Neutrosophic Degree of Paradoxicity of a Scientific Statement
FLORENTIN SMARANDACHE, University of New Mexico — Let <S> be a scientific statement (in physics, mathematics, etc.). Let's also consider the implication (C_1) "If <S> is true it may result that <S> is false", and the reciprocal implication (C_2) "If <S> is false it may result that <S> is true". Both implications (conditionals) depend on other factors in order to occur or not, or they are partially true (T), partially indeterminate (I), and partially false (F) [as in neutrosophic logic]. If the implication (C_1) has the neutrosopihc truth value (T_1, I_1, F_1), and the reciprocal implication (C_2) has the neutrosophic truth value (T_2, I_2, F_2), then the **neutrosophic degree of paradoxicity** of the statement <S> is the average of the component triplets: $((T_1 + T_2)/2, (I_1 + I_2)/2, (F_1 + F_2)/2)$, where the addition of two sets A and B (in the case when T, I, or F are sets) is simply defined as: A + B = {x | x = a + b, with a∈A and b∈B}.

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