VARIOUS CALCULATIONS OF THE UNIVERSE:

BLACK HOLE TEMPERATURE:

We equate (½) kT with E= $\frac{1}{2}$.mc ^{2} and we include E= Force $\times$ r ,

r =(2 GM)/ c ^{2}

Also E= hν . Thus we have : (1/ 2) kT = h.(c/λ).

As for λ, we see that in 1 dimension , 2πr= n. λ where "n" is the number quantum

In 2 dimensions let's move on to the concept of area , where

4πr $^2 \equiv f(r) \equiv$ nλ'r

First I square the equality and then I divide the part right side of the equivalence for "r":

$$(2\pi r)^2 \rightarrow (\lambda r)^2 \quad (4\pi r^2)^2 \rightarrow (\lambda' r^2)^2 \quad ((\tfrac{4}{3})\pi r^3)^2 \rightarrow (\lambda'' r^3)^2$$

we finish replacing λ by λ ' r and by λ ' ' r ^{2} , thus we see that in each dimension (line , area, volume) in the part right of equality there is a degree less than the variable " radius ".

The expression $4\pi r^2$That's what interests us.

Therefore , I equals (4 πr ^{2}) ^{2} a (λ ' ' r ^{2}) ^{2} and I divide the part right by "r", with which I will obtain , on the part right of equality, a degree minus the " radius " variable:

16π ^{2} r $^4 \equiv$ λ ' 'r ^{4} /r

so that (1/ 2) kT = hc /λ= hc / 16π ^{2} r =(hc /16π ^{2}).(c ^{2} /2GM), therefore T =(1/16π ^{2}).(hc ^{3} / GMk)