

Potential and Kinetic Energies

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Abstract

Potential energy and kinetic energy are related, yet very distinct. From the widest-angle perspectives they are equals. Last century Richard Feynman shocked the world by talking about the great energy everywhere in a seeming vacuum. He was partially correct within his quantum mechanics perspective. This century brings a better model for the potential and kinetic energies within individual y/y spheres, and along beaded-string frequency waves.

Every journey of “some thing” has a beginning and an end. The simple idea of journeys applies first to universal inorganic matter/energy units of all sizes, and then to organic life forms within biomes. Both physics and biophysics realms interface with each other inside any elegant 4D physics theory of everything. The time may soon come when natural philosophy will find it hard to fully discriminate between these two blended physics realms.

Experimental physics, and most theoretical physics too, confine themselves to the few linear dimensions above and below our human dimension that we could manipulate or envision. Human perception includes only a small sliver of the total 4D linear dimensional multiverse — which starts about at about the 10 to the *minus* 38 meters linear dimension, and extends outward to the external regions of the 4D multiverse of local “bubbles.” (We arbitrarily assign the +/- labels from our human dimension.)

Pure string math can imagine down to the infinitely small dimension, which is zero. It can imagine anything anywhere,

even 10^{500} hologram universes.[1] However, real physics math can only envision down to the smallest 4D phenomena. There is only one physics entity common to the core of all four dimensions: Coulombic yin/yang EM spheres at about 10^{-38}m .

Some speculate that the unmoved mover, “the god above it all” (including above 4D physics), is the only common entity. Any transcendent god essence beyond linear dimensions must nevertheless manipulate all things through some thing or force which is not chaotic, which would still be the ubiquitous y/y EM spheres. Permanent, thermal entropic chaos that is not available for negentropic work cannot become orderly.

A brick house is composed of many individual bricks. Single bricks are not composed of houses. Going from a brick to a house is a simple dialectical change. On a greater scale, new dialectical entities are still composed of vast numbers of identical “brick” y/y spheres with spherical force fields. Even plasmas, the fourth state of matter, are composed of wavy EM units.

Tiny Coulombic spheres show aspects of Quantum Mechanics, but are not actually blinking in and out of existence. Not knowing a particle’s velocity and place at the same time is a *measurement problem* for us within our relative human dimension; not an aspect of random physics within their incredibly smaller individual dimension. We can instead model waving, weaving beaded chains of y/y spheres that can separate crossing barriers, and magnetically rejoin, after as before.

Energy/matter is conserved overall, according to the *Law of Conservation of Energy and Matter*. In its most basic form it is Einstein’s $E=mc^2$. Simply, *without mass (m) there is no energy (E), and nothing to accelerate*. It applies by diffusion to every measurable volume within the 4D multiverse of local universes, not being restricted to any one local universe. However, mere totals of expressions of energy and matter are not critical. This “law” is all about the nature of energies and matters within volumes inside the grand total.

A most interesting aspect of this physics is how energy and matter coexist and persist. Random “vacuum energy” has no particular vector or momentum. Without a level of organization the *Second Law of Thermodynamics* [2] would eventually prevail. Any pure 2D math multiverse, without matter to host the various forms of energy, must yield an absurd totality without any 4D subordinate local universes.

I wrote a thesis on the critical power of matter and magnetism as part of any physics discussion of the apparent *outer boundaries* of the real 4D physics multiverse.[3]

Cosmologists have tried to envision coherence by coming up with the idea of a quantum, sub-Planck scale with matter/energy blinking in and out of existence. The most extreme version of that model was poetically expressed by the great *Richard Feynman*, who rhapsodized over how ubiquitous and powerful are the quantum energy frequency fields within what we like to think of as empty space.[4]

Universal space indeed is not really empty, as in an absolutely pure void. We cannot experimentally measure down to a Plank-dimension level of small. Extremely tiny matter/energy neutral units such as solar neutrinos, at the limits of our measuring powers, can zip through dense baryonic matter with ease. *Single neutrino composites are nevertheless fourteen linear dimensions larger than single γ/γ spheres.*

There is a dipolar, electro-magnetic explanation for the outer dimensions of the massive 4D multiverse. There is a not-quantum repository of matter/energy within linear dimensions smaller than 10^{-35} meters. The repository is 4D *spinning* yin/yang Coulombic spheres, both singular and in *weaving* beaded-string combinations, at the so-called quantum level, and at larger classical architectural levels.

Armed with the emerging proper theory, we can even explain why some black holes could explode into new big-bang local universes, but nearly all other black holes could not, as I have explained.[5]

Far short of any conceivable big bang are the relatively puny fission atomic and fusion hydrogen bombs. Neither type releases energy levels that could cascade into a new, but very rare, big bang.[6]

Real new big bangs would involve extreme net push/shadow gravity, and/or extreme EM pressure inward to the central black hole core, thereby overcoming the great Coulombic push-back force of individual y/y sphere boundaries.

Fortunately, we are most likely existentially safe on this planet from any type of black-hole explosions — but not yet safe from all the other ways we are insanely devising to obliterate humankind.

References

- [1] <https://astronomy-links.net/Hawking.legacy.pdf>
- [2] https://en.wikipedia.org/wiki/Second_law_of_thermodynamics
- [3] <https://astronomy-links.net/beyond.the.multiverse.pdf>
- [4] <https://revolutionized.com/what-is-vacuum-energy-really/>
- [5] <https://astronomy-links.net/BB.BHs.pdf>
- [6] <https://www.militarymodelling.com/blog/what's-the-difference-between-atom-bomb-and-hydrogen-bomb/>