



Communication

The Ultimate Paradox – Creating Something (The Universe) That Has Always Existed

Rodney Bartlett^{1,*}

¹ Information Physics Institute, Stanthorpe, 4380, Australia

*Corresponding author: Rodney.bartlett22@yahoo.com

Abstract - Here are a few thoughts on “Is gravity evidence of a computational universe?” The article [1], plus this comment on it, could be seen as exemplifying nonlinear time. This is because an article is usually written first, then followed in linear time by comments. In this case, the article was published on April 25 2025 but the comment - which proposes how such a computational universe might originate - was nonlinearly published word-for-word eighteen months earlier in “The 5th Dimension and its Implications for the String Theory, Conservation of Energy and Heisenberg Uncertainty Principle”[2].

Keywords - Computational Universe; Gravity; Entropy; Nonlinear time.

In an article written for the magazine Nautilus, [3] it's stated that the journals of American physicist John Wheeler, which he always kept at hand, reveal a stunning portrait of an obsessed thinker. The article says, “He knew that quantum measurement allowed observers in the present to create the past ...” and his journal contains thoughts agreeing with “The universe has created an observer and now, in an act of quantum measurement, the observer looks back and creates the universe.” Could the origin of life be related to the movie “Interstellar”? In the movie, it's stated that humans will one day be able to build things they can't make now. If we take this idea to an extreme, and take “one day” to mean an indefinite point in the far future, will we do what is obviously regarded as impossible and create life – and conceivably, the universe itself? Someday there will be a human civilization that can build their mathematics into the creation, structure, and functioning of life and the cosmos. Emotion may well declare this an absurdity and we might retreat to things like quantum fluctuation or spontaneous creation from nothing. Logically – using Einstein's nonlinear, curved time added to limitless advance of human potential through the eons – the absurdity is plausible. Creating something which has always existed seems to be a paradox – whose definition is “a seemingly absurd or contradictory statement or proposition which when investigated may prove to be well founded or true”. On the subject of paradox, 20th-century physicist Niels Bohr said, “How wonderful that we have met with a paradox. Now we have some hope of making progress”. He also said, “Your theory is crazy, but it's not crazy enough to be true”. Hopefully, the crazy ideas in this article are “crazy enough to be true”. So, how might it be done? A model of the cosmos might be built that uses the infinite number pi and imaginary time, and resides in Virtual Reality (artificial, computer-generated simulation). The entanglement (quantum-mechanics style) in the simulated universe is unable to remain separate from the entanglement existing in our perceived reality because computers using

so-called "imaginary time" (which is defined by numbers with the property $i^2 = -1$) remove all boundaries between the two universes. This enables them to become one Augmented Reality (known now as technology that layers computer-generated enhancements onto an existing reality but seen here as the related layering of virtual reality onto other points in time and space). The poorly named imaginary time of physics and mathematics unites with pi (both are necessary to generate a non-Big-Bang cosmos i.e. an infinite universe which, because space and time can never be separated, is eternal). This manipulation of time, space, and the universe with virtual and augmented reality might possibly be produced by the two-valued binary-digit system used in electronics traversing a wormhole, or shortcut between folds in space and time, designed by humans of the far future. The augmented reality which is layered on "other" points in space-time actually isn't transmitted to other points - because of the quantum entanglement of every particle (massive or massless) of everything in spacetime, only one ever exists. Thus, transmissions to any (apparently other) places or times wouldn't be restricted to the speed of light but are instantaneous.

Referring back to the nonlinearity mentioned at the beginning of this Communication, the following paragraph from "The 5th Dimension and its Implications . . ." describes how science isn't limited to the observation that subatomic particles produce waves or that mass causes gravity's gravitational waves. Scientists can also observe:

- a) waves creating particles.
- b) gravity, when partnered with electromagnetic waves, forming mass - as suggested by Albert Einstein [4] and by The 5th Dimension's vector-tensor-scalar (VTS) geometry.

Then, Fourier analysis or $v = f(\lambda)$ would not merely be descriptions of waves created by interacting particles. In conjunction with the base 2 math (binary digits) and topology addressed below, they'd be part of the "blueprint" for forming waves which, via VTS geometry, produce particles. Interacting particles can produce waves just as masses can curve spacetime to create gravitation and gravitational waves. VTS plausibly explains the inverse - it doesn't (only) regard mass as the producer of gravity but (also) regards gravity, partnering with electromagnetism, as producer of mass. Inverting quantum mechanics, the inverse law states that waves produce particles. This brings us full circle back to the Hawking / Mlodinow point that ultimate reality does not have to be described using quarks (but as recent scientific history has demonstrated, it can be).

References

- [1] Melvin M. Vopson, Is gravity evidence of a computational universe? AIP Advances, 1 April 2025; 15 (4): 045035. <https://doi.org/10.1063/5.0264945>
- [2] Bartlett, R. (2023). The 5th Dimension and its Implications for the String Theory, Conservation of Energy and Heisenberg Uncertainty Principle. IPI Letters, 1, 41-55. <https://doi.org/10.59973/ipil.29>
- [3] Geffer, A. Haunted by his brother, he revolutionized physics. January 10, 2014. Illustration by Wesley Allsbrook. https://nautil.us/haunted-by-his-brother-he-revolutionized-physics-234736/?utm_source=nautilus-newsletter&utm_medium=email&he=fa35e05376126a72b9c703cec5c60eee
- [4] Einstein, A., Spielen Gravitationfelder im Aufbau der Elementarteilchen eine Wesentliche Rolle? [Do gravitational fields play an essential role in the structure of elementary particles?] Sitzungsberichte der Preussischen Akademie der Wissenschaften [Math. Phys.] 349-356. Berlin. 1919