Physical Plithogenic Set  
FLORENTIN SMARANDACHE, Univ of New Mexico — Let $U$ be a universe of discourse. A Plithogenic Set is a set $P$ included in $U$, such that each element $x$ in $P$ is characterized by one or more attributes $\alpha_1, \alpha_2, \ldots, \alpha_m$, and each attribute $\alpha_i$ has many values. The element $x$ is characterized by all attributes’ values: $V = \{v_1, v_2, \ldots, v_n\}$. Each attributes value $v$ in $V$ has a corresponding degree of appurtenance $d(x, v)$ of the element $x$, to the set $P$, with respect to some given criteria. For each attribute $\alpha_i$ there is a dominant (most important) attribute value, and one computes the contradiction degree function between any attribute values $v$ and its corresponding dominant attribute value $v_D$, denoted by $c(v_D, v)$. Plithogenic aggregation operators are further constructed for practical applications.

Florentin Smarandache  
Univ of New Mexico

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