Title - Basic blueprint for making this universe

Author – Rodney Bartlett

Abstract -

Over 30 years of thinking, plus the insights and mistakes in my viXra articles, reveal the basic blueprint for making this universe. This article continues from where previous articles finished (throughout, I've provided links to prior contributions). I begin with explanation of quantum particles, forces and spin in terms of positioning of Mobius loops and the flow of the loops' binary digits accounting for the interference between gravitation and electromagnetism – together with a link supporting the idea of an electronics-based universe and addressing the topics of hidden variables, quantum fluctuation and virtual particles. The next link speaks of the inverse-square law and infinity. I give Dr. Carl Sagan credit where credit is due - and conclude that, being years ahead of his time, he saw a fundamental truth about the universe's nature which he decided to include in his book "Contact". Then time travel into the past (via matrices and the figure-8 Klein bottle), before putting it all together and indulging in some speculation about how to make this universe we're living in.

I think it's too simple to say "We don't need to make the universe … it's already here". That statement relies on time being strictly linear (like a straight line, rectilinear). We know it isn't, but is curvilinear and warped. It's better to say the universe is here now because our future civilization did the following in the past –

Content –

It has been shown how different spins can be orientations of the Mobius strip (http://viXra.org/abs/1301.0022). One strip could be called the p (positive) Mobius and another the n (negative) Mobius. Both of these would be mathematical in nature (after all, a strip is only 2-dimensional and cannot substitute for the physical world). In fractal fashion, they'd be reflected in the world we know as the p-type and n-type semiconductors resulting from the appropriate doping of silicon (adding impurities to alter electrical properties). This is what you'd expect in this electronics-based universe (see "A few paragraphs supporting the idea that this is an electronic universe" in http://vixra.org/abs/1210.0108). But as the supplementary matter shows, the strips can be joined on their edges to form a 4-dimensional Figure-8 Klein Bottle. And each Bottle is the 3 space dimensions and 1 time dimension of one of the infinite number of subuniverses making up the cosmos (and also expressing things like 5^{th}-dimensional hyperspace, cosmic wormholes and cosmic strings).

The two Möbius bands of a Klein bottle are connected by an ordinary two-sided loop which has a front and back, or upper and lower portions. What's the connecting loop made of? Our first thought may be that the connecting loop may

not be purely mathematical and that the space between the 2 Mobius loops doesn't exist in reality but is only potential. This is because of something spoken of in http://viXra.org/abs/1212.0096 -

"The inverse-square law further states that the force between two particles becomes infinite if the distance of separation between them goes to zero. Remembering that gravitation partly depends on the distance between the centres of objects, the distance of separation between objects only goes to zero when those centres occupy the same space-time coordinates (not merely when the objects' sides are touching) ... (i.e. infinity is the total elimination of distance)."

However, there's another way to give the universe an uninterrupted mathematical basis. The space between the 2 Mobius loops could indeed exist in reality and the connecting loop could be composed of "extensions" from the Mobius loops. These extensions would be the transcendental numbers whose decimals never end e.g. pi - the mathematical constant that is the ratio of a circle's circumference to its diameter and is approximately equal to 3.14159, and the mathematical constant e (approx. value=2.71828). They'd also include irrational numbers like the square root of 2 (approx. value=1.414213). Further, the circle is an extension of the Mobius since its calculations involve pi (circumference = 2[pi]r, area = [pi]r^2) as is the sphere (surface = 4[pi]r^2, volume = 4/3[pi]r^3) (in all calculations, r means radius).

Carl Sagan had a great insight when he wrote the novel "Contact" (Century Publishing, 1986). It's much more than science fiction, for it says on p.21, "In more ways than one, π was tied to infinity" – and on p.430, "Hiding in the alternating pattern of digits (of zeros and ones), deep inside the transcendental number, was a perfect circle …" It might be tempting to conclude that all my ideas are based on a work of science fiction. But give Dr. Sagan credit where credit is due - and conclude that, being years ahead of his time, he saw a fundamental truth about the universe's nature which he decided to include in Contact.

The infinitely long pi, root 2, e, etc. would manifest themselves in the physical universe as an infinite series of 4-dimensional Figure-8 Klein Bottles. As Bob Berman's article "Infinite Universe" ("Astronomy" – Nov. 2012) wrote, "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."

In determining the universe's shape, we need to compare the Figure-8 Klein Bottle with the ordinary Klein Bottle. Why do I believe the Figure-8 composes the cosmos instead of the ordinary kind?

The Figure-8 could be describing evidence of an idea suggested by mathematics' "Poincare conjecture", which has implications for the universe's shape and says you cannot transform a doughnut shape into a sphere without ripping it. This can be viewed as subuniverses shaped like Figure-8 Klein Bottles (you don't need to be a mathematician to realize they're vaguely similar to doughnuts) gaining rips called wormholes when extended into the spherical spacetime that goes on forever (forming one infinite universe). Picture spacetime existing as this doughnut which becomes an infinite sphere – these rips provide shortcuts between points in space and time. But hyperdimensionality is important for two reasons – 1) it's unnecessary for travel into the future but vital to the idea of travelling into the past.^^ There, binary digits originating in 5^{th}-dimensional hyperspace "create" space-time. 2) In 1919, German scientist Theodor Kaluza "… wrote to Einstein, proposing that Einstein's dream of finding a unified theory of gravitation and electromagnetism might be realized if he worked his equations in five-dimensional space-time" (several of my viXra submissions refer to the importance of this, in additional ways to time travel – such as in "the Pioneer anomaly", my own thoughts regarding a Theory of Everything and the relation between each of the 4 fundamental forces, intergalactic travel, the composition of matter, Relativity's deflection of starlight …) So it's accurate to picture spacetime existing on the surface of this "doughnut/infinite and eternal sphere" which has rips in it. These rips provide shortcuts between points in space and time – and belong in a 5^{th}-dimensional hyperspace. (It's tempting to say the universe is projected onto the surface by 1's and 0's in the 5^{th} dimension at the centre of the doughnut/figure-8 Klein bottle but remember this: hyperspace exists, along with space and time, in every fermion and boson - http://viXra.org/abs/1210.0108)

^^ Hidden variables called binary digits could permit time travel into the future by warping positive space-time. They'd allow time travel into the past by warping a 5D hyperspace that is translated 180 degrees to space-time, and could be labelled as negative or inverted. (THE MATRIX AND THE FIGURE-8 KLEIN BOTTLE - http://viXra.org/abs/1210.0108)

Let's put all of the above together now, and indulge in some speculation about how to make this universe we're living in.

First, I think it's too simple to say "We don't need to make the universe … it's already here". That statement relies on time being strictly linear (rectilinear). We know it isn't, but is curvilinear and warped. It's better to say the universe is here now because our future civilization did the following in the past –
we travel 13.7 billion years into the past and cause the big bang that originated our subuniverse (other subuniverses were everywhere, but their big bangs and wave-packet regeneration are another story). By the way, space-time appears to be flat on the largest scale* (enabling the universe to go on and on, and never end) but it's intimately warped at quantum scales** (enabling gravitational-electromagnetic wave packets and matter-energy to exist throughout the universe.)

* “The WMAP spacecraft can measure the basic parameters of the Big Bang theory including the geometry of the universe. If the universe were flat, the brightest microwave background fluctuations (or "spots") would be about one degree across. If the universe were open, the spots would be less than one degree across. If the universe were closed, the brightest spots would be greater than one degree across. Recent measurements (c. 2001) by a number of ground-based and balloon-based experiments, including MAT/TOCO, Boomerang, Maxima, and DASI, have shown that the brightest spots are about 1 degree across. Thus the universe was known to be flat to within about 15% accuracy prior to the WMAP results. WMAP has confirmed this result with very high accuracy and precision. We now know (as of 2013) that the universe is flat with only a 0.4% margin of error. This suggests that the Universe is infinite in extent” (http://map.gsfc.nasa.gov/universe/uni_shape.html)

** See http://viXra.org/abs/1301.0022 and http://viXra.org/abs/1212.0096

Second, we write down everything our species has learned (an “Encyclopedia Universalis”). Instead of using ink, we use the binary digits of 1 and 0. And we do not write on paper in a linear fashion (one line after the other … left to right, top of page to bottom). We “write” in the warps of space-time and hyperspace, and do so in Mobius fashion (everything is written so that it’s 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, confusing concepts of “here” and “there” (quantum entanglement), and muddled causes and effects (retro- or backward causality). Because of this entanglement of all time and space; if the writing is done in the year 3,000 it would still include the knowledge of the year 3,000,000 or 3,000,000,000 and so on.

Continuing #2, we‘d write everything positive (e.g. the charge of the proton) in a program we could call the p-Mobius. Everything negative (like the charge of the electron) would be written in a complementary program that might be called the n-Mobius. The positive and negative would then be integrated by the connecting loop (made of transcendental and irrational numbers). These numbers would, by their never-ending nature, extend an individual Figure-8 Klein Bottle so that an infinite number of bottles compose the never-ending universe. Chemistry and E=mc^2 might help us understand how mathematics is transformed into the physical world and universe. Two gases (hydrogen and oxygen) can combine to form liquid water or solid ice; and Einstein taught us that energy can transform into matter (I imagine immaterial maths can become matter, too).

Anyway, what is matter? E=mc^2 (Albert Einstein‘s formula unifying energy [E] with mass [m] and relating both to the velocity of light squared [c^2]) makes a person suspect the apparently solid world of matter is really an illusion, and you

and I are actually made of insubstantial energy. Superstring theory, which rose to the forefront of physics during the 1980s, proposed that the fundamental constituents of nature are not particles but one-dimensional structures called strings. This heightens previous suspicions, and we wonder if the one-dimensional structures are in fact pulses of energy. Then along comes “TIME Australia” magazine‘s Feb. 26, 1996 article “What‘s Hiding in the Quarks?” (it says subatomic particles seem to be made of even tinier things). Finally, we might feel justified in assuming our suspicions were correct and that these “even tinier things” MUST be pulses of electromagnetic energy (meaning all substances are indeed insubstantial, though not necessarily energy as we normally understand it – they could be made of insubstantial mathematics).
