DISTRIBUTIONAL AND MEASURABLE SPINOR FIELDS ZULF PREDICTS TO BE UBIQUITOUS IN NATURE

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Four-Sphere Theory is my theory of Nature, and it is far deeper genius than Einstein and Weyl's various efforts at unified field theories of electromagnetism and gravity. It is infinitely deeper genius because it is the way things are in Nature. Nature does not work by any of the unified field theories of Weyl, Einstein and others. Instead, four-sphere theory is the exact description of Nature, the Final Theory of Physics for all phenomena above $\delta = 10^{-15}$ cm.

There is nothing classical about four-sphere theory. I originated the theory in 2008 in Williamsburg Brooklyn and I have toiled on it for a decade without any government or university support at all, on disability in Allen Texas living with my aunt. Most of Four-Sphere Theory was done in isolation. I, Zulfikar Moinuddin Ahmed, am solely responsible for it and I did not collaborate with others and I supervised my own work on it.

The issue on my mind right now is to re-inforce an issue that is extremely important in physics of Nature. This seems to be a technicality at first but it will be both *profoundly true* and *completely unexpected* from the theories that I challenge. I challenge the 1900-1930 paradigm, and these consist of (a) general relativity, (b) quantum electrodynamics, and (c) expansionary cosmology. I refute (a) time and spatial deformation, (b) gravity. My theory is *mathematically coherent and totally rigorous as well as more accurate in measurement and match to Nature* than the 1900-1930 Paradigm theories.

1. Distributional And Measurable Spinor Fields

I refer to H. Blaine Lawson and Marie-Louise Michelsohn's *Spin Geometry* for a good, high quality, mathematical development of spinor fields. I also refer to the beautiful paper of Christian Bär [4, 6]. You will find in these references much of the theory that I employ for spinor fields on a four-sphere. I will rush to the central issue.

First of all, I strongly advocate the use of the following symbols in the future by both mathematicians and physicists.

$$\mathcal{D}'(\Sigma S^4) \tag{1}$$

I will recommend that all mathematicians and physicists use this symbol to represent distributional spinor fields. You might consider this a rather minor issue but it is not. The symbol is extremely valuable for psychological reasons and for extremely suggestive and accurate mnemonic for the technical bodies of mathematics that it draws from. The symbol $\mathcal{D}'(X)$ has been traditional in analysis for the space of distributions as it was used by Laurent Schwartz. Sergei Sobolev really

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used distributions first but Laurent Schwartz developed it further. The symbol ΣS^4 was used by Michael Atiyah, Raoul Bott, Arnold Shapiro and others for the *Spin bundle* on a riemannian manifold. The symbol honours the pioneers in mathematics who had given us clarity and insight into the objects that I will be promoting in physical theory here.

Now let us recall that there is a trivialisation of ΣS^4 by sixteen Killing spinor fields $\sigma_1, \ldots, \sigma_{16}$. This allows us to represent distributional spinor fields as follows. We denote by

$$\mathcal{D}'(S^4)$$

to be the distributions on four-sphere. We refer to Friedlander and Joshi for a high quality presentation of distribution theory as well as Lars Hörmander *Analysis of Linear Partial Differential Operators* Volume I. Distributional spinor fields thus have representation

$$s = u_1\sigma_1 + \cdots + u_{16}\sigma_{16}$$

where $u_j \in \mathcal{D}'(S^4)$ for $1 \leq j \leq 16$. I am not interested in doing any mathematical technical work on these here at all. I want to point out simply the mathematical setting that ought to be canonical for analysis of distributional spinor fields that simplify matters by use of the basis of Killing spinor fields.

What is important for us here, in this note, is that we want to ensure that physicists understand that we *expect quite arbitrary distributional u_j to arise in Nature.* We are predicting that there is a vast ubiquity of non-function distributional spinor fields in Nature that will be experimentally verifiable.

You see, I am deeply familiar with Thomas Kuhn's *The Structure of Scientific Revolutions.* Four-sphere theory is a Scientific Revolution theory of vast scope and will transform all of world's Science and is the Final Theory of Macroscopic Physics which will be eternal knowledge of Nature that will remain unchallenged for millions of years in the future because it is exact description of Nature. For this reason, we point out that Distributional Spinor fields are predicted as part of Nature that ought to be considered extremely foundational. The very objects of Nature were never quantum fields; they ought to be considered to have always been *distributional spinor fields on a four-sphere of fixed radius $R = 3075.69Mpc$* and this is the full scope of macroscopic Nature. Physicists have to re-orient their view of Nature to be able to see this and it will be quite natural afterward. The issue is historical. Functions were developed slowly from 1740s by D'Alembert and Euler, but Nature did not develop them. Man understood functions over time and Sergei Sobolev and Laurent Schwartz had developed distributions. It is my conviction that distributional spinor fields are just part of Nature, and I rework physical theory, at least my four-sphere theory, so that distributional spinor fields are not exotic but expected feature of Nature.

We are fortunate that mathematicians have a precise work on distribution theory because I am moved to consider these to be just parts of Nature. This might not seem like a great and revolutionary step but it is. We have conceived Nature in terms of functions for many centuries now. Man's Understanding of Nature must evolve now as I, Zulfikar Moinuddin Ahmed, have been able to determine that Distributional Spinor Fields are ubiquitous and without these our understanding of Nature is incomplete and deficient.

2. Why Is Everything "Trivia" To Bill Gates?

Bill Gates is a total illiterate hick uneducated moron whose intellectual level is barely that of a chipmunk. Why is everything so "trivia" to this charlatan whose achievements are infinitely less than me. In his entire life between 1955-2022 the man has not had a *single* nontrivial achievement. He has no college degree at all and thinks Hammurabi was white and lied about his proficiency in coding. He's not worthy at all.

Princeton Physics should arrange a financial package for me. I am right. Four-Sphere Theory is far more successful than any effort at unified field theory has been because it is absolute exact truth of Nature. I overthrew all of 1900-1930 Paradigm of Science singlehandedly in around 15 years of toil. What has Bill Gates done besides harm people by black magic and US War Power and pathologically lie about his own intelligence, his IQ and his SAT score are fake.

3. Look Bill Gates You Might Be White Or You Might Be Purple But You Are Not Even High School Level In Intelligence

Bill Gates I don't give a damn about whether you are white or purple, and I am totally sick of your constant repetition of "I'm white. Whites are superior." You are not in the same league of intelligence and genius as myself, alright? You can't even do inference on a straightforward gaussian distribution. Most bright high schoolers can do it right. I know because I have tutored disadvantaged Trenton high schoolers. You can be white or purple but you are not an intellectual genius. Your intellect is barely the level of a chipmunk okay? You have not produced any mathematical or physics work that are worth a dime, so kindly shut the fuck up.

Your talents are in (a) harming people using power maneuvers, (b) black magic forbidden from thirteenth century, (c) disgusting evil illegitimate lawless use of power and that is all you have sonny boy. You don't have any intellectual gifts at all and were a charlatan all your life, okay?

4. Some Thoughts On My Scientific Philosophy

I revere Nature, and for me the Science is extremely difficult. Nature is fundamentally mysterious, and there is always a question of whether any theory of Nature that Man will propose is ever actual truth of Nature. Now you might be surprised by this, because I am extremely confident that four-sphere theory is absolute eternal truth of nature. This seems rather contradictory, for it might seem that if I hold that Nature is fundamentally mysterious, then why would I be so confident of four-sphere theory? The answer is that there was enough evidence, altogether, in the past 350 years of theoretical physics to determine that four-sphere theory is absolute truth. It is far beyond the truth understood by Erwin Schroedinger and Albert Einstein and Max Planck and Paul Dirac. It achieves much more than the aims of unified field theory efforts of Einstein and Weyl. It is absolute truth.

But at the same time, it is quite weak in its certainties. It tells us quite simple things about Nature. It tells us the objects that constitute Nature, the fundamental geometry of Nature, the single law of all Macroscopic phenomena, and then leaves the remaining mysteries of Nature for the future.

In *principle* one could use my Ahmed-d'Alembert Law and determine all of Nature to precision. In actuality the certain truths that four-sphere theory gives us

are far too little for deep knowledge of truth of Nature. Nature was not created by Man, and mysteries of Nature are not easy for Man to unravel. Four-Sphere Theory is one step, far greater step than all of theoretical physics of history of human race, it is true, but minute in the face of the enormity of existence. And this balance is part of the human experience. We take steps and recalibrate expectations afterward.

I was able to succeed in completion of theoretical physics for all phenomena of Nature down to $\delta = 10^{-15}$ cm because great theoretical physicists and mathematicians of the past toiled for progress and clarity. Four-sphere theory is truth of Nature. It is eternal truth of Nature. And it is far from sufficient clear truth of Nature. It shall stand unchallenged as a great step in Man's Understanding Of Nature that is clear and crisp and unerring. And later we shall remain unsatisfied with this. That is our nature. We would like further and clearer insight about this place we call our home, Existence, the locus of our lives.

I am not an Empiricist at all in the ordinary way. I believe that empiricism is valuable. But I am not a Materialist Empiricist. I do not believe that truth is only valid standing on empirical experience. Many Scientists will be surprised perhaps. But Nature is quite a bit more mysterious than an empirical philosophy allows a path to knowledge of truth. I doubt that empirical philosophy is adequate at all. But I do read Paul K. Feyerabend and Imre Lakatos seriously and with care. I have actually been quite influenced by Robert Musil's *The Man Without Qualities* and I am not so empirical as to abandon strong adherence to Virtues and Character. Empiricism would be too degenerate to be tolerable for me.

References

[1] `https://github.com/zulf73/S4TheoryNotes`

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[3] V. S. Varadarajan, *An Introduction To Harmonic Analysis On Semi-Simple Lie Groups*, Cambridge, 1989

[4] Christian Bär, The Dirac Operator On Space Forms Of Positive Curvature, J. Math Soc. Japan, 48(1), 1996, 69–83

[5] `https://www.youtube.com/watch?v=cWjwG2nrjC0`

[6] H. Blaine Lawson and Marie-Louise Michelsohn, *Spin Geometry*, Princeton

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