A scientific view of spacetime; a new notion of time

Imagine we are blind and have a mysterious present in front of us: a mysterious black box. We tap on the box, we feel it with our hands, if we have some sonar/x-ray equipment – we might try to scan the interior but we'd need a sighted assistant to tell us about the results,.. Okay, you get the picture. This is essentially our situation within our universe: we are trying to determine the properties of our universe from *within the black-box*. It's an enormous challenge, obviously!

Just as the father of relativity made some mistakes in his latter life, I've floundered a bit for various reasons: lack of appropriate mentoring, lack of suitable cooperation, and lack of supporting resources. The blindness and intransigence of convention can only be blamed.. And so I have no great love of conventional physicists.. The *best* reception I have encountered among them over *thirty years* is indifference. Frankly, it's sinful and I guarantee the physics community will pay its karmic debt.

I don't compare myself with Albert's brilliance – only his spiritual affinity. I'm convinced our universe was engineered for life not on the basis of faith but on the basis of *evidence and statistical likelihood*. That argument is posited elsewhere.. This article is specifically about: *what is the nature of spacetime*?

In science, we strive to *accurately* describe reality quantitatively, precisely, and in the *simplest terms*. This is the essence of science. Sometimes, reality defies us with *complexity* and we must redefine our terms appropriately, unfortunate or challenging – depending on your point-of-view. As computer scientists and mathematicians know, complexity can be defined in various ways.. I've attempted to define complexity from a systems POV again with little recognition or appreciation. Isn't the resentment palpable today? ;) ^^ :)

Back to a scientific view of spacetime.. Lense-Thirring and Gravity Probe B have indicated space can twist directionally so space must have elastic qualities. I label that Y-naught for consistency with Z-naught, the impedance of space. Here's where physicists roll their eyes and stop listening/reading. This is also where their karmic debt starts loading their souls.. Politics finally aside, I can pursue the 'varmit' with vigor (Yosemite Sam reference for those unfamiliar). So, space and time must be elastic, both. Time because of SR effects and how 'gravity affects clocks' (in the past, I have argued gravitation is rooted in temporal distortions, in fact, masses may be exactly that: temporal distortions). My desire to swing Z-naught over to the temporal domain might have been premature and wishful thinking; it's entirely possible space may be elastic and impeding while time may *only* be elastic. Forcing Z-naught to be associated with time may be inaccurate.

Please examine this article. Mr. Ulianov stimulated this new vigorous attack on the question. I skimmed the article then attempted to sun-bathe a bit at the community pool. The more I thought about the article and its implications, the more I had to 'revise' my view of spacetime.. So you now read these words of inspiration 'just off the press' (just after the inspiration occurred). Here's my best current understanding of spactime in a nutshell. Space and time should ***not*** be lumped together in this notion of spacetime. Evidently, they each have *different* attributes.. Space is linear, has orthogonal components, is elastic, has impedance (due to the nature of photon propagation), and *must* reside in a special four-dimensional manifold that allows space to curve *into* the fourth spatial dimension explicitly not forgetting impedance. Space is essentially an elastic hyper-surface with impedance. We know it's globally flat so that suggests we reside inside a compact (a math term) hyper-torus. It's the simplest finite shape with zero curvature. Now time, as the inspiration suggested, is *totally* different.

What is common between *this* point of time .. and *this* one? Now. The recurring *now*. *The indefinitely*

recurring now. Can you see the inspiration *now*? (No pun intended.) Time is *not* linear, multidimensional, nor does it have impedance. Time is *cyclical* .. More like an angle repeating over and over and over again.. Time must be elastic so that loop we envision to be 'time' must get larger due to local energy density (which is equivalent to mass density). This is the beauty of Prime Goddess' inspirations .. The *only* two connections between space and time become: elasticity and the fact time is required for events to occur / event separation. If indeed mass is isolated temporal curvature, then that is another connection between mass-events in space and .. time. But firmly, we need to *absolutely stop* using space and time in the same word.

The *only* way we should use them together is *explicitly* acknowledging their shared attribute: *elastic* spacetime. So, to be complete, our universe looks (mathematically) something like this:
$\{(x, y, z, w), Z_0, Y_0, \theta, U\}$ where
(x, y, z) are all points in our universe and w is the required 4th dimension
Z-naught is the impedance of space
Y-naught is the elasticity of spacetime
theta is the explicitly cyclic locally varying time variable
and U represents the 'universal equation' relating impedance and elasticity detailed elsewhere

Of course, this representation does not include all particles and evolutionary trajectories of each. It expressly defines the 'bare bones' *absolute minimum structure required* for our universe (and neglects topology). I'm *happy* with it because She inspired it, Mr. Ulianov suggested it, and I merely 'put the pieces together'. :) To steal a line from Broken Arrow: “Ain't it cool!”

Salvatore Gerard Micheal, also known affectionately as sam iam, has been writing for NowPublic and Examiner on various topics for about three years now. It's the author's feeling this article and the ideas contained therein equate with the level of discovery or “aha!” comparable to Newton and 'his gravity', Einstein and his SR/GR, and therefore deserves some special attention such as publication in Nature.

May the Prime Goddess bless you for reading/listening, digesting, and appreciating these words.

sam iam, 2012/JAN/27