1054-81-8 **Michael G Dombroski*** (dombroskistm11@verizon.net), Los Angeles City College, Los Angeles, CA 90029. *A Mathematical Quantization of Space-Time-Matter.* Preliminary report.

The universe appears to be very complicated when looked at in very tiny detail. But it appears there may be a simple key to unlock the quantum world. It could be a summation of *powers-of-three*: $\mathrm{W}_a := \sum_{j=0}^{a} 3^{6j}$. The four relations involving this depend upon only even integers (e), and odd integers (o).

The four combinations needed are:

$$\mathrm{X_o} := \left(3^3\mathrm{W}_{\frac{(o-1)}{2}-1} + \mathrm{W}_{\frac{(o-1)}{2}} + 3^{3(o)}\right) \qquad \mathrm{Z_e} := \left(3^3\mathrm{W}_{\frac{(e)}{2}-1} + \mathrm{W}_{\frac{(e)}{2}}\right)$$

$$\mathrm{Y_o} := \left(3^3\mathrm{W}_{\frac{(o-1)}{2}-1} - \mathrm{W}_{\frac{(o-1)}{2}} + 3^{3(o)}\right) \qquad \mathrm{T_e} := \left(3^3\mathrm{W}_{\frac{(e)}{2}-1} - \mathrm{W}_{\frac{(e)}{2}}\right)$$

These, when simplified, are:

$$\boxed{(\mathrm{X_o}, \mathrm{Y_o}, \mathrm{Z_e}, \mathrm{T_e})} = \left(\frac{+3^{3(o+1)}-1}{26}, \frac{+3^{3(o+1)}-1}{28}, \frac{+3^{3(e+1)}-1}{26}, \frac{-3^{3(e+1)}-1}{28}\right)$$

The signs of the $\pm 3^{(\cdot+1)}$ shows the $(+ + + -)$ nature of the signs. These $(\mathrm{X_o}, \mathrm{Y_o}, \mathrm{Z_e}, \mathrm{T_e})$ are four functions, called here the *Space-Time-Matter* (STM) functions, analogs of $(x, y, z, -t)$. For specific integers of (e) and (o), the functions evaluate to simply four integers. This is so, even though they may *appear* to be rational numbers.

How were the initial W forms of $(\mathrm{X_o}, \mathrm{Y_o}, \mathrm{Z_e}, \mathrm{T_e})$ found? That is the subject of this paper. See http://dombroskiSTM.org. (Received May 14, 2009)