

Natural Philosophy Alliance

Newsletter

Volume 13, Number 2

July, 2007

This newsletter is devoted primarily to:

SUMMARIES by Robert Heaston of all papers at the 14TH NPA CONFERENCE at University of Connecticut-Storrs May 21-25, 2007

Some trends were identified in the papers presented at the 14th *Natural Philosophy Alliance* meeting. A number of the papers dealt with using classical techniques to explain quantum and relativistic observations. Other papers reconstructed the derivations of Einstein to reveal new perspectives. The differences between the kinematic and the electromagnetic definitions of light had a role in more than a few papers. The fourth trend involves an increase in the number of papers that analyze experiments and observations. This particular meeting exhibited a more sophisticated mathematical approach than the past three or four meetings. There is also a tendency of older and more experienced members of NPA to act as mentors to the newer and younger members. Crosstalk among attendees was very enthusiastic (as always). Finally, authors appear to be stating their basic assumptions more clearly than they did in the past. One more—ether is on the rise but definitions vary.

Altogether, there were 86 papers and a discussion session over five days. Thirty four papers were in absentia and 55 presentations were made. The numbers do not balance because a few of the presentations were by others for people who planned to attend but did not. A total of 29 papers (34%) were submitted by residents of 14 other countries besides the United States. Papers are grouped into nine topical areas based upon the primary focus of each paper. Reference numbers use the alphabetical order in the attached list of papers, authors and addresses.

Each of us represents a unique reference frame. This reference frame is based upon, culture, education, environment, experiences and choices. We use our reference frames to develop ideas, concepts, and a vision of the universe. We bring our vision to the *Natural Philosophy Alliance* to be heard, to grow, to mature, and to contribute. Our vision is mostly expressed in “If ... then” statements, as is almost all science and mathematics. The summaries of the papers that follow have been constructed out of the “If ... then” statements contained in abstracts, papers, and presentations.

NATURAL PHILOSOPHY. Nine papers addressed broad sweeping issues of physics, offered some advice on performing good physics, and suggested ways of putting everything together.

John Edgar Chappell (1933-2002) was a founder and first Director of the *Natural Philosophy Alliance* from 1994

until his death. He was a champion among those seeking clarity in alternative concepts of contemporary physics, cosmology and natural philosophy. Each year a member of the *Natural Philosophy Alliance* is selected who represents what Chappell believed and that person gives a memorial presentation.

Peter Marquardt from Germany [41] presented the 2007 John E. Chappell Memorial Lecture of the *Natural Philosophy Alliance*. His theme was “It Ain’t Necessarily So! Nature’s Little Surprises and How to Accept Them.” Nature gives us plenty of clues when we perform an experiment or formulate a theory. But, we often fail to look close enough and tend to over- or underestimate our knowledge. We may underestimate in an experiment thus renouncing important possibilities to attain more knowledge. On the other hand, overestimating a well-established and seemingly successful law, formula, or effect may give rise to superficiality. If we dig a little deeper, we may be surprised at an answer that others have overlooked. Some prominent examples that require a fresh diligent look are: kinematics versus dynamics, Maxwell’s equations, the mass-energy relationship, the photon energy and Planck’s radiation law, the Doppler effect, the Michelson-Morley null result, wave propagation, or tunneling. If we arrive at a point of reasoning that “it ain’t necessarily so,” then we may have a rewarding experience in scientific thinking, which is the art of telling the definitely wrong from the potentially right.

Marquardt also presented a paper by J. Paul Wesley, a long time colleague and friend, who died 20 January 2007 in Germany at 86. According to **Wesley** [42], empirical facts continue to be ignored in textbooks. Misrepresentations cover several centuries of physics. A dozen specific errors were noted. (1) absolute space versus relative space; (2) a single photon is not a wave; (3) dropping the last term in Faraday’s law of electromagnetic induction; (4) introduction of a finite time-of-action into Newton gravitation; (5) light and a constant gravitation potential; (6) Maxwell equations do not predict observed longitudinal waves; (7) Maxwell equations (based upon ether) are not compatible with special relativity (denies ether); (8) paradox-plagued special relativity theory; (9) mass-energy equivalence was suggested long before Einstein; (10) the ambiguous mass-change with velocity in special relativity; (11) futile attempts to resolve the wave-particle problem; and (12) cosmology is not a laboratory science. The above ideas and others are discussed in Wesley’s latest book *Light: A Photon Flux*.

Domina Eberle Spencer [73] summarizes her criteria for the study of natural philosophy based upon over fifty years of experience in the mathematical sciences and their

applications. The study of any branch of natural philosophy boils down to two criteria:

- A clear statement of the physical postulates on which the branch of natural philosophy to be studied is based; and
- A careful study of the optimum mathematical representation of each physical concept to be employed.

She proceeds to present a historical review of the physical postulates used by Galileo, Kepler, Newton and in thermodynamics and unfinished theories of robotics and entanglement. Then she begins a similar review of the historical introduction of mathematical representations leading up to the holor that is addressed in a later paper.

Definitions are often a good way to begin a work, a book, a study or a paper. **Francisco Müller** [49] starts with the classical and most general definition of science, in its original Latin meaning of “scientia”, *the knowledge of things through their causes*. Then he proceeds on a historical “tour” of the causality principle from Aristotle’s four-fold view of causality to its contemporary crisis in quantum physics and string theory. The “tour” touches upon the views of Bacon, Kepler, Galileo, Newton, Laplace, Bernard, Mach, Hume and Einstein. Several contemporary crises in causality have arisen: dark energy, multi-dimensionality, probabilism, exploding cosmological constant, pocket universes and multiverses. He proposes a final scheme to understand the present crisis, and maybe remedy it.

At present, mainstream physics and cosmology sadly contain many unnecessary paradoxes. The presence of these paradoxes produces ineffective communications—often caused by ignoring or marginalizing the importance of logic, clear concepts and definitions. For this reason, **Littman** [40] advocates the great importance of applying logic, maintaining clear concepts, and using such concepts when defining terms. Extra work, discipline, and farsighted circumspection are required to remove the paradoxes. He discusses one example about waves and particles to illustrate the problem and how to fix it.

In order to understand the paper by **Nassikas** [55] from Greece, it is first necessary to interpret his title “On a Minimum Contradictions Ether—Everything.” “Minimum contradictions” means “logic”. Every statement has built-in contradictions which may be minimized with the use of logic. He presents a theorem, a lemma, an axiom, three numbered statements, Gödel’s hypothesis, and definitions. “Ether—everything is the substance within which things exist and from which things are made. ... Since everywhere there is space-time and not something else, *Space-Time – Everything* can be regarded as *Matter-Ether*. ... On this basis space-time can be regarded as *geometry or deformable matter-ether* ... The modern ether can be treated as a sea of information, and a generator of dynamic algebras.” That is the first half of his paper. Then he adapts the Schrödinger equation and unifies the electromagnetic and the

gravitational forces based upon the assumption that “The electromagnetic (*em*) space-time is a space-time whose magnitudes are considered imaginary and behave exactly like the gravitational (*g*).” He concludes discussion of *Space-Time Quantum Mechanics* by stating, “The statistical nature of space-time constitutes the basic consequence of the main principle of this work, i.e. of the claim for minimum contradictions.”

Before the 20th century, mankind had learned to explain the changes of the world around them using forces of interaction of one body on another. However, during the 20th century, many new phenomena involving the micro- and the macrocosm were considered without referring to forces. Various hypothetical explanations were used rather than real ones. **Smulsky** [70] from Russia looks at the interactions of forces on bodies at rest and in motion and uses these interactions to investigate hypotheses about: particles of light, speed of gravitation, black holes, deviation of light, gravitational waves, expanding Universe and the Big Bang. Some of these hypotheses are proven unreal.

Roberts [63] suggests that the universe as we know it is comprised of only three basic elements: Space, Energy, and Time. He gives a philosophical treatise of cause and effect that proposes a mechanical model consistent with observations to explain the known properties of the universe. By application of reverse engineering, and empirically testable and deductive logic, the magical properties of space and time, together with the true nature of energy are revealed. He explains how the intrinsic mechanical properties of space are derived. Once the properties of space are known, the true nature of energy and its many manifestations, become apparent. Construction and precipitation of atomic particles, nuclear forces, fields, atoms, radiations, magnetic fields, electric charges, and the underlying causes of inertia and gravitation are all included.

Asija [2] discusses attempts to fix certain errors, myths, and misconceptions in classical and contemporary physics about motion. He uses examples about Aristotle’s concept of the motion of objects, Galileo’s tests on the motion of objects, Kepler’s laws of planetary motion, Newton’s laws of motion and Einstein’s theory of relativity and masses in motion. Asija states his assumptions and then phrases most of his questions in a tricky manner such that yes-no answers are not always possible.

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COSMOLOGY AND ASTROPHYSICS. Thirteen papers address the topics of tired light, Kepler's laws of motion plus two more, origin and evolution of the solar system, the possible role of electrical and magnetic fields in cosmology, classical cosmology, dark matter, quasars, an infinite universe, the Big Bang, and the geometry of an expanding universe.

Tired light is a proposed mechanism for redshifts generated by a static universe. Hubble's law states that galactic distances vary linearly with redshift, interpreted as relative velocity in a Doppler sense. A tired photon supposedly loses energy linearly with distance traveled to exactly compensate for Hubble's law. Extensive observational evidence indicates that the universe is highly heterogeneous and its density decreases periodically with distance from the Earth. Hence, **Rydin** [66] convincingly concludes that *tired light* is a false premise from two standpoints, existence of a non-uniform density distribution of matter in the universe and lack of a viable physical mechanism to cause energy loss with distance traveled.

Scarborough [71] reported on redefining his new laws of planetary motion to be consistent with Kepler's definitions of his three laws of motion. There are now five laws of planetary motion, Kepler's three and Scarborough's two. The five laws offer the capability of deciphering the full history of our solar system. **Scarborough** [72] reviews 33 years (1973-2006) of work that he has done on his Little Bangs/FLINE concept. In 1973-1979, the definitive origin and intimate relationship of the hydrocarbon fuels (gas, oil, coal) and all planetary matter were established as products of internal nucleosynthesis (IN) that drives all evolution (E). In 1980-1995, the fourth law of planetary motion and Kepler's three laws confirm the dynamic origin of our geometrically-spaced planets as nuclear masses that are evolving through five stages of evolution. In 2006 the fourth law was modified and reworded; the fifth law was established as a separate entry from the original fourth law. All Five Laws (FL) are included in the FLINE model. Scarborough gives a list of 23 observations that validate the LB/FLINE model.

Computer generated images in three-dimensional plasmas look like over 25,000 images scratched on rocks from all over the world. Apparently, people on earth long ago saw these features in the heavens. We don't see them with the naked eye today, but astronomical images such as the Ant Nebula and many other optical, radio, and x-ray images that are observed may be generated by electric currents in plasma-like fluids. **Beckerle** [5] believes like Hannes Alfvén that electromagnetic forces should have a role in cosmology since such forces are 48 magnitudes greater than gravitational forces. Moreover, there are many dynamical processes in astronomical bodies including our Sun that do not seem to be explained as yet by gravitational theory. This question needs recognition and an unambiguous

answer: Do electric currents that generate magnetic fields play a bigger role in cosmology than gravitational fields?

Cherepennikov from Russia [15] supports the classical model of two spherical material objects radiating and absorbing material particle fluxes. Light is considered to be corpuscular. This model allows us to explain classical predictions about physical interactions. In the case of large distances between material objects and relatively low movement velocities of the interacting objects with radiated particles, the derived equations for gravity and electric interactions result in the Newton and Coulomb equations. Based upon the model, analysis of available astronomical observations, including those of Hubble, Zwicky, Yaakkola, and other scientists, indicates a cyclic evolutionary sequence of development of material objects in the Universe.

Astronomers and cosmologists have made valiant efforts to demonstrate theoretically, and to find observationally, additional evidence in support of dark matter, perhaps non-baryonic matter having no known characteristic other than gravitational attraction, that is postulated to make up as much as 95 percent of the mass of the universe. The presence of that amount of dark matter in the universe is required to provide for a "flat" Euclidian universe of critical density as postulated by Inflation Theory, a widely accepted version of the Big Bang Theory. **Mitchell** [43] reports on an extensive literature survey about the sources and kinds of dark matter. He concludes that lack of astronomical evidence and supporting theory denies dark matter candidates, such as cold dark matter, neutrinos and other forms of dark matter rules them out as the cause of the flat rotation. It is not some mysterious, unknown, non-baryonic material that produces the flat rotation of some galaxies, but the gravitation of the enormous mass of ejected matter and radiant energy that spews from the galaxies, and surrounds them in an approximate inverse-square-law pattern.

Weber [81] explained that quasars are an optical illusion created by gravitational lensing of photons caused by a jet emanating from a large mass at the center of an active galaxy whose axis is oriented towards the Earth. A massive accretion disk in the path of the photons acts as a lens. Ultraviolet and x-rays are reflected by a dense plate of ions on the surface of the accretion disk. Infrared rays are emitted from dust and gas further out, the last not magnified as greatly but coming from a vast area. He used a schematic diagram involving ray tracing.

Cosmology has become "cosmogony," the dubious study of the "origin" of the universe. *The Scientific Worldview: Beyond Newton and Einstein* is a book by **Borchardt** [6] who chooses the philosophical alternative of an infinite universe so that the irrationality perpetrated by the big bang theory disappears and cosmology becomes legitimate once again. His conceptual framework is dubbed *univironmental determinism*, which is the proposition that what happens in a portion of the universe is determined by the relationship between infinite matter in motion within

(the microcosm) and the infinite motion without (the macrocosm). All processes are to be understood in terms of a universal mechanism of evolution described in a subsequent paper. **Borchardt** [7] rejects the big bang theory and replaces it with the infinite universe theory. A side-by-side comparison of the two leads to predictions offered by choosing an infinite universe: time is motion; there is no ether; light is a wave motion; the galactic redshift is primarily due to absorption; gravity involves a push, not a pull; there is a complement to the second law of thermodynamics; light bending near massive bodies is refraction due to a dense ethersphere; galactic ages will not correlate with distance from Earth; the universe is Euclidean and not expanding; empty space and solid matter are ideas, not reality; and matter has only three dimensions. Welcome to the infinite universe.

Sven [76] summarized his talk about the Big Bang in one sentence: The question of what fueled the Big Bang can now be answered with the latest scientific findings delineating the life of the atom's ageless proton heart in a synthesis employing photons, the speed of light, energy and Einstein's ether that fills the arena of space prior to the big bang. He concludes that an ocean of energy-filled space fuels all our atoms, just as this ocean once fueled the Big Bang. In his second paper, **Sven** [77] uses several pieces of information to locate the epicenter of the Big Bang relatively near the Earth. The Cosmic Microwave Background anomaly nickname the "The Axis of Evil" by Magueijo of the Imperial College in London is the best proof that the Big Bang explosion occurred in an energy-filled space leaving our slow-moving Earth right next to the center of our universe. Other supporting literature information comes from the Anglo-Australian 2dF group, SDSS-Sloan Digital Sky Survey, gamma ray bursts, and supernova explosions.

Kulick [35] describes the geometry of an expanding universe. The unique aspect of his model is that the expansion occurs within all atoms and the density of all systems diminishes. The physical model consists of two interlaced multidimensional geometries. The volume of 'observable' spacetime varies to the square of the absolute, or historic or cosmic time elapsed (Double the age of the universe and the "absolute" volume increases four times). The expansion of 'observable' spacetime also occurs along a 'unobserved' dimension according to the same expansion geometry with a present velocity along the 'unobserved dimension' geometrically related to the speed of light. **Kulick** [36] presents a second paper that describes the consequences of this expansion. (1) No dark energy; (2) No dark matter; (3) The energy source of quasars is due to accelerated stellar physics; (4) The early explosive era of the solar system is explained; (5) A reason is given for an early atmosphere on Mars; (6) No super-massive black holes; (7) The lack of time dilation in the energy output of quasars is explained; (8) The model is compatible with special relativity but not general relativity; (9) No singularities; (10)

It is possible to describe the structure from which the universe was formed; (11) The age problem of stars older than the universe is resolved; and (12) From a local perspective the universe is infinitely old and will never end, but the age is finite from the "Eye of God" perspective.

GRAVITY. Another thirteen papers struggled with defining gravitational mass, the structure of spiral galaxies, general relativity, neutrino flux contributions to gravity, anomalous motion of the Pioneer 10 and 11 spacecraft, Fitzgerald-Lorentz contraction, gravitons, empty and absolute space, and gravity as force-free circular motion.

Klyushin from Russia [31] talked about gravitational forces created by moving masses. Corresponding fields are described similar to generalization of the Maxwell equations in which first time derivatives are changed for the second ones. One can say that electricity is a field of velocities and gravity is a field of accelerations. In this case, the challenge was to define "gravitational mass." Solutions of such a system are used to construct interaction energies and interaction impulses. The gradient of scalar products of corresponding gravitational fields and second time derivatives of the vector products of gravimagnetic fields turn out to be accurate analogues of electrodynamic interactions. But here, forces depend not only upon velocities and acceleration but upon third and fourth derivatives as well. Forces were represented in two forms: divergence of the potential energy, and the time rate of change of momentum. **Klyushin** [32] expanded upon the above presentation for a couple of hours on the last day of the meeting in a discussion of "Electrodynamics and Gravidynamics". More mathematical terms were inserted in the so-called acceleration field. He has circulated a paper on the discussion topic.

The visual image of a spiral galaxy is one of the most tantalizing images in nature. And this image is very pervasive. Whether large or small, young or old, heavily or sparsely populated with stars, galaxies show spiral arms. The mechanism that creates and sustains the pervasive spiral galaxy is presently a subject of debate. **Whitney** [85] believes that the common mechanism behind spiral galaxy structure is provided by a super-massive two-body system at the heart of every such galaxy, which leads to a spiral shaped background field that the normal-sized stars of the galaxy fall into. Alexander Scarborough recently rekindled Whitney's interest in this subject, which she has not pursued since earlier work in the 1980s.

One hundred years ago in the autumn of 1907, Einstein began a nine-year odyssey to derive his field equations of general relativity that explain gravity so well. **Heaston** [25] described how a careful chronological correlation of Einstein's personal correspondence with Einstein's technical publications permits an accurate historical reconstruction of Einstein's derivation. Five end-points of the field equations were identified: (1) collapse of matter to a massless Minkowski spacetime universe; (2) collapse to Newtonian

conditions; (3) collapse to a Schwarzschild event horizon; (4) collapse to the Planck scale; and (5) collapse to a singularity dependent upon the assumption of geometrized units of $c = G = 1$ in those units. Three new conclusions result from the reconstruction: matter collapses to a critical limit and then transitions into energy; energy/light has a constant gravitation potential equal to the speed of light squared; and the assumption of geometrized units normalizes the field equations, which implies that a singularity is the consequence of circular reasoning.

Galaxies move in an ocean of neutrinos. In fact, as noted by **Tsybin** [78] from Russia, spiral galaxies would then be like stationary hurricanes in a neutrino ocean. The effect of the rotation of the spiral galaxies produces a honeycomb distribution of the neutrino flux in space. Starting with the Newton gravitational force he defines V the rate of change of a neutrino flux as equal to GM , where G is the gravitational constant and M is the mass of a neutrino. Using various scaling factors, he determines the mass of the neutrino, and knowing this mass, he determines the gravitational effect of the flux of neutrinos.

Two United States Pioneer 10 and Pioneer 11 spacecrafts both exhibit an anomalous, constant acceleration directed towards the Sun at distances of 20 to 70 astronomical units (AU). Three papers gave an explanation for this anomalous behavior. **Deen** [16] states that the anomaly can be reproduced by a multilayer, onion-like, spherical cosmic lens centered on the Sun with an inner radius of 20 AU. If that range stops at around 70 AU then the lens has eight layers with a predicted outer radius of 68.58 AU. The ninth layer would extend to 74.08 AU. He predicts the thickness of each layer and the effective index of refraction for each layer. The anomalous acceleration towards the Sun is just the calculated “observed” acceleration minus the Newtonian acceleration. The calculated “observed” acceleration is just the Newtonian acceleration times the refractive index of refraction at the spacecraft’s location. The effective index of refraction is the product of the individual layer refraction indices that are interior to the spacecraft location. **Renshaw** [62] focuses on giving reasons why many different approaches cannot explain the anomalous motion of Pioneer 10 and Pioneer 11. The lack of a physical explanation for the effect requires a close look at the algorithms used to convert a series of observed signals on the rotating, solar-orbiting Earth to a more inertial frame, such as the solar barycenter. The observed anomalous shift contains an overall, fairly static component, as well as a smaller component with an annual periodic variation. It is difficult to imagine any gravitational anomaly that would be tied to the period of earth’s orbit around the Sun. The anomalous signals seem to indicate an error in the application of relativistic Doppler corrections to the data rather than any new physics. **Koepke** [33] suggests that the Pioneer anomaly can only be explained by invoking a gauge variant theory of gravity. Since the gauge transformations in this theory are absolute there is an

anisotropic cosmological frame effect in the vicinity of the solar system. The acceleration is not a true acceleration but a combination of an artifact of the anisotropic metric and an apparent acceleration due to a gravitational blue-shift. Then, he offers six qualifying approaches that cover the cosmos. Finally, he suggests the existence of some verifying predictions about the anomalous accelerations, which are not stated.

Based upon the assumption that the Fitzgerald-Lorentz contractions and the Lorentz slowing-down of all electromagnetically determined clocks are real phenomena, **Romalo** [64] from Romania concludes that the relativistic Fitzgerald-Lorentz invariance is exclusively a characteristic of electromagnetic systems. This conclusion may not be extended—with an *a priori absolute certainty*—to systems containing inertial and/or gravitational elements. It appears that neither inertia nor gravitation has been experimentally checked for Fitzgerald-Lorentz invariance. In order to confirm the initial assumption, two approaches are suggested and have been investigated using computer modeling: one determined for gravity and inertia together and the second for inertia alone. Approximate quantitative results are worked out via finite difference approximations run in an Excel program.

The Newton inverse square law of gravitation and the Einstein field equations of general relativity both describe the path that bodies take in a gravitational field without providing a mechanism for this movement. According to **Robert, David and Patricia de Hilster** [18], Newton was the first to propose a possible mechanism for gravity called a *fluxion*, which has evolved into the modern concept known as the *graviton*. Mass increases by the capture of gravitons and this capture is the cause of gravity. The de Hilsters have designed a Cavendish-like barbell test apparatus using lead weights to try and prove that the graviton exists using concepts introduced by the Argentinean physicist Ricardo Carezani. Initial measurements have been inconclusive, but suggest test revisions.

Modern physics is based upon the theory of discontinuity, the core postulates of which are: the existence of atoms as the ultimate natural division of matter, their characteristic of inherent and eternal (kinetic) motion, and the existence of a predominant volumetric component of macroscopic matter—an *empty space* that allows for a completely uninhibited motion of atoms within it. **Munday** [53] from New Zealand contends with the meaning of *empty space* and related concepts such as the vacuum, the empty vacuum and the sea of virtual particles, all of which are a return to the concept of an ether. This concept of an empty space is a millstone around the neck of science today, and the reasons were clearly and emphatically articulated by Newton, in that it is neither mathematically nor conceptually possible to describe the transmission of any force, either through a vacuum or a medium that has zero-inertia. Newton suggested that atoms were static and that the force of pressure was a result of atoms ‘pressing’ one on the other.

Munday returns to Newton to account for gravitation and other phenomena. **Newman** [56] tells us that Newton provided laws of gravitation and mechanics that continue to be employed, but failed to interpret the involvement of absolute space in those laws. Radiation of gravitational waves in space-time offered by Einstein's general theory may be considered to similarly fail in providing a root cause of gravitation since the process by which waves are driven is absent. Mach's theory of distant masses is generally thought to provide a non-fictitious cause of inertia, but is challenged by logical means here. LeSage's theory of gravitation appears to provide a common cause of gravitation and inertia, but also fails on logical grounds. It would appear that a plausible cause of gravitation and inertia, along with a reason for similarity with mechanical force, has thus far not been answered. Newman proposes a new theory that uniquely provides a governing mechanism. We are piqued but have not peeked at any more details from him.

According to Newton's first law, a body in motion tries to maintain a straight line of travel. There are no exceptions to the rule because it is thought to be an act of Nature. However, **Emery** [30] argues that unrealized effects from circular motion point to the underlying cause of its tendency to move in a straight line. Force-free circular motion is the inertial effect of two separate motions tied together as one. A body's straight-line motion is carried and turned effortlessly by a spin from the body itself. Force-free circular motion is taken as given and used to define gravity, general relativity, Kepler's laws, projectile flight, atoms, creation, and evolution. No vectors, no magnitudes, only directions.

MATHEMATICS. Four authors addressed the frontier of the language of physics on topics such as holors, spatial infinitesimals, limits in infinitesimal calculus and parallelism.

A *holor* is the name of the universal set that includes scalars, complex numbers, vectors, matrices, tensors, affine space, metric space and any other mathematical operation that may be used to define rigid body motion. The long range goal is to incorporate all members of the set into one equation. A thorough analysis of rigid body motion was motivated by an interest in robotics first put forward by Eduard Study (pronounced "Stoo-dee") in *Geometrie der Dynamen*. **Spencer** [75] describes how innovations in mathematics were required to combine translation and rotation to describe all motion. Various names are given to these new combinations, all of which belong to the holor set: rhabdor, kineor, strophor, charybdor, and dynator.

Erickson [21] presented two papers, both of which are discussed in more detail in his book, *Absolute Space, Absolute Time, & Absolute Motion*. His first paper emphasized that the key to understanding space is its smallest division, the spatial infinitesimal, which is the smallest location that can possibly exist. Infinitesimals offer a distinction between the finite and the sub-finite. In the

finite, there are irrational quantities, which exist, but are not fully explicable in terms of finite units. On the sub-finite or infinitesimal level, there are the individual locations, or spatial infinitesimals, which can be numbered theoretically, although we lack any capability to do so. Erickson takes the approach that, in order to prove a principle, one needs to investigate how to refute it. He presents a number of objections to infinitesimals and gives counterarguments. In his second paper, **Erickson** [22] suggests that the idea of the limit when applied to the derivative in the infinitesimal calculus is wrong. Since the derivative is not an approximation, but an exact product, the commonly rejected extra terms must be recognized as present. As such, recognition of the extra terms may provide an avenue for the future advance of physical science.

The fifth postulate of Euclid, the parallel postulate, was formulated in 300 BC. The parallel postulate is still not proven as a theorem, although many have tried to do that. The reason for this failure is not to be found in the postulate per se, but in the definition of parallelism. The most common definition simply states that parallel lines never meet. Euclid phrased the fifth postulate in a more complicated manner, "*That, if a straight line falling on two straight lines make[s] the interior angles on the same side less than two right angles, the two straight lines, if produced indefinitely, meet on that side which are the angles less than the two right angles.*" **Persson** [59] from Sweden redefines parallelism: "*Two lines are parallel if, and only if, two points on one of the lines have equal perpendicular distances to the other line.*" The fifth postulate may be more easily proven with this new definition.

PARTICLES AND ATOMS. A third group of thirteen authors wrestled with a spinning charged ring, analogies between electrodynamics and hydrodynamics, ionization potentials, internal energy, classical electron, unique properties of hydrogen and helium, the Ranque effect, geometric field structure and 525 questions about the microworld.

In a paper presented at the 13th NPA at the University of Tulsa in 2006, equations were derived for the equilibrium of the gravitational and the electrodynamic forces on each charge in a spinning charged ring, based upon the classical theory of Maxwell and the new Gaussian electromagnetic theory. Unfortunately the integrals in these equations diverge if the spinning charge is

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considered to be continuous. In this paper, **Spencer, Shama, Mascardo, and Mann** [74] investigate whether stable

spinning charged rings containing a finite number of discrete charges can exist according to the Maxwell and Gauss electromagnetic theories. The overall equation now contains electromagnetic, basic gravitational, and seasonal gravitational terms.

Laski [38] from Poland investigates the analogy between the theory of elastic waves and hydrodynamics as compared with the theory of electromagnetic waves and direct electric currents. Following the rules of cybernetics, the whirlwinds in fluids correspond to whirls of direct electric currents in conductors; solenoid elastic waves in solids correspond to electromagnetic waves in dielectrics. He observes that almost every equation of electrodynamics is accompanied by an equation used in the theory of elastic waves or hydrodynamics. The constancy of the analogy is clear when presented in four tables relating elastic P waves, elastic S waves, irrotational direct currents and solenoidal current side-by-side. Consistent correspondence between more than twenty basic equations cannot be just a coincidence. It opens quite a new possibility for research.

According to **Whitney** [84] every element in the Periodic Table admits a set of "ionization potentials," the number of them being equal to the nuclear charge. Less than 400 of the 5,000 possible data items are readily available. A recurring regular pattern is revealed with clarity sufficient to imply plausible predictions about all the thousands of data points not yet measured. This pattern proves that existing theories are wrong in some respects, which can guide the development of a better theory. The present paper is an update of a study that was given at the University of Connecticut at the 10th NPA in 2003. The developing physical theory avoids the unproved postulate concerning constant light speed and the action quantum that were so basic to physics in the 20th century, and replaces them both with just one possibly provable new postulate concerning two-step light propagation. The new theory is more consistent with the observable behavior of ionization potentials. The new theory also explains the stability of neutral atoms overall and the stability of same-sign charge clusters.

Quantum mechanics is based upon the assumption that particles such as electrons and protons are 'elementary'. This assumption is invalid since scattering experiments have proved that 'elementary' particles actually have complex structures. Due to deformation, such structures accumulate internal energy, which cannot be neglected. **Brasoveanu** [8] gave three papers on the consequences of considering internal energy. In this paper, if internal energy is not neglected, classical physics provides a deterministic and unitary description of virtually all non-relativistic phenomena regardless of scale, including the quantization of electromagnetic emissions, the double slit experiment, the tunneling effect, radioactivity and the discrete levels of atomic energy. **Brasoveanu's** [10] second paper in this section evaluated relativistic phenomena recognizing that mass shows a variation of internal energy with velocity.

Classical physics can predict relativistic effects such as mass increase, length contraction and time dilation without recourse to particular hypotheses like the existence of aether. Based upon the law of equipartition, all oscillators within an 'elementary' particle, that is, all quanta and matter-like components have the same average energy, which means that relativistic energy and mass are proportional to the Lorentz factor. He also discussed various interactions of light and length contraction.

A similar argument to Brasoveanu above is given by **Savarkar** [68] from India. The standard basic laws of mechanics imply the existence of elastic energy circulations associated with the internal forces and stress in a body at rest in a moving system, even when the motion of the system is uniform and inertial, whereas no such energy circulations occur in an identical body at absolute rest. Analysis of the moving system leads to refutation of relativity.

It is usually claimed within physics that a continuously orbiting electron must give rise to radiation, and hence the classical model of a planet-like electron must be accordingly abandoned in favor of quantum theory. **Jonson** [27], who is a student in Sweden, is convinced that the classical model of the orbiting electron may still be useful, provided no energy is being consumed during its revolution around the positively charged nucleus. Based upon classical mechanics and the properties of the acceleration vector, he explains mathematically how the electron can move eternally in a fixed orbit. Moreover, electromagnetic radiation due to the de-excitation of an excited electron can be explained classically because of a sudden peak in the electric field due to the inward spiraling movement of the electron during its de-excitation. In this process, there is no need for a distinct photon particle.

Rowe [65] reports on several experimenters who observed the presence of hydrogen when it should not have been present, particularly in the quantities detected. Sir J. J. Thomson reported the appearance of surprisingly large quantities of hydrogen gas during electrical discharge in a vacuum. Clarence Skinner reported that during discharge in pure low-pressure helium, hydrogen gas was produced at the cathode. Hydrogen may also have been present in a Bose-Einstein condensate. If Bose-Einstein condensed hydrogen is a matrix of protons and unpaired electrons, it is paramagnetic and has dielectric properties. Such a matrix permits explanations for many phenomena: the appearance of hydrogen during electric discharges; the values of the dielectric constant and permeability of vacuum required by Maxwell's equations; the forces between separated magnets; and the formation of hydrogen in space. Speculations about the mysterious hydrogen are also linked to the ether and dark matter.

Helium is unique among elements. It was discovered in the corona of the Sun first and then on Earth. Helium was first successfully liquefied in 1908. W. H. Keesom finally solidified helium in 1926 at 25 atm pressure. **Littman** [39]

talks about the strange properties of cold helium and addresses three themes: helium has some unique mass, energy, pressure, volume, temperature, phase properties; helium is a microcosm of the world; and helium may be compared with the aether. **Monti** [46] from Italy begins his discussion of cryogenic nuclear fusion by mentioning the *Ranque effect*. This effect was discovered by a French physicist Georges Ranque in 1933 and is stated as follows: A mass of gas regardless of density and initial temperature, if placed in axial rotation, will cool the closer it is to the axis of rotation and will warm up in the external area. Then, Monti applies the Ranque effect to nuclear reactions in protostars that might have a core temperature near absolute zero, analysis of the Sun and sunspots, the mechanisms of atomic, hydrogen, and neutron bombs, and the English ZETA test of controlled fusion. He concludes by suggesting cryogenic methods for controlled nuclear fusion. He mentions many specific nuclear reactions and their energy levels involving gamma rays, neutrons, protons, deuterium, tritium, helium and lithium.

Physics, from the historical perspective, abandoned model building when the uncertainty principle and probabilities became the modus operandi for quantum physics during the 1920s. Bohr's atom and subsequent descriptions by physicists during the 20th century were metaphors as opposed to an actual working structural conception. **Bridgell** [11] has developed a geometric field structure theory that correlates with mass/energy values of fundamental particles. He describes a *Particle Hierarchy Chart* in his first paper, which shows how each particle is a member of a family tree produced by the interaction of lesser massive/energetic particles. In his second paper, **Bridgell** [12] defines a skew geometry based upon what he calls *action loop units* of structure that result in a deterministic structure to physical reality beginning at the Planck scale. The fascinating aspect of the resulting particle hierarchy generated by the action loops is that it is done entirely with interacting action loops that can be modeled at our scale of experience. You have to see it to believe it.

Kanarev [29] from Russia poses 525 questions with regard to properties of the microworld. Five random examples are: What does the notion "microworld" mean? What particles are considered to be the fundamental ones? What law governs the localization of the photon in space? What processes are formed by linear lightning in the clouds? Are there any signs of Planck constant realization in the body? Brief answers for all 525 questions are found at <http://Kanarev.innoplaza.net> Article 104. It is a fascinating list.

ELECTRODYNAMICS AND SPECIAL RELATIVITY.

A team of ten searched for a new understanding about light, universal time, contrary clocks, superluminal speeds, relativistic mass, dissipative standard map, reference frames, archetypes of physics, charges and currents, transformation equations and Gulliver's Travels.

Munch [50] describes (after stating his assumptions) important but overlooked results that are seen when Galileo's views from a ship or land are coupled with uniqueness of start and stop times of an object dropped from the mast of a ship. An observer on the moving ship sees the object fall parallel to the mast, whereas an observer sees the object fall in a curve relative to where the mast was when the object was released. The path lengths are indeed different yet all observers experience the same elapsed time of travel of the object. These same results hold for a single light ray in rectilinear motion. Several implications of this analysis result: Universal time, "that time which passes at the same rate everywhere in the universe", applies to each single light ray. Light speeds are relative; physical length contraction and clock time dilation never did apply. Relative light speed also applies to light wave properties; and, uniqueness is determined by the frame in which light starts.

Utilizing only the principle of equivalence and the conservation of energy, **Renshaw** [61] derives the customary equations for the slowing of clocks due to motion. Clocks slow proportionally to a Galilean transformation of the energy of the clock system from the initial rest frame of the clock to the new inertial reference frame. In other words, only motion relative to the rest frame in which a clock is calibrated causes slowing. If two observers initially in motion with respect to each other each construct identical clocks, at rest in their own inertial frames, the clocks will record identical times. If either clock is then placed in motion relative to the inertial frame in which it was calibrated, it will slow according to the energy considerations associated with this motion. Renshaw applies this *historical asymmetry* to changing gravitation potentials, the twin paradox, the Hafele-Keating experiment, and pulsar timing algorithms without resorting to special relativity. In another paper, **Renshaw** [60] states why special relativity is incompatible with quantum theory. The major discrepancy arises from conflicts with Bell's theorem which states that *any model of reality must be non-local*; that is, information must travel faster than light in any acceptable model of reality. He describes a model of superluminal light that is compatible with both quantum theory and experiments supporting special relativity. This model, when applied to Maxwell's equations produces a Galilean relativistic form that eliminates the concepts of length contraction and time dilation, but retains mass increase with velocity, clock slowing under acceleration, an etherless model and no preferred reference frame. This interpretation of light's properties makes communications far in excess of the speed of light possible for interstellar contact.

Wells [83] examines the action from two different inertial reference frames when the force between two electric charges is theoretically employed to compress a standard mechanical spring. He reveals a direct contradiction in relativity theory where the work done on the spring in the relatively moving frame does not equate with

its requisite mass increase. Another contradiction in theory concerns the illusory nature of “relativistic inertia,” whereby certain deduced relative displacement and momenta magnitudes of interacting bodies conflict with other specific transformation requirements. Wells demonstrates logical fallacies in the notion of “relativistic mass.”

The *dissipative standard map* is an important paradigm in nonlinear dynamics. The map, with dimensionless positive parameters describes the Newtonian dynamics of a periodically-delta-kicked damped electron in a time-varying electric field in a plasma. **Lan** [37] from Malaysia shows that, contrary to conventional wisdom, the predicted Newtonian and relativistic trajectories for a low-speed delta-kicked dissipative system can eventually disagree. The results point to a new possibility of testing special relativity by comparing the eventually different trajectories predicted by Newtonian mechanics and special relativistic mechanics with the measured trajectory of a slow-moving system. An experiment is planned.

Warfield [80] postulates that the Earth’s gravitational field, an Earth-centered non-rotating inertial frame, and the inflow of space (ether) provide a preferred frame for both the velocity of light and the ‘tic rate’ of atomic clocks. These two processes, speed of light and clock rate, are independent and not directly related to one another as postulated by Einstein. Warfield discusses several different reference frames and phenomena. He gives an extensive analysis of the Hafele-Keating experiment of comparing three clocks, one on a plane flying eastward, one on a plane flying westward, and one on the ground. Warfield also suggests that an Earth-centered non-rotating inertial frame could be used to prove the existence of the ether.

The physicist Wolfgang Pauli (1900-1958), one of the founders of quantum mechanics, was highly fascinated by the archetypes of the psychologist C. J. Jung. Pauli believed that archetypes were the underlying principles of the physical world and even suggested a research program to explore the physical meaning of these archetypes. But, this research program never became a reality. **Hansen** [24] from Germany gives an example of what this research program could have looked like. The hypothetical program is a structure consisting of different spheres and squares which are put together in an archetypical way, which is traditionally called a *Mandala* (oriental design of the universe). By extending Einstein’s special theory of relativity geometrically to a non-local state, this archetypical structure surprisingly arises. Velocity may increase infinitely so that the special theory is void.

Einstein’s 1905 paper *On the Electrodynamics of Moving Bodies* defines four transformation equations in his Section 3 that are generally accepted as resulting from mathematically correct derivations. **Bryant** [13] analyzes the Xi transformation equation in this section of Einstein’s paper and reveals a specific algebraic problem in its derivation. The difficulty in identifying and communicating this problem does not manifest

itself in the validity of the Xi equation, but rather in a subsequent step involving the Tau equation where its numerator appears to be incorrect. Once the root cause is identified and Tau is corrected, the resulting system of equations underpinning the Special Relativity Theory will have to be re-examined.

Since July 2006, **Jonson** [28] from Sweden has carried on an email debate with James Keele, both members of NPA, about the role of Special Relativity Theory (SRT) in the phenomena of moving electrical charges. Keele defines the interaction of one charge with another by inserting the SRT formula for length contraction into Coulomb’s law for the electric field of a stationary charge. He applies this formulation to moving charges and stationary current elements and derives Ampere’s Law. Jonson published a paper in the **Chinese Journal of Physics** on “The Magnetic Forces between Two Currents Explained Using only Coulomb’s Law.” He does not need SRT, but does employ the concept of retardation. Issues concerning static and moving charges and constant and changing currents arise in this continuing debate.

Savakar [67] from India states three principles of natural philosophy: (1) The only necessity is logical necessity; (2) The only impossibility is logical impossibility; and (3) Experience is and must be the final arbiter of truth. In addition, we have the standard set of six laws of mechanics: momentum; work; power; angular momentum; local or global conservation of momentum, angular momentum, and energy; and the physicality of energy. With these tools, we are transported into Jonathan Smith’s **Gulliver’s Travels** where on the island of Lilliput everything is smaller than our reality by a factor of twelve, and in Brobdingnab everything is larger by a factor of twelve. How do our laws and relativity scale to each of these locations? Savakar reveals some surprises, one of them concludes that relativity as an absolute principle is not viable, is not tenable, and is refuted.

EXPERIMENTS AND APPLICATIONS. Another nine authors talk about test results on Faraday induction, Michelson-Morley replication over two years, reprise of the Roemer effect, tracking buses, optical Doppler test, cannon balls and the double slit, Earth expansion and radiation victims.

Francisco Müller [48] describes a perplexing experiment that he has carefully performed. If a wire of length L moves with a velocity v perpendicularly to a magnetic field B , a voltage is induced along the wire equal to BvL . Reciprocally, if a current I is passed through the wire, a motor force $F = BIL$ moves the wire in a perpendicular direction. If the wire is shielded from the magnetic field, then $B = 0$ inside the shield, but the same

voltage BvL appears on the wire in spite of the zero B where the wire is located. Likewise, if a current is passed through the shielded wire, then a motor force is still produced, but this time not on the wire but on the shielding cylinder. In both instances the induction and the motor force should not occur across a field-free region. All in all, we can say that the causality principle, an ideal tenet of science, suffers a severe restriction when Newton's action-reaction law is ignored in these electromagnetic interactions.

The fringe shifts produced in a stationary Michelson-Morley interferometer were recorded every minute in each session lasting from 24 hours to a week. More than 40 sessions were carried out by **Múnera, Hernández-Deckers, Arenas and Alfonso** [54] from Colombia during the period from the end of 2003 to the beginning of 2005. Diurnal variations of the fringe-shifts were observed in all cases. After subtraction of environmental pressure, temperature and humidity contributions the residual curves still depict similar cyclic behavior. Both the uncorrected and the residual fringe-shift curves were correlated against the projection of Earth's velocity on the plane of the interferometer. The Earth velocity at each instant was calculated using the value of solar velocity obtained from COBE observations. The declination of solar motion that maximizes the correlation with the data was obtained. For comparison purposes, a similar exercise was carried out for Miller's velocity.

A fundamental tenet of Einstein's Special Theory of Relativity published in 1905 is the light speed invariance postulate according to which the speed of light is constant in all inertial frames. Over 100 years later, light speed invariance remains an open issue. **Gift** [23] from Trinidad reviews the mathematical approaches of many of the one-way and two-way measurements of the speed of light and decides that the "Roemer Effect" variation in the period of Jupiter's satellite Io observed from the Earth as it orbits the Sun is a direct manifestation of changes in the speed of light relative to a moving observer. The change in the period of the planetary satellite Io measured by an observer on Earth is a direct indication of a change in light speed relative to that moving observer and therefore a falsification of the light speed postulate of Special Relativity Theory. He recommends a return to the absolute frame of the causal ether embodied in the spacetime framework of the modern Maxwell-Lorentz Absolute Space Theory. The luminiferous ether, which was abandoned 100 years ago, is real.

Shama, Harman and Heilman [69] report on an *Automatic Vehicle Location* system developed for the collection, transmission, storage and mass consumption of location data (web-based mapping). Progress was made in the following areas: (1) Development of software for military specification mobile phones to allow the collection of location data at a refresh rate of 2-5 seconds; (2) Creation of protocols and software on a mobile phone and on a web server to transmit location data to a database within 2 seconds of collection; (3) Creation of database software

structures using mapping tools to display at a glance bus locations, routes, stops, and super high definition photos of bus stops; and (4) Development of a user interface to allow bus drivers to update where they are. She described a lot of successful on-the-road testing.

Newton's 300 year-old observations with prisms and light spectra show that white light is composed of many different colors. According to **Munch** [51], each color has a slightly different wavelength and light speed, but all are assumed to have the same periodicity (frequency). If true, white light would not have a single light speed; rather, it is a mix of a nearly-infinite number of light speeds whose average speed is that which is apparently measured. Doppler analyzed colored light in the 1840s and his equations are still in use today in which wavelengths shift with velocities of the observer and the light emitter. Moreover, Doppler's concept of an ether might be clarified by the uniqueness of each tiny light source plus Galileo's relativity. **Munch** [52] proposes an experiment that is the subject of his next paper. Many papers show the invalidity of Einstein's Special Relativity, and consequently the invalidity of the assertions that light speed is constant regardless of source speed and that the speed of objects is limited to light speed. Based upon a vast number of optical Doppler applications, experimental configurations using gated laser pulses as short as 80 femtoseconds might be useful in studying simulated speeds of light waves at both sub-luminal and super-luminal speeds. Such an experimental apparatus would avoid the prior expensive need to adjust components within a fraction of a light wavelength. If successful, many areas of physics, astronomy and cosmology would benefit.

As described by **Brasoveanu** [9] in his other two papers, consideration of the effects of internal energy can lead to surprising results. Another surprise awaits. The double slit experiment, which supposedly demonstrates the unique nature of 'elementary' particles, is faithfully reproduced with objects having a mass of 7.5 kilograms, a speed of more than 2 meters per second and a size of 0.5 meters. Those dimensions are not typographical errors. The wavelength of these objects may exceed 6 centimeters depending upon the force applied to induce oscillations internal to the objects, which do occur in any composite object, regardless of scale. He used videos to simulate the consequences of his mathematics.

Kokus [34] proposes that certain nonstandard theories and not generally recognized phenomena in geology, astronomy, particle physics, gravitation and cosmology can be unified into a more coherent whole than the dominant theories in those fields. The phenomena he refers to primarily concern Earth expansion, astronomical quantization, leptonic theory of matter, and the spherically rotating electron. This is an ongoing effort at www.kokus.net.

Sometimes experiments and operations do not work out as planned for the worker. **Cheh** [14] is proof that workers

in nuclear science can be exposed to dangerous amounts of radiation without adequate records being kept of the accumulated damage. Over-exposure to radiation acts like a syndrome that can cause effects many places in the body: diarrhea, rectal bleeding, reduced immune system, loss of teeth, nausea, vomiting, cataracts, diabetes and depression. He states that the United States has no adequate method of recompensing those who have fallen ill. American policies on treating radiation illness have to be changed, especially with the inevitable future expansion of the use of nuclear electrical power. Change may come too late for some.

ETHER. Twelve other papers sneaked ether into their messages but nine brave souls focused on the kinematic speed of light and ether, fixed ether, absolute ether, entrained ether, the ether wind, dense ether, fountains of ether, ether-centric culture, ether compression and an ether frame.

Monti [45] from Italy spends a lot of time in his second paper on “The Real Einstein” discussing differences between the electromagnetic speed of light and the kinematic speed of light. The latter is not constant because it changes daily and with the seasons. The kinematic speed of light is effected by the ether. Monti analyzes a number of the tests that been made to measure the presence of the ether; Michelson, Michelson-Morley, Sagnac, Michelson-Gale, Kennedy-Thorndike and Miller. In the end, Monti supports the ether and discredits both special and general relativity.

Inadequacies in the various models for electromagnetic field propagation are manifested as paradoxes involving momentum and energy transfer. Despite elaborate mathematical calculations, no mechanism in classical ether theory or special relativity exists for momentum transfer by stationary fields. **Wells** [82] suggests resolution of this dilemma through the property of *elastic mass* in a fixed ether model. Consequently, the electromagnetic radiation is endowed with the momentum of a longitudinal ether compression, whose kinetic energy is equal in magnitude to the field energy, or exactly half the total energy. The Poynting vector now shares these energies, and the Poynting paradox is resolved when momentum is transferred by the ether compression. This is a work in progress.

Persson [57] from Sweden has two papers about the ether. He begins his first paper by saying “The theory of relativity is an ether-less theory.” Then he explores a number of topics and their relationships to a generated, absolute and entrained ether. These topics include: light and the effects of a transverse ether wind and Stoke’s correction for this wind; wave-front bending; interactions of ether and matter; pushing gravity; starlight aberration; Michelson-Morley experiment; correct transformation of coordinates; cosmic background radiation; detection of the ether; Sagnac effect and methods to test for the ether; Global Positioning System; and anomalous behaviors of the Pioneer 10 an 11 satellites. The above paper leads to another paper by **Persson** [58] from Sweden. The two main experiments

supporting the special theory of relativity, Michelson-Morley’s tests and starlight aberration, are useless in relation to the entrained ether. The Sagnac effect has given support for an entrained ether and is the only way to gain a certain verdict concerning the question if the ether takes a part in the rotation of the earth. After reviewing the observations of others, he concludes by referring back to the methods outlined in his first paper.

Imagine in space a light source giving a long series of waves representing a wave train leading to an observer. Assume for the sake of argument that the ether supporting these waves is becoming denser at some constant rate. It can be seen that the delay of the waves in this wave train will be progressively greater due to its travel through the ether that is under-going a constant increase in its permeability and permittivity. **Wright** [86] suggests that this process generates a Cosmological Redshift. He also describes the mechanism for this process and proposes an experimental setup to simulate the redshift.

A cosmic lens is a hypothetical structure that is defined as a spherical volume of space centered on a gravitating object in which the speed of light is a slower constant inside the lens than the constant light speed that exists outside the lens because the mass density of the ether is greater inside than outside. The Earth is assumed to have such a lens. So does the Sun, every star, and conjugate galaxies. The initial thesis by **Deen** [17] was that the Hubble flow, in which distant galaxy images appear to have recessional Doppler velocities proportional to their distances, might be caused by the image projections of an expanding cosmic lens that encloses the Milky Way Galaxy. However, no nearby conjugate galaxy could be determined. He moved to another theme. The universe is like a “hall of mirrors” in which a finite number of actual galaxies are projected with cosmic lenses in infinite repetitions all over the sky. Cosmic lenses expand because stars are continuous fountains of ether, the underlying physical stream of space that accounts for its physical properties including its permittivity and its permeability. Some physicists call ether the quantum foam. A number of specifics are included.

Hodges’ (from Australia) [26] paper about the ether is really three papers in one, as the title promises. The first quarter is filled with sarcasm and *ad hominem* comments on the clash of old ideas versus new ideas (flat earth versus round earth, Earth-centered versus Copernican solar system, et al). The middle half is an excellent summary of experiments in support of the ether: clock-slowness, Ruderfer, Turner and Hill, and the so-called sonic model. The end quarter makes seven thought-provoking social predictions about an ether-centric culture.

Kerr [30] presents a logically conceivable explanation of spatial structure based upon fluid dynamics and available data. Attractive forces cannot account for either the structure of the Earth, the Universe or their material constituents. Compression is the source of the apparition of attractive force. Gravitational force is exerted by an overtly

undetectable fluid. The fluid has nearly infinite particulate density and particle dimensions are infinitesimal. Spatial fluid compression explains the containment of Universal structures. Likewise, the structure of the Earth's atmosphere can only be logically explained as the product of compressive force. The critical keys to the puzzle are: Planck's energy, de Broglie's equation, the agreement of quantum mechanics with the ideal gas law and addition of particulate density to Einstein's energy equation when applied to a gaseous fluid. The unlocking solution is that the Planck constant is revealed as the kinetic energy of a photon. Units?

Warfield [79] assumes that the *Earth-centered non-rotating inertial frame*, represented by the gravitational field, is the ether, as well the local rest coordinate frame for the velocity of light. He explains how the Sagnac effect, Global Positioning System and diurnal stellar aberration all conform with his Earth-centered non-rotating frame. He goes into a detailed analysis of the relationships between the Michelson-Morley experiment and the ether wind, and predicts conditions that yield a null effect.

INFORMATIONAL, HISTORICAL, VIRTUAL AND SPIRITUAL ASPECTS. Six papers speak about a potpourri of topics: an international cooperative database on non-relativistic physics; a website encyclopedia about the cutting edge of science; meta-sciences; geometric mathematics of relationships; some personal views; and a new vision of spin.

The non-relativistic direction in physics has existed since the advent of relativity theory. But, despite great numbers of independent, talented and skilled adherents, results of their activities have not yet led to the rejection of pseudo-scientific theories. **Arteha and Smulsky** [1] from Russia propose that some actions must be taken to safeguard the non-relativistic works of our generation. The following four directions for consolidating the non-relativistic movement are suggested: (1) Forming a scientific methodology of investigations; (2) Forming a list of problems for joint physical investigation; (3) Construction of a common base of performed works; and (4) Form a united physical basis. All interested colleagues are invited to discuss the four suggestions:—http://www.antidogma.ru/proposals_en.html.

Since the beginning of recorded history, scientists, artists, and philosophers who have thought outside of the mainstream have been shut out from being able to publish their works in a formalized manner. As described by **Patricia de Hilster** [19], the NeWiki project is the first community-edited encyclopedia for new theories and ideas for people who are seriously working outside the mainstream. NeWiki invites those from around the world who are on the cutting edge of physics, astronomy, and any other disciplines who wish to publish their works in encyclopedia form to get in touch with them at contact@newiki.org or telephone (562)985-3148 or

(310)991-5744. A companion website www.sciencewatchdogs.com provides a layman's approach to critical scientific thinking and includes critiques of current science news, reviews of books and media works, and a radio or "podcast" internet show interviewing people on the cutting edge of science.

Asija [3] talks about ONE reality in terms of the four possible interfaces between science and religion: fully compatible; fully contradictory; Gould's separate *majesteria*; and science and religion as synonyms. He explores the role of blind faith in science and the role of reasoning in religion and how the twain can meet in search of the one reality by taking the lowest common multiple and the highest common factor of what agrees among the sciences, meta-sciences, religions and para-normal phenomena. In order to arrive at a Universal Theory of Reality, both science and religion must use not only observation, experiment, and reasoning, but also faith in and wisdom from the supernatural. He introduces the concept of the universal virtual light medium (UVLM) and other components of this model to integrate the apparently divergent perspectives of reality.

Henry Monteith [44] used the language and terminology of science and geometric mathematics as figures of speech to describe the concept of thought and to define the relationships of cosmic soulmates. **Erika Monteith** interpreted her husband's remarks with a "spontaneous" composition of a musical response on the piano. Both performed at an evening dinner gathering. Henry demonstrated by his cogent questioning throughout the NPA meeting that he possessed insightful mathematical skills that applied to a number of complex issues.

Martin Mueller [47] from Germany makes a number of *ad hominem* criticisms about Maxwell, Einstein, Bohr, Horowitz (Einstein's mathematics professor), Lorentz, Rutherford, Pauli, Heisenberg, Pfister (Mueller's implied thesis advisor) and mathematicians in general. He reserves aggrandizement for few. The primary science of passing interest involves the structure of the atom, the action-at-a-distance problem, two doctoral dissertations by Mueller at the University of Tübingen, and a book by him. Mueller writes as if he is looking over his own shoulder.

"Suppose that we start with a universe consisting of nothing but fundamental elementary particles (the smallest and most basic that can exist) which have no spin but only straight line motion of various speeds, in any and all directions (individually indeterminate of course, because there is no spin to give any concept of time)." **Beck** [4] from England begins a thought experiment with these words and analyzes the effects of kinetic energy, collisions that cause spin, mass, time and other phenomena. Special Relativity is also introduced. He analyzes the relationships between mass and spin. The gyroscope provides clear evidence of the inertial effects of spin. Various experiments involving rotation are explored. One conclusion that pops out is that "mass is spin." Then a transition to levitation and UFOs—

lots of records about UFO sightings going back a few centuries.

List of Papers, Authors, Addresses

1. *Ways for Non-Relativistic Consolidation of Science*, **Sergey N. Arteha** (in absentia), Space Research Institute, Moscow, RUSSIA; e-mail sergey.arteha@gmail.com and **Joseph J. Smulsky** (in absentia) Institute of the Earth Cryosphere, Tyumen, RUSSIA; e-mail jsmulsky@tmnsc.ru
2. *Minor Corrections to Natural Philosophy & Physics of Aristotle, Galileo, Sir Isaac Newton and Einstein*, **Pal Asija**, CEO OUR PAL LLC ,7 Woonsocket Ave, Shelton, CT. 06484-5536 USA; e-mail Pal@OurPal.com, web www.OurPal.com
3. *There is But One Reality Dealing with the Whole Being, Implying a Theory of Everything*, **Pal Asija**
4. *A Heuristic Paper on the Nature of Mass*, **Robert F. Beck** (in absentia), 17 Larchwood Road, Woking, Surrey ENGLAND; Ph/Fax: 01483-829685, e-mail Robert.beck@ntlworld.com
5. *Cosmology: Gravitational or Plasma Physics or Both*, **John C. Beckerle**, e-mail john.beckerle@verizon.net
6. *The Scientific Worldview and the Demise of Cosmogony*, **Glenn Borchardt**, Progressive Science Institute, P.O. Box 5335, Berkeley, CA 94705; phone 510-205-4562; email: gborchardt@gmail.com
7. *Infinite Universe Theory*, **Glenn Borchardt**
8. *Internal Energy and the Dynamics of Quantum Particles – Classical Model*, Dr. **Dan Brasoveanu**, Computer Sciences Corporation, 1201 M Street, Southeast, suite 400, Washington, DC, 20003; e-mail dbrasove@csc.com
9. *Internal Energy and the Dynamics of Quantum Particles - Experiments*, **Dr. Dan Brasoveanu**
10. *Internal Energy and the Quantum Model of Relativistic Phenomena*, **Dr. Dan Brasoveanu**
11. *Field Structure Theory, Part 1: The Particle Hierarchy Chart*, **Don Briddell** (in absentia), 8002-A Dollyhyde Rd., Mt. Airy, MD 21771; web www.fieldstructure.org; e-mail donbriddell@fieldstructure.org
12. *Field Structure Theory, Part 2: Skew Geometry*, **Don Briddell** (in absentia)
13. *A Brute-Force Challenge to Einstein's 1905 Derivation Reveals a Mathematical Inconsistency in the SRT Time Transformation Equation*, **Steven Bryant**, e-mail steven.bryant@primitivelogic.com
14. *The Plight of American Radiation Victims*, **Unte Cheh**, Rockville, Md. untecheh1@verizon.net
15. *About Physical Interaction of Mechanical Nature; Science needs protection from the quantum-relativistic sect, usurping power from world scientific societ*, **Vladislav B. Cherepennikov** (in absentia), International Non-governmental Organization "Newton Scientific Society", Ulyanovsk, RUSSIA, e-mail newton-society@mail.ru
16. *Reproducing the Pioneer 10 Anomaly with a Cosmic Lens*, **Glen W. Deen**, 820 Baxter Drive, Plano, TX 75025; e-mail glen.deen@gte.net
17. *A Cosmic Lens May Explain the Hubble Flow*, **Glen W. Deen**
18. *Gravity Experiment 1* , **Robert de Hilster, David de Hilster, Geoff Hunter** e-mail dehilster@gmail.com
19. *NeWiki: An Encyclopedia for a New World* , **David de Hilster, Patricia de Hilster**, e-mail dehilster@gmail.com
20. *New Physics Based on Force-Free Circular Motion*, **Mitch Emery**, 416 W. John Street, Maumee, OH 43537; e-mail emery_mitch@yahoo.com
21. *The Spatial Infinitesimal*, **Peter F. Erickson**, 5505 East Evergreen Boulevard, Unit 104, Vancouver, WA 98661-6643; e-mail peterferickson@aol.com
22. *The Hidden Opportunities in the Derivative*, **Peter F. Erickson**
23. *Light Speed Invariance is a Remarkable Illusion*, **Stephan J. G. Gift** , Department of Electrical and Computer Engineering, Faculty of Engineering, The University of the West Indies, St. Augustine, Trinidad, West Indies; e-mail sgift@eng.uwi.tt
24. *Do Space and Time Have an Archetypal Design*, **Helmut Hansen** (in absentia), Hamburg, GERMANY; e-mail helmuthansen@gmx.de
25. *Reconstruction of the Derivation of the Einstein Field Equations of General Relativity*, **Robert J. Heaston**, 220 Arlington Avenue, Naperville, IL 60565; e-mail robert@drheaston.com
26. *Ether Denial, Motion-Induced Clock Slowing & the big Ether Blob Revolution*, **Jim Hodges** (in absentia), Ether Drift Club, AUSTRALIA; e-mail etherdrift@ozemail.com.au
27. *Towards a Classical Explanation for the Stable Electron Paths Around Nuclei and to Radiation in Connection with the De-Excitation of Excited Electrons*, **Jan Olof Jonson** (in absentia), Östmarksgatan 50 nb, SE-123 42 Farsta, SWEDEN; phone: +46-8-931 665, e-mail jajo8088@student.su.se
28. *The Jonson-Keele Debate*, **Jan Olof Jonson** (in absentia)
29. *Questons on the microcosm* ,Prof. **Philipp M. Kanarev** (in absentia), Department of Theoretical Mechanics, The Kuban State Agrarian University, 13 Kalinina St., 350044 Krasnodar, RUSSIA; e-mail kanphil@mail.ru
30. *Compression versus Attraction*, **Robert A. Kerr** (in absentia), 13401 Rancho Vistoso Blvd., #180, Oro Valley, AZ 85737; e-mail Raakerr2001@netzero.net
31. *Gravidynamic Force*, **Jaroslav G. Klyushin**, University of Civil Aviation, Pilotov str. 38, St. Petersburg, RUSSIA; e-mail science@shaping.org

32. *Electrodynamics and Gravidynamics*, **Jaroslav G. Klyushin**
33. *An Anisotropic Frame-Effect Explanation for the Anomalous Pioneer Acceleration with Cosmological and Binary Pulsar Considerations from a Gauge Variant Theory of Gravity*, **William R. Koepke** (in absentia), Metropolitan State College of Denver, Colorado; e-mail w_koepke@yahoo.com
34. *An Interactive Approach to Unification*, **Martin Kokus**, 111 Conigy Road, Ebensburg, PA 15931; e-mail martinkokus@yahoo.com, web www.kokus.net
35. *The Geometry of an Expanding Universe*, **John M. Kulick**, e-mail HucFinAdvn@aol.com
36. *Applications of a Geometric Expansion Model to Cosmology*, **John M. Kulick**
37. *Disagreement between Newtonian and Relativistic Trajectories at Low-Speed: Another Example*, **Boon Leong Lan** (in absentia) School of Engineering, Monash University, 46150 PJ, Selangor, MALAYSIA
38. *Cybernetic Outlook on Waves and Currents Equations*, **Dr Janusz D. Laski** (in absentia), Sanocka 11/65, 30-620 Krakow, POLAND; e-mail laski@autocom.pl
39. *Cold Helium, a Microcosm of the World*, **Carl R. Littmann**, 8460 Limekiln Pike, #404, Wyncote PA. 19095; e-mail carllittmann@Earthlink.net
40. *The Importance of Clear Concepts and Definitions*, **Carl R. Littmann** (written only)
41. *'It Ain't Necessarily So'; Nature's Little Surprises and How to Accept Them*, The John Chappell Memorial Lecture, **Peter Marquardt**, Cologne, GERMANY; e-mail marquardt@gmail.com
42. *Some Errors of Classical Physics*, **J. Paul Wesley** (deceased); conveyed by **Peter Marquardt**,
43. *Dark Matter and Flat Rotation*, **William C. Mitchell** (in absentia) 229 Windtree Circle, Carson City, NV 89701; phone 775-884-3161, e-mail Wmitch8493@aol.com
44. *Soulmate Cosmological Action: From Musical Harmonized Unified Knowledge to the Bliss of Cosmic Consciousness*, **Henry and Erika Monteith**, e-mail hmonteith@comcast.net. *Living in the Bliss of Cosmic Music*, **Erika Monteith**, e-mail hmonteith@comcast.net
45. *The Real Einstein*, **Roberto A. Monti**, (in absentia) IASFO.INAF.IT, Italy; Monti America Corporation; e-mail monti@iasfbo.inaf.it
46. *The Cryogenic Model of Nuclear Fusion*, **Roberto A. Monti** (in absentia)
47. *Physical Phenomena Understood by Neither Text-Book nor Dissident Physicists*, **Martin Mueller** (in absentia) Elsterweg 31, D-72793 Pfullingen, GERMANY; (e-mail MM.Pfullingen@t-online.de not presently in use)
48. *Electromagnetic Induction and Motor Action across Field-Free Regions*, **Francisco J. Müller**, Varela Academy of Science and Miami-Dade College, Chemistry/Physics Department, phone (305)-266-1595 (also Fax), cell (786)-423-2366, e-mail fjmuller@bellsouth.net
49. *Causality, Natural Philosophy and the Present state of Physics*, **Francisco J. Müller**
50. *Universal Time Confirmation Using the Unique Aspects of Relative Motion in Galileo's 400 Year-old Observations*, **Neil Munch**, 402 Russell Ave., Gaithersburg, MD 20877; e-mail nemunch@cs.com
51. *The Possible Nature of Light Emissions*, **Neil Munch**
52. *Possible Experiments Simulating Optical Doppler Effects at All Speeds*, **Neil Munch**
53. *The Vacuum and Gravitation*, **Roger Munday** (in absentia), Kaiikanui Road, RD1 Hikurangi Northland 0251, NEW ZEALAND; e-mail romun@ihug.co.nz
54. *Observation of Highly Significant Correlations Between Earth Motion and Fringe-Shifts in a Stationary Michelson-Morley Experiment During the Period 2003-2005*, **Héctor A. Múnera**,^{1,2} **Daniel Hernández-Deckers**,¹ **Germán Arenas**,¹ **Edgar Alfonso**¹ Department of Physics, Universidad Nacional de Colombia, Bogotá, COLOMBIA, 2 Centro Internacional de Física, Bogotá, COLOMBIA
55. *On a Minimum Contradictions Ether – Everything*, **A.A. Nassikas** (in absentia), Technological Education Institute of Larissa 10, Ethnikis Antistasseos Str., 41335 Larissa, Greece, e-mail: a.a.nass@teilar.gr
56. *The Perpetual Emergence of Space*, **Alan Newman**, 201 Pirton Lane, Churchdown, Gloucestershire, GL3 2SE, United Kingdom e-mail: alan14newman@hotmail.com
57. *The Special Theory of Relativity and the Sagnac Effect*, **John-Erik Persson** (in absentia), Fastlagsvägen 2, plan 4, S-126 48 Hägersten, SWEDEN; e-mail mail0110261847@yahoo.com
58. *Entrained Ether and Sagnac Effect*, **John-Erik Persson** (in absentia),
59. *A New Definition of Parallelism*, **John-Erik Persson** (in absentia)
60. *Quantum Theory Compatible Galilean Relativity*, **Curt Renshaw**, President, Tele-Consultants, Inc., 4080 McGinnis Ferry Rd, Suite 902, Alpharetta, GA 30005; e-mail crenshaw@teleinc.com
61. *The Effect of Motion, Acceleration and Gravity on Time and Clock*, **Curt Renshaw**
62. *Newtonian Doppler and the Pioneer 10 Anomalous Acceleration* **Curt Renshaw**
63. *The Three Elements: A Theory of Unification*, **R. Jack Roberts** (in absentia). Rt. 1, Box. 115 Eastanollee, Ga. 30538; phone 706/779-6854, e-mail mtnttrading@windstream.net
64. *Questioning the Relativity of Inertia and Gravitation*, **Dan Romalo** (in absentia), Intr. Rigas, 29-B,

- Bucharest, 010152 ROMANIA; emails dan_romalo@rdslink.ro, vadarom@pcnet.ro
65. *A History of Dark Matter?*, **Paul E. Rowe**, 71 West Way, Mashpee, MA02649; phone 1-508-477-6628, e-mail 02649rowepaul@comcast.net
66. *A Case Against Tired Light and the Big Bang*, **Roger A. Rydin**, Associate Professor Emeritus, University of Virginia, 626 Cabell Ave., Charlottesville, VA 22903; e-mail rarydin@earthlink.net
67. *Work and Making Relativity Work*, **S.S. Savarkar** (in absentia), 18 Walchand Terraces, Mumbai 400034 INDIA; e-mail sssavarkar@gmail.com
68. *A Heat-Death for Relativity*, **S.S. Savarkar** (in absentia)
69. *Developing Low-Cost Vehicle Location And Web Mapping Using Nextel GPS Cell Phones And Google™ Maps*, Dr. **Uma Shama**, Messers **Lawrence Harman** and **Ethan Heilman**, GeoGraphics Laboratory, Bridgewater State College, Bridgewater, MA02325, USA
70. *Real Forces and Unreal Hypotheses*, **Joseph J. Smulsky** (in absentia), Institute of the Earth Cryosphere of the Russian Academy of Sciences, Siberian Branch, Tyumen, RUSSIA, e-mail jsmulsky@tmnsc.ru
71. *The Revised Fourth and New Fifth Laws of Planetary Motion*, **Alexander Alan Scarborough**, 202 View Pointe Lane, LaGrange, Georgia 30241; phone 706-884-3239, e-mail dubuissonk@bellsouth.net
72. *The LB/FLINE Model of Universal Origins: From Superstrings to Planets*, **Alexander Alan Scarborough**
73. *Criteria for the Study of Natural Philosophy*, **Domina Eberle Spencer**, University of Connecticut, Storrs, CT; e-mail dominaspencer@rcn.com
74. *The Stability of a Spinning Charged Ring*, **Domina Eberle Spencer, Uma Shama Philip Jay Mann**,
75. *The Holor Representation of Rigid Body Motion*, **Domina Eberle Spencer**
76. *Big Bang Fuel Discovered & Demonstrated*, Charles Sven, 242 North Westlake Avenue, Antioch, Illinois 60002-8604; e-mail cjsven@allnewuniverse.com
77. *CMB Anomaly Pinpoints Big Bang Epicenter*, **Charles Sven**
78. *Gravity from Neutrino Flux*, **Aleksandr Tsybin**, 26 Haldeman Avenue, Apt 71a, Philadelphia, PA 19115; e-mail acibin@ahoo.com
79. *The Earth Centered Non Rotating Inertial Frame and the Michaelson Morley Experimen*, Dr. **John R. Warfield**, 02 East Cactus Wren Road, Scottsdale, AZ 85250-4905; e-mail WARF1002@aol.com
80. *The Speed of Light, the 'Tic Rate' of Atomic Clocks, and the Earth Centered Inertial Frame*, Dr. **John R. Warfield**
81. *The Cause of the Characteristics of Quasars (or QSO's)*, **Charles Weber**, 08 Country Club Road, Hendersonville, NC 28739; e-mail isoptera@mchsi.com
82. *The Dilemma of Radiant Momentum – a Poynting Paradox and its Resolution*, **S.I. Wells** (in absentia) c/o Postmaster, Truckee Main Post Office, Truckee, CA 96160; e-mail cywells@gmail.com
83. *Mass Disparities from Relativistic Electrodynamics*, **S.I. Wells** (in absentia)
84. *On the Visual Images that Atoms Create*, **Cynthia K. Whitney**, Editor, Galilean Electrodynamics, 141 Rhinecliff Street, Arlington, MA 02476-7331; e-mail Galilean_Electrodynamics@comcast.net
85. *On the Visual Images that Galaxies Create*, **Cynthia K. Whitney**
86. *Generating a Redshift in the Lab*, **James Wright**, e-mail jbwright@snowcrest.net

In Memorium: 'Alex' C.V. Caepa

-- Neil Munch

Alex died in Bucharest, Romania in 2006 after long and serious illnesses. He will long be remembered for his persistent search for truth in modern physics. Neither meager finances nor ill health limited Alex. He used whatever resources he could glean to travel several times for enthusiastic participation in NPA meetings in Texas and UConn-Storrs, CT. His Library of Congress publication Call No. QC173.55.C53-1998, and his paper in NPA's 2005 Conference Proceedings, "*Consequences of founding SRT on...Einstein's 1905 paper...*" typify his enthusiastic rejection of Einstein's relativity on "**physical grounds**". Other references to his prior work are listed at the end of those papers. Alex is gone now, but his enthusiastic call for better dependence on 'physical grounds' provides yet another valuable criterion for our research and publications..

Submittal_of papers for the 2007 Conference Proceedings

The papers presented by all participants (either in person or in absentia) are eligible for inclusion in the Proceedings of our 2007 Conference. If you chose to have your paper included, please submit it in computer-readable form (preferably by email and in *.DOC and *.PDF form if that's convenient for you to do). Suggestions for submittals were provided on page 3 of our March, 2007 newsletter, Vol 13, No. 1.

The per-page costs for this issue may be slightly higher than previous editions, due to increased postage and printing costs in USA. My estimate at the moment is \$16/page for NPA members and \$18/page for non-members. Cynthia will accept submittals until the number of printed pages reaches the maximum permitted by her printer and book bindery.

“Audience Feedback”: Your Help is Needed.

Our 14th was another great conference (in my opinion) with lots of excellent papers and discussion. If you were a participant, it’s now your turn to help. All too often participants travel some distance, present their paper(s), hear a few comments, but leave feeling a bit discouraged at how few *specific* comments or suggestions they really received on their paper(s). That’s why we initiated the **“Audience Feedback” evaluations**. Some of our participants told me in the past how uncomfortable they felt in evaluating other scientists’ papers. They especially didn’t like to be critical of some papers with which they disagreed. But, that’s what most participants want to know. For my part, I’ve learned far more from critical comments than laudatory ones.

We initially thought we could get those evaluations before participants left the conference. That proved incorrect because we are dealing with complex subjects and it takes time to think about particular viewpoints on such subjects. In fact, we’ve found it takes several months before good comments can be made. But that time has now passed and it’s time for you to do your part. Please dig out the evaluation form I sent to you by

email (or ask and I’ll send another copy) and fill out as much of **Part I** as you are able. It should not take long...only a few minutes for a paper you’ve listened to or thought about since the conference. Heaston’s excellent summaries in this newsletter may provide some assistance in recalling each paper. Also, in many cases the authors’ printed paper has been distributed via email or internet which may provide more detail than was available at the conference. Please focus on positive suggestions, e.g., how a paper can be improved rather than what’s wrong with it. There are only 24 papers being reviewed this year. Please try to include comments and evaluations for at least half of that number. Also, please include a few concepts or papers in **Part II** to help us identify the best concepts on which to focus.

In return, I’ll collect and return the comments on your own paper(s) to you in a confidential way, plus an overall review which is not traceable to any specific author.

Thanks.

Neil Munch

All of NPA’s 2007 conference abstracts are available at www.conferences.uconn.edu/npa
 All recipients of this newsletter are welcome to join in discussion of these papers and other topics at:
NPA_Dissidents@yahoogroups.com

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[Address correction requested]



Natural Philosophy Alliance

is devoted to broad-ranging, fully open-minded criticism, at the most fundamental levels, of the often irrational and unrealistic doctrines of modern physics and cosmology, and to the ultimate replacement of these doctrines by much sounder ideas developed with full respect for evidence, logic, and objectivity.

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