The Dark Gravity model is only tenable provided mass is not continuously distrributed but only exists or at least can be measured at some points in the lattice. Flat space of our model can only be paved by parallelepipedes or polyedres with hexagonal base. The latter being more symmetric and having a 60 degrees caracteristic angle in the two dimensional network of hexagons matching the angle above wich the CMB is no more isotropic, this is our prefered option.

The fundamental object solution of our equations is a standing spherical wave which frequency f is related to a rest mass according quantum mechanics : $hf = mc^2$.

A standing wave at rest in P0 has frequency f0 and mass m0. The same standing wave propagating toward P2 at the speed of light has a projected velocity $v = c.\cos\theta$ along the direction P0P1 and a Doppler shifted frequency (including the relativistic effect of time dilatation) as seen from P1:

$$\begin{aligned}
&\theta = \langle P1P0P2\rangle \\
&v/c = \cos\theta \\
&\gamma = \tfrac{1}{\sin\theta}
\end{aligned}$$

Some important angles

$$\begin{aligned}
&\theta_0 = 30^\circ \rightarrow \gamma = 2 \\
&d\theta_{01} = 19.107 \rightarrow \gamma = 3.0545 \\
&\theta_0 - d\theta_{01} = \theta_1 = 10.893395^\circ \rightarrow \gamma = 5.2915 \\
&d\theta_{12} = 4.30662^\circ \rightarrow \gamma = 13.317 \\
&\theta_1 - d\theta_{12} = \theta_2 = 6.586775^\circ \rightarrow \gamma = 8.7178 \\
&\theta_1 - 2d\theta_{12} = 2.280155^\circ \rightarrow \gamma = 25.13465 \\
&\theta_0 + \theta_1 - 2d\theta_{12} \rightarrow \gamma = 1.8724 \\
&.... \\
&d\theta_{23} = 1.8717716^\circ \rightarrow \gamma = 30.616 \\
&\theta_1 - d\theta_{23} = 9.0216234^\circ \rightarrow \gamma = 6.377
\end{aligned}$$

A tree of mesons?

$$\begin{aligned}
&\pi^{\pm} \xrightarrow{1.87^2} K^{\pm}, K^0 \xrightarrow{1.87} p \xrightarrow{1.87} \tau \\
&\qquad\qquad\quad \overset{2.}{\searrow} a0 \xrightarrow{1.87} D \\
&\qquad\qquad\qquad\qquad \overset{2.}{\searrow} D_s \\
&\pi^0 \xrightarrow{2^2} eta \xrightarrow{1.87} \phi \\
&\qquad\quad \overset{2^2}{\searrow} D_s^* \\
&\pi^0 \xrightarrow{5.2} \rho \\
&\phi \xrightarrow{5.2} B \\
&\phi \xrightarrow{6.4} B_c \\
&\phi \xrightarrow{13.3^2} top \\
&\phi \xrightarrow{3} J/\psi \xrightarrow{3} \Upsilon
\end{aligned}$$

Joining the lepton tree through the third dimension :

$$\theta = 45^o \Rightarrow \gamma^{-1} = \sqrt{2}$$
$$\mu \overset{\sqrt{2}}{\rightarrow} \pi$$

A lepton tree ?

$$e \overset{2^8}{\rightarrow} \mu \overset{2^4}{\rightarrow} \tau$$

The formula are good within 5 % accuracy on the particles bare masses i.e. not taking into account electromagnetic self interaction corrections (a few MeV).

The baryon tree involves new angles:

$$\theta'_1 = 43.897° \rightarrow \gamma = 1.4422$$
$$\theta'_2 = 40.893° \rightarrow \gamma = 1.527$$
$$\phi \overset{1.44}{\rightarrow} N(1440)$$
$$\phi \overset{1.52}{\rightarrow} N(1520)$$
$$...$$