Magnetism and Gravity

By: Clark M. Thomas

© June 21, 2023

Abstract

The magnetism aspect of electromagnetism (EM) seems mathematically more related to gravity (through inverse square relationships) than to classical bipolar electrical fields. An electrical force field drops off quickly at linear distances; whereas both push/shadow gravity and magnetic force fields operate even within cosmological dimensions. All EM "forces" are simultaneously present within each yin/yang sphere as primary EM, based on the emerging 21st-century physics and astrophysics paradigm.

Physics for much of the last century has tried to reconcile or resolve two competing models of motion, with the smallest dimensions commonly being described as quantum, and larger ones more measurable as classical. To a semi-satisfactory degree dimensional divisions can be sustained with reverse mathematical modeling.

From all possible frames of reference there has emerged more unity than disunity among expressions of matter and energy. We should expect nothing less to be experimentally revealed within our powers on the path to a universal theory of everything (TOE) which embraces all linear dimensions within the 4D multiverse. In this essay we focus on magnetism as part of the energy mix within the basic units (yin/yang spheres), and how magnetism is highly relevant from very small to very large linear dimensions.

The Foundation of Physics and Astrophysics

Before I reference herein new magnetic field data, I will recap the very foundation of all physics, from macro down to sub-nano. Start with what is smaller than the entry point of the quantum based Planck logarithmic dimension, at or below 10^-35 meters. We top out at what could be the logarithmic dimensional size of our finite "bubbles" multiverse, which may be about 10^28 linear meters. Note that an infinitely large 4D multiverse cannot easily be modeled (or philosophically explained) with our experimental feedback, so we stop this model now at 28 logarithmic linear dimensions until we comprehend otherwise.

Our human everyday dimension on the linear scale is arbitrarily set at the zero or first dimension. The full dimensional size range of all actual physics is possibly some 64 logarithmic dimensions. That's very hard to wrap our brains around, because the math difference between individual atoms and adult humans is about 15 dimensions; and the size difference down to individual yin/ yang EM particles is another 23 logarithmic dimensions. That's 38 heading up to the total of about 64 from physical end to end.

Interestingly, the "dimensional distance" from humans to the outer multiverse is not too different from individual yin/yang Coulombic spheres to individual atoms and molecules. This tiny realm allows for the very smallest to dialectically comprise the largest – and for the largest to be composed of the grand synergy of all smallest fundamental units. This full dialectical paradigm is breathtakingly beautiful from any frame of reference.

Comparing the size difference between individual humans and our partially visible *local* universe is about 26 linear dimensions. In total, from any frame of reference that's a lot of dialectical dimensional data to condense into a tidy TOE. To better understand, it is best to begin all comparisons with individual yin/yang, matter/energy spheres. Their smallness is physical, not just mathematical. Pure dimensional mathematics can go infinitely toward zero, which produces a Zeno absurdity. Particle EM strands grow by stringing together primary spheres as described below. There is no fixed limit to the length of magnetic field strands. Photon waves of different sizes and frequencies are constituted by the length and spin of earlier beaded strings that were ejected from their vibrating bases.

We do NOT need purely mathematical 1D or 2D strings that don't exist in reality, because without a third dimension no actual 1D or 2D strings exist, only Platonic idealistic math as described in his *Republic*. Everything real is at least 3D, and really 4D when vectors in our vibrant universe are considered. Even Euclid would support this updated view of 3D reality outside idealized, reverseengineered mathematics.

All that is classically large and measurable is made from the smallest, partially measurable, quantum-like base. The smallest dimensions appear to be elusive, as early quantum mechanical theorists discovered when they could measure dynamics either by position or velocity, but not both simultaneously. Experimentally elusive smallest 4D units are nevertheless dialectically integral to the largest units, and they are unified. Strings are strung by adhering strongly Coulombic virtual spheres, not fuzzy fields. Both dimensional extremes together constitute one multiversal fabric of everything, wherein all matter and energy equate.

For example, the idea of random *quantum foam* filling what would otherwise be "empty space" is valuable, but not very much when correctly described. As often noted, nature "abhors" a vacuum. How then does science envision spinning electron quanta, and even the likes of qubits in computers? How could fundamental nature be both negentropically organized and simultaneously entropically chaotic? The prevailing quantum field paradigm envisions numerically vast regions of random quanta blinking in and out of existence, and bouncing around in what seems like empty space. This invisible "foam" also penetrates and populates much baryonic space that we imagine is occupied by classical units such as atoms, molecules, and their constituents such as quarks.

As the flawed foam model includes interpenetrating streams of vectorized energy/matter units, we have the makings of a push/ shadow gravity model of multiversal origin. No college physics class rubber sheets are also required, and no goofy reverse-engineered math is needed to causally explain what is only correlated to a high degree (as with GPS) by GR after many tweaks are made to particular brane models.

The Emergence of Magnetism

This essay's emphasis is on magnetism and gravity. It could also be framed in different ways. Modern astrophysics remains somewhat within the pre-Galilean attitude. By way of analogy, those who have directly seen the stars through a telescopic eyepiece know that you can be looking at an object out of focus and hardly see it. Properly twist the focusing mechanism on the eyepiece, and the same fuzzy star becomes brilliantly sharp.

This eyepiece analogy shows how both elegant and archaic models are focusing on the same fundamental reality. However, the extended family of experimental physicists is not comfortable with ideas of psychedelic, 500-dimensional, string math universes – nor with those who mathematically hypothesize that all reality is timeless and two-dimensional, as with holograms.

Just because you can pick your sky poison to arrive at an eyepopping model within a purely mathematical universe, does not conclusively mean you have correlated with anything like the real causative answer. Even though it is impossible for scientific finitude to establish probabilities within the potential infinitudes of space and time (not spacetime), it may still be reasonable to develop a workable as-if understanding appropriate to our home dimension. The prematurely "perfect" can become an enemy of the hypothetically good that could be reached by additional thought.

Our experimental tools are limited by our narrow being within the much greater spectrum of electromagnetism – which is always with us, but rarely seen or understood. We are creatures of the Sun's yellow spectrum, and thereby do best using photon waves within our solar system's visible range of wavelengths. We have some powers to go partially into the infrared frequencies, as revealed by the James Webb Telescope's views of near and intermediate IR objects. We also can detect in the opposite direction frequencies higher than ultraviolet, up to gamma rays.

Even those higher frequencies are nowhere near the very high frequencies of short EM photonic strings. Short strings of yin/ yang spinning photons are what populate most of the multiverse, including dark matter. All kinetic photons are released by the same centrifugal mechanism from their vibrating bases at "c".

Very short EM strings can easily penetrate baryonic matter in ways similar to how solar neutrinos penetrate the Earth itself. Neutrino particle waves have a vibrational diameter about 10⁻²⁴ meters, which is still very large compared to the shortest strings about ten linear *dimensions* smaller. All multiversal photonic string vectors constitute much of push/shadow gravity, along with omnidirectional equal streams of unattached yin/yang spheres.

The brilliant maths of James Clerk Maxwell and Einstein are thus only correlatively able to help guide us within the landscape of our everyday world. Dipolar electrical and dipolar magnetic spinning flows all emerge centrifugally from vibrating adhesions of Coulombic yin/yang spheres I like to call the real gravitons. Without virtual EM boundaries (similar to black hole event horizons), the energy/matter contained in each sphere would dissipate rapidly – as would our visible universe racing toward chaotic entropic equilibrium. Analogously, envision how our bodies would swiftly dissipate if our cells did not have cell walls.

Here is a critical perspective for understanding how *real gravity is not a type of spacetime brane*. Real "net force" is the result of EM interactions among flows of vastly numerous, omnidirectional, seemingly quantum units, as mediated by massive shadows. Even though unit magnetism is always dipolar outside yin/yang spheres, gravity is not a tractor beam following brane curves. We can still operate within today's simple GR math as if gravity were an attractive flow, even though it is very different.

It is experimentally OK for quantum theorists to work within a version of reality seen at very small dimensions: supersymmetry, entanglement, tunneling, superconducting near absolute zero, and other effects when acting at subatomic dimensions we can approach. The development of qubit computing, for example, validates the fundamental base of much of what we cannot see directly with our limited dimensional tools.



Magnetic Cosmological Flows and Gravity

Recently a new radio telescope in South Africa has revealed a thousand unusual magnetic filament structures within our Milky Way's inner region. These dynamic strands are more properly seen as EM string features on a huge scale, not as stringy objects slipping along GR brane curves. In the amazing image above supernova remnants and other structure are also visible.

These magnetic filaments are not a picture of omnipresent brane-directed, tractor attraction. They suggest exponential yin/yang mysteries that astrophysics is only now able to detect, and which best correlate with *the new granular net gravity paradigm*. There appears to be no explanation for these highly charged filaments within the General Relativity fields model.

A leading researcher of these phenomena is Northwestern University's Farhad Yusef-Zadeh. He puzzles over how filament electrons are accelerated to near light speed, and thus generate magnetic fields: "How do you accelerate electrons at close to the speed of light?" he asked: "One idea is there are some sources at the end of these filaments that are accelerating these particles."

You now know the answer to his question in the process of adhering photons of all lengths (strands of y/y spheres) WITH the direct linear transmission of magnetic energy at near luminal speeds along the particle strings, because such transfers of primary EM signals do not have to wait for the process of creating photons of any length.

A second interesting experimental discovery involves magnetic filaments outside our Milky Way. Due to their distance from such energy sources as our own supermassive black hole, questions arise around how their individual and collective linear shapes nevertheless perpetuate over millions of light years.

The following portrayal of strands of magnetized atomic electrons shows that their shape and actions have nothing to do with weird physics-class, rubber brane sheets. Real energy-



transferring strands do fit into models where wave fields are composed of spinning particles, and particles are influenced by their cosmological environments.

Which model allows us to hypothesize how such filament structures of great length both form and then survive without some sort of focusing mechanism? Here again, it is best to start with the negentropic virtues of adhering yin/yang spheres. Without the great Coulombic forces inside tiny yin/yang spheres, energy could not linearly focus and propagate as measured.

There is plenty of opportunity in "empty space" for all sorts of organized EM forces to interpenetrate within vast cosmological dimensions, both inside our visible universe and among adjacent bubble universes comprising the full multiverse.

Physicists speculating on the origins of such EM strands have come up with some interesting hypotheses. Several of their ideas involve *primordial genesis* within and just after the local big bang. Their dated vision of local-universal alpha reality does not include 4D communities of neighboring negentropic universes, which is a major lost opportunity to make additional fruitful hypotheses. The idea of primordial magnetism should, in addition to their suggested local universe models, include the idea of *multiversal primordial magnetism*. Antique models still have room for more quantum foam paradigms within the multiverse.

Randomly vectorized individual yin/yang particles, and small combinations of them as gravitons, are central to the idea of ubiquitous multiversal push/shadow gravity, mostly in "dark" y/y forms. Here are expressed both the particulate and wave natures of gravity and magnetism. In effect, both aspects reside within single yin/yang spheres – and all EM forces we can measure and model are expressions of multiversal negentropy.

In Conclusion

"The cosmos is full beyond measure of elegant truths; of exquisite interrelationships; of the awesome machinery of nature. The surface of the Earth is the shore of the cosmic ocean. On this shore we've learned most of what we know. Recently we've waded a little way out, maybe ankle deep, and the water seems inviting. Some part of our being knows this is where we came from. We long to return. And we can. Because the cosmos is also within us. We're made of star-stuff. We are a way for the cosmos to know itself." — Carl Sagan

Speaking as a "species chauvinist," and an advanced amateur astronomer with more than a half-century of carefully observing while contemplating the heavens, I am very happy with what we humans have partially and potentially evolved into.

Nevertheless, even though *persisting advanced sentience* is likely rare in this region of the Milky Way, I question whether panspermia supports many more agile species like our own; and almost none will last, or have lasted, for millions of years. This means that the best of human science and philosophy is called by Excellence to develop superior hypotheses for how things REALLY work, sooner rather than later, to maximize the survival chances for our species even past the next two centuries.

We naked killer apes are genetically just stone-age creatures rushed into a space age we have created more by chance than design. It's never too late to seriously put to work with dialectical wisdom more of the 100 trillion synaptic links inside each of our brains. The most elegant quantum computers already exist inside our heads.

