Notes on Quantum Geometry

***Include parts of paper fund reality/grand unification: anu: stringed vortices of energy**

***worldsci.org/topics/structure:** The idea of finite structures bound together by their own motion has almost invariably led natural philosophers to closed loops and vortices, since motion confined to finite space simply must circulate. After the Greeks, vortex ideas were explored in the 17th century by Kepler, Descartes, Leibniz, and Huygens, in the 18th by Swedenborg and Boeković, and in the 19th by Ampere, Fresnel, Kelvin, Rankine, Tait, and many others. In fact, Ampere actually visualized the ultimate particles as tiny electrical circuits, whereas Kelvin, for example, was less specific about the vortexing matter comprising particles. In 1915, an English visiting graduate student at Harvard, Alfred L. Parson, presented the first "modern" model of the electron, the "magneton", a toroidal circuit of electrical charge. Parson meant to improve Bohr's famous 1913 model of the atom, which depicted electrons as circulating point charges, by "smearing" the charge around the entire circuit. According to the known laws of physics, accelerating charge must radiate, yet in Bohr's model, as in all point particle models, electrons mysteriously accelerate without radiation. This anomaly has been swept under the rug with the mantra that quantum physics behaves by a different set of rules than classical physics. Though little known today, Parson's magneton was a substantial influence on Gilbert Lewis's concept of molecular bonding and Arthur Compton's famous Compton Effect. In fact, one of Compton's graduate student, Winston Bostick, was one of the maverick's who revived Parson's magneton idea in the 1960s.

Most structuralists claim that the known properties of elementary particles can be determined by the manner in which the various circuits comprising particles intertwine. That is, particles are identified by their "topology" or "knottedness". Today science is just beginning to appreciate the connections between the properties of knots and of fundamental particles. By applying a set of rules consistently, some structuralists have reproduced not only properties of particles, but hundreds of characteristics throughout the periodic table. Eventually, structuralists hope to explain not only the structure of hydrogen and helium, say, but why water remains electrically dipole, why iron is ferromagnetic, and why nuclei remain positive. Finally, structural principles, such as found in the work of Buckminster Fuller, can apply at the macro- as well as micro-level, can be used to explain the nature of DNA,

Cherenkov's Particles as Magnetons Andreja Radovic 2002

Abstract:

The article will show that the formula for Cherenkov's radiation can be clearly derived from Special Relativity Theory although the speeds of particles surpass the speed of light. It indicates that Special Relativity Theory is able to describe the dynamics of faster-than-light charged particles. If it is correct that such faster-than-light particles must have imaginary values for their electrostatic charges, then they must be true magnetons.

Cherenkov’s particle is a magnetic monopole, i.e., the magneton.

Magnetons & Tachyons

It will be shown in the text below that a Cherenkov particle is a magnetic monopole. The field can be generally assorted on the diavacuum and paravacuum fields. The diavacuum fields reject the vacuum (space without the field) from the source, and the paravacuum fields attract the vacuum (or the object without the field) to the source. Thus the electrostatic field attracts the vacuum to pole, and magnetic and gravitational field rejects the vacuum from the source (Meissner effect).

Books:

Magneton Theory of the Structure of the Atom

by Alfred L. Parson

KeyWords: **toroid, electron**

Pages: 80
Publisher: Smithsonian Miscellaneous Collection
Year: 1915/1916

“The bond in question is magnetic” assumption is that the electron is magnetic

***worldsci.org/topics/unified theory**

Many scientists propound theories trying to unify the four classic forces in nature, electromagnetic, strong, weak, and gravity, to the point that "theories of everything" are now a dime a dozen. In the 1970s, the infamous "string theory" looked like the Holy Grail for unifying all of physics, yet 40 years later its legacy consists of libraries of confusing mathematics with little advance in physical understanding. Of course, mainstream science has to some extent unified strong and weak forces with electromagnetism, but many independents claim that these "forces" were artificial to begin with, since they say electromagnetic forces suffice to explain the structure of atoms. And even if gravity were unified with the other three, could a "unified" theory be complete in any sense if didn't connect these forces with thermodynamics or quantum mechanics? Clearly unification means much more than one simple formula to solve all the world's ills. It means a return to the drawing board and rethinking physics from its very foundations.

Among independents many comprehensive theories exist, superior to and yet simpler than string theory, in harmony with a significant portion of scientific observation and experiments. Most, but not necessarily all, of these theories revolve around electrodynamics; many focus on its connection with gravity; some involve aether concepts; many spawn profoundly new definitions of energy, mass, light, spin, etc. In virtually every case, the unified theory comes not from new mathematical equations, but from radically new interpretations of old ideas. If history serves any purpose, we should expect not one grand unified theory expounded by one especially brilliant theorist, but rather a number of unifying ideas that converge on certain unifying principles. Today we're seeing clear convergence toward dynamic as opposed to static structures, the hugely significant yet largely overlooked roles of magnetism and plasma, the fundamental nature of the vortex and resonance, possible conditions for self organization, and surprising connections between thermodynamics and electrical interactions. Rather than seek a single solution to the problem of unification, therefore, the GSF intends to unify physics one connection at a time, in a process of unification.

Can search world scientific database:

Vortex:

25 abstracts

Vortex filament; vortex sponge;

5 books

The Vortex Theory (revised) Arnold Gulko

http://www.worldnpa.org/pdf/abstracts/abstracts_450.pdf

LETS KEEP IT SIMPLE
By Arnold G. Gulko

"The simplest test of our understanding of the electron and proton is to
see whether that understanding enables us to comprehend the hydrogen atom.
Unfortunately, modern physics does not now understand the hydrogen atom,
so this simple test has been failed and we are left with no real understanding
of the only two independently stable massive particles around us."

A critique of QM

Mass and Electric Charge in the Vortex Theory of Matter: Valery Chalidze
The book presents foundations of the vortex theory of matter based a philosophical framework of classical physics with certain suppositions about the nature of physical space which is traditionaly called aether (ether). Twisted vortex rings with left and right rotation are models of particles and anti-particles. Vortex rings of radius equal to the radius of a vortex cord is a model of a photon. Division of that ring into two rings with opposite twist is a model of pair production. The hypothesis of the topological identity of an electron's and proton's rings lead to values of masses for mu, pi, K and tau particles which are close to experimental. A model of electric field as field of vorticular filaments is presented. It is shown that the square of an elementary charge is proportional to the Plank constant and speed of light.
(Universal Pub)

A Unitary Field Theory on the Basis of the Ether-Vortex Concept Lindy Millard
In more enlightened quarters the ether has never gone out of fashion. The extraordinary science of ether physics explains the four forces that comprise our universe. Millard begins with the Four Creative Forces of Lemuria, and carries on into Gravitational, Electric, Magnetic, and Fields of Optical Radiation-Pressure. The regions thus characterized are called fields, namely: (1) gravitational fields, (2) electric fields, (3) magnetic fields, (4) fields of optical radiation-pressure. Some explanatory diagrams are included. (Borderlands Sciences pub)

9 websites:
http://helicola.com/index.php?p=home Three dimensional spiral string theory
Creation of prime elements of matter toryces by charge and reality polarization of quantum vacuum.
Formation of prime elements of radiation helyces from excited and oscillated toryces.
Formation of elementary matter particles from toryces and elementary luminal and superluminal radiation particles from helyces.

http://www.borderlands.com/krafft.htm
THE STRUCTURE OF THE ATOM
Carl Frederick Krafft.
This theory, based on observation and astute insight, is that the atom is a vortexian structure, rather than the "swarm of flies" type of atom conceived through high energy electrical experiments.

Vortex theory:

A mechanical explanation of gravity

Knot theory: a theory to explain the atom

http://en.wikipedia.org/wiki/History_of_knot_theory

a circle (trivial torus) is a trivial knot

The early, significant stimulus in knot theory would arrive later with Sir William Thomson (Lord Kelvin) and his theory of vortex atoms. (Sossinsky 2002, p. 1–3)

In 1867 after observing Scottish physicist Peter Tait's experiments involving smoke rings, Thomson came to the idea that atoms were knots of swirling vortices in the æther. Chemical elements would thus correspond to knots and links. Tait's experiments were inspired by a paper of Helmholtz's on vortex-rings in incompressible fluids. Thomson and Tait believed that an understanding and classification of all possible knots would explain why atoms absorb and emit light at only the discrete wavelengths that they do. For example, Thomson thought that sodium could be the Hopf link due to its two lines of spectra. (Sossinsky 2002, p. 3–10)

Tait subsequently began listing unique knots in the belief that he was creating a table of elements. He formulated what are now known as the Tait conjectures on alternating knots. (The conjectures were proved in the 1990s.) Tait's knot tables were subsequently improved upon by C. N. Little and Thomas Kirkman. (Sossinsky 2002, p. 6)

James Clerk Maxwell, a colleague and friend of Thomson's and Tait's, also developed a strong interest in knots. Maxwell studied Listing's work on knots. He re-interpreted Gauss' linking integral in terms of electromagnetic theory. In his formulation, the integral represented the work done by a charged particle moving along one component of the link under the influence of the magnetic field generated by an electric current along the other component. Maxwell also continued the study of smoke rings by considering three interacting rings.

When the *luminiferous æther* was not detected in the Michelson–Morley experiment, vortex theory became completely obsolete, and knot theory ceased to be of great scientific interest.

Could the “aether” be the zero point field????

aether

http://www.encyclopedianomadica.org/English/aether.php#Aether

Modern physics demonstrates that the discrete wavelengths depend on quantum energy levels.

Torus:

4 abstracts

Spinors, Twistors, Quaternions, and the ?Spacetime? Torus Topology Haramein and Rauscher

Abstract:

International Journal of Computing Anticipatory Systems, D. Dubois (ed.), Institute of Mathematics, Liege University, Belgium, ISSN 1373-5411, 2007. The dual torus topology occupies a central role in the spinor, twistor and quaternionic formulation. This topology appears to be ubiquitous in astrophysical and cosmological phenomena and is predicted by the 4 U bubble of the affine connection in the Haramein-Rauscher solution to Einstein's field equations. The geometric structure of the complexified Minkowski space is associated with the twistor algebra, spinor calculus, and the n SU groups of the quaternionic formalism. Hence quantum theory and relativity are related mathematically through the dual torus topology. Utilizing the spinor approach, electromagnetic and gravitational metrics are mappable to the twistor algebra, which corresponds to the complexified Minkowski space. Quaternion transformations relate to spin and rotation corresponding to the twistor analysis.

Full paper available

The Relativistic Torus and Helix as the Prime Elements of Nature Vladimir B Ginzburg

Abstract:

The relativistic torus and helix are spiral string elements. Each of them contains a single-wave leading double string that is wound by a trailing double string propagating along its spiral path with the speed of light. In the torus, the leading double string follows a circular path, while the trailing double string follows a toroidal path. In the helix, both leading and trailing double strings follow helical paths. The torus and the helix have specific wave and particle properties that make them suitable to form the elementary particles and photons. These properties include a capability to absorb and release energy - a mechanism that sustains the elementary particles and photons.

0 books

0 websites

Maxwell's Equations as Properties of the Vortex Sponge

Kelly, Edward M.

American Journal of Physics, Volume 31, Issue 10, pp. 785-791 (1963).

The vortex sponge, devised by John Bernoulli in 1736 in an attempt to explain light in mechanical terms, consists of an ideal fluid interlaced by fine vortex tubes oriented in all directions. When vortex tubes follow the fluid, the medium behaves like an elastic solid because of momentum transfer effects arising from the fine-grained vorticity. This character of the medium is altered by displacements which bend the tubes so that they move laterally. The motion of curved tubes relative to the fluid can result in macroscopic vorticity with accompanying rotation of the bulk medium. The mathematical expressions of these effects have the form of Maxwell's curl equations for free space.

http://adsabs.harvard.edu/abs/1963AmJPh..31..785K

His current research is on the "Planck Aether Hypothesis", "a novel theory that explains both quantum mechanics and the theory of relativity as asymptotic low energy approximations, and gives a spectrum of particles greatly resembling the standard model. Einstein's gravitational and Maxwell's electromagnetic equations are unified by the symmetric and antisymmetric wave mode of a vortex sponge, Dirac spinors result from gravitationally interacting bound positive-negative mass vortices, which explains why the mass of an electron is so much smaller than the Planck mass. The phenomenon of charge is for the first time explained to result from the zero point oscillations of Planck mass particles bound in vortex filaments."[13] The theory proposes that the only free parameters in the fundamental equations of physics are the Planck length, mass, and time, and shows why R3 is the natural space, as SU2 is treated as the fundamental group isomorphic to SO3 — an alternative to string field theories in R10 and M theory in R11. It permits the value of the finestructure constant at the Planck length to be computed, and this value remarkably agrees with the empirical value. He has published extensively on many aspects of physics from the 1950s through the present. In 2008, Winterberg criticized string theory and pointed out the shortcomings of Einstein's general theory of relativity because of

its inability to be reconciled with quantum mechanics at the Physical Interpretations of Relativity Theory conference[14] and published his findings in *Physics Essays*.[15]

http://en.wikipedia.org/wiki/Friedwardt_Winterberg

The Torus in a Geometric Universe

In 1960, John A. Wheeler wished to lay the proper conceptual and mathematical foundation for quantum gravity, and also to unify gravitation with electromagnetism. Wheeler's vision for accomplishing these goals can be described as a program of reducing physics to geometry.[1]

He stated:

There is nothing in the World except empty curved space.
Matter, charge, electromagnetism, and other fields
are only manifestations of the curvature of space.[2]

The Torus, Vortex, and Higher Dimensional Physics Theory

A number of scientific theories, including Kaluza-Klein theory, Randall-Sundrum models, string theory and M-theory, hypothesize higher dimensions.

The claim has been made that in string physics, the torus is the "perfect" shape. Returns for Google queries for “string physics torus” most often contain all three terms, so certainly the torus and string theory are associated, and therefore the torus and hypothetical higher dimensions are also associated.

There is not much google correlation for “string theory vortex” or “string theory vortices,” so vortex and vortices are not strongly associated with string physics, torus, and higher dimensions.

There is no significant google association with john wheeler physicist and vortex or torus

The Torus in Advanced Mathematics

proof_fermat.doc\

Elliptic curves are very important; they are not elliptic; they are a cubic curve whose solutions looks like a donut torus? Every point on the donut is a solution to an equation. (2 d or 3 d?)orus

The Earth's Torus

Without the effect of the solar wind, which distorts its shape, the internal geomagnetic field observed near the earth's surface would be poloidal; ie the lines of force form parallel rings around a toroidal (donut) shape. The field in the core, however, would also contain some lines of force that form a spiral or helix around a toroidal (donut) shape.

Again; A poloidal magnetic field is a magnetic field in which the EM energy runs in rings around a torus shape. A toroidal magnetic field is a magnetic field in which the EM energy spirals around a torus shape

http://www.iki.rssi.ru/mirrors/stern/earthmag/glossary.htm http://en.wikipedia.org/wiki/Magnetic_field

A "Torus" is simply a donut shape, which may be of three toroidal types; ring, horn, or spindle. The shape of a torus may be of a physical substance or of energy.

Practical electronics

In electrical technology, a transformer transfers alternating current electrical energy from one circuit, the primary, to another circuit, the secondary, through inductively coupled wire coils. The voltage increase from the primary to secondary circuit is related to the number of wire coil turns in the primary and secondary by the formula

$Vs/vp = Ns/Np$

Where Vs and Vp are the voltages of the secondary and primary circuits, and Ns and Np the number of turns of the primary and secondary wire coils respectively. In summary, electrical transformers step up or down the electrical energy of a system.

Frequently the transformer wire is coiled around an iron core ring; a donut shape called a torus, through which a magnetic flux (B) passes.

The toroidal shape has been discovered to be the most efficient way to wind an electrical transformer, as a coil wound in this configuration produces very clean, highly accurate, precise and reliable power. (ref?)

A net vector potential is generated along the axis of the torus.

In the geometry of torus-shaped magnetic fields, the poloidal flux direction threads the "donut hole" in the center of the torus, while the toroidal flux direction is parallel the core of the torus.

As the distance to the axis of revolution decreases, the ring torus becomes a spindle torus and then degenerates into a sphere.

(see http://en.wikipedia.org/wiki/Torus

http://en.wikipedia.org/wiki/Toroidal_inductors_and_transformers

Torus and Twistor Theory

The dual torus topology occupies a central role in the spinor, twistor and quaternionic formulation. This topology appears to be ubiquitous in astrophysical and cosmological phenomena

The Resonance Project

http://www.theresonanceproject.org/research.html

Torus and twistor are associated in most internet articles.

Self Cancelling Toroidal coils

The first application of self-canceling coils was accomplished by Tesla at the turn of the century. Tesla's magnifying transmitter used two coils where ...

books.google.com/books?isbn=0805814663...

Another method for cohering zpe involves abruptly bucking EM fields, as in certain coil windings. When EM fields are in perfect opposition, the field vectors cancel. However, there still exists a stress in the fabric of space and it manifests as a scalar EM potential. Aharonov and Bohm (1959) have shown that the EM potential affects the phase of the quantum mechanical wave function associated with elementary particles. Bearden (1986) has emphasized that the resultant stress is actually a coherence in the zpe and can propagate as scalar waves. [p. 41]

Quest for Zero Point Energy Engineering Principles for "Free Energy" Moray B. King

http://www.bibliotecapleyades.net/ciencia/secret_projects/project122.htm

DNA Toroids

DNA has three structures: the primary structure is the helix; the secondary structure is the conformation, or winding and unwinding of the helix. The tertiary structure refers to the ability of the DNA helix to fold on itself to form “higher order structures”, and it is now well established that one of the higher order structures of DNA is the toroid.

Dan Winter claims our very DNA is a helix formed by 2 rotating geometric figures called icosahedrons and dodecahedrons. Stan Tenen (MERU Foundation) has also done some great work along these lines, contradicting Winter's work and basing his own discoveries on the work of Arthur Young, who also worked with the torus.

Glen Rein proposes that the toroidal shape of DNA functions as an antennae to allow DNA to sense subtle energies, and then acts as a transducer converting these subtle energy into conventional EM energy which is then radiated from the DNA in the form of photons.

It has been demonstrated that photons are radiated from DNA.

Rattemeyer M, Popp FA, Nagl W. “Evidence of photon emission from DNA in living systems”,

Naturwissen 68: 572-580, 1981.

Rein claims modern theories in quantum physics support the Toroid Antennae Model of DNA by suggesting the toroid acts as a transducer for some new form of energy (ie. subtle energy) which exists in higher dimensional spaces.

Geometry again

Conventional EM field theory is based on the assumption that electric and magnetic fields are generated from point charges and radiate outward in a spherical manner from their source. Associated with these fields are the magnetic vector potential, A, and electrostatic potential, j.

Potentials are more fundamental than fields since EM fields can be mathematically derived from potentials. (Olariu and Popescu, 1985).

Glen Rein notes that Beltrami considered the possibility that EM fields might be derived from potential surfaces which are not spherical in shape (topology)

(Beltrami, 1889, 1985).

Beltrami proposed and mathematically demonstrated that EM fields could be generated from negative Gaussian curvature potentials, that is, from toroidal shaped potentials. His theory further demonstrated mathematically that the topology of the EM fields generated from toroidal potentials are helicoid.

http://www.item-bioenergy.com/infocenter/ConsciousIntentiononDNA.pdf

Beltrami toroidal potential

Multidimensional Model

The Multidimensional model holds that a human being consists of multiple layers, or dimensions, that coexist simultaneously. There seems to be general agreement about four main dimensions: the physical-etheric, emotional, mental, and spiritual. Versions of the multidimensional model have been discussed over the years at annual conferences of the International Society for the Study of Subtle Energies and Energy Medicine (ISSSEEM). According to tradition, these dimensions are powered by subtle energy centers called Chakras.

Since ancient times, "seers" have confirmed that the human aura appears as a series of nested spherical torus formations. Modern seers such as Barbara Ann Brennan (Hands of Light) have confirmed that each “chakra” is shaped like a two-ended trumpet; ie pseudosphere or catenoid both of which are related to the torus, and this is a visualization of where each spherical torus or energy body has its axis.

Through modern physiology we can see that the seven chakras of traditional Yogic practice correspond exactly to the seven main nerve ganglia, or glands, which emanate from the spinal column.

(see paper Validation of the Human Energy Field)

The Torus and Consciousness

It has even been suggested that the torus can be used to define the workings of consciousness itself. In other words...consciousness has a geometry! The geometric shape used to describe the self-reflexive nature of consciousness is the torus. The torus allows a vortex of energy to form which bends back along itself and re-enters itself.

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[1] http://en.wikipedia.org/wiki/Geometrodynamics

[2] http://www.numericana.com/answer/curvature.htm