Guided Energy Theory of a Particle: Answered Questions Arise from Quantum Foundation

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Abstract : This work aimed to introduce a theory, called Guided Energy Theory of a particle that answered questions that arise from quantum foundation, quantum mechanics theory, and interpretation such as: what is nature of wavefunction? Is mathematical formalism of wavefunction correct? Does wavefunction collapse during measurement? Do quantum physical entanglement and many world interpretations really exist? In addition, is there uncertainty in the physical reality of our nature as being concluded in the Quantum theory? We have been able to show by the fundamental analysis presented in this work that the way quantum mechanics theory, and interpretation describes nature is not correlated with physical reality. Because, we discovered amongst others that, (1) Guided energy theory of a particle fundamentally provides complete physical observable series of quantized measurement of a particle momentum, force, energy e.t.c. in a given distance and time. In contrast, quantum mechanics wavefunction describes that nature has inherited probabilistic and indeterministic physical quantities, resulting in unobservable physical quantities that lead to many worldinterpretation.(2) Guided energy theory of a particle fundamentally predicts that it is mathematically possible to determine precise quantized measurementof position and momentum of a particle simultaneously. Because, there is no uncertainty in nature; nature however naturally guides itself against uncertainty. Contrary to the conclusion in quantum mechanics theory that, it is mathematically impossible to determine the position and the momentum of a particle simultaneously. Furthermore, we have been able to show by this theory that, it is mathematically possible to determine quantized measurement of force acting on a particle simultaneously, which is not possible on the premise of quantum mechanics theory. (3) It is evidently shown by our theory that, quided energy does not collapse, only describes the lopsided nature of a particle behavior in motion. This pretty offers us insight on gradual process of engagement - convergence and disengagement - divergence of guided energy holders which further highlight the picture how wave - like behavior return to particle-like behavior and how particle - like behavior return to wave - like behavior respectively. This further proves that the particles' behavior in motion is oscillatory in nature. The mathematical formalism of Guided energy theory shows that nature is certainty whereas the mathematical formalism of Quantum mechanics theory shows that nature is absolutely probabilistics. In addition, the nature of wavefunction is the guided energy of the wave. In conclusion, the fundamental mathematical formalism of Ouantum mechanics theory is wrong.

Keywords : momentum, physical entanglement, wavefunction, uncertainty

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