

Abstract Submitted  
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**Neutrosophic Triplet Field used in Physical Applications** FLO-  
RENTIN SMARANDACHE, Univ of New Mexico, MUMTAZ ALI, University of  
Southern Queensland, Australia — Neutrosophic Triplet Field (NTF) is a set en-  
dowed with two binary laws  $(M, *, \#)$ , such that:

- a)  $(M, *)$  is a commutative neutrosophic triplet group; which means that:  
-  $M$  is a set of neutrosophic triplets with respect to the law  $*$  (i.e. if  $x$  belongs to  $M$ ,  
then  $\text{neut}(x)$  and  $\text{anti}(x)$ , defined with respect to the law  $*$ , also both belong to  $M$ );  
- the law  $*$  is well-defined, associative, and commutative on  $M$  (as in the classical  
sense);  
b)  $(M, \#)$  is a neutrosophic triplet group; which means that:  
-  $M$  is a set of neutrosophic triplets with respect to the law  $\#$  (i.e. if  $x$  belongs to  
 $M$ , then  $\text{neut}(x)$  and  $\text{anti}(x)$ , defined with respect to the law  $\#$ , also both belong to  
 $M$ );  
- the law  $\#$  is well-defined and associative on  $M$  (as in the classical sense); c) the  
law  $\#$  is distributive with respect to the law  $*$  (as in the classical sense).

Applications.

This new field of neutrosophic triplet structures is important, because it reflects our  
everyday life [it is not simple imagination!].

The neutrosophic triplets are based on real triads: (friend, neutral, enemy), (posi-  
tive particle, neutral particle, negative particle), (yes, undecided, no), (pro, neutral,  
against), and in general  $\langle A \rangle$ ,  $\langle \text{neut}A \rangle$ ,  $\langle \text{anti}A \rangle$ ) as in neutrosophy.

Florentin Smarandache  
Univ of New Mexico

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