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Aetherometric Theory: a Microfunctional Transformative Algebra

Aetherometric theory constitutes a new epistemological approach to physical and biological processes with particular application to nanotechnology, energy and lift systems, analytical instrumentation and medicine (diagnostic and clinical uses).

The novel methodology can be qualified as a micro-functionalist approach that has developed a new mathematical language - a microfunctional transformative algebra - capable of addressing the physical and mathematical properties of fine-structure 'objects' (energy units and energy interactions or processes). Precise physical determinations, including those technically forbidden by the Born-Heisenberg Principle, are carried out with dimensional measurements directly expressed in an expanded meter-second system, having full and exact conversion to conventional mass-length-time systems of measurement. The new aetherometric methodology and its analytical language permit exact correlation of physical modelling with metric and geometric structure, identification of fine-structure and precise description of dynamic processes. Development of the new microfunctional algebra, of an adequate and also more exact physical and mathematical language, was integral to an experimental process that elicited and permitted its enunciation, as well as directed it by constant testing.

The new aetherometric language synthesizes contributions from various scientists and thinkers: a critical review of De Broglie's theory of Matter-Waves; the basic transformative functions enunciated by W. Reich in his Orgonomic Functionalism; the structural and morphogenetic functions for homeomorphism, and especially steady-state amplification of minor fluctuations, in the work of C. Waddington, E. Zimmerman and R. Thom in particular (Catastrophe theory); and, finally, the 'machinic propositions' of Molecular Functionalism or Micro-Functionalism enunciated and applied by G. Deleuze and F. Guattari.

Aetherometric theory employs a micro-functionalist approach to the analytical synthesis of different manifolds or multiplicities - qualitative and quantitative, spatial and temporal, particulate and undulatory, momentum and velocity, moment and angular frequency. Its key concepts are functional processes and immanent properties such as: multiplicity or manifold (eg Space and Time); transformation (eg energy conversion, dimensional transformation of mass into length and wavelength, coordinate-system transformation, phase energy superimposition, etc); energy commensurability (eg of manifolds, of their constituents); analytical disjunction or bifurcation (eg of qualitatively different series of physical objects, of particle-decay processes, of regimes of functioning, of proliferating series, etc) and analytical conjunction (eg creation of particulate mass as resolution of secondary superimposition, synthesis of distinct manifolds or of constituents, etc); and functional constituents (elements of distinct series brought into relation, machinic indices).

Fundamental forms of transformation involve either superimposition or differential processes (differentials), or both.

Primary superimposition processes relate directly to the fine-structure of energy units, to the wave superimposition that keeps every particle solidary with its associated wavefunctions. It is in the nature of energy to flow because all energy is undulatory motion. Every energy unit is the product of a primary superimposition - of a particle with a wave, of momentum with velocity, of a charge with a voltage potential, etc.

Secondary superimposition processes are phase energy (phase Space and phase Time) processes that couple together either massfree energy units (eg in the cosmological creation of leptons by secondary superimposition of fundamental latent massfree energy units) or the field properties of massbound energy units (eg in electrodynamic interactions, in secondary gravitational interactions). Secondary superimposition processes present phase-energy raised to a power > 1: phase-energy may be squared (eg the limit case of the electrodynamic interaction), cubed (eg the cosmological process responsible for the production of the cosmic microwave background) or raised to the 4th power (eg in the differential structure of 'vacuum' lattices).

Tertiary processes of superimposition refer in general to energy conversions that generate kinetons or photons. Kinetic energy is captured from an external field to sustain motion, and its fine structure adapts to the fine-structure of the mass-energy whose motion it accelerates. In turn, deceleration of massbound particles generates blackbody photons whose structure is a quantum derivative of the kineton being shed. Photons result from the decomposition of kinetons. Kinetons are units of massfree energy transiently associated with massbound particles and responsible for their motion. Photons are units of tertiary massfree energy generated as the pathway for the return of kinetic energy to the Aether medium. Blackbody photons are detached fragments of decomposing kinetons. Unless the photon energy is absorbed by a massbound particle, it transforms into latent massfree energy.

Laws and processes: old and new

Aetherometric theory has generated entirely new, algebraic expressions that provide exact formulations for a wide variety of fundamental constants, laws and processes of physics, such as: the fine-structure constant; Ohm's Law; the Duane-Hunt Law; Planck's Law; the Ideal Gas Law; Aspden's Law of Electrodynamics; the Nernst equation; Gibbs free energy; the impedance of the 'vacuum'; the magnetic permeability of the 'vacuum' (invariant for photons and variable for massfree and massbound charges); the electric energy of electrostatic interactions; entropy; the internal energy function of a system; the total energy of a system.

Aetherometry has also discovered and identified precise physico-mathematical functions for other fundamental physical and biophysical laws and processes, amongst which: the electric fine-structure of the electron and proton mass-energies; the fine-structure of massbound and massfree charges in vacuo and in material media; the invariant electric permittivity of the vacuum to ambipolar and photon radiations; the variable permittivity of the vacuum to massbound charges; the antigravitational work of electrostatic charge lattices; the energy, momentum and wave structure of gravitons, massfree charges and latent energy units; the blackbody photon radiation law; primary and secondary gravitational interactions; the functional equivalence and nonidentity of inertial mass and gravitational wavelength; a new algorithm for linear-log integration of acid-base and redox reactions; a new model of electronic orbitals with original volumetric and dynamic structures for covalent and noncovalent (van der Waals) bonds; spectral identification of massfree inductive, receiver, transformer and transmitter functions of genomic DNA and genomic RNA.

Units and constants: old and new

Aetherometric theory has discovered the exact values in the exclusively aetherometric meter-second system for all nonfictional conventional constants and units. The following are a few examples, all of which have now been published: the fundamental electric charge; the electron and proton mass-energies; Planck's constant; the volt and electron-volt; the universal force constant G; Hartree energy; Boltzmann's constant; the ampere; the ohm; the henry; the joule; the calorie; the watt; the gauss; the tesla; the weber; the newton; the farad; the degree Kelvin.

Aetherometric theory has also generated exact values for new, far more exacting physical constants. Some of these new aetherometric constants are: the wavelength-equivalent of the electron inertial mass; the Duane-Hunt wavelength; the charge-carrier intrinsic magnetic wavefunction; the apparent velocity of propagation of gravity; the electron-graviton frequency; the cut-off ambipolar frequency separating OR and DOR subspectra; the upper limit frequencies of both spectra, ambipolar and blackbody; the fundamental electron-Aether energy element; the cosmic acceleration constant; the graviton acceleration constant.