

## Editorial Inaugural Issue

# Let All Truth Seekers Be the Vessels to Carry Physics Research to New Heights

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### ABSTRACT

Spacetime is the stage for the physical universe and prespacetime may be the foundation of spacetime. Here, prespacetime is conceived as a non-temporal and non-spacial domain and theorized as the ground of existence. Prespacetime Journal is a publication in which physicists, mathematicians and other learned scholars publish their research results and express their views on the origin, nature and mechanism of spacetime and its possible connection to the prespacetime. It is also a journal where all learned scholars can present their models and experimental results on elemental particles, fundamental forces including gravity and related topics. Prespacetime is published by QuantumDream, Inc. We are committed to truth and excellence. Please note that the views express in this Editorial solely belong to the author and should not be imputed against anyone else.

**Key Words:** universe, spacetime, prespacetime, elementary particles, fundamental forces, gravity.

#### 1. Purpose, Mission & Policy

The purpose and mission of Prespacetime Journal is to publish research results and encourage research on the origin, nature and mechanism of spacetime and its possible connection to a more fundamental prespacetime. It is also a journal where all learned scholars can present their models and experimental results on elemental particles, fundamental forces including gravity and related topics. In doing so, we hope that one day we will be able to arrive at a genuine theory of everything.

The current policy at this journal is editorial selections of submitted papers for publication and editorial invitation for publication under the advisement of an Editorial Advisory Board, members of which are under selections. All papers published by this journal are either subject to open-peer-review ("OPR") in the same issue or open to OPR in subsequent issues.

#### 2. The State of Physics Research

Seeing from the outside, many of us the outsiders feel that modern physics, especially theoretical physics in the establishment, seems to be near the brink of intellectual and moral bankruptcy (See, e.g., Smolin, 2006 & Woit, 2006).

Naturally, one would ask: How did they end up in this situation? One explanation is that genius only comes along once in a while. Max Planck (1936) once said that "[n]ew scientific ideas never spring from a

communal body, however organized, but rather from the head of an individually inspired researcher who struggles with his problems in lonely thought and unites all his thought on one single point which is his whole world for the moment." However, even to accept this explanation to be somewhat true, most of us have to admit our own mediocrity and have the courage to change by becoming humble, open-minded and willing to hear alternative theories and opposing views.

The sad fact is that this is very hard to do because of our human nature. Instead, some of us in the field, on the one hand, worship past geniuses by elevating their theories and discoveries to absolute truths (dogmas) and, on the other hand, treat any alternative theories or views as crackpot theories or worse. When more and more individuals having influences and/or controls over research funding, research direction, hiring of scientists, graduate programs and undergraduate programs do these things, the stagnant field enters into a vicious cycle of further stagnancy and mediocrity. Even worse, when these individuals themselves are elevated to the status of living geniuses and enthroned onto prominent positions, chairs and titles, they exercise even greater power to the greater detriment of the already stagnant field and science overall.

On the darker and sinister side, many individuals in the modern physics treat it not as an arena of truth-seeking but a place of livelihood, business and other personal gains. The goal for them is not about truth but themselves. These individuals create so much of the unhealthy atmosphere in physics such as rivalry, protectionism, hypocrisy, commercialism and

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suppression and intolerance of alternative views which directly lead to mediocrity and stagnancy in physics.

The damages could be severe. First, generations of young scientists might have been brain washed. This would perhaps be the greatest damage and most unfortunate. Second, available governmental and private funds have been misallocated and wasted. Third, certain areas of science, especially theoretical physics, have become not only distorted but also inaccessible to common people in contrary to one of the sacred goals of science which is to enlighten the mass.

Similarly, being the mouthpieces of the establishment sciences, the mainstream science journals and electronic archives reject almost everything which does not meet establishment's approval, although they speak of freedom and impartiality of scientific journalism.

In addition, in mainstream sciences the study and even the mentioning of mind or consciousness are till taboo and indeed the physicists' version of a theory of everything does not include consciousness. However, physicists encountered consciousness more than eighty years ever since quantum mechanics was born (see, e.g., Rosenblum & Kuttner, 2006). Instead of embracing such encounters and exploring the mystery of consciousness, the majority of physicists have been avoiding the consciousness issue like a plague.

### 3. The Way Out of the Crisis

So, how can we turn around the currently depressing and even shameful situations? First, all men and women of physics research have to rise above ourselves by putting our personal interests and gains aside and the mission of truth-seeking as the first priority. Second, All truth-seeking men and women should be granted the rights of freedom, equality and opportunity to be heard in the pursuit of truth. Third, all men and women of physics research should be humble, open-minded and tolerant of alternative and opposing views.

Over the last 450 years since Copernicus, we have reached the golden age of science. It is up to us, the modern physicists and all truth-seeking men and women to work and study together so as to achieve a genuine theory of everything and usher mankind into a new era of unprecedented enlightenment and knowledge.

### 4. Milestones Leading to Prespacetime Journal

The herein author has been conducting scientific studies on the nature and origins of quantum spin, self-reference and prespacetime over last ten years since 2000 (See, e.g., Hu & Wu, 2002-2007) thus

making the launch of Prespacetime feasible and practical.

In earlier publications, the herein author and his collaborator proposed that spin is the primordial self-referential process driving quantum mechanics, spacetime dynamics and consciousness (See, e.g., Hu & Wu, 2002-2004). Then, the author and his collaborator found ways to test experimentally biological and macroscopic quantum entanglement (Hu & Wu, 2006-2007). It was discovered that applying magnetic pulses to the brain when an anesthetic was placed in between caused the brain to feel the effect of said anesthetic as if the test subject had actually inhaled the same (Hu & Wu, 2006a&b). Through additional experiments, the author and his collaborator verified that the said brain effect was indeed the consequence of quantum entanglement (*Id.*). Experimenting with simple physical systems such as water quantum-entangled with water being manipulated, the author and his collaborator also found non-local chemical, thermal and gravitational effects (Hu & Wu, 2006c, 2007).

Perhaps the most shocking is that author and his collaborator experimentally demonstrated Newton's instantaneous gravity and Mach's instantaneous connection conjecture and the relationship between gravity and quantum entanglement (*Id.*). These findings also imply that the properties of all matters can be affected non-locally through quantum entanglement mediated processes. Second, the second law of thermodynamics may not hold when two quantum-entangled systems together with their respective local environments are considered as two isolated systems and one of them is manipulated. Third, gravity has a non-local aspect associated with quantum entanglement thus can be non-locally manipulated through quantum entanglement mediated processes. Fourth, in quantum-entangled systems such as biological systems, quantum information may drive such systems to a more ordered state against the disorderly effect of environmental heat.

On a more fundamental level, these experimental findings shed new lights on the nature and characteristics of quantum entanglement and gravity, reveal the apparent conflict between quantum theory and Einstein's theories of relativity, provide vital clues for resolution of the measurement problem, and support non-local hidden variable based theories and a non-local cosmology. In short, the above experiments call for drastic changes in the author's own understandings of nature.

On December 21, 2009, the herein author and his collaborator made public their work entitled "The Principle of Existence: Toward a Scientific Theory of Everything." To accommodate and/or conform to the

current circumstances in physics research, the herein author has decided to modify their work and publish the modified work in this journal. The original version has been published separately.

In short, time is ripe to launch Prespacetime Journal at this critical moment – the first month and year of a brand-new decade in the New Millennium and the fast approaching December 2012 during which the supposed transformation of mankind shall occur.

## 6. The Contents of the Inaugural Issue

Besides the work of the herein author and his collaborator, this inaugural issue also contains original works of several authors by invitations.

The work of Dainis Zeps suggests that quantum mechanics may lose its weirdness if geometric algebra methods would be used more systematically. Zeps observes that one crucial aspect is to find laws of quantum mechanics be present in macroworld in the form of description of motions rather than objects. To help to reach this goal he suggests that double rotation be used as one of the basic invariants in quantum mechanics.

The work of Mat Pitkanen investigates a fascinating strategy for proving Riemann Hypothesis. Pitkanen suggests that Riemann Hypothesis follows from both the hermiticity and positive definiteness of the metric in the space of states corresponding to the zeros of Riemann Zeta function. It is worth to point out that this work was completed in 2001 and may well deserve a much closer look by the experts.

The work of Stephen P. Smith investigates the conflict between formality and intuition and discusses the importance of sentience. Smith argues that “sentience is covertly connected to space-time geometry when axioms of congruency are stipulated, essentially hiding in the formality what is sense-certain.”

The work of Giuliano Bettini explores the possibility that the Dirac electron is analogous to a

bound EM wave in a waveguide. Making use of Clifford Algebra, Bettini shows that the bi-spinor satisfying Dirac equation describes the energy propagation of the EM field in a waveguide and, at the same time, also automatically describes TE and TM modes of the EM field. This new perspective opens new interesting interpretations as discussed in Bettini’s paper.

Then the work of the herein author and his collaborator attempt to formulate a prespacetime model of elementary particles, four forces and consciousness which illustrates how the self-referential hierarchical spin structure of the prespacetime may provide a foundation for creating, sustaining and causing evolution of elementary particles through matrixing processes embedded in the prespacetime. This model also attempts to reveal the creation, sustenance and evolution of fermions, bosons and spinless entities each comprised of an external wave function (external object) and an internal wave function (internal object) located respectively in an external and internal world of a dual-world universe. Further, this model attempts to provide a unified causal structure for electromagnetic strong, weak and gravitational interactions, quantum entanglement, consciousness and brain function.

Finally, the essay of Dick Richardson asks from a very different angle the question: What is the physical universe? His answer is that “it is all that stuff out there which is not me.” He goes on to answer the question what is the inner universe and states that “the two are joined up in space and time, but not in [e]ternity...[and if w]ithout [t]ime then [e]ternity would be pointless.” Richardson has much to teach. One just has to read his essay.

In closing let us remind ourselves that physics research is a sacred enterprise of truth. So, let freedom and knowledge to ring and let all truth seekers be the vessels to carry physics research to new heights.

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