Title – # No Big Bang or Inflation

Author – Rodney Bartlett

Abstract –
Cosmic inflation is the exponential expansion of space in the early universe. The inflationary epoch lasted from 10^−36 seconds after the Big Bang to sometime between 10^−33 and 10^−32 seconds. Following the inflationary period, the universe continues to expand, but at a less accelerated rate. The inflationary hypothesis was developed in the 1980s by physicists Alan Guth and Andrei Linde. It says that, when viewed at scales of billions of light years, the universe is unified to near-uniform temperature and curvature by the whole cosmos having once been small enough for everything to be in contact, then undergoing extremely rapid expansion from a big bang during a period called inflation. If the Big Bang never happened, would the theory of inflation be needed for any reason? Personally, I don't believe the Big Bang happened – and this is why the world doesn't need any Big Bang(s) or inflation.

Content –

DIGITAL STRING THEORY

String theory says everything's composed of tiny, one-dimensional strings that vibrate as clockwise, standing, and counterclockwise currents. We can visualize tiny, one dimensional binary digits of 1 and 0 (base 2 mathematics) forming currents in a two-dimensional program called a Mobius loop – or in 2 Mobius loops, clockwise currents in one loop combining with counterclockwise currents in the other to form a standing current. Combination of the 2 loops' currents requires connection of the two as a four-dimensional (figure-8) Klein bottle. This connection can be made with the infinitely-long irrational and transcendental numbers (see **Universe as a Whole is Infinite and Eternal** for support of the universe's infinity). Such an infinite connection translates - via bosons being ultimately composed of the binary digits of 1 and 0 encoding pi, e, √2 etc.; and fermions being given mass by bosons interacting in matter particles' "wave packets" – into an infinite number of figure-8 Klein bottles which are, in fact, "subuniverses".

Slight "imperfections" in the way the Mobius loops fit together determine the precise nature of the **binary-digit currents (the producers of space-time, gravitational waves, electromagnetic waves, the nuclear strong force and the nuclear weak force)** and thus of exact mass, charge, quantum spin. When the digits form space-time, space-time's warps produce gravitation whose force (in the form of gravitons) interact with photons' forces to produce matter and mass. The photons come into existence because gravitation produces them (see "c^2 and the Atom "). They would also produce black holes - whose binary digits could, in the case of the sun, come from our star being compressed to 2.95 kms,

in which case the pressure increase "shreds" the sun into its binary digits (its mass is relativistically converted into the energy of binary digits).

Universe as a Whole is Infinite and Eternal

"Infinite Universe" by Bob Berman, “Astronomy” (Nov. 2012) says, “The evidence keeps flooding in. It now truly appears that the universe is infinite” and “Many separate areas of investigation – like baryon acoustic oscillations (sound waves propagating through the denser early universe), the way type 1a supernovae compare with redshift, the Hubble constant, studies of cosmic large-scale structure, and the flat topology of space – all point the same way.” Support for the article – a) after examining recent measurements by the Wilkinson Microwave Anisotropy Probe, NASA declared "We now know that the universe is flat with only a 0.4% margin of error." (WMAP’s Universe (http://map.gsfc.nasa.gov/universe/uni_shape.html)
and b) according to "The Early Universe and the Cosmic Microwave Background: Theory and Observations" by Norma G. Sànchez, Yuri N. Parijskij - published by Springer, (31/12/2003), the shape of the Universe found to best fit observational data is the infinite flat model)

Each “subuniverse” (bubble or pocket universe) is one of an infinite series composing the physically infinite and eternal space-time of the universe. The infinite numbers make the cosmos physically infinite, the union of space and time makes it eternal, and it's in a static or steady state because it’s already infinite and has no room for expansion. **Gaps or irregularities between subuniverses shaped like figure-8 Klein bottles are "filled in" by binary digits in the same way that computer drawings can extrapolate a small patch of blue sky to make a sky that's blue from horizon to horizon.** Our own subuniverse has a limited size (and age of 13.8 billion years), is expanding (not from a Big Bang but from binary digits “creating” new space-time which displaces the old – see **Displacement and Conservation**), and has warped space-time because it's modelled on the Mobius loop, which can be fashioned by giving a strip of paper a 180-degree twist before joining the ends.

Time Travel to Past

If time always goes in a straight line from past to present to future, these binary digits would emanate from a God or another universe in a multiverse. But Albert Einstein showed that space-time is curved and warped, so it’s possible that our own computer science found its way into the remote past (see explanation of seemingly superluminal transmission of both matter and information in this section) and that there’s only one universe. This provides an alternative to the 3 concepts of a “primordial soup” creating life (evolution explains adaptations, not origins), a supernatural God and the multiverse.

The space-time we live in is described by ordinary [or “real”] numbers which,

when multiplied by themselves, result in positive numbers e.g. 2x2=4, and -2x-2 also equals 4. Inverted "positive" space-time becomes negative hyperspace which is described by so-called imaginary numbers ^ that give negative results when multiplied by themselves e.g. i multiplied by itself gives -1. Entering hyperspace with its negatives (energy, matter, distance, time ^^) permits travel to the past since it would be impossible to travel 700 lightyears there, and only possible to travel minus 700 lightyears. Doing so instantly would enable a spaceship to arrive at a spot in the past which a light beam could only reach by traversing negative distance for 7 centuries.

^ As Stephen Hawking writes ("A Brief History of Time", p.139), "Which is real, 'real' or 'imaginary' time? It is simply a matter of which is the more useful description." Earlier in that paragraph, he says, "In real time, the universe has a beginning and an end at singularities that form a boundary to space-time and at which the laws of science break down. But in imaginary time, there are no singularities or boundaries. So maybe what we call imaginary time is really more basic …"

^^ Since the time associated with the 3 dimensions of up-down, back-front and side-to-side is often called the 4^{th} dimension, should negative time in a 5^{th} dimensional hyperspace be called the 6^{th} dimension of hypertime?

Applying this practically, a 2009 electrical-engineering experiment at America's Yale University, together with the ideas of Albert Einstein, tells us how we could travel to other stars and galaxies in literally no time. Electrical engineer Hong Tang and his team at Yale demonstrated that, on silicon-chip and transistor scales, light can attract and repel itself like electric charges or magnets ("Tunable bipolar optical interactions between guided lightwaves" by Mo Li, W. H. P. Pernice & H. X. Tang - Nature Photonics 3, 464 - 468 (2009). This is the "optical force". For 30 years until his death in 1955, Einstein worked on his Unified Field Theory with the aim of uniting electromagnetism (light is one form of this) and gravitation. Achievement of this – see "Digital String Theory" plus "c^2 and the Atom" for a proposed method - means the microscopic components (gravitons) of warps of space (gravity, according to General Relativity) between spaceships and stars could mimic the Optical Effect and be attracted together, thereby totally eliminating distance (this is similar to traversing a wormhole, or shortcut, between two folds in space-time). Distance is not only deleted in space. There would no longer be any "distance" in time. Just as we can journey to particular stars, we could take trips to particular years in the past or future. Now we just need some clever engineers to design a spacecraft that works according to the Einstein-Yale principle.

So we can produce the effect of faster-than-light travel for both matter and information, without engaging in actual faster-than-light travel (that is impossible). We only appear to re-locate matter and information superluminally because distance is eliminated (or, if you prefer, time is stopped) by attracting together the folds in space-time that are called gravity.

c^2 and the Atom

When Einstein penned E=mc^2, he used c (c^2) to convert between energy units and mass units. The conversion number is 90,000,000,000 (light's velocity of 300,000 km/s x 300,000 km/s) which approx. equals 10^11. Gravity can produce electromagnetic force, though there are other methods. For example, X-rays can be emitted by matter swirling around a black hole when the atoms jostle and compress, and are heated to millions of degrees. If absolutely everything in space-time is the result of gravitation, it's OK to leave out the word "can" and just say "Gravity produces electromagnetic force" (to be technical, the word "gravitation" is used when referring to the universe and "gravity" when referring to Earth – but I get lazy sometimes, and just type "gravity" because "gravitation" is too long a word). Gravity waves with a strength of 10^1 are, via gravitational lensing, concentrated 10^24 times after they're focused to form matter (to 10^25, weak nuclear force's strength - giving the illusion that a weak nuclear force that is not the product of gravitation exists). (If binary digits form space-time and gravitation, and all particles are composed of those digits, the sequence of 1's and 0's composing gravitons can become the sequence making up the W+, W- and Z^0 particles of the weak force**;** the gluons of the nuclear strong force**;** or of electromagnetism's photons.) Waves are magnified by the matter's density to achieve electromagnetism's strength (10^36 times gravity's strength) i.e. 10^25 is multiplied by Einstein's conversion factor [10^11] and gives 10^36 (this gives the illusion of the existence of electric and magnetic fields that are not a product of gravitation – last century, Einstein stated that gravitation and electromagnetism are related.). After absorption by atoms, the depleted remnant of the gravity waves is re-radiated from stars, interstellar gas and dust, etc. as electromagnetic waves - possibly gamma rays, or a ***microwave background*** * - and as gravitational waves which have lost most of their energy or strength during formation of forces (returning to a strength of "10^1".)

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* The cosmic microwave background or CMB is assumed to be left over from the "Big Bang" of cosmology, and was discovered in 1964 by American radio astronomers Arno Penzias and Robert Wilson. A problem with microwaves from dust is pointed out in "Comments on the Cosmic Microwave Background" by Dr. Danny Faulkner on March 19, 2014 – https://answersingenesis.org/astronomy/cosmology/comments-on-the-cosmic-microwave-background/
The 1981 article "A recent creation explanation of the 3° K background black body radiation" by Akridge, R., T. Barnes, and H.S. Slusher in *Creation Research Society Quarterly* 18, no. 3:159–162 attempted an explanation of the CMB by claiming that it came from dust within our galaxy. In his letter, P. M. Steidl (1983. Comment on the 3° microwave background. *Creation Research Society Quarterly*19, no.4:228–230) also pointed out that this explanation had been

attempted already (by supporters of the steady state model), but that this explanation was lacking. The primary problem is that dust is very clumpy, and hence we would expect that if the CMB came from dust the CMB would be very clumpy. However, the CMB is very homogeneous (uniform in composition or character; of the same nature throughout). Also, radiation from dust has too high a temperature to be the source of the CMB.

Most of the problem simply disappears when the universe's infinity is combined with its quantum entanglement, because this solves the primary trouble of clumpiness. A universe of finite size can be pictured as filled with a limited number of microwave sources (stars, gas, dust) and would be very inhomogeneous. The infinite universe advocated here would be 100% filled with those microwave sources - it would be of the same nature throughout, and very homogeneous. At first, this appears to be too smooth, because the CMB has tiny fluctuations and is only isotropic (uniform) to roughly one part in 100,000 – a problem fixed by the quantum nature of digital string theory, with its quantum fluctuations of 1's and 0's. The vast majority of microwaves from those sources could never reach Earth or any other particular spot in the universe when the waves are travelling at the limited speed of light (which is the speed of all electromagnetic waves). This re-introduces inhomogeneity, which again vanishes upon remembering that the famous 17th-century scientist Sir Isaac Newton once said the entire universe would instantly feel the loss of the sun's gravity if our star disappeared suddenly – I think modern science doubts this but zero separation (the Unified Field* created by everything in the universe being quantum entangled) forces me to agree with him. In the same way, any microwave source in the infinite universe would instantly make its presence felt on Earth, restoring the homogeneous microwave background.

* This unified field is the gravitational field which produces everything in space-time. The unified/gravitational field could even be termed the Higgs field – because the Higgs field is supposed to be responsible for the existence of mass, and this article says gravitation produces mass. The mass of the Higgs boson (126 GeV/c^2 **) is proposed to be the product of the gravitational field. Or since the Higgs field talks of smallest possible excitations, perhaps we could reserve "Higgs field" for the binary digits that are the fundamental constituents of the entire universe (including gravity). The Higgs field is used to explain why the weak force has a much shorter range than the electromagnetic force. This article's **c^2 and the Atom** showed that gravity can account for differences between the weak force (with its massive W and Z particles only being able to transmit the force 10^-18 metre) and electromagnetic forces (whose massless photon gives it limitless range).

** Scientists use E=mc^2 to measure a particle's mass. The equation's solved for mass, giving m=E/c^2. So the Higgs boson's mass is equal to 126 GeV or giga-electron volts (its energy) divided by c^2 (the velocity of light squared). The highest speed possible is Lightspeed. Physically speaking, it cannot be multiplied. Einstein himself proved this. The equation E=mc^2 can be considered

a degenerate form of the mass-energy-momentum relation for vanishing momentum. Einstein was very well aware of this, and in later papers repetitively stressed that his mass-energy equation is strictly limited to observers co-moving with the object under study (I think he was referring to the time in the 1890s when he was imagining what it would be like to move along beside a beam of light).

The temperature problem disappears when we look ahead to **E=mc^2 – Part 3** where Einstein's equation says m=c^2 and the absence of E refers to there being no interaction of light energy and gravitational energy at light speed (E=0 and no mass). In this case, the electromagnetic energy referred to is not light but microwaves. When the microwaves and gravity meet in matter (homogeneous microwave sources, including widely scattered dust – all matter is created by gravity) distant from the matter they radiated from, they heat the sources just as microwave ovens heat food. Absorption by these homogeneous sources throughout the infinite universe lowers the temperature from "too high" to the recent measurement of 2.72548K (Fixsen, D. J. 2009."The temperature of the cosmic microwave background". *The Astrophysical Journal* 707, no. 2: 916–920).

The source of microwaves proposed in the above paragraph should be kept in mind when Universe as a Whole is Infinite and Eternal proposes that our subuniverse is expanding not from a Big Bang but from binary digits "recycling" space-time with the "new" displacing the "old", in agreement with the Law of Conservation of Mass-Energy which says neither matter nor energy can ever be created or destroyed.

On 17 March 2014, astrophysicists of the cosmic microwave background (CMB) experiment called BICEP2 (Background Imaging of Cosmic Extragalactic Polarization) announced the detection of a swirling imprint of inflationary gravitational waves in the Cosmic Microwave Background. Reporting these results in "Breaking Down a Big Bang Breakthrough" (http://astrokatie.blogspot.com.au/2014/09/breaking-down-big-bang-breakthrough.html - September 24, 2014), theoretical astrophysicist Katie Mack says –
"Two papers came out (not long after BICEP2's initial announcement of inflationary gravitational-wave imprints in the cosmic microwave background) showing that the BICEP2 signal – the one that was supposed to be a beautiful picture of gravitational waves – could have been entirely due to dust in our Galaxy mimicking the primordial signal."
Microwaves from homogeneous microwave sources, including widely scattered dust, appears consistent with her report.

When a gravitational wave becomes an electromagnetic wave, it not only has to change its strength in the way described above but it also has to change its shape. Although the rest of this paragraph speaks of the photon, it can adapt to

include the graviton if these particles are simply two variations in sequences of binary digits. It's accepted in physics that a single photon can actually interfere with itself e.g. particles can be quantum entangled by sending a single photon through a special crystal that yields two photons. Does this mean a photon is **not indivisible** (consisting of 1's and 0's) but can decouple from itself and separate into two photons, or decouple from itself to alter a wave's shape from quadrupole gravitational to dipole electromagnetic? The decoupling and consequent change in the wave's shape might result from the extreme forces involved in matter's density magnifying (lensing) gravitational waves that enter it.

Displacement and Conservation

Are the many, seemingly obviously separate, objects and events in our lives really unified into one thing in physics' space-time? Perhaps this is comparable to a string of binary digits (1's and 0's) ultimately causing pixels (picture elements) on a computer screen to be illuminated, unifying the separate elements on the screen because they all originate with one thing (a string of 1's and 0's). The universe would **not** be unified to near-uniform temperature and curvature by the whole cosmos having once been small enough for everything to be in contact, then undergoing extremely rapid expansion from a big bang during a period called inflation. **It would be quantum entangled (unified) by everything having the same origin of binary digits.**

Binary digits can be assembled into computer simulations. This question naturally occurs to everyone - although it's profoundly controversial and sounds like pure fantasy or science fiction, could the universe truly be the ultimate computer simulation, affecting every sense and all detectors? It's suggested the binary digits of 1 and 0 could be used not to write on paper in a linear fashion but to "write" in the 2D Mobius programs - when two Mobius loops are joined, they form the 4D warps of space-time (everything written in the Mobius programs is comparable to being on a piece of paper that's given a twist before the ends are joined). This causes curving and warping in space-time, confusion of "here" and "there" (quantum entanglement), and muddled causes and effects (retro- or backward causality).

Fred Hoyle, Hermann Bondi and Thomas Gold calculated (in the middle of the 20th century) that matter or energy has to be created at a rate equal to one hydrogen atom in each quart of space ever half-billion years to keep the universe in a "steady state" ("The Universe" by David Bergamini and Life Nature Library – 1964, p.175). In accord with the Law of Conservation of Energy and Mass, "new" space-time isn't really formed but is simply the computer simulation that becomes the universe. This conservation can also be viewed as positive space-time (that means gravity is positive too, contradicting modern theories of the entire universe's alleged beginning that say gravity is negative) being balanced by an equal quantity of negative hyperspace.