Abstract Submitted
for the DAMOP16 Meeting of
The American Physical Society

(t, i, f)-Physical Laws and (t, i, f)-Physical Constants FLORENTIN SMARANDACHE, University of New Mexico — In our reality, we do not have perfect spaces and perfect systems. Therefore many *physical laws* function approximatively. Also, the *physical constants* are not universal too. Variations of their values depend from a space to another, from a system to another, from a time to another, and so on depending on many parameters. The physical laws and similarly the physical constants are t% true, i% indeterminate, and f% false in a given space with a certain composition, and it has a different neutrosophical truth value <t', i', f'>in another space with another composition. That's why, instead of universal (1, 0, 0)-physical laws and universal (1, 0, 0)-physical constants, we have (t, i, f)-physical laws and respectively (t, i, f)-physical constants, meaning partially true, partially indeterminate, and partially false in each space. Therefore, one uses the *neutrosophic logic*, which is a general framework for unification of many existing logics, and its components t (truth), i (indeterminacy), f (falsehood) are standard or nonstandard real subsets of $]^{-}0, 1^{+}[$ with not necessarily any connection between them. It has many applications in physics. Reference: Florentin Smarandache, *Introduction to Neutrosophic Measure, Neutrosophic Integral, and Neutrosophic Probability*, by Sitech & Educational, Craiova, 140 p., 2013.

Florentin Smarandache
University of New Mexico

Date submitted: 18 Mar 2016 Electronic form version 1.4