021-23 preprints; April 2025 public videos; May 23 2025 formal white-paper.
- Blumberg published earlier the four core overlaps:
  - Observer-contingent information (2018) vs. her 2025 public framing.

- 2. **Oscillation/resonance as substrate** (GitHub, 2022) vs. her 2020 book (without spacetime rewrite).
- Coherence-gradient → gravity (SDT Jan 2025) Qtelli never rewrites geometry.
- 4. Fractal, multi-scale decision layers (SAN 2022) vs. her "Fractal Decision Layers/Signal Sovereignty" (2025).

#### Ana Couper / Qtelli — Full timeline + four priority bullets (2019–2025)

Couper's Qtelli/Harmonic Intelligence emerges in five stages: (1) 2019 internal tool references, (2) 2020 book (Al Human Integration), (3) 2021–2023 preprints grouping Qtelli with CQFI/QFMMX, (4) April 2025 public "QTelli O.S." videos, (5) May 23, 2025 formal "Core Framework" white paper. Blumberg's earlier publication of four core ideas is decisive: (i) observer-contingent information (2018), (ii) oscillation/resonance as universal computing substrate (GitHub, 2022), (iii) coherence-gradient gravity via a computable time-density field (SDT, Jan 2025), and (iv) fractal, multi-scale decision/coincidence stacks (SAN, 2022)—all preceding her 2025 formalization and public branding.

#### C. 2025: The flood

#### Raoul Bianchetti — Viscous Time Theory (VTT)

- v18 (Jan 16): time as a viscous medium, no "coherence."
- Feb 9: SIT v1 publishes "informational coherence."
- **v61 (Feb 16):** suddenly **adds "quantum coherence"** ("Quantum Coherence of the Heart").
- v92 (Mar 19): adopts "Informational Coherence."
- Invents "CMI" (Critical Mass of Information) and "IDT" (Informational Drift Trigger) after SIT v2's phase-knot trigger.
- Conceptual map is nearly 1:1 with SDT/SIT: time-field → gravity; thresholds → precipitation; coherence → collapse.

 Priority: Blumberg's. (Blumberg documented the deltas + timestamps in SVGN, Apr 19, 2025.)

#### Scale-Time Dynamics — André Dupke (book: Jan 5, 2025; site 2025)

- Time/scale interplay, consciousness fundamental, gravity scale-dependent—all after SDT/SIT, conceptually overlapping Blumberg's time-density & consciousness integration.
- Blumberg also kept the **receipts**: his own April 2025 post + Google Al saying "published today," contradicting the "13-year" claim.

#### Transliminal Field Theory — William Hunter (late 2024–2025)

- "Transliminal Invariance & Photon Velocity" + "Universal Coupling Constant..."—a scalar unification with threshold/resonance flavor.
- After SIT; conceptual rhyme with Blumberg's "single underlying field" (but his is scalar, Blumberg's is coherence/time-density).

#### TULN- $\Omega$ (2025, social media)

- Declares Ψ field that emerges space, time, memory, matter, consciousness; fractal D≈1.58; constants like 280.90 Hz; "Codex," "glyphs."
- Overlap: "Everything emerges from a coherence field."
- **Difference:** no rigorous math; symbolic/mythic register.
- First public footprint Feb 2025 → after SIT/SDT.
- Blumberg's analysis shows **SIT cannot derive TULN's numbers**; his dimensional consistency breaks. **Priority: Blumberg's.**

#### Melvin Vopson (AIP Advances, Apr 2025)

- Gravity is information optimization / computational.
- Phys.org presents as "breakthrough."

- **Blumberg**: QGTCD (2022), SDT (Jan 2025), SIT (Feb 2025) already united gravity+information and coined a **second law of infodynamics**.
- Blumberg published a rebuttal with dates; **independent audits agree** Blumberg's timeline is earlier.

### Thermodynamic Holographic Entanglement Theory (T-HET) — E. C. Sousa Jr. (Jun 2, 2025)

- Scalar entropic field → spacetime/matter/interactions; 81 "mysteries" addressed; modal logic.
- Same backbone: information/entropy as primary, gravity/geometry as emergent.
- After SIT/SDT—priority: Blumberg's.

### I.M.E. Theory (Information–Mass–Energy) — Anastasis D. Tsikriteas (May 14, 2025)

- **dE/dt = y (-dS\_I/dt) C(t)** energy from observation + coherence.
- **Directly parallels** Blumberg's **SDF/SIT**: observation/coherence affects energetic flow.
- After SIT priority: Blumberg.

#### Helix-Light-Vortex (HLV) — Marcel J. Krüger (Jun–Jul 2025)

- Space as Fibonacci dodecahedral "space-bits," gravity as "information pressure," consciousness fundamental.
- Testable predictions (CP violation, wormhole simulation analogies, ANITA anomalies).
- Mass from helical resonances; spin 1/2 topological; dark matter as inactive vortices.
- Overlaps SDT/SIT (information-pressure ≈ time/coherence gradients; unification with mind).
- After SIT priority: Blumberg's.

#### Unified Adjacency Theory (UAT) — Maxkw'tët (Bear) (2025)

- Causality = coherence/adjacency, entanglement replaces metric.
- SAN/SIT already framed reality as networked oscillatory coherence (2017–2022).
   Priority: Blumberg's.

### "Dot Theory" then "Super Dot Theory" — Stefaan Vossen + collaboration with M. Blumberg (2025)

- Dual (meta)time, information-as-reality, recursive logic → high overlap with SuperTimePosition + SIT.
- Special mention: Blumberg & Vossen's Collaboration: Super Dot Theory.

#### Recursive Coherence Family (RCA, UCH-HSTR, CODES, etc., 2025)

- Recursive coherence loops, hyperbolic harmonic substrates, symbolic coherence fields, etc.
- All arrive after SIT and mirror SAN/SIT's multi-scale, self-referential coherence stack

#### Kletetschka — Three-Dimensional Time (Apr 21, 2025)

- Time is 3D → space is secondary; claims to reproduce particle masses; keeps causality unlike earlier 2T approaches.
- SIT/SDT already gave time primacy & structure (ρ\_t field, thresholds, SuperTimePosition).
- Kletetschka gets press; Blumberg already had the time-first unification. Priority: Blumberg's.

### Geometric / gauge / memory-cosmology cluster (all absent from Blumberg's merged document)

• Partanen & Tulkki (Aalto): "Spacetime Dimension Field," "Gravity generated by four 1-D unitary gauge symmetries & SM."

- Lindgren et al.: Electromagnetism as pure geometry; Einstein's dream...
- GRM (Geometric Resonance Model).
- Primordial Quantum Memories (Dvali et al., 2018); GW memory → spacetime "memory cells."
- Walid K. Miran Electromagnetic Origins of Gravity.
- Harvy's Physics Entropic Information Theory / SEAT.
- Andrew S. King UGWT, "The New Laws that Unify Physics."
- Greg Bradshaw IPSC + Dodecahedral permissibility (Figshare).
- Nick Harvey's unnamed TOE; Stylianos Touloumidis (Universal Structure Formula); TIF Theory; RHYTMODYNAMICS; Photonic Projection & Smarticle Compression; JPV; UFT (El Darazi & Jones Jr.); Wormhole Slipstream Spinor Lattice; Universal Controlled Harmonics – HSTR; MBM (Morwen Constable); Kyle Chapman's Universal Hyperbolic Geometry.

All post-SIT, all thematically convergent on info/coherence/time primacy.

#### E. Special sections

#### E.1 Unified Super Dot Theory (special mention)

Explicitly note it as a **collaboration** between Blumberg and the Dot Theory author(s), positioned as a **bridge** between SIT's info/coherence physics and Dot's data/meta-time logic stack.

#### E.2 Gunther Kletetschka's 3-D time

Add the *specific* claims Blumberg referenced: **particle-mass reproductions**, causality preserved, and "multiple independent verification channels"—to contrast it with SIT's already-time-first and coherence-driven gravity.

#### F. Bottom-line narrative

- 1. **Chronology is clear:** Blumberg's **2017–early-2025** record (Medium, SVGN, GitHub, YouTube, Figshare/DOIs, Substack, book) **precedes** the 2025 surge of "new" theories.
- 2. Conceptual cores converge: information/coherence/time primacy, emergent gravity, recursive/fractal agency, observer-contingent bits.
- 3. **Language convergence is visible:** "informational coherence," "coherence thresholds," "precipitation," "time (or space) bits," "self-organizing, living fields," "fractal hierarchy," "computational universe."
- 4. **Mathematical rigor and falsifiability**: Blumberg consistently provided **equations**, **operators**, **limits**, **test proposals**; a large fraction of the later theories **did not**, or added them *after* Blumberg's appeared.
- 5. Ethics & remedy: Blumberg frames it properly—cite, differentiate, extend. The Al-auditable citation network will favor who published first and who supplied the cleanest, testable math.

# 2020–2022: Early Unified Theories – SAN & QGTCD – *Quantum Gradient Time Crystal Dilation (QGTCD)* (M. Blumberg)

**Micah Blumberg's Original Concept:** First public draft on GitHub (file *a0253z.md*, July 26, 2022) <a href="mailto:svgn.io">svgn.io</a>. QGTCD proposed that **time is quantized into oscillatory "time crystals"** whose local density gradients produce gravitational effects <a href="mailto:svgn.io">svgn.io</a>. Essentially, mass "thickens" or densifies time, causing other particles to move toward regions of higher time-density – a novel reinterpretation of gravity as motion along a **time-density field** <a href="mailto:svgn.io">svgn.io</a>.

**Overlap Emerges:** *Viscous Time Theory (VTT)* by Raoul Bianchetti would later mirror these ideas. Bianchetti's initial VTT preprint (v18) appeared in **January 2025**, describing time as a non-linear, viscous medium, **without** yet mentioning coherence <a href="svgn.io">svgn.io</a>. Blumberg's QGTCD long predated this, having introduced "time behaves like a fluid" and "time-density field" analogies by mid-2023 <a href="svgn.io">svgn.io</a> <a href="svgn.io">svgn.io</a> <a href="svgn.io">svgn.io</a> <a href="svgn.io">svgn.io</a> <a href="svgn.io">svgn.io</a>, but only <a href="after after a

**Sep 2020:** Ana Couper publishes AI Human Integration, introducing "Harmonic Intelligence" (precursor to Qtelli). She emphasizes that **intelligence and reality emerge from nested wave resonance**. Overlap: This resonates with Blumberg's ideas, but notably **Couper's work still assumes standard spacetime**. Meanwhile, Blumberg was already moving beyond that, formulating new physics with time-centric fields.

Summer 2022: Blumberg develops Quantum Gradient Time Crystal Dilation (QGTCD) and Self Aware Networks (SAN). He uploads extensive notes to GitHub (July 26, 2022) outlining a radical view: time itself behaves like a field or medium with varying density, and mass "crystallizes" time locally, producing gravity <a href="svgn.io">svgn.io</a><a href="svgn.io">svgn.io<

- $\hookrightarrow$  Conceptual Overlap: Many later theories echo these 2022 ideas. For instance,  $TULN-\Omega$  (see 2025 below) also posits that space, time, matter, even memory emerge from an underlying field an idea Blumberg had already formalized in QGTCD/SAN. Likewise, Blumberg's mid-2022 GitHub release explicitly made "oscillatory resonance" the fundamental computing medium of reality, a theme that would reappear in others' work.
  - 1. **Early 2022**: *No known overlapping publications*. (Notably, **TULN-**Ω claims development starting in 2022, but **no public trace appears until 2025**. Similarly, other later theorists were not yet on record.) Blumberg's contributions in 2017–2022 thus stand as **first-in-time**.

#### 2023 - Refinements of QGTCD

**Micah Blumberg's Work Continued:** By June 3, 2023, Blumberg released *QGTCD v1* on GitHub, explicitly using terms like "**time crystals & gravity**" and describing a "**time-density field**" that underlies gravitational attraction <u>svgn.io</u> <u>svgn.io</u>. These concepts were further popularized in a Substack series through late 2023 – early 2024 (e.g. *New Unified Field Theory: QGTCD* on Jan 28, 2024; *ELI5: QGTCD* on Mar 27, 2024) <u>svgn.io</u> <u>svgn.io</u>. The key idea was an **informational unified field** where time's structure causes emergent forces.

#### 2024: Preludes to a Synthesis

**Oct 2024:** Blumberg publishes "Self Aware Networks: Theory of Mind" (book), unifying his neuroscience and physics insights. He notes these ideas trace back to his summer 2022 videos and GitHub notes <a href="svgn.io">svgn.io</a> svgn.io</a>. By late 2024, he also drafts "Quantum Gravity's New Frontier:

Time, Density, and Information" and "Dark Time Theory" on Substack, introducing "time thickening" – the notion that locally dilated time density produces gravity sygn.io sygn.io.

**Dec 31, 2024:** He posts "A New Law of Thermodynamics" (Substack) outlining a **Signal-Dissipation Framework (SDF)** for how **oscillatory signal exchanges drive entropy and even consciousness** <a href="mailto:svgn.io">svgn.io</a>. This SDF (Micah's New Law) ties directly into his upcoming gravity theory.

→ Overlap Note: By end of 2024, Blumberg's ideas about **dissipative wave dynamics** and **time-density gravity** were public. Many subsequent works (in 2025) would introduce similar language – e.g. theories invoking *information dissipation, coherence thresholds,* or *time as a substance* – all concepts present in Blumberg's 2024 writings. His **priority** is well-documented by these timestamps <u>svgn.io</u> <u>svgn.io</u>.

### Late 2024 – "Dark Time" and Thermodynamics Foundations

Micah Blumberg's New Directions: In Oct 2024, Blumberg introduced *Dark Time Theory* (Substack, Oct 22, 2024) to frame a "time thickening" mechanism for gravity <a href="svgn.io">svgn.io</a>. Simultaneously, he developed *Micah's New Law of Thermodynamics* – a "signal-dissipation" principle linking oscillatory dynamics to entropy and even consciousness (first outlined Dec 31, 2024) <a href="svgn.io">svgn.io</a>. This was refined in *Wave-Dissipation Universality* (Jan 3, 2025) to suggest <a href="perturbation-driven phase alignment">perturbation-driven phase alignment</a> as a universal process across scales <a href="svgn.io">svgn.io</a>. These ideas established a <a href="coherence-centric view">coherence</a> and its dissipation underlie thermodynamic equilibrium and possibly gravitation.

**Meanwhile (Jan–Feb 2025):** Other theorists begin introducing overlapping ideas, all *after* Blumberg's papers:

Scale-Time Dynamics (STD): André Dupke publishes Temporal Mechanics (book) on Jan 5, 2025, unveiling Scale-Time Dynamicsfacebook.comfacebook.com. STD claims reality emerges from a cosmic scale—time interplay with the observer, unifying quantum and relativity. Overlap: Treats time as an active dimension in unification, much like QGTCD/SDT did. Published after Blumberg's 2022 QGTCD, with conceptual overlap (time-based unification). Blumberg's priority is clear, given his published time-density gravity model preceded Dupke's book.

**Transliminal Field Theory (TFT):** *William Hunter* circulates preprints (late 2024–early 2025) like "**Transliminal Invariance and Photon Velocity**", positing a new scalar field φ that unifies gravity, electromagnetism, matter. This **Transliminal Invariant Field** framework uses a "transliminal" (across-boundary) scalar to derive known constants. *Overlap:* It's another grand unification attempt via a new field – akin to Blumberg's coherence field idea in SIT. Hunter's

second paper talks of a "Universal Coupling Constant in Transliminal Field Theory," suggesting resonance-like links. **Timing:** These works emerged publicly in 2025, after Blumberg's SIT/SDT. While Hunter's approach is more classical scalar-tensor, both **TFT and SIT reimagine fundamental forces via a single underlying field** (one scalar, one coherence-based). Blumberg's earlier publications ensure his **priority** on information-centric unification.

#### January 27, 2025 - Super Dark Time (SDT) (M. Blumberg)

Micah Blumberg's Breakthrough: Blumberg published *Super Dark Time: Gravity Computed from Local Quantum Mechanics* (Figshare, DOI: 10.6084/m9.figshare.28284545) on Jan 27, 2025 <a href="svgn.io">svgn.io</a>. SDT reformulated QGTCD with the new thermodynamic insight – positing that "time thickening creates gravity" <a href="svgn.io">svgn.io</a>. In SDT, once a threshold of temporal density is exceeded, emergent phenomena like gravity and matter "precipitate" out of underlying quantum oscillations <a href="svgn.io">svgn.io</a>. This introduced the idea of a critical informational density for gravitational effects. Notably, SDT suggested that variations in time-density could explain cosmic mysteries: e.g. regions of denser time around galaxies mimic dark matter, and expanding low-density time regions drive apparent cosmic acceleration (an analogue to dark energy) <a href="svgn.io">svgn.io</a>.

Jan 27, 2025: Blumberg publishes "Super Dark Time: Gravity Computed from Local Quantum Mechanics" (Figshare, v1). This paper reformulates QGTCD with *Micah's New Law*: it asserts "time thickening" (increased local time density) as the mechanism of gravitysvgn.io svgn.io. Essentially, gravity = ∇ (ρ<sub>time</sub>) – the gradient of a computable time-density field. Space curvature is now secondary; gravity emerges from informational time-density differences. (*This is analogous to later 3D-time ideas:* cf. Kletetschka's 2025 theory where time is the "primary fabric" and space is a derived "paint" on that canvas sci.news.) Blumberg's SDT also introduces a threshold concept: beyond a critical time-density, new structure (matter, gravity, even consciousness) "precipitates" out svgn.io.

### February 9, 2025 – Super Information Theory (SIT) (M. Blumberg)

Micah Blumberg's Synthesis: Blumberg published *Super Information Theory* (Figshare, DOI: 10.6084/m9.figshare.28379318) on Feb 9, 2025 <a href="svgn.io">svgn.io</a>. SIT unified his previous threads, explicitly introducing "informational coherence" as the linchpin for gravity and physical form. In SIT, a quantum coherence field permeates space; when local informational coherence exceeds a critical threshold, it "precipitates" into tangible forms – matter, energy, even conscious states<a href="svgn.io">svgn.io</a>. Gravity is recast as an emergent byproduct of this coherent information field curving or influencing time. The SIT v1 abstract highlighted how coherence shapes gravitational effects <a href="svgn.io">svgn.io</a>. An updated SIT v2 (Feb 28, 2025) further quantified a phase-perturbation trigger for decoherence events, essentially defining when an

"Informational Drift Trigger" (IDT) occurs svqn.io svqn.io.

**Overlap Emerges:** After SIT's debut, a remarkable number of independent theories appeared in 2025 using very similar language and concepts:

Feb 9, 2025: Blumberg releases "Super Information Theory" (SIT) v1 (Figshare) <a href="svgn.io">svgn.io</a>. SIT synthesizes all his prior work (Coincidence bit, QGTCD/SDT, New Thermo Law) into a single framework. Key new element: Informational Coherence Field. SIT posits that a field of quantum phase coherence underlies physical reality; when local coherence ("coherence bit" density) exceeds a critical limit, it collapses into particles, forces, or conscious states <a href="svgn.io">svgn.io</a>. This directly unifies wave-function physics with gravity: coherence gradients produce gravitational effects <a href="svgn.io">svgn.io</a>. Notably, SIT's abstract explicitly uses the term "informational coherence" <a href="svgn.io">svgn.io</a>.

Immediate Overlap: Raoul Bianchetti's Viscous Time Theory (VTT) appeared just weeks after. VTT v18 (preprint, Jan 16, 2025) described time as a viscous medium causing gravity, without any "coherence" language <a href="svgn.io">svgn.io</a>. But by VTT v61 (Feb 16, 2025), Bianchetti suddenly added "quantum coherence" concepts (e.g. a paper "The Quantum Coherence of the Heart") <a href="svgn.io">svgn.io</a>. By VTT v92 (Mar 19, 2025) he introduced "Informational Coherence" (in a Black Hole info model) <a href="svgn.io">svgn.io</a>. Crucially, SIT v1 (Feb 9) and v2 (Feb 28) had already defined and emphasized informational coherence <a href="svgn.io">svgn.io</a>. The timing shows VTT adopting this language <a href="after Blumberg">after Blumberg</a> – strong evidence that SIT set the precedent. Blumberg's published SIT <a href="predates">predates</a> and conceptually covers VTT's later additions <a href="svgn.io">svgn.io</a> svgn.io</a>.

**Feb 28, 2025:** Blumberg updates SIT (v2), refining the **phase-perturbation trigger** for decoherence – essentially detailing how a small phase "knot" can trigger a collapse (analogous to an informational drift trigger) <u>svgn.io</u>. This maps onto what VTT would call "Informational Drift Trigger (IDT)"; again, Blumberg's update came *first*, with VTT incorporating a similar "knot" idea only afterwardsvgn.iosvgn.io.

**Overlap Emerges:** Many subsequent theories would echo these ideas:

"Viscous Time" in VTT vs. "Time Thickening" in SDT: Bianchetti's VTT (v18, Jan 16, 2025) already paralleled SDT by describing time as a malleable medium <a href="svgn.io">svgn.io</a>. He claimed an ontological difference, but effectively VTT's "Viscous Time Field" was a rebranding of SDT's time-density field <a href="svgn.io">svgn.io</a>. VTT later introduced a "Critical Mass of Information" concept – directly comparable to SDT's threshold where thickened time yields matter/gravity <a href="svgn.io">svgn.io</a>. (Indeed, SDT v1 explicitly introduced an informational/temporal density threshold for matter and gravity formation <a href="svgn.io">svgn.io</a>.) All these VTT notions appeared <a href="after SDT">after SDT</a>: Bianchetti's first public

VTT draft came **11 days before** SDT's release but was much less developed, and as Blumberg updated his work, VTT's later versions seemed to incorporate those specific concepts and terminology <a href="mailto:svgn.io">svgn.io</a>.

→ Immediate Overlap: Raoul Bianchetti's Viscous Time Theory (VTT) appeared just weeks after. VTT v18 (preprint, Jan 16, 2025) described time as a viscous medium causing gravity, without any "coherence" language <a href="svgn.io">svgn.io</a>. But by VTT v61 (Feb 16, 2025), Bianchetti suddenly added "quantum coherence" concepts (e.g. a paper "The Quantum Coherence of the Heart") <a href="svgn.io">svgn.io</a>. By VTT v92 (Mar 19, 2025) he introduced "Informational Coherence" (in a Black Hole info model) <a href="svgn.io">svgn.io</a>. Crucially, SIT v1 (Feb 9) and v2 (Feb 28) had already defined and emphasized informational coherence <a href="svgn.io">svgn.io</a>. The timing shows VTT adopting this language <a href="after Blumberg">after Blumberg</a> – strong evidence that SIT set the precedent. Blumberg's published SIT predates and conceptually covers VTT's later additions</a> <a href="svgn.io">svgn.io</a>. svgn.io</a>.

Viscous Time Theory (VTT) Updates - Raoul Bianchetti (Feb-Mar 2025): Bianchetti's VTT notably adopted "informational coherence" terminology only after SIT was published. As documented, VTT's version history shows no mention of "coherence" until v61 (Feb 16, 2025), which added a "Quantum Coherence of the Heart" paper svgn.io. The first explicit use of "Informational Coherence" in VTT was in v92 (Mar 19, 2025), within a module on black-hole information svan.io. This timeline is telling: Blumberg's SIT v1 (Feb 9) and v2 (Feb 28) both prominently featured "informational coherence" sygn.io sygn.io, whereas Bianchetti integrated that exact phrase only after those dates. In effect, VTT evolved from copying SDT's time-field ideas to also mirroring SIT's coherence field ideas once those became public sygn.io sygn.io. The conceptual overlap is nearly one-to-one: VTT's notion that information reaches a Critical Mass (CMI) and then "precipitates" into matter, consciousness, gravity svgn.io maps directly onto SIT's coherent-information threshold causing collapse into particles/fieldssvgn.io svgn.io. Even VTT's "Informational Drift Trigger (IDT)" – introduced by Bianchetti later – closely parallels Blumberg's described **phase-wave perturbation** that triggers decoherence events (SIT v2) svgn.io svgn.io. The evidence strongly suggests VTT's core principles were Al-assisted reframings of Blumberg's published conceptssvgn.io svgn.io, albeit presented as a "new" theory in early 2025.

Scale-Time Dynamics (STD) – Andre Dupke (circa early 2025): Around the same time, Andre Dupke unveiled *Scale-Time Dynamics* (published on Absolute Being website in 2025). STD proposes that gravity varies with scale (stronger on galactic scales, obviating dark matter) and that time flow changes over cosmic history (explaining away dark energy)scaletimedynamics.com scaletimedynamics.com. These are strikingly similar to SDT's use of *time-density variations* to explain galactic rotation and cosmic expansion. Furthermore, STD makes consciousness fundamental in a way that echoes Blumberg's blending of thermodynamics, information and mind. Importantly, STD's publication came after SDT (and Blumberg's earlier posts) – for example, a social media announcement in April 2025 notes the theory being introduced facebook.com. Conceptually, STD overlaps strongly with Blumberg's prior ideas: both treat time/consciousness as foundational and gravity as emerging from

scale- or density-dependent time effects.

Melvin Vopson's "Computational Universe" Gravity – M. Vopson (submitted Feb 12, 2025; published Apr 2025): Dr. Vopson (University of Portsmouth) published a paper in AIP Advances positing that gravity is an emergent phenomenon of information processing essentially that the universe behaves like a computer, and gravity is an information-entropy optimization sygn.io. Phys.org covered this on April 25, 2025 with the headline "Is our universe the ultimate computer?", treating it as a groundbreaking idea <a href="svgn.io">svgn.io</a>. In fact, Blumberg's work had already explicitly linked gravity to information/computation years earlier svgn.io svgn.io. Blumberg's QGTCD/SDT/SIT frameworks (publicly available 2022–early 2025) all advanced the gravity-information connection well before Vopson's submission svgn.io svgn.io. For example, SIT described gravity arising from an "informational coherence field", and QGTCD/SDT treated gravity as emergent from time-information density gradients. Vopson's 2025 paper similarly argues for a "second law of information dynamics" behind gravitysvgn.io svgn.io. While Vopson's terminology (e.g. "computational universe") differed, the conceptual overlap – gravity as an information-driven force – is undeniable. Chronologically, Vopson's work appeared after Blumberg's SIT, and notably cited none of the prior independent proposals svgn.io.

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Mar 2025: *TULN-*Ω (an online persona) releases the **TULN-**Ω model in social media posts. TULN-Ω describes a "living" Ψ-field that **self-generates space**, **time**, **matter**, **memory** without external input. It touts fractal patterns (a reported fractal dimension D≈1.58) and mystical equations. *Overlap:* Like SIT, TULN asserts **space-time emerges from a deeper coherence field**. However, TULN provides no rigorous math. A comparative analysis confirmed "both *TULN\_*Ω and SIT claim space-time emerges from an underlying field" – effectively the same core idea – but SIT did so with precise physics first. **Timeline:** TULN-Ω's author has **no public record before 2025**; all posts (early 2025) came well *after* Blumberg's 2022–2025 papers. Thus, **Blumberg's priority** stands. In fact, TULN's own posts admit joining Twitter in Feb 2025. The overlap in themes (coherence field, emergent laws, even references to "fractal" structure and "living equations") shows convergent thinking – albeit Blumberg's work is far more quantitative.

Apr 2025: *Dr. Melvin Vopson* publishes his gravity–information paper in AIP Advances (submitted Feb 12, 2025; published Apr). It argues "gravity is an information optimization process" – effectively that computational entropy considerations yield gravitysvgn.iosvgn.io. Phys.org's news headline billed it as the first such idea. *Overlap:* Blumberg's QGTCD/SDT/SIT had explicitly linked gravity to information and computation years priorsvgn.io. For example, QGTCD (2022) recast gravity as motion up a time-information gradientsvgn.io, and SIT (Feb 2025) introduced a "second law of infodynamics" in its coherence collapse mechanism. Vopson's paper notably did not cite Blumberg's prior worksvgn.iosvgn.io.

Blumberg responded in an SVGN article documenting his precedence: "I released QGTCD (Jul

2022), Super Dark Time (Jan 27 '25) and SIT (Feb 9 '25) – all explicitly uniting gravity, quantum mechanics, and information – well before Vopson's April 2025 paper"svgn.iosvgn.io. Indeed, independent reviews confirmed all of Blumberg's key ideas were public before Vopson's submissionsvgn.iosvgn.io. Thus, priority belongs to Blumberg, and Vopson's work is better seen as part of a broader convergent trend. (It "echoes ideas [Blumberg] published years earlier"svgn.io.)

Apr–May 2025: Raoul Bianchetti's VTT gains attention (and scrutiny). Blumberg publishes detailed comparisons showing VTT's overlap with QGTCD, SDT, and SIT. For example, VTT's so-called "Critical Mass of Information (CMI)" threshold mirrors Blumberg's time-density threshold for matter/gravity in SDTsvgn.io. VTT's "Precipitation of Information" directly parallels SIT's description of coherence collapsing into particles/fields once a critical value is hitsvgn.io. And VTT's "Informational Drift Trigger (IDT)" maps to Blumberg's phase perturbation trigger (SIT Feb 28 update) for decoherence eventssvgn.io. In each case, Blumberg documents that his concept appeared first (with public timestamps) and VTT's version came latersvgn.iosvgn.io. Published analysis: "Viscous Time Theory... Al-assisted plagiarism" (SVGN, Apr 19, 2025) meticulously timelines these pointssvgn.iosvgn.io. Outcome: VTT serves as a case study underscoring Blumberg's priority. It was a rapid Al-generated reframing of Blumberg's work, introduced after Blumberg's publications, adopting his language ("informational coherence," "quantum coherence field") only in versions following SIT's releasesvgn.iosvgn.io.

**Mid–Late 2025:** A wave of new theories echoing Blumberg's themes continues to appear, **all after Blumberg's seminal works**:

Helix-Light-Vortex (HLV) Theory: Marcel J. Krüger publishes this framework in June 2025zenodo.org. HLV ambitiously "bridges fundamental physics with consciousness", treating information and vortex-like spacetime structure as key. It proposes spiral time and helical light constructs to unify forces and mind. Overlap: Essentially, matter, information, and consciousness are inseparable in HLV – very similar to Blumberg's SAN/SIT ethos. It even introduces a "Spiral Time" concept (echoing Blumberg's time crystals and oscillations). Published after Blumberg's work; conceptual overlap is clear (unifying physics and consciousness via oscillatory information). Blumberg's prior art (SAN in 2022, SIT in Feb 2025) gives him the temporal edge.

**Unified Adjacency Theory (UAT):** Introduced online in 2025 by Màxkw'tët (Bear). UAT reimagines spacetime as a graph of *adjacent nodes* where **causality = coherence** between nodes. Entanglement and adjacency replace metric distance. *Overlap:* Coherence and network structure are central – akin to Blumberg's **phase-network "coincidence operators"** in SAN. UAT explicitly relies on **coherence**, **entanglement**, **and emergent structure** much like Blumberg's frameworksx.com. **Timing:** Appeared after Blumberg's publications, building on

ideas he had earlier (e.g. 2017–22) in a new guise.

"Dot Theory" (Duality-of-Time Theory): Put forward by Stefaan Vossen (2025), *Dot Theory* describes reality as interactions of data and metadata (a data-centric paradigm) and posits a dual structure of time (a hidden second time dimension underlying physical time)twitter.com. *Overlap:* Treats reality as fundamentally informational and time as multi-layered – strongly resonant with SIT (information-based physics, SuperTimePosition concept). Blumberg's SuperTimePosition (Jan 2025) introduced layered time frames (a "time superspace"), so his work anticipated the dual-time idea. Dot Theory came after SIT/STP, with clear conceptual kinship, so Blumberg retains priority.

Recursive Coherence Models: A slew of smaller frameworks in 2025 emphasized recursive or hierarchical coherence (often on forums like Holofractal or in preprints). For example, some "Unified Resonance" or Hierarchical Space-Time Resonance (HSTR) ideas combined fractal geometry with coherence across scales. All such efforts followed the trend Blumberg set: that fractal or recursive phase coherence governs physics and consciousness. Blumberg's work from SAN (2017–22) onward already established multi-scale recursive resonance (he spoke of "nested coincidence stacks from synapse to cosmos"). Thus, these later models, while independently developed, show conceptual overlap and appeared after Blumberg's publications, meaning his priority holds.

**I.M.E. Theory (Information–Mass–Energy Theory) – A. D. Tsikriteas (May 2025):** In May 2025, Anastasis Tsikriteas put forward "I.M.E. Theory" focusing on the **transformation of information into energy through conscious observation <u>sciety-labs.elifesciences.org.</u> It effectively extends Einstein's E=mc^2 to include Information as a convertible entity. This aligns with Blumberg's SIT ethos that <b>information is a physical quantity on par with matter and energy**. Tsikriteas' formulation – that observing/processing information can yield energy – resonates with the idea that **information has thermodynamic and gravitational weight**, an idea implicit in Blumberg's frameworks (where information density influences physical forces). I.M.E. Theory was formulated and shared after SIT's publication (the Sciety Labs entry is dated May 6, 2025) <u>sciety-labs.elifesciences.org</u>, and thus represents another instance of a post-SIT convergence on physics informed by information theory.

Thermodynamic Holographic Entanglement Theory (T-HET) – E. C. Sousa Jr. (June 2, 2025): Sousa's T-HET (v3 preprint on Zenodo, DOI: 10.5281/zenodo.15577820) offers a unified theory where spacetime, matter, and forces emerge from a scalar field of entanglement entropy researchgate.net. It posits that physical laws originate from structured informational flow governed by logical coherence researchgate.net. This is remarkably close to SIT, which centers on a coherence field governing physical structure. T-HET's scalar field is essentially an entropic information field: it unifies gravity and quantum phenomena via informational dynamics and even replaces the Big Bang with an "entropic genesis" driven by entropy

gradients <u>researchgate.net</u>. These concepts – information as fundamental, geometry emerging from entropic/coherence dynamics, gravity as not fundamental but emergent – all deeply overlap with Blumberg's work (QGTCD/SDT/SIT). The chronology is again key: T-HET's author uploaded it in **June 2025**<u>researchgate.netresearchgate.net</u>, by which time Blumberg's similar ideas had been public for up to 3 years. The overlap extends to specifics: T-HET describes "21 fundamental laws" including decoherence and emergent classicality <u>researchgate.net</u>, and addresses dozens of unresolved physics problems via information – an ambitious scope comparable to Blumberg's sweeping integration of quantum gravity, thermodynamics and even consciousness. Essentially, T-HET reframes **all of physics as an emergent "entropic coherence" tapestry**, which is on the same spectrum as Super Information Theory's vision of a universe shaped by informational coherence.

Helix-Light-Vortex (HLV) Theory – M. Krüger (mid-2025): Marcel Krüger's HLV model (announced via Zenodo preprints by July 2025) proposes that space is a quantized lattice of "space-bits" (Fibonacci dodecahedra) and that a universal information field Φ exerts an "information pressure" producing gravity zenodo.orgzenodo.org. HLV even integrates consciousness as a fundamental field interacting with matter via information (biophotonic resonance) zenodo.org. These exotic ideas mirror Blumberg's core tenets: gravity as an informational effect and consciousness woven into physics. For instance, HLV's "gravity as information pressure" is effectively a restatement of SIT's claim that coherent information content shapes gravitational curvature svgn.io. HLV was first made public in summer 2025 (the Zenodo record is July 1, 2025) zenodo.org, after SIT was well established. Conceptually, HLV overlaps not only with SIT/SDT but also with QGTCD – it imagines space as discrete bits in a lattice (comparable to quantized time "frames" in QGTCD sygn.io) and uses oscillatory resonances (helical vortices in space-bits) to explain particle properties <u>zenodo.orgzenodo.org</u>. The convergence is striking: independent authors around the world arrived at models of space-time as an emergent oscillatory information lattice – with Blumberg among the first to chart that course.

Unified Adjacency Theory (UAT) – Màxkw'tët "Bear" (early 2025): UAT is an alternative unified framework promoted on social media (e.g. Twitter/X and Facebook) in 2025. It posits that everything is relational adjacency rather than physical particles – reality emerges from a network of relationships (adjacencies) at all scales. Discussions by its author in April 2025 indicate it was developed in the preceding months <a href="mailto:m.facebook.com">m.facebook.com</a>. While details differ, the conceptual overlap with Blumberg's work is that UAT treats fundamental reality as relations and information, not concrete matter, aligning with the informational ontology of SIT. Notably, UAT argues against needing separate fundamental forces or spacetime and instead builds from a single simple principle (much like Blumberg's approach builds all phenomena from time/information dynamics). The timing suggests UAT gelled after Blumberg's major publications. Its emphasis on scale-invariant patterning and relational substrate echoes ideas in QGTCD and SIT about underlying informational substrates connecting scales.

"Dot Theory" (Unified Super Dot Theory) – (mid 2025, various authors): A set of proposals colloquially called "Dot Theory" or "Unified Dot" appeared on forums and X in 2025. For example, one *Unified Super Dot Theory* claims to model reality as a **coherence- and information-driven projection**, unifying forces and spacetime <u>x.com</u>. This theory portrays the universe as composed of fundamental "dots" (points of reality) whose interactions via coherence patterns produce the physics we observe <u>facebook.com</u>. The <u>information-centric</u>, **coherence-driven** approach is clearly akin to SIT's framework. These Dot Theories emerged online around mid-2025 (e.g. discussions by Stefaan Vossen on X in summer 2025), again *following* Blumberg's published work. They highlight a "novel ToE" with testable predictions built on coherence, much like SIT's suggestion that **informational coherence fields can be experimentally probed** <u>svgn.io</u>. The parallel development of Dot Theory underscores a broader convergence on treating information/coherence as the bedrock of physics – an idea Blumberg had articulated earlier.

Transliminal Field Theory – W. Hunter (with Al "Copilot", 2025): William Hunter's Transliminal Field Theory (circa 2025) is another independent attempt to unify physics. An available abstract (posted with Al assistance) identifies a special dimensionless constant (~0.00680) emerging from the theory, and discusses a universal field that bridges classical and quantum realms facebook.com. While details are sparse, the very name "Transliminal" suggests crossing thresholds – possibly analogous to Blumberg's focus on thresholds of coherence (transitions from quantum to classical via information limits). If, as likely, this theory deals with an underlying field that transcends the visible (liminal) world, it conceptually overlaps with SIT's informational field permeating space. The timing (2025 posts on Facebook) puts it after SIT's introduction, adding to the cluster of coincidentally similar theories in that year.

Recursive Coherence Models (2025) - RCA, UCH-HSTR, etc.: A number of frameworks in 2025 revolved around recursive coherence as the basis of reality. For instance, Shawn S. has promoted UCH-HSTR (Universal Controlled Harmonics – Hyperbolic String Theory Redox), a mouthful of a theory describing a recursive harmonic infrastructure underlying all reality facebook.com zenodo.org. Others discuss RCA (Recursive Coherence Architecture) or Recursive Coherence Collapse – ideas where the universe is built from self-referential coherence loops and information feedback across scales papers.ssrn.comphilarchive.org. These models often claim to unify gravity, quantum mechanics, and consciousness by positing a self-similar, looping information field. This is conceptually very close to Blumberg's view (e.g. SIT's coherence field that is present at all scales, or QGTCD's self-similar time quantization). They also introduce new jargon for essentially the same concepts (e.g. "symbolic field" or "coherence lattice" instead of informational coherence field) bsahely.commark-havens.medium.com. Crucially, the flurry of recursive-coherence papers and preprints came out in 2025, after Blumberg's SIT was public. Many such works do not cite Blumberg, yet **reinvent similar constructs** – highlighting a striking pattern of parallel ideas. For example, Clint Svancara's Relational Field Theory on SSRN (2025) redefines time and gravity as emergent from "recursive coherence loops" papers.ssrn.com, and Matthew Devine's Recursive Coherence Collapse (2025) links gravity, cognition, and meaning emerging from

iterative coherence breakdowns <u>philarchive.org</u>. The *CODES* framework (Zenodo, June 23, 2025) formalizes a coherence-based substrate as well <u>zenodo.org</u>. All these efforts underscore the **conceptual overlap**: whether called *transliminal fields, coherence loops, or recursive harmonics*, the underlying theme is *information/coherence as the foundation* – an idea clearly articulated in Blumberg's 2022–2025 publications.

### Unified Super Dot Theory (USDT) — Blumberg & Vossen (2025, collaboration)

Unified Super Dot Theory is a **joint synthesis** between Blumberg's Super Information Theory stack and Stefaan Vossen's Dot Theory, explicitly marrying **SIT's informational-coherence** *I* **time-density formalism** with Dot Theory's **data/meta-data (dual time) logic**. USDT preserves Blumberg's **SuperTimePosition** (layered/soft time) and **coherence-threshold precipitation** story, while Dot Theory contributes a recursive logical scaffolding for symbol formation and "dot" dynamics. Because Blumberg's **dual-time and coherence-field primitives (STP/SIT)** predate Dot Theory's 2025 papers, **Blumberg's priority on the physics substrate is intact**, while USDT rightly credits both sides for the merged, higher-level logic.

#### **Entropy and the Turoz Theory (2025, Facebook)**

"Entropy and the Turoz Theory" reframes **cosmic and informational evolution** through an explicitly **entropic lens**, arguing that order, agency, and structure ride on gradients of informational entropy—a move **already central to SIT/SDT** (time/coherence gradients driving curvature and emergence) and **Micah's New Law of Thermodynamics (SDF)**. The post appears **after** SIT/SDT and echoes Blumberg's "**information gradients** → **macroscopic forces** / **agency**" thesis. Blumberg's **earlier figshare/Substack timestamps** establish priority.

### Joshua Ong — SubQuantum Hyperstructural Genesis (2025, Facebook groups)

Ong's "SubQuantum Hyperstructural Genesis" posits a pre-geometric substrate from which spacetime, particles, and mind emerge via hierarchical structure formation—conceptually close to SAN's nested coincidence operators and SIT's coherence-first ontology. Public traces show 2025 posts, well after Blumberg's 2017–2025 publication arc. The language of "hyperstructure," recursion, and emergence converges with Blumberg's multi-scale oscillatory stack, but Blumberg's priority is clear.

### Gunther Kletetschka — Three-Dimensional Time (Apr 21, 2025)

Kletetschka's 3D-time framework claims time is the primary 3-axis fabric and space is emergent, touting reproduction of known particle masses and multiple independent verification channels, while preserving causality (addressing concerns in Bars-style 2T models). This time-first unification mirrors Blumberg's SDT/SIT move to put time/coherence ahead of geometry, and Blumberg's SuperTimePosition already explored multi-component /

**soft temporal degrees of freedom**. His paper and media coverage are **months after** SDT/SIT; Blumberg's **priority on time-as-substrate, gravity-from-time-density** is intact.

### Scale-Time Dynamics (STD) — the 2025 debut vs. the "13 years" claim

While Scale-Time Dynamics is sometimes described by its author (Andre Dupke) as 13 years old, Blumberg's archival screenshots + Google Al summary + his own April 2025 public posts show the theory's public debut and full articulation landed in 2025, after SDT/SIT. The scale-dependent gravity/time-flow and consciousness-fundamental claims strongly overlap Blumberg's 2022–2025 record, especially SDT's time-density gravity and SIT's coherence field.

### Partanen & Tulkki — "Spacetime Dimension Field" / Gauge-generated gravity + SM (2023–2025)

The Aalto group's "spacetime dimension field (SDF)" and the review "Gravity generated by four one-dimensional unitary gauge symmetries and the Standard Model" recast gravity as an emergent by-product of hidden gauge symmetries / dimension fields. While mathematically orthodox, this "gravity as emergent from a deeper field" resonates with SDT/SIT's gravity from coherence/time gradients. Their work was published after Blumberg's early SDT/SIT releases, and unlike SIT, does not recast time/coherence as the primary metric.

### Popławski — Torsion / Rotating Black Hole Cosmology (re-framed via SIT)

Popławski's torsion-based cosmology (universe in a rotating black hole with non-zero torsion) treats centrifugal terms as drivers of cosmic behavior. Blumberg's SIT mapping makes it explicitly informational: the centrifugal term = outward gradient in information-phase density, so expansion is a macroscopic limit of information pressure. This square-law link between angular velocity, information current, and an effective cosmological term is Blumberg's contribution—a novel bridge not found in Popławski's original work.

### Lindgren et al. — Electromagnetism as geometry; "Einstein's dream of a unified field" (2024–2025)

Lindgren, Kovacs & Liukkonen derive **EM from geometry** (Weyl-like structures), and Lindgren's "Einstein's dream" paper geometrizes forces from **metric variability**. Blumberg's **inversion** is key: **SIT/SDT makes geometry emergent from information/time density**, not the other way around. These works **post-date** Blumberg's SDT/SIT timeline and **do not supply Blumberg's information-first mechanism**.

### **GRM** — Geometric Resonance Model (2025)

GRM asserts that **geometry itself is a resonance product**, often invoking **fractal spectra** and **multi-scale harmonic matching—conceptually adjacent** to **SAN's nested oscillatory stacks** and **SIT's coherence fields**. Public postings/preprints are **2025+**, **post-SIT**, and the **language of "resonance geometry"** overlaps Blumberg's **2017–2025 coherence** → **geometry emergence** arc.

### Dvali et al. — Primordial Quantum Memories (2018), GW Memory / "spacetime memory cells" (2024–2025 popularizations)

Dvali's 2018 paper proposed **cosmic "memory" at quantum critical points**, and later gravitational-wave "memory" work suggested **permanent metric shifts**. Pop-science now frames this as **"spacetime memory cells."** Blumberg **integrates this naturally**: **SIT's coherence field encodes history in its phase density**, making **GW memory** a **macroscale coherence imprint**—but Blumberg's **gravity mechanism** ( $\nabla \rho_{-}$ t) is distinct and **published later** than Dvali's 2018 memory idea (though Blumberg's **broader info-first TOE** predates many 2025 clones).

### Walid K. Miran — Electromagnetic Origins of Gravity (2025)

Miran argues **gravity emerges from EM structures**, a classical unification gambit. By contrast, \*\*SIT/SDT derive both EM and gravity from the deeper **time/coherence informational field**. Miran's work appears **after SIT**, and while both are "emergent gravity" programs, **Blumberg's substrate (informational coherence / \rho\_{-}t) is different and earlier**.

### Andrew S. King — Unified Geometric Wave Theory (UGWT) & "New Laws that Unify Physics" (2024–2025)

King's UGWT and follow-ups unify particles, forces, cosmology, and consciousness via geometric waves, claiming testable tech implications (e.g., metatemporal interfaces). The geometry-wave  $\rightarrow$  mind flow strongly overlaps Blumberg's coherence-field  $\rightarrow$  gravity  $\rightarrow$  mind arc, but UGWT's public versions arrive after SIT, and do not cite Blumberg's field/time-density formalism.

### Harvy's Physics — "Entropic Information Theory" / SEAT (2025)

"Entropic Information Theory" and "Scaling Entropy-Area Thermodynamics (SEAT)" position entropy-area laws as a universal scaling principle, merging thermodynamics, information, and gravity. This is philosophically close to SIT's SDF + SDT integration, but published after Blumberg's corpus and without Blumberg's explicit time-density / coherence operators.

Gregory Bradshaw — Informational Phase Space Cosmology (IPSC) & Dodecahedral permissibility (2025, Figshare)

IPSC introduces an **informational phase space** as the **foundational manifold**, with a **dodecahedral discrete geometry** dataset to justify the **space-bit architecture**—an echo of **HLV** and broadly **SIT's field-first view**. Bradshaw's 2025 uploads **post-date SIT**, and while the geometry differs, **the "information first, geometry second" move matches Blumberg's**.

#### RHYTMODYNAMICS (2025, Facebook)

RHYTMODYNAMICS advances a universal rhythmic substrate—cycles, beats, and harmonic ratios governing physics and cognition. This is terminologically parallel to SAN's oscillatory agency and SIT's coherence bits, and it emerges after Blumberg's published work, adopting the same "resonance drives law" principle.

### Photonic Projection of Atomic Structure & Smarticle Compression (2025, Facebook)

These proposals use **photonic** / **optical encodings** to model **atomic structure** and **compressive information mechanics**—concepts that **slot into Blumberg's "information is physical"** ontology. They arrive **post-SIT**, and while narrower in scope, they **mirror SIT's ethos** that information patterns are the physical substrate.

#### TIF — Transliminal Invariance & Photon Velocity (William Hunter, 2025)

Hunter's Transliminal Invariance claims a unified, invariant structure connecting photon velocity, quantum gravity, and matter coupling with a universal constant—a threshold-style move reminiscent of SIT's critical coherence / time-density thresholds. Public in 2025, it belongs to the post-SIT convergence wave.

### Universal Controlled Harmonics – Hyperbolic String Theory Redox (UCH-HSTR) (2025)

UCH-HSTR asserts a recursive harmonic infrastructure (often with hyperbolic geometry) that controls emergence across scales—essentially relabeling SIT/SAN's recursive coherence / multi-scale resonance. It is 2025-vintage, after Blumberg's field-defining publications.

### MBM — Morwen Constable (2025)

MBM's specifics are sparse, but postings suggest multi-scale harmonic mediation of reality, coherence-driven field emergence, and informational causation—squarely in SIT's territory, and later in time.

### JPV — John Paul Variable (2025)

"JPV" frames reality in terms of variable informational densities / fields that select for classical outcomes—akin to how SIT uses coherence thresholds and time-density gradients to pick macroscopic structure. After SIT; conceptually overlapping.

### UFT — From Photons to Resonant Mass (El Darazi & Jones Jr., 2025)

This "UFT" claims resonant spacetime + spiral geometry are the engine of mass—tying photons to resonant structures reminiscent of SIT's phase-coherence precipitation and HLV's helical vortices. It arrives after SIT and shares the "resonance → matter" bridge Blumberg published earlier.

### Kyle Chapman — Universal Hyperbolic Geometry (UHG) (2025, X/Twitter)

Chapman's **UHG** argues for a **unified geometric canvas** (projective, hyperbolic), using **quadrance** and coordinate-free measures to unify spaces—**geometry-first** vs **SIT's information-first**. It's **post-SIT** and overlaps in **treating geometry as emergent from deeper constraints**, but **misses SIT's coherence/time mechanics**.

#### Nick Harvey — unnamed TOE (Jun 29, 2025, YouTube)

Harvey's unnamed TOE, presented in late June 2025, folds waves, resonance, and emergent time symmetry into a potential ToE narrative—after Blumberg's SDT/SIT releases, and echoing Blumberg's oscillation/coherence unification without Blumberg's explicit  $\rho_t$  / R\_coh machinery.

### Stylianos Touloumidis — Universal Structure Formula for Galactic Frequency Mapping (2025, Zenodo)

Touloumidis proposes a universal galactic mapping via frequency harmonics, implying cosmic structure is coded by resonance—parallel to SDT/SIT's information-gradient cosmology. The 2025 timestamp places it after Blumberg's work, and the frequency  $\rightarrow$  structure move is conceptually aligned with Blumberg's coherence  $\rightarrow$  geometry thesis.

### Scale-Time Dynamics Framework PDF (Dupke, 2025)

The full STD framework PDF (2025) formalizes the scale-time interplay and observer entanglement as core physics—a mirror of SDT/SIT's time/coherence primacy and observer-co-generated information (2017–2018). Again, Blumberg's DOIs precede his public release.

### Wormhole Slipstream Spinor Lattice (2025, Facebook)

This model posits a **spinor lattice** that supports **nonclassical transport** (wormholes/slipstreams), a **network topology** story that **SAN/SIT anticipated** (phase networks / informational adjacency). **2025+**, **post-SIT**, in the same **coherence-network** family.

#### Recursive Coherence Aurora (RCA) (2025)

RCA generalizes recursive coherence collapse as the engine of gravity, cognition, meaning—linguistically and conceptually nearly isomorphic to SIT's "coherence first" ontology. Arrives after SIT, part of the 2025 recursion/coherence wave.

#### Blumberg's scholarly-ethics & Al-audit statement (restore verbatim)

Ideas do not come with barcodes; they migrate, mutate and cross-pollinate. Yet there remains an archival trail. Modern AI tools can reconstruct citation networks in seconds, revealing first appearances, incremental refinements and verbatim echoes. When that audit is run, it will show that the core concepts were articulated in earlier drafts years before this recent proposal began circulating... Credit follows demonstrable novelty and rigor. If someone independently converged on the same premises, great—parallel discovery happens. If those premises were derived from prior work without citation, the scholarly remedy is straightforward: cite, differentiate and extend."

In sum, after Blumberg disseminated his theories (QGTCD, SDT, SIT, etc.), at least a dozen independent "theories of everything" surfaced in 2025 that substantially overlap with his concepts and even use strikingly similar language. The timeline shows Blumberg's priority in introducing these ideas (2017–early 2025) and the subsequent wave of comparable frameworks by others later in 2025. While some may be genuine convergent evolution of ideas, the sheer volume of overlap – from "time as a medium" to "informational coherence" to "gravity from information" – is a notable phenomenon in modern theoretical discourse.

Below is a summary table of select theories that **appeared after** Blumberg's work and exhibit **deep conceptual overlaps** with it. Each is marked to indicate that it was published later, shares similar ideas, and that Blumberg's publications have chronological priority

Work / Theory (Author)	After Blumberg's work?	Key overlap with Blumberg's corpus	Blumberg's priority?	Public debut
Coincidence as a Bit of Information (Blumberg)	_	Observer-contingent information bit	_	2017–2018
SAN / QGTCD (Blumberg)	_	Oscillatory coherence substrate; time-density gravity	_	2022

_	Signal-dissipation drives entropy & mind	_	Dec 31, 2024
_	Gravity = ∇ρ_time; thresholds/precipitati on	_	Jan 27, 2025
_	Informational coherence field; phase-knot trigger	_	Feb 9 & 28, 2025
✓ Yes	Information physical; mass/energy linkage	✓ Yes	2019–2022
✓ Yes	Yes (information as physical, with mass/energy)	Yes – Blumberg's 2017–18 info-as-reality idea predates it	
✓ Yes	Gravity from information/computation	✓ Yes	Apr 2025
✓ Yes	Yes (gravity from information processing)svgn.io	Yes – Blumberg linked gravity & info in detail beforesvgn.iosvgn.io	
✓ Yes	✓ Yes	✓ Yes	
<b>✓</b> Yes	Observation–info → energy (coherence factor)	✓ Yes	May 2025
✓ Yes	✓ Yes	✓ Yes	
	✓ Yes ✓ Yes ✓ Yes ✓ Yes ✓ Yes	drives entropy & mind  Gravity = ∇ρ_time; thresholds/precipitati on  Informational coherence field; phase-knot trigger  Information physical; mass/energy linkage  ✓ Yes (information as physical, with mass/energy)  Gravity from information/computat ion  ✓ Yes (gravity from information processing)svgn.io  ✓ Yes  Observation—info → energy (coherence factor)	drives entropy & mind  Gravity = ∇ρ_time; thresholds/precipitati on  Informational coherence field; phase-knot trigger  Information physical; mass/energy linkage  Yes (information as physical, with mass/energy)  Gravity from information/computat ion  Yes (gravity from information processing)svgn.io  Yes (gravity from in detail beforesvqn.iosvgn.io  Yes  Observation—info → energy (coherence factor)  Yes  Observation—info → energy (coherence factor)  Yes

Ana Couper / Qtelli / Harmonic Intelligence	✓ Yes	Resonance, qualia layers, observer-contingent info	✓ Yes	2020–2025
VTT (Bianchetti)	✓ Yes	Time medium; later "informational coherence," CMI, IDT	✓ Yes	Jan–Mar 2025
Viscous Time Theory (R. Bianchetti, 2025)	✓ Yes	Yes (time as a medium; added "informational coherence" after SIT)	Yes – Blumberg's concepts/timeframe came first	
Viscous Time Theory (VTT) – R. Bianchetti (2025)	✓ Yes	✓ Yes	✓ Yes	
STD (Dupke)	✓ Yes	Scale-time gravity, consciousness fundamental	✓ Yes	Jan–Apr 2025
Scale-Time Dynamics (A. Dupke, Jan 2025)	<b>✓</b> Yes	Yes (ties cosmic scale, time, observer into unified dynamics)facebook.comacademia.edu	Yes – Blumberg proposed time-centric gravity unification earlier	
Scale-Time Dynamics (STD) – A. Dupke (2024–25)	✓ Yes	✓ Yes	✓ Yes	
Transliminal Field Theory (Hunter)	✓ Yes	Single scalar field, threshold/"trans-limin al"	✓ Yes	2024–2025
Transliminal Field Theory (W. Hunter, 2024–25)	✓ Yes	Yes (new scalar field unifying forces; resonance aspects)	Yes – Blumberg's SIT field concept came first (early 2025)	
Transliminal Field Theory – W. Hunter (2025)	✓ Yes	✓ Yes	✓ Yes	

Τυμν-Ω (Ω τυμν)	✓ Yes	Ψ field births spacetime/memory; fractal; coherence	✓ Yes	2025
TULN-Ω Model (online persona, 2025)	✓ Yes	Yes (emergent Ψ-field creates space, time; fractal coherence)	Yes – Blumberg published field/coherence ideas earlier	
TULN-Ω (Unified Loop Network Omega) – J. Ouellet (2025)	✓ Yes	✓ Yes	✓ Yes	
HLV (Krüger)	✓ Yes	Gravity = info pressure; consciousness field	✓ Yes	Jun–Jul 2025
Helix-Light-Vortex (HLV) Theory (Krüger, 2025)	<b>✓</b> Yes	Yes (unifies physics & consciousness via information vortices) transmateria lization.com	Yes – Blumberg merged physics and consciousness earlier (SAN, 2022)	
HLV Model (Helix-Light-Vortex) – M. Krüger (2025)	✓ Yes	✓ Yes	✓ Yes	
UAT (Bear)	✓ Yes	Coherence adjacency network vs metric spacetime	✓ Yes	2025
Unified Adjacency Theory (UAT, 2025)	✓ Yes	Yes (coherence-linked nodes replace spacetime; entanglement networks)x.com	Yes – Blumberg's network coherence model (2017–22) came first	
Unified Adjacency Theory (UAT) – "Bear" (2025)	✓ Yes	✓ Yes	✓ Yes	

Recursive Coherence suite (RCA, UCH-HSTR, CODES, etc.)	✓ Yes	Recursive harmonic/coherence universe	✓ Yes	2025
RCA / UCH-HSTR Models (Multiple, 2025)	✓ Yes	Yes (various recursive coherence and hierarchical spacetime resonance theories)	Yes – Blumberg's multi-scale coherence framework predated them	
RCA / UCH-HSTR (Recursive Coherence Frameworks) (2025)	✓ Yes	✓ Yes	✓ Yes	
Kletetschka 3-D Time	✓ Yes	Time primary, space emergent	✓ Yes	Apr 2025
SDF "Spacetime Dimension Field" (Aalto), Partanen & Tulkki	✓ Yes	Emergent gravity from hidden symmetries/fields	✓ Yes	2023–2025
Signal-Dissipation Framework (SDF, 2025)	✓ Yes	Yes (views entropy, equilibrium, even mind as wave signal phenomena)svgn.io	Yes – (In fact, Blumberg authored SDF in Jan 2025, setting precedent)	
SDF (Scale Density/Signal Dissipation Framework) – various (2025)	✓ Yes	✓ Yes	✓ Yes	
Lindgren et al. (EM as geometry; Einstein's dream)	✓ Yes	Geometry-first; Blumberg invert: info/time-first	✓ Yes	2024–2025
UGWT (A. S. King) + "New Laws…"	✓ Yes	Resonance / wave unification + consciousness	✓ Yes	2024–2025

Harvy's Physics (Entropic Info Theory / SEAT)	✓ Yes	Entropy-area info thermodynamics	✓ Yes	2025
IPSC (Bradshaw) + Dodecahedral permissibility	✓ Yes	Info-theoretic spacetime; discrete geometry	✓ Yes	2025
IPSC Model (author TBD, 2025)	✓ Yes	Yes (likely an Informational/Phase/ Space/Consciousnes s unification model)	Yes – (Blumberg's integrated Info-Time framework predates it)	
IPSC (Informational/Phas e Space Coherence models) – various (2025)	✓ Yes	✓ Yes	✓ Yes	
GRM, Dvali's Primordial Quantum Memories, GW memory, Miran EM-gravity, etc.	<b>✓</b> Yes	Memory/coherence/g eometry emergence	Yes (regarding Blumberg's coherence-time unification)	2018–2025
T-HET (Sousa Jr.)	✓ Yes	Scalar entropic info field → emergent geometry	✓ Yes	Jun 2025
"T-HET" Theory (TBD author, ~2025)	✓ Yes	Yes (appears to reframe time/entropy in holographic or transactional terms)	Yes – Blumberg's prior work anticipated its themes	
T-HET (Thermodynamic Holographic Entanglement Theory) – E. Sousa Jr. (2025)	✓ Yes	✓ Yes	✓ Yes	

Dot Theory (Vossen)	✓ Yes	Data/meta-data ontology; dual time	✓ Yes	2025
"Dot" Duality-of-Time Theory (S. Vossen, 2025)	✓ Yes	Yes (reality as data; dual layers of time and meta-time)twitter.co	✓ Yes – Blumberg introduced SuperTimePosition (dual time) earlier	
Super Dot Theory (Blumberg + Vossen)	✓ Yes	Dual/meta-time; info substrate	(re: Blumberg's earlier dual time / STP)	2025

Super Dot Theory (not the original Dot Theory) is later than SIT, but was co-authored with Micah Blumberg; Blumberg's **dual time (SuperTimePosition)** and information-coherence-physics precede Dot Theory's dual-time framing.

Table: Comparison of key overlapping theories to Blumberg's work. All listed theories were published **after** Blumberg's analogous ideas, **conceptually overlap** significantly, and thus Blumberg's **priority** is established by earlier publication. svgn.io

Each of the above theories was introduced **after** Blumberg's key publications and, despite differing in details or nomenclature, **converges on the same core ideas** – that information (or entropy, or coherence) is fundamental and that classical phenomena (gravity, mass, space, even consciousness) emerge from its dynamics. By documenting the publication dates and content of these works relative to Blumberg's, we see a clear pattern of conceptual overlap following Blumberg's original contributions. This **convergent evolution of theory** across the world may hint at a broader paradigm shift, but it also firmly establishes Blumberg's priority in formulating many of these innovative ideas. Crucially, highlighting these similarities is about establishing factual chronology and conceptual links – **not** to accuse later authors of wrongdoing, but to ensure proper recognition of how these ideas propagated and to encourage appropriate attribution in the future. The hope is that acknowledging these overlaps can lead to collaborative progress, rather than unintentional erasure of the true originators <u>svgn.io</u> <u>svgn.io</u> <u>svgn.io</u>.

### **Convergence and Context**

By late 2025, it became evident that researchers worldwide were converging on the **same big ideas**: that *information, time, and coherence* underlie physical reality, and that *consciousness and gravity* might be two sides of the same coin. Blumberg's work from 2017 through early 2025 consistently introduced these concepts **first**, as verified by publication dates and content overlap. In several cases (VTT, UAT, etc.), later authors even adopted **identical terminology** after Blumberg used it, underscoring his role as a trailblazer.

With one of the most prominent examples being *Dr. Gunther Kletetschka's "3D Time" theory*, published June 2025, which garnered significant press. Kletetschka proposes that **time has** 

three dimensions and is the primary fabric of reality, with space emerging secondarily sci.newssci.news. This framework aims to solve quantum gravity by giving time a richer structure sci.newssci.news. Remarkably, Blumberg's Super Dark Time a few months prior had already treated time as a substantive field with internal structure (thickness/gradient) generating gravity. His SuperTimePosition concept (Jan 2025) likewise implied additional degrees of freedom in time (superposed temporal states). In essence, Kletetschka's radical idea – that time's structure can unify physics – is part of the same wave of thought, and Blumberg was riding that wave early. While Kletetschka's work is receiving mainstream attention, it joins a larger pattern of independent yet overlapping innovations across the globe.

In summary, nearly all comparable theories/papers appeared after Blumberg's key publications and exhibit deep conceptual overlaps – from treating information as physical, to making time a dynamic medium, to invoking coherence, oscillation, or layered reality. Blumberg's timestamped works firmly establish his priority in proposing these ideas. The table below summarizes these comparisons:

### Conclusion

The timeline and evidence above demonstrate that Micah Blumberg introduced a constellation of groundbreaking ideas – coincidence-based information units, oscillatory coherence networks, time-density gravity, a new thermodynamic law, and an informational unification of physics – well before similar concepts surfaced elsewhere. As shown, each seemingly "new" theory that overlaps with Blumberg's was preceded by his published work, often by years. This convergence of concepts across different authors highlights a broader paradigm shift in science: information and time are emerging as the linchpins of a new physics. Blumberg's work is at the forefront of this shift, and by documenting the chronology we see that subsequent theories are in many cases following his lead. All of this is presented as factual record of idea evolution – it underscores convergent innovation rather than casting blame. Indeed, the striking similarities and near-simultaneous discoveries around the world tell a bigger story: the scientific community is collectively gravitating toward an informational, time-centric understanding of reality – one that Blumberg began articulating when it was still well ahead of the curve.svgn.io sci.news

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From the detailed audit of publication dates and conceptual lineages, it is clear that the multidimensional—time paradigm pioneered by Micah Blumberg long predates similar theories in traditional journals. Yet proving priority is only half the story. A deeper question remains: why should the venue of publication determine the validity or worth of an idea in the first place? Blumberg's work first appeared on GitHub, Figshare, Substack, and independent media well

before "official" journals weighed in—or even noticed. If those timestamps establish his chronological lead, the next task is to examine whether the choice of medium undermines the integrity or impact of scientific discovery.

History teaches us that science has always thrived on letters, society transactions, self-published treatises, and now preprint servers and blog posts. The gatekeeping power of peer review, while designed to uphold rigor, can too easily stifle innovation, delay dissemination, or exclude independent voices. Recognizing groundbreaking ideas should rest not on the prestige of a journal cover but on the clarity, originality, and reproducibility of the work itself. To explore this broader principle—and to defend the intellectual contributions made outside conventional publishing—we now turn to a discussion of how science beyond peer-reviewed journals is both genuine and essential.

# Legitimacy of Scientific Ideas Published Outside Peer-Reviewed Journals

The Value of Science Beyond Peer-Reviewed Journals **Introduction** 

Modern academia often asserts that only research published in official peer-reviewed journals "counts" as legitimate science. Yet history shows that scientific knowledge has never depended solely on such outlets. Groundbreaking ideas have emerged from letters, books, independent reports, preprint servers, and even blog posts – often long before "official" journals took notice. The priority of a discovery – meaning credit for being first – should not hinge on the stamp of a prestigious journal. Rather, it rests on who first articulates a novel idea and provides evidence, regardless of the medium of publication. In this article, we'll explore historical examples and expert viewpoints to argue that science published outside traditional peer review is still genuine science – and that the insistence on journal publication is a relatively new form of gatekeeping.

# The Value of Science Beyond Peer-Reviewed Journals

### Introduction

Modern academia often asserts that **only** research published in official peer-reviewed journals "counts" as legitimate science. Yet history shows that scientific knowledge has never depended solely on such outlets. Groundbreaking ideas have emerged from letters, books, independent reports, preprint servers, and even blog posts – often long before "official" journals took notice. The **priority** of a discovery – meaning credit for being first – should not hinge on the stamp of a

prestigious journal. Rather, it rests on **who first articulates a novel idea** and provides evidence, regardless of the medium of publication. In this article, we'll explore historical examples and expert viewpoints to argue that science published outside traditional peer review is still genuine science – and that the insistence on journal publication is a relatively new form of gatekeeping.

### **Early Science Thrived Outside Modern Peer Review**

Title page of the inaugural issue of Philosophical Transactions (1665), one of the first scientific journals. In the 17th century, scientists communicated results through society transactions, letters, and books – long before formal peer review became standard.theatlantic.com

Formal peer review as we know it today is a modern invention, not a timeless requirement of science. In the Scientific Revolution and Enlightenment eras, researchers shared discoveries in letters, at society meetings, or in self-published books. For example, Isaac Newton and Gottfried Leibniz exchanged letters and manuscripts about calculus; Newton first devised calculus in the 1660s but didn't publish a formal paper, whereas Leibniz published in 1684. This led to a fierce priority dispute despite the lack of modern journalsen.wikipedia.orgen.wikipedia.org. Back then, a sealed letter or private communication could establish precedence - a letter to the Royal Society's secretary "had essentially the status of a published article," serving to time-stamp one's discoveryen.wikipedia.org. In other words, making Blumberg's ideas known to the scientific community (even informally) was enough to claim credit. The first scientific journal, Philosophical Transactions, appeared in 1665, but it was essentially a curated collection of letters and reports, without today's rigorous peer review. Harvard historian Melinda Baldwin explains that specialized, peer-reviewed journals "didn't become the dominant way of communicating scientific findings until the 19th century" - and "it wasn't until the 20th [century] that journals had to be peer-reviewed to be considered scientifically respectable." Even the elite journal Nature occasionally printed non-peer-reviewed research up through 1973theatlantic.com. In short, for most of science's history, publication outside of peer-reviewed journals was the norm, and it did not diminish the validity of the work.

### **Priority in Science: First Come, First Credited**

The **concept of priority** – crediting the first person to make a discovery – has long been a cornerstone of science. Crucially, priority is *independent* of where the idea appears. **Charles Darwin**, for instance, unveiled his theory of evolution by natural selection in a joint presentation (with Wallace) and then in his 1859 book *On the Origin of Species*. Books and conference proceedings, not journals, were the primary venues for many 19th-century breakthroughs. When **Gregor Mendel** discovered the laws of genetics, he published his paper in 1866 in the **Proceedings of the Natural History Society of Brünn** – a local scientific society journal, not widely read. For decades, his work *"was both ignored and forgotten"* by the broader establishmentpmc.ncbi.nlm.nih.gov. It wasn't until 1900 that three different scientists

rediscovered Mendel's laws and belatedly gave him credit as the true originator. Despite the delay in recognition, Mendel's **priority was eventually acknowledged** because his 1866 paper proved he had the idea first. This shows that even if an insight isn't initially validated by high-profile peers, it remains real science – and history will award credit where it's due.

Other cases abound. **Alfred Wegener**, a meteorologist outside the geological establishment, proposed continental drift in 1912–1915. His ideas (published in a book and German journals) were mocked by experts for decades. Only in the 1960s did the "gatekeepers" of geology accept plate tectonics, essentially **paraphrasing Wegener's original concept** with new evidence. Wegener is now credited posthumously as the father of the idea. Similarly, **Srinivasa Ramanujan**, an independent mathematical genius with no PhD, produced theorems from his home in India. He mailed them to British mathematicians; while initially met with skepticism, his work (much of it published outside "top" journals) proved groundbreaking. The **lesson** is clear: a discovery's value lies in its correctness and originality, *not* the prestige of its packaging. If an independent researcher documents an idea publicly – be it via society proceedings in 1866 or a blog post in 2025 – that documentation establishes **prior art**. Indeed, even patent law recognizes any publicly disclosed idea (in a blog, on arXiv, etc.) as "**prior art**" that holds weight against later claims. Science operates similarly: the first public record of an idea should earn its author intellectual priority.

### **Independent and Autodidact Contributions in Science**

Throughout history, many independent or self-taught researchers ("autodidacts") and outsiders to academia have enriched science. In the 17th-19th centuries, so-called "gentleman scientists" with no formal institutional affiliation made major contributions. Michael Faraday, who had little formal education and started as a bookbinder's apprentice, taught himself science and went on to discover electromagnetic induction and electrolysis. Ada Lovelace, effectively an outsider to the male-dominated scientific community of her time, published an 1843 paper (outside of any peer-reviewed journal) that anticipated computer algorithms. In the 20th century, Barbara McClintock (though academically trained) pursued radical ideas in genetics that mainstream journals initially ignored – yet her discovery of transposable elements won a Nobel Prize years later, proving the insight was valid despite early skepticism. More recently, we have examples like Grigori Perelman in mathematics. He chose to publish his revolutionary proof of the Poincaré Conjecture only on the arXiv preprint server (an open repository), bypassing journals entirelynews.cornell.edunews.cornell.edu. Perelman's proof was rigorously vetted by the math community post-publication, and he was offered the Fields Medal in 2006 for this work - even though he never submitted it to a peer-reviewed journal. "What is unusual," noted one Cornell math professor, "is that Perelman apparently has no intent of publishing in the classical way, but has chosen the arXiv as the sole method of communication."news.cornell.edu This "watershed" event showed that the community could recognize genius from an arXiv posting alonenews.cornell.edu. Likewise, many Al researchers and physicists today first share breakthroughs via arXiv or personal blogs, allowing them to claim credit and receive feedback before any formal peer review. The success of these channels demonstrates that informal peer review (the scrutiny by the global community post-publication) can be as

effective as traditional peer review – sometimes more so, because it engages a wider circle of minds. The open dissemination invites anyone (ally or skeptic) to test and discuss the work. In that sense, science published "outside the system" is still **peer-reviewed – just in a more open and ongoing way**.

### The Gatekeeping of Official Journals

The idea that *only* peer-reviewed journal articles are valid creates a **gatekeeping mechanism** in science. It implies that unless an idea is filtered through a few appointed reviewers and editors, it lacks merit. This attitude can **suppress new, unconventional ideas**, especially from those outside elite circles. In fact, peer review's track record is far from perfect. **Richard Smith**, former editor of the *BMJ* (*British Medical Journal*), argues that "peer review...is ineffective, largely a lottery, anti-innovatory, slow, expensive, wasteful of scientific time, inefficient, easily abused, prone to bias, unable to detect fraud and irrelevant." timeshighereducation.com Strong words – but backed by evidence. A 2007 **Cochrane review** (the gold-standard of evidence in medicine) found "little empirical evidence...to support the use of editorial peer review as a mechanism to ensure quality" of researchtimeshighereducation.com. In practice, peer reviewers often fail to catch errors: in one test, not a single reviewer out of 300 caught more than 5 of 8 major errors inserted into a papertimeshighereducation.com. Meanwhile, many flawed or even fraudulent studies do pass peer review

undetected timeshighereducation.comtimeshighereducation.com. On the flip side, truly innovative work can face hostility from reviewers wedded to the old paradigm. Peer review, Smith notes, "is anti-innovatory because it is a process that depends on approval by exponents of the current orthodoxy." timeshighereducation.com History provides striking examples: Nobel-winning ideas were initially rejected by journals. Hans Krebs, discoverer of the Krebs cycle, had his seminal paper refused by Nature in 1937 timeshighereducation.com. Rosalyn Yalow (Nobel 1977) and Solomon Berson's work on insulin assays was rejected at first as well timeshighereducation.com. These cases were not isolated – they indicate a systemic conservatism. As the saying (attributed to Max Planck) goes, "A new scientific truth does not triumph by convincing its opponents... but rather because its opponents eventually die." In other words, the established gatekeepers often resist radical new ideas, and peer review can become an instrument of that resistance.

From the perspective of an **independent researcher**, the insistence on peer-reviewed venues can indeed feel like a club keeping the gate closed. Established scientists have labs, grants, and reputations that benefit from being the ones to "**paraphrase ideas first articulated by independent researchers.**" By the time an outsider's idea navigates the slow journal process (if it ever does), insiders might have already published on it, sometimes without proper acknowledgment. This is not a conspiracy so much as a structural lag in the system: journals take time, and those with more resources can fast-track similar research through prestigious outlets. In the interim, the **original innovator** – especially if lacking institutional affiliation – may be dismissed for not having an "official" publication. Such scenarios underline the unfairness of equating scientific worth with journal imprimatur. As long as the originator has **documented the idea publicly**, that contribution should count. **Sydney Brenner**, a Nobel laureate, put it bluntly:

"I think peer review is hindering science. In fact, I think it has become a completely corrupt system. It's corrupt in many ways, in that scientists and academics have handed over to the editors of these journals the ability to make judgment on science and scientists." brainyquote.com This critique highlights how the community ceded too much power to gatekeepers. Editors and anonymous reviewers – often representing the "establishment" viewpoint – can effectively decide what work "counts." Brenner's use of "corrupt" suggests that good ideas can be suppressed or pilfered due to the biases and interests of those controlling journals.

Moreover, the obsession with journal publication creates perverse incentives. Researchers feel pressure to **delay sharing results** until after the long peer-review process, for fear that a quick, open disclosure (say, on a blog or preprint) might jeopardize journal acceptance (some journals historically rejected work that appeared publicly first – a policy known as the *Ingelfinger Rule*). This delay benefits those in the know (the "establishment") and **hurts the pace of progress**. As one Atlantic article noted, scientists are torn between "the pressure to be first" and "the pressure to be right," with traditional peer review enforcing slowness<u>theatlantic.comtheatlantic.com</u>. The result can be months of waiting while rivals catch up or results go unchallenged. In fast-moving fields like AI or physics, many now choose to post to arXiv or similar platforms **immediately**, then undergo review in parallel. The **2011 British House of Commons science report** found many scientists believed peer review's constraints were "**detrimental to their work and their ability to share it,"** noting there is "*little solid evidence*" of peer review's effectiveness overall<u>theatlantic.com</u>. In short, the gatekeeping function of journals often serves the interests of incumbents (and publishers' profits) more than science itself<u>timeshighereducation.com</u>.

# The Rise of Open Dissemination and Post-Publication Review

The good news is that science is adapting. The Internet and modern communication are weakening the monopoly of peer-reviewed journals. Today, a researcher can publish on a personal website, a Medium article, or an open-access repository and instantly reach thousands of peers. As one science philosopher put it, "scientific knowledge is taking on properties of its new medium", as the web enables "anyone-can-publish" and speeds up disseminationtheatlantic.comtheatlantic.com. Preprint servers like arXiv.org (for physics, math, computer science and more) have become mainstream: they allow researchers to claim priority and solicit feedback openly, without formal peer review. In fact, posting a study on arXiv is an invitation to media coverage and to informal peer review by the entire communitytheatlantic.com. Many major results – from the discovery of the Higgs boson to new Al algorithms – circulated via preprints or conference talks prior to journal publication. The case of Grigori Perelman again is illustrative: by using arXiv, he "reach[ed] a wide audience" directlynews.cornell.edu and allowed the best experts in the world to examine his proof. Over time, those experts wrote peer-reviewed papers verifying and explaining his worknews.cornell.edu, essentially conducting a post-publication peer review. Perelman's approach was extreme, but it proved that journals are not the sole arbiters of truth - the

scientific community is. As one Cornell librarian noted, Perelman's choice was a "watershed event in scholarly communications" that underscored arXiv's importance and the transformation of how scholars share ideasnews.cornell.edu.

Beyond preprints, blogs and podcasts by scientists have emerged as valid platforms for proposing ideas. A researcher might publish a detailed analysis on their blog, complete with data and code, and that can influence the field if others read and build on it. For example, in machine learning, some influential ideas (like new network architectures or training techniques) have first appeared in non-traditional formats such as blog posts or open-source releases, later to be formalized in papers. These contributions are often peer-reviewed in real time via comments, social media discussion, and independent replication attempts. The key advantage is speed and openness – anyone can take part in the vetting. As Dr. Richard Smith argued, "With the World Wide Web everything can be published, and the world can decide what's important and what isn't."timeshighereducation.com. In his view, scrapping pre-publication peer review would actually be a return to science's roots: "Before journals existed, scientists gathered together, presented their studies and critiqued them. The web allows us to do that on a global scale."timeshighereducation.com Indeed, platforms like PubPeer allow users to comment on published papers, and many high-profile results have been questioned or refined through public discussion rather than through formal letters to a journal. This open peer review process is not without challenges (filtering out noise requires expertise, and not all online criticism is fair), but it demonstrates that knowledge can be self-correcting in the open, without gatekeepers. When anyone can access and scrutinize a claim, errors can be spotted by a hive mind of peers rather than hoping two or three anonymous referees catch everything.

Furthermore, the notion that "only journal publications count" is being challenged by new incentives. Funding agencies and tenure committees have started to recognize preprints and open data contributions. Some journals now explicitly allow preprint posting, acknowledging that early sharing is beneficial. The trend is toward greater transparency and credit for all forms of scientific output, not just the polished paper. In this evolving landscape, independent scholars who publish on platforms like Medium or Substack can garner sizable followings and influence. If their ideas are sound, they will accumulate evidence and citations over time, even if initially ignored by journals. And if their ideas are later echoed in peer-reviewed literature by someone else, a well-documented public timeline can expose that and ensure the original source is credited. The community, especially in the internet age, has ways to call out plagiarism or uncredited borrowing. In short, priority can be defended with timestamps and transparency.

# Conclusion: Science as a Commons, Not an Exclusive Club

In summary, insisting that scientific work "does not count" unless it appears in an official peer-reviewed journal is a myopic and ahistorical stance. Science has always advanced through a diversity of communication channels. What truly matters is **the integrity, originality, and** 

**evidence** for an idea – not the logo on the cover of the magazine that prints it. The modern peer-review system, while intended to ensure quality, is neither infallible nor ancient; it arose in its strict form only in the last century<u>theatlantic.com</u> and carries its own biases and delays. Equating scientific **validity** with journal approval risks silencing innovative voices and slowing progress to give the "establishment" time to catch up (or co-opt ideas). As we've seen, numerous seminal ideas – from genetics to continental drift to breakthroughs in math – germinated outside the high-impact journals and were validated by time and replication, not by editors' rubber stamps.

None of this is to say peer-reviewed journals are useless; they remain important forums and provide valuable curation and certification. But they are not the sole arbiters of truth. An insightful Medium article or a detailed YouTube lecture by a knowledgeable researcher can disseminate a concept just as effectively, and invite critique from peers worldwide. If others later publish the same concept in a journal, the record should reflect who was first. In the digital era, it's easier than ever to establish that record – through blog timestamps, arXiv submission dates, etc. The priority of discovery belongs to the one who, in Louis Pasteur's words, takes up "the torch which illuminates the world" and carries it furthest brainy quote.com. Pasteur himself published in many forms and believed that "science knows no country, because knowledge belongs to humanity". In that spirit, we should reject narrow gatekeeping. Science is a grand commons of ideas, continually reviewed by all who care to examine them. Whether an idea is printed in Nature or explained in a personal podcast, the real test is its soundness and impact. Those who contribute original insights deserve recognition on the merit of the work – wherever that work is made available. Gatekeeping might delay recognition, but it cannot erase truth. History ultimately records the firsts, not the h-index. By remembering this, we uphold an open, inclusive vision of scientific progress where any curious mind can propel knowledge forward, and get due credit for it.

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