The Stowe Unitary System

Paul Stowe - 05 Feb 2005 13:51 GMT

For the first time I have been able to define all fundamental constants in terms of basic medium parameters, including the gravitational constant G. Further, G is, within this system, seamlessly integrated to all others, fitting into a unified system.

The key to this system's definition is the realization that charge is fundamentally a result AND the measure of the compressibility of Maxwell's aether. See: http://www.mountainman.com.au/charge_ps.htm for futher details on this.

I have posted an overview in the past and will repeat it here below.
(If interested, do a Google Groups Search on the exact phrase "Stowe Units")

Quantity	SI	Conversion Factor to	(Stowe Units)
Length	meter (m)	1	meter(m)
Mass	Kilogram (kg)	1	Kilogram (kg)
Time	Second (sec)	1	second (sec)
Force	Newton (Nt)	1	kg-m/sec^2
Energy	Joules (J)	1	kg-m^2/sec^2
Power	Watts	1	kg-m^2/sec^3
Action	[h] (J-sec)	1	kg-m^2/sec
Permitivitty	[z] (Q^2/kg-m^3)	1	kg/m^3 {1}
Permeability	[u] (kg-m-sec^2/Q^2)	1	m-sec^2/kg {2}
Charge	[q] (Coulomb)	1	kg/sec
Boltzmann's	[k] (J/°K)	1	m-sec
Current	[I] (Amp)	1	kg/sec^2
Electric Field	[E]	1	m/sec
Potential	[V] (Voltage)	1	m^2/sec {3}
Displacement	[D]	1	kg/m^2-sec
Resistance	[R] (Ohms)	1	m^2-sec/kg
Capacitance	[C]	1	kg/m^2
Magnetic Field	[H] (Henries)	1	m^2
Magnetic Flux	[B] (Gauss)	1	(none)
Inductance	[L]	1	m^2-sec^2/kg
Temperature	[°K] (Kelvin)	1	kg-m/sec^3

{1} - Medium density
{2} - Medium modulus
{3} - Medium Kinematic Viscosity

The basic physical quantities in this system are the medium properties of, momentum quanta [ß], characteristic interaction length quanta [L], the root mean speed [c], and a mass attenuation coefficient [¿].

Their values are,

ß = ~5.154664E-27 kg-m/sec

L = ~6.430917E-08 m
¿ = ~3.144609E-06 m^2/kg
c = ~2.997925E+08 m/sec

There are two dimensionless factors also. These are shared with the standard systems of measure as,

á = ~7.297353E-03 (Fine Structure Constant)
 = ~1.001159E+00 (Electron Magnetic Anomaly)

Now to the fumdamental constants. I'll now show that h, z, u, k, q, G easily fall out of the above.

h ~= 2ßL
q ~= 2ß/L
k ~= L^2/c
u ~= áL^3/ßc
z ~= ß/áL^3c
G ~= (áßc/2piL^3)¿^2

Note rounding to six significant digits in the above numeric definitions can affect the results slightly.

Paul Stowe

Reply to this Message

Uncle Al - 05 Feb 2005 17:07 GMT

> *For the first time I have been able to define all fundamental constants*
> *in terms of basic medium parameters, including the gravitational*
[quoted text clipped - 4 lines]
> *fundamentally a result AND the measure of the compressibility of*
> *Maxwell's aether.*
[snip crap]

Physics Today 57(7) 40 (2004)
http://physicstoday.org/vol-57/iss-7/p40.shtml
No aether

http://fsweb.berry.edu/academic/mans/clane/
http://physicsweb.org/articles/world/17/3/7
No Lorentz violation

Michelson-Morley experiments (to 10^(-8) in 1887 and 1.7x10^(-15) in 2002)
Kennedy-Thorndyke experiments
Ives-Stilwell experiments
Hughes-Drever experiments
etc.

Signature

Reply to this Message

Paul Stowe - 05 Feb 2005 18:24 GMT

>> *For the first time I have been able to define all fundamental constants*
>> *in terms of basic medium parameters, including the gravitational*
[quoted text clipped - 8 lines]
> *http://physicstoday.org/vol-57/iss-7/p40.shtml*
> *No aether*

Hey Bozo, Maxwell's aether WAS what lead TO LCR. See Lorentz 1904, Einstein 1905... etc.

>http://fsweb.berry.edu/academic/mans/clane/
>http://physicsweb.org/articles/world/17/3/7
> No Lorentz violation

BFD! That certainly does NOT invalidate Maxwell!

> Michelson-Morley experiments (to 10^(-8) in 1887 and 1.7x10^(-15) in
> 2002) Kennedy-Thorndyke experiments Ives-Stilwell experiments
> Hughes-Drever experiments etc.

Irrelevant to the issue!

The system stands or falls solely based upon its internal continuity AND the ability to match & predict relationships both known or unknown.

Your CRAP above isn't even on the radar scope of this particular topic!

Paul Stowe

Reply to this Message

Bilge - 05 Feb 2005 18:43 GMT

Paul Stowe:
> For the first time I have been able to define all fundamental constants
> in terms of basic medium parameters, including the gravitational
> constant G. Further, G is, within this system, seamlessly integrated
> to all others, fitting into a unified system.

What do units have to do with physics? You've managed to take two fundamental constants, \alpha and G, and rewrite them as six.

> The key to this system's definition is the realization that charge is
> fundamentally a result AND the measure of the compressibility of
[quoted text clipped - 63 lines]
>
> Paul Stowe

Reply to this Message

Paul Stowe - 06 Feb 2005 16:06 GMT

> Paul Stowe:
>> For the first time I have been able to define all fundamental constants
[quoted text clipped - 69 lines]
>
> What do units have to do with physics?

I would not expect an Idiot-Savant like you to figure that out...

> You've managed to take two fundamental constants, \alpha and G, and
> rewrite them as six.

OK, then show us how to get Boltzmann's Constant from just alpha & G. :)

Paul Stowe

Reply to this Message

Morituri-|-Max - 06 Feb 2005 17:37 GMT

>> You've managed to take two fundamental constants, \alpha and G, and
>> rewrite them as six.

>
> *OK, then show us how to get Boltzmann's Constant from just alpha & G.*

You first... why did you need to take two constants and merely rewrite them as six constants? It's your "brainstorm," you tell us yours before he tells you his.

Reply to this Message

Paul Stowe - 06 Feb 2005 17:45 GMT

>>> You've managed to take two fundamental constants, \alpha and G, and
>>> rewrite them as six.
[quoted text clipped - 4 lines]
> them as six constants? It's your "brainstorm," you tell us yours
> before he tells you his.

Hey Bozo, go look at the post you replied to, it's in there.

Paul Stowe

Reply to this Message

Paul Stowe - 06 Feb 2005 19:06 GMT

>>>> You've managed to take two fundamental constants, \alpha and G, and
>>>> rewrite them as six.
[quoted text clipped - 6 lines]
>
> Hey Bozo, go look at the post you replied to, it's in there.

BTW, I wonder if I'll ever get a 'straight answer' back, or, is it do as I say, and not as I do...?

Paul Stowe

Reply to this Message

Morituri-|-Max - 07 Feb 2005 08:05 GMT

> BTW, I wonder if I'll ever get a 'straight answer' back, or, is it
> do as I say, and not as I do...?

You have to post a straight question to get a straight answer.

Reply to this Message

Paul Stowe - 07 Feb 2005 15:37 GMT

>> BTW, I wonder if I'll ever get a 'straight answer' back, or,
>> is it do as I say, and not as I do...?
>
> You have to post a straight question to get a straight answer.

What a weasel! Not one ounce of integrity, eh?

Bilge: "You've managed to take two fundamental constants, \alpha and G, and rewrite them as six."

I replied: "OK, then show us how to get Boltzmann's Constant from just alpha & G."

You jumped in, put foot in mouth, and said,

"You first... why did you need to take two constants and merely rewrite them as six constants? It's your "brainstorm," you tell us yours before he tells you his."

When in fact, my original post (which WAS present in Bilge's reply)

very clearly showed,

Quantity SI Conversion Factor to (Stowe Units)

[...]
Boltzmann's [k] (J/°K) 1 m-sec
[...]

{1} - Medium density
{2} - Medium modulus
{3} - Medium Kinematic Viscosity

The basic physical quantities in this system are the medium properties of, momentum quanta [ß], characteristic interaction length quanta [L], the root mean speed [c], and a mass attenuation coefficient [¿].

Their values are,

ß = ~5.154664E-27 kg-m/sec
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There are two dimensionless factors also. These are shared with the standard systems of measure as,

á = ~7.297353E-03 (Fine Structure Constant)
 = ~1.001159E+00 (Electron Magnetic Anomaly)

Now to the fumdamental constants. I'll now show that h, z, u, k, q, G easily fall out of the above. ^_

[...]
k ~= L^2/c
[...]

So, any one with an ounce of integrity would have immediately said something like,

Oh, I'm sorry, I was wrong. Apparently you DID define Boltzmann's Constant.
I jumped to rash & invalid conclusions WITHOUT ACTUALLY LOOKING at what you posted...

Is this clear enough?

Paul Stowe

Reply to this Message

Bilge - 07 Feb 2005 21:45 GMT

Paul Stowe:

>>> BTW, I wonder if I'll ever get a 'straight answer' back, or,
>>> is it do as I say, and not as I do...?
[quoted text clipped - 51 lines]
> k ~= L^2/c
> [...]

That means you have 4 constants which are superfluous and have to cancel in any physical result. Don't ever accuse anyone of mistaking math for physics.

Reply to this Message

Bilge - 06 Feb 2005 21:42 GMT

Paul Stowe:
>On Sat, 05 Feb 2005 18:43:52 GMT,
>dubious@radioactivex.lebesque-al.net (Bilge)

>> What do units have to do with physics?
>
> I would not expect an Idiot-Savant like you to figure that out...

I take that to mean you have no answer, as usual.

>> You've managed to take two fundamental constants, \alpha and G, and
>> rewrite them as six.
>
> OK, then show us how to get Boltzmann's Constant from just alpha & G. :)

I must have missed boltzmann's constant, so make that, ``You've managed to take three fundamental constants, \alpha, G and k, and double the number.

Reply to this Message

Paul Stowe - 06 Feb 2005 22:08 GMT

> Paul Stowe:
> >On Sat, 05 Feb 2005 18:43:52 GMT,
[quoted text clipped - 12 lines]
>
> I must have missed boltzmann's constant,

You miss alot Bozo...

> so make that, ``You've managed to take three fundamental constants,
> \alpha, G and k, and double the number.

Sigh, OK Bozo, take JUST alpha (that's the value of 7.297353E-3 alone), k, and G and get Planck's constant h... IF you require the relationship equation q^2/2hzc AND ANY of those constants, you CAN'T do what you claim!

You are such a dweeb...

Paul Stowe

Reply to this Message

FrediFizzx - 06 Feb 2005 19:50 GMT

| For the first time I have been able to define all fundamental constants
| in terms of basic medium parameters, including the gravitational
[quoted text clipped - 32 lines]
| Inductance [L] 1 m^2-sec^2/kg
| Temperature [°K] (Kelvin) 1 kg-m/sec^3

Paul, I thought we had it settled that the conversion factors for electric and magnetic quantities are powers of (kg*sec^-2*amp^-1) which is a tesla in SI units? Anyone can easily see that the conversion factors can't be 1.

FrediFizzx

Reply to this Message

Paul Stowe - 06 Feb 2005 21:11 GMT

>| For the first time I have been able to define all fundamental constants
>| in terms of basic medium parameters, including the gravitational
[quoted text clipped - 36 lines]
> Paul, I thought we had it settled that the conversion factors for electric
*> and magnetic quantities are powers of (kg*sec^-2*amp^-1) which is a tesla*

That's fine but, since an Amp => kg/sec^2, Tesla is dimensionless.

IOW,

```
 kg     sec^2
----- x ----- => unitless
sec^2     kg
```

> in SI units? Anyone can easily see that the conversion factors can't be 1.

Further, since 1 Coulomb = 1 kg/sec, conversion is unity & dimensionless.

I could, of course have said Tesla, but to me it is needless confusion.

As I've mentioned before, all I've really done, in terms of SI, is redefine the unit Coulomb as kg/sec. The rest, ß, L, c all come from standard kinetic theory. So, wherever Coulomb appears in SI, replace the unit with kg/sec, that's it. Since Coulomb is arbitrary, doing so will NOT change any internal consistencies. Thus the Stowe Unitary System is as consistent as the standard SI it enhances.

Paul Stowe

Reply to this Message