

SERGEI L. SOBOLEV AND DISTRIBUTION THEORY

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Today is January 25 2021. And today, after some preliminary rhetoric for seeking a higher Social Status in American Society, a nation of 330 million than the wretched hick illiterate charlatan *Bill Gates*, I turn to more productive activities.

First of all my heart is heavy with worry for my baby, my precious *Four-Sphere Theory* and it is filled with apprehension, that perhaps it will not survive for thousands of years as Man's Final Theory of (Macroscopic) Nature. I cannot bear the thought of it ever perishing. And so I examine the history of Mathematics, to try to find various things in that history that will allow my precious Four-Sphere Theory to survive and prosper, and stand as a beacon of light against darkness and ignorance, and to be the proud monument of Man's Quest for Understanding of Existence, the certainty that comes from millenia of struggles, the final answers that even the Hitchhiker's Guide to the Galaxy did not provide.

As you, my beloved people the human race might be well aware, my vision is quite constrained. Sweet Thames, run softly till I end my song. Sweet Thames, run softly for I speak not loud nor long. Having made my invocations I begin to understand something of this mystery of what had led to the theory of generalised functions.

Let us quickly pause to get our bearings. We are finite beings, fleeting beings, and within finite number of seconds we will have ended our lives, and we pine for immortality. We cannot, therefore consider every possible function and mathematical object in detail. The uncountability of the real numbers we handle deftly in concepts and not in excessive detail. We use various symbols to hide the frightening details because they are too much for us.

We return to 1936-1937 to Sergei L. Sobolev's great achievement, the birthing of distributions. For it was *not Laurent Schwartz* who invented these but Sergei L. Sobolev. But let us use Laurent Schwartz' symbolism and language.

We have multiple aims in our simple note here. On one hand we do care about why Mr. Sobolev and his various illustrious colleagues cared to do such a thing. We do care, and since Mr. Sobolev is more famous than myself, this appeal is more likely to be popular. But we have another, more selfish, agenda. We want to have some sense of this space.

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

These are scalar valued distributions on the four-sphere. We also want

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

These are the distributional spinor fields on the four-sphere. They are defined as duals to $C^\infty(S^4)$ and $\Gamma\Sigma S^4$, i.e. smooth functions and smooth spinor fields.

The beautiful thing about Mr. Sergei L. Sobolev's work and the more elaborate work of Laurent Schwartz is that their particular infrastructure translates quite smoothly to the case of four-spheres.

Hold on, don't disturb the man. The man is interested in a slight examination of just how much I can just pass off work of Sobolev and Schwartz to four-spheres without doing any work of my own and then claim all of this as part of four-sphere theory and seem quite sophisticated in the end. Is this really deceiving the audience? No. It is in a sense a tribute to Sergei Sobolev and Laurent Schwartz.

I mean their back-breaking struggles to bring me the fruits of their considerations where I smoothly absorb all of it with minor modifications and gain great renown for my great polished technical infrastructure for four-sphere *theoretical physics* is normal. They deserve the credit for the technical mumbo-jumbo, ermm, the precise mathematical notions I mean, for my soft and gentle monopoly over all processes of Nature.

1. THERE IS NO DIFFERENCE IN CONCEPTS BETWEEN PHYSICS AND MATHEMATICS FOR DISTRIBUTIONS IN FOUR-SPHERE THEORY

I am not interested here in technical challenges in either physics or mathematics. Distribution theory has been worked out in Mathematical Analysis from 1935-1936. Instead I will emphasize that the mathematical concepts are *identical* to the physical concepts in four-sphere theory without any subtle difference but *exactly identical*.

My dear reader might be quite confused. The reader might point out, quite irritated, "Zulf, you have been making such hue and cry about the fundamental difference between Science and Mathematics. Why are you suddenly flipping and flopping here and saying that the Mathematical Concepts are identical to the Physical Concepts?"

This is a good question and important one. You see, four-sphere theory is based on the exact geometry of four-sphere being the actual geometry of space, and so in my theoretical physics, all mathematical structures examined for four-spheres are *exact physically interesting objects* without even a tiny change. That is one of the central principles I have followed. In other words, I do not ask whether $u \in \mathcal{D}'(\Gamma\Sigma S^4)$ has been found experimentally in Nature. Instead, I say, "Everything that has any natural mathematical construction related to four-spheres is my scientific prediction about Nature." If it has not been found, then I claim it as a scientific prediction on which all the experimental physicists ought to be busy finding in Nature. I am the theoretical physicist here, not them. So I implore experimental physicists to redouble their efforts and find all things imaginable for four-sphere and find them in Nature pronto. And call all of them Zulfikar Moinuddin Ahmed predictions please.

You say this is cheating, because I should be fine tuned? There is no law of Nature that prevents me from predicting all possible things associated with four-sphere of radius $R = 3075.69 Mpc$ as feature of Nature. And so I make this prediction right here.

2. ZULF GIVES GENUINE PRAISE AND GRATITUDE TO LEE SMOLIN

I just heard Bill Gates demand that white physicists take credit for my broad identification prediction to Mr. Lee Smolin. I want the world today and posterity to know my own opinion about Mr. Smolin, and let this note be historical record

of January 25 2022. Mr. Lee Smolin is a man of integrity, a great theoretical physicist and a gift to the world. He is a great leader of theoretical physics and I am personally honoured and gratified to have come to his notice. He accepted that my prediction here is valid, and he did not accept the horrible, low, disgusting, dishonourable suggestions of the wretched vicious criminal man Bill Gates. It is the wisdom and virtues of people like Mr. Lee Smolin that allows human race to reach better states and it is the vicious ugly evil criminality of people like Bill Gates that is the cause of all bad events. Bill Gates ought to be vicious physically beaten, denied all assets and burned at the stake for his insolence.