FOUR-SPHERE THEORY IS SUPERIOR SCIENCE THAN RELATIVITY AND QUANTUM FIELD THEORY

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Relativity was a good *patch* for conclusions of the Michelson-Morley experiments that found no *three-dimensional aether*. I won't go into details of history but this was a transformative event of 1880s. The conclusion was that there is no luminiferous aether. Relativity arose from this. I will tell you directly what is the truth. Aether does exist, but it is not three-dimensional. *Aether is the surface of a four-sphere*. The universe is, has been for eternity in the past, and will be for infinite time in the future a static eternal four-sphere of fixed eternally constant radius $R = 3075.69$ Mpc. This is the eternal truth, that will be repeatedly be confirmed for millions of years in the future of humanity. This is *absolute truth* about *absolute space*. Relativity and Quantum Field Theory are toys of the confused people who did not possess the deep truth of Nature. I, Zulfikar Moinuddin Ahmed, have discovered the deep truth here.

1. What Was Wrong With Michelson-Morley Conclusion?

Well they made the hypothesis that there is aether in *three spatial dimensions*. And then they concluded that there was not, and hysteria overtook physics, as it is wont to do when I, Zulfikar Moinuddin Ahmed, am not there to set the record straight, and so Henri Poincaré and Albert Einstein and others sought some alternative theory.

The right answer is that the universe is an eternal four-sphere of radius $R = 3075.69$ Mpc and it is we, the human beings, who do not have faculties to perceive in all four spatial dimensions; we are habituated to perceiving in the *emergent physical three dimensions* while the aether is four-dimensional.

I have given the fundamental law governing all of Nature, which is the S4 Electromagnetic Law, or the Ahmed-d'Alembert Law, which is the simplest wave equation on *spinor fields on a four-sphere of fixed radius*. The so-called Cosmological Constant is the *curvature of the four-sphere that is all of existence*, roughly $\Lambda = 1.11 \times 10^{-52} m^{-2}$. The emergent three-dimensional world stays constrained as a hypersurface of the four-sphere, and all movement in the physical world is the movement of the entire hypersurface $M(t) \to S^4(R)$ over *absolute linear time*. There is no deformation of time and there is no deformation of the absolute space. But all movement in the physical universe *is the deformation of the physical hypersurface*. And that is the essence of fundamental physics. There is no mass-based force at all; this fictional 'gravity' is now dead, as I have refuted the existence of any mass-based force at all. Weak Van der Waals between electrically neutral atoms and molecules add up to give this 'gravity' effect. The particle nature of

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photons and electrons is a geometric consequence of four-sphere as *zonal harmonics have point localisation*, and this was known already between 1848-1866 roughly from Arthur Cayley to Gustav Ferdinand Mehler (1835-1895) who was a student of Peter Gustav Lejeune Dirichlet (1805-1859). I am not sure yet about the history, but it's truth I know from other references. Wave particle duality is easy to explain in my Four-Sphere Theory and effortless and clear and natural. In Quantum Field Theory there is no such luck, as enormous and fruitless effort produced nothing but more confusion. The idea that Quantum Field Theory can remotely compete with my Four-Sphere Theory fills me with laughter. This is not even remotely possible, for I, Zulfikar Moinuddin Ahmed, am an immortal genius, and Four-Sphere Theory is my work, my gift to my beloved people the human race. And what is this Quantum Field Theory, a rather confused and shabby effort, not something that can withstand the grueling tests of time. It is far too weak to compete.

But the topic was what was wrong with Michelson-Morley conclusion? It is that eliminating the sort of three-dimensional luminiferous aether that James Clerk Maxwell theory posited does not eliminate all possible aether. The aether in the universe is the fabric of existence, and not special in three dimensions; it is the surface of a four-sphere where light and matter follow a deterministic wave equation. And the localisation of particles is enforced by the four-sphere geometry alone. In other words, the localisation of particles is not due to any special process. Spinor fields on a four-sphere can all be expressed as

$$\varphi(x) = \sigma_1(x)f_1(x) + \cdots + \sigma_{16}(x)f_{16}(x)$$

where $\sigma_a(x)$ are *Killing spinor fields of the sphere* S^4 *for* $1 \leq a \leq 16$ and $f_a(x)$ are real-valued functions. The spherical harmonics form an orthonormal basis of $L^2(S^4)$ and so spinor fields have a decomposition in by these in the coefficients. So matter fields in four-sphere theory, and light, all of these are perfectly transparent and clear. Wave particle duality is obvious here by relatively well-understood mathematical analysis. And this is how the universe works. There is no 'relativity' here at all. Time is absolute and space is absolute. There is no mysticism here, and the compact homogeneous geometry $S^4 = SO(5)/SO(4)$ ensures a beautiful correspondence between Nature and very specific mathematics. The study of Fourier series in this case can be arbitrarily precise. It was in fact Hermann Weyl who had done deep work in Representation theory of compact Lie groups and so the mathematical study of the analysis in this case is extremely well-defined.

Here there is not mystical 'quantisation' and 'second quantisation' and 'relativistic correction'. Time is absolute, space is absolute, we have clear understanding of why there is quantisation here and what particles are, and the dynamical law is only one, my S4 Electromagnetic law and no others at all. All of Nature above $\delta = 10^{-15}$ cm is instantly understood, atoms and molecules, and there is no quantum mysticism here. Spin structure for S^4 is canonical, and the metric is round metric.

References

[1] https://projecteuclid.org/journals/journal-of-differential-geometry/volume-54/issue-1/A-Hodge-theory-for-some-non-compact-manifolds/10.4310/jdg/1214342150.full
[2] https://github.com/zulf73/human-nature
[3] https://github.com/zulf73/S4TheoryNotes

[4] https://arxiv.org/abs/physics/0408077
[5] Jens Lenström, On the origin and early history of functional analysis, Uppsala, 2008
[6] https://en.wikipedia.org/wiki/Mollifier
[7] Xinle Li,Jake Montgomery, Wesley Cheng, Jung Hyun Noh, David R. Hyde, and Lei Li, Pineal Photoreceptor Cells Are Required for Maintaining the Circadian Rhythms of Behavioral Visual Sensitivity in Zebrafish,PLoS One. 2012; 7(7)
[8] Haim Brezis, *Functional Analysis, Sobolev Spaces And Partial Differential Equations*,2010