1063-81-112 **Michael George Dombroski*** (dombroskiSTM11@verizon.net), Los Angeles City College. *A Catalog of **IJK** and **InJnKn** Matrix Base States with **TriKets**©.* Preliminary report.

In a previous paper (1054-81-8, Abstracts, Volume 30, Issue 4), the 48 **IJK** and **InJnKn Matrices** were introduced. The object of deriving these matrices was to eliminate imaginary numbers. These 48 4×4 matrices have unique symmetry properties. In this paper the matrices are empirically derived. They are analyzed, and Dirac Bra-Ket analogs, here called **TriKets**, are introduced. **TriKets** are sets-of-three matrix pair combinations. There are 384 **TriKets** in this catalog. Separate, complete, **BosonFermion (BF)** pair catalogs for each of the **IJK** and **InJnKn** matrices are presented. The multitude of fine, precise, detailed, phase interactions of Matrix Base States are then shown. The non-commutative (**BF**–**FB**) reveals two distinct orders. TriKets have complementary pairs. Exchange of Permutation Numbers (**PN**) over these pairs, shows the Signs, States, and combinations that change. A fundamental result is the existence of a *10-dimensional matrix space*. The data is organized by using quantum-amplitude analogs. The wealth and variety of $\frac{1}{3}$ and $\frac{2}{3}$ phase function combinations may provide a natural, unitless, basis for charge, spin, mass, quarks and supersymmetry at the Plank level. This work also answers the question posed by John Archibald Wheeler: *"What line of thought could ever be imagined as leading to four dimensions–or any dimensionality at all–out of more primitive considerations?"*

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 (Received August 11, 2010)