QUANTUM SMARANDACHE PARADOXES[1]

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Abstract. In this paper one presents four of the smarandacheian paradoxes in physics found in various physics sites or printed material.

1) Sorites Paradox (associated with Eubulides of Miletus (fourth century B.C.):
Our visible world is composed of a totality of invisible particles.
a) An invisible particle does not form a visible object, nor do two invisible particles, three invisible particles, etc.
However, at some point, the collection of invisible particles becomes large enough to form a visible object, but there is apparently no definite point where this occurs.
b) A similar paradox is developed in an opposite direction. It is always possible to remove a particle from an object in such a way that what is left is still a visible object. However, repeating and repeating this process, at some point, the visible object is decomposed so that the left part becomes invisible, but there is no definite point where this occurs.
Generally, between <A> and <Non-A> there is no clear distinction, no exact frontier. Where does <A> really end and <Non-A> begin? One extends Zadeh's "fuzzy set" term to the "neutrosophic set" concept.

2) Uncertainty Paradox: Large matter, which is under the 'determinist principle', is formed by a totality of elementary particles, which are under Heisenberg's 'indeterminacy principle'.

3) Unstable Paradox: Stable matter is formed by unstable elementary particles (elementary particles decay when free).

4) Short Time Living Paradox: Long time living matter is formed by very short time living elementary particles.

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