1086-81-1848 **Michael G Dombroski*** (dombroskiSTM11@verizon.net), CA. *A Discrete, Compact, Matrix, Space-Time Representation – An Example.* Preliminary report.

In a previous paper, (1063-81-112, Abstracts, Volume 31, Issue 4), "A Catalog of **IJK** and **InJnKn** Matrix Base States with **TriKets**©", 384 **TriKets** were cataloged. This paper presents an empirically-found, extremely compact, discrete, completely real, matrix space-time representation:

$$\text{zxyt} := \begin{pmatrix} z_1 & x_1 & y_1 & t_1 \\ y_2 & z_2 & x_2 & t_2 \\ x_3 & y_3 & z_3 & t_3 \\ 0 & 0 & 0 & 0 \end{pmatrix}$$

Note the space-time symmetry: three vectors (zxy) plus one scalar (t). This representation, called here, the ZXYT©, or ZX©, takes advantage of the IJK© notation to give compact, in-phase, functional forms of these matrices. *This is the basis for the examination of the hypothesis that there exists a finite, real, extremely compact, natural mathematics that describes the physical universe exactly.* There are 12 sets of three, 3×3 Universal Base States, UBS© (pre-preons?). Each set provides an Environ©(ment) containing nine of the UBS. There are 12 Environs: lower case (aa, bb, cc, dd, ee, ff) plus Upper Case (AA, etc). Pairs of complementary, mathematically real, "Toy Lagrangian Amplitudes©", for example, $\langle \text{Mbi2}| \, |\text{Pbi5}\rangle = (\pm)|\text{Pbi2}\rangle\langle\langle \text{Mbi5}|$ generate the symmetric, anti-symmetric, or zero eigenfunctions (boson, fermion, zero: supersymmetry?). There are two types of matrices: Q and L. Note that all pairs are *independent of scalar time* in zxyt. A natural three-dimensionality emerges from the *same sign pattern* for each I, J, K, and i, j, k matrix set (e,mu,tau?). The Planck Level is assumed. http://dombroskiSTM.org/com/net

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