THE PHYSICAL INTERPRETATION OF THE WAVE FUNCTION

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Abstract: The essential consequences of the physical interpretation of the wave function are discussed.

1) $$\boldsymbol{P} \cdot \boldsymbol{M} = D \qquad (1)$$

($\boldsymbol{P}$: Pauli vector, $\boldsymbol{M}$: Maxwell electrodynamics, D : Dirac equation)
Multiplying electrodynamics with the Pauli vector one obtains wave mechanics.

Since 1978 we know that electrodynamics and wave mechanics are identical theories [1]. And since 1986 we know the relation (1) [2].

2) The scientific literature on Copenhagen-interpreted quantum physics has grown to an enormous size during the past century. It has surpassed the literature of all other physical theories taken together by a multiple. Quantum physics thus has reached an inertia and stamina that oppose in an almost insurmountable way any attempt for reform. The big technical successes of quantum theory in the middle of the past century add even more to the vision of the Copenhagen dogma to be sacrosanct.

3) Relation (1) yields the hydrogen atom in final clarity [3] as standing light.

4) Relation (1) thus yields both light and matter. It therefore represents a first Unified Field Theory.

5) Relation (1) is inconsistent with some relativistic theorems of quantum physics. On one and a half pages of a book I have shown by elementary calculations [4] that relativity is based on an approximation. Relativistic theorems of quantum physics therefore may be either correct, approximately correct or wrong. The many paradoxes of quantum physics confirm these facts.

6) Slowly the first particle physicists venture into electrodynamics. Relation (1), for instance, has been introduced into gluon theory recently [5].

Dear colleagues from all over the world, may I ask you: stop Copenhagen!

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