

Cosmic Rearrangement Hypothesis

Two Way Entropy, Galactic Circuits, PEMBranes, Marklund-Lerner Events, Pinches of Bostickian Super Plasmoids, Energy-Velocity Index, and Charge Gradient Theory

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ABSTRACT

In this paper the author proposes an official launch into the inquiry of a novel hypothesis about the cosmic order, and nuclear arrangement and rearrangement, acting as an improved model of fusion and transmutation. This hypothesis extends to the cosmic scales, connected via PEM theory, chiefly issues of scale, zoom, fractal (or recursive) nature of the cosmos and Nature.

Key Words: cosmology - nucleus - atom - rearrangement - counter space - entropy - thermodynamics

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Introduction

In the megascopic work, “Magnetic Universe Theory,”¹ and again in “Plasma-Electromagnetic Sky,”² the author made first inferences to the idea of a Two Way Entropy (TWE) or Dual Direction Entropy (DDE). The difference between the two would be subtle, only in that in one perhaps the entropy is exchanged, perhaps in a perfect balance, and in the other they both increase even more, until a reckoning of order and energy is made. But for all intents and purposes, they are roughly equivalent, and TWE will be the main discussion.

The TWE is characterized by the following monograph:

ORDER ----->Increasing Entropy----->Dissipation 100%
 100% Entropy<-----Increasing Order (for us)<-----Absorption

The implication, therefore, is that as our light, sound, heat, and overall energy is lost through chemico-physico events and interactions. it is absorbed by the Spongy Counterspace (SCS)³ which would, as of yet unknown to us, utilize it as Order, becoming more entropic relative to itself as it dissipates into the Aether, and through the “quantum foam” back to us.

¹

https://www.academia.edu/37439506/Magnetic_Universe_Theory_A_Top_Down_Review_of_Phases_of_Magnetic_Theory_Development_with_accompanying_historiography_and_comparison_with_Unified_Aether_Field_Theories_including_EPEMC

²

https://www.academia.edu/36753643/Our_Plasma_Electromagnetic_Sky_Application_of_Hollow_Expanding_Growing_Electromagnetic_Earth_Hypothesis_with_particular_respect_to_the_Earths_Atmosphere_starting_from_the_Lithosphere_and_ascending_Altitude

³ https://www.academia.edu/50912946/FAQ_EPEMC_MIMS

Reason & Evidence

As we do not have a mechanism for this absorption, only for the dissipation, nor an anatomy as of yet proven for the now-known-to-exist Aether, we have only lines of speculation. What reasons and what evidence exists?

The source of energy

Stars cannot be balls of gas, performing work on themselves. First, gas has no reason to accumulate sans charge. In space it dissipates. Second, it cannot compress and perform work on itself, creating energy from nothing. The fact is that energy must be conserved, it cannot be invented. So where is it coming from?

The Planetary Electric Circuit is coming from the Solar Electric Circuit. The Solar from the Galactic. The Galactic from the Supragalactic, and beyond that the entire Universal Electric Circuit. The rearranging of charge, matter (energy-mass), and all fields, means that the circuit keeps inducting and alternating current, with capacitance existing between all planes and shells of plasma, matter, and current sheets, etc. But, where does it get energy from? It needs a source. And assigning an arbitrary Big Bang does nothing to solve the issue except foist it upon God, and without a MIMS⁴ definition for God⁵, what does the Standard Model do? Nothing. They propose it arose out of “the singularity” - whatever that is - and that it just dissipates arbitrarily over trillions of years till all things are cool, dead, and dark.⁶ Then nothingness.⁷ Absolutely arbitrary compared to the concept of infinity and eternity. This cannot be right.⁸

Therefore the author thought that a still more valuable system would be if the “in between” spaces could absorb the lost energy, reconstitute it in a way that “bubbles up” from below, and provides energy for the galaxies directly at the Bostickian Super Plasmoids, commonly misnomered as “black holes”.

Classical Black Holes Do Not Exist

While a donut has a hole, and a center, it does not have an object to define that hole or center⁹. The mathematical basis for black hole theory (1967) is preceded by the de facto **experimental plasma lab work** of Bostick (1957). Moreover, there is ample evidence for magnetic pinching at the active galactic nuclei (AGN), such as our SGR A*. What we see from the suspicious image of M87¹⁰ is:

- Asymmetry
- Rotation

4

https://www.academia.edu/50300514/On_the_Membranous_Interface_of_the_Material_and_the_Spiritual_from_an_EPEMC_perspective_and_Dual_Double_Layer_Economics_a_proposed_test_of_EPEMCs_metallic_properties_tensile_strength_malleability_durability

5

http://www.academia.edu/53271235/Explication_of_the_Versatility_of_the_Big_G_diagram_in_MIMS_1_0

⁶ <https://astronomy.com/news/2020/09/the-big-freeze-how-the-universe-will-die>

⁷ <https://www.science.org/content/article/way-universe-ends-not-whimper-bang> Yes, it is that pathetic.

⁸ https://www.academia.edu/44857386/Opinion_Big_Bang_Not_a_Cosmology

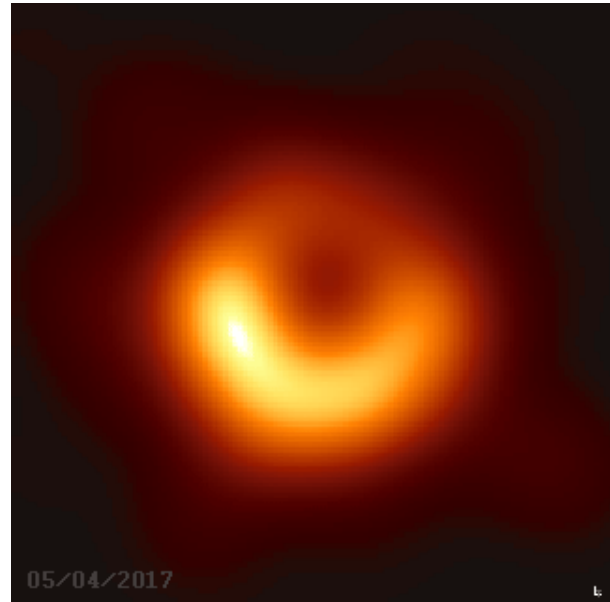
⁹ It does have a center of mass, regardless.

¹⁰ Figure 1 (next page): M87 ([gif](#)): credit: NASA

- Non-centrality
- Brightness differential
- Volume differential
- Torsion
- Thickness

We do not see an object that “Sucks everything in”... in fact SGR A* didn’t absorb anything when a gas cloud went around it¹¹... instead we see ejection of:

- Gases¹²
- Radio waves¹³
- X-rays¹⁴
- Plasma¹⁵
- Magnetic flux¹⁶
- Electric current¹⁷



The measure of these has been extensive, and the results are decisive: classical black hole theory is dead.¹⁸ The use of the term black holes is nominal, and frankly insulting to the memory of Bostick¹⁹. Regardless, it is understood now that the GEC is powered not from a crushing force inward, but a pinch which results in ultra-powerful Marklund-Lerner events, self-similar in stars and in galaxies alike. The explosions are not of gas, but of exponentially more powerful currents at each scale, matched by increasing velocities at each scale. This could be read as increasing energy means higher velocity, or decreasing scale means decreased energy and velocity, or it is a self-similar (and emergent) process of the circuit. But the energy arises from below where a PEMbrane is pinched, and then The Force and Aether releases new matter up from this center. It moves out through bending arms, behaving as plasmoids do, and then the energy cocoons, and retains itself as best it can. Over time it curls then uncurls, as per E. Lerner’s model^{20, 21} But it circulates as Alfven generally speculated²². The

¹¹ They expected it to “feed” and nothing of the sort happened

<https://phys.org/news/2020-08-black-hole-job.html>

¹²

<https://www.newsweek.com/supermassive-black-hole-galaxy-milky-way-leak-astronomers-sagittarius-1658678>

¹³ https://lweb.cfa.harvard.edu/~jzhao/pubs/aj_127_3399.pdf

¹⁴ <https://www.arxiv-vanity.com/papers/astro-ph/0102186/>

¹⁵ https://science.nrao.edu/science/meetings/IAU303-GC2013/talks/IAU303-Dibi_S.pdf

¹⁶ <https://dspace.mit.edu/openaccess-disseminate/1721.1/110005>

¹⁷ <https://academic.oup.com/mnras/article/511/3/3536/6524910>

¹⁸

https://www.academia.edu/37558537/The_Predictable_Rise_of_Charged_Dark_Matter_How_Covert_Matter_Hot_Grains_Plasma_in_Dark_Mode_is_pushing_the_failures_of_CDM_and_MOND_into_the_Plasma_Electromagnetic_Cosmological_Paradigm

¹⁹ <https://sites.google.com/view/epemcgateway/pemc/pu-research/bostick>

²⁰ <https://www.youtube.com/watch?v=nfJrdP8nBiE>

²¹ <https://www.youtube.com/watch?v=pmU1lIFlqg8>

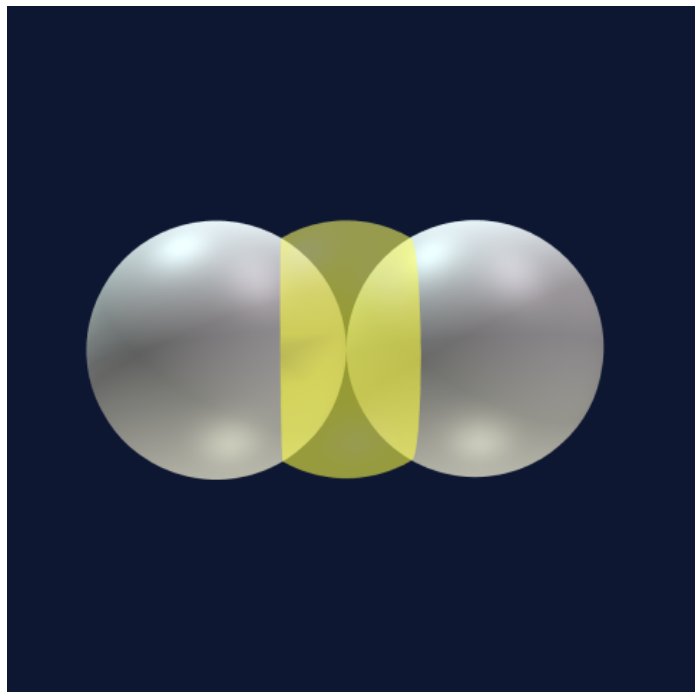
²² <https://sites.google.com/view/epemcgateway/pemc/pu-research/h-alfven>

result is that the system retains tension while dissipating current. As it dissipates it will induce changes in magnetic field structures. By doing this it will magnetically induce electrical motion as well, and the electric forces which push the magnetic fields will then result in electric current flow. When this completes the EM will do it over, and over again. Fusion is a byproduct of these grand pressures, but also mostly internal nuclear rearrangement.

Nuclear Rearrangement

It is a hallmark of this theory that it is SAM2 compliant²³, in that the Structured Atomic Model enables a better gravity model, a better chemistry model, and after all, a better relationship of light with ME (mass-energy); matter on the whole is solved, as a mystery. The key is that this model allows for “tumbling” of the platonic structures. As enough charge-energy is provided to the nuclear structures, the electron-positron pairs are broken and rearranged, and it does not require high energies (hence can be relied upon for biological transmutation, or plasma fusers, etc). The key issue is scale.

Figure 2: a “neutron” in SAM model;
credit: structuredatom.org



Galactic Charge

One of the key issues, or hold ups to the advancement of the cosmic electric current theory, now so widely accepted as fact²⁴, was that assumptions were made about the permeability of free space, and about the charge neutrality of black holes, which probably shouldn't have been assumed. However, in the end, measurement won out. The currents connecting the Sun, Jupiter, Saturn, Earth, Io, Enceledus, etc. are being measured, and the implications are that they are *everywhere*.

So the question is, how can we determine the true charge, and apparent charge? The answer is, we rely first on the mass, understanding that mass is 100% measured in **electronVolts**, not kilograms.

Next we rely upon the measured currents and inferred currents we can see from magnetism, using MHD as a *decent enough approximation tool* which doesn't do plasma perfectly, but at any rate is very useful. We can do this because >>magnetism does not exist without electricity<<. That astrophysicists try to make it so, is another example of the failure of

²³ Structured Atomic Model <https://structuredatom.org/node/3070> combined with Nuclear Rearrangement hypothesis and a knowledge that light is a circuit, not a photon. <https://bit.ly/3pnBLOX>

²⁴ <https://www.wiley.com/en-us/Electric+Currents+in+Geospace+and+Beyond-p-9781119324492>

unipolar incomplete physics. We should be better than this and beyond it, as “Tao of Physics”²⁵ was written over 40 years ago now. But alas it was only in 2021 that they admitted the sun has an electric field²⁶. 50 years after Juergens²⁷ and Alfven wrote about it! Truly science advances “one death at a time.”

Charge Gradient Theory

The premise definitely holds that motion/flux and Changes (and so time itself) is affected by the attempts of the Universe/Nature to put things into equilibrium in order to alleviate gradients. Pressure, temperature gradients, primarily.

Then why hasn't the establishment accepted this about charge gradients when dealing with systems as difficult to model as weather, solar system motion, cometology²⁸, etc.? How else are you going to get clouds that weigh as much as ships²⁹ to “float” as if on glass ceilings? Or rain to appear suddenly only in one spot, etc.

The fact remains that charge is distributed, whether we consider it or not. And not a little: it's everywhere. It is basically what everything is about. The magnetism is secondary, 100%. It is circulating continuously, and magnetism is trailing, but then also affecting it by stirring the charges, stirring electric fields.

We see this from animal evolution involving magnetism AND electric fields in their anatomical adaptations, from spiders³⁰ to birds³¹ and fish³², to even humans³³!

Gradients are always adjusting, and this is due to the following:

- Curl
- Divergence
- Diamagnetism
- Dielectricity
- Conductance
- Hysteresis

But primarily it is curl. Conductance (and impedance) will slow or alter charge's progress. But it will not have as dominant an effect on charge potential, and the current that relieves this gradient, as curl or divergence.

²⁵ <https://sites.google.com/view/epemcgateway/pemc/quantum/polar-complete-physics>

²⁶ <https://now.uiowa.edu/2021/07/physicists-led-university-iowa-more-fully-describe-suns-electric-field>

²⁷ <https://sites.google.com/view/epemcgateway/pemc/eu-general/giants-of-eu-history/r-jeurgens>

²⁸ https://www.youtube.com/watch?v=_0GRQGJSYg

²⁹ <https://www.usgs.gov/special-topics/water-science-school/science/how-much-does-cloud-weigh>

³⁰ <https://www.theatlantic.com/science/archive/2018/07/the-electric-flight-of-spiders/564437/>

³¹ www.forbes.com/sites/trevornace/2018/04/04/we-finally-know-how-birds-can-see-earths-magnetic-field/

³² <https://www.sciencedirect.com/topics/biochemistry-genetics-and-molecular-biology/electric-fish>

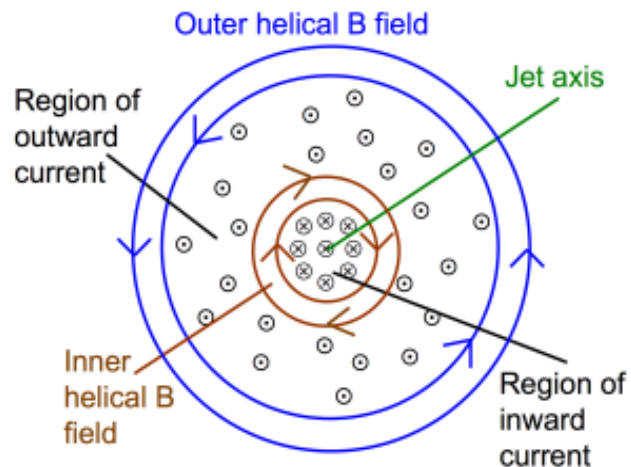
³³ <https://pubmed.ncbi.nlm.nih.gov/15311833/>

Power, Differential-Potential, and Force

There is a definition of power as work over time. There is an electrical definition as well of voltage times current. This means that all differential gradients, especially potential, are going to not only create fields, but have potential energy and power. Why is this? There really isn't a philosophical emphasis in physics on this concept. But what is being advertised, of course, is that in effect all power comes from gradients, and that all force fields are actually demonstrations of *desired flux and motion*, in attempts to create stability and homeostasis, mediated primarily by charge attraction.

Force, therefore, is not an arbitrary result of "pushing." It is a precise result of miniature field interactions of the Force from the weak to macro level. These are nothing more, or less, than translations of communication and energy from atoms to atoms via electrons. Not photons, although quantized amounts of electrical energy will be exchanged. As shown elsewhere, **photons are not real particles**. Their existence is "virtual" for a reason: it's a shorthand model for the real circuit behavior.

Figure 4 - Coaxial AGN Jets; credit: Gabuzda et al.³⁴



Implications of Cosmic Rearrangement

First, let us understand the idea. This means the material is moving along currents, and according to force fields, and the gravity is a remnant of charge-distribution exchanges. On the quantum scale, particulate energetic charges are introduced via the Aether from the Void/Counterspace. The result is that above there is a *downward type force*, and from below an *upward type force*. The result is that all things try to conform to these fields and align up to these principles, and in this case, have no choice but to be a part of the situation, of the rearrangement. Why? They are, also, electromagnetic, even if there is a differentiation even unto solidification. In fact the solids are, primarily, crystalline or metallic, and the bonds are sharing electrons. All chemical bonding is electromagnetic. So the main result of the situation: all things conform to the Force. Therefore the word force is apt, and it is not an accident that the word Li (力) in Chinese means strength, and is the arm motif.³⁵

³⁴ <https://arxiv.org/pdf/1712.08414.pdf>

³⁵ Interestingly enough the arm motif often contains two mountains, meaning Jupiter and Saturn. Therefore there was probably a time when mankind passed between the plasma connection of the two,

When it comes to the motion of electrical power, that means that the real power is in large flux, large potential, and high conductance. But conductance wants to relieve potential! For example, why are tornadoes usually so small versus the size of the Supercell? Figure 5:



The three arrows clearly show charge shells, and a capacitance gap (two plates).

There is a definite reason and understanding here, although it may be hard to accept, either scientifically, or the implications for our lives (for example in terms of love, war, violence, finance, etc.):

- ❖ Homeostasis doesn't mean equality, but maintains tension (potential voltage) between extreme, but harmonically attracted, poles.

This is a hard pill to swallow for most people, actually. But it is absolutely normal in Nature. God and Nature maintain His and Her power (respectively) via retainment of the majority of the potential, and exchange of a small portion (such as lightning, or a volcano vs. the whole mantle). The fact is that whatever power you are seeing is actually **little to nothing compared to the maintained potential**. This is how a smart boxer or martial artist behaves. This is how a gun is. The real power is held within, and the projection is nothing (as compared).

Therefore, realize that the unfathomable power of quasar "AGN jet"³⁶ and solar "magnetic flux tubes"³⁷ (both are Birkeland Currents) is a mere spec compared to what is there

and saw the plasma stream up and make a "hill" (perspective), and gravity was altered. However, we need more work done on this, since, in fact, from Egypt to Cahokia, to China the two hills are put next to one another. Interestingly enough, as well, Jupiter was pyramidal, and Saturn was conical. This is also not yet clear.

³⁶ <https://arxiv.org/pdf/1812.06025.pdf>

³⁷ <https://journals.aps.org/prl/abstract/10.1103/PhysRevLett.95.045002>

even in the visible or semi-visible spectrum. Think now, about the power withheld at all times in the Counterspace. All that we eject is absorbed (potentially), and little of it comes back to the visible/measurable Universe. When it does, it's still massively powerful. Nevertheless, the measurable Universe is where actual power is, whereas potential is in the Void. This is their polar relationship.

Reconfiguration

The entire basis for the rearrangement is to create a reconfigured field. A new order. Something “fresh” that will enable charge fields to redistribute potential energy along constantly evolving magnetic and electric field lines. These charges may, also, come from more overwhelmingly powerful sources. For example the Ozone layer is ionic. But ions from the Sun, however dissuaded by the layer, and the magnetic field of the Earth, do make it, after all. They make it right down to the ground and into the nerves of people. Note that the results from the author's research on Electric Field changes to Pain change ratios is conclusive. If there are solar or weather conditions which introduce more charge (protons, mostly), or moon reflectivity or changes in reflectivity, the ratio is stronger (although it is always over 1:1 V/M, whereas the controls **never** were³⁸).

When the system - whatever system, but in this case a Galaxy, Solar System, Filament, Nebulae, or Cluster... i.e. the Universe - reconfigures, it is a new laying out of a grid of information. This grid is amoral, and completely an-ethical, but humanity has always interpreted it as the will of spirits and gods, or of God Himself, which might be quite on the point, or might be off of it. The fact of the matter is, however, that the Charge redistributes along the lines of least resistance, but with maximal potential tension maintained as long as possible, before complete dissipation is achieved early. Early for what? For ripening fruit, or for ripening planets, it doesn't matter. In cells it is the whole mitosis or meiosis phenomenon. But in other scales it may be very different.

Energy-Velocity Index

One of the ways we can see these reconfigurations happening, “live,” is the movement of cosmic bodies. We are watching not rocks hurtling haphazardly, but spheroids of charge engaging with the PEMbrane on a massive scale, showing a similar, or self-similar replication of the reconfiguration process. Meaning that they are arranged first in the conservation of energy-momentum, and then rearrange in terms of Mass-Energy rearrangement. Wouldn't it be fascinating if this ME was the same as the ME of the past/Sumeria³⁹? It may not be far off.

The following index will help in the understanding of “absolute” velocities (speed in this case, less so than direction, which is surely curvilinear), as compared with the current, potential, or even size scale.

³⁸

https://www.researchgate.net/publication/328697566_Clinical_Electric_Field_Measurements_In_situ_pre_and_post_treatment_measurement_data_with_weather_and_space-weather_lunar_and_solar_data_with_self-reported_pain_and_significance_scales_in_three_phases

³⁹ https://www.academia.edu/42656690/Secret_Held_in_Maputo

Table 1 - Currents in Space scale⁴⁰

SGEC	MHD derived jets (theoretical) ⁴¹	$10^{18} + A$.11c to 2c ⁴²
GEC	jet galaxy 3C303 ⁴³	$3 \times 10^{18} A$.11c to .5c
GEC	jet SGR A* ^{44 45}	1 THz X-rays	6.379 +/- 0.024 mas/y ⁴⁶
SSC	Solar Corona Currents ⁴⁷	$10^{11} - 10^{12} A$	Sun: 240 km/s + SGR ⁴⁸
SSC	Solar Wind ^{49 50 51}	$10^{11} A$	600-700 km/s ⁵²
SSC	Jupiter Ring currents/ Io Torus ⁵³	$10^9 A$	Jupiter: 13.06 km/s ⁵⁴
SSC	Jupiter Auroral currents ⁵⁵	650,000 A	Io: 17.34 km/s ⁵⁶
SSC	Magnetic Tunnels to Earth ⁵⁷	100,000 A	Earth: 460 m/s ⁵⁸
PEMS	Earth's Ring Current ^{59 60}	10 - 50 keV (100 keV)	
PEC	Van Allen/Heliosphere ^{61 62}	$3 \times 10^9 A$ (10-50 MeV)	Ions: $2.99 \times 10^8 m/s$ ⁶³
PEC	Blue Jets/Sprites ⁶⁴	1-10 GJ	$10^6 - 5 \times 10^7 m/s$ ⁶⁵
PEMS	Lightning ⁶⁶	30k-500k A	100 km/s ⁶⁷

⁴⁰ "Magnetic Universe Theory" p.34⁴¹ <http://adsabs.harvard.edu/abs/1990ApJ...348...61J>⁴²https://www.researchgate.net/publication/228638755_Simulation_of_Astrophysical_Jets_Collimation_and_Expansion_into_Radio_Lobes⁴³ <https://www.newscientist.com/article/mg21028174.900-universes-highest-electric-current-found/>⁴⁴ <https://phys.org/news/2017-12-cosmic-filament-probes-galaxy-giant.html>⁴⁵ <https://arxiv.org/pdf/astro-ph/0102186.pdf>⁴⁶ <https://arxiv.org/abs/astro-ph/0408107>⁴⁷ <http://adsabs.harvard.edu/abs/1997A%26A...318..289K>⁴⁸ <https://www.universetoday.com/133414/distance-speed-suns-orbit-around-galactic-centre-measured/>⁴⁹ <http://adsabs.harvard.edu/abs/1967SoPh....1..220A>⁵⁰ <https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/2000JA900165>⁵¹ <https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/JA080i034p04719>⁵² <https://www.sciencedirect.com/topics/earth-and-planetary-sciences/solar-wind-velocity>⁵³www.newscientist.com/article/mg13318093-400-science-the-billion-amp-current-that-flows-round-jupiter/⁵⁴ <https://nssdc.gsfc.nasa.gov/planetary/factsheet/jupiterfact.html>⁵⁵ http://www.igpp.ucla.edu/public/mkivelso/refs/PUBLICATIONS/Gerard%20Io_footprint-JCG.pdf⁵⁶ <https://solarviews.com/eng/io.htm>⁵⁷ <https://www.space.com/6614-electricity-measured-space-tornadoes.html>⁵⁸ <https://www.scientificamerican.com/article/how-fast-is-the-earth-mov>⁵⁹ <http://adsabs.harvard.edu/abs/1983SSRv...34..223W>⁶⁰ <https://arxiv.org/pdf/0906.0429.pdf>⁶¹ https://www.plasma-universe.com/Electric_currents_in_space_plasmas⁶² <https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/JZ066i005p01321>⁶³ <http://physics.ucsc.edu/~joel/Phys5K/12Phys5K-Hk4-Solutions.pdf>⁶⁴ <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.1082.716&rep=rep1&type=pdf>⁶⁵ <https://link.springer.com/article/10.1007/s10712-013-9224-4>⁶⁶ https://en.wikipedia.org/wiki/High_voltage⁶⁷ <https://www.quora.com/How-fast-does-lightning-travel>

HPG*	Powerline ⁶⁸	40 A (avg)	
CVS	Electricity in human heart ⁶⁹	< 1 mA (1.87×10^{-4} A) ⁷⁰	120 m/s ⁷¹
HEGEME	Electricity in a plant ⁷²	4.5×10^{-8} A	
CNS	Nerve conduction ^{73 74}	4-6 nA	

*Human Power Grid; Cardiovascular System; Central Nervous System

Conclusion

The discovery of the Aether is ongoing. The proof of the Void/counterspace is now mainstream proposed. This is all anticipated. We need more data for our evidence, and more evidence to boot. What is the anatomy of the Aether? What is the method the counterspace “boils” up through the proposed PEMbrane? How is the PEMF powered? And why do things move faster when more energetic? Is this a co-emergent fact or does one follow the other? Looking at the velocities there is a rough decrease with scale, but we see a very distinct velocity correlation nonetheless. Studies on this are not yet complete because our understanding of light is incomplete, and so mainstream assumptions, calculations, and measurements become suspect.

The effect of this is to lead the author to conclude that if the Big G is self-consistent⁷⁵, and mytho-historically supported, as well, that we need to understand the TWE hypothesis more definitively, with clarity, to proceed with the next stage of experiments once the Aether and CS are proved. Is it really a Spongy CS, and is this system going from pure CHAOS (Hundun as the Chinese called it) to Order, from our perspective? Let's find out in the 21st century, not the 25th!

⁶⁸ https://www.w8ji.com/power_line_voltage.htm

⁶⁹ <http://circres.ahajournals.org/content/circresaha/33/1/39.full.pdf>

⁷⁰ 50 mV / 268 ohm <http://circres.ahajournals.org/content/circresaha/9/6/1280.full.pdf>

⁷¹ https://en.wikipedia.org/wiki/Nerve_conduction_velocity

⁷² <https://youtu.be/-MumeA4q-5Q>

⁷³ <https://pdfs.semanticscholar.org/bb00/967a365c81263abd9ac539f954131ae6f13c.pdf>

⁷⁴ <https://physoc.onlinelibrary.wiley.com/doi/pdf/10.1113/jphysiol.1952.sp004734>

⁷⁵ https://www.academia.edu/53713967/MIMS_1_12_Self_Consistency_of_the_Big_G_Diagram

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