On charge / gravity and ? deformed matrices

①

Rafferty [illegible]

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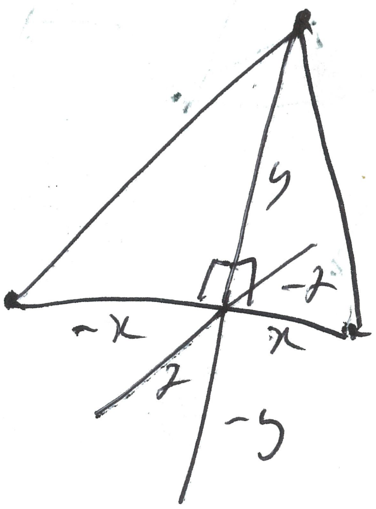
9:23pm

Charge

$\sigma \rightarrow L$ (stacked standard)

particle $\rightarrow$ point

$$F \propto \frac{K q_1 q_2}{R^2}$$



octahedron
(homeomorphic to sphere)

We can 'play' with various
and standards citing (see previous pages)

Score - mean $\Rightarrow$ $x - \mu$ $\Rightarrow$ $\sigma = \sqrt{\langle c^2 \rangle - \langle c \rangle^2}$
w/c

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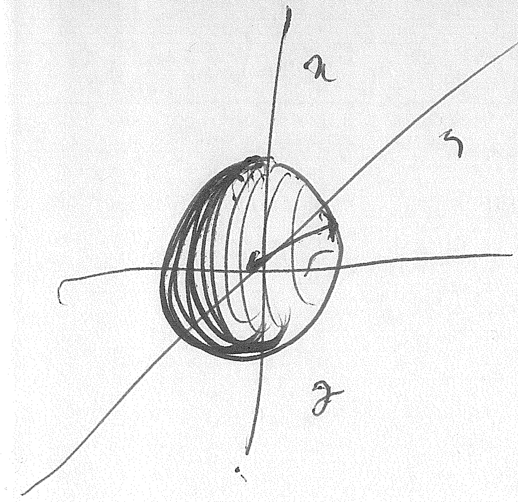

n sphere

$$x^n x^n = r^2$$

$$r^2 \rightarrow (x - \mu_m)^2 = (x - \bar{x})^2$$

$$(x-\mu)^2 / (y-\mu)^2 \ldots \langle i \rangle \quad (x - \langle i \rangle)^2$$

to higher dimensions

$$a^2 = x - \langle i \rangle_N^2$$

$$\sum_N (x_N - \langle i \rangle_N)^2$$

st $x_N - \langle i \rangle_N = d.$

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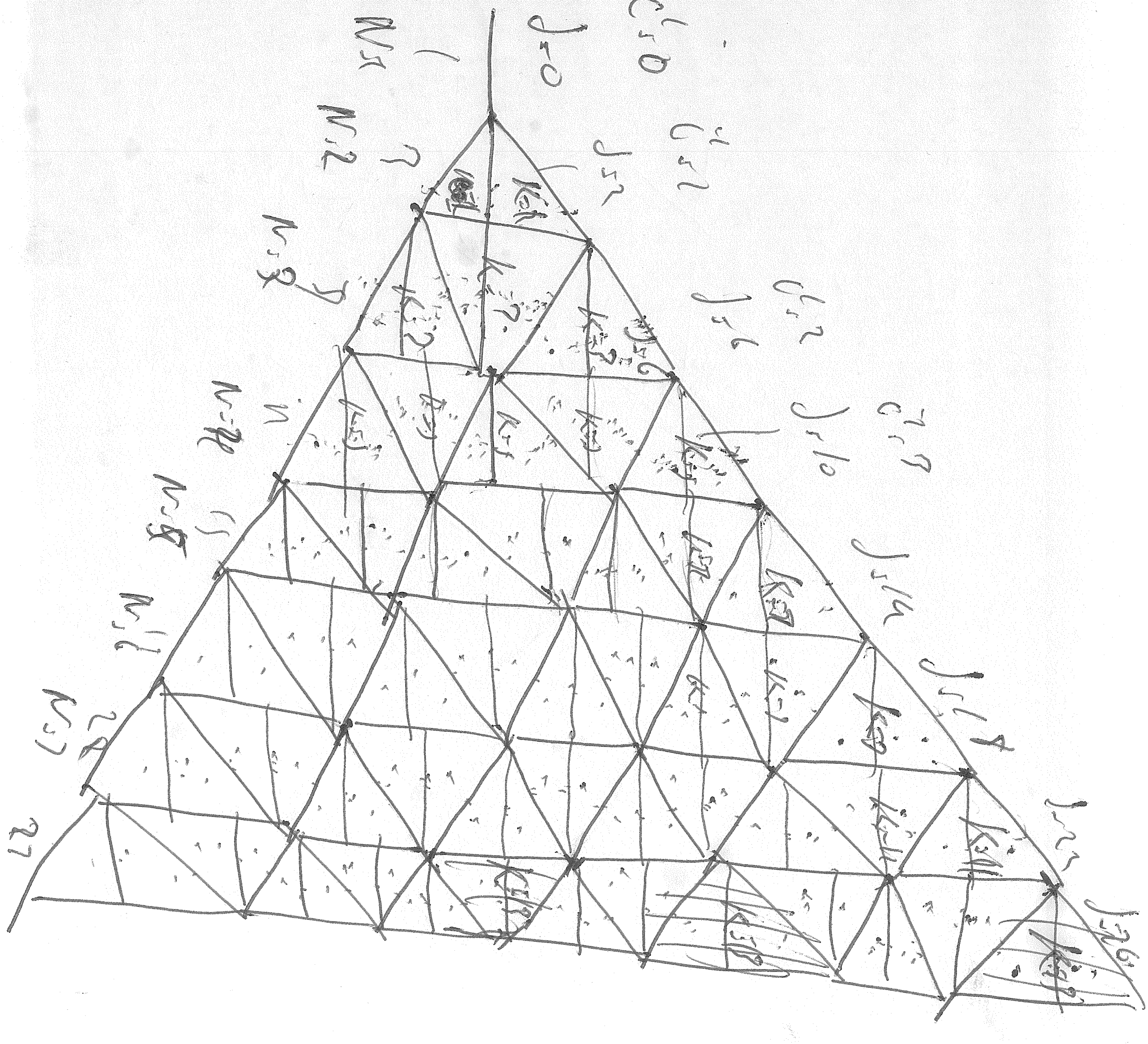
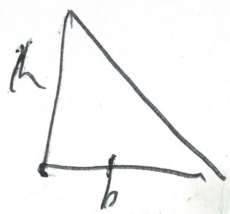
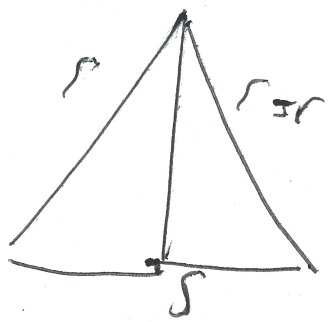
Finally we attempt to show that defining a straight id line as the first element of a fractal; produces the ~~[illegible]~~ face of a octahedron (ghost field) diagram (A)



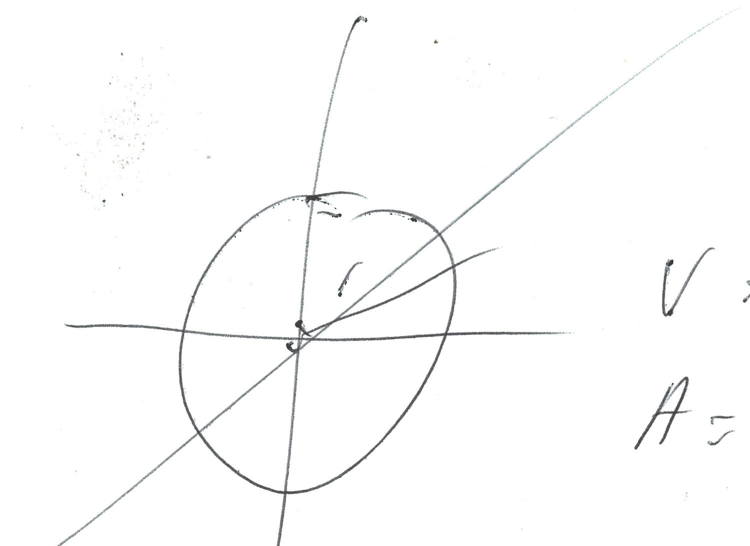
San equllded angles



$$A = \frac{1}{2} b h$$



$$A = \frac{\sqrt{3}}{4} s^2$$



$$V = \frac{4}{3} \pi r^3$$

$$A = 4 \pi r^2$$

$$x^2 + y^2 + z^2 = r^2$$

Induction <u>See diagram A</u>

$$\boxed{= \text{Area} + L^{+} \text{Area}^{*} = \text{Area} ?}$$

$\Rightarrow$ for $\cancel{K=0}$ $K=0 \Leftrightarrow \text{Area} \propto \xi K$

$= 0 + L^{+}(\text{Area}) \Rightarrow L^{+} = P\{+1, -1, 0\}$

$= 0 + 1(\text{Area}) ?$

$= 1d$ [See Sum of rules ([illegible] [illegible])!!!]

$\Rightarrow$ for $K = 1$

$= 2 + 1(\text{Area}) ?$

$= 2d$

$\Rightarrow$ for $K = 3$ [Thus terminates at 3d) $J=6, N=3, K=3$

$= 3 + (0)\,\text{Area} = 3d$

So

$j = 3$ See A

but j_i

rest of 'lattice'

$d = \sum_k j$ d = dimension ≥ 1

$$\boxed{d = \sum_i \frac{j_i}{2K_i}}$$

(assuming sketch is correct – diagram A)

$$= \frac{j_1}{2K_1} + \frac{j_2}{2K_2} + \frac{j_3}{2K_3} + \dots$$

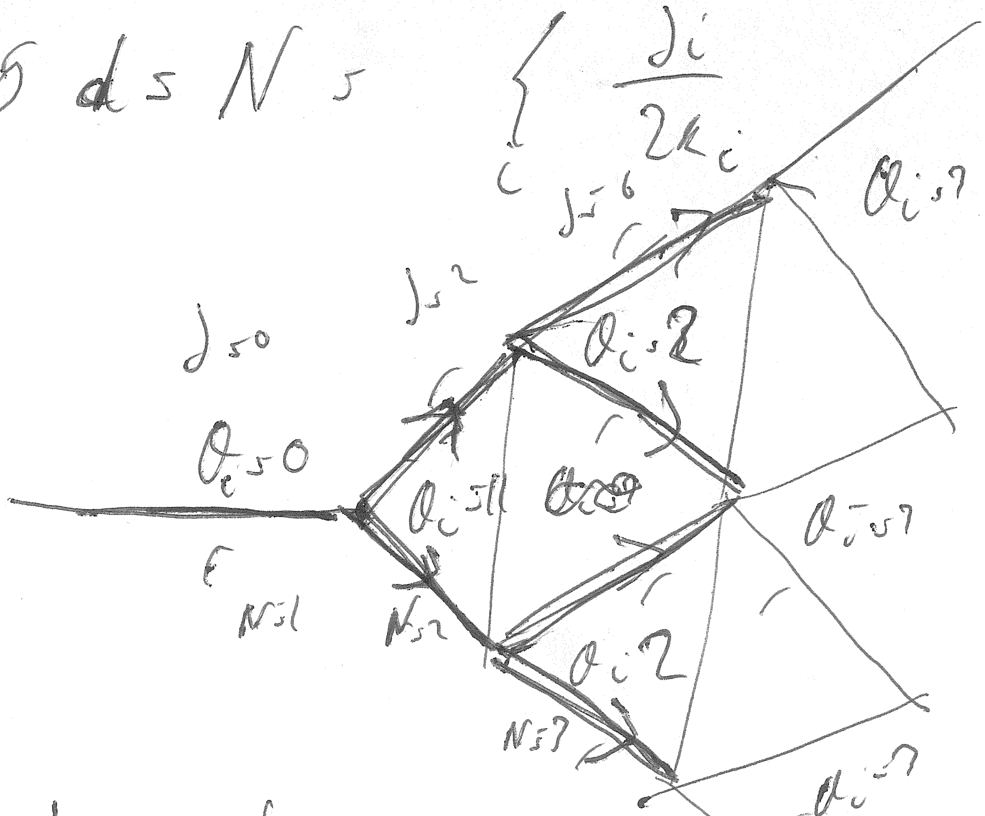
defining $j = 0$ as

1 dimensional

the first [illegible] (made) occurs at $k=3$, $j=6$

for sides N.

[illegible] $d = N = \sum_i \frac{j_i}{2k_i}$



for forward ~~facing left~~ (right) facing

~~facing~~ angles => (thus

reflecting, by t we can

[illegible] in one direction)

($\Delta E \leftrightarrow \Delta$ dimensions)

So for each dimension $d = N$

there are $(d-1)$ angles (to right)

Area of equilateral triangle

$$= \frac{\sqrt{3}}{4} s^2$$

$$r = s$$

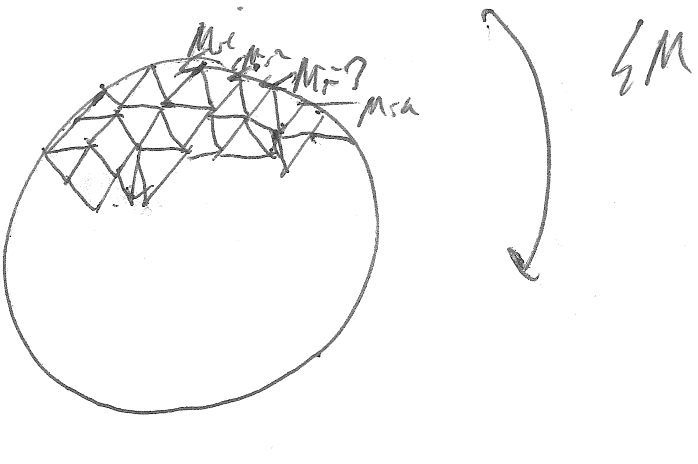
$\Rightarrow$ Circumference of a circle

$$= 2\pi r = \frac{dA}{dr}$$

$\Rightarrow$ Area of a circle

$$= \pi r^2 = \frac{dV}{dr}$$

for an approximate fractalisation



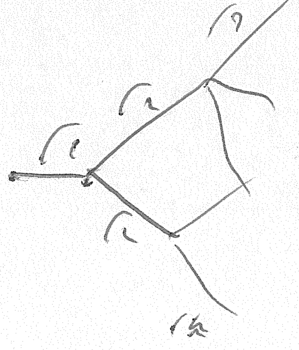
~~define k as~~

we can write

$$\Sigma M = 2DR$$

and

$$\Sigma r_N = R$$



(approximation for fractals)

also writing (except $d=0$)

$$R = (d)(r) = (N)(r)$$

$$R = \sum_i \frac{d_i}{2k_0 r}$$

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$$R^2 = \sum \left(x_n - \langle i \rangle_{ni} \right)^2 = \sum_i \left(\frac{\dot{J}_i}{2k_i} r \right)^2$$

Then the path for a charge is

$$F \propto \frac{k a_1 a_2}{r^2}$$

$$= \frac{k a_1 a_2}{\left(x - \langle i \rangle_{ni} \right)^2} = \frac{k a_1 a_2}{\sum_i \left(\frac{\dot{J}_i}{2k_i} r \right)^2}$$

demonstrating that both a particle and its path ~~from~~ from a charge is dependent on the s.d. variance, freedoms of a sphere and the standard round cone st

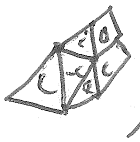
$$e^{-\frac{1}{2}\frac{(x-\mu)^2}{\sigma^2}}$$

$$\sigma^2 = \langle c_i^2\rangle - \langle c_i\rangle^2.$$

Thus charge takes the path determined by statistical processes?

References

[1] Leonard Susskind lectures Quantum mechanics Stanford

MP replacing q_1 q_2 by $M_1 M_2$ (masses) we may be able to unify gravity with charge phenomena (MP SU(n) matrices in a skewed format )

MP

for $x^{\mu} x^{\mu'} \to g_{\mu\nu} x^{\mu} x^{\nu}$

in a curved (see

previous articles)

$$\beta_i^{(k)} g_{\mu\nu \ldots} x^{\mu\nu \ldots}$$

St the Standard

Lagrangian (choose functions – sets, mutually del

$$\left[\beta^{n}_{c n}(t) - \beta^{n}_{c n}(t) \right] g_{\mu\nu \ldots} x^{\mu} x^{\nu} \ldots \text{ etc}$$

describes the "scene $\{\vec{c}, \vec{p} \ldots\}$"

across. This across $\vec{c}$ may

be a [illegible] process relying

on strong, weak, electromagnetic and

less likely gravity.