## Abstract Submitted for the APR05 Meeting of The American Physical Society

On the Correct Theoretical Analysis of the Foundations of Quantum Mechanics TEMUR Z. KALANOV, Home of Physical Problems, Pisatelskaya 6a, 700200 Tashkent, Uzbekistan — The correct critical analysis of the generally accepted foundations of quantum mechanics is proposed [1]. The purpose of the analysis is to prove that the foundations include logical errors. The principle of the unity of formal logic and dialectics is a methodological basis of the analysis. The result is as follows: (a) the generally accepted foundations (i.e., the interpretation of the experimental data on diffraction of quantum particles; the conception of wave-corpuscle dualism; the probabilistic interpretation of the psi-function) are logical errors; (b) the pseudo-informational meaning is the true meaning of the psi-function. Conclusion is that quantum mechanics is not a physical, objective theory but a pseudo-informational one. Therefore, quantum mechanics should be replaced by a physical, objective quantum theory. Ref.: [1] T.Z. Kalanov. JUSPS, Vol. 16, No. 2 (2004), pp. 191–198, http://www.ultrascientist.org.

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