A NEW INTERPRETATION OF THE WAVE FUNCTION IN QUANTUM MECHANICS

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In Quantum Mechanics, a particle is represented by a wave function. It contains all the information that can be acquired regarding the particle. Though it plays such a central role, the physical interpretation of the wave function has been elusive, and is somewhat metaphysical in nature. Currently, the wave function is regarded as a postulate in Quantum Mechanics, which is not very intuitive.

Our objective is to show that the wave function can be derived from a set of axioms, which are more mathematical in nature, and the results are compatible with the currently accepted Copenhagen interpretation.