Acoustic Shockwave Cosmology, Big Bang, and PEMC

The belief in emergent matter versus material rearrangement

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ABSTRACT

Emergent Matter is a staple of Big Bang Cosmology. Proposals for Dark Matter have included various far-fetched concepts covered in previous articles, such as Dark Photons and Negative Mass, etc… By comparison, Acoustic Shockwaves of neutrinos are far more plausible. However, logical conundrums create hurdles for the plausibility versus Plasma cosmology, though they are not mutually incompatible.

Keywords: Acoustic shockwaves - plasma - neutrinos - redshift - rearrangement

Emergent Matter

W. Giordano proposed in "Matter Emerges,"[1]

> *"...matter could have been the result of acoustic shockwave collisions during the violent emergence of the universe, and that* ***all of the matter of our universe exists within the web of galaxies****. The only 'dark matter' that there is, exists as non-ionized gas and un-illuminated dust." [emphasis added]*

The author admits some intrigue with the general proposition of neutrino shockwaves. Unlike recently discussed Dark Matter substitutes (see [8],[11], and [12]), this is actually a scientific hypothesis. It is a) deterministic, b) testable, c) based in previous observation, and d) concise.

The author, however has three objections, and one comment:

1. The first objection is the the assumption of Big Bang cosmology and that the nature of a finite Universe is concretely established. This is not possible since Gaia DR2 has shown that previous redshift assumptions were off by a severe magnitude of more than 200% in certain galaxy distance measurements. (see Table 2) Halton Arp proposed over 30 years ago the mathematical framework for Intrinsic Redshift (see Table 1), and this has yet to be rigorously tested by the scientific community.[2] Most of the emphasis has been on so-called "tired light,"[3] which itself has not proved to be validated.[4] [5] But it has also not been disproved.[6] [7] Neither has IR, to the author's knowledge.
   Another problem of the current Big Bang Cosmology (BBC) is that formation has been demonstrated, even without MOND, to be possibly explained in geometries that do not utilize Dark Universe cosmologies.[8]
   Therefore, starting with any assumption that BBC requires Dark Universe or that BBC requires Expansion Theory[9], is problematic. It is not yet proven beyond a shadow of a doubt that the Universe had a true origin or start date. Some of the attempts to prove *what came before* the Big Bang, seem to the author to undermine the very idea of it, and lend support not to BBC but to the PEMC concept of Cosmic Rearrangement.
2. Assuming that acoustic shockwaves can exist in space, the only mechanism for this, to the author's visualization, would have to be the emergent process of plasma filamentation. Astrophysicists have a hard time using the p-word[10] in place of the electrically dumb "ionized gas" which is a major misnomer

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[1] https://www.academia.edu/37980100/Matter_Emerges_-_A_Group_Project_Proposal

[2] The assumption of a normal doppler redshift predominates, but this has not been double-proved. All Big Bang measurements of DR have been naturally used (because of convenience) to age stellar objects, but testing these without taking samples or local measurements relies upon a nuclear-solar theorem which itself has no basis and has been rigorously disproved. "The Electric Sky," by Donald Scott and see also the works of Dr. Robitaille elsewhere.
The main emphasis here is that something cannot stand firmly upon something else which has no firm foundation, no more than a heron can fish upon the back of a turtle. Once one leg is lost, the theory collapses. That's where DR has wound up after Gaia DR2 returned its first measurements! Gaia effectively "swept the leg."

[3] https://en.wikipedia.org/wiki/Tired_light

[4] http://curious.astro.cornell.edu/about-us/110-the-universe/cosmology-and-the-big-bang/alternate-theories/670-can-tired-light-theory-explain-the-observed-redshifts-of-galaxies-intermediate

[5] http://www.astro.ucla.edu/~wright/tiredlit.htm

[6] http://bourabai.kz/articles/snt.pdf

[7] https://arxiv.org/pdf/0804.3595.pdf

[8] https://arxiv.org/pdf/1801.09304.pdf

[9] https://www.physicsoftheuniverse.com/topics_bigbang_expanding.html

[10] https://arxiv.org/pdf/1812.06025.pdf "jets"; "ionized gas" >> see: Birkeland Currents. A larger discussion of this problem is contained in [5]

for several reasons.[11]
Ergo: if the construct of the filaments presents the mechanism by which acoustic shockwaves can propagate, how would they also be explained by the acoustic shockwave phenomena? This is circular reasoning. Rather, it seems that the acoustic behavior is an emergent process of electromagnetic principle, since the electromagnetic wave requires no medium (only itself) for propagation, according to the Michelson-Morley Experiment.[12]

3. The concept of Covert Matter was covered in [8] and [11]. However, the idea that all of it can only be "non-ionized gas" and "un-illuminated dust" is very problematic. It leaves out Bose-Einstein Condensate (ultracold plasma), condensed matter (crystal plasma), and black body exo-masses, which could be Y-dwarfs, planets, moons, etc… It relies heavily upon "hot grains" or "local dust" and again upon the problematic "gas."
The use of "non-ionized" is an interesting choice, and the author wonders if Giordano is purposefully sidestepping plasma to affirm the idea that 76% of the Universe is Dark Universe? That would be antithetical to the premise of the article. So the author must remind the reader that plasma is 98% of the observable (that is: scientifically valid) Universe, and in PEMC no Dark Universe is necessary as the properties of plasma-electromagnetism **fully explain the motions of galaxies without haloes**.[13]
Since there are known galaxies that certainly have no haloes,[14] they must continue to operate within the behaviors of galaxies.[15] This demonstrates that, actually, plasma present is all that is required for galaxies to move the way they do.[16]
4. The trend of continually denying plasma-electromagnetism is slowing down, and reversing. Already "charged" dark matter has been proposed. Now, black hole theory is being revised under the issue of the need to determine charge values for black holes, which shall be in the range of 10^{15} - 10^{27} C.[17] [18] [19] [20] [21]. It hasn't necessarily stopped them from using the misnomers of gas and jets[22], but they do admit it is hot and cold[23], and that the magnetism and currents measured are 90 degrees out of phase[24], implying the Birkeland Current Mechanism.[25] [26]

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[11] Gas expands outwardly to fill a system; filaments do not do this. Plasma is electrically charged and conductive, and has several modes and varieties of shapes. Gases expand radially. Their "spontaneous gravitational collapse" is controversial for several reasons, not the least of which it violates Thermodynamical laws as gases cannot do work on their own system.
[12] Which has so far disproved the luminiferous Aether. Hence the author's assertion in [5] that the EMF is the PEM is the UAF - Unified Aether Field. Charge is the ether we have been looking for, and thus all the particles and photons are measured in eV! https://simple.wikipedia.org/wiki/Michelson%E2%80%93Morley_experiment
[13] https://medium.com/the-physics-arxiv-blog/galactic-scale-electric-fields-could-solve-the-dark-matter-mystery-says-physicist-117a6488ba0e
[14] https://www.nature.com/articles/nature25767
[15] http://www.astronomy.com/news/2018/03/all-galaxies-rotate-once-every-billion-years
[16] http://www.everythingselectric.com/birkeland-currents/
[17] https://arxiv.org/pdf/1812.03574.pdf
[18] https://arxiv.org/abs/1807.09409
[19] https://www.nasa.gov/feature/goddard/2018/new-simulation-sheds-light-on-spiraling-supermassive-black-holes
[20] https://www.almaobservatory.org/en/audiences/cloudlets-swarm-around-our-local-supermassive-black-hole/
[21] Re-read as "electric motor" https://alma-telescope.jp/en/news/press/agn-201811
[22] http://www.chandra.harvard.edu/photo/2018/a2597/
[23] So, ie - hot plasma & ultracold plasma
[24] http://iopscience.iop.org/article/10.1088/2041-8205/741/1/L15/pdf
[25] https://arxiv.org/pdf/1712.08414.pdf
[26] http://www.ptep-online.com/2015/PP-41-13.PDF

It is only a matter of time before the entire system sways into PEMC. Which will make the amount of ire and hatred (based usually in ignorance) of the radical mainstream appear rather problematic for BBC.[27]

Rearrangement Hypothesis or Cosmic Rearrangement

There are two basic varieties of this hypothesis:

1. Bag Bang Iterative Cycles - so far it has not been shown that expansion slows and leads to contraction back into a "singularity".[28]
2. Continual Rearrangement - this is the concept discussed briefly by the author in [12]. It involves a completely full Universe which is juxtaposed by two principles:
    a. An expanding, order-defined luminous, charge distributing and sharing Universe, which continually creates, destroys, transforms, etc… and constantly increases in classical entropy by shedding EMF (charge or photonic-circuits; "quanta") with every chemical, nuclear, mechanical, and electromagnetic interaction, and disperses energy into the spongey (dusty) black space where plasma resides in "dark mode"[29]
    b. A still, chaotic-defined, dark (anti-energetic), charge absorbing and sequestering Universe[30] which 'soaks' up quanta via friction and spin-negation[31], anti-matter, etc… until a Capacitance is reached in one region or another, and the process actively accelerates. When it does, it draws energy out of the former "visible" Universe, creating ultracold conditions near to Absolute 0 (or possibly in negative temperatures?[32]) which enables charge transfer through the "vacuum" which can in turn power atomic behavior[33] (hence, "aether") as well as re-constitute any potential Bangs[34]

It's important to note that CRH requires no finite age nor distance, and allows for not only discussions of relative space-time, relative multi-verses (including potentially fractal-verses), and other unprovable pseudoscience that stays in compliance with BBC findings and "sandbox" or "toy models"... but it helps to reduce the human knowledge 'equation' solving both the God-conundrum[35] and the Dao-Taiji paradox.[36]

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[27] http://www.internationalskeptics.com/forums/showthread.php?s=a6a26562dfa9ead7772d677dbad6a74d&t=302933&page=3&styleid=50

[28] https://en.wikipedia.org/wiki/Accelerating_expansion_of_the_universe

[29] Not dark as in cannot interact, just literally not bright. It could be measured, but is very sparse. In Chinese this is known as the Hundun, which fills the Wuji (Void of space).

[30] The two are overtop one another. But the author is loath to introduce a Hemiverse terminology.

[31] https://en.wikipedia.org/wiki/Spin_(physics)

[32] https://www.nature.com/news/quantum-gas-goes-below-absolute-zero-1.12146

[33] https://physics.stackexchange.com/questions/22468/what-are-the-calculations-for-vacuum-energy

[34] Which may exist outside of the visible range of our temporal Iteration.

[35] "If God made the Universe, what came before God?" … Big Bang has never escaped this conundrum, as BBC was invented by a bishop. See Table 1

[36] If 0+1=1, fine; but how can the 2 ever be 1? How does Order emerge if Entropy always increases? Without violating the God-conundrum, physics and philosophy have struggled to overcome this paradox. It is very difficult for human consciousness to overcome this asymptote of understanding, as we are finite. Practically speaking, humans cannot fathom scales on the order of 10^9+, such as billions of years. So "billions of" have become the terminable limit for how much money a man can make, how many years both the Earth and Universe can be old, how many people can live on Earth, etc… The concept of billion, to a human seems practically infinite. But in the grand scheme, 10^9 is very small. In India they invented non-numbers such as nayuta to describe the impossible calculations of super-massive numbers. These numbers were not to be taken literally as centillion 10^{303} or googol 10^{100} were, but as contemplative "numbers" designed to challenge one's intellectual limits into letting go of "grasping."

The author is not proposing that these aspects be activated, only that their conceptualization can form in the mathematical landscape in CRH, whereas they do not appear coherent in BBC proper, hence the mutation “SUSY”, which has of course been officially constrained out of the discussion (see Table 2).

Table 1 :: Proper Physics Chronology[37]

Electricity	Ben Franklin	1751
Gaussian Theory	Carl Gauss	1813
Electromagnetism Unification	Michael Faraday	1831
Maxwell's Equations	James Maxwell	1861-62
Quantized Hypothesis	Ludwig Boltzmann	1877
Photoelectric effect	Heinrich Hertz	1887
Electron Theory	JJ Thomson	1897
Quantum Theory	Max Planck	1900
Relativity theory	Henri Poincare	1900-1904
Mass-energy relation	Henri Poincare	1900
Gravity Waves	Henri Poincare	1905
Special Relativity	Albert Einstein	1905
Photoelectric Effect Explained	Albert Einstein	1905
Birkeland Currents	Kristian Birkeland	1908
Atomic Theory Proved	Ernest Rutherford	1911
Particle-Wave Theory of Atoms and Particles	Niels Bohr	1913
General Relativity	Albert Einstein	1915
Proton discovered	Ernest Rutherford	1919
Quantum Radiation Interaction	Paul Dirac	1920
Quantum Mechanics Codified	Born, Heisenberg, Pauli	1924
Bose-Einstein Condensate	Bose, Einstein	1924
Plasma Cosmology	Irving Langmuir	1927
Big Bang Cosmology	Georges Lemaitre	1927
Missing Matter[38]	Edward Zwicky	1933
Magnetohydrodynamics	Hannes Alfven	1940
QEM/QED	Bethe to Feynman	1947-1960
Electroweak Theory	JC Ward	1959
Quarks	M Gell-Mann & G Zweig	1964
Black Hole Theory	John Wheeler	1967
Dark Matter	Rubin & Ford	1970
Electric Star Theory	Ralph Juergens[39]	1972
QCD	Gross, Wilczek, & Politzer	1973
SUSY	Werner Nahm	1978
MOND	Mordehai Milgrom	1982-83
String Theory	Green & Schwarz	1984
Dark Energy	Friedman[40] or Sivaram[41]	1924 or 1986
M Theory	Edward Witten	1995
Intrinsic Redshift	Halton Arp[42]	1998
MACHOs	unclear	2002?[43]
WIMPs	unclear	2008?[44]

[37] Tables 1 and 2 reproduced from [11]; all references in [12] included, as this paper is a follow-up. Table 1 modified for BEC

[38] Not Dark Matter.

[39] https://www.velikovsky.info/Ralph_Juergens

[40] http://home.fnal.gov/~skent/early.html

[41] https://arxiv.org/ftp/arxiv/papers/0809/0809.3364.pdf

[42] https://www.haltonarp.com/articles/intrinsic_redshifts_in_quasars_and_galaxies.pdf

[43] http://www.astro.caltech.edu/~george/ay20/eaa-wimps-machos.pdf

[44] https://www.astro.umd.edu/~ssm/darkmatter/WIMPexperiments.html

Table 2 :: Falsifications

SUSY	2012[45] - 2017[46]
CDM	2012[47], 2015[48], 2016[49] - 2018[50] [51] [52] [53]
LCDM	2010[54], 2014[55]
WIMPs & MACHOs	2017[56]
MOND	2018[57] [58] [59]
Galaxy Rotation and DM	2017[60] [61]
Standard Redshift	2017[62] [63] [64]
Galaxy Rotation and MOND	2018[65]
Higgs-boson as non-standard Quark	2018[66]
Dark Energy	2018[67]
LDM	2018[68]

Note - this table will likely increase in size and scope due to accelerating results from Gaia DR2 and MMS.

Conclusion

The author supports Giordano's proposal upon the premise of a testable hypothesis. The author cautions, however that some logic loops may be in violation, and more refinement and clarification may be required in the defining phase of the experimentation. Furthermore, the author cautions against assumptions about the expansion from single-origin aspect of the hypothesis, which relies upon the Authority of BBC in order to establish itself. Such authority is a form of logical fallacy, which weakens the scientific method involved, and options should be kept open during searches for Acoustic Shockwaves for a Cosmic Rearrangement Hypothesis, given the ambiguity remaining with doppler redshift and Gaia DR2 results.

[45] http://backreaction.blogspot.com/2016/08/the-lhc-nightmare-scenario-has-come-true.html
[46] https://www.space.com/39001-dark-matter-doesnt-exist-study-suggests.html
[47] https://arxiv.org/abs/1204.2546
[48] http://adsabs.harvard.edu/cgi-bin/bib_query?arXiv:1406.4860
[49] http://adsabs.harvard.edu/abs/2016arXiv161003854K
[50] https://arxiv.org/pdf/1808.09823.pdf
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[61] https://arxiv.org/pdf/1811.08843.pdf
[62] https://arxiv.org/pdf/1805.03298.pdf
[63] https://arxiv.org/abs/1807.09409
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[65] https://arxiv.org/pdf/1801.09304.pdf
[66] https://www.nature.com/articles/d41586-018-06130-9
[67] https://arxiv.org/pdf/1810.05027.pdf
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