Re: Slabinski and Mingst/Stowe disagree in Pushing Gravity

Source: http://sci.tech−archive.net/Archive/sci.physics.relativity/2005−04/msg01362.html

- *From*: "TC" <tclarke@xxxxxxxxxxx>
- *Date*: 23 Apr 2005 13:58:52 −0700

Paul Stowe wrote:
> On 22 Apr 2005 05:43:44 −0700, "TC" <tclarke@xxxxxxxxxxx> wrote:
>
> >Paul Stowe wrote:
> >> On 21 Apr 2005 07:53:16 −0700, "TC" <tclarke@xxxxxxxxxxx> wrote:
> >
> > Mingst/Stowe
> >
> > On page 191, equation (26) has form constant)x(mass)/(radius).
> >
> > On page 127, equation (19) has form (constant)x(mass) [Slabinksi]
> >
> >> ... Note however Slabinski's equation is not one of specific
> >> heat (watts/m^2), as is ours, but of total heat (watts).
> >
> > Then if Slabinski is correct, your equation should take the form.
> > (constant)x(mass)/(radius^2)
>
> Fine, point to the specific step in the following that is either,
>
> − mathematically wrong, or,
> − logically inconsistent
>
> We start will conservation and say, at equilibrium,
>
> q_in = q_out

> Where q is the power flux per unit area of the graviton field. Note
> that q is the current, not omni−directional flux. For ease of
> notation we'll set q_in = q & q_out = q'... Then for an attenuating
> mass we say,
> −ß −ß
> q = q' = qe + q(1 − e)

> The ß term is the total attenuation parameter. Clearly, if ß −> 0
> then we have,

Actually this expression is true for any value of beta, you have
just added and substracted teh same thing, q e to the minus beta.

> q' = q + (q − q) = q

> And, if ß −> oo then,

> q' = 0 + (q − 0) = q

True also for any value of beta, as noted.

> In he first case, nothing interacts, in the second, all interacts &
> is ultimately re−emitted as a secondary flux. Either way, in
> equilibrium is strictly maintained!

It's just adding and subtracting the same thing.

> Thus, the 'delta' or interacting component of q is (q''),

> −ß
> q'' = q(1 − e)

Why "thus"? I would tend to think that this is the non−interacting
component. e to the minus beta would be the term describing
absorption and thus interaction.

> Therefore, when ß << unity the Taylor series shows us that this
> can be quantified (to a very high precision) by simply writing

> q'' = qß

We all know how Taylor series work.

> The ß term is an expression of the departure from equilibrium of
> the graviton fluence. This can be found on page 190 Eq(22) and
> is given as 2GM/rc^2. Now follow this through

Unfortunately, I left the book at my desk. But that doesn't sound
correct. The absorbtion should just be determined by M.
r should not have anything to do with it.
Probably this is where the r term comes in in your
expressions that Slabinsky does not have in his.

> q'' = q(2GM/rc^2)

> Regrouping this we get,

> q'' = (q2G/c^2)M/r

> Finally, we know that within LeSage's model,

> G = ¿µ^2

> and

> q = ¿c/4pi

> Thus,

> (q2G/c^2) => ([¿µ]^2/[2pi]c) => k

> q" = kM/r

> Now, to Slabinski version. ...
>
> In our analysis above we've taken a 'big picture' or macroscopic
> continuum approach to the issue. In Slabinki's work he take the
> microscopic or kinetic theory type approach. You could say ours
> was a top down and Slabinki's a bottom up analysis. We must also
> quantify Slabinki's terms and map them to their counterparts in
> our approach. Slabinki defines,

> N = graviton particle density (particles per unit volume)
> A = test area (length squared)
> A' = absorption cross−sectional area for the smallest possible
> interacting material particle... (length squared)
> A"= scattering cross−sectional area for the smallest possible
> interacting material particle... (length squared)
> ç = Solid angle sutended by A (Radians)
> K = mass absorption coefficient (length squared per unit mass)
> K' = mass scattering coefficient (length squared per unit mass)
> m = m, m' test particles of gravitating mass
> r = distance of A from m
> R = Rates (R, R', R") net, direct, scatter
> £ = net decrease in graviton flux density
> c = graviton mean speed
> w = graviton mass

> Mapping into our version.
>
> ¿ = Nwc^2
> µ = Sqrt[K(K + K'[1 − Cos æ])]

I really wish you wouldn't use that upside down question mark. If you
mean
psi, write psi, please.

> Thus mapping Slabinki's Eq 19 we get,

> H = (¿2piKc)m

Heat absorbed and thus re−emitted is a constant times the mass.

> Dimensionally this is,
>
> kg | m^2 | kg | m kg−m^2
> −−−−−−−+−−−−−+−−−−+−−− => −−−−−−
> m−sec^2| kg | |sec sec^3

> Converting to a per unit area (4piL^2)we get,

> (¿Kc/2)m/L^2 => kg/sec^3

> Note that Slabinki is evaluating the test area of a single
> interacting differential particle of matter. A, A', A"
> as well as ç and æ are set by this. HE IS NOT! evaluating
> a macroscopic body consisting of multiple test particles.

A macroscopic body is comprised of test particles.
The sum of the heat input to test particles should give the value for the macroscopic body. I guess is beta >> 1 there might be shielding of the interior that would make the sum not proportional to total mass, but you explicitly assume beta <<1.

> The 'solid' angles ç and æ are affected by size.

The sum of the solid angles is the sum of the solid angles.

> However,
> for his analysis size doesn't change. Note, area is
> proportional to r^2 and density to r^3, a 1/r differential.

This makes no sense.

Tom

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- ***Follow−Ups***:
  - ***Re: Slabinski and Mingst/Stowe disagree in Pushing Gravity***
    - *From:* Paul Stowe
- ***References***:
  - ***Slabinski and Mingst/Stowe disagree in Pushing Gravity***
    - *From:* TC
  - ***Re: Slabinski and Mingst/Stowe disagree in Pushing Gravity***
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- ♦ ***Re: Slabinski and Mingst/Stowe disagree in Pushing Gravity***
  - ◊ *From:* Paul Stowe

- Prev by Date: ***Re: Coulomb derived gravity***
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