SECOND FUNDAMENTAL ASSUMPTION OF ISOMATHEMATICS

Assume the inverse of the isotopic element as the fundamental left and right unit, called Santilli IsoUnit, at all levels, from numbers to topology:

$$\mathbf{\hat{I} = Diag.(n_1^2, n_2^2, n_3^2)\ e^{\Gamma(t,r,p,\psi,\partial\psi,...)} = 1/\hat{T} > 0}$$

Santilli IsoNumbers

Consider a conventional field with characteristic zero.

$$\mathbf{F(n, \times, 1) : n, m \in F, !!1,\ 1 \times n \equiv n \times I \equiv n\ \forall\ n\ \in\ F}$$

then the ring

$$\mathbf{\hat{F}(\hat{n}, \hat{\times}, \hat{I}),\quad \hat{n} = n \times \hat{I}\quad \hat{n}\hat{\times}\hat{m} = n \times m \times \hat{I} \in \hat{F}}$$

$$\mathbf{\hat{I} = 1/\hat{T},\ \hat{I}\hat{\times}\hat{n} \equiv \hat{n}\hat{\times}\hat{I} \equiv \hat{n}\ \forall\hat{n}\ \in \hat{F}}$$

verifies all axioms of a numeric field.

Classification into:

IsoReal, IsoComplex and IsoQuaternionic Numbers Of First or Second Type depending on whether $\mathbf{\hat{I}}$ is or is not an element of F, respectively

ATTENTION MATHEMATICIANS IN NUMBER THEORY

Consider the *real isofield* $\hat{\mathcal{R}}(n, \hat{\times}, \hat{I})$, $\hat{I} \in \mathcal{R}$ **for which isonumbers coincide with ordinary numbers because** $\hat{n} = n \times \hat{I} \in \mathcal{R}$**. Then, for** $\hat{I} = 3$**, we have** $2\hat{\times}3 = 2$ **and** 4 **is a prime numbers.**

R. M. Santilli, "Isonumbers and Genonumbers of Dimensions 1, 2, 4, 8, their Isoduals and Pseudoduals, and "Hidden Numbers" of Dimension 3, 5, 6, 7," Algebras, Groups and Geometries Vol. 10, 273 (1993), http://www.santilli-foundation.org/docs/Santilli-34.pdf

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Chun-Xuan Jiang, *Foundations of Santilli Isonumber Theory,* International Academic Press (2001), http://www.i-b-r.org/docs/jiang.pdf