Electromagnetic Waves and Fluid Mechanical Theory

“Navier-Stokes Millennium Problem solution”

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§ 0. Abstract

The cause for the Navier-Stokes constant values are in my research because of the Schumann Resonance, “Earth’s Frequency.” It is because of this frequency that there is balance at all in the Navier-Stokes equations. If these frequencies could be quantified, a neural network could even be made containing such EM frequencies of 8 hertz resulting in a possible unknown Network like that of even Ted Nelson’s theorized wireless network, “Xanadu.” With the Navier-Stokes equations proven Ted Nelson’s Xanadu Project could even be created if quantified.

§ 1. Formulating and Deducing the Constants

We’ll start with the Continuity equation that being $\nabla \cdot \bar{V} = 0$. Since we know that if we were to divide $\bar{V}$ to the RHS, we then can conclude that $\bar{V}$ is not equal to zero which is the case. Hence, the concept of continuity. Then there is the Laplace equation $\nabla^2 \phi = 0$. Though if this is the case then $\nabla = \nabla^2$ ultimately. So the only values for ∇ would be 1 and 0 due to divergence. Then again, we know that $\nabla^2 = \Delta$. So the only way to know whether delta’s value is 0 or 1 is to make the assumption that it is either zero or one and see how it plays out into the equation. But this is only a partial part of the equation. The full equation is the following.

$$1.1 \quad \frac{\partial p^{density}}{\partial t} + \nabla \cdot (prs^{pressure} \bar{V}) = 0$$

Whereas if we divide, $\bar{V}$ to the RHS and the LHS you would get..

$$1.2 \quad \frac{\partial p^{density}}{\partial t} + \nabla \cdot (prs) = 0$$

Then you would get..

$$1.3 \quad 0 + \nabla \cdot (prs) = 0$$

$$1.4 \nabla \cdot (prs)=0$$

Looking back at the Continuity eq.

$$1.5 \nabla \cdot \bar{V} = 0$$

This proves that the velocity and pressure are both constants and thus irrelevant as to what causes turbulence balanced or not.

As for reference of itself, these are the constants and variables if at all that they exist.

$$p \text{ "density" } = \text{fluid density}$$

$$t = \text{time}$$

$$\bar{V} = \text{flow velocity vector field}$$

$$prs = \text{pressure}$$

$$\text{Knowing } p = \frac{M}{V}$$

Whereas,

$$M = \text{mass}$$

$$V = \text{volume of object}$$

$$1.6 \quad \frac{\partial \frac{M}{V}}{\partial t} + \nabla \cdot (prs(\bar{V})) = 0$$

In respect to time it seems density is also a constant like velocity and pressure. Refer to eq. 1.4 and 1.5.

$$1.7 \quad \nabla^2 = \Delta$$

It could be said that, with Archimedes' principle in respect to time has a Volume unequal to zero which would put it in a

range of $0 < V < \infty$. This asserts negative and positive values of Volume for the incompressible fluid.

Since $\nabla \bar{V} = 0$ then what this really interprets to is zero times a fluid velocity constant equals zero, “assuming nabla is equal to zero,” this would make the utmost sense in that given the situation, it would be impossible for nabla to be anything other than zero if $\bar{V}$ is constant—which it is. And yet if there was such an instance where nabla was produced with a non-constant variable, you could say that nabla or delta is equal to one. Such as the derivative of x being a non-constant. Assume,

$$1.8 \quad \nabla x = x$$

This could be solved easily as to what the value of the LHS is. You can rule out nabla being zero because for that to be the case the RHS would have to be zero. But that isn't the case. So we now know that nabla is equal to 1 while x is in the range of all real numbers.

Now what if it was different. Such as taking the derivative of this equation instead.

$$1.9 \quad x' = x$$

$$2.0 \quad nx^{n-1} = x, x^{1-1} = x$$

In this case the solution would be $x = 1$.

$$\text{Looking back at 1.2} \quad \frac{\partial p}{\partial t} + \nabla \cdot (p \mathbf{r} s \bar{V}) = 0$$

With this we can assume the fluid pressure is constant no matter the time. What is also constant is the fluid velocity and the pressure is constant of course. And since we know the velocity vector is constant, then we must conclude that pressure is as well.

So, what must happen is we must get the pressure constant on the right hand side.

$$2.1 \quad \frac{\partial p}{\partial t} + \nabla \cdot (prs\bar{V}) = 0$$

$$2.2 \quad \frac{\partial p}{\partial t} + prs(\nabla\bar{V}) = 0,$$

$$2.3 \quad 0 + prs(0) = 0$$

Cross out zero,

$$2.4 \quad (prs/prs) * 0 = 0/prs \quad prs/prs(0) = 0/prs$$

$$2.5 \quad 0/prs = 0$$

$1 * 0 = 0/prs$ meaning the pressure cannot be equal to zero and could be anything making it arbitrary. Meaning it could be a constant or a variable that changes.

$$2.6 \quad prs \neq 0.$$

Now we can rewrite the equation.

$$2.7 \quad \frac{\partial p}{\partial t} + \nabla \cdot (prs\bar{V}) = 0/prs$$

$$2.8 \quad prs^{-1} [\frac{\partial p}{\partial t} + \nabla \cdot (prs\bar{V})] = 0/prs$$

$$2.9 \quad \frac{[\frac{\partial p}{\partial t} + \nabla \cdot (prs\bar{V})]}{prs} = 0/prs$$

$$3.0 \quad \frac{[\frac{\partial p}{\partial t} + \nabla \cdot (prs\bar{V})]}{prs} = 0/prs$$

$$3.1 \quad \frac{[\frac{\partial p}{\partial t} + \nabla \cdot (prs\bar{V})]}{\Delta prs} = 0/\Delta$$

As it appears the change in pressure has no effect on fluid velocity or density. This means that there must be some external force acting on the pressure of the fluid.

The wave equation should give some insight as to another factor that has no effect on incompressible fluids.

$$3.2 \quad \partial^2 \phi / \partial t^2 = c^2 (\nabla^2 \phi)$$

$$3.3 \quad \partial^2 \phi / \partial t^2 (\nabla^2 \phi) = c^2$$

Cross out the phi and you end up with this.

$$3.4 \quad \partial^2 / \partial t^2 (\nabla^2) = c^2, \text{cancel out a del.}$$

$$3.5 \quad \partial / t^2 (\nabla^2) = c^2,$$

$$3.6 \quad \partial t^2 / t^2 (\nabla^2) = c^2 t^2$$

$t^2 = t^2$, time is equal to 1, normal time. Meanwhile,

$$3.7 \quad \frac{1}{t^2 (\nabla^2)} = c^2, \Rightarrow t^{-2} (\nabla^2)^{-2} = c^2$$

Wave Energy = 1 joule, β

Wave Mass = $\nabla^2 kg$

Wave light speed "c" = light speed arbitrary constant

So,

3.8 $1 = \nabla^2 c^2 \Rightarrow 1 = Vc$ and since light is not totally constant, as in the speed of light can vary if manipulated by gravitational and/or electromagnetic fluctuations, then its derivative is 1 in magnitude and 1 joule. What this entails is that as the light speed increases the mass of the fluid decreases smoothing out to a value of a one joule fluid which would cover all realms of real space dimensions, of course including time being in R^4 space and Volume in R^3 space. Though, this equation applies to all dimensions even up to the highest dimension as to where it could be applied due to its smooth structure.

3.9 $\beta = \nabla^2 c^2$, I call this the Beta Wave equation. An equation which shows that knowing the world we live in consists of three numbers, 1, 0, and -1. This being a one joule formula. .."Credit to Einstein's energy conservation of matter equation: $E=mc^2$." This formula is simply a variant for the Navier-Stokes conservation of mass equations.

§ 2. Logic

The reason everything adds up to zero is because of the constant balance of EM waves. You could say that a constant delta of the number of EM waves is the reason for such balance. While the imbalance or turbulent behaviors is caused by a delta of EM waves which is not constant or consistent with the Schumann Resonance. In other words, when there is an EM wave in the path of a body surrounded by Schumann 8 hertz waves, when an EM wave of the form $EM1 > \text{Schumann hertz} > EM2$ exists then the constant 8 hertz is disrupted and thus turbulence occurs. Another way to put it is of the form: $\text{inf} > 8 \text{ hertz} > -\text{inf}$. If waves interact with the Schumann EM waves then turbulence is bound to occur.

4.0 $\Delta \text{Schumann} = \text{balanced body "zero turbulence"}$

4.1 $\Delta \text{RandomEM}_f - \text{Schumann}_i = \text{Abs Turbulence}$

As seen here there is no turbulence when there is only the Schumann Resonance involved creating a balanced state of a body. Meanwhile, if another EM wave crosses the path of the body—knowing the Schumann Resonance is always there—then absolute turbulence is to occur.

§ 3. ZERO GRAVITY FIELD

Because of the left hand side being forced to be zero, gravity is imminently forced to be zero. So we are dealing with a zero gravity situation here. The whole field is made up of zero gravity. This is like the vacuum in space. At least it is no different. We could then refer to the convection as a convection in a zero-gravity field. Thanks to Euler's ingenious equation, it was easy to solve both the convection value and the gravity value since he gave the answer away with the divergence of u "the mass conservation" being equal to zero. This theory isn't very unlikely since EM waves can travel through vacuums and it isn't that uncommon. Knowing this gives my theory substantial evidence and proof of concept.

§ 4. The Firmament

The firmament should be known to all scientists to have an abundant amount of EM activity. The highest point of the firmament is thirty-one miles into the sky. This firmament has

been charged with many nuclear testing done. Though, every time the firmament is charged the firmament's EM activity rises, thus changing the frequency of the Schumann Resonance. This would explain the increase and decrease in the level of hertz involved with disturbance of the Schumann Resonance.

§ 5. Gravitational Influence

Conclusively, it should be known that EM waves are a direct link to the cause of turbulence. Although many might think gravity has anything to do with turbulence. Well, mathematically, gravity has no effect on turbulent flow. The reason being that g is constant and has no direct effect on the fluid flow or density. The only external force linked to turbulence is Electromagnetic Waves along with a disturbance in oncoming frequencies in the specified area.

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