Saurav Dwivedi

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Résumé

Education

2007 B.Sc. Student, Banaras Hindu University, Varanasi; 2006 Intermediate, Queens' College, Varanasi; 2004 High School, Queens' College, Varanasi.

Professional Goals

I am a curious theorist of my age. I wish to formulate one of the most appropriate analyses for all things. My current field of research interest is modern aspects of theoretical physics. I have submitted few papers to International Journal of Theoretical Physics, General Relativity and Gravitation and Annalen der Physik. I always search the exact solution of any phenomena with my own convenience of reformulation. I am searching the exact Quantization and Relativization of our understanding of nature with the desired modification of universal psi-function. I will always be grateful of receiving the guidance of elders of same profession. By the world year of physics I am convinced in the studies of Quantum Relativity, Quantum Dynamics, Geometrodynamics, Quantum Cosmology and Philosophy.

Research Aspects

Quantum Relativity

Simple Quantum Relativity using quantum frames of reference (Q); Special Quantum Relativity using Proper Time Formalism and relativistic quantum description of systems in four-dimensional Hilbert Space geometrization perspective; General Quantum Relativity using four-fields in relativized geometrization perspective.

Quantum Theory

Generalized Quantum Theory using generalized coordinates interpreted into the quantum-wave; Theoretical Generalized Quantum Theory predicting quantum dynamical equations using generalized operators (Lagrangean) and generalized functions.

Strict Mathematics

Quantum Theory using Dirac's Strict Mathematics, distinguishing operators to describe the state of natural systems rather than degrees of freedom and functional transformations; Quantum Newtonian Dynamics, Quantum Hamilton-Jacobi Principle; Quantum Euler-Lagrange (-Rayleigh) Principle and Quantum Dynamical Harmonic Oscillator theory predicted by this interpretation.

Relativity Theory

Generalized theory of relativity using two-dimensional generalized space-times, distinguishing generalized coordinate as a fantastic mixed tensor for relativity to describe several dimensional geometrization in generalized perspective.

Articles

- Saurav Dwivedi (2004) *A Theoretical Study of Psi-Waves* [Int. J. Theor. Phys. 356]
- Saurav Dwivedi (2004) *A Fundamental Treatise on Continuity Equation* [Int. J. Theor. Phys. 354]
- Saurav Dwivedi (2005) *Quantum Mechanical Equations for Many Particle Systems* [Int. J. Theor. Phys. 398]
- Saurav Dwivedi (2005) *The Second Quantization Principle* [Int. J. Theor. Phys. 410]
- Saurav Dwivedi (2005) *The Canonical Wave Transformation* [Int. J. Theor. Phys. 419]
- Saurav Dwivedi (2005) *The Eigenoperator Formalism* [Int. J. Theor. Phys. 437]
- Saurav Dwivedi (2005) *Probabilistic Interpretation of Quantum Mechanics with Schrödinger Quantization Rule* [Int. J. Theor. Phys. 524]
- Saurav Dwivedi (2005) *Ostrogradsky Quantum Field Theory* [Int. J. Theor. Phys. 634]
- Saurav Dwivedi (2004) *Statistical Approach to the Relativistic World* [Gen. Rel. Grav. 7116, Ann. Phys. ue 384]
- Saurav Dwivedi (2004) *The Mysterious Blastings in Space-Time; Quantization of Time* [Gen. Rel. Grav. 7116, Ann. Phys. ue 384]
- Saurav Dwivedi (2004) *The Universe-Zero and Infinite* [Gen. Rel. Grav. 7116, Ann. Phys. ue 384]
- Saurav Dwivedi (2005) *Generalization of Einstein's Relativity* [Ann. Phys. ue 422]
- Saurav Dwivedi (2006) *Quantization using Dirac's Strict Mathematics* [under preparation: www.geocities.com/sdwiqr/qd.pdf, www.geocities.com/sdwiqr/fqd.pdf]

Current Research

I am providing relativistic ground to universal quantum theory

I must have seemed an Ostrich who puts his feet on the sand of relativity so as to support the wicked quanta

Relativization of quantum theory may be carried out in all Simple, Special and General schemes of relativization. In Simple Quantum Relativity we propose observeability of quantum objects by means of relative observation by quantum frames of reference Q and Q'. These frames are simply interpreted: each particle in a quantum scattering system is a quantum frame of reference. Its axioms and analysization is carefully predicted. In Special Quantum Relativity we describe relativistic quantum objects by Four-Schrödinger wave defined in four-dimensional Hilbert Space under proper time formalism. Simple Quantum Relativity is further special relativized in this concern. In General Quantum Relativity we describe fields and matter by four-fields under proper time formalism. We further predict Schrödinger General Relativity or Schrödinger Quantum Gravity to formulate further aspects. Moreover, I predict Universal Quantum Relativity to describe everything as relativistic and quantum object even at zero velocity and at large quantum numbers for the only sake of our knowledgeability of nature at this extend. Under the epistemological axiomation of universal quantum relativity every physical prediction, for instant, Hilbert Space, Configuration space, proper time, operators and coordinates, and so on, are considered relatively transformed under quantum reference frame prediction.

Furthermore, I am generalizing entire Einsteinian physics by the generalization of space-time geometry in the same way as of the generalization of coordination. I generalize Minkovskian geometry, Lorentz transformation, Poincaré space-time group regularization and beyond in this concern. However, in 21st century physics we will be convinced in the adoption of parallel geometries of Minkovskian, parallel transformations of Lorentz and parallel space-time group regularizations of Poincaré in other coordination under the generalized analysis as a reduction of it. Such a formulation is a further step of my present research which would lead towards the *two-dimensional* physics.

Main Past Research

Quantum theory has been developed in the perspective of generalized theoretical physics but has yet remained a non-generalized formulation. An effort to generalize quantum theory was attempted by allowing quantum-wave to be a function of generalized coordinates and time in my first paper submitted to International Journal of Theoretical Physics in 2004. It was further repeatedly predicted in the further papers as the resulting formulations of such a generalizing allowance. It evolved a way for predicting Lagrangean (operator) in the quantum theory and several further generalized theoretical establishments that paved a way towards formulating a generalized quantum theory.

A way for generalizing and advancing quantum theory could be achieved by using Strict Mathematics (P. A. M. Dirac) rather than simple mathematics, as in order to distinguish quantum theory independent of the classical theory. Quantum theory is a theory of objects regarding their particle-wave nature and the quantum discreteness (Nature is proceeded by leaps and bounds), while classical theory is a theory of objects regarding the notion of their state (Rest and motion: Inertia, Galileo Galilei). Quantum theory also deals with the notion of state using strict mathematics, but this is non-peculiar to that of classical theory (as it deals with state vectors rather than characteristics of motion). Thus, quantum theory may be reformulated independently from the classical theory, as a universal theory describing all things. Naturally all theories could be quantized (for instance: Relativity, Gravity, Cosmology). It does show that quantum theory is genuinely a universal theory, and other theories may be quantized and regarded its parts. This dream may be achieved by regularizing and merging all theories into the universal quantum theory using strict mathematics. This has been a most desired goal of my past research.

2007, Varanasi, India