

General Relativity For Teletubbies

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QFT

An Aether In Denial

[Back to the Contents section](#)

Well... Somewhat controversial subject...

The basic issue here is, using the word “Aether” or “Ether” is pretty much a career ending move. In order to avoid this unfortunate state of affairs, the word “Field” is simply substituted in its place.

This is on the same par as those discussing “closed time-like loops” as a euphemism for “backwards in time, time travel. “Time travel makes people sound a tad crazy...

Of course, when pressed, those using the word “Field” protest in the most strong terms that their field is not at all, in anyway, similar, as the Ether of the Lorentz Ether Theory, nope, nothing like it....our fields are Lorenz invariant...unfazed by the notion that LET and neo-Background theories is er... Lorenz invariant.

https://en.wikipedia.org/wiki/Lorentz_ether_theory

However, these denials appears to be somewhat difficult to justify in the light of the specific prose that is used. For example:

Professor (UK head of department) of Physics at Cambridge, **David Tong** (Adams prize winner) has a **YouTube** general audience lecture on QFT:

<http://www.damtp.cam.ac.uk/user/tong/>

Royal Institute Lecture on YouTube on QFT (Quantum Field Theory)

https://www.youtube.com/watch?v=zNVQfWC_evg

Professor Tong is quite clear on his views and some excerpts of that lecture are presented here:

Time into video 0:31 :

"...What are we made of...what are the fundamental building blocks of nature...?"

Time into video 19:30 :

"... so there is spread something throughout this room, something we call the electron field... it's like a fluid that fills... the entire universe... and the ripples of this electron fluid... the waves of this fluid get tied into little bundles of energy, by the rules of quantum mechanics... and these bundles of energy are what we call the particle the electron....and the same is true for every kind of particle in the universe..."

It is true, that often, Physics utilises mathematical concepts that do not relate to actual physical reality and just for brevity in the arguments speak as if those mathematical ideas are real physical objects, rather than just an intermediate calculation tool.

However, in the case of particles, one takes particles, by definition as real. That is, they are whatever physically creates some localised observational effect. So, if one claims that a particle is a result of anything at all, that anything must be physical real. Creation from nothing, in this sense, is nonsensical.

So... it is clear that Dr. Tong's description is an Aether in any rational sense, even without the use of the word "Aether".

Dr. Tong, is claiming here that, at the fundamental level, everything, all instruments, including us, are disturbances in a real, physical field.

Thus, the MMX for the detection of one's velocity through an Aether might well be bound to fail, notwithstanding that the Special Relativity interpretation of the Lorentz Transforms also holds that a velocity unobservable background cannot be denied anyway. The fundamental assumption in the MMX is that at some point, the instruments would be moving at some velocity different from the Aether at different points in time. This might not be true.

https://en.wikipedia.org/wiki/Michelson–Morley_experiment

It's certainly an interesting idea that we never move, only our effect moves as a hump does down a snapped whip.....ahmmmm.....

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